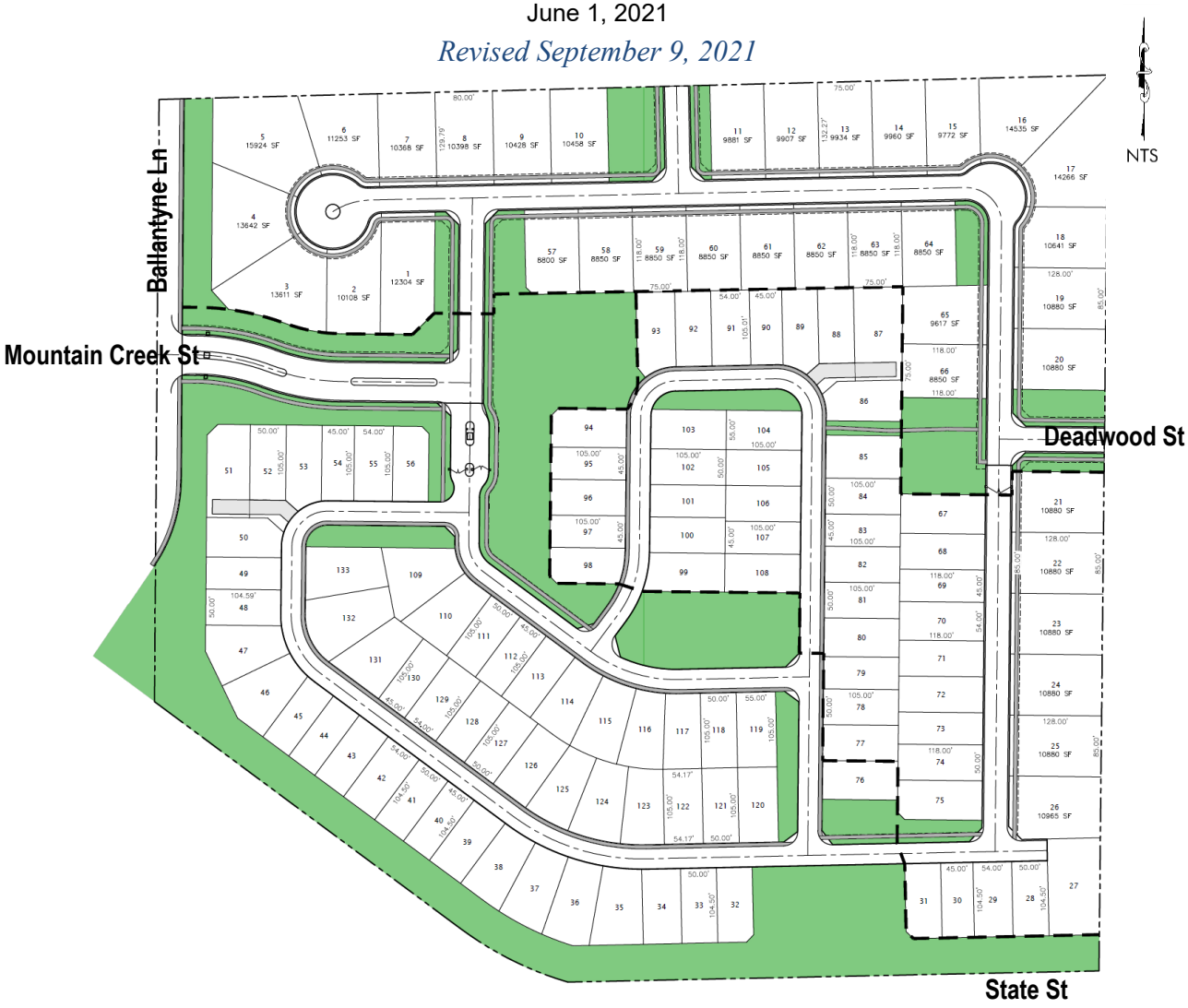
TRAFFIC IMPACT STUDY

BENARI ESTATES SUBDIVISION

Eagle, Idaho

June 1, 2021

Revised September 9, 2021



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EXECUTIVE SUMMARY

CR Engineering, Inc. has been retained to prepare a traffic impact study (TIS) for the proposed Benari Estates Subdivision located in the northeast area of the State Street and Ballantyne Lane intersection in Eagle, Idaho, as shown in **Figure 1.1**. The scope of this TIS was determined through coordination with the Ada County Highway District (ACHD) and Idaho Transportation Department (ITD) with inputs from the Community Planning Association of Southwest Idaho (COMPASS).

The TIS evaluates the potential traffic impacts resulting from background traffic growth, in-process developments in the study area, and the proposed development, and identifies improvements to mitigate the impacts if needed. Traffic impacts were evaluated based on the proposed land uses and accesses as shown in the preliminary site plan under weekday AM and PM peak hours traffic conditions. **Table 1** summarizes the intersection and roadway segment improvements needed to mitigate the traffic impacts for the following analysis years traffic conditions:

- 2021 Existing traffic
- 2025 Build-out year background traffic
- 2025 Build-out year total traffic

Table 1 – Proposed Improvements Summary

Intersection or Roadway Segment		2021 Existing	2025 Build-Out Year	
			Background	Total
1	Mountain Creek St and Ballantyne Ln	None	None	None
2	State St and Ballantyne Ln	None	None	None
3	State St and SH 44	None [1]	**Widen intersection [1] or setup Priority Corridor Fund**	**Widen intersection [1] or pay into Priority Corridor Fund**
Ballantyne Ln, Mountain Creek St to State St		None	None	None

[1] One or more lane groups operate with a volume to capacity (v/c) ratio exceeding ITD 0.90 but within ACHD 1.00 threshold

1.0 Proposed Development

1.1 Benari Estates Subdivision is a proposed residential development estimated to contain 133 single-family lots. The anticipated build-out year for the proposed development is 2025 but may change depending on the market conditions.

1.2 Based on the procedures outlined in the *Trip Generation Handbook, 3rd Edition* and the *Trip Generation Manual, 10th Edition,* both published by the Institute of Transportation Engineers (ITE), the proposed development is estimated to generate approximately 1,352 trips per weekday with 99 trips during the AM peak hour and 134 trips during the PM peak hour.

- Based on the proposed land use, the development is not expected to attract pass-by trips or retain trips internally within the site
- All trips generated by the development were assumed to be made by personal or commercial vehicles

1.3 The estimated site traffic distribution patterns are:

- 10% traveling on Ballantyne Lane north of the site
- 25% traveling on SH 44 west of State Street
- 20% traveling on SH 44 east of State Street
- 45% traveling on State Street east of the site

1.4 The development is proposing to construct one site access on Ballantyne Lane aligning with Mountain Creek Street to the west. In addition, the development is planning to connect to Deadwood Street at the eastern site boundary, which will provide a secondary access to State Street via Payette Way:

- Mountain Creek Street and Ballantyne Lane intersection
  - Located 470 feet north of State Street
    - Meets minimum 425-feet public road spacing on Ballantyne Lane, a 35-mph collector street
  - Does not warrant turn lanes based on ACHD turn-lane guidelines under 2025 total traffic conditions
  - Meets minimum operational thresholds under 2025 total traffic conditions
  - Have adequate intersection sight distance
    - Proposed building setback and landscape design should not obstruct intersection sight distance
    - Existing trees within the intersection should be maintained

1.5 All internal local streets with front-on housing are anticipated to carry less than 1,000 vehicles per day (vpd)

1.6 The proposed Mountain Creek Street east of Ballantyne Lane does not have front-on housing and is anticipated to carry over 1,000 vpd but less than 2,000 vpd

- This roadway segment should be classified as a local road
  - Mountain Street Creek is not shown as a collector street in the ACHD Master Street Map

2.0 2021 Existing Traffic Conditions

2.1 With 2021 existing traffic, one study area intersection exceeds minimum operational thresholds analyzed with the existing intersection control, signal timing, and lane configurations. The intersection, operational deficiencies, and mitigation improvements are:

- **State Street and SH 44 intersection**
  - The overall intersection and all lane groups meet ITD and ACHD minimum operational thresholds, except for one lane group. The eastbound left-turn lane group is operating with a v/c ratio of 0.92 during the AM peak, which slightly exceeds the ITD 0.90 threshold but is within the ACHD 1.00 threshold
  - No improvements are proposed to mitigate 2021 existing traffic operations
    - The estimated 95th percentile queue length in the eastbound left-turn lane is less than 300 feet, which is within the available storage length
    - ACHD should monitor the signal operations and adjust the signal timing as needed
      - Additional green time could be allocated to the eastbound left-turn phase as the eastbound and westbound through movements are operating under capacity

2.2 None of the unsignalized study area intersections require turn lanes based on ACHD turn-lane guidelines.

2.3 With 2021 existing traffic, the study area roadway segment of Ballantyne Lane meets ACHD level of service planning thresholds with the existing lane configuration. As a result, no roadway capacity improvements are needed to mitigate 2021 existing traffic operations.

3.0 2025 Build-Out Year Background Traffic Conditions (No Site Traffic)

3.1 With 2025 background traffic, one study area intersection is anticipated to exceed minimum operational thresholds analyzed with the existing intersection control and lane configurations (no-build). The intersection, operational deficiencies, and proposed mitigation improvements are:

- **State Street and SH 44 intersection**
  - The intersection is anticipated to operate at LOS D with an overall v/c ratio of 0.95 during the peak hours, exceeding ITD and ACHD 0.90 threshold. Several lane group v/c ratios also exceed either the ITD 0.90 threshold and/or the ACHD 1.00 threshold during the peak hours. The intersection is also anticipated to exceed minimum operational thresholds during the shoulder hour.
  - There are no improvements programmed at the intersection according to the current ITD and ACHD transportation plans
  - Two mitigation options are proposed to mitigate 2025 background traffic conditions:
    - Option 1 – Widen the intersection to have the following lanes:
      - Eastbound and westbound approaches – One left-turn lane, two through lanes, and one shared through/right-turn lane
        - The shared through/right-turn lane is an auxiliary through lane
        - Three receiving lanes should be constructed beyond the intersection with sufficient length for merging operations and proper signing
      - Northbound and southbound approaches – One left-turn lane and one shared through/right-turn lane (existing lanes)
    - Option 2 – Set up a Priority Corridor Fund
      - Widening the SH 44 approaches to have three travel lanes in each direction may not be feasible by 2025 as these improvements are not included in any transportation plans. ITD and ACHD should establish a joint Priority Corridor Fund to collect proportionate share contributions from proposed developments in the area to fund the intersection improvements
  - The intersection is anticipated to exceed minimum operational thresholds and triggers mitigation improvements by 2023 with an additional background traffic increase of approximately 270 vehicles per hour (vph) during the PM peak hour beyond 2021 existing traffic volume.

3.2 None of the unsignalized study area intersections require turn lanes based on ACHD turn-lane guidelines under 2025 background traffic conditions.

3.3 With 2025 background traffic, the study area roadway segment of Ballantyne Lane is anticipated to continue to meet ACHD level of service planning thresholds with the existing lane configuration. As a result, no roadway capacity improvements are needed on Ballantyne Lane to mitigate 2025 build-out year background traffic operations.

4.0 2025 Build-Out Year Total Traffic Conditions (Background Plus Site Traffic)

4.1 With 2025 total traffic, one study area intersection is anticipated to exceed minimum operational thresholds analyzed with the existing intersection control and lane configurations. The intersection, operational deficiencies, and proposed mitigation improvements are:

- **State Street and SH 44 intersection**
  - The intersection is anticipated to operate at LOS D with an overall v/c ratio of 0.97 during the peak hours, exceeding ITD and ACHD 0.90 threshold. Several lane group v/c ratios also exceed the ITD

0.90 threshold and/or the ACHD 1.00 threshold during the peak hours. The intersection is also anticipated to exceed minimum operational thresholds during the shoulder hour.

- There are no improvements programmed at the intersection according to the current ITD and ACHD transportation plans

- Two mitigation options are proposed to mitigate 2025 total traffic conditions:
  - Option 1 – Widen the intersection to have the following lanes:
    - Eastbound and westbound approaches – One left-turn lane, two through lanes, and one shared through/right-turn lane
      - The shared through/right-turn lane is an auxiliary through lane
      - Three receiving lanes should be constructed beyond the intersection with sufficient length for merging operations and proper signing
    - Northbound and southbound approaches – One left-turn lane and one shared through/right-turn lane (existing lanes)

  - Option 2 – Pay into the Priority Corridor Fund to be established by ITD and ACHD
    - As an alternative to the intersection widening, the developer may request to enter into a Development Agreement and pay into the Priority Corridor Fund an amount to be determined by ITD and ACHD to offset the development impacts.

- The intersection is anticipated to exceed minimum operational thresholds and triggers mitigation improvements by 2023 with a traffic increase of approximately 315 vph during the PM peak hour beyond 2021 existing volumes. By 2023, Benari Estates Subdivision is estimated to have constructed 93 dwelling units and contribute 42 PM peak hour trips to the intersection.

4.2 None of the unsignalized study area intersections require turn lanes based on ACHD turn-lane guidelines under 2025 total traffic conditions.

4.3 The estimated site traffic as a percentage of the 2025 total traffic at the study area intersections are:

- Mountain Creek Street and Ballantyne Lane intersection – AM Peak = 15.9%, PM Peak = 19.8%
- Ballantyne Lane and State Street intersection – AM Peak = 9.1%, PM Peak = 10.4%
- State Street and SH 44 intersection – AM Peak = 1.2%, PM Peak = 1.6%
- The development is estimated to contribute 25 AM peak hour trips and 34 PM peak hour trips to the SH 44 and SH 55 intersection at full build-out

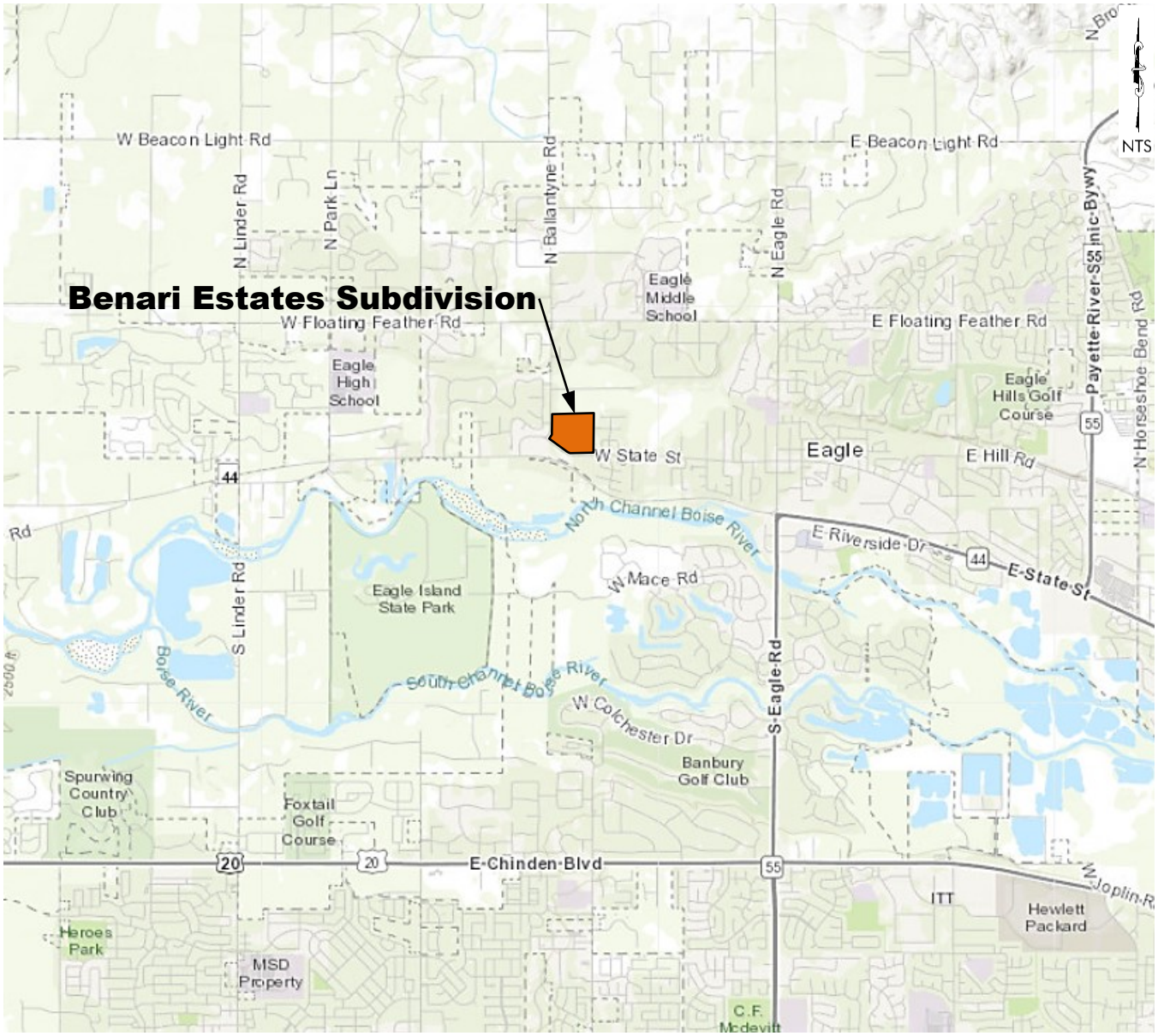
4.4 With 2025 total traffic, the study area roadway segment of Ballantyne Lane meets ACHD level of service planning thresholds with the existing lane configuration. As a result, no roadway capacity improvements are needed on Ballantyne Lane to mitigate 2025 build-out year total traffic operations. The estimated site traffic as a percentage of the 2025 total traffic on the study area roadway segment of Ballantyne Lane between Mountain Creek Street and State Street are:

- AM peak = 17.2%
- PM peak = 16.7%

1.0 INTRODUCTION

CR Engineering, Inc. has been retained to prepare a traffic impact study (TIS) for the proposed Benari Estates Subdivision located northeast of the State Street and Ballantyne Lane intersection in Eagle, Idaho. **Figure 1.1** shows the site location and its vicinity. The TIS evaluates the potential traffic impacts resulting from traffic growth, in-process developments within the area, and the proposed development, and identifies improvements to mitigate the impacts if needed.

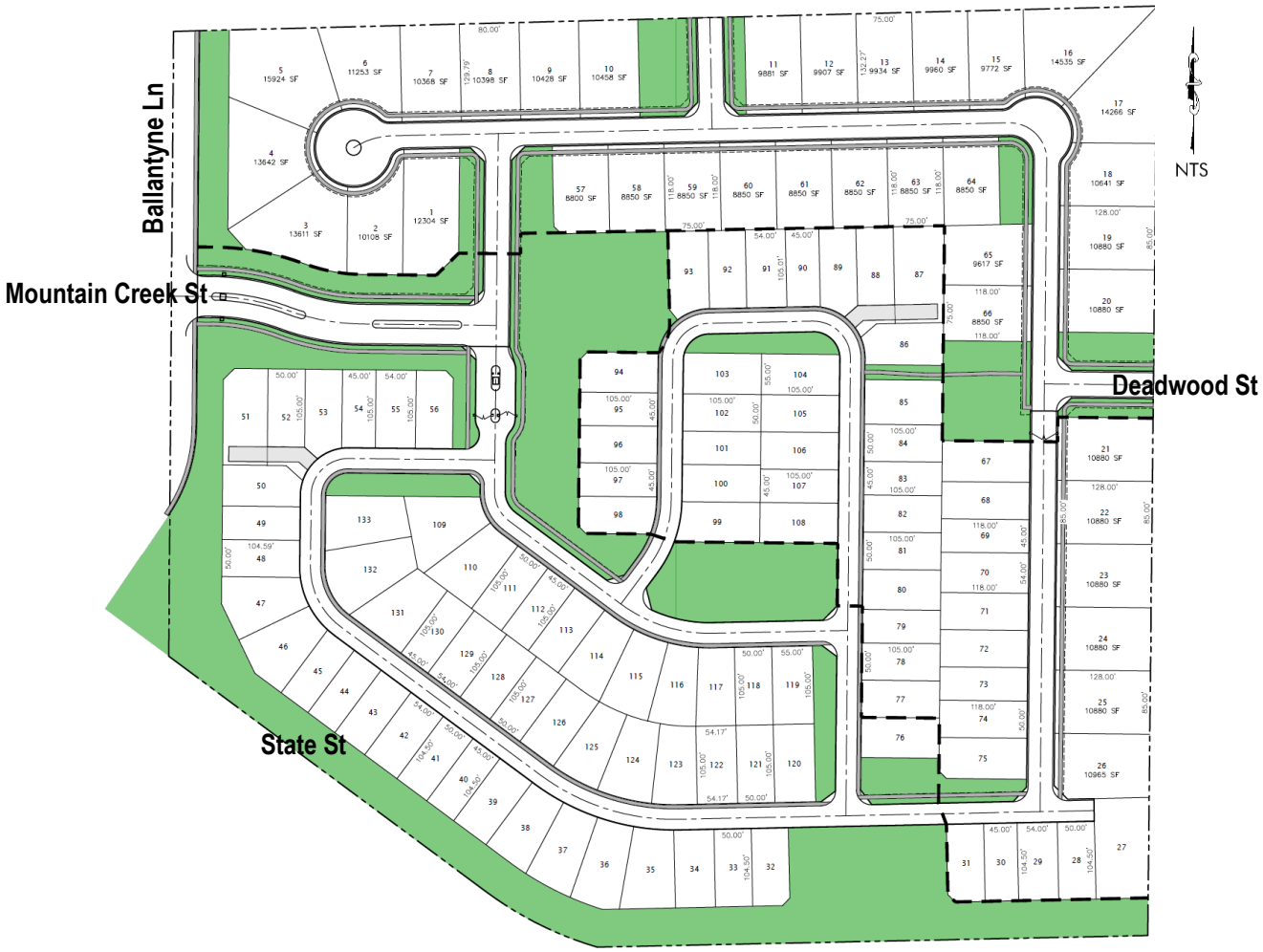
Figure 1.1 – Site Location and Vicinity



1.1 Proposed Development

Figure 1.2 shows the preliminary site development plan with the proposed site access locations. Benari Estates Subdivision contains 133 single-family dwelling units and has an anticipated build-out year of 2025 which may change depending on the market conditions. Based on the preliminary site plan, the development is proposing one full-movement access on Ballantyne Lane to align with Mountain Creek Street to the west. In addition, the development is proposing a stub road connectivity to Deadwood Street to the east, which will provide a secondary access to State Street via Payette Way.

Figure 1.2 – Preliminary Site Plan



1.2 Study Approach

The TIS was prepared in accordance with ACHD Policy, *Section 7106 – Traffic Impact Studies* and Idaho Transportation Department (ITD) IDAPA 39.03.42 *Rules Governing Highways Right-of-Way Encroachments on State Rights-of-Way*. The scope of this TIS was determined through coordination with ACHD and ITD with inputs from the Community Planning Association of Southwest Idaho (COMPASS). Results from the COMPASS area of influence model runs are included in the appendix.

1.3 Study Area

The following study area roadway segments were identified by ACHD for traffic impact analysis:

- Ballantyne Lane between State Street and Mountain Creek Street
- All internal collector streets

The following study area intersections were identified by ACHD and ITD for traffic impact analysis:

- Mountain Creek Street and Ballantyne Lane intersection
  - Proposed site access aligns with Mountain Creek Street
- State Street and Ballantyne Lane intersection
- State Street and SH 44 intersection
- SH 44 and SH 55 intersection
  - ITD requested peak hour site traffic estimates only for their proportionate share contribution analysis

1.4 Study Period

The analysis periods are weekday AM and PM peak hours of operation of the transportation system. The analysis years are:

- 2021 existing traffic
- 2025 build-out year background traffic
- 2025 build-out year total traffic

1.5 Analysis Methods and Performance Measure Thresholds

Roadway segments under ACHD's jurisdiction were evaluated based on the level of service (LOS) planning thresholds in accordance with Table 2 of ACHD Policy Manual, Section 7106. The roadway segment planning level of service is based on the maximum peak hour directional volume for different roadway functional classifications, the number of through lanes, and the left-turn type. The planning level of service is LOS E for arterial streets and LOS D for collector streets.

For roadways segments and/or intersections exceeding the ACHD planning level of service thresholds, shoulder hour analysis was conducted to verify the improvement need. The shoulder hour is defined as the hour preceding or succeeding the peak 2-hour period. The shoulder hours are considered to be from 6-7 AM, 9-10 AM, 3-4 PM, and 6-7 PM.

Intersection capacity analysis was performed using Synchro 10 (Version 10.3.151.0), which utilizes HCM6 methodologies. All parameters used in the analysis were based on existing data when available or Synchro default values, when not available. Signal timing data for the existing signalized intersection was obtained from ACHD.

According to ACHD Policy Manual, the minimum operational threshold for stop-controlled intersections is a volume to capacity (v/c) ratio of 1.00 for the critical lane group. Stop-controlled intersections that are projected to operate at LOS D or worse require signal warrant analysis based on MUTCD guidelines. The minimum operational threshold for signalized intersections is a v/c ratio of 0.90 for the overall intersection and 1.00 for a lane group. The minimum operational threshold for roundabouts is a v/c ratio of 0.85 for the critical lane group.

ITD's minimum operational threshold is an overall LOS D with a v/c of 0.90 for the overall intersection and lane group.

Synchro outputs utilizing the HCM 6th Edition methodology do not produce an overall intersection v/c ratio as a measure of effectiveness (MOE) for signalized intersections. For this study, the overall intersection v/c ratio was estimated using Synchro based on HCM 2000 methodologies.

2.0 EXISTING CONDITIONS

2.1 Roadway Network, Lane Configuration, and Intersection Control

Table 2.1 summarizes the study area roadway characteristics. The roadway functional classification is based on the COMPASS 2040 Functional Classification Map and the ITD 2012 Access Control Map. The study area roadways are described below. **Figure 2.1** summarizes the study area roadway segment and existing intersection control and lane configuration.

Table 2.1 – Existing Roadway Characteristics

Roadway	Functional Classification	Number of Lanes	Posted Speed Limit (mph)	Pedestrian Facilities
Mountain Creek St	Local Road	2 + median	25	• Sidewalks on both sides
Ballantyne Ln	Collector	2-3	35	• Sidewalk on west side • Bicycle lanes on both sides
State St	Minor Arterial	3	30 west / 35 east of Ballantyne Ln	• Sidewalks on north/west side along developed frontages • Bicycle lanes on both sides
SH 44	Principal Arterial (Regional Route)	5	55	• Multi-use pathway on south side

2.2 Existing Traffic Volumes

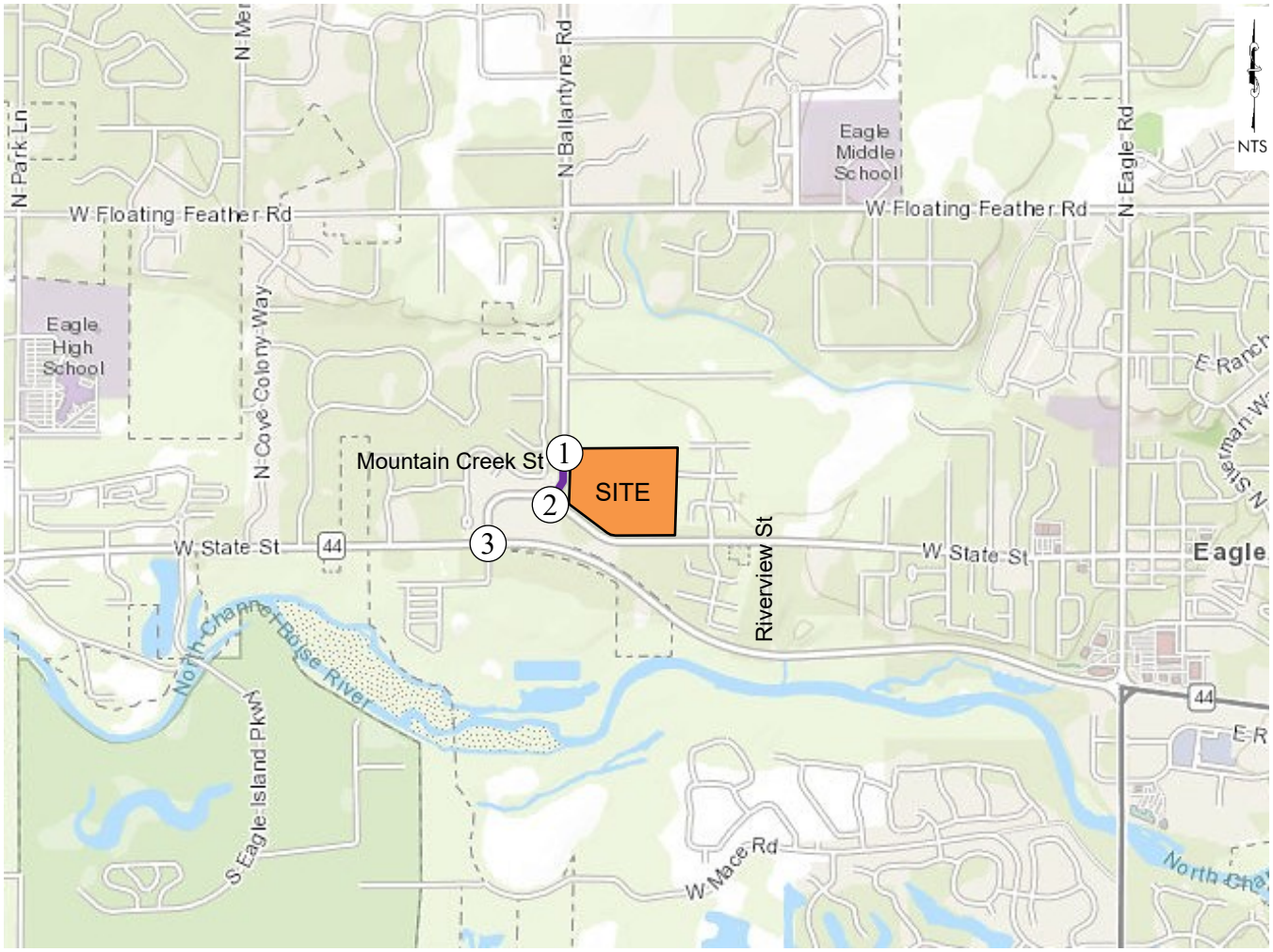
Weekday AM and PM peak hour intersection turning movement traffic counts and 24-hour daily traffic roadway segment counts were obtained on April 14, 2021. The peak hour intersection turning movement counts were collected on a weekday for a 2-hour period at 15-minute intervals between 7:00 and 9:00 during the AM peak travel period hour and between 4:00 and 6:00 during the PM peak travel period. Existing turning movement counts are included in the appendix. **Figure 2.2** summarizes the existing peak hour traffic volumes. The Average Daily Traffic (ADT) for the study area roadway segment is summarized in **Table 2.2**.

Existing traffic counts were reviewed and compared to historical counts to determine if adjustments are needed to account for the potential reduced travel demand due to the COVID-19 pandemic. Historical counts (April 2018 to July 2019) for the study area roadways were obtained from ACHD and COMPASS websites. A summary of the traffic counts comparison is included in the appendix. Overall, there was no major traffic reduction in the 2021 counts compared to the 2018-2019 counts. As a result, no adjustments were made to the 2021 counts.

Table 2.2 – 2021 Existing ADT Summary

Roadway	Segment	ADT	Count Date
Ballantyne Ln	Between Mountain Creek St and State St	5,356	April 14, 2021

Figure 2.1 – Study Area Roadway Segment and Intersection Control and Lane Configuration



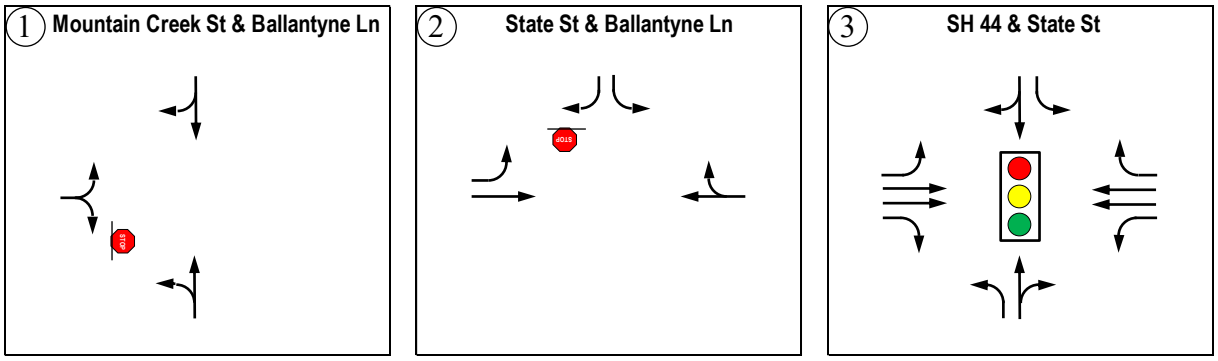
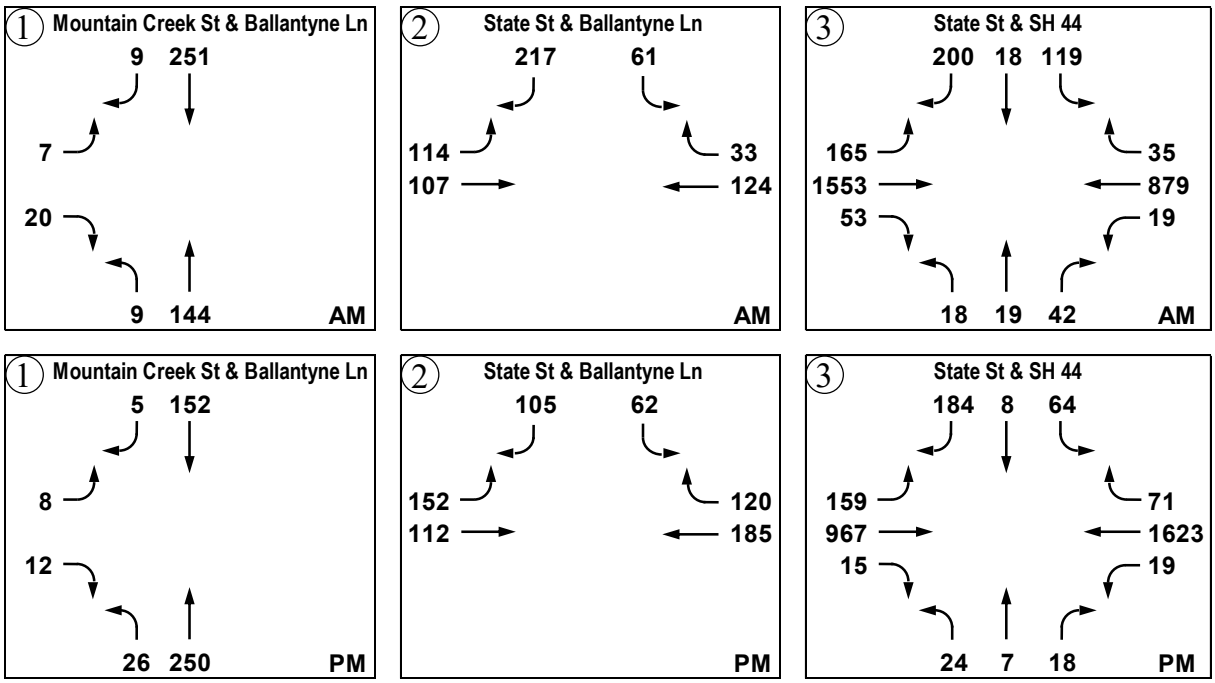


Figure 2.2 – 2021 Existing Peak Hour Traffic



2.3 Intersection Crash Data

The most current five-year crash data (2015-2019) was obtained from the Local Highway Technical Assistance Council (LHTAC) website (http://gis.lhtac.org/safety/). **Table 2.3** summarizes the crash data statistics for the study area intersections. Based on the crash frequency, no apparent safety issues were observed at the study area intersections within the five-year span. The historical crash data shows:

- No fatal crashes were recorded at the study area intersections
- The majority of the crashes at the study area intersections occurred during the AM and PM peak periods (7-9 AM, 4-6 PM)

Table 2.3 – Intersection Crash Data (2015-2019)

Intersection		Total Crashes	*Crash Severity*			Notes
			PDO	*Injury*	*Fatal*	
1	Mountain Creek St and Ballantyne Ln	No crashes reported at this intersection				
2	State St and Ballantyne Ln	1	*0*	*1*	*0*	• Lane departure in wet conditions due to physical impairment
3	State St and SH 44	24	*17*	*7*	*0*	• 4 (17%) angle crashes, 11 (46%) rear-end crashes • 10 (42%) crashes due to speeds too fast for conditions • 19 (79%) crashes in WB direction • 8 crashes on March 12, 2015, from 7:30-8:00 AM due to icy conditions

2.4 Roadway Segment Planning Level of Service

The study area roadway segment of Ballantyne Road was evaluated based on ACHD level of service planning thresholds. **Table 2.4** summarizes the roadway segment level of service with existing traffic and lane configuration. The Ballantyne Lane study area roadway segment currently meets ACHD level of service planning thresholds with 2021 existing traffic volumes.

Table 2.4 – Roadway Segment Planning Level of Service – 2021 Existing Traffic

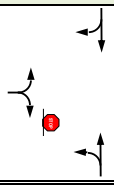
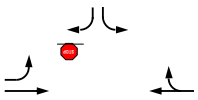
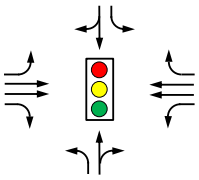
Roadway	Segment	Functional Classification (No. of Lanes)	Left-Turn Lane Type	ACHD Planning Threshold [vph]	Peak Hour Directional Volume [vph]		Meets LOS Planning Threshold?
					AM Peak	PM Peak	
Ballantyne Ln	Between State St and Mountain Creek St	Collector (2-3)	LT at State	425 - 530	278	276	Yes

2.5 Intersection Operations

To determine the existing traffic operations, the study area intersections were analyzed with the existing intersection control, ACHD signal timing parameters, and lane configuration with 2021 existing peak hour traffic volumes. Copies of the analysis reports are included in the appendix. **Table 2.5** summarizes the intersection capacity analysis results. One study area intersection currently exceeds ITD minimum operational thresholds under 2021 existing traffic conditions:

- State Street and SH 44 intersection

Table 2.5 – Intersection Operations – 2021 Existing Traffic

Intersection		Control / Lane	Intersection or Lane Group	AM Peak Hour			PM Peak Hour		
				LOS	Delay [s/veh]	v/c Ratio	LOS	Delay [s/veh]	v/c Ratio
1	Mountain Creek St and Ballantyne Ln		EB	B	11	0.04	B	10	0.03
			NB	A	8	0.01	A	8	0.02
			SB	-	-	-	-	-	-
2	State St and Ballantyne Ln		EBL	A	8	0.09	A	8	0.13
			EBR	-	-	-	-	-	-
			WBTR	-	-	-	-	-	-
			SBL	B	12	0.11	B	14	0.14
			SBR	B	10	0.26	B	10	0.14
3	State St and SH 44		Intersection	C	33	0.74	C	29	0.73
			EBL	F	94	**0.92**	F	95	0.89
			EBT	C	22	0.79	B	11	0.42
			EBR	B	10	0.06	A	7	0.02
			WBL	C	21	0.15	B	11	0.05
			WBT	C	26	0.64	C	27	0.85
			WBR	B	17	0.06	B	13	0.08
			NBL	E	72	0.26	E	72	0.32
			NBTR	D	48	0.21	D	53	0.12
			SBL	E	59	0.56	E	57	0.27
			SBTR	E	80	0.88	E	71	0.80

2.6 Roadway Segment Mitigation

The Ballantyne Lane study area roadway segment currently meets ACHD level of service planning thresholds with the existing lane configuration. As a result, no roadway capacity improvements are needed to mitigate existing traffic operations.

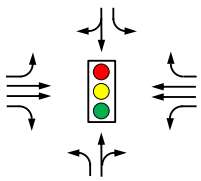
2.7 Intersection Mitigation

One study area intersection currently exceeds ITD minimum operational thresholds with the existing intersection control, ACHD signal timing, and lane configuration. None of the unsignalized study area intersections require turn lanes based on ACHD turn-lane guidelines. The intersection, operational deficiencies, and mitigation improvements are discussed below.

State Street and SH 44 Intersection

The State Street and SH 44 intersection meets ITD and ACHD minimum operational thresholds except for one lane group. The eastbound left-turn lane group is operating with a v/c ratio of 0.92 during the AM peak hour, slightly exceeds the ITD 0.90 threshold but is within the ACHD 1.00 threshold. This operational deficiency is minor and could be mitigated with minor signal timing adjustments. **Table 2.6** summarizes the intersection operations with a 5-second increase for the eastbound left-turn phase. The intersection and all lane groups are anticipated to meet ITD and ACHD minimum operational threshold with this minor signal timing adjustment. Since the signal is operating in a coordinated system, signal timing at other intersections may need to be adjusted as well. ACHD should monitor and adjust the signal timing as needed for the traffic conditions.

Table 2.6 – State Street and SH 44 Intersection Operations – 2021 Existing Traffic

Intersection		Control / Lane	Intersection or Lane Group	AM Peak Hour			PM Peak Hour		
				LOS	Delay [s/veh]	v/c Ratio	LOS	Delay [s/veh]	v/c Ratio
3	State St and SH 44	Minor Signal Timing Adjustments 	Intersection	C	33	0.74	Meets minimum operational thresholds with existing signal timing		
			EBL	F	82	0.90			
			EBT	C	22	0.79			
			EBR	B	10	0.06			
			WBL	C	21	0.15			
			WBT	C	26	0.64			
			WBR	B	17	0.06			
			NBL	E	72	0.26			
			NBTR	D	48	0.21			
			SBL	E	59	0.56			
			SBTR	E	80	0.88			

3.0 2025 BUILD-OUT YEAR BACKGROUND TRAFFIC CONDITIONS

3.1 Roadway Network

The study area roadways and intersections are not expected to be improved by the 2025 build-out year and were assumed to remain unchanged for 2025 background traffic analysis. No projects are programmed on the study area roadways or intersections in the ACHD *2020 Capital Improvements Plan* (CIP), the ACHD *FY2021-2025 Integrated Five-Year Work Plan* (IFYWP), the ACHD *2020 Master Street Map* (MSM), or the ITD *FY2021-2027 Idaho Transportation Investment Program* (ITIP). Furthermore, there are no long-term improvements planned at the State Street and SH 44 intersection according to ITD SH 44 corridor plan.

