

Traffic Impact Study

To: City of Lone Tree

From: Eli Farney, PE, PTOE

Date: March 24, 2026

Hillcamp Development

Lone Tree, Colorado

Prepared By:



7200 South Alton Way, Suite C400
Centennial, CO 80112

Eli Farney, PE, PTOE

Client Manager

efarney@jrengineering.com

Chandler Croneigh, PE, PTOE

Project Manager

ccroneigh@jrengineering.com

Connor Beekman

Project Engineer

cbeekman@jrengineering.com

Table of Contents

Executive Summary	3
Introduction	4
Existing Conditions	6
Traffic Volumes and Distribution	7
Traffic Operations Analysis	16
Conclusion	21

List of Figures

Figure 1: Vicinity Map	5
Figure 2: 2024 Existing Traffic Volumes and Lane Geometry	9
Figure 3: Site-Generated Traffic Volumes and Distribution	10
Figure 4: Proposed Lane Geometry	11
Figure 5: 2028 Opening Day Background Traffic Volumes	12
Figure 6: 2028 Opening Day Total Traffic Volumes	13
Figure 7: 2045 Future Year Background Traffic Volumes	14
Figure 8: 2045 Future Year Total Traffic Volumes	15

List of Tables

Table 1: 2024 Existing Levels of Service	16
Table 2: 2028 Opening Day Levels of Service	17
Table 3: 2045 Future Year Levels of Service	18
Table 4: 2024 Existing 95 th Percentile Queue Lengths	19
Table 5: 2028 Opening Day 95 th Percentile Queue Lengths	19
Table 6: 2045 Future Year 95 th Percentile Queue Lengths	20

List of Appendices

- Appendix A: Site Plan
- Appendix B: Traffic Counts
- Appendix C: Trip Generation
- Appendix D: Synchro Reports

Executive Summary

JR Engineering (JR) has completed a review of the traffic impacts resulting from the proposed development of Hillcamp (Project) in Lone Tree, Colorado (City).

The objectives of this Traffic Impact Study (TIS, Study) are:

- Analyze 2024 existing traffic operations
- Estimate site-generated traffic and route onto nearby streets
- Analyze 2028 Opening Day and 2045 Future Year traffic operations
- Recommend mitigations to accommodate added traffic

The methodology, content, and findings of this TIS are consistent with the following document:

- Douglas County *Roadway Design and Construction Standards*, Appendix B – Traffic Impact Study Criteria

Key Findings of this TIS

- Levels of Service: Existing levels of service at the Ridgeway & Cabela intersection are satisfactory. In the 2028 Opening Day condition, traffic operations are expected to degrade at Ridgeway & Cabela as a result of higher background traffic volumes and site-generated traffic. Still, no operational issues are anticipated. The internal intersections are expected to operate well. In the 2045 Future Year condition, no operational failures are identified.
- Queue Lengths: Existing queue lengths are acceptable at the Ridgeway & Cabela intersection. In the 2028 Opening Day condition, queue lengths at Ridgeway & Cabela are expected to increase as a result of higher background traffic volumes and site-generated traffic. However, no queuing issues are anticipated. Queue lengths at the internal intersections, including the couplets, are expected to be nominal. In the 2045 Future Year condition, no queuing issues are identified.
- Recommendations: The traffic signal at Ridgeway & Cabela functions satisfactorily in the existing condition and the projected future conditions. JR recommends maintaining the existing lane geometry. However, signal timing may need to be adjusted in the future due to site-generated traffic and additional background traffic.

Introduction

JR has completed a review of the existing and forecasted traffic operations in the vicinity of the Hillcamp development. A vicinity map is included in **Figure 1**.

Proposed Land Use

The development is anticipated to contain the following land use:

- 343 Single-Family Homes (ITE 210)

A site plan is included in **Appendix A**.

Study Intersections

One existing intersection and three proposed internal intersections were analyzed in this Study:

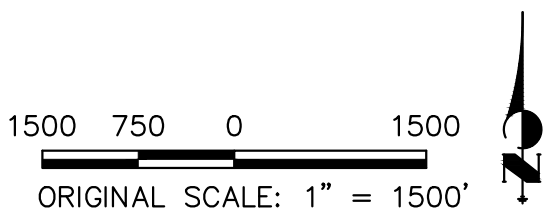
- Ridgeway Parkway & Cabela Drive (E1)
 - Signalized
- Hillcamp Trail & Stay True Trail (P1)
 - Two-Way Stop-Controlled
- Hillcamp Trail & Gambel Edge Drive (West Couplet) (P2)
 - Two-Way Stop-Controlled
- Hillcamp Trail & Gambel Edge Drive (East Couplet) (P3)
 - Two-Way Stop-Controlled

Proposed lane geometry at the Study intersections is shown in **Figure 4**. The couplet at Hillcamp & Gambel Edge was analyzed as two separate intersections. The purpose of this analysis is to verify that vehicle queuing will not cause operational issues between closely spaced intersections.

JR notes that the City is currently designing a bikeway project to improve the trail along the south side of Ridgeway Parkway. This may include improvements at the Ridgeway & Cabela intersection.



Figure 1 - Vicinity Map



Existing Conditions

Existing Land Use and Access

The Project site is currently vacant. No trips are generated in the existing condition.

The only public access for the Hillcamp development is existing Cabela Drive, which currently has a dead-end 2,000 feet south of Ridgegate Parkway. The project will connect into the existing dead-end, where the name of the road will change to Hillcamp Trail.

Additionally, the Hillcamp development is proposed to have two emergency vehicle accesses, which will connect to existing McArthur Drive to the west and Heather Drive to the south. These accesses are labeled in **Figure 3**.

Existing Traffic Volumes

Existing traffic volumes were obtained on Tuesday, November 12, 2024 by All Traffic Data Services. Counts were collected at the Ridgegate & Cabela intersection, along with a 24-hour tube count on Ridgegate Parkway northwest of Cabela. Existing traffic volumes are shown in **Figure 2**. Traffic counts are included in **Appendix B**.

Traffic Volumes and Distribution

Background Traffic

JR applied a 1.5% growth rate to the existing traffic volumes to account for future regional development. This growth rate is consistent with the DRCOG travel demand model.

In addition to the growth rate, JR added background traffic from the proposed retail development adjacent to the existing Cabela's store. This development was analyzed in March 2012 by Felsburg Holt & Ullevig. A trip generation report for this development is included in **Appendix C**.

Future background traffic volumes are shown in **Figure 5** (2028) and **Figure 7** (2045).

Site-Generated Traffic Volumes

Site-generated traffic volumes were estimated using ITE *Trip Generation Manual*, 11th Edition. The development is expected to produce the following trips:

- Average Daily Trips: 3,136
- AM Peak Entering Site: 57
- AM Peak Exiting Site: 172
- PM Peak Entering Site: 199
- PM Peak Exiting Site: 118

Site-generated traffic volumes are shown in **Figure 3**. A trip generation report is included in **Appendix C**.

Distribution of Site-Generated Traffic

Site-generated traffic was routed onto adjacent streets according to the distribution in **Figure 3**. 60% of site-generated traffic was routed east on Ridgeway Parkway and the other 40% was routed west/north on Ridgeway Parkway.

Total Traffic

Total traffic is the sum of background and site-generated traffic. JR forecasted total traffic volumes at the Study intersections in the years 2028 (Opening Day) and 2045 (Future Year). Total traffic is shown in **Figure 6** (2028) and **Figure 8** (2045).

Average Daily Traffic on Ridgeway Parkway

JR determined average daily traffic (ADT) volumes along Ridgeway Parkway, west/north of Cabela Drive. ADT volumes for existing and future conditions are included in the traffic figures.

Internal Roadway Classifications and Average Daily Traffic

JR considered the appropriate roadway classification for roads within the Hillcamp development. Douglas County standards allow up to 2,500 ADT for Urban Local roads in fully established communities.

Cabela Drive/Hillcamp Trail, which serves as the primary access to the site, is classified as a collector. All other internal roadways shall be classified as local roads. Although the daily trip generation for the site is 3,136 trips, these trips are dispersed such that no local road carries more than 2,500 trips. ADT volumes are shown in the traffic figures.

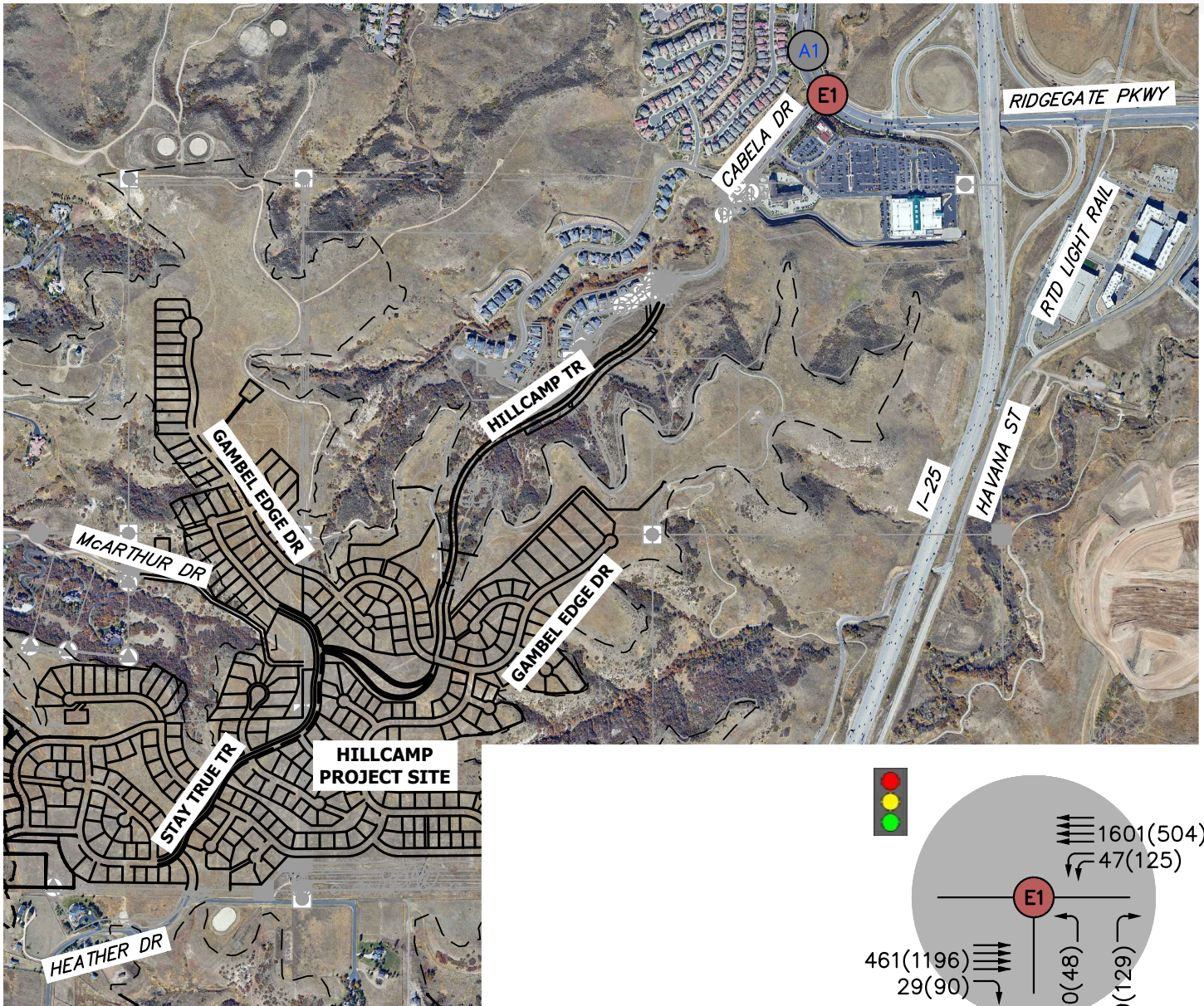
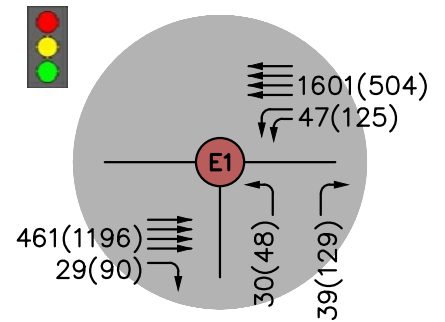


Figure 2 - 2024 Existing Traffic Volumes and Lane Geometry



LEGEND

- XX PROPOSED INTERSECTION
- XX EXISTING INTERSECTION
- XX AVERAGE DAILY TRAFFIC
- XX (XX) AM (PM) PEAK HOUR TRIPS
- STOP SIGN CONTROL

1200 600 0 1200

ORIGINAL SCALE: 1" = 1200'