3.2 Background Traffic

2025 background traffic was estimated by extrapolating the 2021 existing traffic counts by the following annual growth rates:

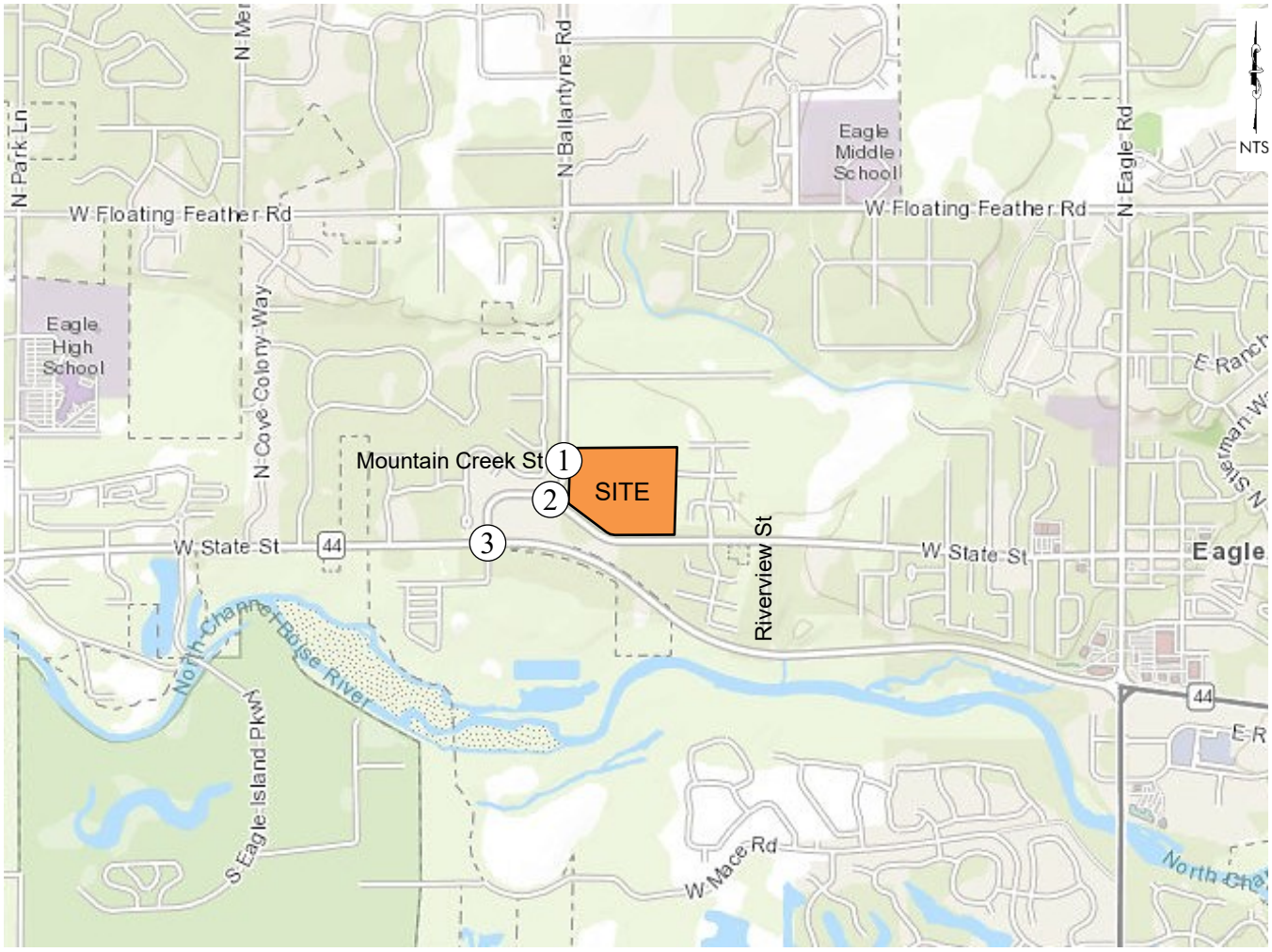
- No growth on Urban Gate Avenue
  - Included off-site traffic generated by Stillwater Development as discussed below
- No growth on Mountain Creek Street
- 2.0% per year on Ballantyne Lane
- 6.0% per year on State Street
- 1.5% per year on SH 44

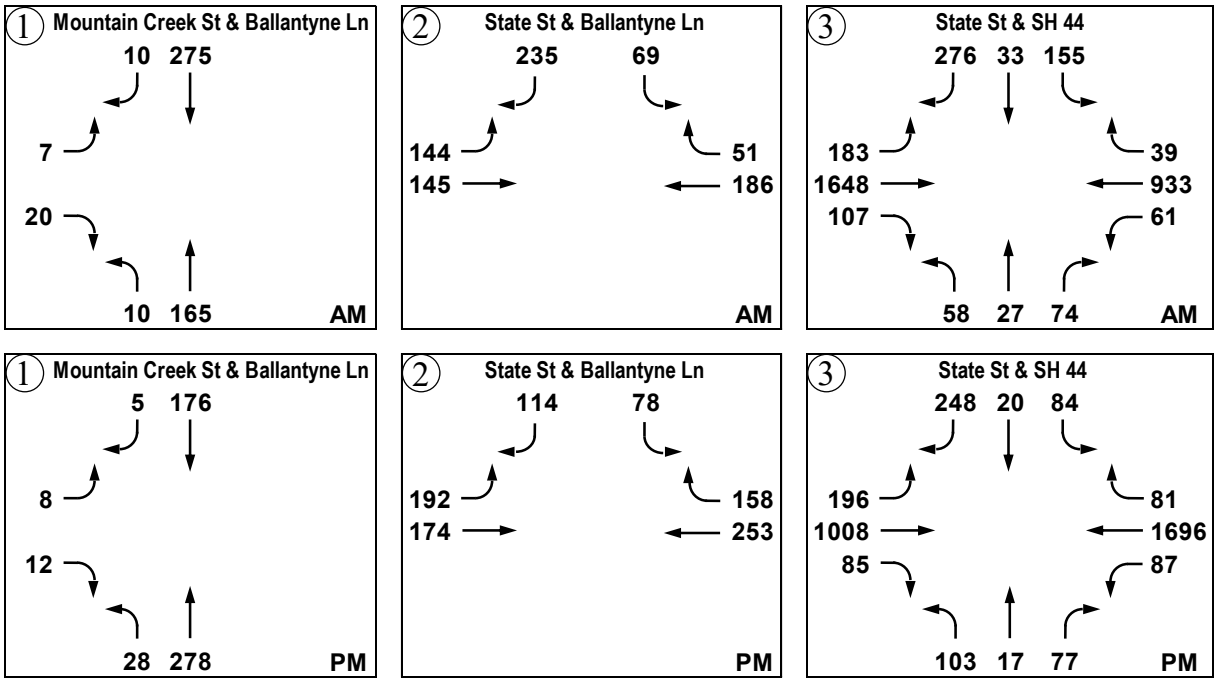
These growth rates are based on COMPASS forecasts and historical counts within the area. These growth rates included all in-process developments in the area, with the exception of one development. Capella Subdivision is a proposed residential development located north of the Riverview Street and State Street intersection. Based on the latest preliminary plat, the development is estimated to contain 174 single-family dwelling units. The development's TIS is currently in progress and has not been submitted to ACHD and ITD for review. Off-site traffic generated by Capella Subdivision was included in the 2025 background traffic analysis.

Urban Gate Avenue provides access for Stillwater Subdivision, which is currently under construction. According to the City of Eagle and Stillwater Subdivision websites, the development contains 24 townhomes, 46 single-family dwelling units, a Dutch Bros drive-thru coffee shop, and 58,300 square feet of general commercial space to be determined in the future. At the time of this TIS, Dutch Bros has been constructed and is in operation. Additionally, 13 single-family dwelling units and 20 of the 24 townhomes are under active construction or are occupied, therefore generating trips. Off-site traffic generated by the remaining Stillwater Subdivision was included at the State Street and SH 44 intersection to accurately reflect the traffic growth. Applying a growth rate to the existing volumes would not accurately account for the off-site traffic.

Off-site traffic data is included in the appendix. The off-site traffic is added to the annual traffic growth to acquire the 2025 build-out year peak hour background traffic volumes. **Figure 3.1** summarizes the estimated 2025 build-out year peak hour background traffic.

Figure 3.1 – 2025 Build-Out Year Peak Hour Background Traffic





3.3 Roadway Segment Planning Level of Service

The study area roadway segment was evaluated based on ACHD level of service planning thresholds. **Table 3.1** summarizes the roadway segment level of service with the existing lane configurations and 2025 background traffic volumes. The Ballantyne Lane study area roadway segment is anticipated to continue to meet ACHD planning level of service thresholds.

Table 3.1 – Roadway Segment Level of Service – 2025 Build-Out Year Peak Hour Background Traffic

Roadway	Segment	Functional Classification (No. of Lanes)	Left-Turn Lane Type	ACHD Planning Threshold [vph]	Peak Hour Directional Volume [vph]		Meets LOS Planning Threshold?
					AM Peak	PM Peak	
Ballantyne Ln	Between State St and Mountain Creek St	Collector (2-3)	LT at State	425 - 530	304	350	Yes

3.4 Intersection Operations

To determine the 2025 background traffic operations, the study area intersections were analyzed with the existing intersection control and lane configuration. The signal timing was optimized and adjusted as needed for the traffic conditions with the existing cycle length of 150 seconds. Copies of the analysis reports are included in the appendix. **Table 3.2** summarizes the intersection capacity analysis results. One study area intersection is anticipated to exceed ACHD and ITD minimum operational thresholds under 2025 background peak hour traffic conditions:

- State Street and SH 44 intersection

Shoulder hours traffic conditions at the State Street and SH 44 intersection were reviewed and analyzed. Based on the existing traffic counts, the critical shoulder hour is between 3:00 and 4:00 PM. **Table 3.3** summarizes the intersection capacity analysis results for the 3:00-4:00 PM shoulder hour traffic conditions. The State Street and SH 44 intersection is anticipated to also exceed minimum operational thresholds during this shoulder hour.

Table 3.2 – Intersection Operations – 2025 Build-Out Year Background Traffic

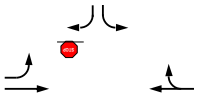
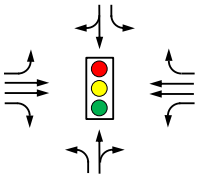
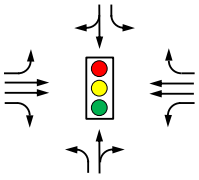
Intersection		Control / Lane	Intersection or Lane Group	AM Peak Hour			PM Peak Hour		
				LOS	Delay [s/veh]	v/c Ratio	LOS	Delay [s/veh]	v/c Ratio
1	Mountain Creek St and Ballantyne Ln		EB	B	11	0.05	B	11	0.03
			NB	A	8	0.01	A	8	0.02
			SB	-	-	-	-	-	-
2	State St and Ballantyne Ln		EBL	A	8	0.12	A	9	0.18
			EBT	-	-	-	-	-	-
			WBTR	-	-	-	-	-	-
			SBL	B	14	0.16	C	18	0.22
			SBR	B	11	0.31	B	11	0.17
3	State St and SH 44		Intersection	D	40	**0.95**	D	49	**0.95**
			EBL	**F**	83	**0.91**	**F**	123	**0.99**
			EBT	C	30	0.89	B	17	0.50
			EBR	B	13	0.13	B	13	0.10
			WBL	C	32	0.51	B	16	0.28
			WBT	C	29	0.63	**F**	52	**1.02**
			WBR	B	20	0.07	B	18	0.11
			NBL	F	145	0.90	**F**	187	**1.09**
			NBTR	D	47	0.30	D	48	0.30
			SBL	E	61	0.61	E	55	0.33
			SBTR	**F**	84	**0.93**	E	67	0.81

Table 3.3 – State Street and SH 44 Intersection Operations – 2025 Build-Out Year Background Traffic (3:00-4:00 PM Shoulder Hour)

Intersection		Control / Lane	Intersection or Lane Group	3-4 PM Shoulder Hour		
				LOS	Delay [s/veh]	v/c Ratio
3	State St and SH 44		Intersection	D	49	0.90
			EBL	**F**	103	**0.95**
			EBT	C	24	0.65
			EBR	B	15	0.14
			WBL	C	22	0.40
			WBT	D	40	0.90
			WBR	C	23	0.12
			NBL	**F**	290	**1.36**
			NBTR	D	45	0.36
			SBL	D	55	0.38
			SBTR	E	70	0.86

3.5 Roadway Segment Mitigation

Based on the estimated 2025 background peak hour traffic, the Ballantyne Lane study area roadway segment is anticipated to continue to meet ACHD planning level of service thresholds with the existing lanes. As a result, no improvements are needed on Ballantyne Lane to mitigate 2025 build-out year background traffic operations.

3.6 Intersection Mitigation

One study area intersection is anticipated to exceed minimum operational thresholds under 2025 background traffic conditions with the existing intersection control and lane configuration. None of the unsignalized study area intersections require turn lanes based on ACHD turn-lane guidelines. The intersection, operational deficiencies, and mitigation improvements are discussed below.

State Street and SH 44 Intersection

The State Street and SH 44 intersection is anticipated to exceed ACHD and ITD minimum operational thresholds under 2025 background traffic conditions. The intersection is anticipated to operate at LOS is D with an overall v/c ratio of 0.95 during the peak hours, which exceeds ACHD and ITD 0.90 thresholds. Several lane group v/c ratios also exceed the ITD 0.90 threshold and/or the ACHD 1.00 threshold during the peak hour. The intersection is also anticipated to exceed minimum operational thresholds during the 3:00-4:00 PM shoulder hour.

According to the SH 44 Corridor Study, the State Street and SH 44 intersection failed to meet ITD minimum operational thresholds under 2040 build conditions with a southbound right-turn lane. However, the study states that improved coordination with the usage of microsimulation software improved the intersection operations to overall LOS D with the construction of a CFI at Linder Road and SH 44. No results from the microsimulation were available to verify that all lane groups v/c ratios are within ITD 0.90 threshold and ACHD 1.00 threshold.

There are no improvements programmed at the State Street and SH 44 intersection according to the ACHD IFYWP, ACHD 2020 CIP, ACHD MSM, or the ITD ITIP. Two mitigation options are proposed to mitigate 2025 background traffic conditions:

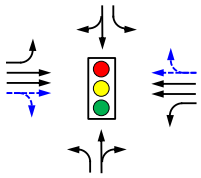
- Option 1 – Widen the intersection to have the following lanes:
  - Eastbound and westbound approaches – One left-turn lane, two through lanes, and one shared through/right-turn lane
    - The shared through/right-turn lane is an auxiliary through lane
    - Three receiving lanes should be constructed beyond the intersection with sufficient length for merging operations and proper signing
  - Northbound and southbound approaches – One left-turn lane and one shared through/right-turn lane (existing lanes)

- Option 2 – Set up a Priority Corridor Fund
  - Based on the projected peak and shoulder hours volumes, the State Street and SH 44 intersection needs additional through lanes on the SH 44 approaches. However, widening SH 44 to have three lanes in each direction may not be feasible by 2025 as these improvements are currently not included in any transportation plans. ACHD and ITD should establish a Priority Corridor Fund to collect fund for the intersection improvements

Table 3.4 summarizes the intersection capacity analysis results with the mitigation improvements. Based on the mitigation analysis results, the intersection is anticipated to operate acceptably with three lanes on SH 44. The eastbound left-turn lane group is anticipated to operate with a v/c ratio of 0.91 during the AM peak hour and 0.92 during the PM peak hour, slightly exceeding the ITD 0.90 threshold but within the ACHD 1.00 threshold.

The intersection is anticipated to exceed ACHD minimum operational thresholds and needs improvements by 2023 with a traffic increase of approximately 270 vph during the PM peak hour beyond 2021 existing volumes.

Table 3.4 – State Street and SH 44 Intersection Operations – 2025 Build-Out Year Background Traffic Mitigation

Intersection		Control / Lane Mitigation	Intersection or Lane Group	AM Peak Hour			PM Peak Hour		
				LOS	Delay [s/veh]	v/c Ratio	LOS	Delay [s/veh]	v/c Ratio
3	State St and SH 44	Widen intersection 	Intersection	D	36	0.83	D	41	0.85
			EBL	E	76	**0.91**	F	94	**0.92**
			EBT	C	25	0.70	C	22	0.45
			EBTR	C	26	0.70	C	22	0.45
			WBL	E	76	0.80	E	76	0.83
			WBT	C	27	0.47	D	36	0.84
			WBTR	C	28	0.47	D	38	0.85
			NBL	F	84	0.66	F	111	0.87
			NBTR	D	44	0.28	D	44	0.26
			SBL	E	56	0.56	D	51	0.30
			SBTR	E	68	0.86	E	58	0.75

4.0 2025 BUILD-OUT YEAR TOTAL TRAFFIC CONDITIONS

4.1 Site Traffic

4.1.1 Trip Generation

Site trip generation is estimated using the procedures recommended in the latest edition of the Trip Generation Manual (10th edition), published by the Institute of Transportation Engineers. **Table 4.1** summarizes the site trip generation. The proposed development is estimated to generate approximately 1,352 trips per weekday with 99 trips during the AM peak hour and 134 trips during the PM peak hour.

Table 4.1 – Build-Out Site Traffic Trip Generation Summary

Land Use	ITE Code	Size	Unit	Period	Total Trips	Entering		Exiting	
Single-Family Detached Housing	210	133	DU	Weekday Daily (vpd)	1,352	50%	676	50%	676
				AM Peak Hour (vph)	99	25%	24	75%	75
				PM Peak Hour (vph)	134	63%	84	37%	50

4.1.2 Trip Capture

Based on the proposed land use, no trips are expected to be captured within the site.

4.1.3 Pass-by Trips

Based on the proposed land use, no pass-by trips are expected to be attracted to the site.

4.1.4 Modal Split

For traffic analysis purposes, all trips generated by the development were assumed to be made by personal and commercial vehicles.

4.1.5 Trip Distribution and Assignment

Site traffic was distributed and assigned to the external roadway system based on current travel patterns, site layout, and the general location of the site within the area. **Figure 4.1** summarizes the expected site traffic distribution patterns. Approximately 5% of the site traffic is expected to travel through Pine Ranch Subdivision via Deadwood Street and Payette Way. **Figure 4.2** and **Figure 4.3** summarize the estimated build-out AM and PM peak hour site traffic, respectively, at the external study area intersections.

4.2 Total Traffic

The site traffic is then added to the 2025 background traffic as determined above to obtain the 2025 total traffic. **Figure 4.5** summarizes the estimated 2025 build-out year peak hour total traffic.

Figure 4.1 – Estimated Site Traffic Distribution Patterns

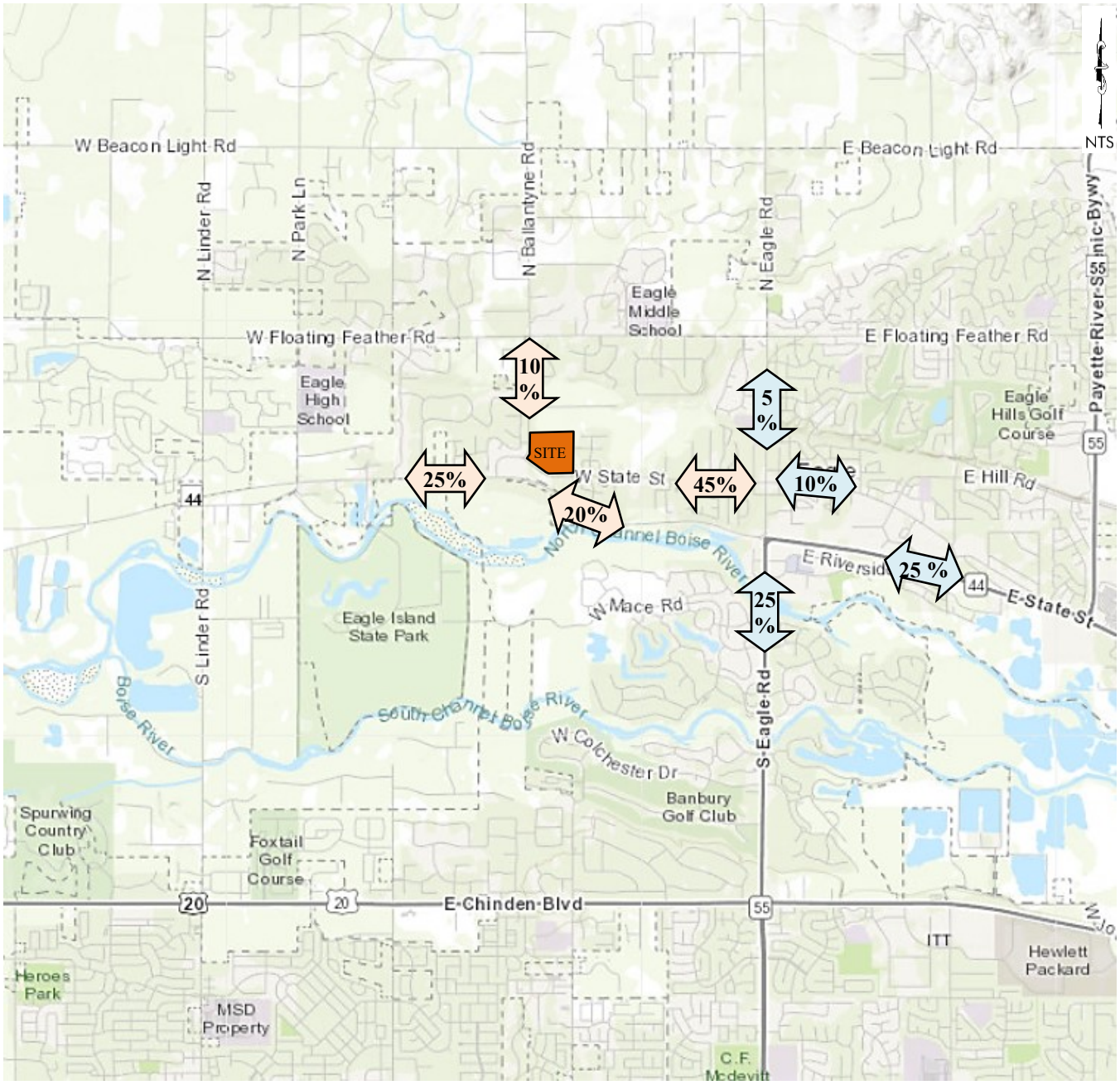
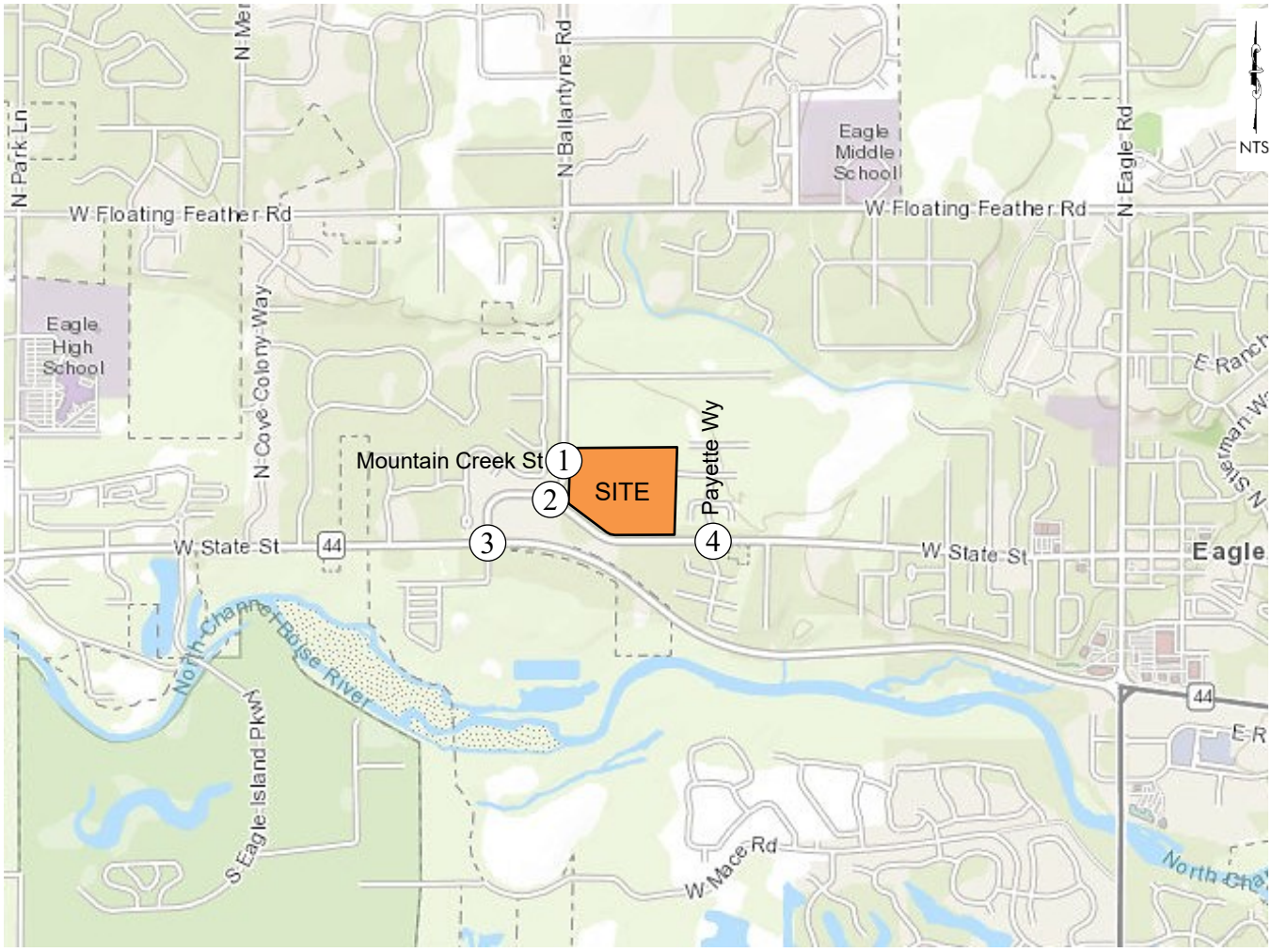


Figure 4.2 – 2025 Build-Out Year Peak Hour Site Traffic



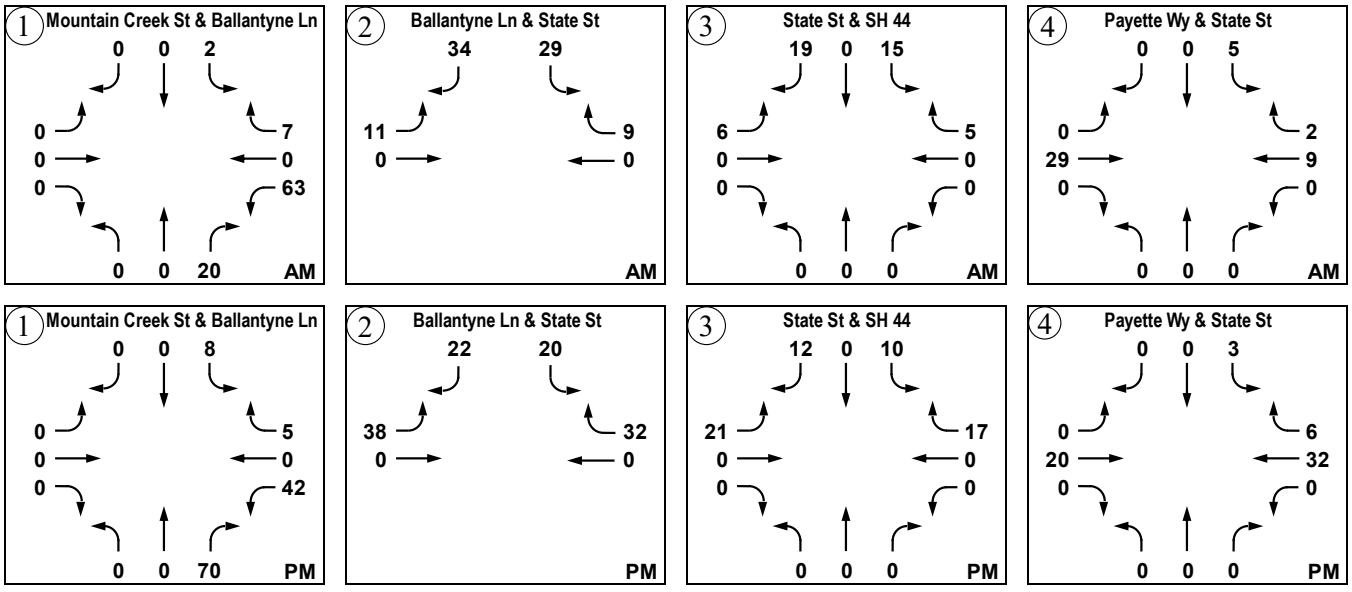
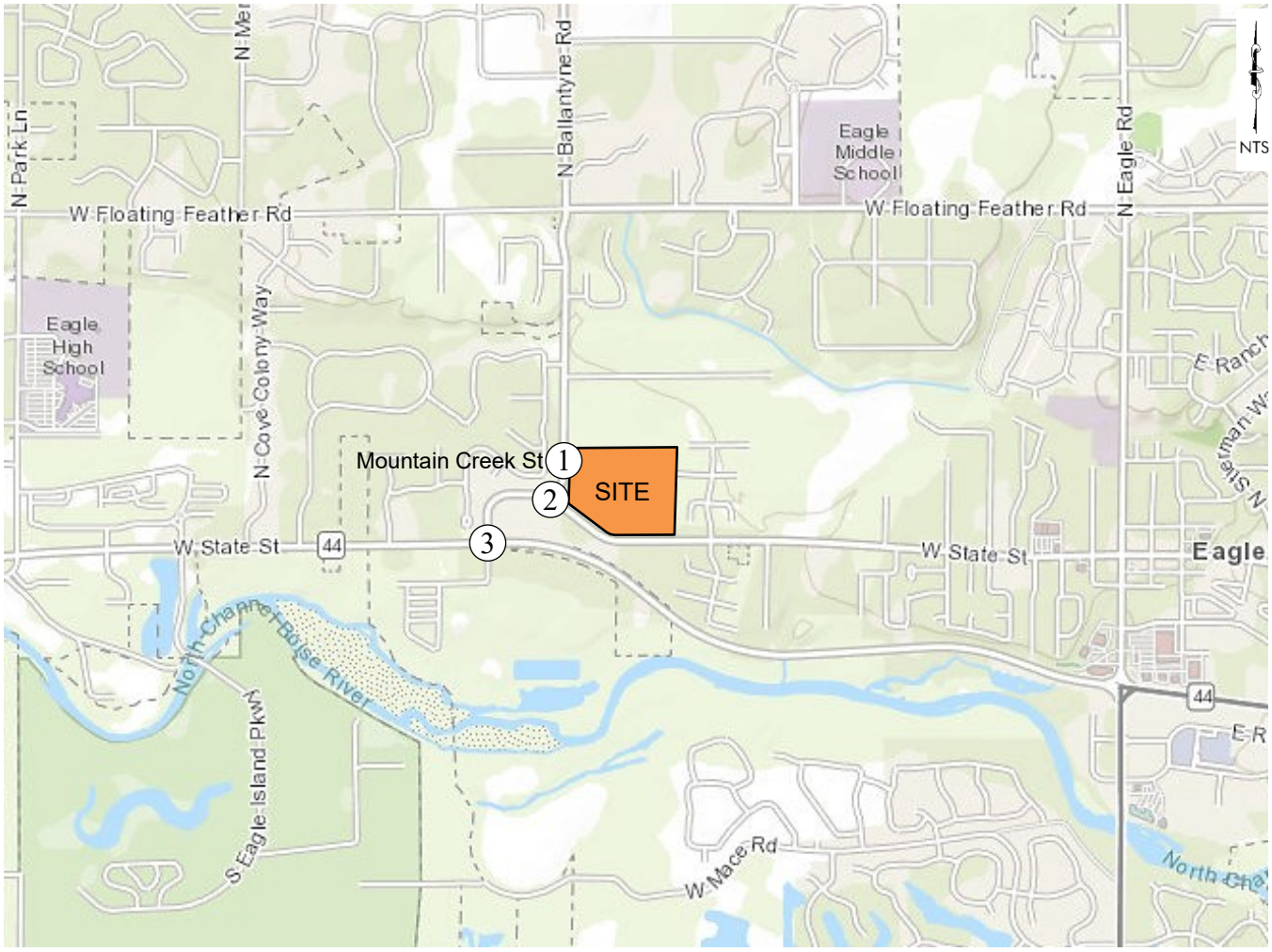
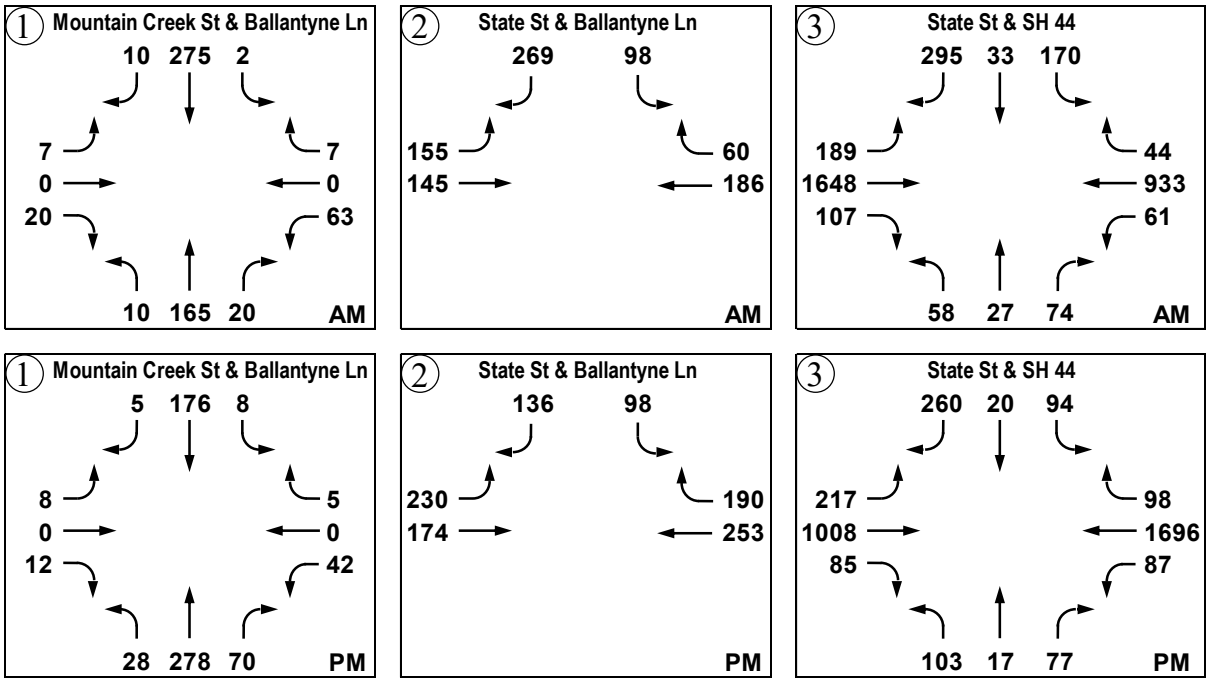


Figure 4.3 – 2025 Build-Out Year Peak Hour Total Traffic





4.3 Roadway Segment Planning Level of Service

The study area roadway segments were evaluated based on ACHD level of service planning thresholds. **Table 4.2** summarizes the roadway segment level of service with the existing lane configurations and 2025 total peak hour traffic. The study area roadway segment is anticipated to continue to meet ACHD level of service planning thresholds under 2025 build-out year peak hour total traffic conditions.

Table 4.2 – Roadway Segment Planning Level of Service – 2025 Build-Out Year Peak Hour Total Traffic

Roadway	Segment	Functional Classification (No. of Lanes)	Left-Turn Lane Type	ACHD Planning Threshold [vph]	Peak Hour Directional Volume [vph]		Meets LOS Planning Threshold?
					AM Peak	PM Peak	
Ballantyne Ln	Between State St and Mountain Creek St	Collector (2-3)	LT at State	425 – 530	367	420	Yes

4.4 Intersection Operations

To determine the 2025 total traffic operations, the study area intersections were analyzed with the existing intersection control and lane configuration with 2025 build-out year total traffic volumes. The signal timing was optimized and adjusted as needed for the traffic conditions with the existing cycle length of 150 seconds. Copies of the analysis reports are included in the appendix. **Table 4.3** summarizes the intersection capacity analysis results. One study area intersection is anticipated to continue to exceed ACHD and ITD minimum operational thresholds under 2025 total peak hour traffic conditions:

- State Street and SH 44 intersection

Table 4.4 summarizes the intersection capacity analysis results for the 3:00-4:00 PM shoulder hour traffic conditions. The State Street and SH 44 intersection is anticipated to also exceed minimum operational thresholds during this critical shoulder hour.

Table 4.3 – Intersection Operations – 2025 Build-Out Year Total Traffic

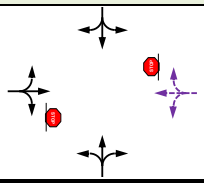
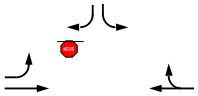
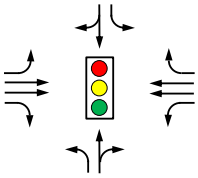
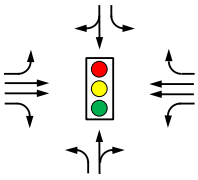
Intersection		Control / Lane Site Improvement	Intersection or Lane Group	AM Peak Hour			PM Peak Hour		
				LOS	Delay [s/veh]	v/c Ratio	LOS	Delay [s/veh]	v/c Ratio
1	Mountain Creek St and Ballantyne Ln		EB	B	11	0.05	B	11	0.04
			WB	B	14	0.17	B	14	0.11
			NB	A	8	0.01	A	8	0.02
			SB	A	8	< 0.01	A	8	0.01
2	State St and Ballantyne Ln		EBL	A	8	0.13	A	9	0.22
			EBT	-	-	-	-	-	-
			WBTR	-	-	-	-	-	-
			SBL	C	15	0.23	C	21	0.32
			SBR	B	12	0.36	B	12	0.21
3	State St and SH 44		Intersection	D	42	**0.97**	D	52	**0.97**
			EBL	**F**	84	**0.91**	**F**	154	**1.09**
			EBT	C	34	**0.93**	B	17	0.50
			EBR	B	15	0.14	B	13	0.10
			WBL	C	35	0.55	B	16	0.28
			WBT	C	32	0.66	**F**	51	**1.02**
			WBR	C	22	0.08	B	18	0.13
			NBL	F	116	0.81	**F**	237	**1.22**
			NBTR	D	44	0.28	D	48	0.30
			SBL	E	58	0.61	E	56	0.37
			SBTR	E	77	**0.91**	E	72	0.85

Table 4.4 – State Street and SH 44 Intersection Operations – 2025 Build-Out Year Total Traffic (3:00-4:00 PM Shoulder Hour)

Intersection		Control / Lane	Intersection or Lane Group	3-4 PM Shoulder Hour		
				LOS	Delay [s/veh]	v/c Ratio
3	State St and SH 44		Intersection	D	53	**0.93**
			EBL	**F**	122	**1.02**
			EBT	C	24	0.65
			EBR	B	15	0.14
			WBL	C	22	0.40
			WBT	D	40	0.90
			WBR	C	24	0.14
			NBL	**F**	363	**1.53**
			NBTR	D	45	0.36
			SBL	D	55	0.42
			SBTR	E	75	0.90

4.5 Roadway Segment Mitigation

Based on the estimated 2025 total peak hour traffic, the Ballantyne Lane study area roadway segment is anticipated to continue to meet ACHD planning level of service thresholds with the existing lane. As a result, no improvements are needed on Ballantyne Lane to mitigate 2025 build-out year total traffic operations.

4.6 Intersection Mitigation

One study area intersection is anticipated to exceed minimum operational thresholds under 2025 total traffic conditions with the existing intersection control and lane configuration. None of the unsignalized study area intersections require turn lanes based on ACHD turn-lane guidelines. The intersection, operational deficiencies, and mitigation improvements are discussed below.

Table 4.5 – Build-Out Site Traffic Percentage of 2025 Total Traffic Study Area Intersections

Intersection		% Site Traffic of 2025 Total Traffic		
		AM Peak	PM Peak	Average
1	Mountain Creek St and Ballantyne Ln	15.9%	19.8%	17.8%
2	State St and Ballantyne Ln	9.1%	10.4%	9.7%
3	State St and SH 44	1.2%	1.6%	1.4%

State Street and SH 44 Intersection

The State Street and SH 44 intersection is anticipated to exceed ACHD and ITD minimum operational thresholds under 2025 background traffic conditions. The intersection is anticipated to operate at LOS is D with an overall v/c ratio of 0.97 during the peak hours, which exceeds ACHD and ITD 0.90 threshold. Several lane group v/c ratios also exceed ITD 0.90 threshold and/or ACHD 1.00 threshold during the peak hour. The intersection is also anticipated to exceed minimum operational thresholds during the 3:00-4:00 pm shoulder hour.

There are no improvements programmed at the State Street and SH 44 intersection according to the ACHD IFYWP, ACHD 2020 CIP, ACHD MSM, or the ITD ITIP. Two mitigation options are proposed to mitigate 2025 background traffic conditions:

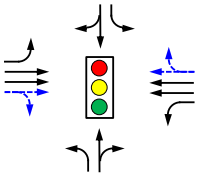
- Option 1 – Widen the intersection to have the following lanes
  - Eastbound and westbound approaches – One left-turn lane, two through lanes, and one shared through/right-turn lane
    - The shared through/right-turn lane is an auxiliary through lane
    - Three receiving lanes should be constructed beyond the intersection with sufficient length for merging operations and proper signing
  - Northbound and southbound approaches – One left-turn lane and one shared through/right-turn lane (existing lanes)

- Option 2 – Pay into the Priority Corridor Fund
  - Based on the projected peak and shoulder hours volumes, the State Street and SH 44 intersection needs additional through lanes on the SH 44 approaches. However, widening SH 44 to have three lanes in each direction may not be feasible by 2025 as these improvements are currently not included in any transportation plans. As an alternative to the intersection widening, the developer may request to enter into a Development Agreement and pay into the Priority Corridor Fund an amount to be determined by ITD and ACHD to offset the development impacts.