A1 20,000 AVERAGE DAILY TRAFFIC

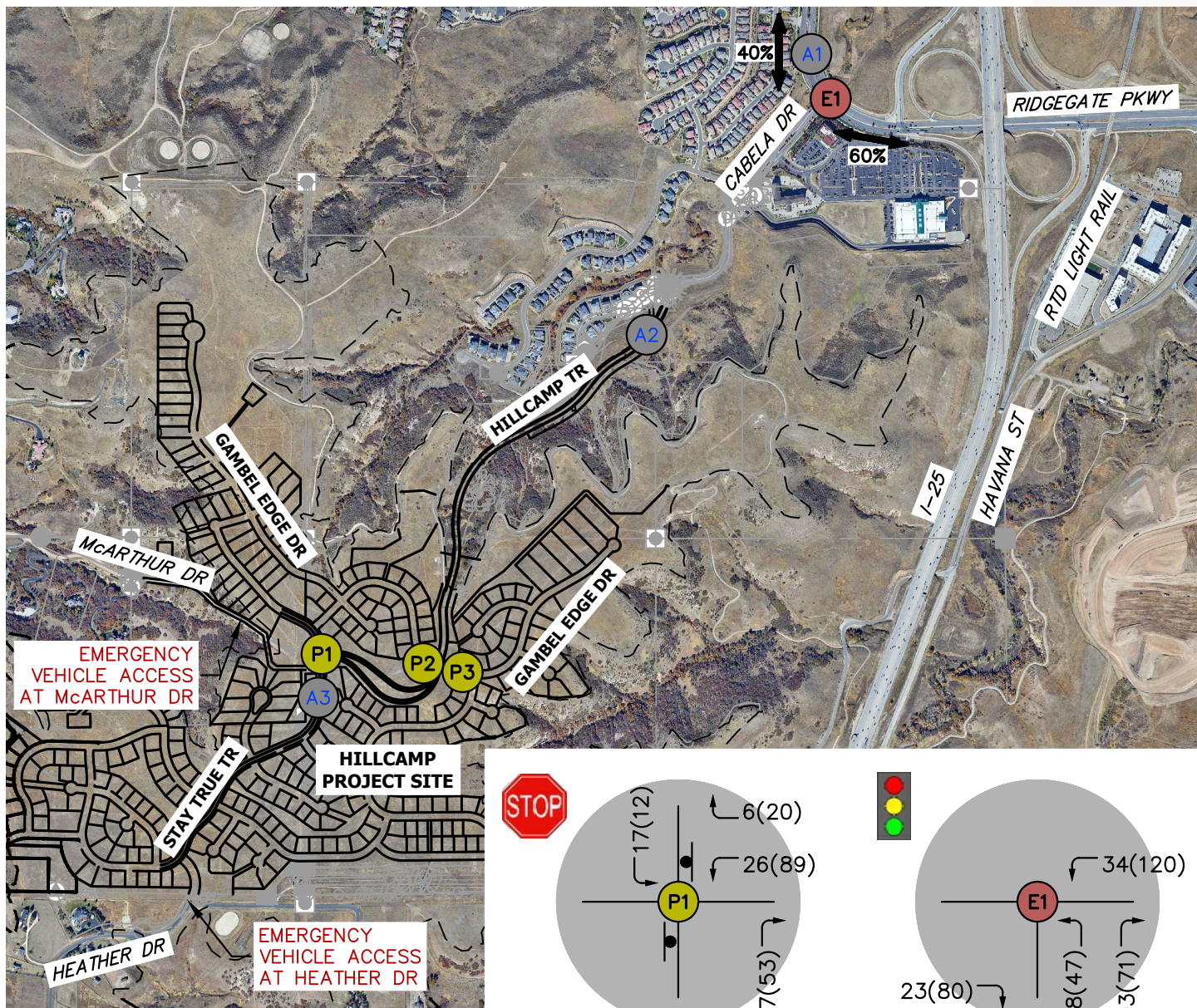
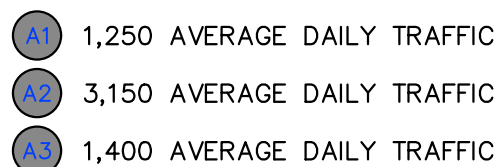
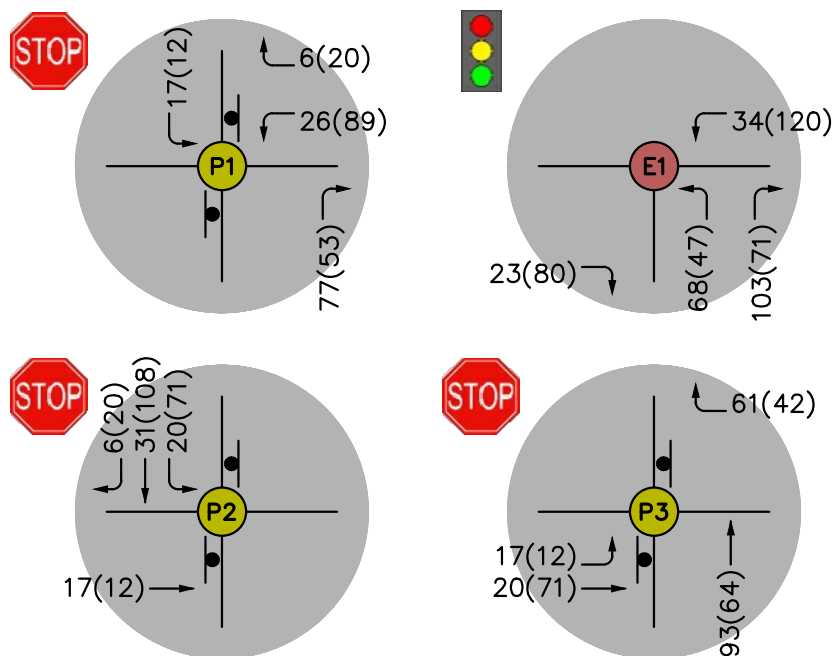
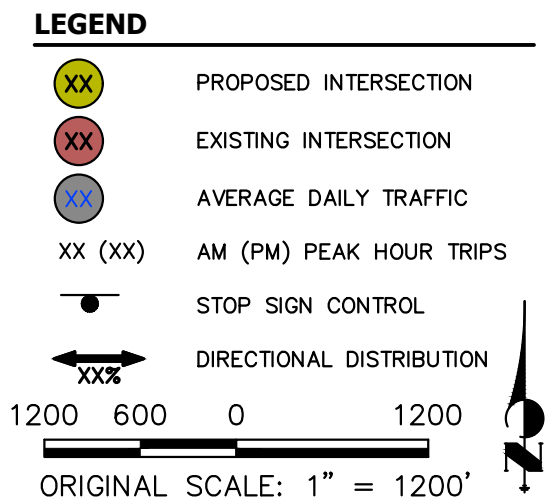


Figure 3 - Site-Generated Traffic Volumes and Distribution



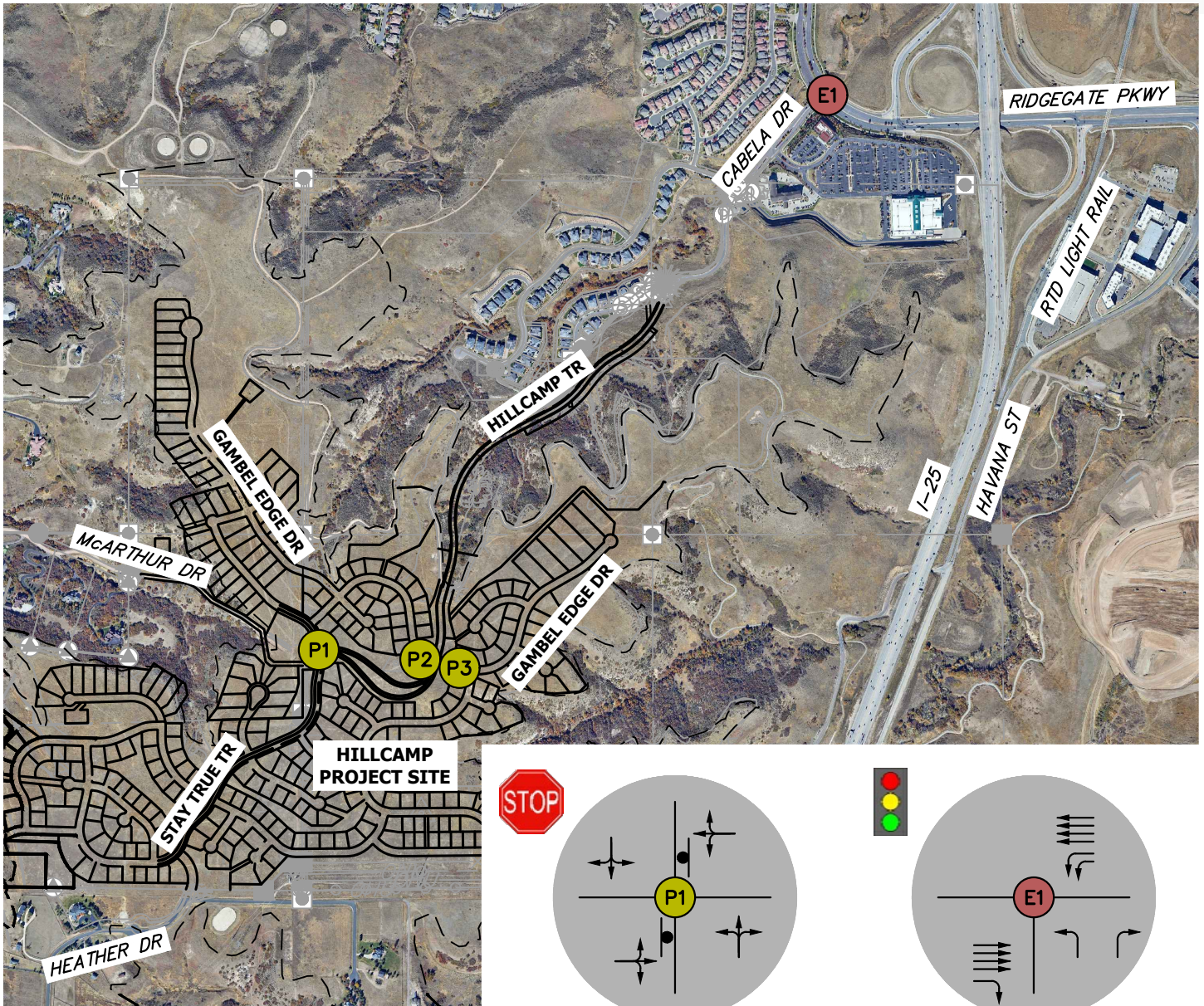
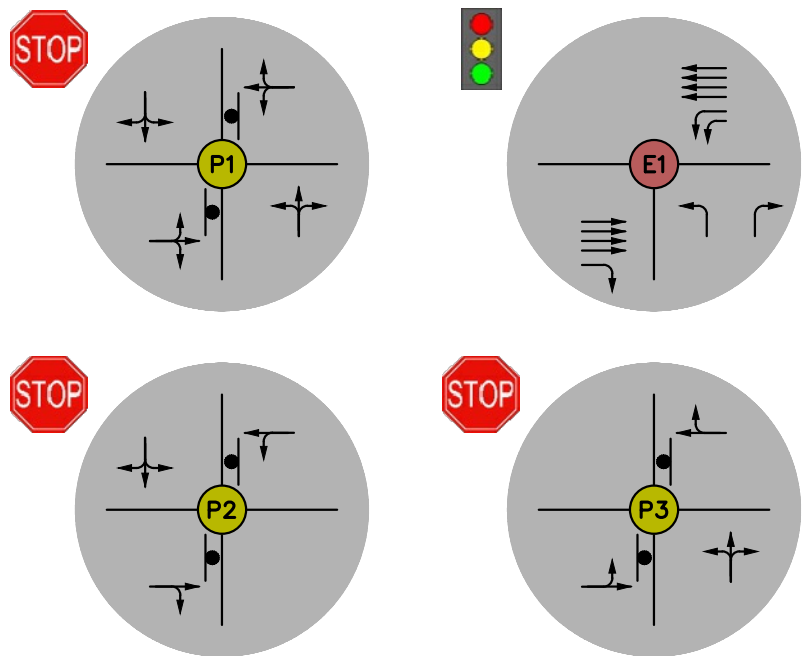


Figure 4 - Proposed Lane Geometry



LEGEND

- XX PROPOSED INTERSECTION
- XX EXISTING INTERSECTION
- XX AVERAGE DAILY TRAFFIC
- XX (XX) AM (PM) PEAK HOUR TRIPS
- STOP SIGN CONTROL

1200 600 0 1200

ORIGINAL SCALE: 1" = 1200'



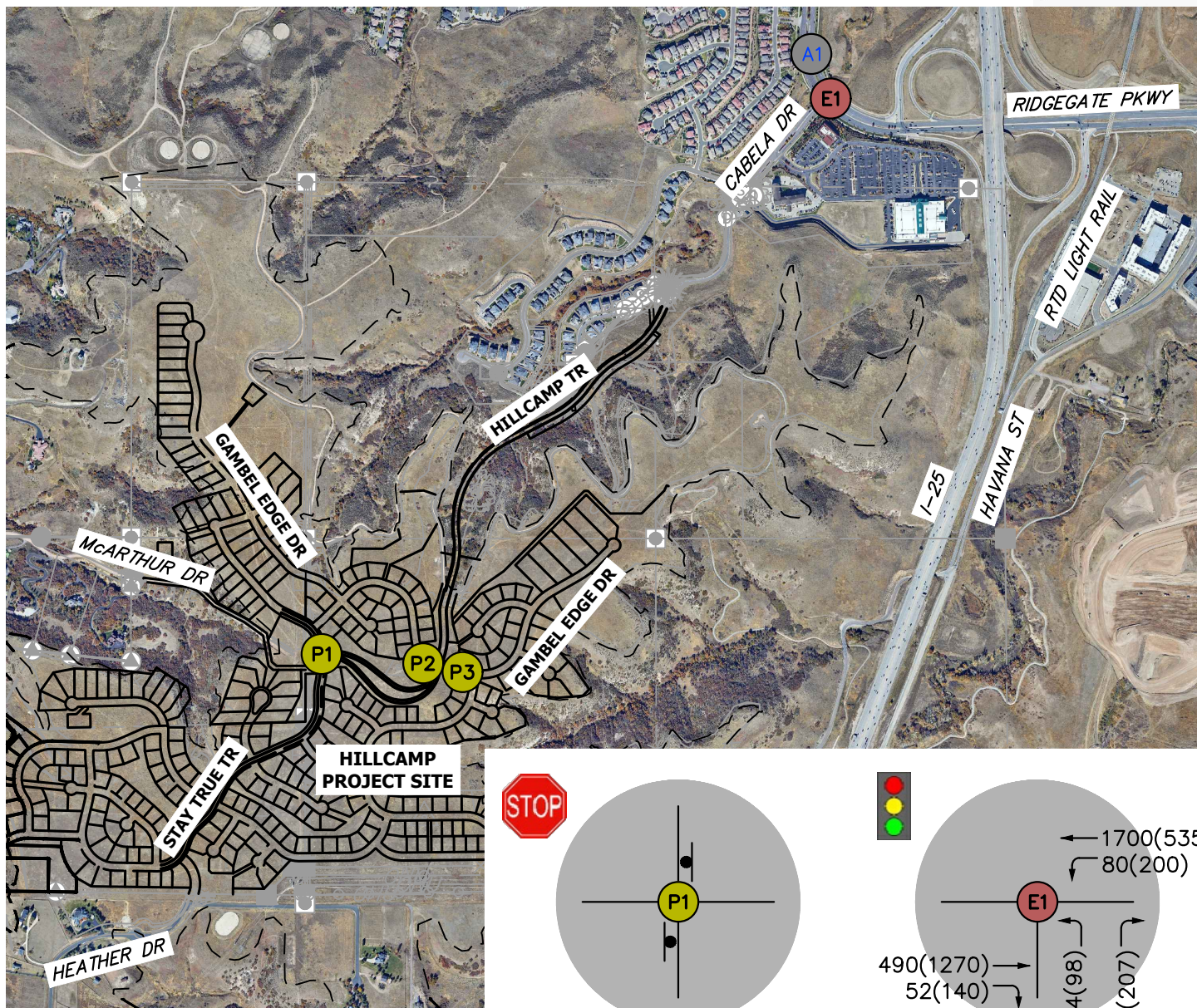
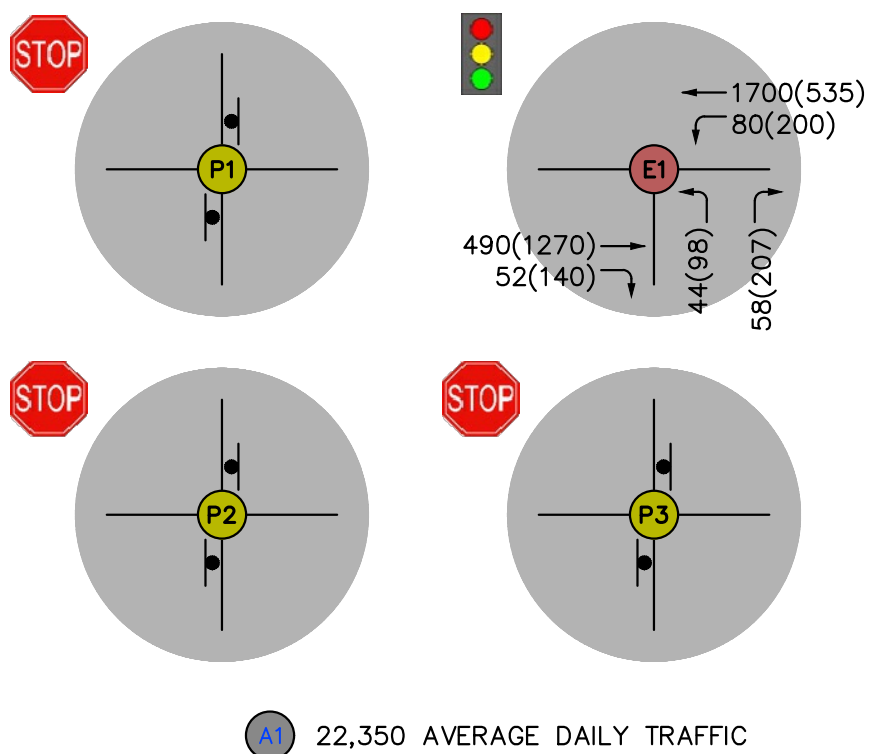
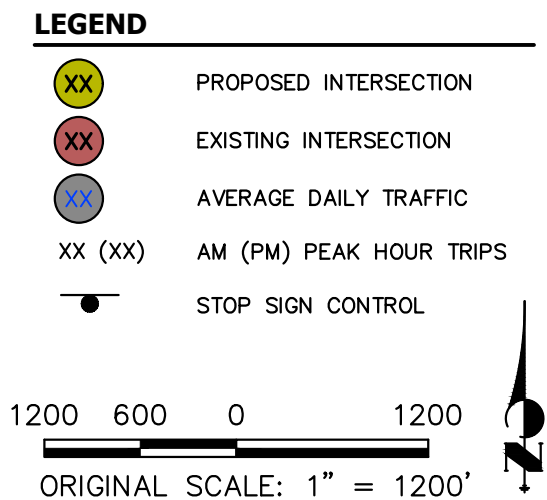


Figure 5 - 2028 Opening Day Background Traffic Volumes



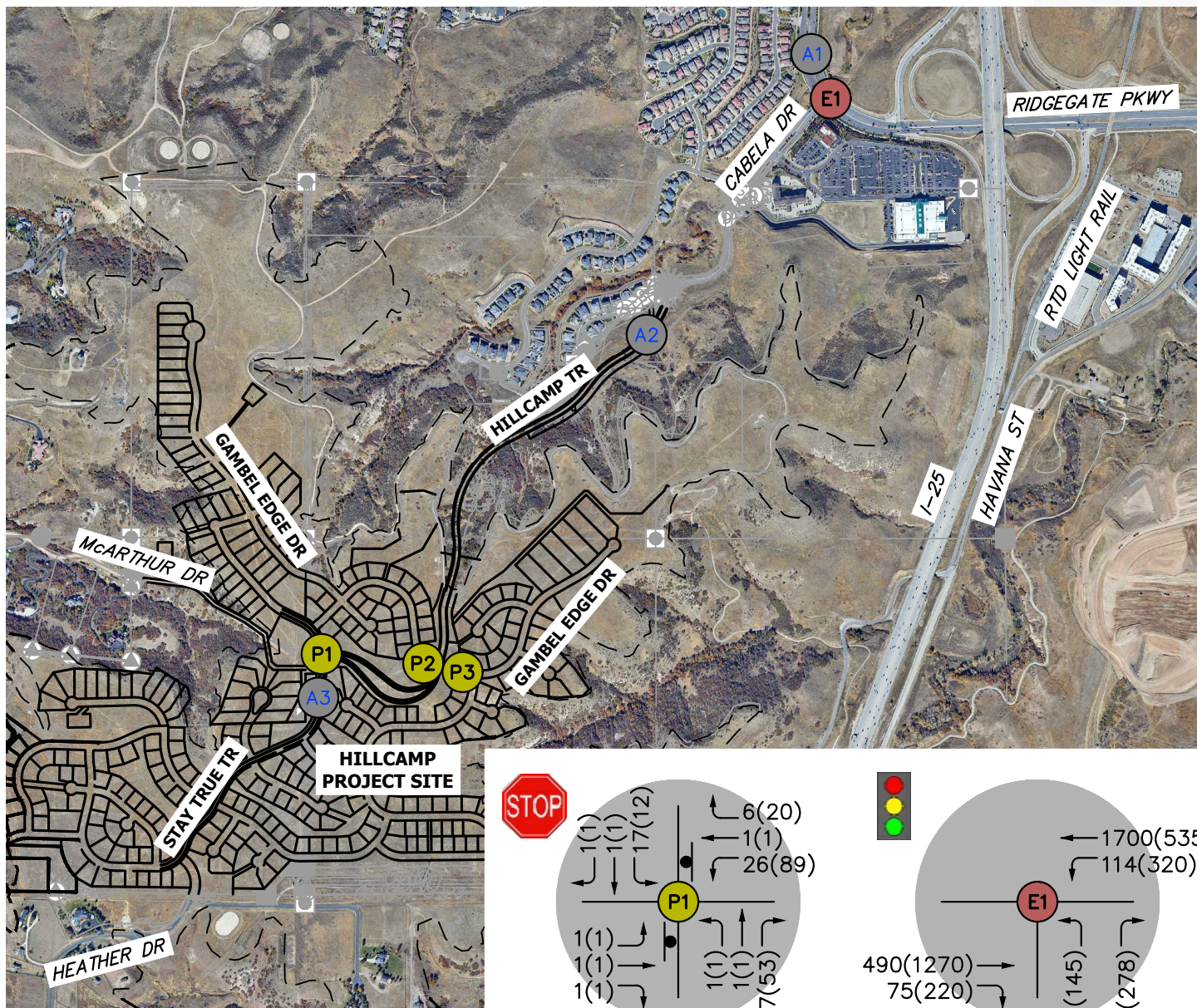


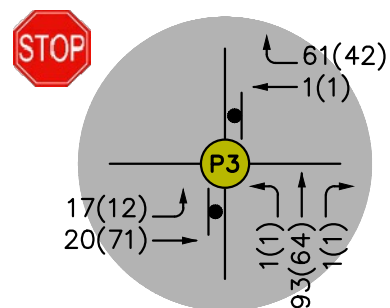
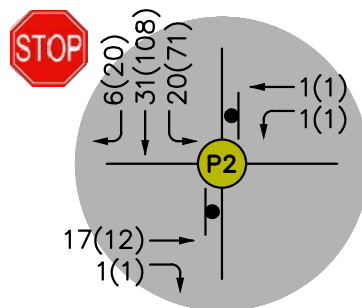
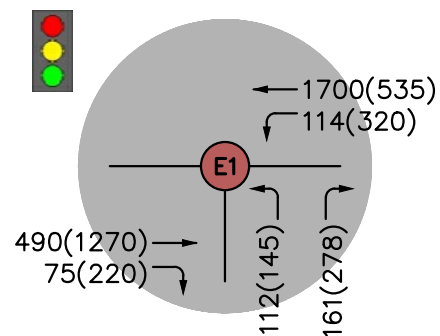
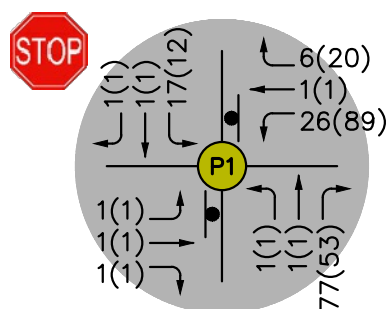
Figure 6 - 2028 Opening Day Total Traffic Volumes

LEGEND

- XX PROPOSED INTERSECTION
- XX EXISTING INTERSECTION
- XX AVERAGE DAILY TRAFFIC
- XX (XX) AM (PM) PEAK HOUR TRIPS
- STOP SIGN CONTROL

1200 600 0 1200

ORIGINAL SCALE: 1" = 1200'