Table 4.6 summarizes the intersection capacity analysis results with the mitigation improvements. Based on the mitigation analysis results, the intersection is anticipated to operate acceptably with three lanes on SH 44. The eastbound left-turn lane group is anticipated to operate with a v/c ratio of 0.91 during the AM peak hour and 0.92 during the PM peak hour, slightly exceeding ITD 0.90 threshold but within ACHD 1.00 threshold. The estimated 95th percentile queue length in the eastbound left-turn lane is less than 400 during the peak hours, which could be accommodated within the existing storage length.

With the existing signal timing and lane configuration, the intersection is anticipated to exceed ACHD minimum operational thresholds and need improvements by 2023 with a traffic increase of approximately 315 vph during the PM peak hour beyond 2021 existing volumes. By 2023, Benari Estates Subdivision is estimated to have constructed 93 single-family dwelling units, contributing 42 PM peak hour trips to the intersection.

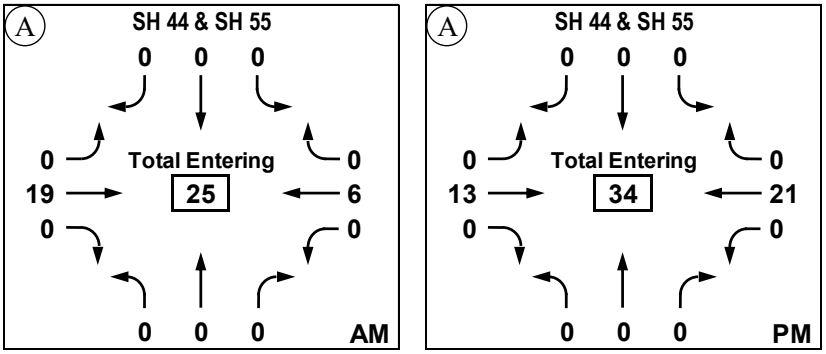
Table 4.6 – State Street and SH 44 Intersection Operations – 2025 Build-Out Year Total Traffic Mitigation

Intersection		Control / Lane Mitigation	Intersection or Lane Group	AM Peak Hour			PM Peak Hour		
				LOS	Delay [s/veh]	v/c Ratio	LOS	Delay [s/veh]	v/c Ratio
3	State St and SH 44	Widen intersection 	Intersection	D	38	0.85	D	43	0.88
			EBL	E	77	**0.91**	F	89	**0.92**
			EBT	C	25	0.70	C	22	0.46
			EBTR	C	26	0.70	C	23	0.46
			WBL	E	76	0.80	E	71	0.83
			WBT	C	28	0.47	D	40	0.89
			WBTR	C	29	0.47	D	42	0.89
			NBL	F	116	0.81	F	117	0.89
			NBTR	D	44	0.28	D	43	0.25
			SBL	E	58	0.61	D	50	0.33
			SBTR	E	77	**0.91**	E	58	0.77

4.7 ITD Site Traffic Contribution

ITD requested peak hour site traffic data from Benari Estates Subdivision for determining the proportionate share contribution at the SH 44 and SH 55 intersection. **Figure 4.4** summarizes the estimated peak hour site traffic at this intersection.

Figure 4.4 – Build-Out Site Traffic Entering the SH 44 and SH 55 Intersection



4.8 Site Access, Circulation, and Internal Roadway ADT

Benari Estates Subdivision is proposing to construct one site access on Ballantyne Lane to align with Mountain Creek Street to the west and stub road connectivity with Deadwood Street to the east. While Benari Estates Subdivision has frontage on State Street, no site access is proposed. **Figure 4.5** shows the proposed site access locations, internal roadway network, and estimated Average Daily Traffic (ADT).

According to ACHD Policy (Section 7206.4), the minimum access spacing requirements on Ballantyne Lane, a 35-mph collector street are:

- 440 feet minimum spacing from a signalized intersection
- Outside the area of influence of a roundabout, far end of the splitter islands
- 330 feet minimum spacing for local streets
- 285 feet minimum spacing for driveways

The proposed site access location aligning with Mountain Creek Street as shown in Figure 4.6 meets ACHD minimum spacing.

The estimated ADT on the internal roadways is summarized in Figure 4.5. All internal local streets with front-on housing are anticipated to carry less than 1,000 vpd, with the exception of Mountain Creek Street east of Ballantyne Lane. Mountain Creek Street east of Ballantyne Lane is anticipated to carry over 1,000 vpd but less than 2,000 vpd with a maximum directional peak hour volume of 81 vph during the PM peak hour, which is below the ACHD planning threshold of 425 vph for a collector street. Mountain Creek Street is not shown as a collector street in the ACHD MSM. Therefore, Mountain Creek Street should be classified as a collector street.

Less than 100 vpd of the traffic generated by Benari Estates Subdivision is anticipated to travel through the existing Pine Ranch Subdivision located east of the iste. Some of the traffic generated by Pine Ranch Subdivision may travel through Benari Estates Subdivision offsetting the site traffic. All existing roadways within the Pine Ranch Subdivision are anticipated to continue to carry less than 1,000 ADT with the additional site traffic.

Intersection sight distance was reviewed at the Mountain Creek Street and Ballantyne Lane intersection. Field review photos are included in the appendix. There is adequate intersection sight distance to the south for the 35-mph posted speed limit north and south of Mountain Creek Street. The intersection sight distance to the south allows for the vision of turning movements at the State Street and Ballantyne Lane intersection., which is greater than 390 feet. The intersection sight distance to the north exceeds 390 feet, the minimum visibility for a 35-mph roadway. Proposed building setback and landscape design should not obstruct intersection sight distance. Existing trees within the intersection should be maintained

Two local roads within the Benari Estates Subdivision have straight segments exceeding 750 feet. Traffic calming measures will be installed along these local road segments. Intersection bulb-outs will be installed along the north east-west roadway. The eastern north-south roadway will be gated south of Deadwood Street.

Figure 4.5 – Site Access, Circulation, and ADT

APPENDIX A: SCOPE

Benari Sub and Capella Sub Proposed Developments

The following summarizes the results of a cumulative area of influence model run for two proposed developments located northeast of State Street and Ballantyne Lane. The proposed developments are shown in Figure 1. Benari Sub will consist of 140 single-family homes and Capella Sub will consist of 174 single-family homes with an anticipated build out by 2025.

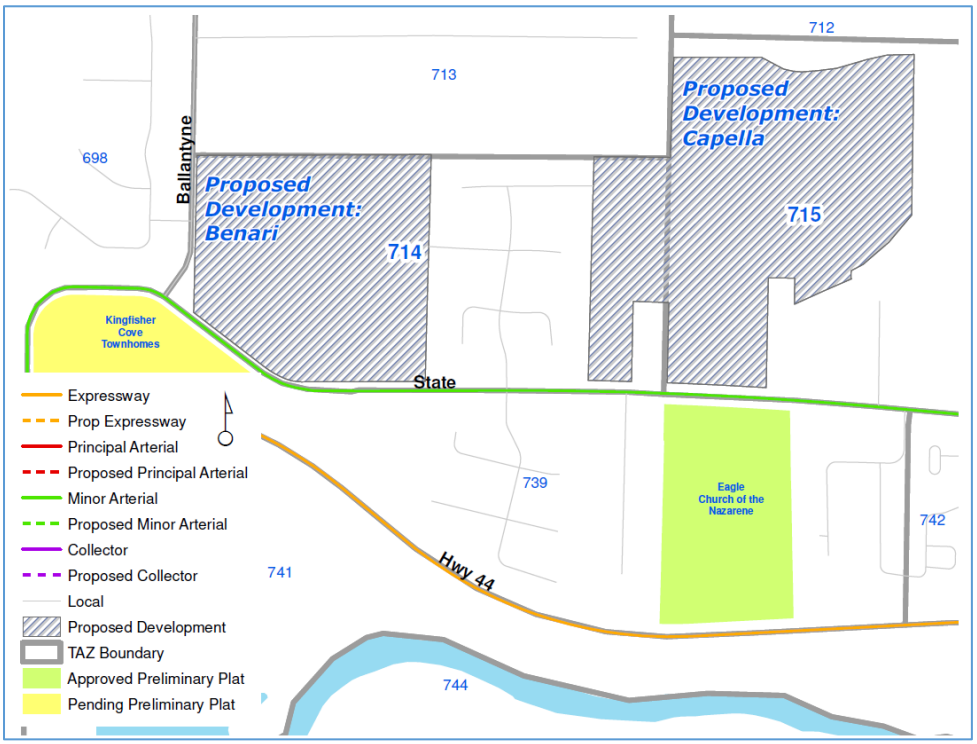


Figure 1

Table 1 provides the existing demographics for TAZs 714 and 715 and the proposed developments' demographics used for the area of influence model run. Temporary TAZs were used to isolate the proposed developments' impacts.

Table 1

	2020		2025 Proposed		2040	
	HH	Jobs	HH	Jobs	HH	Jobs
TAZs 714 & 715	*203*	215	*237*	279	461	418
Temp TAZ 1312 (Benari)	*n/a*	*n/a*	*140*	*0*	*n/a*	*n/a*
Temp TAZ 1313 (Capella)	*n/a*	*n/a*	*174*	*0*	*n/a*	*n/a*
Surrounding TAZs	*816*	*246*	*912*	*427*	*924*	*799*
Total	816	246	1463	706	924	799

Figure 10: 2030 to 2040 Compounded Annual Growth Rate

Figure 2: Area of Influence (Benari Sub), percent contribution to the total peak hour demand

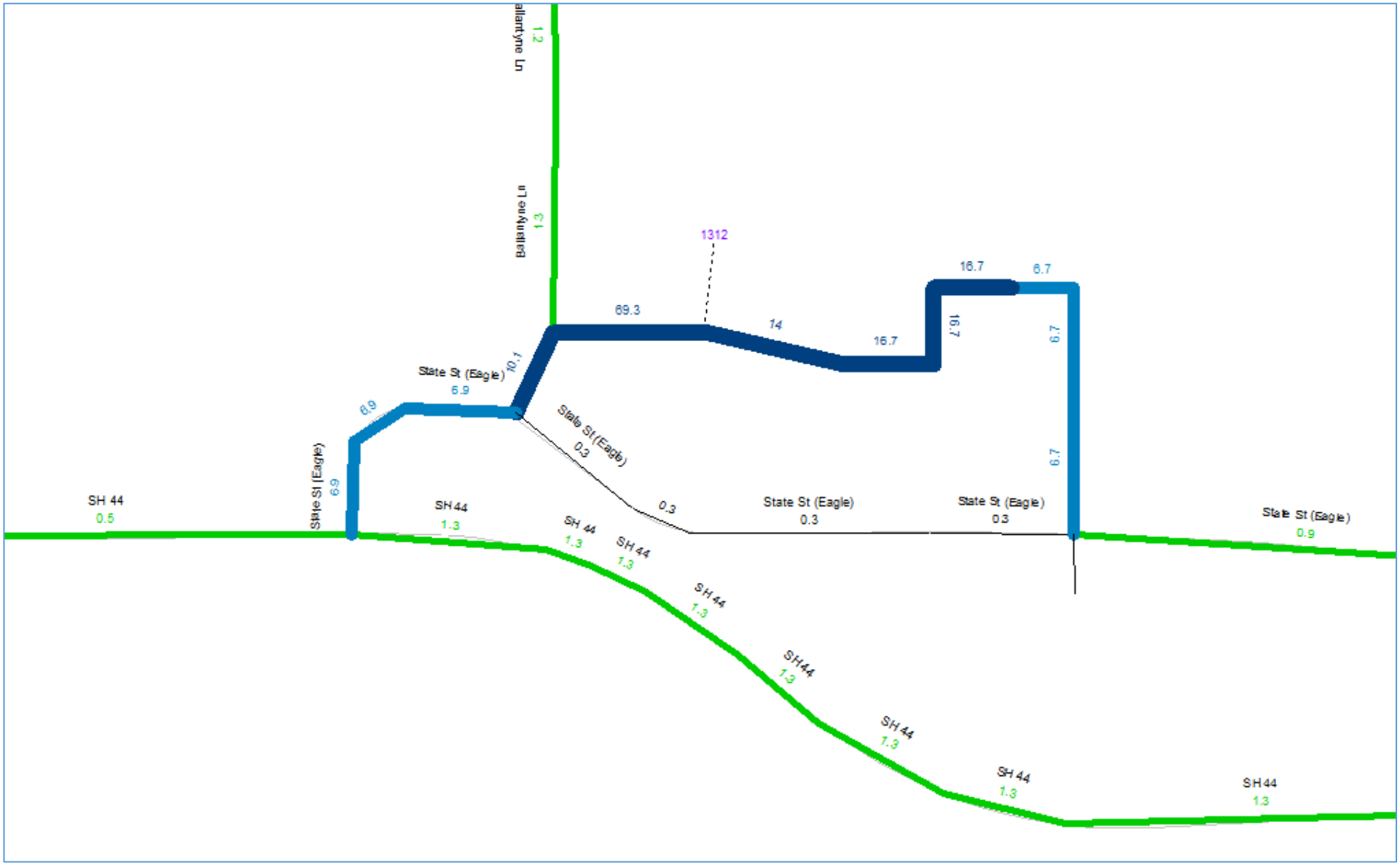


Figure 3: Area of Influence (Capella Sub), percent contribution to the total peak hour demand

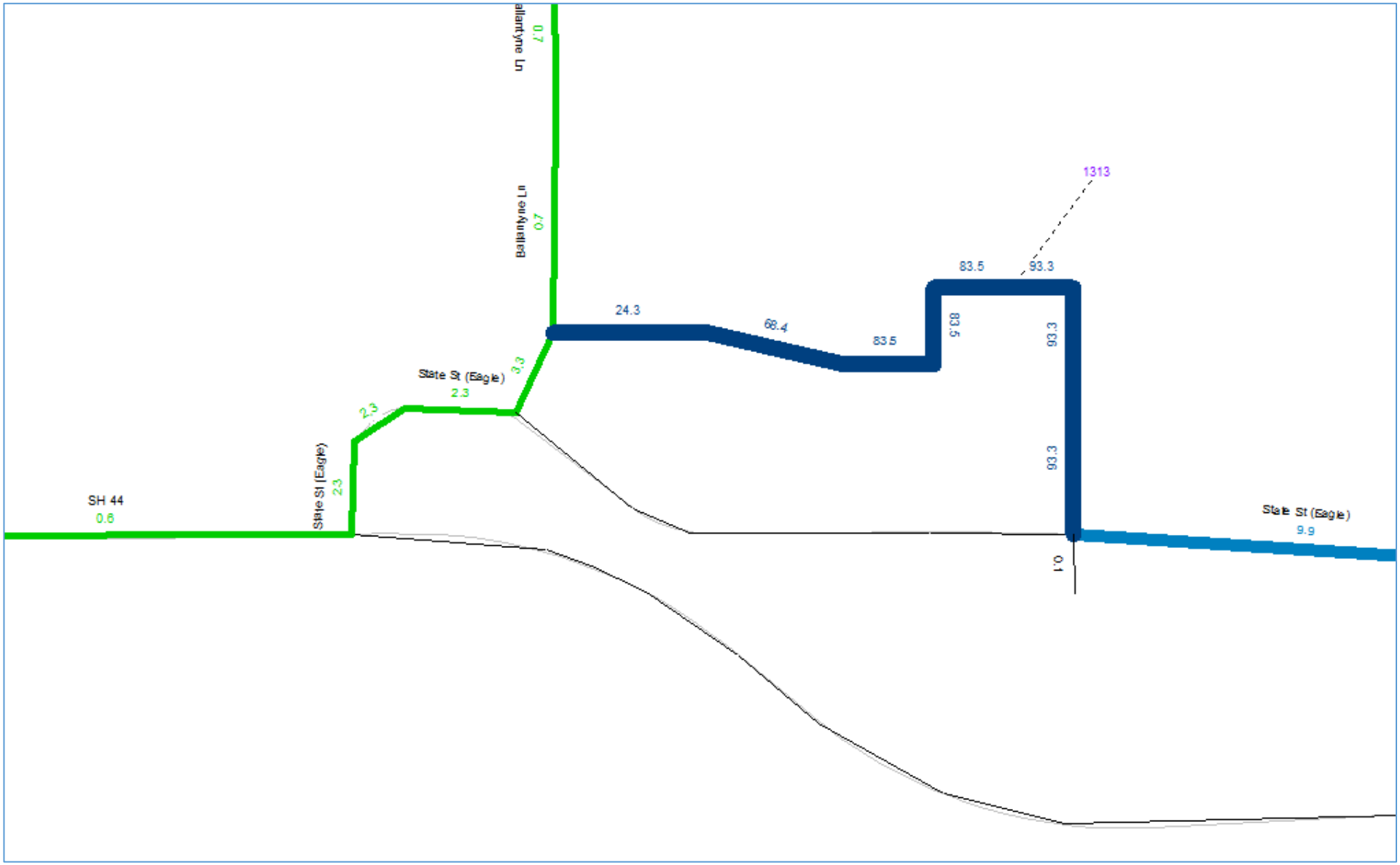


Figure 4: Area of Influence (Benari and Capella Subs combined), percent contribution to the total peak hour demand

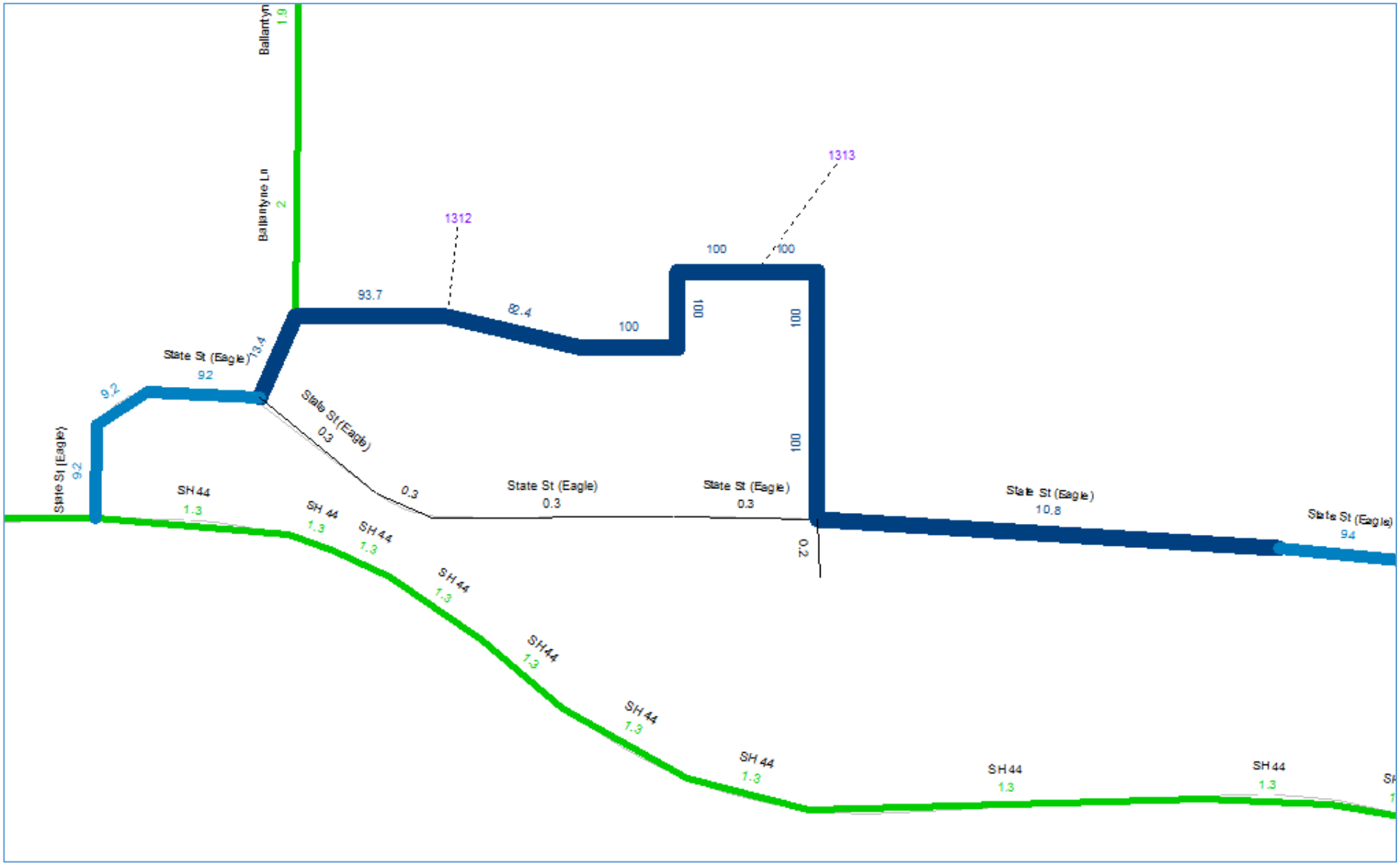


Figure 5: Peak Hour Demand with Proposed Developments

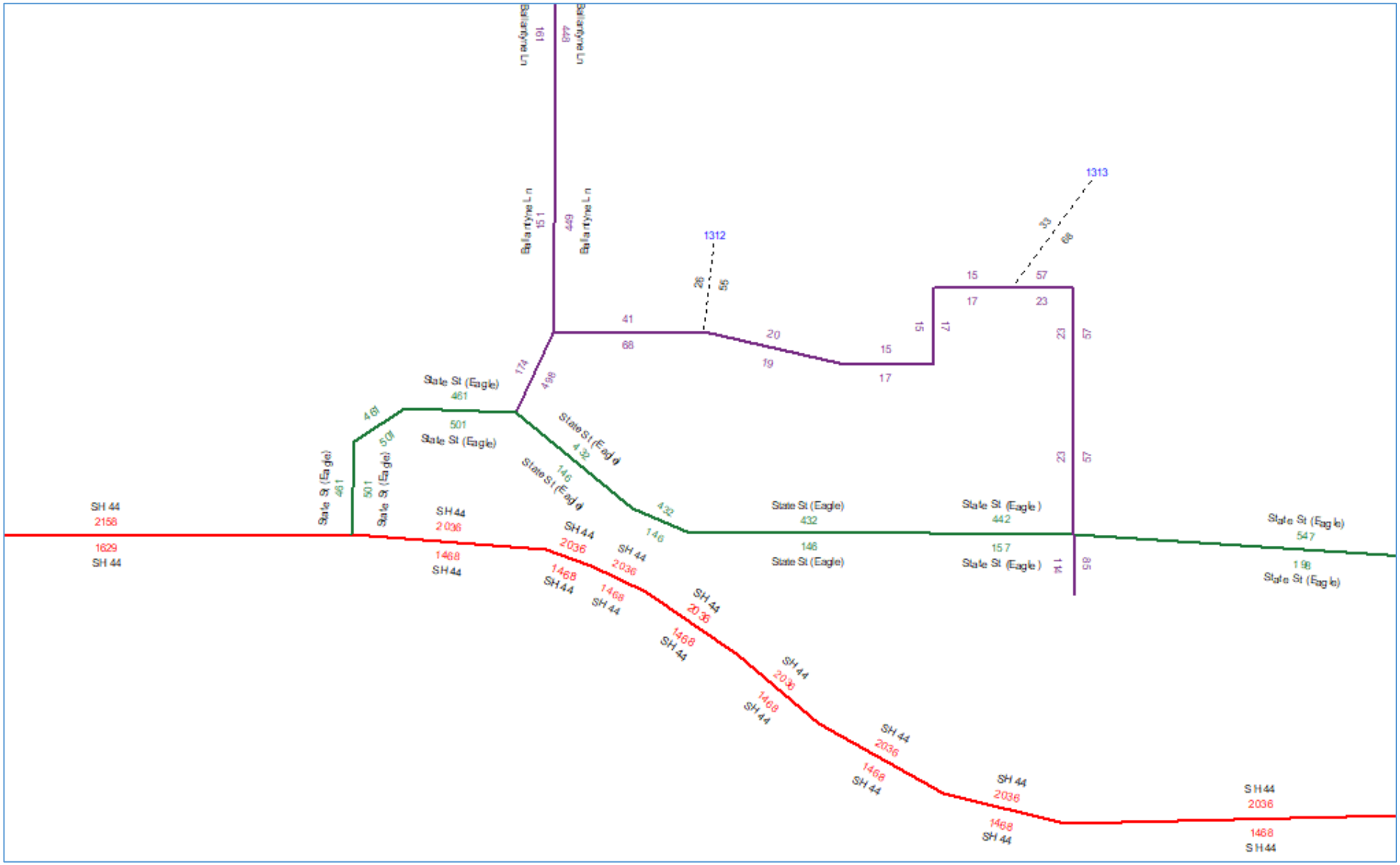


Figure 6: Peak Hour Demand without Proposed Developments

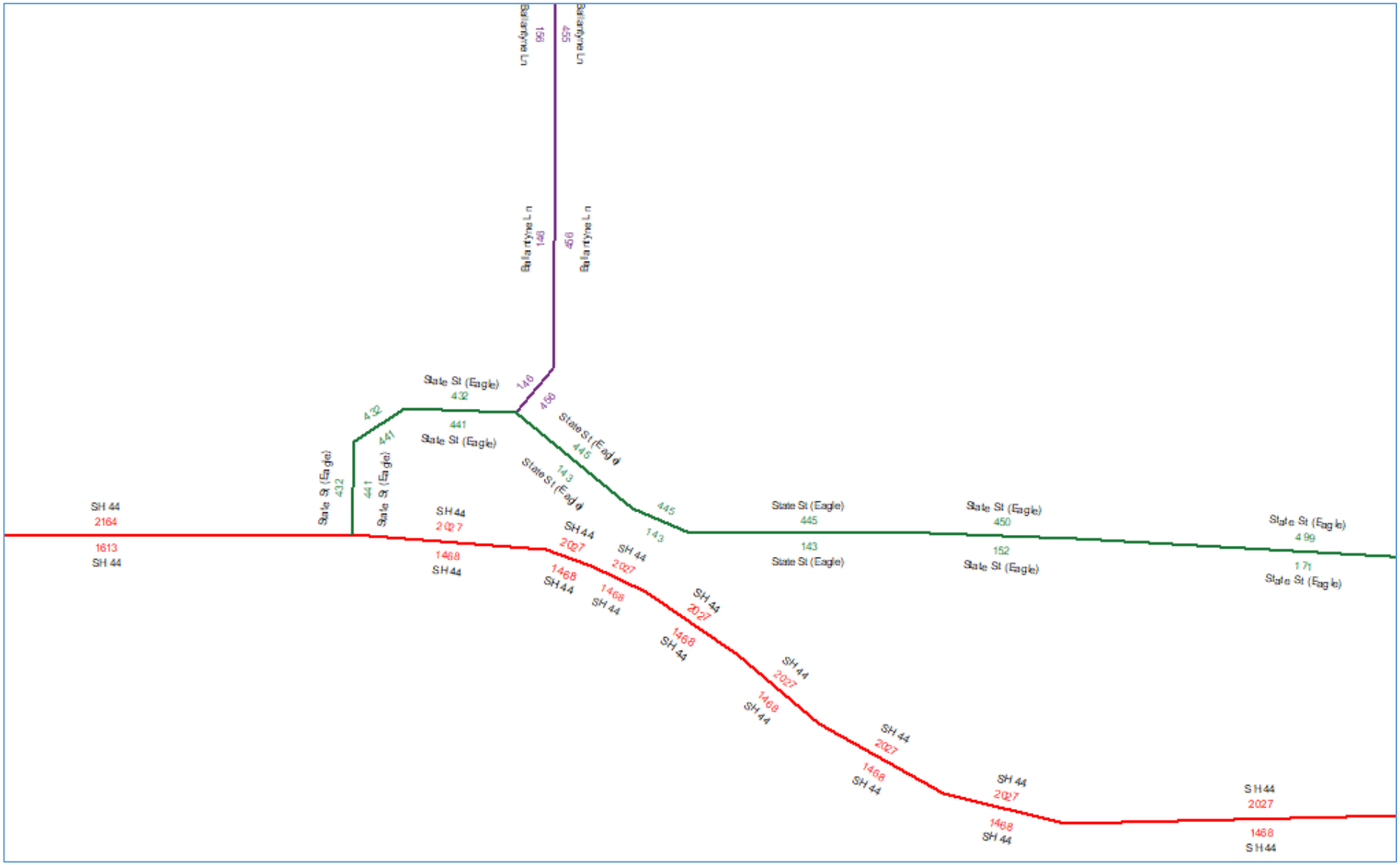
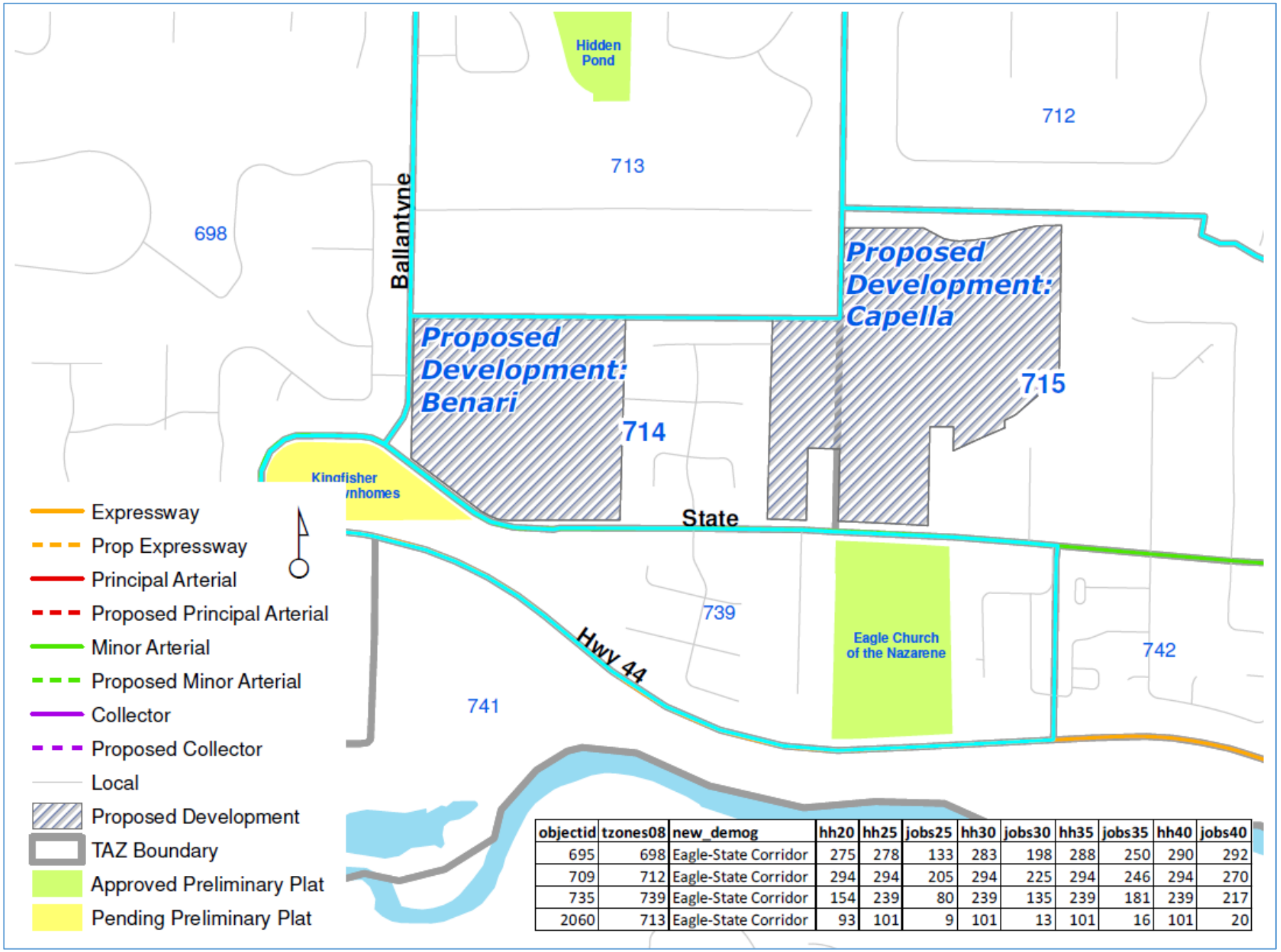


Figure 7: Surrounding Area TAZs



objectid	tzones08	new_demog	hh20	hh25	jobs25	hh30	jobs30	hh35	jobs35	hh40	jobs40
695	698	Eagle-State Corridor	275	278	133	283	198	288	250	290	292
709	712	Eagle-State Corridor	294	294	205	294	225	294	246	294	270
735	739	Eagle-State Corridor	154	239	80	239	135	239	181	239	217
2060	713	Eagle-State Corridor	93	101	9	101	13	101	16	101	20

Figure 8: 2020 to 2025 Compounded Annual Growth Rate

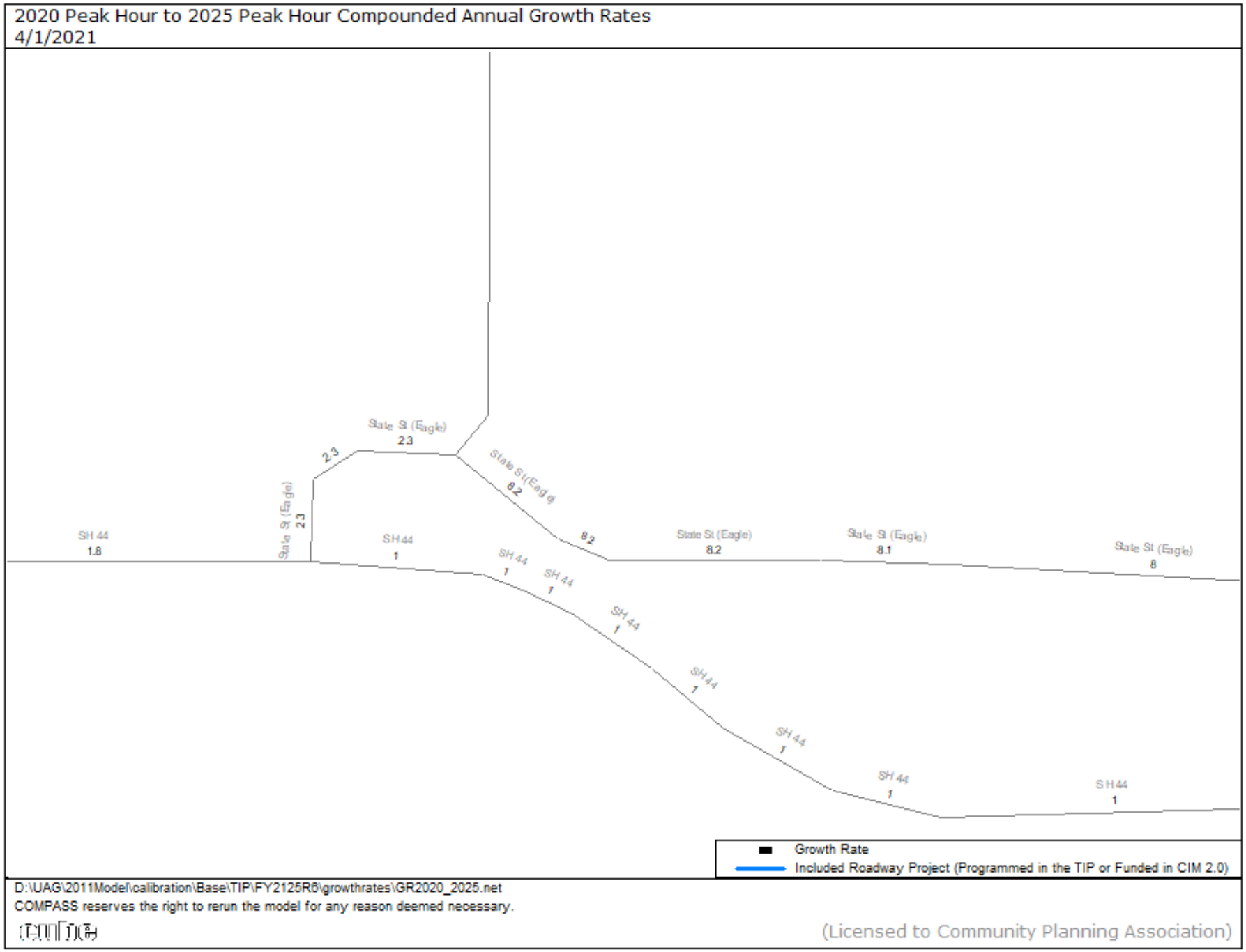


Figure 9: 2025 to 2030 Compounded Annual Growth Rate

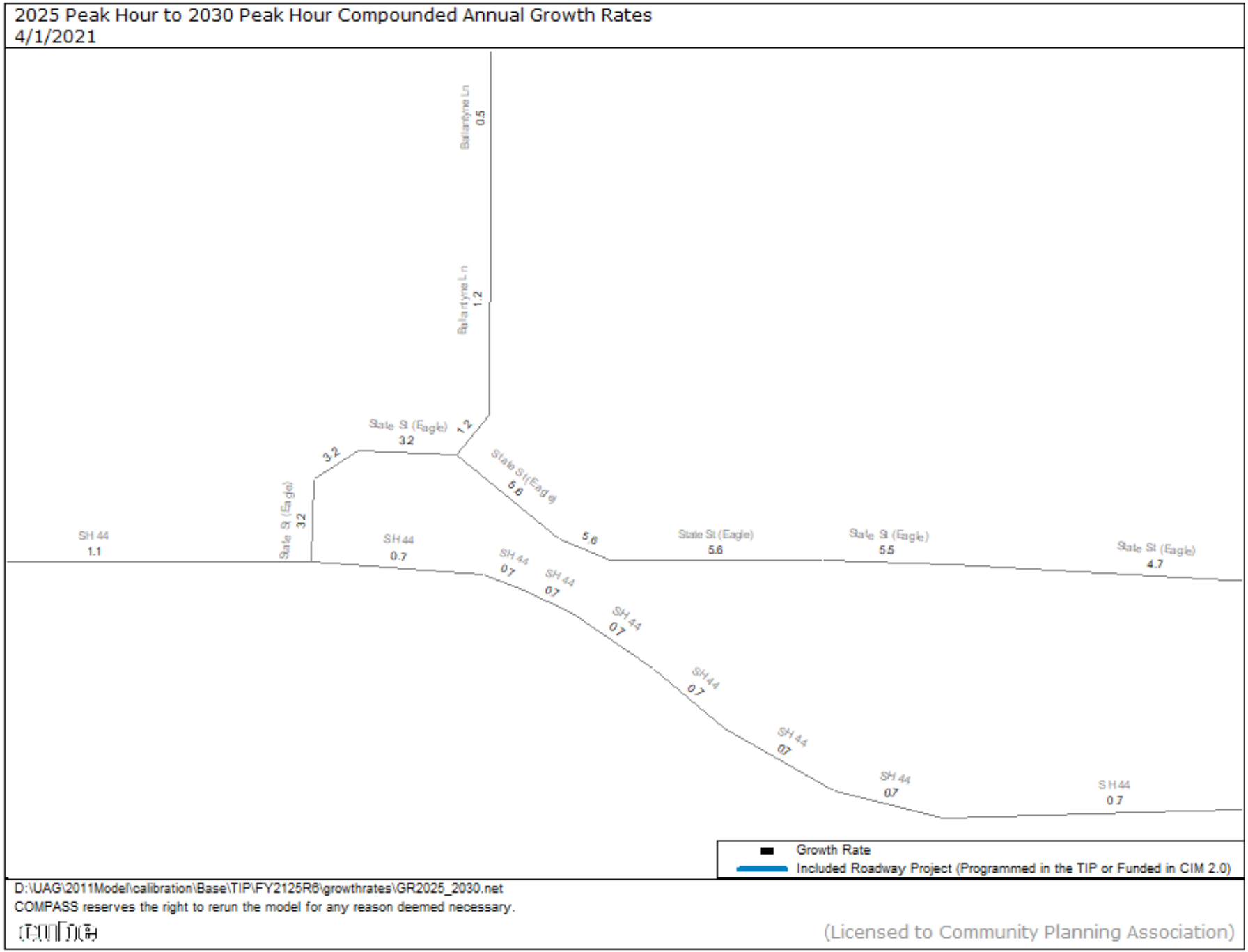
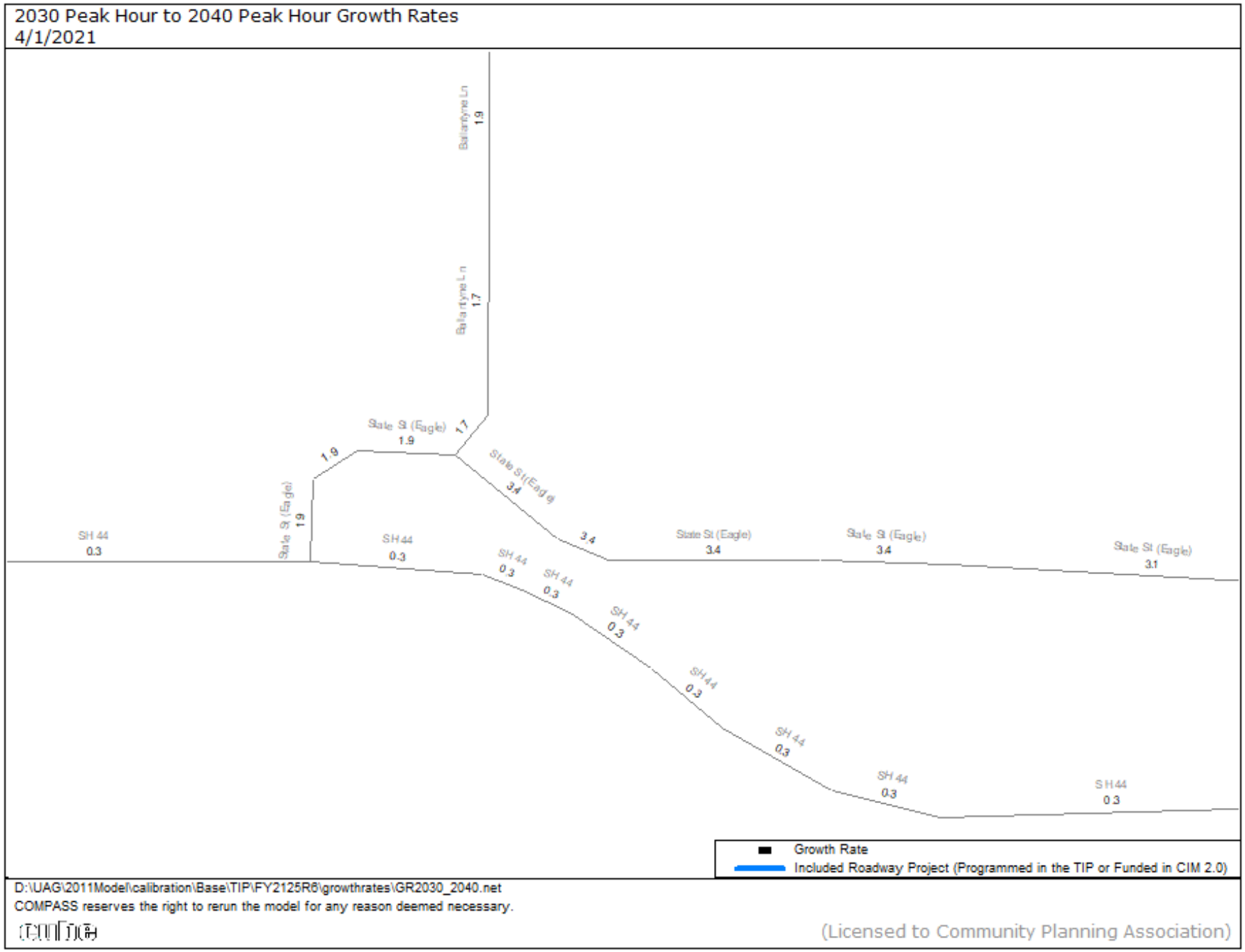


Figure 10: 2030 to 2040 Compounded Annual Growth Rate



Gmail Chhang Ream <chhream@gmail.com>

FW: [EXTERNAL] FW: Capella Subdivision and Benari Subdivision - Influence Area Models

1 message

Mitch Skiles <mskiles@compassidaho.org> Thu, Apr 8, 2021 at 3:16 PM
To: Chhang Ream <chhream@gmail.com>
Cc: Mary Ann Waldinger <MWaldinger@compassidaho.org>

Hi Chhang,

Please see ACHD's comments below.

Thanks,

Mitch Skiles, P.E. | Principal Planner - Modeler

Community Planning Association (COMPASS)

700 NE 2nd Street, Suite 200

Meridian, ID 83642

Direct: 208-475-2234 | Main: 208-855-2558

Typical Availability: Monday - Thursday

http://www.compassidaho.org

From: Paige Bankhead [mailto:pbankhead@achdidaho.org]
Sent: Thursday, April 8, 2021 3:11 PM
To: Erika Bowen, P.E. <erika.bowen@itd.idaho.gov>; Mitch Skiles <mskiles@compassidaho.org>; Aimee Loudenslager <aloudenslager@achdidaho.org>; Sarah Arjona <Sarah.Arjona@itd.idaho.gov>
Cc: Mary Ann Waldinger <MWaldinger@compassidaho.org>
Subject: RE: [EXTERNAL] FW: Capella Subdivision and Benari Subdivision - Influence Area Models

Hi Mitch,

ACHD would like the following included:

Capella

Intersections:

- State Street and Riverview Street
- All proposed accesses

Segments:

- State Street between Riverview Street and Eagle Road
- All internal collectors

Benari

Intersections:

- Ballantyne Road and State Street
- Ballantyne Road and Mountain Creek Street
- All proposed site accesses

Segments:

- Ballantyne Road between Mountain Creek Street and State Street
- All internal collectors

Thanks,

Paige Bankhead, E.I.

Planner III

Ada County Highway District

Development Services

1301 N. Orchard St. Ste. 200

Phone: (208) 387-6293

ACHD Development Services is open for business at our new location at 1301 N. Orchard Street, Suite 200 in the CSC building. Parking and building entrance are located on west side of building.

From: Erika Bowen <Erika.Bowen@itd.idaho.gov>
Sent: Monday, April 05, 2021 7:34 AM
To: Mitch Skiles <mskiles@compassidaho.org>; Aimee Loudenslager <Aloudenslager@achdidaho.org>; Paige Bankhead <pbankhead@achdidaho.org>; Sarah Arjona <Sarah.Arjona@itd.idaho.gov>
Cc: Mary Ann Waldinger <MWaldinger@compassidaho.org>
Subject: RE: [EXTERNAL] FW: Capella Subdivision and Benari Subdivision - Influence Area Models

Hi Mitch-

Thanks for sending these over.

ITD would like to see the following intersection analysis include in the TIS:

- SH-44 / Ballantye

ITD would also like to see site traffic volumes for the following intersection:

- SH-44 / SH-55

Thanks,

Erika R. Bowen, P.E.

ITD District 3 (Acting) Development Services Manager

From: Mitch Skiles <mskiles@compassidaho.org>
Sent: Thursday, April 1, 2021 12:55 PM
To: Aimee Loudenslager <aloudenslager@achdidaho.org>; Erika Bowen <Erika.Bowen@itd.idaho.gov>; pbankhead@achdidaho.org; Sarah Arjona <Sarah.Arjona@itd.idaho.gov>
Cc: Mary Ann Waldinger <MWaldinger@compassidaho.org>
Subject: [EXTERNAL] FW: Capella Subdivision and Benari Subdivision - Influence Area Models

Hello All,

We received the request below for an area of influence model run for two proposed developments northeast of State Street and Ballantyne Lane. The attached report shows the cumulative and individual impact for both developments.

Thanks,

Mitch Skiles, P.E. | Principal Planner - Modeler

Community Planning Association (COMPASS)

700 NE 2nd Street, Suite 200

Meridian, ID 83642

Direct: 208-475-2234 | Main: 208-855-2558

Typical Availability: Monday - Thursday

http://www.compassidaho.org

From: Chhang Ream [mailto:chhream@gmail.com]
Sent: Wednesday, March 31, 2021 3:19 PM
To: Mary Ann Waldinger <MWaldinger@compassidaho.org>
Subject: Capella Subdivision and Benari Subdivision - Influence Area Models

Hi M,

We would like to request your help with the traffic modelings for two developments next to each other located north of State Street between Ballantyne Road and Eagle Road. Attached are project locations and site plan for each development.

Capella Subdivision

- 174 single-family lots
- Proposing one access on State Street aligning with River Street to the south
- Connecting to Yellowstone Street at the western site boundary
- Expected build-out year is 2025

Benari Subdivision

- 140 single-family lots
- Proposing one access on Ballantyne Lane aligning with Mountain Creek Street to the west
- Connecting to Deadwood Street at the eastern site boundary
- Expected build-out year is 2025

Please let me know if you have any questions or need any additional information.

APPENDIX B: TRAFFIC COUNTS

Ballantyne Ln & Mountain Creek St
Eagle Idaho
14 April, 2021

Time	Southbound Ballantyne Ln						Westbound Mountain Creek St						Northbound Ballantyne Ln						Eastbound Mountain Creek St						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	
7:00 AM	0	0	47	0	0	*47*	0	0	0	0	0	*0*	0	3	12	0	0	*15*	0	1	0	1	1	*2*	**64**
7:15 AM	0	0	69	0	0	*69*	0	0	0	0	0	*0*	0	4	15	0	0	*19*	0	0	0	7	1	*7*	**95**
7:30 AM	0	0	77	2	0	*79*	0	0	0	0	0	*0*	0	3	28	0	0	*31*	0	0	0	9	1	*9*	**119**
7:45 AM	0	0	50	0	0	*50*	0	0	0	0	0	*0*	0	2	50	0	0	*52*	0	2	0	2	0	*4*	**106**
Hourly Total	0	0	243	2	0	*245*	0	0	0	0	0	*0*	0	12	105	0	0	*117*	0	3	0	19	3	*22*	**384**
8:00 AM	0	0	59	4	0	*63*	0	0	0	0	0	*0*	0	3	37	0	0	*40*	0	4	0	5	0	*9*	**112**
8:15 AM	0	0	65	3	0	*68*	0	0	0	0	0	*0*	0	1	29	0	0	*30*	0	1	0	4	1	*5*	**103**
8:30 AM	0	0	58	0	0	*58*	0	0	0	0	0	*0*	0	3	36	0	0	*39*	0	2	0	7	0	*9*	**106**
8:45 AM	0	0	49	3	0	*52*	0	0	0	0	0	*0*	0	4	30	0	0	*34*	0	5	0	10	0	*15*	**101**
Hourly Total	0	0	231	10	0	*241*	0	0	0	0	0	*0*	0	11	132	0	0	*143*	0	12	0	26	1	*38*	**422**

Ballantyne Ln & Mountain Creek St
Eagle Idaho
14 April, 2021

Time	Southbound Ballantyne Ln						Westbound Mountain Creek St						Northbound Ballantyne Ln						Eastbound Mountain Creek St						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	
4:00 PM	0	0	46	3	0	*49*	0	0	0	0	0	*0*	0	5	52	0	1	*57*	0	2	0	4	0	*6*	**112**
4:15 PM	0	0	33	1	0	*34*	0	0	0	0	0	*0*	0	10	64	0	0	*74*	0	1	0	3	1	*4*	**112**
4:30 PM	0	0	43	0	0	*43*	0	0	0	0	2	*0*	0	3	65	0	0	*68*	0	2	0	2	0	*4*	**115**
4:45 PM	0	0	30	1	0	*31*	0	0	0	0	0	*0*	0	8	69	0	0	*77*	0	3	0	3	0	*6*	**114**
Hourly Total	0	0	152	5	0	*157*	0	0	0	0	2	*0*	0	26	250	0	1	*276*	0	8	0	12	1	*20*	**453**
5:00 PM	0	0	32	5	0	*37*	0	0	0	0	0	*0*	0	6	53	0	0	*59*	0	5	0	7	2	*12*	**108**
5:15 PM	0	0	40	1	0	*41*	0	0	0	0	0	*0*	0	6	55	0	0	*61*	0	1	0	5	2	*6*	**108**
5:30 PM	0	0	32	1	0	*33*	0	0	0	0	0	*0*	0	4	52	0	0	*56*	0	1	0	5	3	*6*	**95**
5:45 PM	0	0	36	1	0	*37*	0	0	0	0	0	*0*	0	4	48	0	0	*52*	0	0	0	7	0	*7*	**96**
Hourly Total	0	0	140	8	0	*148*	0	0	0	0	0	*0*	0	20	208	0	0	*228*	0	7	0	24	7	*31*	**407**
DAILY TOTAL	**0**	**0**	**766**	**25**	**0**	***791***	**0**	**0**	**0**	**0**	**2**	***0***	**0**	**69**	**695**	**0**	**1**	***764***	**0**	**30**	**0**	**81**	**12**	***111***	**1666**
Cars	0	0	744	25	0	*769*	0	0	0	0	0	*0*	0	67	673	0	0	*740*	0	28	0	78	7	*106*	**1615**
Heavy Vehicles	0	0	22	0	0	*22*	0	0	0	0	2	*0*	0	2	22	0	1	*24*	0	2	0	3	5	*5*	**51**
Heavy Vehicle %	0.00%	0.00%	2.87%	0.00%	0.00%	*2.78%*	0.00%	0.00%	0.00%	0.00%	100.00%	*0.00%*	0.00%	2.90%	3.17%	0.00%	100.00%	*3.14%*	0.00%	6.67%	0.00%	3.70%	41.67%	*4.50%*	**3.06%**

Ballantyne Ln & Mountain Creek St
Eagle Idaho
Wednesday, April 14, 2021
AM Peak Hour

Time	Ballantyne Ln Southbound						Mountain Creek St Westbound						Ballantyne Ln Northbound						Mountain Creek St Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	
7:30 AM	0	0	77	2	0	*79*	0	0	0	0	0	*0*	0	3	28	0	0	*31*	0	0	0	9	1	*9*	**119**
7:45 AM	0	0	50	0	0	*50*	0	0	0	0	0	*0*	0	2	50	0	0	*52*	0	2	0	2	0	*4*	**106**
8:00 AM	0	0	59	4	0	*63*	0	0	0	0	0	*0*	0	3	37	0	0	*40*	0	4	0	5	0	*9*	**112**
8:15 AM	0	0	65	3	0	*68*	0	0	0	0	0	*0*	0	1	29	0	0	*30*	0	1	0	4	1	*5*	**103**
Peak Hour Total	0	0	251	9	0	*260*	0	0	0	0	0	*0*	0	9	144	0	0	*153*	0	7	0	20	2	*27*	**440**
PHF	0.000	0.000	0.815	0.563	0.000	*0.823*	0.000	0.000	0.000	0.000	0.000	*0.000*	0.000	0.750	0.720	0.000	0.000	*0.736*	0.000	0.438	0.000	0.556	0.500	*0.750*	**0.924**
Heavy Vehicle %	0.00%	0.00%	3.98%	0.00%	0.00%	**3.85%**	0.00%	0.00%	0.00%	0.00%	0.00%	**0.00%**	0.00%	11.11%	6.25%	0.00%	0.00%	**6.54%**	0.00%	0.00%	0.00%	0.00%	0.00%	**0.00%**	**4.5%**

Total Vehicles On Leg			411	
Vehicles Entering Intersection	260		Vehicles Exiting Intersection	151
Southbound				
Cars	9	241	0	0	0
Heavy	0	10	0	0	0
Total	**9**	**251**	**0**	**0**	**0**

Total Vehicles on Leg 45	Vehicles Entering Intersection 27	**Eastbound**	Cars	Heavy	**Total**
			2	0	**2**
			0	0	**0**
	Vehicles Exiting Intersection 18		7	0	**7**
			0	0	**0**
			20	0	**20**

AM Peak Hour Volumes

Cars	Heavy	**Total**	**Westbound**	Vehicles Entering Intersection 0	Total Vehicles on Leg 0
0	0	**0**			
0	0	**0**			
0	0	**0**		Vehicles Exiting Intersection 0	
0	0	**0**			
0	0	**0**			

Cars	0	0	8	135	0
Heavy	0	0	1	9	0
Total	**0**	**0**	**9**	**144**	**0**
Northbound					
Vehicles Entering Intersection	153		Vehicles Exiting Intersection	271	
Total Vehicles On Leg			424		

Ballantyne Ln & Mountain Creek St
Eagle Idaho
Wednesday, April 14, 2021
PM Peak Hour

Time	Ballantyne Ln Southbound						Mountain Creek St Westbound						Ballantyne Ln Northbound						Mountain Creek St Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	
4:00 PM	0	0	46	3	0	*49*	0	0	0	0	0	*0*	0	5	52	0	1	*57*	0	2	0	4	0	*6*	**112**
4:15 PM	0	0	33	1	0	*34*	0	0	0	0	0	*0*	0	10	64	0	0	*74*	0	1	0	3	1	*4*	**112**
4:30 PM	0	0	43	0	0	*43*	0	0	0	0	2	*0*	0	3	65	0	0	*68*	0	2	0	2	0	*4*	**115**
4:45 PM	0	0	30	1	0	*31*	0	0	0	0	0	*0*	0	8	69	0	0	*77*	0	3	0	3	0	*6*	**114**
Peak Hour Total	0	0	152	5	0	*157*	0	0	0	0	2	*0*	0	26	250	0	1	*276*	0	8	0	12	1	*20*	**453**
PHF	0.000	0.000	0.826	0.417	0.000	*0.801*	0.000	0.000	0.000	0.000	0.250	*0.000*	0.000	0.650	0.906	0.000	0.250	*0.896*	0.000	0.667	0.000	0.750	0.250	*0.833*	**0.985**
Heavy Vehicle %	0.00%	0.00%	3.29%	0.00%	0.00%	**3.18%**	0.00%	0.00%	0.00%	0.00%	100.00%	**0.00%**	0.00%	0.00%	1.20%	0.00%	100.00%	**1.09%**	0.00%	12.50%	0.00%	8.33%	100.00%	**10.00%**	**2.2%**

Total Vehicles On Leg			415		
Vehicles Entering Intersection	157		Vehicles Exiting Intersection	258	
Southbound					
Cars	5	147	0	0	0
Heavy	0	5	0	0	0
Total	**5**	**152**	**0**	**0**	**0**

Total Vehicles on Leg 51	Vehicles Entering Intersection 20	**Eastbound**	Cars	Heavy	**Total**
			0	1	**1**
			0	0	**0**
	Vehicles Exiting Intersection 31		7	1	**8**
			0	0	**0**
			11	1	**12**

PM Peak Hour Volumes

Cars	Heavy	**Total**	**Westbound**	Vehicles Entering Intersection 0	Total Vehicles on Leg 0
0	0	**0**			
0	0	**0**			
0	0	**0**		Vehicles Exiting Intersection 0	
0	0	**0**			
0	2	**2**			

Cars	0	0	26	247	0
Heavy	1	0	0	3	0
Total	**1**	**0**	**26**	**250**	**0**
Northbound					
Vehicles Entering Intersection	276		Vehicles Exiting Intersection	164	
Total Vehicles On Leg			440		

Ballantyne Ln & State St
Eagle Idaho
14 April, 2021

Time	Southbound Ballantyne Lane						Westbound State Street						Northbound Ballantyne Lane						Eastbound State Street						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	
12:00 AM	0	0	0	0	0	*0*	0	0	1	0	0	*1*	0	0	0	0	0	*0*	0	1	0	0	0	*1*	**2**
12:15 AM	0	0	0	1	0	*1*	0	0	2	0	0	*2*	0	0	0	0	0	*0*	0	1	2	0	0	*3*	**6**
12:30 AM	0	0	0	0	0	*0*	0	0	2	0	0	*2*	0	0	0	0	0	*0*	0	1	0	0	0	*1*	**3**
12:45 AM	0	0	0	0	0	*0*	0	0	0	0	0	*0*	0	0	0	0	0	*0*	0	0	0	0	0	*0*	**0**
Hourly Total	0	0	0	1	0	*1*	0	0	5	0	0	*5*	0	0	0	0	0	*0*	0	3	2	0	0	*5*	**11**
1:00 AM	0	0	0	0	0	*0*	0	0	1	0	0	*1*	0	0	0	0	0	*0*	0	0	0	0	0	*0*	**1**
1:15 AM	0	0	0	0	0	*0*	0	0	0	0	0	*0*	0	0	0	0	0	*0*	0	1	1	0	0	*2*	**2**
1:30 AM	0	0	0	0	0	*0*	0	0	0	0	0	*0*	0	0	0	0	0	*0*	0	0	0	0	0	*0*	**0**
1:45 AM	0	0	0	1	0	*1*	0	0	0	0	0	*0*	0	0	0	0	0	*0*	0	0	1	0	0	*1*	**2**
Hourly Total	0	0	0	1	0	*1*	0	0	1	0	0	*1*	0	0	0	0	0	*0*	0	1	2	0	0	*3*	**5**
2:00 AM	0	0	0	0	0	*0*	0	0	2	0	0	*2*	0	0	0	0	0	*0*	0	1	1	0	0	*2*	**4**
2:15 AM	0	0	0	0	0	*0*	0	0	1	0	0	*1*	0	0	0	0	0	*0*	0	0	0	0	0	*0*	**1**
2:30 AM	0	0	0	0	0	*0*	0	0	0	0	0	*0*	0	0	0	0	0	*0*	0	0	0	0	0	*0*	**0**
2:45 AM	0	0	0	0	0	*0*	0	0	0	0	0	*0*	0	0	0	0	0	*0*	0	1	0	0	0	*1*	**1**
Hourly Total	0	0	0	0	0	*0*	0	0	3	0	0	*3*	0	0	0	0	0	*0*	0	2	1	0	0	*3*	**6**
3:00 AM	0	0	0	0	0	*0*	0	0	1	0	0	*1*	0	0	0	0	0	*0*	0	1	0	0	0	*1*	**2**
3:15 AM	0	0	0	0	0	*0*	0	0	0	0	0	*0*	0	0	0	0	0	*0*	0	0	0	0	0	*0*	**0**
3:30 AM	0	0	0	2	0	*2*	0	0	1	0	0	*1*	0	0	0	0	0	*0*	0	0	0	0	0	*0*	**3**
3:45 AM	0	0	0	1	0	*1*	0	0	1	0	0	*1*	0	0	0	0	0	*0*	0	0	0	0	0	*0*	**2**
Hourly Total	0	0	0	3	0	*3*	0	0	3	0	0	*3*	0	0	0	0	0	*0*	0	1	0	0	0	*1*	**7**
4:00 AM	0	0	0	0	0	*0*	0	0	2	0	0	*2*	0	0	0	0	0	*0*	0	0	0	0	0	*0*	**2**
4:15 AM	0	0	0	0	0	*0*	0	0	0	0	0	*0*	0	0	0	0	0	*0*	0	0	1	0	0	*1*	**1**
4:30 AM	0	0	0	2	0	*2*	0	0	0	0	0	*0*	0	0	0	0	0	*0*	0	0	1	0	0	*1*	**3**
4:45 AM	0	2	0	2	0	*4*	0	0	1	0	0	*1*	0	0	0	0	0	*0*	0	0	1	0	0	*1*	**6**
Hourly Total	0	2	0	4	0	*6*	0	0	3	0	0	*3*	0	0	0	0	0	*0*	0	0	3	0	0	*3*	**12**
5:00 AM	0	3	0	1	0	*4*	0	0	2	0	0	*2*	0	0	0	0	0	*0*	0	1	4	0	0	*5*	**11**
5:15 AM	0	2	0	6	0	*8*	0	0	4	0	0	*4*	0	0	0	0	0	*0*	0	0	2	0	0	*2*	**14**
5:30 AM	0	0	0	10	0	*10*	0	0	3	0	0	*3*	0	0	0	0	0	*0*	0	2	1	0	0	*3*	**16**
5:45 AM	0	3	0	6	0	*9*	0	0	2	0	0	*2*	0	0	0	0	0	*0*	0	2	1	0	0	*3*	**14**
Hourly Total	0	8	0	23	0	*31*	0	0	11	0	0	*11*	0	0	0	0	0	*0*	0	5	8	0	0	*13*	**55**
6:00 AM	0	2	0	9	0	*11*	0	0	3	0	0	*3*	0	0	0	0	0	*0*	0	3	8	0	0	*11*	**25**
6:15 AM	0	0	0	12	0	*12*	0	0	12	2	0	*14*	0	0	0	0	0	*0*	0	1	3	0	0	*4*	**30**
6:30 AM	0	7	0	16	0	*23*	0	0	7	1	0	*8*	0	0	0	0	0	*0*	0	7	10	0	0	*17*	**48**
6:45 AM	0	2	0	27	1	*29*	0	0	5	4	0	*9*	0	0	0	0	0	*0*	0	6	15	0	0	*21*	**59**
Hourly Total	0	11	0	64	1	*75*	0	0	27	7	0	*34*	0	0	0	0	0	*0*	0	17	36	0	0	*53*	**162**
7:00 AM	0	5	0	44	0	*49*	0	0	22	4	0	*26*	0	0	0	0	0	*0*	0	11	12	0	0	*23*	**98**
7:15 AM	0	7	0	68	0	*75*	0	0	52	4	0	*56*	0	0	0	0	0	*0*	0	15	22	0	0	*37*	**168**
7:30 AM	0	18	0	69	1	*87*	0	0	30	4	0	*34*	0	0	0	0	0	*0*	0	27	26	0	0	*53*	**174**
7:45 AM	0	17	0	36	0	*53*	0	0	20	12	0	*32*	0	0	0	0	0	*0*	0	41	27	0	0	*68*	**153**
Hourly Total	0	47	0	217	1	*264*	0	0	124	24	0	*148*	0	0	0	0	0	*0*	0	94	87	0	0	*181*	**593**

Ballantyne Ln & State St
Eagle Idaho
14 April, 2021

Time	Southbound Ballantyne Lane						Westbound State Street						Northbound Ballantyne Lane						Eastbound State Street						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	
8:00 AM	0	19	0	44	0	*63*	0	0	22	13	0	*35*	0	0	0	0	0	*0*	0	31	32	0	0	*63*	**161**
8:15 AM	0	27	0	41	0	*68*	0	0	20	11	0	*31*	0	0	0	0	0	*0*	0	17	29	0	0	*46*	**145**
8:30 AM	0	22	0	44	0	*66*	0	0	26	13	0	*39*	0	0	0	0	0	*0*	0	25	25	0	0	*50*	**155**
8:45 AM	0	20	0	40	0	*60*	0	0	26	12	0	*38*	0	0	0	0	0	*0*	0	22	33	0	0	*55*	**153**
Hourly Total	0	88	0	169	0	*257*	0	0	94	49	0	*143*	0	0	0	0	0	*0*	0	95	119	0	0	*214*	**614**
9:00 AM	0	12	0	37	0	*49*	0	0	30	14	0	*44*	0	0	0	0	0	*0*	0	26	19	0	0	*45*	**138**
9:15 AM	0	17	0	31	0	*48*	0	0	24	11	0	*35*	0	0	0	0	0	*0*	0	21	18	0	0	*39*	**122**
9:30 AM	0	15	0	28	0	*43*	0	0	20	7	0	*27*	0	0	0	0	0	*0*	0	26	27	0	0	*53*	**123**
9:45 AM	0	13	0	30	2	*43*	0	0	26	11	0	*37*	0	0	0	0	0	*0*	0	17	24	0	0	*41*	**121**
Hourly Total	0	57	0	126	2	*183*	0	0	100	43	0	*143*	0	0	0	0	0	*0*	0	90	88	0	0	*178*	**504**
10:00 AM	0	12	0	23	0	*35*	0	0	26	15	0	*41*	0	0	0	0	0	*0*	0	20	18	0	0	*38*	**114**
10:15 AM	0	16	0	29	0	*45*	0	0	22	12	0	*34*	0	0	0	0	0	*0*	0	21	20	0	0	*41*	**120**
10:30 AM	0	19	0	20	2	*39*	0	0	26	11	0	*37*	0	0	0	0	0	*0*	0	14	16	0	0	*30*	**106**
10:45 AM	0	23	0	18	1	*41*	0	0	32	18	0	*50*	0	0	0	0	0	*0*	0	26	26	0	0	*52*	**143**
Hourly Total	0	70	0	90	3	*160*	0	0	106	56	0	*162*	0	0	0	0	0	*0*	0	81	80	0	0	*161*	**483**
11:00 AM	0	22	0	35	0	*57*	0	0	28	15	0	*43*	0	0	0	0	0	*0*	0	28	24	0	0	*52*	**152**
11:15 AM	0	16	0	43	0	*59*	0	0	30	22	0	*52*	0	0	0	0	0	*0*	0	19	24	0	0	*43*	**154**
11:30 AM	0	21	0	42	1	*63*	0	0	29	15	0	*44*	0	0	0	0	0	*0*	0	28	24	0	0	*52*	**159**
11:45 AM	0	30	0	27	1	*57*	0	0	28	14	0	*42*	0	0	0	0	0	*0*	0	26	29	0	0	*55*	**154**
Hourly Total	0	89	0	147	2	*236*	0	0	115	66	0	*181*	0	0	0	0	0	*0*	0	101	101	0	0	*202*	**619**
12:00 PM	0	17	0	18	1	*35*	0	0	33	15	0	*48*	0	0	0	0	0	*0*	0	29	33	0	0	*62*	**145**
12:15 PM	0	14	0	26	0	*40*	0	0	38	14	1	*52*	0	0	0	0	0	*0*	0	31	34	0	0	*65*	**157**
12:30 PM	0	24	0	36	1	*60*	0	0	39	27	0	*66*	0	0	0	0	0	*0*	0	17	21	0	0	*38*	**164**
12:45 PM	0	20	0	20	0	*40*	0	0	40	27	0	*67*	0	0	0	0	0	*0*	0	41	41	0	0	*82*	**189**
Hourly Total	0	75	0	100	2	*175*	0	0	150	83	1	*233*	0	0	0	0	0	*0*	0	118	129	0	0	*247*	**655**
1:00 PM	0	20	0	18	1	*38*	0	0	41	26	0	*67*	0	0	0	0	0	*0*	0	28	28	0	0	*56*	**161**
1:15 PM	0	23	0	30	0	*53*	0	0	35	20	0	*55*	0	0	0	0	0	*0*	0	21	24	0	0	*45*	**153**
1:30 PM	0	12	0	31	2	*43*	0	0	43	21	0	*64*	0	0	0	0	0	*0*	0	35	32	0	0	*67*	**174**
1:45 PM	0	20	0	21	0	*41*	2	0	29	19	0	*50*	0	0	0	0	0	*0*	0	18	32	0	0	*50*	**141**
Hourly Total	0	75	0	100	3	*175*	2	0	148	86	0	*236*	0	0	0	0	0	*0*	0	102	116	0	0	*218*	**629**
2:00 PM	0	17	0	20	0	*37*	0	0	46	24	0	*70*	0	0	0	0	0	*0*	0	18	20	0	0	*38*	**145**
2:15 PM	0	23	0	21	1	*44*	0	0	40	20	0	*60*	0	0	0	0	0	*0*	0	25	27	0	0	*52*	**156**
2:30 PM	0	21	0	29	0	*50*	0	0	38	19	0	*57*	0	0	0	0	0	*0*	0	32	26	0	0	*58*	**165**
2:45 PM	0	17	0	28	0	*45*	0	0	39	33	0	*72*	0	0	0	0	0	*0*	0	44	38	0	0	*82*	**199**
Hourly Total	0	78	0	98	1	*176*	0	0	163	96	0	*259*	0	0	0	0	0	*0*	0	119	111	0	0	*230*	**665**
3:00 PM	0	32	0	34	0	*66*	0	0	36	20	0	*56*	0	0	0	0	0	*0*	0	50	28	0	0	*78*	**200**
3:15 PM	0	38	0	45	0	*83*	0	0	51	27	0	*78*	0	0	0	0	0	*0*	0	28	40	0	0	*68*	**229**
3:30 PM	0	27	0	34	1	*61*	0	0	32	29	0	*61*	0	0	0	0	0	*0*	0	33	41	0	0	*74*	**196**
3:45 PM	0	22	0	34	0	*56*	0	0	39	24	0	*63*	0	0	0	0	0	*0*	0	47	17	0	0	*64*	**183**
Hourly Total	0	119	0	147	1	*266*	0	0	158	100	0	*258*	0	0	0	0	0	*0*	0	158	126	0	0	*284*	**808**

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Time	Southbound Ballantyne Lane						Westbound State Street						Northbound Ballantyne Lane						Eastbound State Street						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	
4:00 PM	0	19	0	31	0	*50*	0	0	52	26	0	*78*	0	0	0	0	0	*0*	0	30	31	0	0	*61*	**189**
4:15 PM	0	18	0	21	3	*39*	0	0	42	28	0	*70*	0	0	0	0	0	*0*	0	44	28	0	0	*72*	**181**
4:30 PM	0	18	0	26	0	*44*	0	0	56	31	0	*87*	0	0	0	0	0	*0*	0	37	26	0	0	*63*	**194**
4:45 PM	0	7	0	27	1	*34*	0	0	35	35	0	*70*	0	0	0	0	0	*0*	0	41	27	0	0	*68*	**172**
Hourly Total	0	62	0	105	4	*167*	0	0	185	120	0	*305*	0	0	0	0	0	*0*	0	152	112	0	0	*264*	**736**
5:00 PM	0	15	0	25	0	*40*	0	0	49	26	0	*75*	0	0	0	0	0	*0*	0	36	28	0	0	*64*	**179**
5:15 PM	0	20	0	27	0	*47*	0	0	33	28	0	*61*	0	0	0	0	0	*0*	0	35	19	0	0	*54*	**162**
5:30 PM	0	10	0	28	1	*38*	0	0	42	24	0	*66*	0	0	0	0	0	*0*	0	30	20	0	0	*50*	**154**
5:45 PM	0	15	0	27	2	*42*	0	0	31	17	0	*48*	0	0	0	0	0	*0*	0	35	21	0	0	*56*	**146**
Hourly Total	0	60	0	107	3	*167*	0	0	155	95	0	*250*	0	0	0	0	0	*0*	0	136	88	0	0	*224*	**641**
6:00 PM	0	10	0	18	1	*28*	0	0	34	17	0	*51*	0	0	0	0	0	*0*	0	36	25	0	0	*61*	**140**
6:15 PM	0	15	0	31	2	*46*	0	0	22	19	0	*41*	0	0	0	0	0	*0*	0	35	22	0	0	*57*	**144**
6:30 PM	0	15	0	23	0	*38*	0	0	20	26	0	*46*	0	0	0	0	0	*0*	0	31	31	0	0	*62*	**146**
6:45 PM	0	11	0	16	0	*27*	0	0	29	30	0	*59*	0	0	0	0	0	*0*	0	30	17	0	0	*47*	**133**
Hourly Total	0	51	0	88	3	*139*	0	0	105	92	0	*197*	0	0	0	0	0	*0*	0	132	95	0	0	*227*	**563**
7:00 PM	0	6	0	15	0	*21*	1	0	23	11	0	*35*	0	0	0	0	0	*0*	0	21	11	0	0	*32*	**88**
7:15 PM	0	6	0	15	0	*21*	0	0	18	10	0	*28*	0	0	0	0	0	*0*	0	27	6	0	0	*33*	**82**
7:30 PM	0	5	0	15	0	*20*	0	0	10	14	0	*24*	0	0	0	0	0	*0*	0	11	11	0	0	*22*	**66**
7:45 PM	0	6	0	7	0	*13*	0	0	16	7	0	*23*	0	0	0	0	0	*0*	0	26	16	0	0	*42*	**78**
Hourly Total	0	23	0	52	0	*75*	1	0	67	42	0	*110*	0	0	0	0	0	*0*	0	85	44	0	0	*129*	**314**
8:00 PM	0	14	0	8	0	*22*	0	0	11	8	0	*19*	0	0	0	0	0	*0*	0	24	12	0	0	*36*	**77**
8:15 PM	0	14	0	2	0	*16*	0	0	21	17	0	*38*	0	0	0	0	0	*0*	0	14	13	0	0	*27*	**81**
8:30 PM	0	3	0	16	0	*19*	0	0	22	9	0	*31*	0	0	0	0	0	*0*	0	22	9	0	0	*31*	**81**
8:45 PM	0	7	0	7	0	*14*	0	0	9	6	0	*15*	0	0	0	0	0	*0*	0	26	9	0	0	*35*	**64**
Hourly Total	0	38	0	33	0	*71*	0	0	63	40	0	*103*	0	0	0	0	0	*0*	0	86	43	0	0	*129*	**303**
9:00 PM	0	1	0	9	0	*10*	0	0	10	9	0	*19*	0	0	0	0	0	*0*	0	20	4	1	0	*25*	**54**
9:15 PM	0	5	0	3	0	*8*	0	0	8	3	0	*11*	0	0	0	0	0	*0*	0	12	12	0	0	*24*	**43**
9:30 PM	0	2	0	11	0	*13*	0	0	8	3	0	*11*	0	0	0	0	0	*0*	0	2	3	0	0	*5*	**29**
9:45 PM	0	2	0	6	0	*8*	0	0	5	2	0	*7*	0	1	0	0	0	*1*	0	6	4	0	0	*10*	**26**
Hourly Total	0	10	0	29	0	*39*	0	0	31	17	0	*48*	0	1	0	0	0	*1*	0	40	23	1	0	*64*	**152**
10:00 PM	0	0	0	1	0	*1*	0	0	5	3	0	*8*	0	0	0	0	0	*0*	0	8	4	0	0	*12*	**21**
10:15 PM	0	1	0	5	0	*6*	0	0	5	1	0	*6*	0	0	0	1	0	*1*	0	5	6	0	0	*11*	**24**
10:30 PM	0	0	0	0	0	*0*	0	0	2	2	0	*4*	0	0	0	0	0	*0*	0	7	6	0	0	*13*	**17**
10:45 PM	0	0	0	1	0	*1*	0	0	2	1	0	*3*	0	0	0	0	0	*0*	0	3	1	0	0	*4*	**8**
Hourly Total	0	1	0	7	0	*8*	0	0	14	7	0	*21*	0	0	0	1	0	*1*	0	23	17	0	0	*40*	**70**
11:00 PM	0	0	0	2	0	*2*	0	0	3	1	0	*4*	0	0	0	0	0	*0*	0	2	0	0	0	*2*	**8**
11:15 PM	0	0	0	1	0	*1*	0	0	1	0	0	*1*	0	0	0	0	0	*0*	0	4	0	0	0	*4*	**6**
11:30 PM	0	0	0	2	0	*2*	0	0	4	0	0	*4*	0	0	0	0	0	*0*	0	4	2	0	0	*6*	**12**
11:45 PM	0	0	0	0	0	*0*	0	0	4	1	0	*5*	0	0	0	0	0	*0*	0	0	1	0	0	*1*	**6**
Hourly Total	0	0	0	5	0	*5*	0	0	12	2	0	*14*	0	0	0	0	0	*0*	0	10	3	0	0	*13*	**32**
DAILY TOTAL	**0**	**964**	**0**	**1716**	**26**	***2680***	**3**	**0**	**1843**	**1025**	**1**	***2871***	**0**	**1**	**0**	**1**	**0**	***2***	**0**	**1651**	**1434**	**1**	**0**	***3086***	**8639**
Cars	0	951	0	1676	11	*2627*	3	0	1798	1013	0	*2814*	0	1	0	1	0	*2*	0	1597	1409	1	0	*3007*	**8450**
Heavy Vehicles	0	13	0	40	15	*53*	0	0	45	12	1	*57*	0	0	0	0	0	*0*	0	54	25	0	0	*79*	**189**
Heavy Vehicle %	0.00%	1.35%	0.00%	2.33%	57.69%	*1.98%*	0.00%	0.00%	2.44%	1.17%	100.00%	*1.99%*	0.00%	0.00%	0.00%	0.00%	0.00%	*0.00%*	0.00%	3.27%	1.74%	0.00%	0.00%	*2.56%*	**2.19%**

Ballantyne Ln & State St
Eagle Idaho
14 April, 2021

AM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	
7:15 AM	0	7	0	68	0	*75*	0	0	52	4	0	*56*	0	0	0	0	0	*0*	0	15	22	0	0	*37*	**168**
7:30 AM	0	18	0	69	1	*87*	0	0	30	4	0	*34*	0	0	0	0	0	*0*	0	27	26	0	0	*53*	**174**
7:45 AM	0	17	0	36	0	*53*	0	0	20	12	0	*32*	0	0	0	0	0	*0*	0	41	27	0	0	*68*	**153**
8:00 AM	0	19	0	44	0	*63*	0	0	22	13	0	*35*	0	0	0	0	0	*0*	0	31	32	0	0	*63*	**161**
Peak Hour Total	0	61	0	217	1	*278*	0	0	124	33	0	*157*	0	0	0	0	0	*0*	0	114	107	0	0	*221*	**656**
PHF	0.000	0.803	0.000	0.786	0.250	*0.799*	0.000	0.000	0.596	0.635	0.000	*0.701*	0.000	0.000	0.000	0.000	0.000	*0.000*	0.000	0.695	0.836	0.000	0.000	*0.813*	**0.943**
Heavy Vehicle %	0.00%	3.28%	0.00%	1.84%	0.00%	**2.2%**	0.00%	0.00%	0.81%	0.00%	0.00%	**0.6%**	0.00%	0.00%	0.00%	0.00%	0.00%	**0.0%**	0.00%	8.77%	3.74%	0.00%	0.00%	**6.3%**	**3.20%**

PM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	
4:00 PM	0	19	0	31	0	*50*	0	0	52	26	0	*78*	0	0	0	0	0	*0*	0	30	31	0	0	*61*	**189**
4:15 PM	0	18	0	21	3	*39*	0	0	42	28	0	*70*	0	0	0	0	0	*0*	0	44	28	0	0	*72*	**181**
4:30 PM	0	18	0	26	0	*44*	0	0	56	31	0	*87*	0	0	0	0	0	*0*	0	37	26	0	0	*63*	**194**
4:45 PM	0	7	0	27	1	*34*	0	0	35	35	0	*70*	0	0	0	0	0	*0*	0	41	27	0	0	*68*	**172**
Peak Hour Total	0	62	0	105	4	*167*	0	0	185	120	0	*305*	0	0	0	0	0	*0*	0	152	112	0	0	*264*	**736**
PHF	0.000	0.816	0.000	0.847	0.333	*0.835*	0.000	0.000	0.826	0.857	0.000	*0.876*	0.000	0.000	0.000	0.000	0.000	*0.000*	0.000	0.864	0.903	0.000	0.000	*0.917*	**0.948**
Heavy Vehicle %	0.00%	3.23%	0.00%	2.86%	100.00%	**3.0%**	0.00%	0.00%	1.62%	0.00%	0.00%	**1.0%**	0.00%	0.00%	0.00%	0.00%	0.00%	**0.0%**	0.00%	1.97%	0.89%	0.00%	0.00%	**1.5%**	**1.63%**

Total Vehicles On Leg			5356		
Vehicles Entering Intersection	2680		Vehicles Exiting Intersection	2676	
Southbound					
Cars	1676	0	951	0	11
Heavy	40	0	13	0	15
Total	**1716**	**0**	**964**	**0**	**26**

Total Vehicles on Leg 6646	Vehicles Entering Intersection 3086	**Eastbound**	Cars	Heavy	**Total**
			0	0	**0**
			0	0	**0**
	Vehicles Exiting Intersection 3560		1597	54	**1651**
			1409	25	**1434**
			1	0	**1**

Daily Volumes

Cars	Heavy	**Total**	**Westbound**	Vehicles Entering Intersection 2871	Total Vehicles on Leg 5273
1013	12	**1025**			
1798	45	**1843**			
0	0	**0**		Vehicles Exiting Intersection 2402	
3	0	**3**			
0	1	**1**			