- A1 23,600 AVERAGE DAILY TRAFFIC
- A2 3,150 AVERAGE DAILY TRAFFIC
- A3 1,400 AVERAGE DAILY TRAFFIC

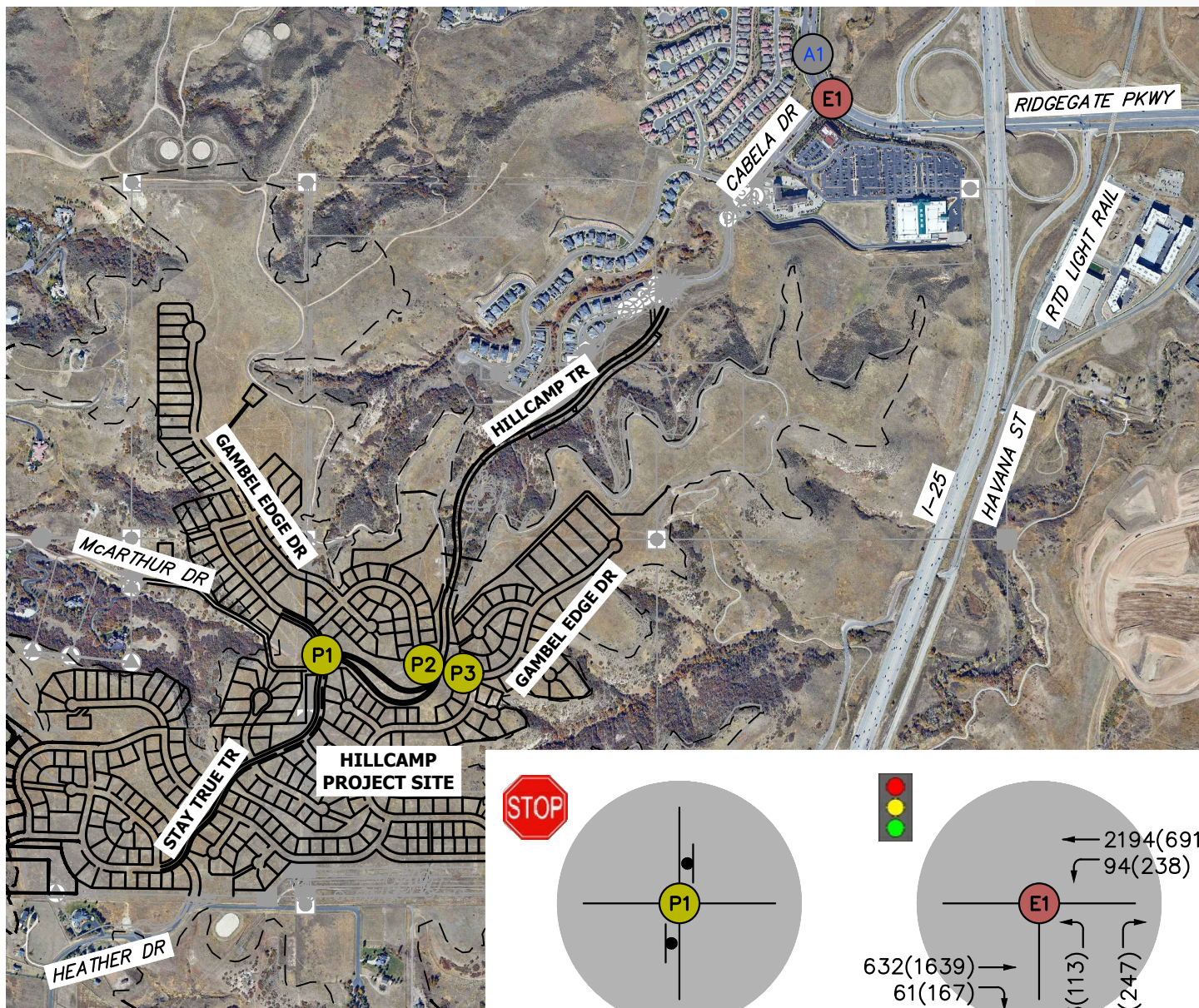
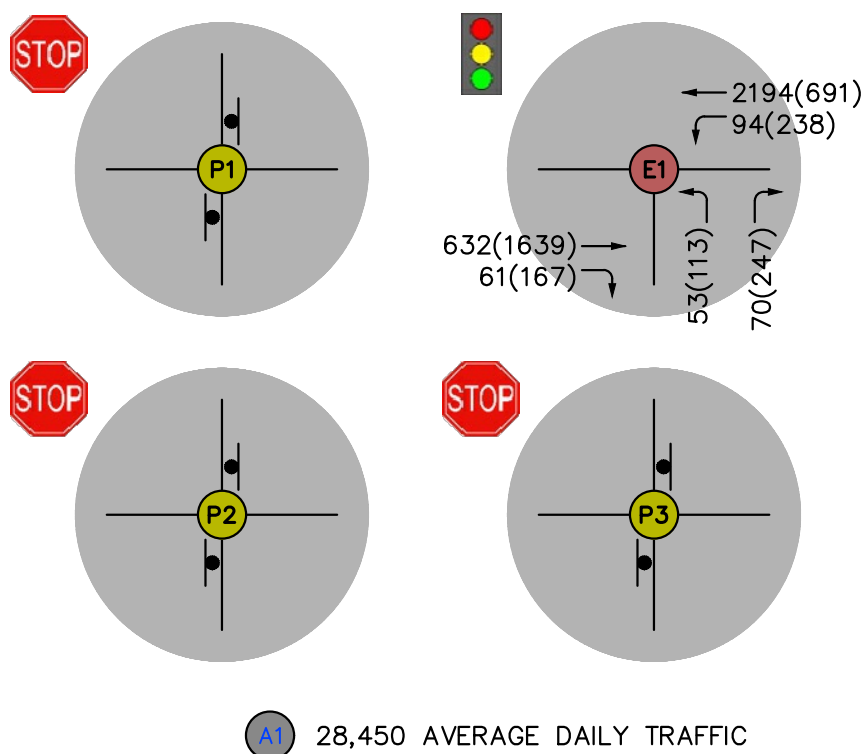
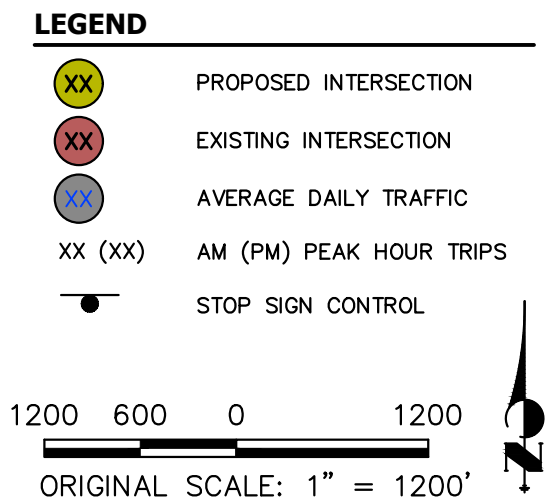


Figure 7 - 2045 Future Year Background Traffic Volumes



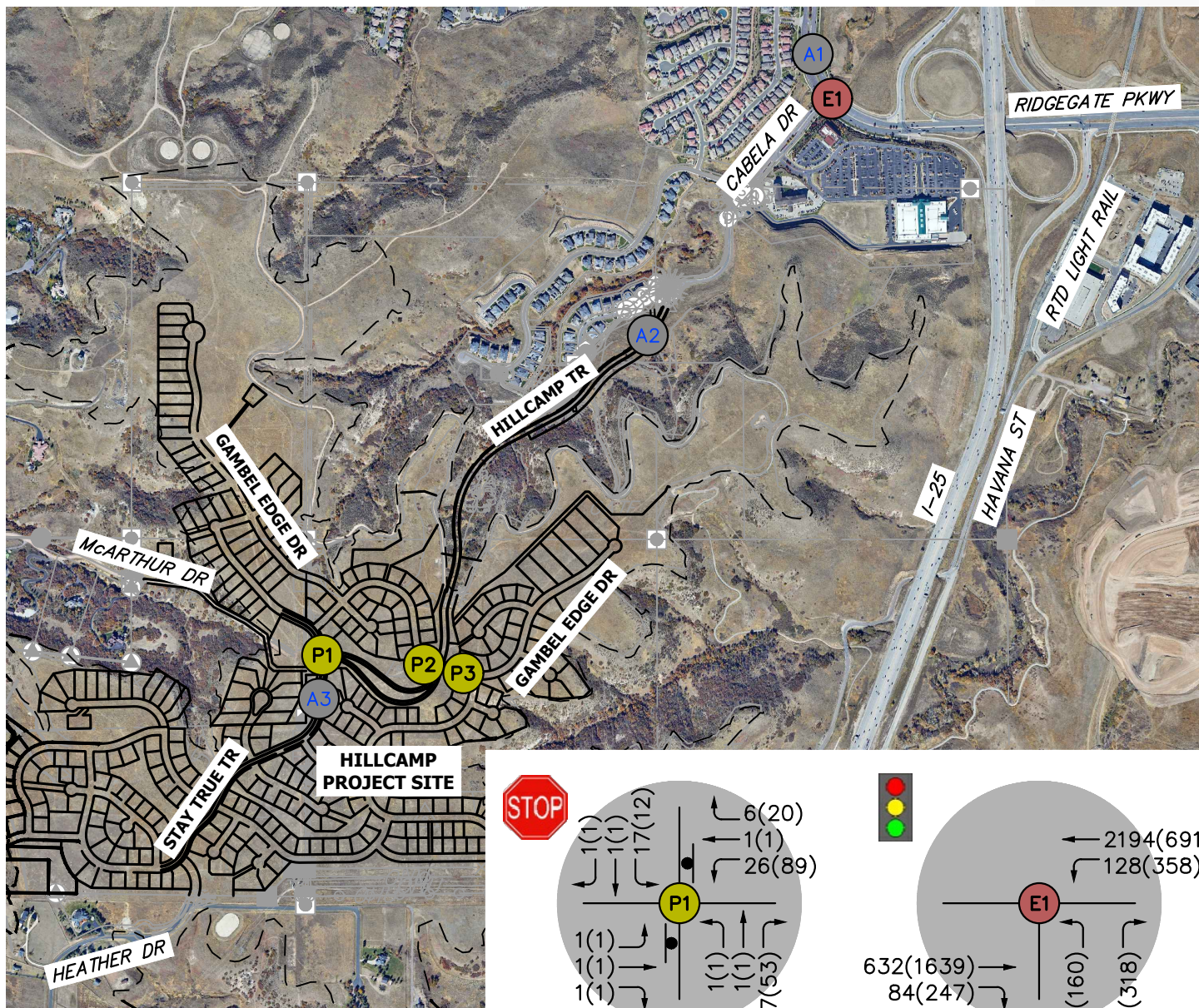


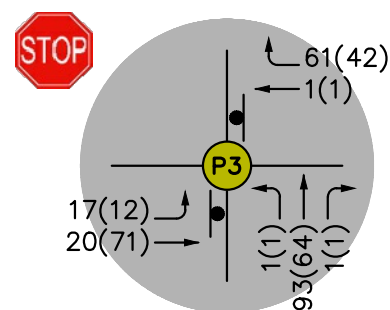
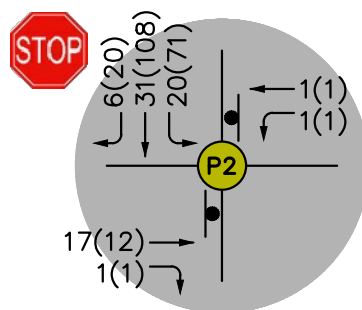
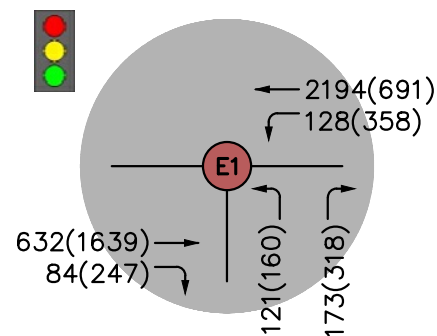
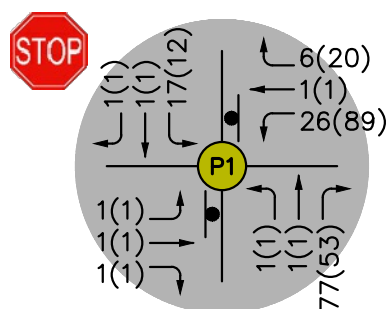
Figure 8 - 2045 Future Year Total Traffic Volumes

LEGEND

- XX PROPOSED INTERSECTION
- XX EXISTING INTERSECTION
- XX AVERAGE DAILY TRAFFIC
- XX (XX) AM (PM) PEAK HOUR TRIPS
- STOP SIGN CONTROL

1200 600 0 1200

ORIGINAL SCALE: 1" = 1200'



- A1 29,700 AVERAGE DAILY TRAFFIC
- A2 3,150 AVERAGE DAILY TRAFFIC
- A3 1,400 AVERAGE DAILY TRAFFIC

Traffic Operations Analysis

Traffic operations were analyzed using *Highway Capacity Manual*, 7th Edition methodology. Synchro reports are included in **Appendix D**.

Proposed Lane Geometry

Ridgegate & Cabela Intersection (E1)

For this traffic operations analysis, existing lane geometry was assumed to remain at the Ridgegate & Cabela intersection through year 2045.

Hillcamp & Stay True Intersection (P1)

The intersection of Hillcamp Trail & Stay True Trail was modeled with two-way stop control (TWSC), with stop signs on the east and west legs. The west leg is the access to the proposed community center. No turn lanes are proposed at this intersection.

Hillcamp & Gambel Edge (West Couplet) (P2)

The west couplet intersection was modeled with TWSC, with stop signs on Gambel Edge (east and west legs). No turn lanes are proposed.

Hillcamp & Gambel Edge (East Couplet) (P3)

Similar to the west couplet, the east couplet intersection was modeled with TWSC, with stop signs on Gambel Edge. No turn lanes are proposed.

Levels of Service

JR analyzed the Study intersections for peak hour level of service (LOS). **Table 1** includes the LOS for each movement in the existing condition (year 2024). **Table 2** includes the forecasted LOS for background traffic and total traffic in the year 2028. **Table 3** includes the forecasted LOS for background traffic and total traffic in the year 2045.

Table 1: 2024 Existing Levels of Service



Intersection	Movement/Approach	AM Peak LOS	PM Peak LOS
E1: Ridgegate Parkway & Cabela Drive	EB Through	B	B
	EB Right	B	B
	WB Left	C	C
	WB Through	B	A
	NB Left	B	B
	NB Right	B	B
	Overall	B	B

Table 2: 2028 Opening Day Levels of Service

	Intersection	Movement/ Approach	AM Peak LOS		PM Peak LOS	
			Background Traffic	Total Traffic	Background Traffic	Total Traffic
	E1: Ridgeway Parkway & Cabela Drive	EB Through	B	B	B	C
		EB Right	B	B	B	B
		WB Left	C	C	C	D
		WB Through	B	B	A	A
		NB Left	B	B	B	B
		NB Right	B	B	B	C
		Overall	B	B	B	B
	P1: Hillcamp Trail & Stay True Trail	EB Approach	-	A	-	A
		WB Approach	-	A	-	A
		NB Approach	-	A	-	A
		SB Approach	-	A	-	A
	P2: Hillcamp Trail & Gambel Edge Drive (West Couplet)	EB Through/Right	-	A	-	B
		WB Left/Through	-	A	-	B
	P3: Hillcamp Trail & Gambel Edge Drive (East Couplet)	EB Left/Through	-	A	-	B
		WB Through/Right	-	A	-	A

Table 3: 2045 Future Year Levels of Service

	Intersection	Movement/ Approach	AM Peak LOS		PM Peak LOS	
			Background Traffic	Total Traffic	Background Traffic	Total Traffic
	E1: Ridgeway Parkway & Cabela Drive	EB Through	B	B	C	C
		EB Right	B	B	B	B
		WB Left	C	C	C	D
		WB Through	B	B	A	A
		NB Left	B	B	B	C
		NB Right	B	B	C	D
		Overall	B	B	B	C
	P1: Hillcamp Trail & Stay True Trail	EB Approach	-	A	-	A
		WB Approach	-	A	-	A
		NB Approach	-	A	-	A
		SB Approach	-	A	-	A
	P2: Hillcamp Trail & Gambel Edge Drive (West Couplet)	EB Through/Right	-	A	-	B
		WB Left/Through	-	A	-	B
	P3: Hillcamp Trail & Gambel Edge Drive (East Couplet)	EB Left/Through	-	A	-	B
		WB Through/Right	-	A	-	A

Discussion on Levels of Service

In the 2024 Existing condition, levels of service at the Ridgeway & Cabela intersection are satisfactory at LOS C or better for all movements.

In the 2028 Opening Day condition, traffic operations are expected to degrade as a result of higher background traffic volumes and site-generated traffic. However, all movements are expected to operate at LOS D or better at the Ridgeway & Cabela intersection. Movements at the internal intersections are anticipated to operate at LOS B or better.

In the 2045 Future Year condition, traffic operations are anticipated to be similar to the 2028 Opening Day condition. Operations at the Ridgeway & Cabela intersection are expected to degrade slightly as a result of higher background traffic volumes. Still, no operational failures are anticipated.

Queue Lengths

JR analyzed each of the Study intersections for 95th percentile queue lengths. **Table 4** includes the queue lengths for the year 2024 with existing traffic. **Table 5** includes the queue lengths for the year 2028 with total traffic. **Table 6** includes the queue lengths for the year 2045 with total traffic.

Table 4: 2024 Existing 95th Percentile Queue Lengths



Intersection	Movement/Approach	AM Peak Queue (ft)	PM Peak Queue (ft)
E1: Ridgeway Parkway & Cabela Drive	EB Through	56	144
	EB Right	<25	<25
	WB Left	<25	47
	WB Through	138	40
	NB Left	<25	34
	NB Right	<25	29

Table 5: 2028 Opening Day 95th Percentile Queue Lengths






Intersection	Movement/Approach	AM Peak Queue (ft)	PM Peak Queue (ft)
E1: Ridgeway Parkway & Cabela Drive	EB Through	59	160
	EB Right	<25	40
	WB Left	44	128
	WB Through	150	42
	NB Left	67	86
	NB Right	32	45
P1: Hillcamp Trail & Stay True Trail	EB Approach	<25	<25
	WB Approach	<25	<25
	NB Approach	<25	<25
	SB Approach	<25	<25
P2: Hillcamp Trail & Gambel Edge Drive (West Couplet)	EB Through/Right	<25	<25
	WB Left/Through	<25	<25
P3: Hillcamp Trail & Gambel Edge Drive (East Couplet)	EB Left/Through	<25	<25
	WB Through/Right	<25	<25

Table 6: 2045 Future Year 95th Percentile Queue Lengths

	Intersection	Movement/Approach	AM Peak Queue (ft)	PM Peak Queue (ft)
	E1: Ridgeway Parkway & Cabela Drive	EB Through	75	228
		EB Right	<25	43
		WB Left	47	142
		WB Through	207	53
		NB Left	72	104
		NB Right	35	59
	P1: Hillcamp Trail & Stay True Trail	EB Approach	<25	<25
		WB Approach	<25	<25
		NB Approach	<25	<25
		SB Approach	<25	<25
	P2: Hillcamp Trail & Gambel Edge Drive (West Couplet)	EB Through/Right	<25	<25
		WB Left/Through	<25	<25
	P3: Hillcamp Trail & Gambel Edge Drive (East Couplet)	EB Left/Through	<25	<25
		WB Through/Right	<25	<25

Discussion on Queue Lengths

In the 2024 Existing condition, queue lengths are acceptable at the Ridgeway & Cabela intersection.

In the 2028 Opening Day condition, queue lengths at Ridgeway & Cabela are expected to increase as a result of higher background traffic volumes and site-generated traffic. However, no queuing issues are anticipated. Queue lengths at the internal intersections are expected to be nominal. Specifically, JR considered queuing at the couplet intersections and determined that no issues are expected.

In the 2045 Future Year condition, queue lengths are anticipated to increase further at Ridgeway & Cabela as a result of higher background traffic volumes. Still, no queuing issues are identified. Queue lengths at the internal intersections are expected to remain nominal.

Conclusion

Below is a summary of the conclusions and findings of this TIS.

Levels of Service

2024 Existing levels of service at the Ridgeway & Cabela intersection are satisfactory. In the 2028 Opening Day condition, traffic operations are expected to degrade at Ridgeway & Cabela as a result of higher background traffic volumes and site-generated traffic. Still, no operational issues are anticipated. The internal intersections are expected to operate well. In the 2045 Future Year condition, no operational failures are anticipated.

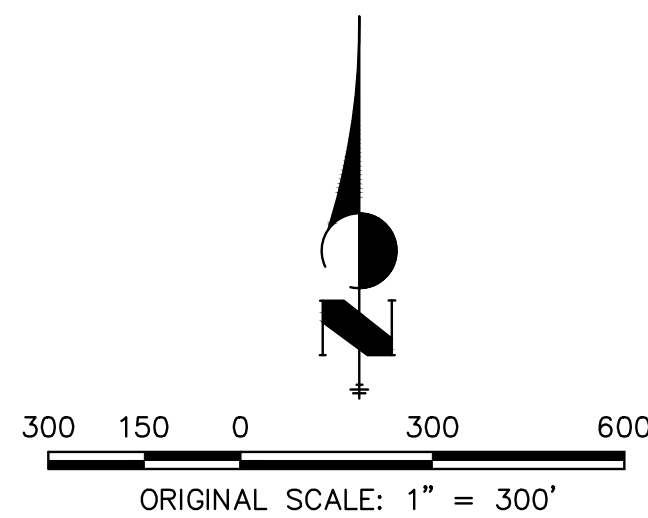
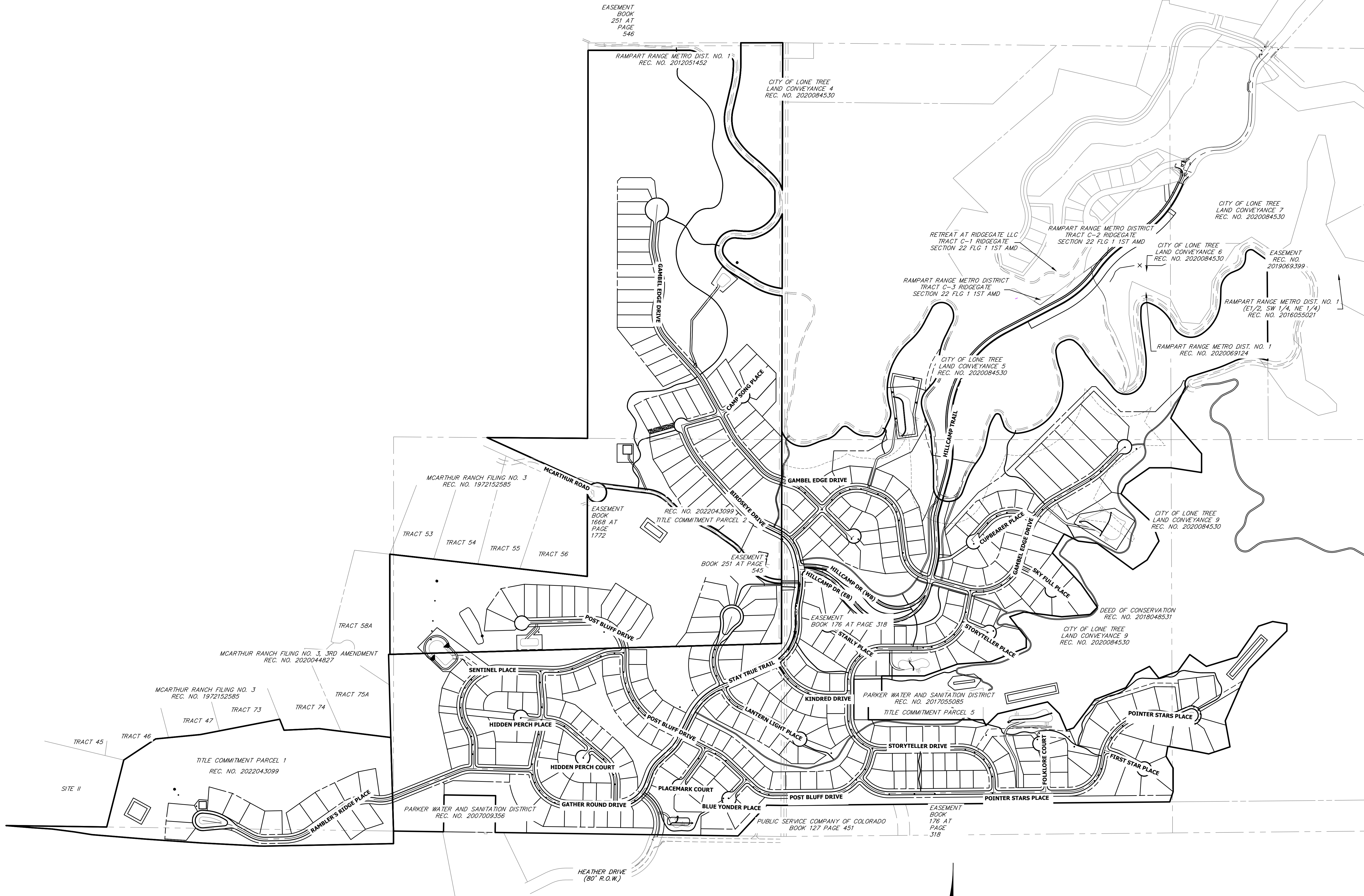
Queue Lengths

2024 Existing queue lengths are acceptable at the Ridgeway & Cabela intersection. In the 2028 Opening Day condition, queue lengths at Ridgeway & Cabela are expected to increase as a result of higher background traffic volumes and site-generated traffic. However, no queuing issues are anticipated. Queue lengths at the internal intersections, including the couplets, are expected to be nominal. In the 2045 Future Year condition, no issues related to queuing are expected.

Recommendations

The traffic signal at Ridgeway & Cabela functions satisfactorily in the existing condition and the projected future conditions. JR recommends maintaining the existing lane geometry at the Ridgeway & Cabela intersection. However, signal timing may need to be adjusted in the future to accommodate site-generated traffic and additional background traffic.

Appendix A: Site Plan



ENGINEER'S STATEMENT

PREPARED UNDER

**PRELIMINARY
NOT FOR
CONSTRUCTION**

KEVIN J. ROHR,
COLORADO P.E.
FOR AND ON BEHALF OF JR ENGINEERING, LLC

HILLCAMP PRELIMINARY CD'S

OVERALL SITE PLAN

SHEET 3 OF 75

JOB NO. 15950.12

H-SCALE	1"=300'	REVISION	BY	DATE
V-SCALE	1"=NA	1 1ST SUBMITTAL	KTR	10/10/25
DATE	12/12/25			
DESIGNED BY	DKR			
DRAWN BY	DKR			
CHECKED BY				

J.R. ENGINEERING
A Western Company



Central 303-740-9888 • Colorado Springs 719-583-2583
Fort Collins 970-491-9888 • www.jrengineering.com

PREPARED FOR
BC-RG MESA TOPS JV LLC
6465 S GREENWOOD PLZ BLVD
SUITE 700
CENTENNIAL, CO 80111
OFFICE PHONE
(303) 791-8180

UNTIL SUCH TIME AS
THESE DRAWINGS ARE
APPROVED BY THE
APPROPRIATE REVIEWING
AGENCIES, OR ENGINEERING
APPROVES THEIR USE,
THESE DRAWINGS ARE
DESIGNATED BY WRITTEN
AUTHORIZATION.