Cars	0	0	1	0	1
Heavy	0	0	0	0	0
Total	**0**	**0**	**1**	**0**	**1**
Northbound					
Vehicles Entering Intersection	2		Vehicles Exiting Intersection	1	
Total Vehicles On Leg			3		

Ballantyne Ln & State St
Eagle Idaho
Wednesday, April 14, 2021
AM Peak Hour

Time	Ballantyne Lane Southbound						State Street Westbound						Ballantyne Lane Northbound						State Street Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	
7:15 AM	0	7	0	68	0	*75*	0	0	52	4	0	*56*	0	0	0	0	0	*0*	0	15	22	0	0	*37*	**168**
7:30 AM	0	18	0	69	1	*87*	0	0	30	4	0	*34*	0	0	0	0	0	*0*	0	27	26	0	0	*53*	**174**
7:45 AM	0	17	0	36	0	*53*	0	0	20	12	0	*32*	0	0	0	0	0	*0*	0	41	27	0	0	*68*	**153**
8:00 AM	0	19	0	44	0	*63*	0	0	22	13	0	*35*	0	0	0	0	0	*0*	0	31	32	0	0	*63*	**161**
Peak Hour Total	0	61	0	217	1	*278*	0	0	124	33	0	*157*	0	0	0	0	0	*0*	0	114	107	0	0	*221*	**656**
PHF	0.000	0.803	0.000	0.786	0.250	*0.799*	0.000	0.000	0.596	0.635	0.000	*0.701*	0.000	0.000	0.000	0.000	0.000	*0.000*	0.000	0.695	0.836	0.000	0.000	*0.813*	**0.943**
Heavy Vehicle %	0.00%	3.28%	0.00%	1.84%	0.00%	**2.16%**	0.00%	0.00%	0.81%	0.00%	0.00%	**0.64%**	0.00%	0.00%	0.00%	0.00%	0.00%	**0.00%**	0.00%	8.77%	3.74%	0.00%	0.00%	**6.33%**	**3.2%**

Total Vehicles On Leg			425		
Vehicles Entering Intersection	278		Vehicles Exiting Intersection	147	
Southbound					
Cars	213	0	59	0	1
Heavy	4	0	2	0	0
Total	**217**	**0**	**61**	**0**	**1**

Total Vehicles on Leg 562	Vehicles Entering Intersection 221	Vehicles Exiting Intersection 341	Eastbound	Cars	Heavy	Total
				0	0	**0**
				0	0	**0**
				104	10	**114**
				103	4	**107**
				0	0	**0**

AM Peak Hour Volumes

Cars	Heavy	Total	Westbound	Vehicles Entering Intersection 157	Total Vehicles on Leg 325
33	0	**33**			
123	1	**124**			
0	0	**0**		Vehicles Exiting Intersection 168	
0	0	**0**			
0	0	**0**			

Cars	0	0	0	0	0
Heavy	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**
Northbound					
Vehicles Entering Intersection	0		Vehicles Exiting Intersection	0	
Total Vehicles On Leg			0		

Ballantyne Ln & State St
Eagle Idaho
Wednesday, April 14, 2021
PM Peak Hour

Time	Ballantyne Lane Southbound						State Street Westbound						Ballantyne Lane Northbound						State Street Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	
4:00 PM	0	19	0	31	0	*50*	0	0	52	26	0	*78*	0	0	0	0	0	*0*	0	30	31	0	0	*61*	**189**
4:15 PM	0	18	0	21	3	*39*	0	0	42	28	0	*70*	0	0	0	0	0	*0*	0	44	28	0	0	*72*	**181**
4:30 PM	0	18	0	26	0	*44*	0	0	56	31	0	*87*	0	0	0	0	0	*0*	0	37	26	0	0	*63*	**194**
4:45 PM	0	7	0	27	1	*34*	0	0	35	35	0	*70*	0	0	0	0	0	*0*	0	41	27	0	0	*68*	**172**
Peak Hour Total	0	62	0	105	4	*167*	0	0	185	120	0	*305*	0	0	0	0	0	*0*	0	152	112	0	0	*264*	**736**
PHF	0.000	0.816	0.000	0.847	0.333	*0.835*	0.000	0.000	0.826	0.857	0.000	*0.876*	0.000	0.000	0.000	0.000	0.000	*0.000*	0.000	0.864	0.903	0.000	0.000	*0.917*	**0.948**
Heavy Vehicle %	0.00%	3.23%	0.00%	2.86%	100.00%	**2.99%**	0.00%	0.00%	1.62%	0.00%	0.00%	**0.98%**	0.00%	0.00%	0.00%	0.00%	0.00%	**0.00%**	0.00%	1.97%	0.89%	0.00%	0.00%	**1.52%**	**1.6%**

Total Vehicles On Leg			439		
Vehicles Entering Intersection	167		Vehicles Exiting Intersection	272	
Southbound					
Cars	102	0	60	0	0
Heavy	3	0	2	0	4
Total	**105**	**0**	**62**	**0**	**4**

Total Vehicles on Leg 554	Vehicles Entering Intersection 264	**Eastbound**	Cars	Heavy	**Total**
			0	0	**0**
			0	0	**0**
	Vehicles Exiting Intersection 290		149	3	**152**
			111	1	**112**
			0	0	**0**

PM Peak Hour Volumes

Cars	Heavy	**Total**	**Westbound**	Vehicles Entering Intersection 305	Total Vehicles on Leg 479
120	0	**120**			
182	3	**185**			
0	0	**0**		Vehicles Exiting Intersection 174	
0	0	**0**			
0	0	**0**			

Cars	0	0	0	0	0
Heavy	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**
Northbound					
Vehicles Entering Intersection	0		Vehicles Exiting Intersection	0	
Total Vehicles On Leg			0		

SH 44 & State St
Eagle Idaho
14 April, 2021

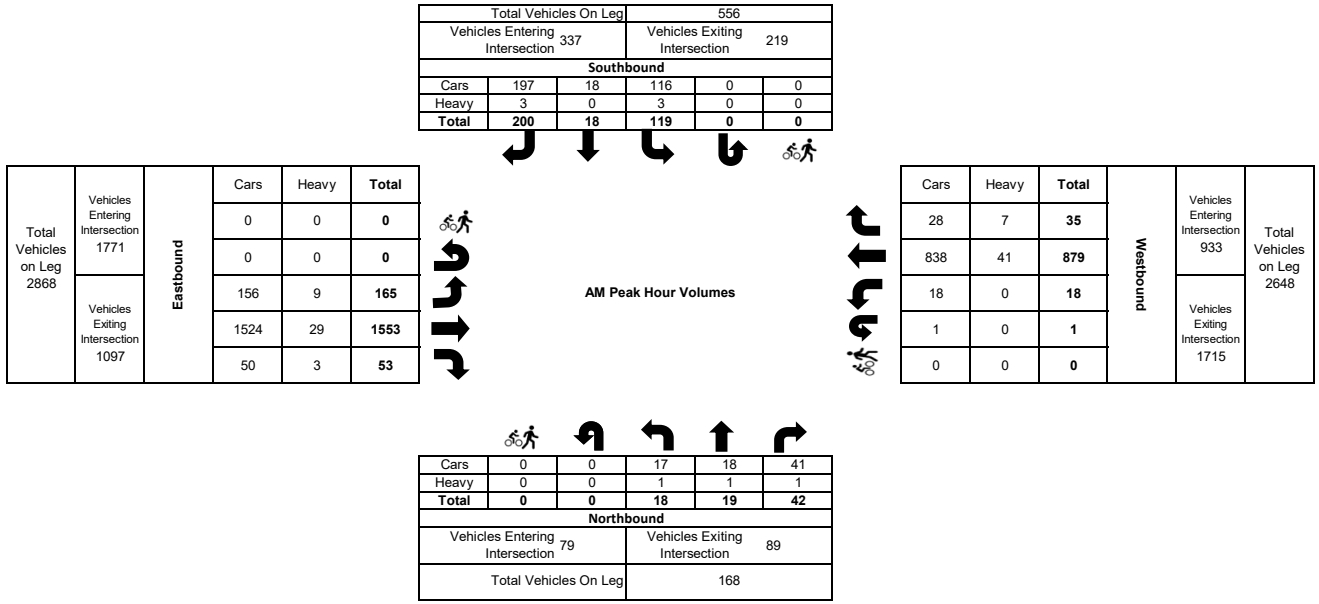
Time	Southbound State St						Westbound SH 44						Northbound State St						Eastbound SH 44						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	
7:00 AM	0	21	4	30	0	*55*	0	5	207	4	0	*216*	0	6	1	5	0	*12*	0	19	297	16	0	*332*	**615**
7:15 AM	0	26	4	82	0	*112*	0	5	291	2	0	*298*	0	6	4	13	0	*23*	0	29	359	15	0	*403*	**836**
7:30 AM	0	39	4	59	0	*102*	0	5	233	8	0	*246*	0	3	2	9	0	*14*	0	49	411	14	0	*474*	**836**
7:45 AM	0	20	8	28	0	*56*	1	5	194	16	0	*216*	0	6	4	10	0	*20*	0	44	434	11	0	*489*	**781**
Hourly Total	0	106	20	199	0	*325*	1	20	925	30	0	*976*	0	21	11	37	0	*69*	0	141	1501	56	0	*1698*	**3068**
8:00 AM	0	34	2	31	0	*67*	0	3	161	9	0	*173*	0	3	9	10	0	*22*	0	43	349	13	0	*405*	**667**
8:15 AM	0	22	5	36	0	*63*	1	10	206	8	0	*225*	0	1	1	10	0	*12*	0	34	316	5	0	*355*	**655**
8:30 AM	0	26	6	36	0	*68*	1	8	184	12	0	*205*	0	5	7	8	0	*20*	0	36	354	10	0	*400*	**693**
8:45 AM	0	22	6	39	0	*67*	1	8	208	6	0	*223*	0	5	4	8	0	*17*	0	40	331	9	0	*380*	**687**
Hourly Total	0	104	19	142	0	*265*	3	29	759	35	0	*826*	0	14	21	36	0	*71*	0	153	1350	37	0	*1540*	**2702**

SH 44 & State St
Eagle Idaho
14 April, 2021

Time	Southbound State St						Westbound SH 44						Northbound State St						Eastbound SH 44						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	
3:00 PM	0	16	9	42	0	*67*	0	6	281	12	0	*299*	0	12	6	13	0	*31*	0	53	296	16	0	*365*	**762**
3:15 PM	0	23	13	69	0	*105*	0	10	276	12	0	*298*	0	15	1	13	0	*29*	0	55	277	4	0	*336*	**768**
3:30 PM	0	20	8	37	0	*65*	0	9	355	20	0	*384*	0	9	7	9	0	*25*	0	45	247	9	0	*301*	**775**
3:45 PM	0	12	4	47	0	*63*	0	2	286	21	0	*309*	0	12	6	10	0	*28*	0	36	266	3	0	*305*	**705**
Hourly Total	0	71	34	195	0	*300*	0	27	1198	65	0	*1290*	0	48	20	45	0	*113*	0	189	1086	32	0	*1307*	**3010**
4:00 PM	0	18	3	63	0	*84*	0	4	368	13	0	*385*	0	6	2	0	0	*8*	0	50	217	2	0	*269*	**746**
4:15 PM	0	8	0	52	0	*60*	0	10	367	27	0	*404*	0	4	3	6	0	*13*	0	40	265	7	0	*312*	**789**
4:30 PM	0	19	2	64	0	*85*	0	5	378	18	0	*401*	0	3	2	14	0	*19*	0	44	231	5	0	*280*	**785**
4:45 PM	0	18	0	45	0	*63*	0	7	387	27	0	*421*	0	5	0	3	0	*8*	0	42	227	3	0	*272*	**764**
Hourly Total	0	63	5	224	0	*292*	0	26	1500	85	0	*1611*	0	18	7	23	0	*48*	0	176	940	17	0	*1133*	**3084**
5:00 PM	0	12	4	51	0	*67*	0	5	394	17	0	*416*	0	5	3	6	1	*14*	0	42	244	3	0	*289*	**786**
5:15 PM	0	15	3	44	0	*62*	0	1	436	17	0	*454*	0	6	1	5	0	*12*	0	41	249	2	1	*292*	**820**
5:30 PM	0	19	1	44	0	*64*	0	6	406	10	0	*422*	0	8	3	4	0	*15*	0	34	247	7	0	*288*	**789**
5:45 PM	0	23	3	33	0	*59*	0	9	350	18	0	*377*	0	6	3	5	0	*14*	0	35	223	2	0	*260*	**710**
Hourly Total	0	69	11	172	0	*252*	0	21	1586	62	0	*1669*	0	25	10	20	1	*55*	0	152	963	14	1	*1129*	**3105**
6:00 PM	0	13	0	35	0	*48*	0	0	337	21	0	*358*	0	2	5	5	0	*12*	0	33	202	0	0	*235*	**653**
6:15 PM	0	12	2	38	0	*52*	0	3	292	22	0	*317*	0	2	3	4	0	*9*	0	35	214	1	0	*250*	**628**
6:30 PM	0	8	2	33	0	*43*	1	3	294	17	0	*315*	0	5	3	2	1	*10*	0	38	152	3	0	*193*	**561**
6:45 PM	0	10	5	30	0	*45*	0	3	266	17	0	*286*	0	3	4	7	0	*14*	0	21	168	5	0	*194*	**539**
Hourly Total	0	43	9	136	0	*188*	1	9	1189	77	0	*1276*	0	12	15	18	1	*45*	0	127	736	9	0	*872*	**2381**
DAILY TOTAL	**0**	**456**	**98**	**1068**	**0**	***1622***	**5**	**132**	**7157**	**354**	**0**	***7648***	**0**	**138**	**84**	**179**	**2**	***401***	**0**	**938**	**6576**	**165**	**1**	***7679***	**17350**
Cars	0	445	97	1042	0	*1584*	5	132	6952	340	0	*7429*	0	129	81	174	0	*384*	0	916	6382	157	0	*7455*	**16852**
Heavy Vehicles	0	11	1	26	0	*38*	0	0	205	14	0	*219*	0	9	3	5	2	*17*	0	22	194	8	1	*224*	**498**
Heavy Vehicle %	0.00%	2.41%	1.02%	2.43%	0.00%	*2.34%*	0.00%	0.00%	2.86%	3.95%	0.00%	*2.86%*	0.00%	6.52%	3.57%	2.79%	100.00%	*4.24%*	0.00%	2.35%	2.95%	4.85%	100.00%	*2.92%*	**2.87%**

SH 44 & State St
Eagle Idaho
Wednesday, April 14, 2021
AM Peak Hour

Time	State St Southbound						SH 44 Westbound						State St Northbound						SH 44 Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	
7:15 AM	0	26	4	82	0	*112*	0	5	291	2	0	*298*	0	6	4	13	0	*23*	0	29	359	15	0	*403*	**836**
7:30 AM	0	39	4	59	0	*102*	0	5	233	8	0	*246*	0	3	2	9	0	*14*	0	49	411	14	0	*474*	**836**
7:45 AM	0	20	8	28	0	*56*	1	5	194	16	0	*216*	0	6	4	10	0	*20*	0	44	434	11	0	*489*	**781**
8:00 AM	0	34	2	31	0	*67*	0	3	161	9	0	*173*	0	3	9	10	0	*22*	0	43	349	13	0	*405*	**667**
Peak Hour Total	0	119	18	200	0	*337*	1	18	879	35	0	*933*	0	18	19	42	0	*79*	0	165	1553	53	0	*1771*	**3120**
PHF	0.000	0.763	0.563	0.610	0.000	*0.752*	0.250	0.900	0.755	0.547	0.000	*0.783*	0.000	0.750	0.528	0.808	0.000	*0.859*	0.000	0.842	0.895	0.883	0.000	*0.905*	**0.933**
Heavy Vehicle %	0.00%	2.52%	0.00%	1.50%	0.00%	**1.78%**	0.00%	0.00%	4.66%	20.00%	0.00%	**5.14%**	0.00%	5.56%	5.26%	2.38%	0.00%	**3.80%**	0.00%	5.45%	1.87%	5.66%	0.00%	**2.32%**	**3.1%**



SH 44 & State St
Eagle Idaho
Wednesday, April 14, 2021
PM Peak Hour

Time	State St Southbound						SH 44 Westbound						State St Northbound						SH 44 Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	
4:45 PM	0	18	0	45	0	*63*	0	7	387	27	0	*421*	0	5	0	3	0	*8*	0	42	227	3	0	*272*	**764**
5:00 PM	0	12	4	51	0	*67*	0	5	394	17	0	*416*	0	5	3	6	1	*14*	0	42	244	3	0	*289*	**786**
5:15 PM	0	15	3	44	0	*62*	0	1	436	17	0	*454*	0	6	1	5	0	*12*	0	41	249	2	1	*292*	**820**
5:30 PM	0	19	1	44	0	*64*	0	6	406	10	0	*422*	0	8	3	4	0	*15*	0	34	247	7	0	*288*	**789**
Peak Hour Total	0	64	8	184	0	*256*	0	19	1623	71	0	*1713*	0	24	7	18	1	*49*	0	159	967	15	1	*1141*	**3159**
PHF	0.000	0.842	0.500	0.902	0.000	*0.955*	0.000	0.679	0.931	0.657	0.000	*0.943*	0.000	0.750	0.583	0.750	0.250	*0.817*	0.000	0.946	0.971	0.536	0.250	*0.977*	**0.963**
Heavy Vehicle %	0.00%	6.25%	0.00%	0.54%	0.00%	**1.95%**	0.00%	0.00%	1.79%	1.41%	0.00%	**1.75%**	0.00%	8.33%	0.00%	5.56%	100.00%	**6.12%**	0.00%	0.00%	2.17%	6.67%	100.00%	**1.93%**	**1.9%**

Total Vehicles On Leg			493		
Vehicles Entering Intersection	256		Vehicles Exiting Intersection	237	
Southbound					
Cars	183	8	60	0	0
Heavy	1	0	4	0	0
Total	**184**	**8**	**64**	**0**	**0**

Total Vehicles on Leg 2972	Vehicles Entering Intersection 1141	**Eastbound**	Cars	Heavy	**Total**
			0	1	**1**
			0	0	**0**
	Vehicles Exiting Intersection 1831		159	0	**159**
			946	21	**967**
			14	1	**15**

PM Peak Hour Volumes

Cars	Heavy	**Total**	**Westbound**	Vehicles Entering Intersection 1713	Total Vehicles on Leg 2762
70	1	**71**			
1594	29	**1623**			
19	0	**19**		Vehicles Exiting Intersection 1049	
0	0	**0**			
0	0	**0**			

Cars	0	0	22	7	17
Heavy	1	0	2	0	1
Total	**1**	**0**	**24**	**7**	**18**
Northbound					
Vehicles Entering Intersection	49		Vehicles Exiting Intersection	42	
Total Vehicles On Leg			91		

SH 44 & State St
Eagle Idaho
Wednesday, April 14, 2021
PM Shoulder Hour

Time	State St Southbound						SH 44 Westbound						State St Northbound						SH 44 Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	*Vehicle Approach Total*	
3:00 PM	0	16	9	42	0	*67*	0	6	281	12	0	*299*	0	12	6	13	0	*31*	0	53	296	16	0	*365*	**762**
3:15 PM	0	23	13	69	0	*105*	0	10	276	12	0	*298*	0	15	1	13	0	*29*	0	55	277	4	0	*336*	**768**
3:30 PM	0	20	8	37	0	*65*	0	9	355	20	0	*384*	0	9	7	9	0	*25*	0	45	247	9	0	*301*	**775**
3:45 PM	0	12	4	47	0	*63*	0	2	286	21	0	*309*	0	12	6	10	0	*28*	0	36	266	3	0	*305*	**705**
Peak Hour Total	0	71	34	195	0	*300*	0	27	1198	65	0	*1290*	0	48	20	45	0	*113*	0	189	1086	32	0	*1307*	**3010**
PHF	0.000	0.772	0.654	0.707	0.000	*0.714*	0.000	0.675	0.844	0.774	0.000	*0.840*	0.000	0.800	0.714	0.865	0.000	*0.911*	0.000	0.859	0.917	0.500	0.000	*0.895*	**0.971**
Heavy Vehicle %	0.00%	1.41%	2.94%	3.08%	0.00%	**2.7%**	0.00%	0.00%	3.84%	1.54%	0.00%	**3.6%**	0.00%	10.42%	5.00%	4.44%	0.00%	**7.1%**	0.00%	2.12%	4.79%	6.25%	0.00%	**4.4%**	**4.02%**

Total Vehicles On Leg			574		
Vehicles Entering Intersection	300		Vehicles Exiting Intersection	274	
Southbound					
Cars	189	33	70	0	0
Heavy	6	1	1	0	0
Total	**195**	**34**	**71**	**0**	**0**

Total Vehicles on Leg 2748	Vehicles Entering Intersection 1307	**Eastbound**	Cars	Heavy	**Total**
			0	0	**0**
			0	0	**0**
	Vehicles Exiting Intersection 1441		185	4	**189**
			1034	52	**1086**
			30	2	**32**

PM Shoulder Hour Volumes

Cars	Heavy	**Total**	**Westbound**	Vehicles Entering Intersection 1290	Total Vehicles on Leg 2492
64	1	**65**			
1152	46	**1198**			
27	0	**27**		Vehicles Exiting Intersection 1202	
0	0	**0**			
0	0	**0**			

Cars	0	0	43	19	43
Heavy	0	0	5	1	2
Total	**0**	**0**	**48**	**20**	**45**
Northbound					
Vehicles Entering Intersection	113		Vehicles Exiting Intersection	93	
Total Vehicles On Leg			206		

Benari Estates Subdivision
Eagle, Idaho

GR ENGINEERING, INC.

Existing Traffic COVID-19 Adjustments

Roadway	Apr 2018 - July 2019 Counts AM Peak	PM Peak	ADT	April 14 2021 Counts AM Peak	PM Peak	ADT	% Difference AM Peak	PM Peak	ADT
SH 44 - West of State St	2,600	**3,060**	**32,608**	2,868	2,972		10.3%	**-2.9%**	
SH 44 - East of State/West of Eagle	2,210	2,570	**31,808**	2,762	2,762		25.0%	7.5%	
State St - W of Taylor/E of Riverview	350	**495**	5,508	359	482	5,509	2.6%	**-2.6%**	0.0%
Ballantyne Ln - North of State St	382	374	**5,488**	425	439	5,356	11.3%	17.4%	**-2.4%**

APPENDIX C: 2021 CAPACITY ANALYSIS REPORTS

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	20	9	144	251	9
Future Vol, veh/h	7	20	9	144	251	9
Conflicting Peds, #/hr	2	2	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
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, %	2	2	11	6	4	2
Mvmt Flow	8	22	10	157	273	10

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	459	282	285	0	-	0
Stage 1	280	-	-	-	-	-
Stage 2	179	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.21	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.299	-	-	-
Pot Cap-1 Maneuver	560	757	1227	-	-	-
Stage 1	767	-	-	-	-	-
Stage 2	852	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	553	754	1225	-	-	-
Mov Cap-2 Maneuver	553	-	-	-	-	-
Stage 1	759	-	-	-	-	-
Stage 2	850	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.5	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1225	-	689	-	-
HCM Lane V/C Ratio	0.008	-	0.043	-	-
HCM Control Delay (s)	8	0	10.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

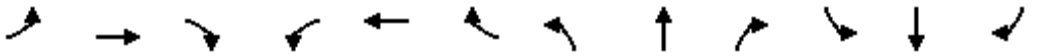
Intersection	
Int Delay, s/veh	6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	114	107	124	33	61	217
Future Vol, veh/h	114	107	124	33	61	217
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	110	-	-	-	150	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	9	4	2	2	3	2
Mvmt Flow	121	114	132	35	65	231

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	168	0	-	0	508	152
Stage 1	-	-	-	-	151	-
Stage 2	-	-	-	-	357	-
Critical Hdwy	4.19	-	-	-	6.43	6.22
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.281	-	-	-	3.527	3.318
Pot Cap-1 Maneuver	1368	-	-	-	540	894
Stage 1	-	-	-	-	874	-
Stage 2	-	-	-	-	721	-
Platoon blocked, %		-	-	-	1	
Mov Cap-1 Maneuver	1367	-	-	-	491	892
Mov Cap-2 Maneuver	-	-	-	-	567	-
Stage 1	-	-	-	-	795	-
Stage 2	-	-	-	-	720	-

Approach	EB	WB	SB
HCM Control Delay, s	4.1	0	10.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1367	-	-	-	567	892
HCM Lane V/C Ratio	0.089	-	-	-	0.114	0.259
HCM Control Delay (s)	7.9	-	-	-	12.2	10.4
HCM Lane LOS	A	-	-	-	B	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.4	1



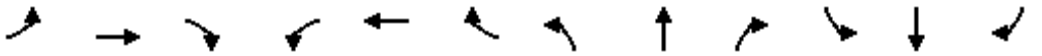
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	1553	53	19	879	35	18	19	42	119	18	200
Future Volume (veh/h)	165	1553	53	19	879	35	18	19	42	119	18	200
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1730	1772	1716	1772	1730	1519	1716	1730	1730	1758	1772	1772
Adj Flow Rate, veh/h	181	1707	58	24	1127	45	21	22	49	159	24	267
Peak Hour Factor	0.91	0.91	0.91	0.78	0.78	0.78	0.86	0.86	0.86	0.75	0.75	0.75
Percent Heavy Veh, %	5	2	6	2	5	20	6	5	5	3	2	2
Cap, veh/h	198	2151	929	156	1775	695	81	103	230	284	27	302
Arrive On Green	0.12	0.64	0.64	0.02	0.54	0.54	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1647	3367	1454	1688	3287	1287	1054	477	1062	1319	125	1395
Grp Volume(v), veh/h	181	1707	58	24	1127	45	21	0	71	159	0	291
Grp Sat Flow(s),veh/h/ln	1647	1683	1454	1688	1643	1287	1054	0	1539	1319	0	1521
Q Serve(g_s), s	16.3	55.7	2.3	0.9	36.0	2.5	3.0	0.0	5.7	16.9	0.0	27.8
Cycle Q Clear(g_c), s	16.3	55.7	2.3	0.9	36.0	2.5	30.8	0.0	5.7	22.6	0.0	27.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.69	1.00		0.92
Lane Grp Cap(c), veh/h	198	2151	929	156	1775	695	81	0	333	284	0	329
V/C Ratio(X)	0.92	0.79	0.06	0.15	0.64	0.06	0.26	0.00	0.21	0.56	0.00	0.88
Avail Cap(c_a), veh/h	198	2151	929	233	1775	695	81	0	333	284	0	329
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.61	0.61	0.61	0.85	0.85	0.85	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	65.2	19.8	10.2	20.8	24.2	16.4	71.8	0.0	48.2	57.5	0.0	56.9
Incr Delay (d2), s/veh	28.9	1.9	0.1	0.1	1.5	0.2	0.6	0.0	0.1	1.5	0.0	22.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	11.9	25.4	1.2	0.6	18.9	1.3	1.5	0.0	4.0	9.7	0.0	18.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	94.1	21.8	10.3	20.9	25.6	16.6	72.4	0.0	48.4	59.0	0.0	79.6
LnGrp LOS	F	C	B	C	C	B	E	A	D	E	A	E
Approach Vol, veh/h		1946			1196			92			450	
Approach Delay, s/veh		28.1			25.2			53.9			72.3	
Approach LOS		C			C			D			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	25.0	87.0		38.0	10.2	101.8		38.0				
Change Period (Y+Rc), s	7.0	6.0		5.5	7.0	6.0		5.5				
Max Green Setting (Gmax), s	18.0	81.0		32.5	10.0	89.0		32.5				
Max Q Clear Time (g_c+I1), s	18.3	38.0		29.8	2.9	57.7		32.8				
Green Ext Time (p_c), s	0.0	13.8		0.4	0.0	20.7		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		33.2	
HCM 6th LOS		C	

Notes

User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	165	1553	53	19	879	35	18	19	42	119	18	200
Future Volume (vph)	165	1553	53	19	879	35	18	19	42	119	18	200
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.90		1.00	0.86	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1629	3353	1443	1676	3257	1275	1613	1568		1660	1522	
Flt Permitted	0.95	1.00	1.00	0.10	1.00	1.00	0.15	1.00		0.66	1.00	
Satd. Flow (perm)	1629	3353	1443	183	3257	1275	255	1568		1146	1522	
Peak-hour factor, PHF	0.91	0.91	0.91	0.78	0.78	0.78	0.86	0.86	0.86	0.75	0.75	0.75
Adj. Flow (vph)	181	1707	58	24	1127	45	21	22	49	159	24	267
RTOR Reduction (vph)	0	0	17	0	0	17	0	40	0	0	161	0
Lane Group Flow (vph)	181	1707	41	24	1127	28	21	31	0	159	130	0
Heavy Vehicles (%)	5%	2%	6%	2%	5%	20%	6%	5%	2%	3%	2%	2%
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			8			4	
Permitted Phases			6	2		2	8			4		
Actuated Green, G (s)	18.7	104.2	104.2	91.9	88.7	88.7	24.1	24.1		24.1	24.1	
Effective Green, g (s)	22.7	107.2	107.2	99.9	91.7	91.7	26.6	26.6		26.6	26.6	
Actuated g/C Ratio	0.15	0.71	0.71	0.67	0.61	0.61	0.18	0.18		0.18	0.18	
Clearance Time (s)	7.0	6.0	6.0	7.0	6.0	6.0	5.5	5.5		5.5	5.5	
Vehicle Extension (s)	2.0	4.0	4.0	2.0	4.0	4.0	2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	246	2396	1031	193	1991	779	45	278		203	269	
v/s Ratio Prot	c0.11	c0.51		0.01	0.35			0.02			0.09	
v/s Ratio Perm			0.03	0.08		0.02	0.08			c0.14		
v/c Ratio	0.74	0.71	0.04	0.12	0.57	0.04	0.47	0.11		0.78	0.48	
Uniform Delay, d1	60.8	12.4	6.3	10.6	17.3	11.6	55.3	51.8		58.9	55.5	
Progression Factor	1.14	0.74	0.22	0.92	0.92	1.00	1.00	1.00		1.01	1.05	
Incremental Delay, d2	6.6	1.3	0.0	0.1	1.0	0.1	2.8	0.1		16.4	0.5	
Delay (s)	75.7	10.4	1.4	9.9	16.9	11.7	58.1	51.8		76.1	58.9	
Level of Service	E	B	A	A	B	B	E	D		E	E	
Approach Delay (s)		16.2			16.6			53.3			65.0	
Approach LOS		B			B			D			E	

Intersection Summary			
HCM 2000 Control Delay	23.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	75.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	12	26	250	152	5
Future Vol, veh/h	8	12	26	250	152	5
Conflicting Peds, #/hr	1	2	2	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	99	99	99	99	99	99
Heavy Vehicles, %	13	8	2	2	3	2
Mvmt Flow	8	12	26	253	154	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	465	161	161	0	-	0
Stage 1	159	-	-	-	-	-
Stage 2	306	-	-	-	-	-
Critical Hdwy	6.53	6.28	4.12	-	-	-
Critical Hdwy Stg 1	5.53	-	-	-	-	-
Critical Hdwy Stg 2	5.53	-	-	-	-	-
Follow-up Hdwy	3.617	3.372	2.218	-	-	-
Pot Cap-1 Maneuver	536	869	1418	-	-	-
Stage 1	844	-	-	-	-	-
Stage 2	723	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	523	866	1415	-	-	-
Mov Cap-2 Maneuver	523	-	-	-	-	-
Stage 1	825	-	-	-	-	-
Stage 2	722	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.4	0.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1415	-	686	-	-
HCM Lane V/C Ratio	0.019	-	0.029	-	-
HCM Control Delay (s)	7.6	0	10.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

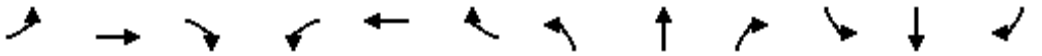
Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	152	112	185	120	62	105
Future Vol, veh/h	152	112	185	120	62	105
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	110	-	-	-	150	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	3	3
Mvmt Flow	160	118	195	126	65	111

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	321	0	-	0	696	258
Stage 1	-	-	-	-	258	-
Stage 2	-	-	-	-	438	-
Critical Hdwy	4.12	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.218	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1239	-	-	-	412	778
Stage 1	-	-	-	-	783	-
Stage 2	-	-	-	-	660	-
Platoon blocked, %		-	-	-	1	
Mov Cap-1 Maneuver	1239	-	-	-	359	778
Mov Cap-2 Maneuver	-	-	-	-	470	-
Stage 1	-	-	-	-	682	-
Stage 2	-	-	-	-	660	-

Approach	EB	WB	SB
HCM Control Delay, s	4.8	0	11.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1239	-	-	-	470	778
HCM Lane V/C Ratio	0.129	-	-	-	0.139	0.142
HCM Control Delay (s)	8.3	-	-	-	13.9	10.4
HCM Lane LOS	A	-	-	-	B	B
HCM 95th %tile Q(veh)	0.4	-	-	-	0.5	0.5



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	159	967	15	19	1623	71	24	7	18	64	8	184
Future Volume (veh/h)	159	967	15	19	1623	71	24	7	18	64	8	184
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1772	1702	1772	1772	1772	1688	1772	1772	1716	1772	1772
Adj Flow Rate, veh/h	162	987	15	20	1727	76	29	9	22	67	8	192
Peak Hour Factor	0.98	0.98	0.98	0.94	0.94	0.94	0.82	0.82	0.82	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	7	2	2	2	8	2	2	6	2	2
Cap, veh/h	182	2323	975	395	2022	902	92	77	187	250	10	240
Arrive On Green	0.11	0.69	0.69	0.02	0.60	0.60	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	1688	3367	1413	1688	3367	1502	1126	456	1115	1335	60	1432
Grp Volume(v), veh/h	162	987	15	20	1727	76	29	0	31	67	0	200
Grp Sat Flow(s),veh/h/ln	1688	1683	1413	1688	1683	1502	1126	0	1571	1335	0	1491
Q Serve(g_s), s	14.2	19.3	0.5	0.7	63.1	3.2	3.8	0.0	2.5	6.7	0.0	19.3
Cycle Q Clear(g_c), s	14.2	19.3	0.5	0.7	63.1	3.2	23.1	0.0	2.5	9.2	0.0	19.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.71	1.00		0.96
Lane Grp Cap(c), veh/h	182	2323	975	395	2022	902	92	0	264	250	0	250
V/C Ratio(X)	0.89	0.42	0.02	0.05	0.85	0.08	0.32	0.00	0.12	0.27	0.00	0.80
Avail Cap(c_a), veh/h	203	2323	975	476	2022	902	124	0	309	288	0	293
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.94	0.94	0.94	0.41	0.41	0.41	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	66.0	10.2	7.3	11.1	24.6	12.6	71.1	0.0	53.0	56.9	0.0	60.0
Incr Delay (d2), s/veh	29.3	0.5	0.0	0.0	2.1	0.1	0.7	0.0	0.1	0.2	0.0	10.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	11.8	10.4	0.3	0.4	28.1	1.9	2.0	0.0	1.8	4.1	0.0	12.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	95.3	10.7	7.3	11.1	26.6	12.7	71.8	0.0	53.1	57.1	0.0	70.6
LnGrp LOS	F	B	A	B	C	B	E	A	D	E	A	E
Approach Vol, veh/h		1164			1823			60			267	
Approach Delay, s/veh		22.5			25.9			62.1			67.2	
Approach LOS		C			C			E			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	23.2	96.1		30.7	9.8	109.5		30.7				
Change Period (Y+Rc), s	7.0	6.0		5.5	7.0	6.0		5.5				
Max Green Setting (Gmax), s	18.0	84.0		29.5	10.0	92.0		29.5				
Max Q Clear Time (g_c+I1), s	16.2	65.1		21.3	2.7	21.3		25.1				
Green Ext Time (p_c), s	0.0	14.4		0.6	0.0	11.8		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		28.7	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	159	967	15	19	1623	71	24	7	18	64	8	184
Future Volume (vph)	159	967	15	19	1623	71	24	7	18	64	8	184
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.89		1.00	0.86	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1676	3353	1401	1676	3353	1500	1583	1534		1613	1490	
Flt Permitted	0.95	1.00	1.00	0.29	1.00	1.00	0.25	1.00		0.74	1.00	
Satd. Flow (perm)	1676	3353	1401	512	3353	1500	414	1534		1251	1490	
Peak-hour factor, PHF	0.98	0.98	0.98	0.94	0.94	0.94	0.82	0.82	0.82	0.96	0.96	0.96
Adj. Flow (vph)	162	987	15	20	1727	76	29	9	22	67	8	192
RTOR Reduction (vph)	0	0	3	0	0	24	0	20	0	0	128	0
Lane Group Flow (vph)	162	987	12	20	1727	52	29	11	0	67	72	0
Confl. Bikes (#/hr)			1									1
Heavy Vehicles (%)	2%	2%	7%	2%	2%	2%	8%	2%	6%	6%	2%	2%
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			8			4	
Permitted Phases			6	2		2	8			4		
Actuated Green, G (s)	18.7	114.8	114.8	102.3	99.2	99.2	13.6	13.6		13.6	13.6	
Effective Green, g (s)	22.7	117.8	117.8	110.3	102.2	102.2	16.1	16.1		16.1	16.1	
Actuated g/C Ratio	0.15	0.79	0.79	0.74	0.68	0.68	0.11	0.11		0.11	0.11	
Clearance Time (s)	7.0	6.0	6.0	7.0	6.0	6.0	5.5	5.5		5.5	5.5	
Vehicle Extension (s)	2.0	4.0	4.0	2.0	4.0	4.0	2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	253	2633	1100	431	2284	1022	44	164		134	159	
v/s Ratio Prot	c0.10	0.29		0.00	c0.52			0.01			0.05	
v/s Ratio Perm			0.01	0.03		0.03	c0.07			0.05		
v/c Ratio	0.64	0.37	0.01	0.05	0.76	0.05	0.66	0.07		0.50	0.46	
Uniform Delay, d1	59.8	4.9	3.5	5.3	15.7	7.9	64.3	60.2		63.2	62.8	
Progression Factor	0.96	1.75	1.00	0.36	0.41	0.24	1.00	1.00		1.01	1.08	
Incremental Delay, d2	3.9	0.4	0.0	0.0	1.2	0.0	23.9	0.1		1.0	0.7	
Delay (s)	61.3	9.0	3.5	1.9	7.7	2.0	88.3	60.3		65.0	68.7	
Level of Service	E	A	A	A	A	A	F	E		E	E	
Approach Delay (s)		16.2			7.4			73.8			67.8	
Approach LOS		B			A			E			E	

Intersection Summary			
HCM 2000 Control Delay	16.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	87.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	1553	53	19	879	35	18	19	42	119	18	200
Future Volume (veh/h)	165	1553	53	19	879	35	18	19	42	119	18	200
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1730	1772	1716	1772	1730	1519	1716	1730	1730	1758	1772	1772
Adj Flow Rate, veh/h	181	1707	58	24	1127	45	21	22	49	159	24	267
Peak Hour Factor	0.91	0.91	0.91	0.78	0.78	0.78	0.86	0.86	0.86	0.75	0.75	0.75
Percent Heavy Veh, %	5	2	6	2	5	20	6	5	5	3	2	2
Cap, veh/h	201	2151	929	156	1767	692	81	103	230	284	27	302
Arrive On Green	0.12	0.64	0.64	0.02	0.54	0.54	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1647	3367	1454	1688	3287	1287	1054	477	1062	1319	125	1395
Grp Volume(v), veh/h	181	1707	58	24	1127	45	21	0	71	159	0	291
Grp Sat Flow(s),veh/h/ln	1647	1683	1454	1688	1643	1287	1054	0	1539	1319	0	1521
Q Serve(g_s), s	16.3	55.7	2.3	1.0	36.2	2.5	3.0	0.0	5.7	16.9	0.0	27.8
Cycle Q Clear(g_c), s	16.3	55.7	2.3	1.0	36.2	2.5	30.8	0.0	5.7	22.6	0.0	27.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.69	1.00		0.92
Lane Grp Cap(c), veh/h	201	2151	929	156	1767	692	81	0	333	284	0	329
V/C Ratio(X)	0.90	0.79	0.06	0.15	0.64	0.06	0.26	0.00	0.21	0.56	0.00	0.88
Avail Cap(c_a), veh/h	253	2151	929	233	1767	692	81	0	333	284	0	329
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.61	0.61	0.61	0.85	0.85	0.85	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	64.9	19.8	10.2	20.8	24.4	16.6	71.8	0.0	48.2	57.5	0.0	56.9
Incr Delay (d2), s/veh	16.9	1.9	0.1	0.1	1.5	0.2	0.6	0.0	0.1	1.5	0.0	22.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	11.1	25.4	1.2	0.6	19.0	1.3	1.5	0.0	4.0	9.7	0.0	18.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.8	21.8	10.3	21.0	25.9	16.8	72.4	0.0	48.4	59.0	0.0	79.6
LnGrp LOS	F	C	B	C	C	B	E	A	D	E	A	E
Approach Vol, veh/h		1946			1196			92			450	
Approach Delay, s/veh		27.0			25.5			53.9			72.3	
Approach LOS		C			C			D			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	25.3	86.7		38.0	10.2	101.8		38.0				
Change Period (Y+Rc), s	7.0	6.0		5.5	7.0	6.0		5.5				
Max Green Setting (Gmax), s	23.0	76.0		32.5	10.0	89.0		32.5				
Max Q Clear Time (g_c+I1), s	18.3	38.2		29.8	3.0	57.7		32.8				
Green Ext Time (p_c), s	0.1	13.2		0.4	0.0	20.7		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		32.7	
HCM 6th LOS		C	

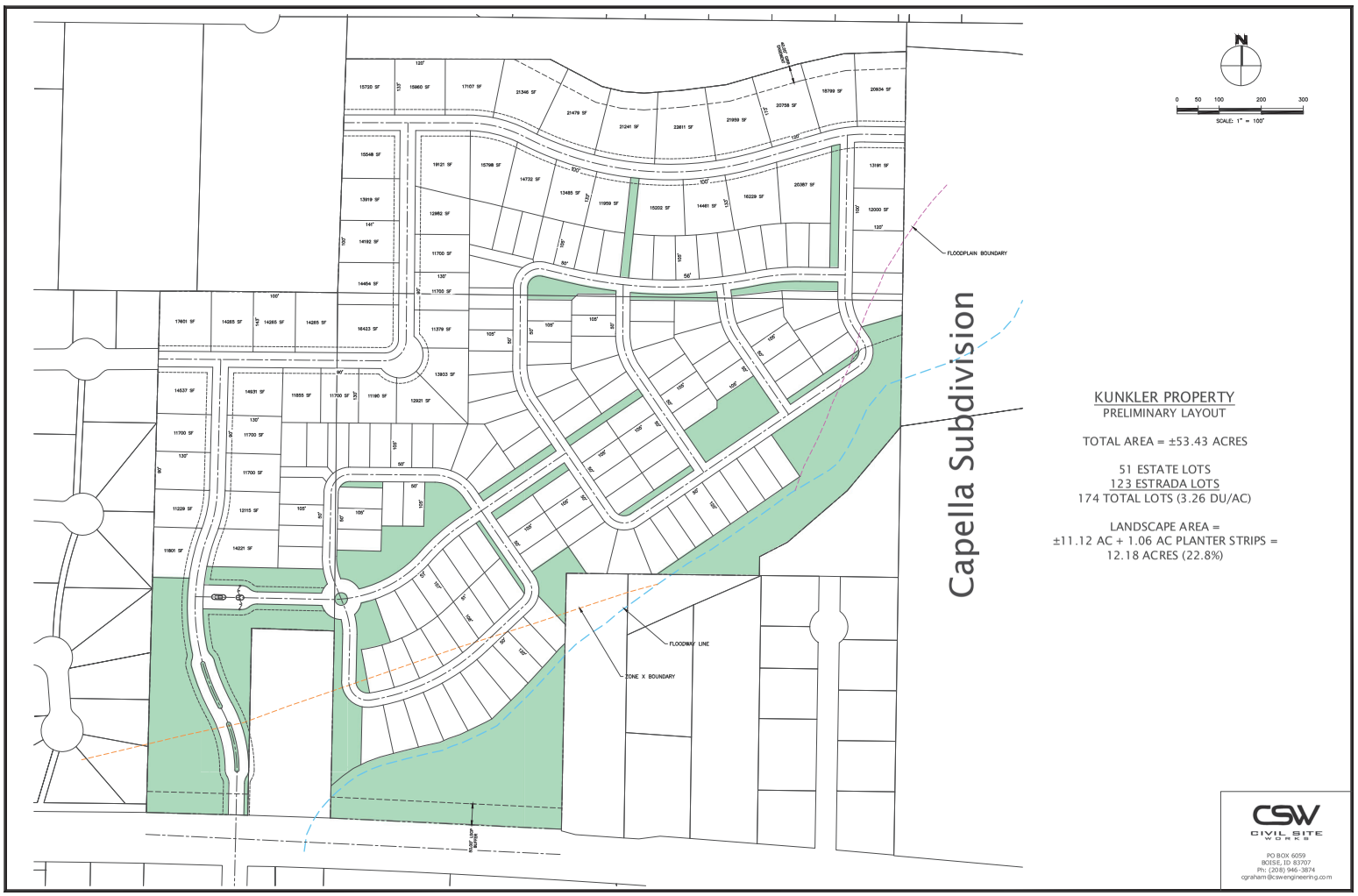
Notes

User approved ignoring U-Turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	165	1553	53	19	879	35	18	19	42	119	18	200
Future Volume (vph)	165	1553	53	19	879	35	18	19	42	119	18	200
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.90		1.00	0.86	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1629	3353	1443	1676	3257	1275	1613	1568		1660	1522	
Flt Permitted	0.95	1.00	1.00	0.11	1.00	1.00	0.15	1.00		0.66	1.00	
Satd. Flow (perm)	1629	3353	1443	185	3257	1275	255	1568		1146	1522	
Peak-hour factor, PHF	0.91	0.91	0.91	0.78	0.78	0.78	0.86	0.86	0.86	0.75	0.75	0.75
Adj. Flow (vph)	181	1707	58	24	1127	45	21	22	49	159	24	267
RTOR Reduction (vph)	0	0	17	0	0	18	0	40	0	0	198	0
Lane Group Flow (vph)	181	1707	41	24	1127	27	21	31	0	159	93	0
Heavy Vehicles (%)	5%	2%	6%	2%	5%	20%	6%	5%	2%	3%	2%	2%
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			8			4	
Permitted Phases			6	2		2	8			4		
Actuated Green, G (s)	19.8	104.2	104.2	90.8	87.6	87.6	24.1	24.1		24.1	24.1	
Effective Green, g (s)	23.8	107.2	107.2	98.8	90.6	90.6	26.6	26.6		26.6	26.6	
Actuated g/C Ratio	0.16	0.71	0.71	0.66	0.60	0.60	0.18	0.18		0.18	0.18	
Clearance Time (s)	7.0	6.0	6.0	7.0	6.0	6.0	5.5	5.5		5.5	5.5	
Vehicle Extension (s)	2.0	4.0	4.0	2.0	4.0	4.0	2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	258	2396	1031	193	1967	770	45	278		203	269	
v/s Ratio Prot	c0.11	c0.51		0.01	0.35			0.02			0.06	
v/s Ratio Perm			0.03	0.08		0.02	0.08			c0.14		
v/c Ratio	0.70	0.71	0.04	0.12	0.57	0.04	0.47	0.11		0.78	0.34	
Uniform Delay, d1	59.7	12.4	6.3	10.8	18.0	12.0	55.3	51.8		58.9	54.1	
Progression Factor	1.17	0.73	0.27	0.84	0.95	1.00	1.00	1.00		1.00	1.06	
Incremental Delay, d2	4.7	1.3	0.0	0.1	1.1	0.1	2.8	0.1		16.4	0.3	
Delay (s)	74.5	10.4	1.8	9.2	18.2	12.1	58.1	51.8		75.2	57.4	
Level of Service	E	B	A	A	B	B	E	D		E	E	
Approach Delay (s)		16.1			17.8			53.3			63.7	
Approach LOS		B			B			D			E	

Intersection Summary			
HCM 2000 Control Delay	23.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	75.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

APPENDIX D: OFF-SITE TRAFFIC DATA



KUNKLER PROPERTY
PRELIMINARY LAYOUT

TOTAL AREA = ±53.43 ACRES

51 ESTATE LOTS
123 ESTRADA LOTS
174 TOTAL LOTS (3.26 DU/AC)

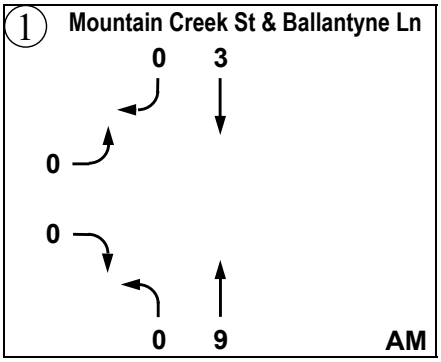
LANDSCAPE AREA =
±11.12 AC + 1.06 AC PLANTER STRIPS =
12.18 ACRES (22.8%)

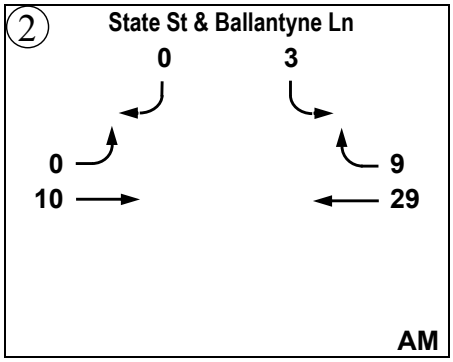
CSW
CIVIL SITE WORKS
PO BOX 6059
BOISE, ID 83707
Ph: (208) 946-3874
cgraham@cswengineering.com

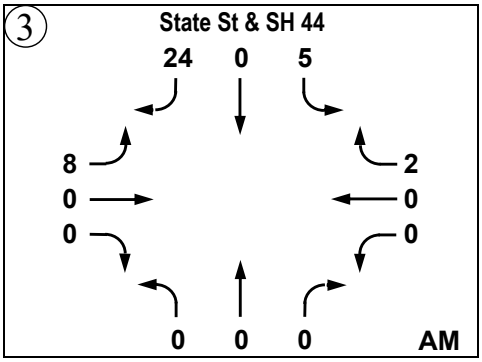
Capella Subdivision Trip Generation

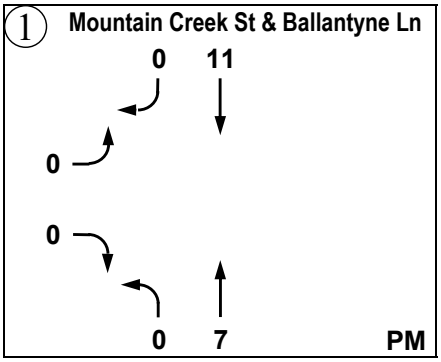
Land Use	ITE Code	Size	Unit	Period	Total Trips	Entering		Exiting	
Single-Family Detached Housing	210	174	DU	Weekday Daily (vpd)	1,731	50%	865	50%	866
				AM Peak Hour (vph)	128	25%	32	75%	96
				PM Peak Hour (vph)	173	63%	109	37%	64

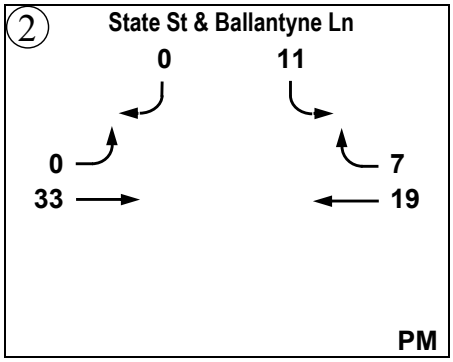
Capella Subdivision Peak Hour Traffic

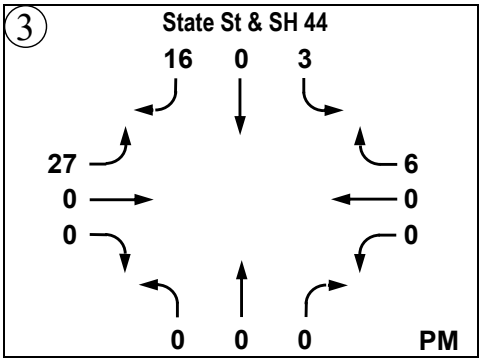












Stillwater Subdivision

Silvercreek Realty Group
Elitharp Real Estate Group
Karen Elitharp • 208.919.1676 • Karen@EltharpGroup.com

Stillwater Subdivision Trip Generation

Land Use	ITE Code	Size	Unit	Total Trips	Capture Rate	Internal Capture Trips	Pass-by Rates	Pass-by Trips	Primary Trips				
									Total	Entering		Exiting	
Weekday Daily (vpd)													
Single-Family Detached Housing	210	33	DU	375	21%	77	--	--	298	50%	149	50%	149
Townhome	220	4	DU	29	21%	6	--	--	23	50%	12	50%	11
Commercial	820	58.30	TSF	4,166	21%	854	--	--	3,312	50%	1,656	50%	1,656
Dutch Bros	*937*	*1.70*	*TSF*	*1,395*	*21%*	*286*	*--*	*--*	*1,109*	*50%*	*555*	*50%*	*554*
Weekday Daily Total Trips				**5,965**		**1,223**		--	**4,742**		**2,372**		**2,370**
Weekday AM Peak Hour (vph)													
Single-Family Detached Housing	210	33	DU	28	14%	4	--	--	24	25%	6	75%	18
Townhome	220	4	DU	2	14%	0	--	--	2	23%	0	77%	2
Commercial	820	58.30	TSF	181	14%	25	--	--	156	62%	96	38%	60
Dutch Bros	*937*	*1.70*	*TSF*	*151*	*14%*	*21*	*83%*	*108*	*22*	*51%*	*11*	*49%*	*11*
Weekday AM Peak Hour Total Trips				**362**		**50**		**108**	**204**		**113**		**91**
Weekday PM Peak Hour (vph)													
Single-Family Detached Housing	210	33	DU	35	27%	9	--	--	26	63%	16	37%	10
Townhome	220	4	DU	3	27%	1	--	--	2	63%	1	37%	1
Commercial	820	58.30	TSF	365	27%	99	34%	90	176	48%	84	52%	92
Dutch Bros	*937*	*1.70*	*TSF*	*74*	*27%*	*20*	*83%*	*46*	*8*	*50%*	*4*	*50%*	*4*
Weekday PM Peak Hour Total Trips				**477**		**129**		**136**	**212**		**105**		**107**

Note: Dutch Bros is constructed and in operation along with 20 townhomes and 13 single-family dwelling units. Off-site traffic generated by these developments is already included in the existing traffic counts and was not included in the background off-site traffic. No pass-by rates for ITE Land Use

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	Stillwater Subdivision	**Organization:**	CR Engineering, Inc.
Project Location:	Eagle	**Performed By:**	Brandon Atchley
Scenario Description:	Build-Out	**Date:**	25-May-21
Analysis Year:	2025	**Checked By:**	CR Engineering, Inc.
Analysis Period:	**AM Street Peak Hour**	**Date:**	1-Jun-21

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail	820	58	TSF	181	112	69
Restaurant	937	2	TSF	151	77	74
Cinema/Entertainment				0		
Residential	210, 220	70	DU	49	12	37
Hotel				0		
All Other Land Uses[2]				0		
				381	201	180

Table 2-A: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		9	0	0	0
Restaurant	0	9		0	1	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	7	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary

	Total	Entering	Exiting
All Person-Trips	381	201	180
Internal Capture Percentage	14%	13%	14%
External Vehicle-Trips[5]	329	175	154
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	8%	13%
Restaurant	21%	14%
Cinema/Entertainment	N/A	N/A
Residential	8%	19%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	Stillwater Subdivision
Analysis Period:	**Stillwater Subdivision**

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0	1.00	0	0
Retail	1.00	112	112	1.00	69	69
Restaurant	1.00	77	77	1.00	74	74
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	12	12	1.00	37	37
Hotel	1.00	0	0	1.00	0	0

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	20		9	0	10	0
Restaurant	23	10		0	3	2
Cinema/Entertainment	0	0	0		0	0
Residential	1	0	7	0		0
Hotel	0	0	0	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		36	18	0	0	0
Retail	0		39	0	0	0
Restaurant	0	9		0	1	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	19	15	0		0
Hotel	0	4	5	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	9	103	112	103	0	0
Restaurant	16	61	77	61	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	1	11	12	11	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	9	60	69	60	0	0
Restaurant	10	64	74	64	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	7	30	37	30	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	Stillwater Subdivision	**Organization:**	CR Engineering, Inc.
Project Location:	Eagle	**Performed By:**	Brandon Atchley
Scenario Description:	Build-Out	**Date:**	25-May-21
Analysis Year:	2025	**Checked By:**	CR
Analysis Period:	**PM Street Peak Hour**	**Date:**	1-Jun-21

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail	820	58	TSF	365	175	190
Restaurant	937	2	TSF	74	37	37
Cinema/Entertainment				0		
Residential	210, 220	70	DU	65	41	24
Hotel				0		
All Other Land Uses[2]				0		
				504	253	251

Table 2-P: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		11	0	19	0
Restaurant	0	15		0	7	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	10	5	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	504	253	251
Internal Capture Percentage	27%	26%	27%
External Vehicle-Trips[5]	370	186	184
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	14%	16%
Restaurant	43%	59%
Cinema/Entertainment	N/A	N/A
Residential	63%	63%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	Stillwater Subdivision
Analysis Period:	**Stillwater Subdivision**

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0	1.00	0	0
Retail	1.00	175	175	1.00	190	190
Restaurant	1.00	37	37	1.00	37	37
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	41	41	1.00	24	24
Hotel	1.00	0	0	1.00	0	0

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	4		55	8	49	10
Restaurant	1	15		3	7	3
Cinema/Entertainment	0	0	0		0	0
Residential	1	10	5	0		1
Hotel	0	0	0	0	0	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		14	1	0	2	0
Retail	0		11	0	19	0
Restaurant	0	88		0	7	0
Cinema/Entertainment	0	7	1		2	0
Residential	0	18	5	0		0
Hotel	0	4	2	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	25	150	175	150	0	0
Restaurant	16	21	37	21	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	26	15	41	15	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	30	160	190	160	0	0
Restaurant	22	15	37	15	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	15	9	24	9	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

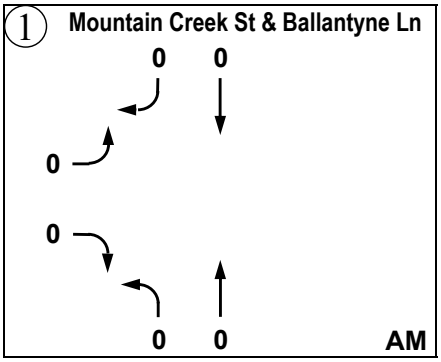
[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

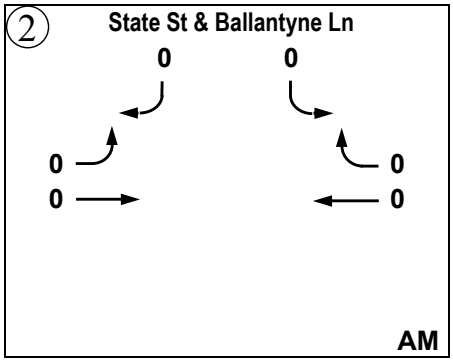
[2]Person-Trips

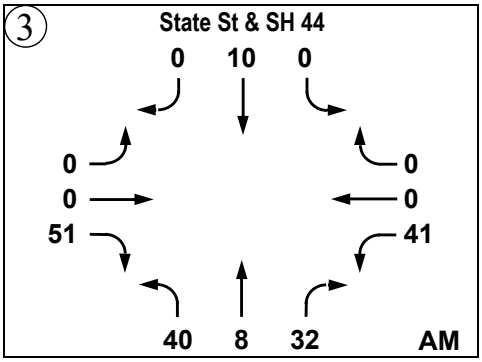
[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

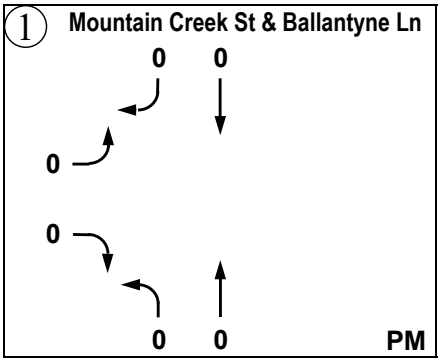
*Indicates computation that has been rounded to the nearest whole number.

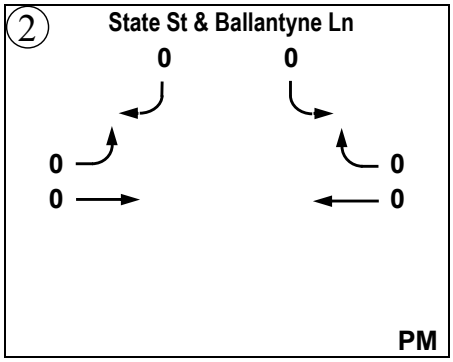
Stillwater Subdivision Peak Hour Traffic

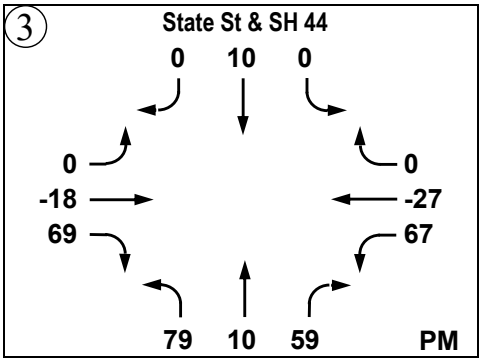












APPENDIX E: 2025 BACKGROUND SYNCHRO OUTPUTS

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	20	10	165	275	10
Future Vol, veh/h	7	20	10	165	275	10
Conflicting Peds, #/hr	2	2	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
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, %	2	2	11	6	4	2
Mvmt Flow	8	22	11	179	299	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	510	309	312	0	-	0
Stage 1	307	-	-	-	-	-
Stage 2	203	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.21	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.299	-	-	-
Pot Cap-1 Maneuver	523	731	1199	-	-	-
Stage 1	746	-	-	-	-	-
Stage 2	831	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	516	728	1197	-	-	-
Mov Cap-2 Maneuver	516	-	-	-	-	-
Stage 1	737	-	-	-	-	-
Stage 2	829	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.7	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1197	-	658	-	-
HCM Lane V/C Ratio	0.009	-	0.045	-	-
HCM Control Delay (s)	8	0	10.7	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

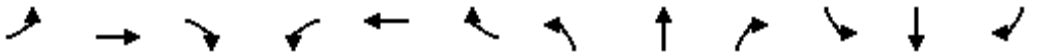
Intersection	
Int Delay, s/veh	5.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	144	145	186	51	69	235
Future Vol, veh/h	144	145	186	51	69	235
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	110	-	-	-	150	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	9	4	2	2	3	2
Mvmt Flow	153	154	198	54	73	250

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	253	0	-	0	687	227
Stage 1	-	-	-	-	226	-
Stage 2	-	-	-	-	461	-
Critical Hdwy	4.19	-	-	-	6.43	6.22
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.281	-	-	-	3.527	3.318
Pot Cap-1 Maneuver	1272	-	-	-	418	812
Stage 1	-	-	-	-	809	-
Stage 2	-	-	-	-	643	-
Platoon blocked, %		-	-	-	1	
Mov Cap-1 Maneuver	1271	-	-	-	367	810
Mov Cap-2 Maneuver	-	-	-	-	474	-
Stage 1	-	-	-	-	711	-
Stage 2	-	-	-	-	642	-

Approach	EB	WB	SB
HCM Control Delay, s	4.1	0	12
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1271	-	-	-	474	810
HCM Lane V/C Ratio	0.121	-	-	-	0.155	0.309
HCM Control Delay (s)	8.2	-	-	-	14	11.4
HCM Lane LOS	A	-	-	-	B	B
HCM 95th %tile Q(veh)	0.4	-	-	-	0.5	1.3



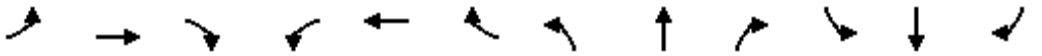
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	183	1648	107	61	933	39	58	27	74	155	33	276
Future Volume (veh/h)	183	1648	107	61	933	39	58	27	74	155	33	276
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1730	1772	1716	1772	1730	1519	1716	1730	1730	1758	1772	1772
Adj Flow Rate, veh/h	201	1811	118	68	1037	43	64	30	82	172	37	307
Peak Hour Factor	0.91	0.91	0.91	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	5	2	6	2	5	20	6	5	5	3	2	2
Cap, veh/h	221	2027	875	133	1641	643	71	100	272	281	40	332
Arrive On Green	0.13	0.60	0.60	0.03	0.50	0.50	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1647	3367	1454	1688	3287	1287	1004	409	1119	1271	164	1362
Grp Volume(v), veh/h	201	1811	118	68	1037	43	64	0	112	172	0	344
Grp Sat Flow(s),veh/h/ln	1647	1683	1454	1688	1643	1287	1004	0	1528	1271	0	1527
Q Serve(g_s), s	18.0	69.5	5.3	3.0	34.6	2.6	3.5	0.0	9.0	19.2	0.0	33.0
Cycle Q Clear(g_c), s	18.0	69.5	5.3	3.0	34.6	2.6	36.5	0.0	9.0	28.1	0.0	33.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.73	1.00		0.89
Lane Grp Cap(c), veh/h	221	2027	875	133	1641	643	71	0	372	281	0	371
V/C Ratio(X)	0.91	0.89	0.13	0.51	0.63	0.07	0.90	0.00	0.30	0.61	0.00	0.93
Avail Cap(c_a), veh/h	253	2027	875	192	1641	643	71	0	372	281	0	371
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.55	0.55	0.55	0.82	0.82	0.82	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	64.0	25.7	12.9	31.0	27.5	19.5	74.4	0.0	46.3	57.8	0.0	55.4
Incr Delay (d2), s/veh	19.1	3.8	0.2	0.9	1.5	0.2	70.7	0.0	0.2	2.8	0.0	28.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	12.1	31.9	3.0	2.0	18.5	1.4	7.0	0.0	6.3	10.5	0.0	22.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.2	29.5	13.1	32.0	29.0	19.6	145.0	0.0	46.5	60.7	0.0	83.7
LnGrp LOS	F	C	B	C	C	B	F	A	D	E	A	F
Approach Vol, veh/h		2130			1148			176			516	
Approach Delay, s/veh		33.7			28.8			82.3			76.0	
Approach LOS		C			C			F			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	27.1	80.9		42.0	11.7	96.3		42.0				
Change Period (Y+Rc), s	7.0	6.0		5.5	7.0	6.0		5.5				
Max Green Setting (Gmax), s	23.0	72.0		36.5	10.0	85.0		36.5				
Max Q Clear Time (g_c+I1), s	20.0	36.6		35.0	5.0	71.5		38.5				
Green Ext Time (p_c), s	0.1	11.5		0.3	0.0	11.3		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		39.9	
HCM 6th LOS		D	

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	183	1648	107	61	933	39	58	27	74	155	33	276
Future Volume (vph)	183	1648	107	61	933	39	58	27	74	155	33	276
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.89		1.00	0.87	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1629	3353	1443	1676	3257	1275	1613	1559		1660	1528	
Flt Permitted	0.95	1.00	1.00	0.07	1.00	1.00	0.13	1.00		0.58	1.00	
Satd. Flow (perm)	1629	3353	1443	121	3257	1275	216	1559		1012	1528	
Peak-hour factor, PHF	0.91	0.91	0.91	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	201	1811	118	68	1037	43	64	30	82	172	37	307
RTOR Reduction (vph)	0	0	40	0	0	19	0	65	0	0	201	0
Lane Group Flow (vph)	201	1811	78	68	1037	24	64	47	0	172	143	0
Heavy Vehicles (%)	5%	2%	6%	2%	5%	20%	6%	5%	2%	3%	2%	2%
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			8			4	
Permitted Phases			6	2		2	8			4		
Actuated Green, G (s)	20.6	96.6	96.6	87.8	81.9	81.9	29.0	29.0		29.0	29.0	
Effective Green, g (s)	24.6	99.6	99.6	95.8	84.9	84.9	31.5	31.5		31.5	31.5	
Actuated g/C Ratio	0.16	0.66	0.66	0.64	0.57	0.57	0.21	0.21		0.21	0.21	
Clearance Time (s)	7.0	6.0	6.0	7.0	6.0	6.0	5.5	5.5		5.5	5.5	
Vehicle Extension (s)	2.0	4.0	4.0	2.0	4.0	4.0	2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	267	2226	958	179	1843	721	45	327		212	320	
v/s Ratio Prot	c0.12	c0.54		0.02	0.32			0.03			0.09	
v/s Ratio Perm			0.05	0.22		0.02	c0.30			0.17		
v/c Ratio	0.75	0.81	0.08	0.38	0.56	0.03	1.42	0.14		0.81	0.45	
Uniform Delay, d1	59.8	18.4	9.0	17.5	20.7	14.4	59.2	48.3		56.4	51.7	
Progression Factor	1.15	0.79	0.31	1.60	0.86	1.00	1.00	1.00		1.00	1.01	
Incremental Delay, d2	6.5	2.1	0.1	0.4	1.1	0.1	281.1	0.1		19.5	0.4	
Delay (s)	75.5	16.7	2.9	28.5	19.0	14.5	340.3	48.3		75.7	52.6	
Level of Service	E	B	A	C	B	B	F	D		E	D	
Approach Delay (s)		21.5			19.4			154.5			60.3	
Approach LOS		C			B			F			E	

Intersection Summary			
HCM 2000 Control Delay	31.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	93.7%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	12	28	278	176	5
Future Vol, veh/h	8	12	28	278	176	5
Conflicting Peds, #/hr	1	2	2	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	99	99	99	99	99	99
Heavy Vehicles, %	13	8	2	2	3	2
Mvmt Flow	8	12	28	281	178	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	521	185	185	0	-	0
Stage 1	183	-	-	-	-	-
Stage 2	338	-	-	-	-	-
Critical Hdwy	6.53	6.28	4.12	-	-	-
Critical Hdwy Stg 1	5.53	-	-	-	-	-
Critical Hdwy Stg 2	5.53	-	-	-	-	-
Follow-up Hdwy	3.617	3.372	2.218	-	-	-
Pot Cap-1 Maneuver	497	842	1390	-	-	-
Stage 1	823	-	-	-	-	-
Stage 2	698	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	483	839	1387	-	-	-
Mov Cap-2 Maneuver	483	-	-	-	-	-
Stage 1	802	-	-	-	-	-
Stage 2	697	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.7	0.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1387	-	648	-	-
HCM Lane V/C Ratio	0.02	-	0.031	-	-
HCM Control Delay (s)	7.7	0	10.7	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

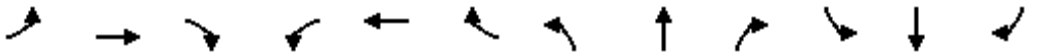
Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	192	174	253	158	78	114
Future Vol, veh/h	192	174	253	158	78	114
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	110	-	-	-	150	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	3	3
Mvmt Flow	202	183	266	166	82	120

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	432	0	-	0	936	349
Stage 1	-	-	-	-	349	-
Stage 2	-	-	-	-	587	-
Critical Hdwy	4.12	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.218	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1128	-	-	-	286	692
Stage 1	-	-	-	-	712	-
Stage 2	-	-	-	-	557	-
Platoon blocked, %		-	-	-	1	
Mov Cap-1 Maneuver	1128	-	-	-	234	692
Mov Cap-2 Maneuver	-	-	-	-	367	-
Stage 1	-	-	-	-	585	-
Stage 2	-	-	-	-	557	-

Approach	EB	WB	SB
HCM Control Delay, s	4.7	0	13.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1128	-	-	-	367	692
HCM Lane V/C Ratio	0.179	-	-	-	0.224	0.173
HCM Control Delay (s)	8.9	-	-	-	17.6	11.3
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0.7	-	-	-	0.8	0.6



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	196	1008	85	87	1696	81	103	17	77	84	20	248
Future Volume (veh/h)	196	1008	85	87	1696	81	103	17	77	84	20	248
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1772	1702	1772	1772	1772	1688	1772	1772	1716	1772	1772
Adj Flow Rate, veh/h	200	1029	87	93	1804	86	114	19	86	88	21	258
Peak Hour Factor	0.98	0.98	0.98	0.94	0.94	0.94	0.90	0.90	0.90	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	7	2	2	2	8	2	2	6	2	2
Cap, veh/h	203	2049	860	333	1773	791	105	64	291	265	26	319
Arrive On Green	0.12	0.61	0.61	0.04	0.53	0.53	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1688	3367	1412	1688	3367	1502	1048	279	1265	1248	113	1388
Grp Volume(v), veh/h	200	1029	87	93	1804	86	114	0	105	88	0	279
Grp Sat Flow(s),veh/h/ln	1688	1683	1412	1688	1683	1502	1048	0	1544	1248	0	1501
Q Serve(g_s), s	17.7	25.8	3.9	3.8	79.0	4.3	8.1	0.0	8.4	9.4	0.0	26.4
Cycle Q Clear(g_c), s	17.7	25.8	3.9	3.8	79.0	4.3	34.5	0.0	8.4	17.8	0.0	26.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.82	1.00		0.92
Lane Grp Cap(c), veh/h	203	2049	860	333	1773	791	105	0	355	265	0	345
V/C Ratio(X)	0.99	0.50	0.10	0.28	1.02	0.11	1.09	0.00	0.30	0.33	0.00	0.81
Avail Cap(c_a), veh/h	203	2049	860	381	1773	791	105	0	355	265	0	345
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.93	0.28	0.28	0.28	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	65.9	16.6	12.2	15.8	35.5	17.8	72.8	0.0	47.7	55.1	0.0	54.6
Incr Delay (d2), s/veh	57.2	0.8	0.2	0.0	16.0	0.1	113.8	0.0	0.2	0.3	0.0	12.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	15.8	14.2	2.1	2.4	39.0	2.5	12.4	0.0	6.0	5.4	0.0	16.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	123.1	17.4	12.5	15.8	51.5	17.9	186.6	0.0	47.9	55.3	0.0	67.1
LnGrp LOS	F	B	B	B	F	B	F	A	D	E	A	E
Approach Vol, veh/h		1316			1983			219			367	
Approach Delay, s/veh		33.1			48.4			120.1			64.3	
Approach LOS		C			D			F			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	25.0	85.0		40.0	12.7	97.3		40.0				
Change Period (Y+Rc), s	7.0	6.0		5.5	7.0	6.0		5.5				
Max Green Setting (Gmax), s	18.0	79.0		34.5	10.0	87.0		34.5				
Max Q Clear Time (g_c+I1), s	19.7	81.0		28.4	5.8	27.8		36.5				
Green Ext Time (p_c), s	0.0	0.0		0.7	0.0	13.1		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		48.7	
HCM 6th LOS		D	

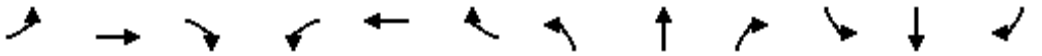
Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	196	1008	85	87	1696	81	103	17	77	84	20	248
Future Volume (vph)	196	1008	85	87	1696	81	103	17	77	84	20	248
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.88		1.00	0.86	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1676	3353	1400	1676	3353	1500	1583	1500		1613	1502	
Flt Permitted	0.95	1.00	1.00	0.24	1.00	1.00	0.29	1.00		0.61	1.00	
Satd. Flow (perm)	1676	3353	1400	431	3353	1500	483	1500		1035	1502	
Peak-hour factor, PHF	0.98	0.98	0.98	0.94	0.94	0.94	0.90	0.90	0.90	0.96	0.96	0.96
Adj. Flow (vph)	200	1029	87	93	1804	86	114	19	86	88	21	258
RTOR Reduction (vph)	0	0	32	0	0	38	0	66	0	0	110	0
Lane Group Flow (vph)	200	1029	55	93	1804	48	114	39	0	88	169	0
Confl. Bikes (#/hr)			1									1
Heavy Vehicles (%)	2%	2%	7%	2%	2%	2%	8%	2%	6%	6%	2%	2%
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			8			4	
Permitted Phases			6	2		2	8			4		
Actuated Green, G (s)	17.5	91.5	91.5	88.0	81.0	81.0	33.0	33.0		33.0	33.0	
Effective Green, g (s)	21.5	94.5	94.5	96.0	84.0	84.0	35.5	35.5		35.5	35.5	
Actuated g/C Ratio	0.14	0.63	0.63	0.64	0.56	0.56	0.24	0.24		0.24	0.24	
Clearance Time (s)	7.0	6.0	6.0	7.0	6.0	6.0	5.5	5.5		5.5	5.5	
Vehicle Extension (s)	2.0	4.0	4.0	2.0	4.0	4.0	2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	240	2112	882	367	1877	840	114	355		244	355	
v/s Ratio Prot	c0.12	0.31		0.02	c0.54			0.03			0.11	
v/s Ratio Perm			0.04	0.14		0.03	c0.24			0.08		
v/c Ratio	0.83	0.49	0.06	0.25	0.96	0.06	1.00	0.11		0.36	0.48	
Uniform Delay, d1	62.5	14.8	10.7	10.7	31.4	15.0	57.2	44.9		47.8	49.3	
Progression Factor	0.97	1.28	2.81	0.54	0.51	0.24	1.00	1.00		0.82	0.66	
Incremental Delay, d2	19.7	0.8	0.1	0.1	6.6	0.1	84.3	0.1		0.3	0.3	
Delay (s)	80.3	19.7	30.1	5.9	22.7	3.7	141.5	44.9		39.3	32.9	
Level of Service	F	B	C	A	C	A	F	D		D	C	
Approach Delay (s)		29.6			21.1			95.2			34.4	
Approach LOS		C			C			F			C	

Intersection Summary			
HCM 2000 Control Delay	29.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	99.9%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	221	1131	103	87	1251	73	116	29	105	93	52	260
Future Volume (veh/h)	221	1131	103	87	1251	73	116	29	105	93	52	260
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1772	1702	1772	1772	1772	1688	1772	1772	1716	1772	1772
Adj Flow Rate, veh/h	246	1257	114	97	1390	81	127	32	115	103	58	289
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.91	0.91	0.91	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	7	2	2	2	8	2	2	6	2	2
Cap, veh/h	259	1920	805	245	1549	691	93	89	320	272	67	334
Arrive On Green	0.15	0.57	0.57	0.04	0.46	0.46	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1688	3367	1412	1688	3367	1502	985	338	1215	1201	255	1269
Grp Volume(v), veh/h	246	1257	114	97	1390	81	127	0	147	103	0	347
Grp Sat Flow(s),veh/h/ln	1688	1683	1412	1688	1683	1502	985	0	1553	1201	0	1524
Q Serve(g_s), s	21.7	38.4	5.7	4.5	57.0	4.6	6.9	0.0	11.6	11.4	0.0	32.6
Cycle Q Clear(g_c), s	21.7	38.4	5.7	4.5	57.0	4.6	39.5	0.0	11.6	23.0	0.0	32.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.78	1.00		0.83
Lane Grp Cap(c), veh/h	259	1920	805	245	1549	691	93	0	409	272	0	401
V/C Ratio(X)	0.95	0.65	0.14	0.40	0.90	0.12	1.36	0.00	0.36	0.38	0.00	0.86
Avail Cap(c_a), veh/h	259	1920	805	319	1549	691	93	0	409	272	0	401
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.93	0.28	0.28	0.28	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	62.9	22.1	15.1	21.8	37.2	23.1	73.3	0.0	45.0	54.3	0.0	52.7
Incr Delay (d2), s/veh	40.3	1.6	0.3	0.1	2.7	0.1	216.2	0.0	0.2	0.3	0.0	16.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	17.4	20.4	3.2	2.9	26.6	2.7	16.3	0.0	8.1	6.3	0.0	20.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	103.2	23.8	15.4	21.9	39.9	23.2	289.5	0.0	45.2	54.6	0.0	69.6
LnGrp LOS	F	C	B	C	D	C	F	A	D	D	A	E
Approach Vol, veh/h		1617			1568			274			450	
Approach Delay, s/veh		35.3			38.0			158.4			66.1	
Approach LOS		D			D			F			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	30.0	75.0		45.0	13.5	91.5		45.0				
Change Period (Y+Rc), s	7.0	6.0		5.5	7.0	6.0		5.5				
Max Green Setting (Gmax), s	23.0	69.0		39.5	13.0	79.0		39.5				
Max Q Clear Time (g_c+I1), s	23.7	59.0		34.6	6.5	40.4		41.5				
Green Ext Time (p_c), s	0.0	7.4		0.8	0.0	16.1		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		48.5	
HCM 6th LOS		D	

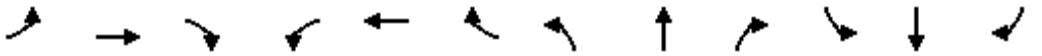
Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	221	1131	103	87	1251	73	116	29	105	93	52	260
Future Volume (vph)	221	1131	103	87	1251	73	116	29	105	93	52	260
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.88		1.00	0.88	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1676	3353	1400	1676	3353	1500	1583	1511		1613	1528	
Flt Permitted	0.95	1.00	1.00	0.16	1.00	1.00	0.27	1.00		0.57	1.00	
Satd. Flow (perm)	1676	3353	1400	284	3353	1500	451	1511		961	1528	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.91	0.91	0.91	0.90	0.90	0.90
Adj. Flow (vph)	246	1257	114	97	1390	81	127	32	115	103	58	289
RTOR Reduction (vph)	0	0	49	0	0	43	0	81	0	0	118	0
Lane Group Flow (vph)	246	1257	65	97	1390	38	127	66	0	103	229	0
Confl. Bikes (#/hr)			1									1
Heavy Vehicles (%)	2%	2%	7%	2%	2%	2%	8%	2%	6%	6%	2%	2%
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			8			4	
Permitted Phases			6	2		2	8			4		
Actuated Green, G (s)	22.1	82.7	82.7	75.6	68.1	68.1	41.3	41.3		41.3	41.3	
Effective Green, g (s)	26.1	85.7	85.7	83.6	71.1	71.1	43.8	43.8		43.8	43.8	
Actuated g/C Ratio	0.17	0.57	0.57	0.56	0.47	0.47	0.29	0.29		0.29	0.29	
Clearance Time (s)	7.0	6.0	6.0	7.0	6.0	6.0	5.5	5.5		5.5	5.5	
Vehicle Extension (s)	2.0	4.0	4.0	2.0	4.0	4.0	2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	291	1915	799	265	1589	711	131	441		280	446	
v/s Ratio Prot	c0.15	0.37		0.03	c0.41			0.04			0.15	
v/s Ratio Perm			0.05	0.18		0.03	c0.28			0.11		
v/c Ratio	0.85	0.66	0.08	0.37	0.87	0.05	0.97	0.15		0.37	0.51	
Uniform Delay, d1	60.0	22.1	14.5	17.3	35.4	21.3	52.4	39.3		42.1	44.2	
Progression Factor	0.97	1.08	1.94	0.72	0.50	0.24	1.00	1.00		0.90	0.79	
Incremental Delay, d2	18.5	1.7	0.2	0.1	2.9	0.1	68.0	0.1		0.3	0.4	
Delay (s)	76.9	25.5	28.2	12.6	20.6	5.2	120.5	39.4		38.0	35.2	
Level of Service	E	C	C	B	C	A	F	D		D	D	
Approach Delay (s)		33.5			19.3			77.0			35.8	
Approach LOS		C			B			E			D	

Intersection Summary			
HCM 2000 Control Delay	31.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	90.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