Appendix B: Traffic Counts



ALL TRAFFIC DATA SERVICES

(303) 216-2439

www.alltrafficdata.net

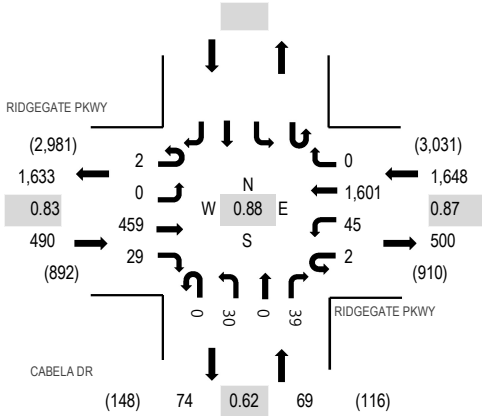
Location: 1 CABELA DR & RIDGEGATE PKWY AM

Date: Tuesday, November 12, 2024

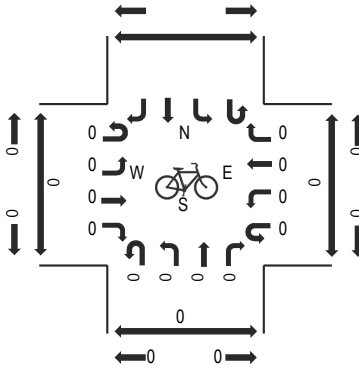
Peak Hour: 07:15 AM - 08:15 AM

Peak 15-Minutes: 07:45 AM - 08:00 AM

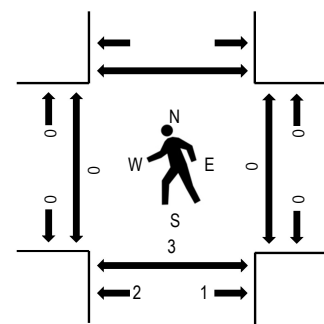
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	RIDGEGATE PKWY Eastbound				RIDGEGATE PKWY Westbound				CABELA DR Northbound				Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	89	4	0	7	303	0	0	3	0	6					412	2,088	0	0	2	
7:15 AM	1	0	110	4	1	10	345	0	0	6	0	5					482	2,207	0	0	0	
7:30 AM	0	0	138	10	1	12	386	0	0	9	0	9					565	2,185	0	0	0	
7:45 AM	0	0	118	10	0	16	457	0	0	8	0	20					629	2,097	0	0	3	
8:00 AM	1	0	93	5	0	7	413	0	0	7	0	5					531	1,951	0	0	0	
8:15 AM	1	0	86	6	0	8	348	0	0	5	0	6					460		0	0	0	
8:30 AM	0	0	101	5	0	18	340	0	0	4	0	9					477		0	0	0	
8:45 AM	0	0	104	6	1	20	338	0	0	6	0	8					483		0	0	4	
Count Total	3	0	839	50	3	98	2,930	0	0	48	0	68					4,039		0	0	9	
Peak Hour	2	0	459	29	2	45	1,601	0	0	30	0	39					2,207		0	0	3	



ALL TRAFFIC DATA SERVICES

(303) 216-2439

www.alltrafficdata.net

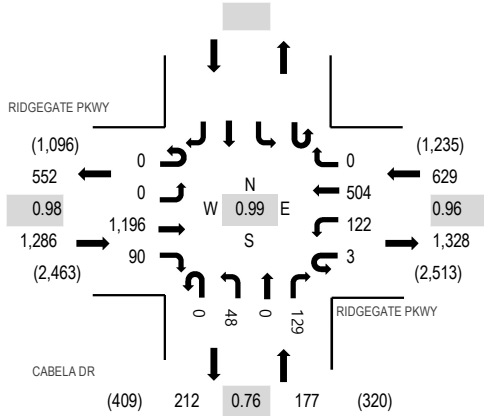
Location: 1 CABELA DR & RIDGEGATE PKWY PM

Date: Tuesday, November 12, 2024

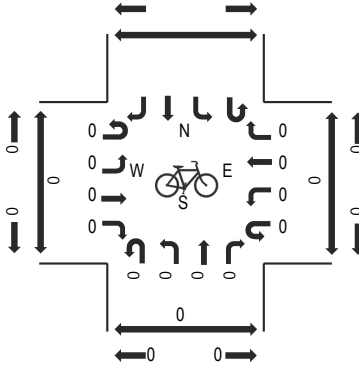
Peak Hour: 04:15 PM - 05:15 PM

Peak 15-Minutes: 05:00 PM - 05:15 PM

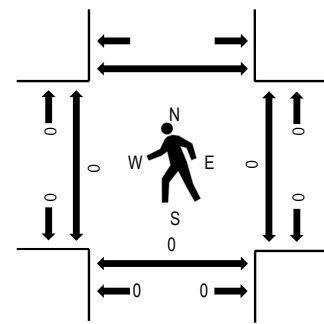
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	RIDGEGATE PKWY Eastbound				RIDGEGATE PKWY Westbound				CABELA DR Northbound				Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	0	278	21	0	24	132	0	0	10	0	31					496	2,060	0	0	1	
4:15 PM	0	0	293	23	1	22	141	0	0	8	0	36					524	2,092	0	0	0	
4:30 PM	0	0	302	17	0	34	135	0	0	11	0	26					525	2,079	0	0	0	
4:45 PM	0	0	293	27	2	26	129	0	0	10	0	28					515	2,051	0	0	0	
5:00 PM	0	0	308	23	0	40	99	0	0	19	0	39					528	1,958	0	0	0	
5:15 PM	0	0	298	30	1	26	127	0	0	8	0	21					511		0	0	1	
5:30 PM	0	0	290	23	0	29	118	0	0	9	0	28					497		0	0	0	
5:45 PM	0	0	215	22	1	21	127	0	1	13	0	22					422		0	0	1	
Count Total	0	0	2,277	186	5	222	1,008	0	1	88	0	231					4,018		0	0	3	
Peak Hour	0	0	1,196	90	3	122	504	0	0	48	0	129					2,092		0	0	0	

All Traffic Data Services
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Page 1

Site Code: 3
 Station ID:
 RIDGEGATE PKWY WO CABELA DR

Start Time	11/20/24 Wed	EB	WB							Total
12:00 AM		13	12							25
01:00		3	9							12
02:00		6	6							12
03:00		7	12							19
04:00		15	25							40
05:00		49	187							236
06:00		248	694							942
07:00		484	1518							2002
08:00		408	1463							1871
09:00		428	819							1247
10:00		415	618							1033
11:00		556	570							1126
12:00 PM		531	562							1093
01:00		496	567							1063
02:00		668	621							1289
03:00		1073	727							1800
04:00		1254	576							1830
05:00		1209	520							1729
06:00		552	445							997
07:00		393	254							647
08:00		252	204							456
09:00		159	124							283
10:00		75	63							138
11:00		38	30							68
Total		9332	10626							19958
Percent		46.8%	53.2%							
AM Peak	-	11:00	07:00	-	-	-	-	-	-	07:00
Vol.	-	556	1518	-	-	-	-	-	-	2002
PM Peak	-	16:00	15:00	-	-	-	-	-	-	16:00
Vol.	-	1254	727	-	-	-	-	-	-	1830
Grand Total		9332	10626							19958
Percent		46.8%	53.2%							
ADT		ADT 19,958	AADT 19,958							

Appendix C: Trip Generation

Trip Generation Summary

Project: Hillcamp Development

ITE Code	Description	Size	Units	Weekday Average Daily Trips			Weekday AM Peak Hour Trips			Weekday PM Peak Hour Trips		
				Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
210	Single-Family Detached Housing	343	Dwelling Units	1,568	1,568	3,136	57	172	229	199	118	317
			Unadjusted Volume	1,568	1,568	3,136	57	172	229	199	118	317
			Internal Capture	0%	0%	0%	0%	0%	0%	0%	0%	0%
			Pass-By Trips	0%	0%	0%	0%	0%	0%	0%	0%	0%
			Volume Added to Adjacent Streets	1,568	1,568	3,136	57	172	229	199	118	317

Source: Institute of Transportation Engineers, *Trip Generation Manual*, 11th Edition

Trip Generation Summary

Project: Adjacent Retail/Furniture Store (Background Traffic)

ITE Code	Description	Size	Units	Weekday Average Daily Trips			Weekday AM Peak Hour Trips			Weekday PM Peak Hour Trips		
				Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
821	Shopping Plaza (40-150k SF)	40,000	Square Feet	1,350	1,350	2,700	43	26	69	102	106	208
890	Furniture Store	41,000	Square Feet	129	129	258	8	3	11	9	11	20
Unadjusted Volume				1,479	1,479	2,958	51	29	80	111	117	228
Internal Capture				0%	0%	0%	0%	0%	0%	0%	0%	0%
Pass-By Trips				0%	0%	0%	0%	0%	0%	0%	0%	0%
Volume Added to Adjacent Streets				1,479	1,479	2,958	51	29	80	111	117	228

Source: Institute of Transportation Engineers, *Trip Generation Manual*, 11th Edition

Appendix D: Synchro Reports

Lanes, Volumes, Timings
1: Cabela Drive & Ridgeway Parkway

JR Engineering
11/18/2025

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↑	↑	↑↑	↑↑↑↑	↑	↑
Traffic Volume (vph)	461	29	47	1601	30	39
Future Volume (vph)	461	29	47	1601	30	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		150	225		300	0
Storage Lanes		1	2		1	1
Taper Length (ft)			25		25	
Lane Util. Factor	0.86	1.00	0.97	0.86	1.00	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	6408	1583	3433	6408	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	6408	1583	3433	6408	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		37				50
Link Speed (mph)	40			40	25	
Link Distance (ft)	1042			1066	868	
Travel Time (s)	17.8			18.2	23.7	
Peak Hour Factor	0.91	0.78	0.78	0.94	0.78	0.78
Adj. Flow (vph)	507	37	60	1703	38	50
Shared Lane Traffic (%)						
Lane Group Flow (vph)	507	37	60	1703	38	50
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	24			24	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	2	1	1	2	1	1
Detector Template	Thru	Right	Left	Thru	Left	Right
Leading Detector (ft)	100	20	20	100	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	6	20	20	6	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)	94			94		
Detector 2 Size(ft)	6			6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8

Hillcamp 7:15 am 07/01/2024 Existing
Timing Plan: AM Peak Hour

Synchro 12 Report
Page 1

Lanes, Volumes, Timings
1: Cabela Drive & Ridgeway Parkway

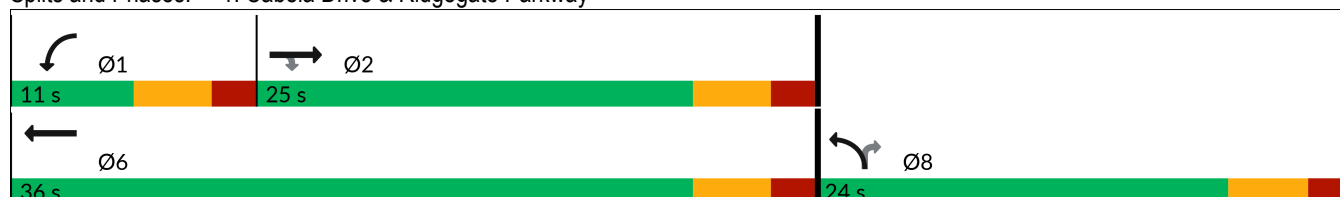
JR Engineering
11/18/2025

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.5	23.5	10.5	23.5	23.5	23.5
Total Split (s)	25.0	25.0	11.0	36.0	24.0	24.0
Total Split (%)	41.7%	41.7%	18.3%	60.0%	40.0%	40.0%
Maximum Green (s)	19.5	19.5	5.5	30.5	18.5	18.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0	7.0
Flash Don't Walk (s)	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0
Act Effect Green (s)	20.4	20.4	5.5	26.6	18.6	18.6
Actuated g/C Ratio	0.36	0.36	0.10	0.47	0.33	0.33
v/c Ratio	0.22	0.06	0.18	0.56	0.06	0.09
Control Delay (s/veh)	13.8	6.0	26.2	11.3	14.9	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	13.8	6.0	26.2	11.3	14.9	5.8
LOS	B	A	C	B	B	A
Approach Delay (s/veh)	13.2			11.8	9.7	
Approach LOS	B			B	A	

Intersection Summary

Area Type: Other
 Cycle Length: 60
 Actuated Cycle Length: 56.3
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.56
 Intersection Signal Delay (s/veh): 12.0 Intersection LOS: B
 Intersection Capacity Utilization 36.5% ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 1: Cabela Drive & Ridgeway Parkway



Queues
1: Cabela Drive & Ridgeway Parkway

JR Engineering
11/18/2025

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	507	37	60	1703	38	50
v/c Ratio	0.22	0.06	0.18	0.56	0.06	0.09
Control Delay (s/veh)	13.8	6.0	26.2	11.3	14.9	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	13.8	6.0	26.2	11.3	14.9	5.8
Queue Length 50th (ft)	38	0	10	110	9	0
Queue Length 95th (ft)	56	13	22	138	24	15
Internal Link Dist (ft)	962			986	788	
Turn Bay Length (ft)		150	225		300	
Base Capacity (vph)	2351	604	337	3492	585	556
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.06	0.18	0.49	0.06	0.09
Intersection Summary						