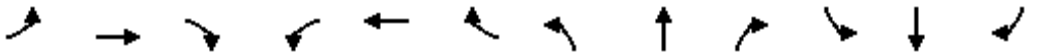
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	183	1648	107	60	933	39	58	27	74	155	33	276
Future Volume (veh/h)	183	1648	107	60	933	39	58	27	74	155	33	276
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1730	1772	1772	1772	1730	1730	1716	1730	1730	1758	1772	1772
Adj Flow Rate, veh/h	203	1831	119	67	1037	43	64	30	82	172	37	307
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	5	2	2	2	5	5	6	5	5	3	2	2
Cap, veh/h	224	2617	170	84	2221	92	97	108	295	309	43	359
Arrive On Green	0.14	0.56	0.56	0.05	0.48	0.48	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1647	4642	301	1688	4651	193	1004	409	1119	1271	164	1362
Grp Volume(v), veh/h	203	1271	679	67	702	378	64	0	112	172	0	344
Grp Sat Flow(s),veh/h/ln	1647	1612	1718	1688	1574	1695	1004	0	1528	1271	0	1527
Q Serve(g_s), s	18.2	42.5	42.8	5.9	22.5	22.5	7.4	0.0	8.7	18.7	0.0	32.1
Cycle Q Clear(g_c), s	18.2	42.5	42.8	5.9	22.5	22.5	39.5	0.0	8.7	27.4	0.0	32.1
Prop In Lane	1.00		0.18	1.00		0.11	1.00		0.73	1.00		0.89
Lane Grp Cap(c), veh/h	224	1818	968	84	1503	809	97	0	402	309	0	402
V/C Ratio(X)	0.91	0.70	0.70	0.80	0.47	0.47	0.66	0.00	0.28	0.56	0.00	0.86
Avail Cap(c_a), veh/h	308	1818	968	146	1503	809	97	0	402	309	0	402
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.55	0.55	0.55	0.82	0.82	0.82	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	63.9	23.6	23.6	70.6	26.3	26.4	72.2	0.0	43.9	54.8	0.0	52.5
Incr Delay (d2), s/veh	12.5	1.3	2.4	5.4	0.9	1.6	12.2	0.0	0.1	1.4	0.0	15.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	11.7	19.9	21.5	4.7	12.5	13.4	5.1	0.0	6.1	10.1	0.0	20.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.4	24.8	26.0	76.0	27.2	27.9	84.4	0.0	44.1	56.2	0.0	68.2
LnGrp LOS	E	C	C	E	C	C	F	A	D	E	A	E
Approach Vol, veh/h		2153			1147			176			516	
Approach Delay, s/veh		30.0			30.3			58.7			64.2	
Approach LOS		C			C			E			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	27.4	77.6		45.0	14.4	90.6		45.0				
Change Period (Y+Rc), s	7.0	6.0		5.5	7.0	6.0		5.5				
Max Green Setting (Gmax), s	28.0	64.0		39.5	13.0	79.0		39.5				
Max Q Clear Time (g_c+I1), s	20.2	24.5		34.1	7.9	44.8		41.5				
Green Ext Time (p_c), s	0.2	11.2		0.9	0.0	23.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		35.8	
HCM 6th LOS		D	

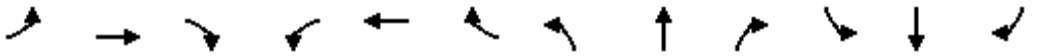
Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	183	1648	107	61	933	39	58	27	74	155	33	276
Future Volume (vph)	183	1648	107	61	933	39	58	27	74	155	33	276
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.99		1.00	0.89		1.00	0.87	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1629	4762		1676	4626		1613	1559		1660	1528	
Flt Permitted	0.95	1.00		0.95	1.00		0.13	1.00		0.58	1.00	
Satd. Flow (perm)	1629	4762		1676	4626		219	1559		1008	1528	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	203	1831	119	68	1037	43	64	30	82	172	37	307
RTOR Reduction (vph)	0	4	0	0	2	0	0	65	0	0	220	0
Lane Group Flow (vph)	203	1946	0	68	1078	0	64	47	0	172	124	0
Heavy Vehicles (%)	5%	2%	6%	2%	5%	20%	6%	5%	2%	3%	2%	2%
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			8			4	
Permitted Phases							8			4		
Actuated Green, G (s)	22.4	94.1		8.9	80.6		28.5	28.5		28.5	28.5	
Effective Green, g (s)	26.4	97.1		12.9	83.6		31.0	31.0		31.0	31.0	
Actuated g/C Ratio	0.18	0.65		0.09	0.56		0.21	0.21		0.21	0.21	
Clearance Time (s)	7.0	6.0		7.0	6.0		5.5	5.5		5.5	5.5	
Vehicle Extension (s)	2.0	4.0		2.0	4.0		2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	286	3082		144	2578		45	322		208	315	
v/s Ratio Prot	c0.12	c0.41		0.04	0.23			0.03			0.08	
v/s Ratio Perm							c0.29			0.17		
v/c Ratio	0.71	0.63		0.47	0.42		1.42	0.15		0.83	0.39	
Uniform Delay, d1	58.2	15.8		65.3	19.2		59.5	48.7		56.9	51.4	
Progression Factor	1.18	0.76		0.78	1.37		1.00	1.00		0.99	0.93	
Incremental Delay, d2	4.1	0.6		0.8	0.4		281.1	0.1		21.8	0.3	
Delay (s)	72.7	12.6		51.8	26.7		340.6	48.7		78.0	48.3	
Level of Service	E	B		D	C		F	D		E	D	
Approach Delay (s)		18.3			28.2			154.9			58.2	
Approach LOS		B			C			F			E	

Intersection Summary			
HCM 2000 Control Delay	32.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	81.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	196	1008	85	87	1696	81	103	17	77	84	20	248
Future Volume (veh/h)	196	1008	85	87	1696	81	103	17	77	84	20	248
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1772	1772	1772	1688	1772	1772	1716	1772	1772
Adj Flow Rate, veh/h	218	1120	94	97	1884	90	114	19	86	93	22	276
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	8	2	2	6	2	2
Cap, veh/h	238	2470	207	116	2234	107	131	74	333	310	29	366
Arrive On Green	0.14	0.54	0.54	0.07	0.47	0.47	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1688	4538	381	1688	4731	226	1030	279	1265	1248	111	1390
Grp Volume(v), veh/h	218	796	418	97	1283	691	114	0	105	93	0	298
Grp Sat Flow(s),veh/h/ln	1688	1612	1694	1688	1612	1731	1030	0	1544	1248	0	1500
Q Serve(g_s), s	19.1	22.4	22.4	8.5	52.3	52.6	12.1	0.0	8.1	9.5	0.0	27.4
Cycle Q Clear(g_c), s	19.1	22.4	22.4	8.5	52.3	52.6	39.5	0.0	8.1	17.6	0.0	27.4
Prop In Lane	1.00		0.22	1.00		0.13	1.00		0.82	1.00		0.93
Lane Grp Cap(c), veh/h	238	1755	922	116	1523	818	131	0	407	310	0	395
V/C Ratio(X)	0.92	0.45	0.45	0.83	0.84	0.85	0.87	0.00	0.26	0.30	0.00	0.75
Avail Cap(c_a), veh/h	259	1755	922	146	1523	818	131	0	407	310	0	395
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.93	0.28	0.28	0.28	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	63.5	20.7	20.7	69.0	34.7	34.8	70.6	0.0	43.7	50.6	0.0	50.8
Incr Delay (d2), s/veh	30.2	0.8	1.5	7.5	1.7	3.2	40.8	0.0	0.1	0.2	0.0	7.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	14.9	12.6	13.4	5.5	23.4	25.4	9.9	0.0	5.7	5.4	0.0	16.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	93.7	21.5	22.2	76.4	36.4	38.0	111.4	0.0	43.8	50.8	0.0	58.0
LnGrp LOS	F	C	C	E	D	D	F	A	D	D	A	E
Approach Vol, veh/h		1432			2071			219			391	
Approach Delay, s/veh		32.7			38.8			79.0			56.3	
Approach LOS		C			D			E			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	28.2	76.8		45.0	17.4	87.6		45.0				
Change Period (Y+Rc), s	7.0	6.0		5.5	7.0	6.0		5.5				
Max Green Setting (Gmax), s	23.0	69.0		39.5	13.0	79.0		39.5				
Max Q Clear Time (g_c+I1), s	21.1	54.6		29.4	10.5	24.4		41.5				
Green Ext Time (p_c), s	0.1	11.8		1.1	0.0	14.2		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			40.5									
HCM 6th LOS			D									

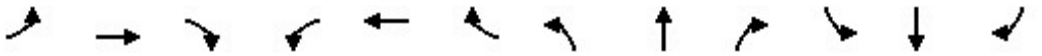
Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	196	1008	85	87	1696	81	103	17	77	84	20	248
Future Volume (vph)	196	1008	85	87	1696	81	103	17	77	84	20	248
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.99		1.00	0.88		1.00	0.86	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1676	4736		1676	4785		1583	1500		1613	1501	
Flt Permitted	0.95	1.00		0.95	1.00		0.26	1.00		0.61	1.00	
Satd. Flow (perm)	1676	4736		1676	4785		436	1500		1038	1501	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	218	1120	94	97	1884	90	114	19	86	93	22	276
RTOR Reduction (vph)	0	6	0	0	3	0	0	65	0	0	159	0
Lane Group Flow (vph)	218	1208	0	97	1971	0	114	40	0	93	139	0
Confl. Bikes (#/hr)			1									1
Heavy Vehicles (%)	2%	2%	7%	2%	2%	2%	8%	2%	6%	6%	2%	2%
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			8			4	
Permitted Phases							8			4		
Actuated Green, G (s)	21.3	86.6		11.5	76.8		33.4	33.4		33.4	33.4	
Effective Green, g (s)	25.3	89.6		15.5	79.8		35.9	35.9		35.9	35.9	
Actuated g/C Ratio	0.17	0.60		0.10	0.53		0.24	0.24		0.24	0.24	
Clearance Time (s)	7.0	6.0		7.0	6.0		5.5	5.5		5.5	5.5	
Vehicle Extension (s)	2.0	4.0		2.0	4.0		2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	282	2828		173	2545		104	359		248	359	
v/s Ratio Prot	c0.13	0.26		0.06	c0.41			0.03			0.09	
v/s Ratio Perm							c0.26			0.09		
v/c Ratio	0.77	0.43		0.56	0.77		1.10	0.11		0.38	0.39	
Uniform Delay, d1	59.6	16.3		64.0	27.9		57.0	44.6		47.7	47.8	
Progression Factor	0.98	1.27		1.14	0.73		1.00	1.00		0.99	1.25	
Incremental Delay, d2	11.0	0.5		1.0	0.9		116.5	0.0		0.3	0.2	
Delay (s)	69.2	21.2		73.8	21.4		173.6	44.6		47.7	60.2	
Level of Service	E	C		E	C		F	D		D	E	
Approach Delay (s)		28.5			23.9			111.8			57.2	
Approach LOS		C			C			F			E	

Intersection Summary			
HCM 2000 Control Delay	33.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	86.5%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	179	987	50	54	1659	77	64	12	48	74	14	216
Future Volume (veh/h)	179	987	50	54	1659	77	64	12	48	74	14	216
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1772	1702	1772	1772	1772	1688	1772	1716	1716	1772	1772
Adj Flow Rate, veh/h	183	1007	51	57	1765	82	71	13	53	77	15	225
Peak Hour Factor	0.98	0.98	0.98	0.94	0.94	0.94	0.90	0.90	0.90	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	7	2	2	2	8	2	6	6	2	2
Cap, veh/h	203	2090	877	344	1787	797	133	69	281	295	21	317
Arrive On Green	0.12	0.62	0.62	0.03	0.53	0.53	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1688	3367	1412	1688	3367	1502	1086	305	1243	1293	94	1404
Grp Volume(v), veh/h	183	1007	51	57	1765	82	71	0	66	77	0	240
Grp Sat Flow(s),veh/h/ln	1688	1683	1412	1688	1683	1502	1086	0	1548	1293	0	1497
Q Serve(g_s), s	16.1	24.3	2.1	2.3	77.5	4.1	9.7	0.0	5.2	7.7	0.0	22.2
Cycle Q Clear(g_c), s	16.1	24.3	2.1	2.3	77.5	4.1	31.8	0.0	5.2	12.9	0.0	22.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.80	1.00		0.94
Lane Grp Cap(c), veh/h	203	2090	877	344	1787	797	133	0	350	295	0	338
V/C Ratio(X)	0.90	0.48	0.06	0.17	0.99	0.10	0.54	0.00	0.19	0.26	0.00	0.71
Avail Cap(c_a), veh/h	203	2090	877	405	1787	797	137	0	356	301	0	344
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.93	0.28	0.28	0.28	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	65.1	15.4	11.2	15.4	34.7	17.5	68.2	0.0	47.0	52.2	0.0	53.5
Incr Delay (d2), s/veh	35.2	0.7	0.1	0.0	8.7	0.1	1.7	0.0	0.1	0.2	0.0	5.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	13.3	13.4	1.2	1.5	35.8	2.4	5.0	0.0	3.7	4.5	0.0	13.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	100.4	16.1	11.3	15.4	43.4	17.5	69.9	0.0	47.1	52.3	0.0	59.1
LnGrp LOS	F	B	B	B	D	B	E	A	D	D	A	E
Approach Vol, veh/h		1241			1904			137			317	
Approach Delay, s/veh		28.4			41.5			58.9			57.4	
Approach LOS		C			D			E			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	25.0	85.6		39.4	11.5	99.1		39.4				
Change Period (Y+Rc), s	7.0	6.0		5.5	7.0	6.0		5.5				
Max Green Setting (Gmax), s	18.0	79.0		34.5	10.0	87.0		34.5				
Max Q Clear Time (g_c+I1), s	18.1	79.5		24.2	4.3	26.3		33.8				
Green Ext Time (p_c), s	0.0	0.0		0.8	0.0	12.4		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		39.0	
HCM 6th LOS		D	

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	179	987	50	54	1659	77	64	12	48	74	14	216
Future Volume (vph)	179	987	50	54	1659	77	64	12	48	74	14	216
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.88		1.00	0.86	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1676	3353	1401	1676	3353	1500	1583	1505		1613	1498	
Flt Permitted	0.95	1.00	1.00	0.28	1.00	1.00	0.20	1.00		0.66	1.00	
Satd. Flow (perm)	1676	3353	1401	501	3353	1500	329	1505		1123	1498	
Peak-hour factor, PHF	0.98	0.98	0.98	0.94	0.94	0.94	0.90	0.90	0.90	0.96	0.96	0.96
Adj. Flow (vph)	183	1007	51	57	1765	82	71	13	53	77	15	225
RTOR Reduction (vph)	0	0	14	0	0	31	0	44	0	0	122	0
Lane Group Flow (vph)	183	1007	37	57	1765	51	71	22	0	77	118	0
Confl. Bikes (#/hr)			1									1
Heavy Vehicles (%)	2%	2%	7%	2%	2%	2%	8%	2%	6%	6%	2%	2%
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			8			4	
Permitted Phases			6	2		2	8			4		
Actuated Green, G (s)	19.1	105.0	105.0	95.5	90.7	90.7	21.7	21.7		21.7	21.7	
Effective Green, g (s)	23.1	108.0	108.0	103.5	93.7	93.7	24.2	24.2		24.2	24.2	
Actuated g/C Ratio	0.15	0.72	0.72	0.69	0.62	0.62	0.16	0.16		0.16	0.16	
Clearance Time (s)	7.0	6.0	6.0	7.0	6.0	6.0	5.5	5.5		5.5	5.5	
Vehicle Extension (s)	2.0	4.0	4.0	2.0	4.0	4.0	2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	258	2414	1008	414	2094	937	53	242		181	241	
v/s Ratio Prot	c0.11	0.30		0.01	c0.53			0.01			0.08	
v/s Ratio Perm			0.03	0.09		0.03	c0.22			0.07		
v/c Ratio	0.71	0.42	0.04	0.14	0.84	0.05	1.34	0.09		0.43	0.49	
Uniform Delay, d1	60.3	8.4	6.0	7.5	22.3	10.9	62.9	53.5		56.6	57.3	
Progression Factor	0.96	1.36	4.09	0.49	0.43	0.23	1.00	1.00		0.97	0.98	
Incremental Delay, d2	6.8	0.5	0.1	0.0	1.7	0.0	238.6	0.1		0.5	0.5	
Delay (s)	64.7	12.0	24.8	3.7	11.4	2.5	301.5	53.6		55.5	56.4	
Level of Service	E	B	C	A	B	A	F	D		E	E	
Approach Delay (s)		20.3			10.8			182.1			56.2	
Approach LOS		C			B			F			E	

Intersection Summary			
HCM 2000 Control Delay	24.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	95.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

APPENDIX F: 2025 TOTAL SYNCHRO OUTPUTS

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	0	20	63	0	7	10	165	20	2	275	10
Future Vol, veh/h	7	0	20	63	0	7	10	165	20	2	275	10
Conflicting Peds, #/hr	2	0	2	0	0	0	2	0	0	0	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	11	6	2	2	4	2
Mvmt Flow	8	0	22	68	0	8	11	179	22	2	299	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	529	534	309	534	528	192	312	0	0	201	0	0
Stage 1	311	311	-	212	212	-	-	-	-	-	-	-
Stage 2	218	223	-	322	316	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.21	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.299	-	-	2.218	-	-
Pot Cap-1 Maneuver	460	452	731	457	456	850	1199	-	-	1371	-	-
Stage 1	699	658	-	790	727	-	-	-	-	-	-	-
Stage 2	784	719	-	690	655	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	450	446	728	438	450	848	1197	-	-	1371	-	-
Mov Cap-2 Maneuver	450	446	-	438	450	-	-	-	-	-	-	-
Stage 1	691	655	-	782	720	-	-	-	-	-	-	-
Stage 2	768	712	-	667	652	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11	14.4	0.4	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1197	-	-	627	460	1371	-	-
HCM Lane V/C Ratio	0.009	-	-	0.047	0.165	0.002	-	-
HCM Control Delay (s)	8	0	-	11	14.4	7.6	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.6	0	-	-

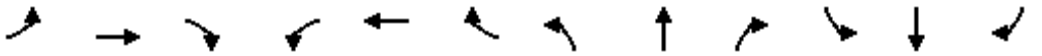
Intersection	
Int Delay, s/veh	6.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	155	145	186	60	98	269
Future Vol, veh/h	155	145	186	60	98	269
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	110	-	-	-	150	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	9	4	2	2	3	2
Mvmt Flow	165	154	198	64	104	286

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	263	0	-	0	716	232
Stage 1	-	-	-	-	231	-
Stage 2	-	-	-	-	485	-
Critical Hdwy	4.19	-	-	-	6.43	6.22
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.281	-	-	-	3.527	3.318
Pot Cap-1 Maneuver	1262	-	-	-	400	807
Stage 1	-	-	-	-	805	-
Stage 2	-	-	-	-	625	-
Platoon blocked, %		-	-	-	1	
Mov Cap-1 Maneuver	1261	-	-	-	347	805
Mov Cap-2 Maneuver	-	-	-	-	458	-
Stage 1	-	-	-	-	699	-
Stage 2	-	-	-	-	624	-

Approach	EB	WB	SB
HCM Control Delay, s	4.3	0	12.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1261	-	-	-	458	805
HCM Lane V/C Ratio	0.131	-	-	-	0.228	0.355
HCM Control Delay (s)	8.3	-	-	-	15.2	11.9
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0.5	-	-	-	0.9	1.6



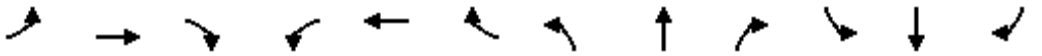
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	189	1648	107	61	933	44	58	27	74	170	33	295
Future Volume (veh/h)	189	1648	107	61	933	44	58	27	74	170	33	295
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1730	1772	1716	1772	1730	1519	1716	1730	1730	1758	1772	1772
Adj Flow Rate, veh/h	208	1811	118	68	1037	49	64	30	82	189	37	328
Peak Hour Factor	0.91	0.91	0.91	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	5	2	6	2	5	20	6	5	5	3	2	2
Cap, veh/h	228	1956	845	124	1561	612	79	108	295	309	41	361
Arrive On Green	0.14	0.58	0.58	0.03	0.48	0.48	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1647	3367	1454	1688	3287	1287	985	409	1119	1271	155	1371
Grp Volume(v), veh/h	208	1811	118	68	1037	49	64	0	112	189	0	365
Grp Sat Flow(s),veh/h/ln	1647	1683	1454	1688	1643	1287	985	0	1528	1271	0	1525
Q Serve(g_s), s	18.7	73.1	5.5	3.1	36.3	3.1	4.7	0.0	8.7	20.8	0.0	34.8
Cycle Q Clear(g_c), s	18.7	73.1	5.5	3.1	36.3	3.1	39.5	0.0	8.7	29.6	0.0	34.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.73	1.00		0.90
Lane Grp Cap(c), veh/h	228	1956	845	124	1561	612	79	0	402	309	0	402
V/C Ratio(X)	0.91	0.93	0.14	0.55	0.66	0.08	0.81	0.00	0.28	0.61	0.00	0.91
Avail Cap(c_a), veh/h	253	1956	845	216	1561	612	79	0	402	309	0	402
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.55	0.55	0.55	0.82	0.82	0.82	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	63.7	28.5	14.3	33.7	30.2	21.5	73.8	0.0	43.9	55.7	0.0	53.5
Incr Delay (d2), s/veh	20.3	5.4	0.2	1.2	1.8	0.2	42.0	0.0	0.1	2.6	0.0	23.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	12.5	34.3	3.2	2.2	19.5	1.7	6.2	0.0	6.1	11.2	0.0	22.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.0	33.9	14.5	34.8	32.0	21.7	115.9	0.0	44.1	58.3	0.0	77.1
LnGrp LOS	F	C	B	C	C	C	F	A	D	E	A	E
Approach Vol, veh/h		2137			1154			176			554	
Approach Delay, s/veh		37.7			31.8			70.2			70.7	
Approach LOS		D			C			E			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	27.7	77.3		45.0	11.8	93.2		45.0				
Change Period (Y+Rc), s	7.0	6.0		5.5	7.0	6.0		5.5				
Max Green Setting (Gmax), s	23.0	69.0		39.5	13.0	79.0		39.5				
Max Q Clear Time (g_c+I1), s	20.7	38.3		36.8	5.1	75.1		41.5				
Green Ext Time (p_c), s	0.1	11.0		0.6	0.0	3.5		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		42.0	
HCM 6th LOS		D	

Notes

User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	189	1648	107	61	933	44	58	27	74	170	33	295
Future Volume (vph)	189	1648	107	61	933	44	58	27	74	170	33	295
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.89		1.00	0.87	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1629	3353	1443	1676	3257	1275	1613	1559		1660	1527	
Flt Permitted	0.95	1.00	1.00	0.06	1.00	1.00	0.12	1.00		0.59	1.00	
Satd. Flow (perm)	1629	3353	1443	115	3257	1275	205	1559		1025	1527	
Peak-hour factor, PHF	0.91	0.91	0.91	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	208	1811	118	68	1037	49	64	30	82	189	37	328
RTOR Reduction (vph)	0	0	39	0	0	22	0	64	0	0	199	0
Lane Group Flow (vph)	208	1811	79	68	1037	27	64	48	0	189	166	0
Heavy Vehicles (%)	5%	2%	6%	2%	5%	20%	6%	5%	2%	3%	2%	2%
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			8			4	
Permitted Phases			6	2		2	8			4		
Actuated Green, G (s)	21.3	94.8	94.8	85.7	79.6	79.6	30.6	30.6		30.6	30.6	
Effective Green, g (s)	25.3	97.8	97.8	93.7	82.6	82.6	33.1	33.1		33.1	33.1	
Actuated g/C Ratio	0.17	0.65	0.65	0.62	0.55	0.55	0.22	0.22		0.22	0.22	
Clearance Time (s)	7.0	6.0	6.0	7.0	6.0	6.0	5.5	5.5		5.5	5.5	
Vehicle Extension (s)	2.0	4.0	4.0	2.0	4.0	4.0	2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	274	2186	940	176	1793	702	45	344		226	336	
v/s Ratio Prot	c0.13	c0.54		0.03	0.32			0.03			0.11	
v/s Ratio Perm			0.05	0.21		0.02	c0.31			0.18		
v/c Ratio	0.76	0.83	0.08	0.39	0.58	0.04	1.42	0.14		0.84	0.49	
Uniform Delay, d1	59.4	19.8	9.6	18.9	22.2	15.5	58.5	47.0		55.9	51.1	
Progression Factor	1.12	0.80	0.38	1.53	0.78	1.00	1.00	1.00		0.99	1.01	
Incremental Delay, d2	6.5	2.4	0.1	0.4	1.2	0.1	281.1	0.1		21.7	0.4	
Delay (s)	73.0	18.1	3.8	29.3	18.5	15.6	339.5	47.1		77.2	51.9	
Level of Service	E	B	A	C	B	B	F	D		E	D	
Approach Delay (s)		22.7			19.0			153.4			60.5	
Approach LOS		C			B			F			E	

Intersection Summary			
HCM 2000 Control Delay	32.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	95.0%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	0	12	42	0	5	28	278	70	8	176	5
Future Vol, veh/h	8	0	12	42	0	5	28	278	70	8	176	5
Conflicting Peds, #/hr	1	0	2	0	0	0	2	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	99	99	99	99	99	99	99	99	99	99	99	99
Heavy Vehicles, %	13	2	8	2	2	2	2	2	2	2	3	2
Mvmt Flow	8	0	12	42	0	5	28	281	71	8	178	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	575	607	185	578	574	318	185	0	0	352	0	0
Stage 1	199	199	-	373	373	-	-	-	-	-	-	-
Stage 2	376	408	-	205	201	-	-	-	-	-	-	-
Critical Hdwy	7.23	6.52	6.28	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.23	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.23	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.617	4.018	3.372	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	413	411	842	427	429	723	1390	-	-	1207	-	-
Stage 1	778	736	-	648	618	-	-	-	-	-	-	-
Stage 2	623	597	-	797	735	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	399	397	839	410	414	722	1387	-	-	1207	-	-
Mov Cap-2 Maneuver	399	397	-	410	414	-	-	-	-	-	-	-
Stage 1	757	729	-	632	603	-	-	-	-	-	-	-
Stage 2	603	582	-	779	728	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.4	14.4	0.6	0.3
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1387	-	-	582	430	1207	-	-
HCM Lane V/C Ratio	0.02	-	-	0.035	0.11	0.007	-	-
HCM Control Delay (s)	7.7	0	-	11.4	14.4	8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.4	0	-	-

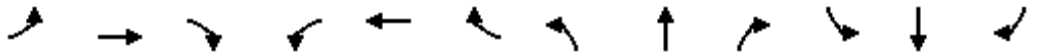
Intersection	
Int Delay, s/veh	5.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	230	174	253	190	98	136
Future Vol, veh/h	230	174	253	190	98	136
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	110	-	-	-	150	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	3	3
Mvmt Flow	242	183	266	200	103	143

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	466	0	-	0	1033	366
Stage 1	-	-	-	-	366	-
Stage 2	-	-	-	-	667	-
Critical Hdwy	4.12	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.218	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1095	-	-	-	242	677
Stage 1	-	-	-	-	699	-
Stage 2	-	-	-	-	506	-
Platoon blocked, %		-	-	-	1	
Mov Cap-1 Maneuver	1095	-	-	-	189	677
Mov Cap-2 Maneuver	-	-	-	-	326	-
Stage 1	-	-	-	-	545	-
Stage 2	-	-	-	-	506	-

Approach	EB	WB	SB
HCM Control Delay, s	5.2	0	15.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1095	-	-	-	326	677
HCM Lane V/C Ratio	0.221	-	-	-	0.316	0.211
HCM Control Delay (s)	9.2	-	-	-	21.1	11.7
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0.8	-	-	-	1.3	0.8



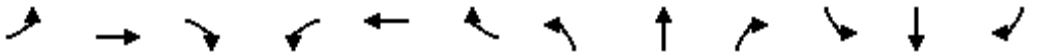
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	217	1008	85	87	1696	98	103	17	77	94	20	260
Future Volume (veh/h)	217	1008	85	87	1696	98	103	17	77	94	20	260
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1772	1702	1772	1772	1772	1688	1772	1772	1716	1772	1772
Adj Flow Rate, veh/h	221	1029	87	93	1804	104	114	19	86	98	21	271
Peak Hour Factor	0.98	0.98	0.98	0.94	0.94	0.94	0.90	0.90	0.90	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	7	2	2	2	8	2	2	6	2	2
Cap, veh/h	203	2048	859	333	1773	791	93	64	291	265	25	320
Arrive On Green	0.12	0.61	0.61	0.04	0.53	0.53	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1688	3367	1412	1688	3367	1502	1036	279	1265	1248	108	1392
Grp Volume(v), veh/h	221	1029	87	93	1804	104	114	0	105	98	0	292
Grp Sat Flow(s),veh/h/ln	1688	1683	1412	1688	1683	1502	1036	0	1544	1248	0	1500
Q Serve(g_s), s	18.0	25.9	3.9	3.8	79.0	5.3	6.6	0.0	8.4	10.6	0.0	27.9
Cycle Q Clear(g_c), s	18.0	25.9	3.9	3.8	79.0	5.3	34.5	0.0	8.4	19.0	0.0	27.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.82	1.00		0.93
Lane Grp Cap(c), veh/h	203	2048	859	333	1773	791	93	0	355	265	0	345
V/C Ratio(X)	1.09	0.50	0.10	0.28	1.02	0.13	1.22	0.00	0.30	0.37	0.00	0.85
Avail Cap(c_a), veh/h	203	2048	859	414	1773	791	93	0	355	265	0	345
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.93	0.26	0.26	0.26	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	66.0	16.6	12.3	15.8	35.5	18.1	73.4	0.0	47.7	55.6	0.0	55.2
Incr Delay (d2), s/veh	87.5	0.8	0.2	0.0	15.6	0.1	163.9	0.0	0.2	0.3	0.0	16.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	18.7	14.2	2.1	2.4	38.7	2.9	13.7	0.0	6.0	6.0	0.0	17.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	153.5	17.4	12.5	15.8	51.1	18.1	237.3	0.0	47.9	55.9	0.0	71.9
LnGrp LOS	F	B	B	B	F	B	F	A	D	E	A	E
Approach Vol, veh/h		1337			2001			219			390	
Approach Delay, s/veh		39.6			47.7			146.5			67.8	
Approach LOS		D			D			F			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	25.0	85.0		40.0	12.7	97.3		40.0				
Change Period (Y+Rc), s	7.0	6.0		5.5	7.0	6.0		5.5				
Max Green Setting (Gmax), s	18.0	79.0		34.5	13.0	84.0		34.5				
Max Q Clear Time (g_c+I1), s	20.0	81.0		29.9	5.8	27.9		36.5				
Green Ext Time (p_c), s	0.0	0.0		0.6	0.0	13.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		52.4	
HCM 6th LOS		D	

Notes

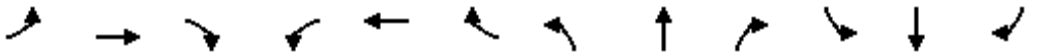
User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	217	1008	85	87	1696	98	103	17	77	94	20	260
Future Volume (vph)	217	1008	85	87	1696	98	103	17	77	94	20	260
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.88		1.00	0.86	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1676	3353	1400	1676	3353	1500	1583	1500		1613	1501	
Flt Permitted	0.95	1.00	1.00	0.24	1.00	1.00	0.28	1.00		0.61	1.00	
Satd. Flow (perm)	1676	3353	1400	429	3353	1500	474	1500		1044	1501	
Peak-hour factor, PHF	0.98	0.98	0.98	0.94	0.94	0.94	0.90	0.90	0.90	0.96	0.96	0.96
Adj. Flow (vph)	221	1029	87	93	1804	104	114	19	86	98	21	271
RTOR Reduction (vph)	0	0	33	0	0	31	0	65	0	0	124	0
Lane Group Flow (vph)	221	1029	54	93	1804	73	114	40	0	98	168	0
Confl. Bikes (#/hr)			1									1
Heavy Vehicles (%)	2%	2%	7%	2%	2%	2%	8%	2%	6%	6%	2%	2%
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			8			4	
Permitted Phases			6	2		2	8			4		
Actuated Green, G (s)	18.0	90.0	90.0	86.0	79.0	79.0	34.5	34.5		34.5	34.5	
Effective Green, g (s)	22.0	93.0	93.0	94.0	82.0	82.0	37.0	37.0		37.0	37.0	
Actuated g/C Ratio	0.15	0.62	0.62	0.63	0.55	0.55	0.25	0.25		0.25	0.25	
Clearance Time (s)	7.0	6.0	6.0	7.0	6.0	6.0	5.5	5.5		5.5	5.5	
Vehicle Extension (s)	2.0	4.0	4.0	2.0	4.0	4.0	2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	245	2078	868	360	1832	820	116	370		257	370	
v/s Ratio Prot	c0.13	0.31		0.02	c0.54			0.03			0.11	
v/s Ratio Perm			0.04	0.14		0.05	c0.24			0.09		
v/c Ratio	0.90	0.50	0.06	0.26	0.98	0.09	0.98	0.11		0.38	0.46	
Uniform Delay, d1	62.9	15.6	11.3	11.5	33.4	16.2	56.2	43.7		47.0	47.9	
Progression Factor	0.97	1.26	2.77	0.55	0.52	0.12	1.00	1.00		0.84	0.70	
Incremental Delay, d2	31.1	0.8	0.1	0.1	9.7	0.1	77.5	0.0		0.3	0.3	
Delay (s)	92.1	20.5	31.3	6.4	27.1	2.0	133.7	43.8		39.9	34.0	
Level of Service	F	C	C	A	C	A	F	D		D	C	
Approach Delay (s)		33.1			24.8			90.6			35.5	
Approach LOS		C			C			F			D	

Intersection Summary			
HCM 2000 Control Delay	32.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	101.9%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	237	1131	103	87	1251	86	116	29	105	102	52	271
Future Volume (veh/h)	237	1131	103	87	1251	86	116	29	105	102	52	271
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1772	1702	1772	1772	1772	1688	1772	1772	1716	1772	1772
Adj Flow Rate, veh/h	263	1257	114	97	1390	96	127	32	115	113	58	301
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.91	0.91	0.91	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	7	2	2	2	8	2	2	6	2	2
Cap, veh/h	259	1920	805	245	1549	691	83	89	320	272	65	336
Arrive On Green	0.15	0.57	0.57	0.04	0.46	0.46	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1688	3367	1412	1688	3367	1502	974	338	1215	1201	246	1277
Grp Volume(v), veh/h	263	1257	114	97	1390	96	127	0	147	113	0	359
Grp Sat Flow(s),veh/h/ln	1688	1683	1412	1688	1683	1502	974	0	1553	1201	0	1523
Q Serve(g_s), s	23.0	38.4	5.7	4.5	57.0	5.5	5.4	0.0	11.6	12.7	0.0	34.1
Cycle Q Clear(g_c), s	23.0	38.4	5.7	4.5	57.0	5.5	39.5	0.0	11.6	24.2	0.0	34.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.78	1.00		0.84
Lane Grp Cap(c), veh/h	259	1920	805	245	1549	691	83	0	409	272	0	401
V/C Ratio(X)	1.02	0.65	0.14	0.40	0.90	0.14	1.53	0.00	0.36	0.42	0.00	0.90
Avail Cap(c_a), veh/h	259	1920	805	319	1549	691	83	0	409	272	0	401
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.93	0.28	0.28	0.28	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	63.5	22.1	15.1	21.8	37.2	23.4	73.9	0.0	45.0	54.8	0.0	53.3
Incr Delay (d2), s/veh	58.2	1.6	0.3	0.1	2.7	0.1	289.2	0.0	0.2	0.4	0.0	21.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	19.8	20.4	3.2	2.9	26.6	3.1	17.9	0.0	8.1	7.0	0.0	21.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	121.7	23.8	15.4	21.9	39.9	23.5	363.1	0.0	45.2	55.2	0.0	74.6
LnGrp LOS	F	C	B	C	D	C	F	A	D	E	A	E
Approach Vol, veh/h		1634			1583			274			472	
Approach Delay, s/veh		38.9			37.8			192.5			70.0	
Approach LOS		D			D			F			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	30.0	75.0		45.0	13.5	91.5		45.0				
Change Period (Y+Rc), s	7.0	6.0		5.5	7.0	6.0		5.5				
Max Green Setting (Gmax), s	23.0	69.0		39.5	13.0	79.0		39.5				
Max Q Clear Time (g_c+I1), s	25.0	59.0		36.1	6.5	40.4		41.5				
Green Ext Time (p_c), s	0.0	7.4		0.6	0.0	16.1		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		52.8	
HCM 6th LOS		D	

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	237	1131	103	87	1251	86	116	29	105	102	52	271
Future Volume (vph)	237	1131	103	87	1251	86	116	29	105	102	52	271
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.88		1.00	0.87	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1676	3353	1400	1676	3353	1500	1583	1511		1613	1526	
Flt Permitted	0.95	1.00	1.00	0.16	1.00	1.00	0.25	1.00		0.56	1.00	
Satd. Flow (perm)	1676	3353	1400	287	3353	1500	418	1511		959	1526	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.91	0.91	0.91	0.90	0.90	0.90
Adj. Flow (vph)	263	1257	114	97	1390	96	127	32	115	113	58	301
RTOR Reduction (vph)	0	0	49	0	0	51	0	82	0	0	123	0
Lane Group Flow (vph)	263	1257	65	97	1390	45	127	65	0	113	236	0
Confl. Bikes (#/hr)			1									1
Heavy Vehicles (%)	2%	2%	7%	2%	2%	2%	8%	2%	6%	6%	2%	2%
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			8			4	
Permitted Phases			6	2		2	8			4		
Actuated Green, G (s)	22.5	83.0	83.0	75.5	68.0	68.0	41.0	41.0		41.0	41.0	
Effective Green, g (s)	26.5	86.0	86.0	83.5	71.0	71.0	43.5	43.5		43.5	43.5	
Actuated g/C Ratio	0.18	0.57	0.57	0.56	0.47	0.47	0.29	0.29		0.29	0.29	
Clearance Time (s)	7.0	6.0	6.0	7.0	6.0	6.0	5.5	5.5		5.5	5.5	
Vehicle Extension (s)	2.0	4.0	4.0	2.0	4.0	4.0	2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	296	1922	802	266	1587	710	121	438		278	442	
v/s Ratio Prot	c0.16	0.37		0.03	c0.41			0.04			0.15	
v/s Ratio Perm			0.05	0.17		0.03	c0.30			0.12		
v/c Ratio	0.89	0.65	0.08	0.36	0.88	0.06	1.05	0.15		0.41	0.53	
Uniform Delay, d1	60.3	21.8	14.3	17.3	35.5	21.5	53.2	39.5		42.9	44.7	
Progression Factor	0.97	1.08	1.91	0.71	0.49	0.17	1.00	1.00		0.90	0.79	
Incremental Delay, d2	24.8	1.7	0.2	0.1	2.9	0.1	95.7	0.1		0.3	0.6	
Delay (s)	83.5	25.2	27.5	12.4	20.5	3.8	149.0	39.6		38.8	36.0	
Level of Service	F	C	C	B	C	A	F	D		D	D	
Approach Delay (s)		34.8			19.0			90.3			36.7	
Approach LOS		C			B			F			D	

Intersection Summary			
HCM 2000 Control Delay	32.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	92.6%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

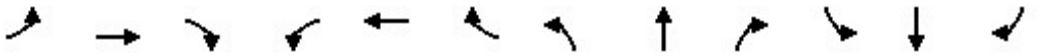
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	189	1648	107	61	933	44	58	27	74	170	33	295
Future Volume (veh/h)	189	1648	107	61	933	44	58	27	74	170	33	295
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1730	1772	1716	1772	1730	1519	1716	1730	1772	1758	1772	1772
Adj Flow Rate, veh/h	210	1831	119	68	1037	49	64	30	82	189	37	328
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	5	2	6	2	5	20	6	5	2	3	2	2
Cap, veh/h	231	2614	169	85	2187	103	79	108	295	309	41	361
Arrive On Green	0.14	0.56	0.56	0.05	0.47	0.47	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1647	4642	301	1688	4621	218	985	409	1119	1271	155	1371
Grp Volume(v), veh/h	210	1271	679	68	706	380	64	0	112	189	0	365
Grp Sat Flow(s),veh/h/ln	1647	1612	1718	1688	1574	1691	985	0	1528	1271	0	1525
Q Serve(g_s), s	18.8	42.6	42.9	6.0	22.8	22.9	4.7	0.0	8.7	20.8	0.0	34.8
Cycle Q Clear(g_c), s	18.8	42.6	42.9	6.0	22.8	22.9	39.5	0.0	8.7	29.6	0.0	34.8
Prop In Lane	1.00		0.18	1.00		0.13	1.00		0.73	1.00		0.90
Lane Grp Cap(c), veh/h	231	1816	967	85	1490	800	79	0	402	309	0	402
V/C Ratio(X)	0.91	0.70	0.70	0.80	0.47	0.47	0.81	0.00	0.28	0.61	0.00	0.91
Avail Cap(c_a), veh/h	308	1816	967	146	1490	800	79	0	402	309	0	402
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.55	0.55	0.55	0.82	0.82	0.82	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	63.6	23.6	23.7	70.5	26.8	26.8	73.8	0.0	43.9	55.7	0.0	53.5
Incr Delay (d2), s/veh	13.6	1.3	2.4	5.4	0.9	1.7	42.0	0.0	0.1	2.6	0.0	23.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	12.1	19.9	21.6	4.8	12.6	13.6	6.2	0.0	6.1	11.2	0.0	22.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.2	24.9	26.0	75.9	27.7	28.5	115.9	0.0	44.1	58.3	0.0	77.1
LnGrp LOS	E	C	C	E	C	C	F	A	D	E	A	E
Approach Vol, veh/h		2160			1154			176			554	
Approach Delay, s/veh		30.3			30.8			70.2			70.7	
Approach LOS		C			C			E			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	28.0	77.0		45.0	14.5	90.5		45.0				
Change Period (Y+Rc), s	7.0	6.0		5.5	7.0	6.0		5.5				
Max Green Setting (Gmax), s	28.0	64.0		39.5	13.0	79.0		39.5				
Max Q Clear Time (g_c+I1), s	20.8	24.9		36.8	8.0	44.9		41.5				
Green Ext Time (p_c), s	0.2	11.2		0.6	0.0	22.9		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		37.7	
HCM 6th LOS		D	