HCM 7th Signalized Intersection Summary
1: Cabela Drive & Ridgeway Parkway

JR Engineering
11/18/2025

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↑	↑	↘↙	↑↑↑↑	↘	↑
Traffic Volume (veh/h)	461	29	47	1601	30	39
Future Volume (veh/h)	461	29	47	1601	30	39
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	507	37	60	1703	38	50
Peak Hour Factor	0.91	0.78	0.78	0.94	0.78	0.78
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1853	457	191	2873	618	550
Arrive On Green	0.29	0.29	0.06	0.45	0.35	0.35
Sat Flow, veh/h	6696	1585	3456	6696	1781	1585
Grp Volume(v), veh/h	507	37	60	1703	38	50
Grp Sat Flow(s),veh/h/ln	1609	1585	1728	1609	1781	1585
Q Serve(g_s), s	3.2	0.9	0.9	10.6	0.8	1.1
Cycle Q Clear(g_c), s	3.2	0.9	0.9	10.6	0.8	1.1
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1853	457	191	2873	618	550
V/C Ratio(X)	0.27	0.08	0.31	0.59	0.06	0.09
Avail Cap(c_a), veh/h	2354	580	357	3682	618	550
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.7	13.8	24.2	11.1	11.6	11.7
Incr Delay (d2), s/veh	0.1	0.1	0.9	0.2	0.2	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.3	0.3	2.8	0.3	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	14.7	13.9	25.1	11.3	11.8	12.1
LnGrp LOS	B	B	C	B	B	B
Approach Vol, veh/h	544			1763	88	
Approach Delay, s/veh	14.7			11.8	11.9	
Approach LOS	B			B	B	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	8.4	20.9			29.3	24.0
Change Period (Y+Rc), s	5.5	5.5			5.5	5.5
Max Green Setting (Gmax), s	5.5	19.5			30.5	18.5
Max Q Clear Time (g_c+I1), s	2.9	5.2			12.6	3.1
Green Ext Time (p_c), s	0.0	2.8			11.2	0.2
Intersection Summary						
HCM 7th Control Delay, s/veh			12.4			
HCM 7th LOS			B			

Lanes, Volumes, Timings
1: Cabela Drive & Ridgeway Parkway

JR Engineering
11/18/2025

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↑	↗	↘	↑↑↑↑	↖	↗
Traffic Volume (vph)	1196	90	125	504	48	129
Future Volume (vph)	1196	90	125	504	48	129
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		150	225		300	0
Storage Lanes		1	2		1	1
Taper Length (ft)			25		25	
Lane Util. Factor	0.86	1.00	0.97	0.86	1.00	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	6408	1583	3433	6408	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	6408	1583	3433	6408	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		110				154
Link Speed (mph)	40			40	25	
Link Distance (ft)	1042			1066	868	
Travel Time (s)	17.8			18.2	23.7	
Peak Hour Factor	0.93	0.82	0.84	0.92	0.78	0.84
Adj. Flow (vph)	1286	110	149	548	62	154
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1286	110	149	548	62	154
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	24			24	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	2	1	1	2	1	1
Detector Template	Thru	Right	Left	Thru	Left	Right
Leading Detector (ft)	100	20	20	100	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	6	20	20	6	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)	94			94		
Detector 2 Size(ft)	6			6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8

Hillcamp 4:15 pm 07/01/2024 Existing
Timing Plan: PM Peak Hour

Synchro 12 Report
Page 1

Lanes, Volumes, Timings
1: Cabela Drive & Ridgeway Parkway

JR Engineering
11/18/2025

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.5	23.5	10.5	23.5	23.5	23.5
Total Split (s)	25.1	25.1	11.4	36.5	23.5	23.5
Total Split (%)	41.8%	41.8%	19.0%	60.8%	39.2%	39.2%
Maximum Green (s)	19.6	19.6	5.9	31.0	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0	7.0
Flash Don't Walk (s)	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0
Act Effect Green (s)	18.4	18.4	6.0	27.0	18.3	18.3
Actuated g/C Ratio	0.33	0.33	0.11	0.48	0.32	0.32
v/c Ratio	0.62	0.19	0.41	0.18	0.11	0.25
Control Delay (s/veh)	18.0	4.6	29.3	8.1	16.0	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	18.0	4.6	29.3	8.1	16.0	4.6
LOS	B	A	C	A	B	A
Approach Delay (s/veh)	16.9			12.7	7.9	
Approach LOS	B			B	A	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 56.6

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.62

Intersection Signal Delay (s/veh): 14.8

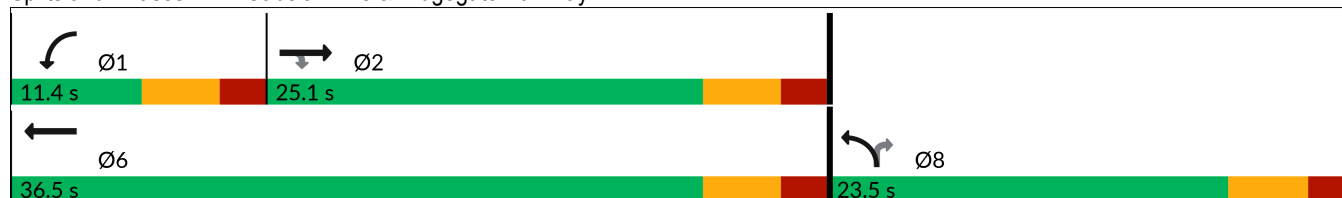
Intersection LOS: B

Intersection Capacity Utilization 39.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: Cabela Drive & Ridgeway Parkway



Queues
1: Cabela Drive & Ridgeway Parkway

JR Engineering
11/18/2025

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	1286	110	149	548	62	154
v/c Ratio	0.62	0.19	0.41	0.18	0.11	0.25
Control Delay (s/veh)	18.0	4.6	29.3	8.1	16.0	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	18.0	4.6	29.3	8.1	16.0	4.6
Queue Length 50th (ft)	111	0	26	27	16	0
Queue Length 95th (ft)	144	23	47	40	34	29
Internal Link Dist (ft)	962			986	788	
Turn Bay Length (ft)		150	225		300	
Base Capacity (vph)	2261	630	364	3576	574	616
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.17	0.41	0.15	0.11	0.25
Intersection Summary						

HCM 7th Signalized Intersection Summary
1: Cabela Drive & Ridgeway Parkway

JR Engineering
11/18/2025

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↑	↑	↘↙	↑↑↑↑	↘	↑
Traffic Volume (veh/h)	1196	90	125	504	48	129
Future Volume (veh/h)	1196	90	125	504	48	129
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1286	110	149	548	62	154
Peak Hour Factor	0.93	0.82	0.84	0.92	0.78	0.84
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1930	475	279	3085	576	512
Arrive On Green	0.30	0.30	0.08	0.48	0.32	0.32
Sat Flow, veh/h	6696	1585	3456	6696	1781	1585
Grp Volume(v), veh/h	1286	110	149	548	62	154
Grp Sat Flow(s),veh/h/ln	1609	1585	1728	1609	1781	1585
Q Serve(g_s), s	9.7	2.9	2.3	2.7	1.4	4.1
Cycle Q Clear(g_c), s	9.7	2.9	2.3	2.7	1.4	4.1
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1930	475	279	3085	576	512
V/C Ratio(X)	0.67	0.23	0.53	0.18	0.11	0.30
Avail Cap(c_a), veh/h	2263	558	366	3580	576	512
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.1	14.7	24.6	8.3	13.2	14.1
Incr Delay (d2), s/veh	0.6	0.2	1.6	0.0	0.4	1.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.9	0.9	0.7	0.6	1.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	17.7	14.9	26.2	8.3	13.6	15.6
LnGrp LOS	B	B	C	A	B	B
Approach Vol, veh/h	1396			697	216	
Approach Delay, s/veh	17.4			12.1	15.1	
Approach LOS	B			B	B	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	10.0	22.2			32.2	23.5
Change Period (Y+Rc), s	5.5	5.5			5.5	5.5
Max Green Setting (Gmax), s	5.9	19.6			31.0	18.0
Max Q Clear Time (g_c+I1), s	4.3	11.7			4.7	6.1
Green Ext Time (p_c), s	0.1	5.0			3.7	0.5
Intersection Summary						
HCM 7th Control Delay, s/veh			15.6			
HCM 7th LOS			B			

Lanes, Volumes, Timings
1: Cabela Drive & Ridgeway Parkway

JR Engineering
11/18/2025

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↑	↑	↘↙	↑↑↑↑	↘	↑
Traffic Volume (vph)	490	52	80	1700	44	58
Future Volume (vph)	490	52	80	1700	44	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		150	225		300	0
Storage Lanes		1	2		1	1
Taper Length (ft)			25		25	
Lane Util. Factor	0.86	1.00	0.97	0.86	1.00	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	6408	1583	3433	6408	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	6408	1583	3433	6408	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		67				73
Link Speed (mph)	40			40	25	
Link Distance (ft)	1042			1066	868	
Travel Time (s)	17.8			18.2	23.7	
Peak Hour Factor	0.92	0.78	0.81	0.94	0.78	0.79
Adj. Flow (vph)	533	67	99	1809	56	73
Shared Lane Traffic (%)						
Lane Group Flow (vph)	533	67	99	1809	56	73
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	24			24	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	2	1	1	2	1	1
Detector Template	Thru	Right	Left	Thru	Left	Right
Leading Detector (ft)	100	20	20	100	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	6	20	20	6	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)	94			94		
Detector 2 Size(ft)	6			6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8

Hillcamp 7:15 am 07/01/2028 Opening Day (Background)
Timing Plan: AM Peak Hour

Synchro 12 Report
Page 1

Lanes, Volumes, Timings
1: Cabela Drive & Ridgeway Parkway

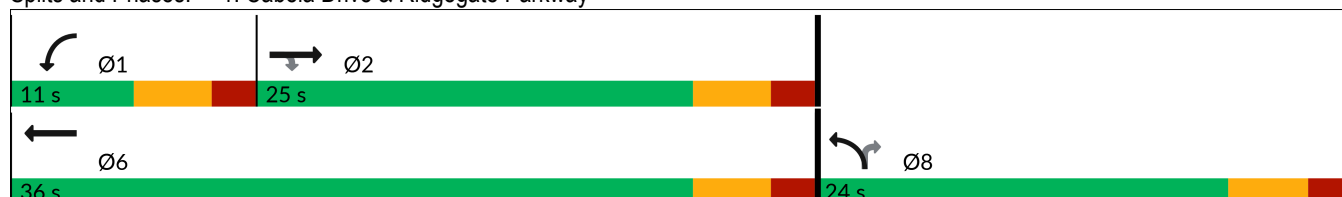
JR Engineering
11/18/2025

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.5	23.5	10.5	23.5	23.5	23.5
Total Split (s)	25.0	25.0	11.0	36.0	24.0	24.0
Total Split (%)	41.7%	41.7%	18.3%	60.0%	40.0%	40.0%
Maximum Green (s)	19.5	19.5	5.5	30.5	18.5	18.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0	7.0
Flash Don't Walk (s)	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0
Act Effect Green (s)	19.3	19.3	5.5	27.9	18.6	18.6
Actuated g/C Ratio	0.34	0.34	0.10	0.49	0.32	0.32
v/c Ratio	0.25	0.12	0.30	0.58	0.10	0.13
Control Delay (s/veh)	14.8	5.1	28.0	11.4	15.4	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	14.8	5.1	28.0	11.4	15.4	5.3
LOS	B	A	C	B	B	A
Approach Delay (s/veh)	13.8			12.2	9.7	
Approach LOS	B			B	A	

Intersection Summary

Area Type: Other
 Cycle Length: 60
 Actuated Cycle Length: 57.5
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.58
 Intersection Signal Delay (s/veh): 12.5 Intersection LOS: B
 Intersection Capacity Utilization 38.0% ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 1: Cabela Drive & Ridgeway Parkway



Queues
1: Cabela Drive & Ridgeway Parkway

JR Engineering
11/18/2025

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	533	67	99	1809	56	73
v/c Ratio	0.25	0.12	0.30	0.58	0.10	0.13
Control Delay (s/veh)	14.8	5.1	28.0	11.4	15.4	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	14.8	5.1	28.0	11.4	15.4	5.3
Queue Length 50th (ft)	40	0	17	120	14	0
Queue Length 95th (ft)	58	17	33	150	31	18
Internal Link Dist (ft)	962			986	788	
Turn Bay Length (ft)		150	225		300	
Base Capacity (vph)	2226	593	329	3410	571	560
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.11	0.30	0.53	0.10	0.13
Intersection Summary						