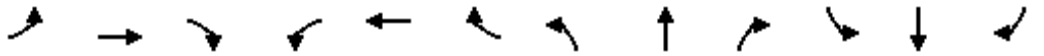
Notes

User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	189	1648	107	61	933	44	58	27	74	170	33	295
Future Volume (vph)	189	1648	107	61	933	44	58	27	74	170	33	295
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.99		1.00	0.89		1.00	0.87	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1629	4762		1676	4619		1613	1559		1660	1527	
Flt Permitted	0.95	1.00		0.95	1.00		0.12	1.00		0.59	1.00	
Satd. Flow (perm)	1629	4762		1676	4619		205	1559		1025	1527	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	210	1831	119	68	1037	49	64	30	82	189	37	328
RTOR Reduction (vph)	0	4	0	0	3	0	0	64	0	0	230	0
Lane Group Flow (vph)	210	1946	0	68	1083	0	64	48	0	189	135	0
Heavy Vehicles (%)	5%	2%	6%	2%	5%	20%	6%	5%	2%	3%	2%	2%
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			8			4	
Permitted Phases							8			4		
Actuated Green, G (s)	22.8	92.0		8.9	78.1		30.6	30.6		30.6	30.6	
Effective Green, g (s)	26.8	95.0		12.9	81.1		33.1	33.1		33.1	33.1	
Actuated g/C Ratio	0.18	0.63		0.09	0.54		0.22	0.22		0.22	0.22	
Clearance Time (s)	7.0	6.0		7.0	6.0		5.5	5.5		5.5	5.5	
Vehicle Extension (s)	2.0	4.0		2.0	4.0		2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	291	3015		144	2497		45	344		226	336	
v/s Ratio Prot	c0.13	c0.41		0.04	0.23			0.03			0.09	
v/s Ratio Perm							c0.31			0.18		
v/c Ratio	0.72	0.65		0.47	0.43		1.42	0.14		0.84	0.40	
Uniform Delay, d1	58.1	17.1		65.3	20.7		58.5	47.0		55.9	50.0	
Progression Factor	0.93	1.13		0.89	1.19		1.00	1.00		0.98	0.88	
Incremental Delay, d2	4.6	0.7		0.8	0.5		281.1	0.1		21.7	0.3	
Delay (s)	58.6	19.9		59.0	25.2		339.5	47.1		76.7	44.5	
Level of Service	E	B		E	C		F	D		E	D	
Approach Delay (s)		23.7			27.1			153.4			55.5	
Approach LOS		C			C			F			E	

Intersection Summary			
HCM 2000 Control Delay	34.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	83.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



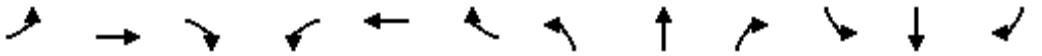
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	217	1008	85	87	1696	98	103	17	77	94	20	260
Future Volume (veh/h)	217	1008	85	87	1696	98	103	17	77	94	20	260
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1772	1772	1772	1688	1772	1772	1716	1772	1772
Adj Flow Rate, veh/h	241	1120	94	97	1884	109	114	19	86	104	22	289
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	8	2	2	6	2	2
Cap, veh/h	261	2439	205	117	2113	122	128	75	342	319	29	376
Arrive On Green	0.15	0.54	0.54	0.07	0.45	0.45	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	1688	4538	381	1688	4678	270	1018	279	1265	1248	106	1394
Grp Volume(v), veh/h	241	796	418	97	1297	696	114	0	105	104	0	311
Grp Sat Flow(s),veh/h/ln	1688	1612	1694	1688	1612	1723	1018	0	1544	1248	0	1500
Q Serve(g_s), s	21.1	22.7	22.8	8.5	55.3	55.7	11.9	0.0	8.0	10.7	0.0	28.6
Cycle Q Clear(g_c), s	21.1	22.7	22.8	8.5	55.3	55.7	40.5	0.0	8.0	18.7	0.0	28.6
Prop In Lane	1.00		0.22	1.00		0.16	1.00		0.82	1.00		0.93
Lane Grp Cap(c), veh/h	261	1733	910	117	1457	778	128	0	417	319	0	405
V/C Ratio(X)	0.92	0.46	0.46	0.83	0.89	0.89	0.89	0.00	0.25	0.33	0.00	0.77
Avail Cap(c_a), veh/h	304	1733	910	191	1457	778	128	0	417	319	0	405
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.93	0.26	0.26	0.26	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	62.5	21.3	21.3	68.9	37.7	37.8	70.8	0.0	42.9	50.2	0.0	50.4
Incr Delay (d2), s/veh	26.6	0.8	1.6	1.8	2.5	4.6	46.0	0.0	0.1	0.2	0.0	7.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	15.9	12.8	13.6	5.2	24.8	27.0	10.1	0.0	5.6	6.1	0.0	17.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	89.1	22.1	22.9	70.7	40.2	42.4	116.9	0.0	43.0	50.4	0.0	58.3
LnGrp LOS	F	C	C	E	D	D	F	A	D	D	A	E
Approach Vol, veh/h		1455			2090			219			415	
Approach Delay, s/veh		33.4			42.4			81.4			56.3	
Approach LOS		C			D			F			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	30.2	73.8		46.0	17.4	86.6		46.0				
Change Period (Y+Rc), s	7.0	6.0		5.5	7.0	6.0		5.5				
Max Green Setting (Gmax), s	27.0	64.0		40.5	17.0	74.0		40.5				
Max Q Clear Time (g_c+I1), s	23.1	57.7		30.6	10.5	24.8		42.5				
Green Ext Time (p_c), s	0.1	5.6		1.1	0.0	13.9		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		42.7	
HCM 6th LOS		D	

Notes

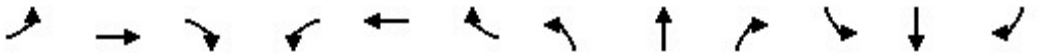
User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	217	1008	85	87	1696	98	103	17	77	94	20	260
Future Volume (vph)	217	1008	85	87	1696	98	103	17	77	94	20	260
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.99		1.00	0.88		1.00	0.86	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1676	4736		1676	4778		1583	1500		1613	1501	
Flt Permitted	0.95	1.00		0.95	1.00		0.25	1.00		0.61	1.00	
Satd. Flow (perm)	1676	4736		1676	4778		420	1500		1043	1501	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	241	1120	94	97	1884	109	114	19	86	104	22	289
RTOR Reduction (vph)	0	5	0	0	4	0	0	65	0	0	198	0
Lane Group Flow (vph)	241	1209	0	97	1989	0	114	40	0	104	113	0
Confl. Bikes (#/hr)			1									1
Heavy Vehicles (%)	2%	2%	7%	2%	2%	2%	8%	2%	6%	6%	2%	2%
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			8			4	
Permitted Phases							8			4		
Actuated Green, G (s)	23.9	84.4		12.7	73.2		34.4	34.4		34.4	34.4	
Effective Green, g (s)	27.9	87.4		16.7	76.2		36.9	36.9		36.9	36.9	
Actuated g/C Ratio	0.19	0.58		0.11	0.51		0.25	0.25		0.25	0.25	
Clearance Time (s)	7.0	6.0		7.0	6.0		5.5	5.5		5.5	5.5	
Vehicle Extension (s)	2.0	4.0		2.0	4.0		2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	311	2759		186	2427		103	369		256	369	
v/s Ratio Prot	c0.14	0.26		0.06	c0.42			0.03			0.08	
v/s Ratio Perm							c0.27			0.10		
v/c Ratio	0.77	0.44		0.52	0.82		1.11	0.11		0.41	0.31	
Uniform Delay, d1	58.1	17.5		62.9	31.1		56.6	43.8		47.4	46.1	
Progression Factor	0.97	1.04		1.29	0.61		1.00	1.00		1.05	1.67	
Incremental Delay, d2	10.1	0.5		0.4	1.2		120.4	0.0		0.3	0.2	
Delay (s)	66.3	18.7		81.3	20.1		176.9	43.9		50.0	77.4	
Level of Service	E	B		F	C		F	D		D	E	
Approach Delay (s)		26.6			23.0			113.1			70.5	
Approach LOS		C			C			F			E	

Intersection Summary			
HCM 2000 Control Delay	33.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	88.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	194	987	50	54	1659	89	64	12	48	81	14	224
Future Volume (veh/h)	194	987	50	54	1659	89	64	12	48	81	14	224
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1772	1702	1772	1772	1772	1688	1772	1716	1716	1772	1772
Adj Flow Rate, veh/h	198	1007	51	57	1765	95	71	13	53	84	15	233
Peak Hour Factor	0.98	0.98	0.98	0.94	0.94	0.94	0.90	0.90	0.90	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	7	2	2	2	8	2	6	6	2	2
Cap, veh/h	248	2148	901	405	1846	823	149	75	305	321	22	345
Arrive On Green	0.15	0.64	0.64	0.06	0.55	0.55	0.25	0.25	0.23	0.25	0.25	0.23
Sat Flow, veh/h	1688	3367	1412	1688	3367	1502	1078	305	1243	1293	91	1406
Grp Volume(v), veh/h	198	1007	51	57	1765	95	71	0	66	84	0	248
Grp Sat Flow(s),veh/h/ln	1688	1683	1412	1688	1683	1502	1078	0	1548	1293	0	1497
Q Serve(g_s), s	17.0	23.2	2.0	2.0	74.7	4.6	9.6	0.0	5.1	8.2	0.0	22.7
Cycle Q Clear(g_c), s	17.0	23.2	2.0	2.0	74.7	4.6	32.2	0.0	5.1	13.3	0.0	22.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.80	1.00		0.94
Lane Grp Cap(c), veh/h	248	2148	901	405	1846	823	149	0	379	321	0	367
V/C Ratio(X)	0.80	0.47	0.06	0.14	0.96	0.12	0.48	0.00	0.17	0.26	0.00	0.68
Avail Cap(c_a), veh/h	248	2148	901	467	1846	823	151	0	382	323	0	369
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.93	0.28	0.28	0.28	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	61.9	14.0	10.2	12.0	32.2	16.3	65.9	0.0	45.5	49.9	0.0	52.4
Incr Delay (d2), s/veh	14.7	0.7	0.1	0.0	4.8	0.1	0.9	0.0	0.1	0.2	0.0	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	12.6	12.7	1.1	1.3	33.4	2.6	4.9	0.0	3.7	4.8	0.0	13.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.6	14.7	10.3	12.1	37.0	16.4	66.8	0.0	45.6	50.1	0.0	56.3
LnGrp LOS	E	B	B	B	D	B	E	A	D	D	A	E
Approach Vol, veh/h		1256			1917			137			332	
Approach Delay, s/veh		24.3			35.2			56.6			54.7	
Approach LOS		C			D			E			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	25.0	85.2		39.8	11.5	98.7		39.8				
Change Period (Y+Rc), s	7.0	6.0		5.5	7.0	6.0		5.5				
Max Green Setting (Gmax), s	18.0	79.0		34.5	10.0	87.0		34.5				
Max Q Clear Time (g_c+I1), s	19.0	76.7		24.7	4.0	25.2		34.2				
Green Ext Time (p_c), s	0.0	2.1		0.8	0.0	12.4		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		34.0	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	194	987	50	54	1659	89	64	12	48	81	14	224
Future Volume (vph)	194	987	50	54	1659	89	64	12	48	81	14	224
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.88		1.00	0.86	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1676	3353	1401	1676	3353	1500	1583	1505		1613	1497	
Flt Permitted	0.95	1.00	1.00	0.28	1.00	1.00	0.19	1.00		0.66	1.00	
Satd. Flow (perm)	1676	3353	1401	502	3353	1500	313	1505		1126	1497	
Peak-hour factor, PHF	0.98	0.98	0.98	0.94	0.94	0.94	0.90	0.90	0.90	0.96	0.96	0.96
Adj. Flow (vph)	198	1007	51	57	1765	95	71	13	53	84	15	233
RTOR Reduction (vph)	0	0	14	0	0	37	0	44	0	0	121	0
Lane Group Flow (vph)	198	1007	37	57	1765	58	71	22	0	84	127	0
Confl. Bikes (#/hr)			1									1
Heavy Vehicles (%)	2%	2%	7%	2%	2%	2%	8%	2%	6%	6%	2%	2%
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			8			4	
Permitted Phases			6	2		2	8			4		
Actuated Green, G (s)	20.1	104.5	104.5	94.0	89.2	89.2	22.2	22.2		22.2	22.2	
Effective Green, g (s)	24.1	107.5	107.5	102.0	92.2	92.2	24.7	24.7		24.7	24.7	
Actuated g/C Ratio	0.16	0.72	0.72	0.68	0.61	0.61	0.16	0.16		0.16	0.16	
Clearance Time (s)	7.0	6.0	6.0	7.0	6.0	6.0	5.5	5.5		5.5	5.5	
Vehicle Extension (s)	2.0	4.0	4.0	2.0	4.0	4.0	2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	269	2402	1004	410	2060	922	51	247		185	246	
v/s Ratio Prot	c0.12	0.30		0.01	c0.53			0.01			0.08	
v/s Ratio Perm			0.03	0.09		0.04	c0.23			0.07		
v/c Ratio	0.74	0.42	0.04	0.14	0.86	0.06	1.39	0.09		0.45	0.52	
Uniform Delay, d1	59.9	8.6	6.2	8.0	23.5	11.6	62.6	53.1		56.6	57.2	
Progression Factor	0.96	1.36	4.05	0.49	0.44	0.18	1.00	1.00		0.96	0.96	
Incremental Delay, d2	8.3	0.5	0.1	0.0	2.0	0.1	261.1	0.1		0.6	0.7	
Delay (s)	65.9	12.2	25.1	3.9	12.2	2.1	323.8	53.2		54.7	55.5	
Level of Service	E	B	C	A	B	A	F	D		D	E	
Approach Delay (s)		21.2			11.5			193.4			55.3	
Approach LOS		C			B			F			E	

Intersection Summary			
HCM 2000 Control Delay	25.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	96.8%	ICU Level of Service	F
Analysis Period (min)	15		

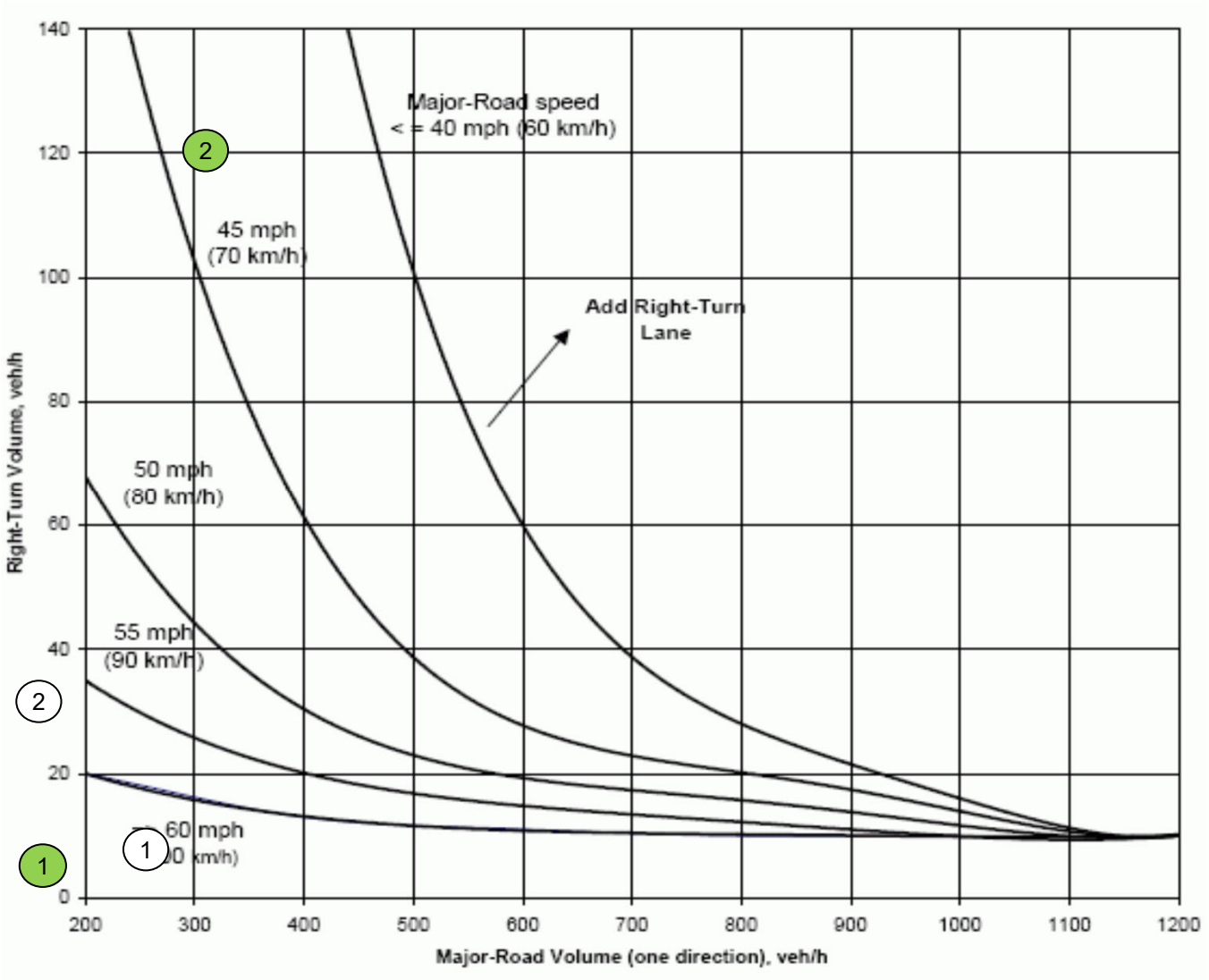
c Critical Lane Group

APPENDIX G: TURN LANE WARRANT WORKSHEETS

Benari Estates Subdivision
Eagle, Idaho

ACHD Right-turn Lane Guideline for Two-Lane Roadways
2021 Existing Traffic

Intersection	Approach	Speed Limit (mph)	Peak Hour	Right-Turn Volume (vph)	Major Road Volume (vph)	Meet Warrant?
(1) Moutain Creek Street and Ballantyne Lane	SB	35	AM	9	260	No
			PM	5	157	No
(2) State Street and Ballantyne Lane	WB	35	AM	33	157	No
			PM	120	305	No

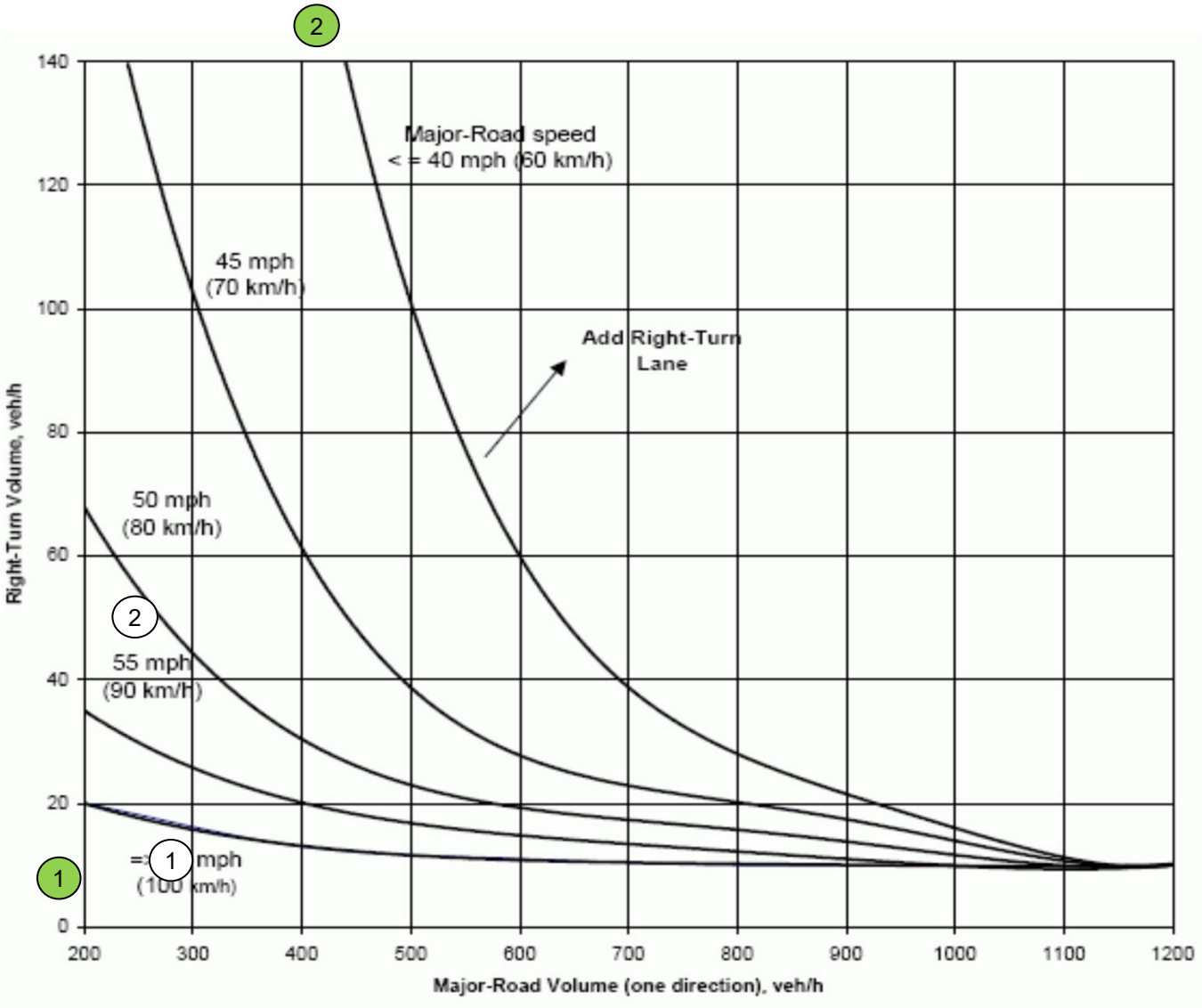


AM Peak (1) PM Peak (1)

Benari Estates Subdivision
Eagle, Idaho

ACHD Right-turn Lane Guideline for Two-Lane Roadways
2025 Background Traffic

Intersection	Approach	Speed Limit (mph)	Peak Hour	Right-Turn Volume (vph)	Major Road Volume (vph)	Meet Warrant?
(1) Moutain Creek Street and Ballantyne Lane	SB	35	AM	10	285	No
			PM	5	181	No
(2) State Street and Ballantyne Lane	WB	35	AM	51	237	No
			PM	158	411	No



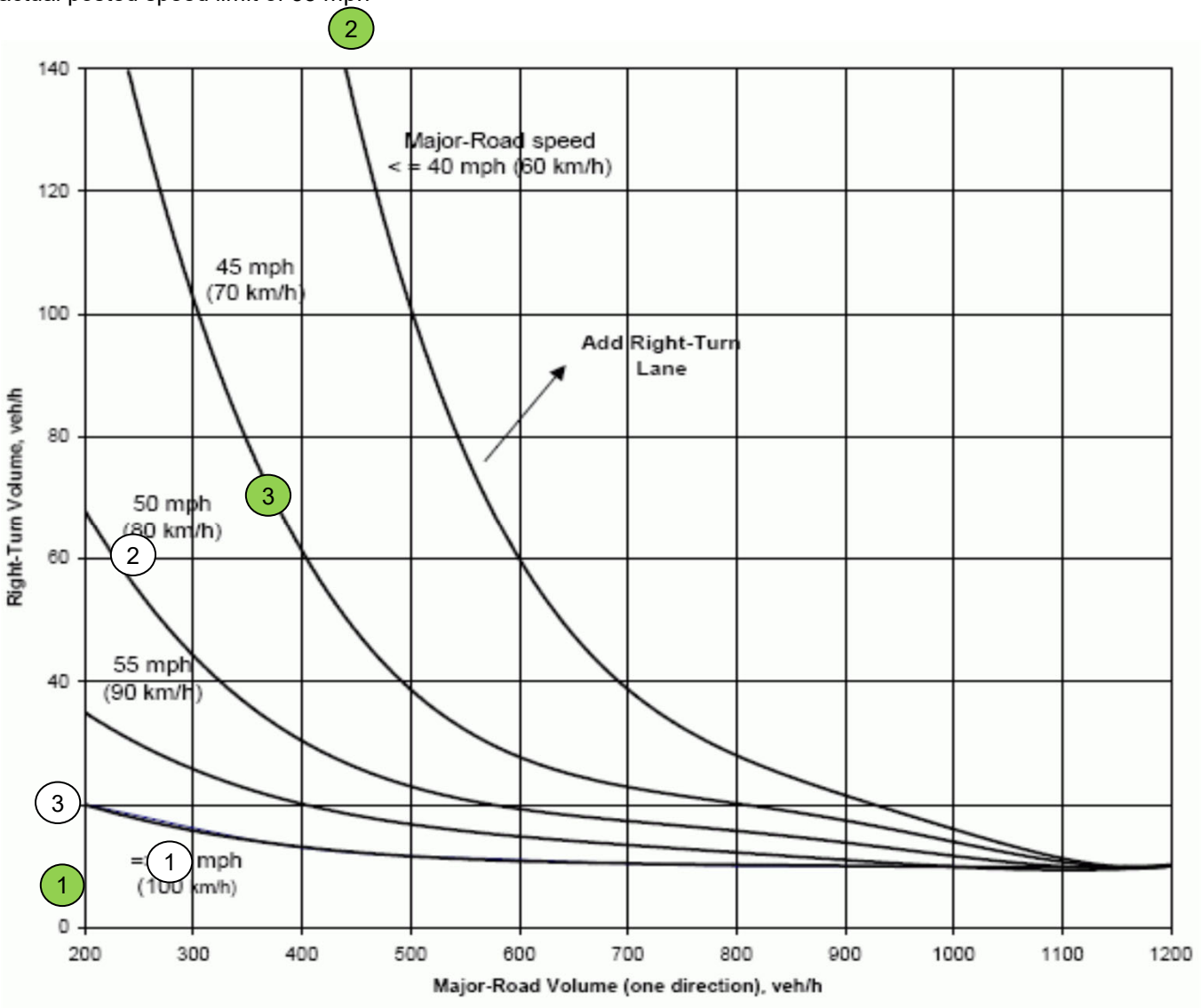
AM Peak (1) PM Peak (1)

Benari Estates Subdivision
Eagle, Idaho

ACHD Right-turn Lane Guideline for Two-Lane Roadways
2025 Total Traffic

Intersection	Approach	Speed Limit (mph)	Peak Hour	Right-Turn Volume (vph)	Major Road Volume (vph)	Meet Warrant?
(1) Moutain Creek Street and Ballantyne Lane	SB	35	AM	10	287	No
			PM	5	189	No
(2) State Street and Ballantyne Lane	WB	35	AM	60	246	No
			PM	190	443	No *
(3) Moutain Creek Street and Ballantyne Lane	NB	35	AM	20	195	No
			PM	70	376	No

* The right-turn lane was also not warranted when checked with NCHRP 457 Report spreadsheet with the actual posted speed limit of 35 mph



AM Peak (1) PM Peak (1)

State Street and Ballantyne Lane Intersection - WB Approach - 2025 Total PM Peak Hour Traffic

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

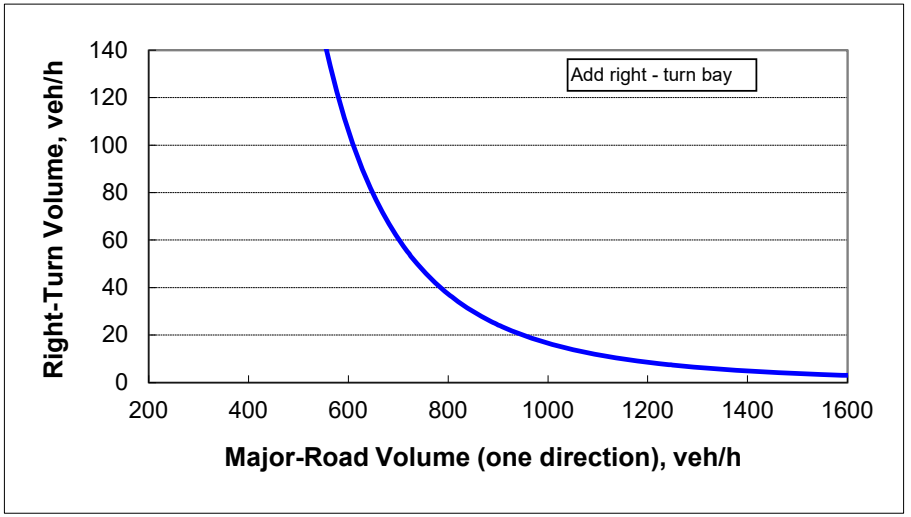
INPUT

Roadway geometry:	2-lane roadway

Variable	Value
Major-road speed, mph:	35
Major-road volume (one direction), veh/h:	443
Right-turn volume, veh/h:	190

OUTPUT

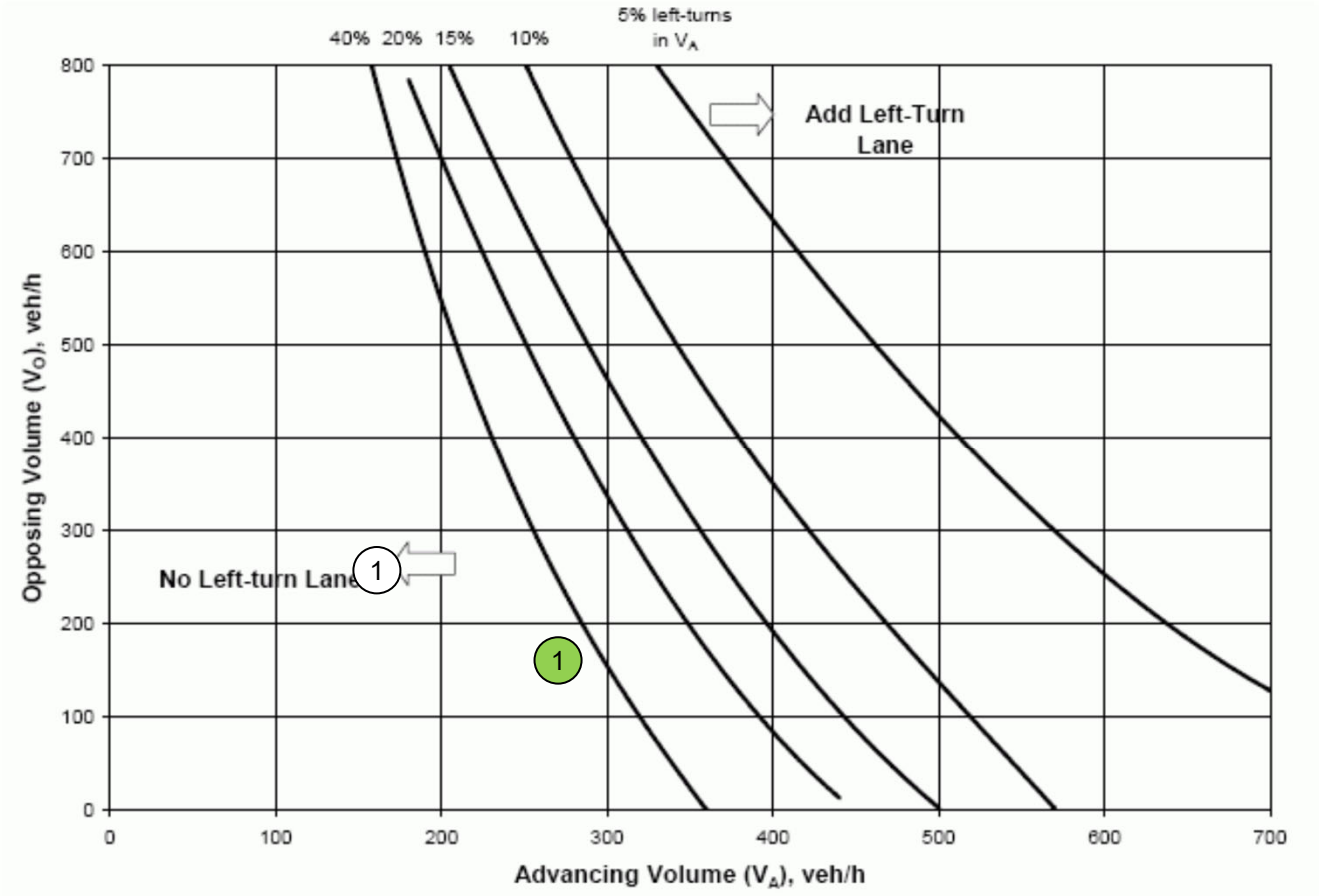
Variable	Value
Limiting right-turn volume, veh/h:	319
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



Benari Estates Subdivision
Eagle, Idaho

ACHD Left-Turn Lane Guidelines for Two-Lane Roads, 40 mph or Less
2021 Existing Traffic

Intersection	Approach	Speed Limit (mph)	Peak Hour	Advancing Volume (vph)	Opposing Volume (vph)	Left-Turn Volume (%)	Meet Warrant?
(1) Mountain Creek Street and Ballantyne Lane	NB	35	AM	153	260	5.9%	No
			PM	276	157	9.4%	No

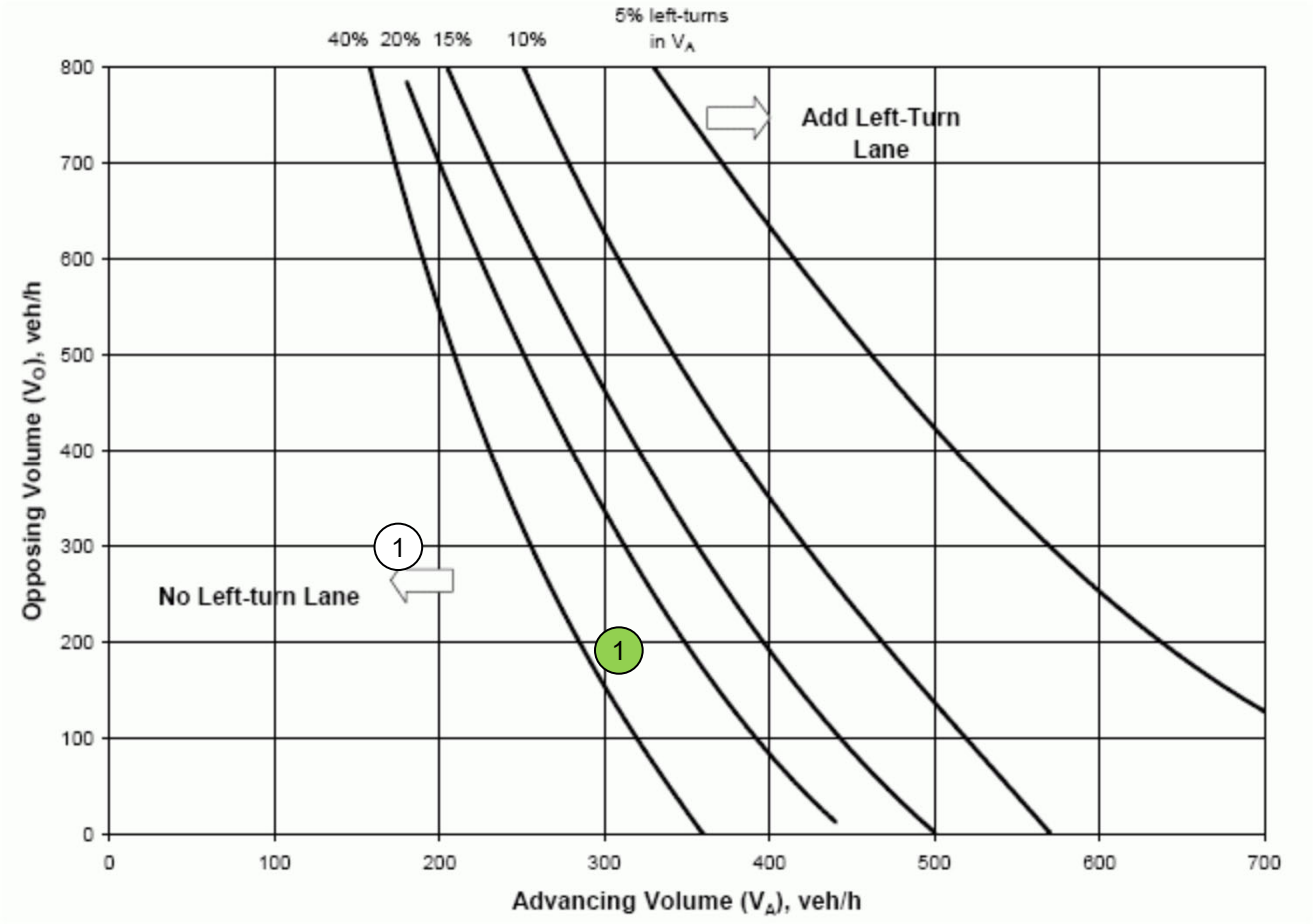


AM Peak (1) PM Peak (1)

Benari Estates Subdivision
Eagle, Idaho

ACHD Left-Turn Lane Guidelines for Two-Lane Roads, 40 mph or Less
2025 Background Traffic

Intersection	Approach	Speed Limit (mph)	Peak Hour	Advancing Volume (vph)	Opposing Volume (vph)	Left-Turn Volume (%)	Meet Warrant?
(1) Mountain Creek Street and Ballantyne Lane	NB	35	AM	175	285	5.7%	No
			PM	306	181	9.2%	No

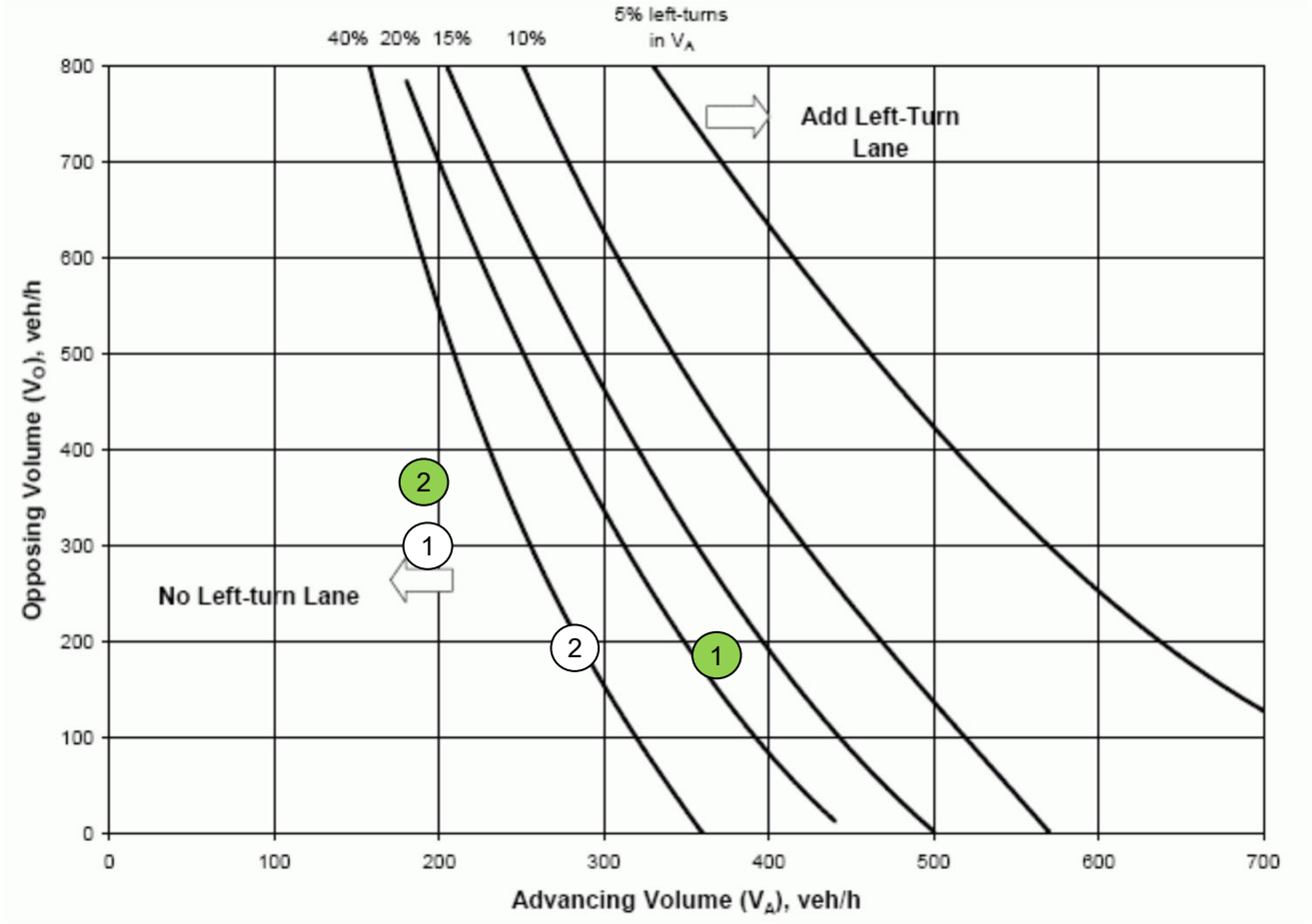


AM Peak (1) PM Peak (1)

Benari Estates Subdivision
Eagle, Idaho

ACHD Left-Turn Lane Guidelines for Two-Lane Roads, 40 mph or Less
2025 Total Traffic

Intersection	Approach	Speed Limit (mph)	Peak Hour	Advancing Volume (vph)	Opposing Volume (vph)	Left-Turn Volume (%)	Meet Warrant?
(1) Mountain Creek Street and Ballantyne Lane	NB	35	AM	195	285	5.1%	No
			PM	376	181	7.4%	No
(2) Mountain Creek Street and Ballantyne Lane	SB	35	AM	287	185	0.7%	No
			PM	189	348	4.2%	No



AM Peak (1) PM Peak (1)

APPENDIX H: INTERSECTION SIGHT DISTANCE

Proposed Access (Mountain Creek St) Looking South

Proposed Access (Mountain Creek St) Looking South

Proposed Access (Mountain Creek St) Looking North