HCM 7th Signalized Intersection Summary

1: Cabela Drive & Ridgeway Parkway

JR Engineering
11/18/2025

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↑	↑	↘↙	↑↑↑↑	↘	↑
Traffic Volume (veh/h)	490	52	80	1700	44	58
Future Volume (veh/h)	490	52	80	1700	44	58
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	533	67	99	1809	56	73
Peak Hour Factor	0.92	0.78	0.81	0.94	0.78	0.79
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1839	453	246	2948	605	539
Arrive On Green	0.29	0.29	0.07	0.46	0.34	0.34
Sat Flow, veh/h	6696	1585	3456	6696	1781	1585
Grp Volume(v), veh/h	533	67	99	1809	56	73
Grp Sat Flow(s),veh/h/ln	1609	1585	1728	1609	1781	1585
Q Serve(g_s), s	3.5	1.7	1.5	11.5	1.2	1.7
Cycle Q Clear(g_c), s	3.5	1.7	1.5	11.5	1.2	1.7
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1839	453	246	2948	605	539
V/C Ratio(X)	0.29	0.15	0.40	0.61	0.09	0.14
Avail Cap(c_a), veh/h	2305	568	349	3605	605	539
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.1	14.5	24.2	11.1	12.2	12.4
Incr Delay (d2), s/veh	0.1	0.1	1.1	0.2	0.3	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.5	0.6	3.1	0.5	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	15.2	14.6	25.2	11.3	12.6	13.0
LnGrp LOS	B	B	C	B	B	B
Approach Vol, veh/h	600			1908	129	
Approach Delay, s/veh	15.2			12.1	12.8	
Approach LOS	B			B	B	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	9.4	21.1			30.4	24.0
Change Period (Y+Rc), s	5.5	5.5			5.5	5.5
Max Green Setting (Gmax), s	5.5	19.5			30.5	18.5
Max Q Clear Time (g_c+I1), s	3.5	5.5			13.5	3.7
Green Ext Time (p_c), s	0.0	3.0			11.4	0.3
Intersection Summary						
HCM 7th Control Delay, s/veh			12.8			
HCM 7th LOS			B			

Lanes, Volumes, Timings
1: Cabela Drive & Ridgeway Parkway

JR Engineering
11/18/2025

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↑	↑	↑↑	↑↑↑↑	↑	↑
Traffic Volume (vph)	1270	140	200	535	98	207
Future Volume (vph)	1270	140	200	535	98	207
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		150	225		300	0
Storage Lanes		1	2		1	1
Taper Length (ft)			25		25	
Lane Util. Factor	0.86	1.00	0.97	0.86	1.00	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	6408	1583	3433	6408	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	6408	1583	3433	6408	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		165				238
Link Speed (mph)	40			40	25	
Link Distance (ft)	1042			1066	868	
Travel Time (s)	17.8			18.2	23.7	
Peak Hour Factor	0.94	0.85	0.87	0.92	0.83	0.87
Adj. Flow (vph)	1351	165	230	582	118	238
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1351	165	230	582	118	238
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	24			24	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	2	1	1	2	1	1
Detector Template	Thru	Right	Left	Thru	Left	Right
Leading Detector (ft)	100	20	20	100	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	6	20	20	6	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)	94			94		
Detector 2 Size(ft)	6			6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8

Hillcamp 4:15 pm 07/01/2028 Opening Day (Background)
Timing Plan: PM Peak Hour

Synchro 12 Report
Page 1

Lanes, Volumes, Timings
1: Cabela Drive & Ridgeway Parkway

JR Engineering
11/18/2025

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.5	23.5	10.5	23.5	23.5	23.5
Total Split (s)	23.5	23.5	13.0	36.5	23.5	23.5
Total Split (%)	39.2%	39.2%	21.7%	60.8%	39.2%	39.2%
Maximum Green (s)	18.0	18.0	7.5	31.0	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0	7.0
Flash Don't Walk (s)	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0
Act Effect Green (s)	17.9	17.9	7.3	30.7	18.0	18.0
Actuated g/C Ratio	0.30	0.30	0.12	0.51	0.30	0.30
v/c Ratio	0.70	0.28	0.55	0.18	0.22	0.37
Control Delay (s/veh)	21.0	4.7	30.0	7.9	17.2	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	21.0	4.7	30.0	7.9	17.2	4.6
LOS	C	A	C	A	B	A
Approach Delay (s/veh)	19.2			14.2	8.8	
Approach LOS	B			B	A	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 59.7

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.70

Intersection Signal Delay (s/veh): 16.3

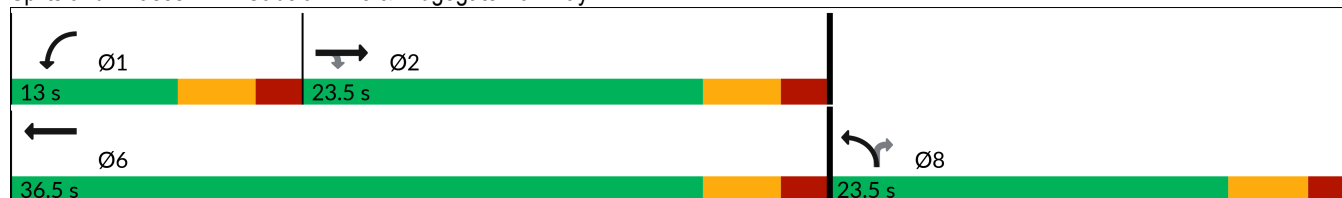
Intersection LOS: B

Intersection Capacity Utilization 43.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: Cabela Drive & Ridgeway Parkway



Queues

JR Engineering

1: Cabela Drive & Ridgeway Parkway

11/18/2025

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	1351	165	230	582	118	238
v/c Ratio	0.70	0.28	0.55	0.18	0.22	0.37
Control Delay (s/veh)	21.0	4.7	30.0	7.9	17.2	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	21.0	4.7	30.0	7.9	17.2	4.6
Queue Length 50th (ft)	124	0	41	29	32	0
Queue Length 95th (ft)	160	31	68	42	60	38
Internal Link Dist (ft)	962			986	788	
Turn Bay Length (ft)		150	225		300	
Base Capacity (vph)	1931	592	431	3326	533	643
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.28	0.53	0.17	0.22	0.37
Intersection Summary						

HCM 7th Signalized Intersection Summary
1: Cabela Drive & Ridgeway Parkway

JR Engineering
11/18/2025

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↑	↑	↘↙	↑↑↑↑	↘	↑
Traffic Volume (veh/h)	1270	140	200	535	98	207
Future Volume (veh/h)	1270	140	200	535	98	207
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1351	165	230	582	118	238
Peak Hour Factor	0.94	0.85	0.87	0.92	0.83	0.87
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1872	461	343	3136	567	504
Arrive On Green	0.29	0.29	0.10	0.49	0.32	0.32
Sat Flow, veh/h	6696	1585	3456	6696	1781	1585
Grp Volume(v), veh/h	1351	165	230	582	118	238
Grp Sat Flow(s),veh/h/ln	1609	1585	1728	1609	1781	1585
Q Serve(g_s), s	10.7	4.7	3.6	2.9	2.7	6.8
Cycle Q Clear(g_c), s	10.7	4.7	3.6	2.9	2.7	6.8
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1872	461	343	3136	567	504
V/C Ratio(X)	0.72	0.36	0.67	0.19	0.21	0.47
Avail Cap(c_a), veh/h	2047	504	458	3525	567	504
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.0	15.9	24.6	8.2	14.1	15.5
Incr Delay (d2), s/veh	1.2	0.5	2.3	0.0	0.8	3.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	1.5	1.4	0.8	1.1	2.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	19.2	16.3	26.9	8.2	14.9	18.6
LnGrp LOS	B	B	C	A	B	B
Approach Vol, veh/h	1516			812	356	
Approach Delay, s/veh	18.9			13.5	17.4	
Approach LOS	B			B	B	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	11.1	22.0			33.1	23.5
Change Period (Y+Rc), s	5.5	5.5			5.5	5.5
Max Green Setting (Gmax), s	7.5	18.0			31.0	18.0
Max Q Clear Time (g_c+I1), s	5.6	12.7			4.9	8.8
Green Ext Time (p_c), s	0.1	3.8			3.9	0.8
Intersection Summary						
HCM 7th Control Delay, s/veh			17.0			
HCM 7th LOS			B			

Lanes, Volumes, Timings
1: Cabela Drive & Ridgeway Parkway

JR Engineering
11/18/2025

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↑	↑	↑↑	↑↑↑↑	↑	↑
Traffic Volume (vph)	490	75	114	1700	112	161
Future Volume (vph)	490	75	114	1700	112	161
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		150	225		300	0
Storage Lanes		1	2		1	1
Taper Length (ft)			25		25	
Lane Util. Factor	0.86	1.00	0.97	0.86	1.00	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	6408	1583	3433	6408	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	6408	1583	3433	6408	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		93				189
Link Speed (mph)	40			40	25	
Link Distance (ft)	1042			1066	868	
Travel Time (s)	17.8			18.2	23.7	
Peak Hour Factor	0.92	0.81	0.84	0.94	0.83	0.85
Adj. Flow (vph)	533	93	136	1809	135	189
Shared Lane Traffic (%)						
Lane Group Flow (vph)	533	93	136	1809	135	189
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	24			24	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	2	1	1	2	1	1
Detector Template	Thru	Right	Left	Thru	Left	Right
Leading Detector (ft)	100	20	20	100	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	6	20	20	6	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)	94			94		
Detector 2 Size(ft)	6			6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8

Hillcamp 7:15 am 07/01/2028 Opening Day (Total)
Timing Plan: AM Peak Hour

Synchro 12 Report
Page 1

Lanes, Volumes, Timings
1: Cabela Drive & Ridgeway Parkway

JR Engineering
11/18/2025

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.5	23.5	10.5	23.5	23.5	23.5
Total Split (s)	24.7	24.7	11.3	36.0	24.0	24.0
Total Split (%)	41.2%	41.2%	18.8%	60.0%	40.0%	40.0%
Maximum Green (s)	19.2	19.2	5.8	30.5	18.5	18.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0	7.0
Flash Don't Walk (s)	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0
Act Effect Green (s)	19.1	19.1	5.8	27.9	18.6	18.6
Actuated g/C Ratio	0.33	0.33	0.10	0.49	0.32	0.32
v/c Ratio	0.25	0.16	0.39	0.58	0.24	0.30
Control Delay (s/veh)	15.1	4.8	28.9	11.4	16.7	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	15.1	4.8	28.9	11.4	16.7	4.4
LOS	B	A	C	B	B	A
Approach Delay (s/veh)	13.5			12.6	9.6	
Approach LOS	B			B	A	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 57.5

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.58

Intersection Signal Delay (s/veh): 12.5

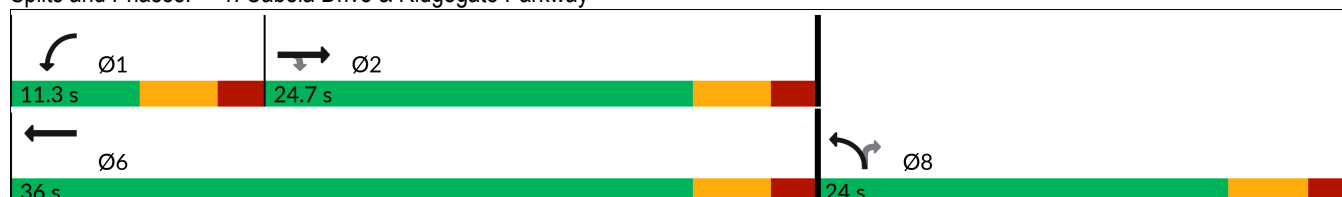
Intersection LOS: B

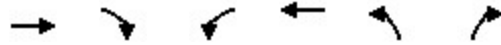
Intersection Capacity Utilization 40.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: Cabela Drive & Ridgeway Parkway





Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	533	93	136	1809	135	189
v/c Ratio	0.25	0.16	0.39	0.58	0.24	0.30
Control Delay (s/veh)	15.1	4.8	28.9	11.4	16.7	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	15.1	4.8	28.9	11.4	16.7	4.4
Queue Length 50th (ft)	40	0	24	120	36	0
Queue Length 95th (ft)	59	21	44	150	67	32
Internal Link Dist (ft)	962			986	788	
Turn Bay Length (ft)		150	225		300	
Base Capacity (vph)	2200	604	347	3410	571	638
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.15	0.39	0.53	0.24	0.30
Intersection Summary						

HCM 7th Signalized Intersection Summary

1: Cabela Drive & Ridgeway Parkway

JR Engineering
11/18/2025

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↘↙	↑↑↑	↘	↑
Traffic Volume (veh/h)	490	75	114	1700	112	161
Future Volume (veh/h)	490	75	114	1700	112	161
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	533	93	136	1809	135	189
Peak Hour Factor	0.92	0.81	0.84	0.94	0.83	0.85
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1782	439	277	2948	605	539
Arrive On Green	0.28	0.28	0.08	0.46	0.34	0.34
Sat Flow, veh/h	6696	1585	3456	6696	1781	1585
Grp Volume(v), veh/h	533	93	136	1809	135	189
Grp Sat Flow(s),veh/h/ln	1609	1585	1728	1609	1781	1585
Q Serve(g_s), s	3.6	2.5	2.1	11.5	2.9	4.9
Cycle Q Clear(g_c), s	3.6	2.5	2.1	11.5	2.9	4.9
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1782	439	277	2948	605	539
V/C Ratio(X)	0.30	0.21	0.49	0.61	0.22	0.35
Avail Cap(c_a), veh/h	2269	559	368	3605	605	539
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.5	15.1	24.0	11.1	12.8	13.5
Incr Delay (d2), s/veh	0.1	0.2	1.3	0.2	0.9	1.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.8	0.8	3.1	1.2	1.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	15.6	15.4	25.3	11.3	13.7	15.3
LnGrp LOS	B	B	C	B	B	B
Approach Vol, veh/h	626			1945	324	
Approach Delay, s/veh	15.6			12.3	14.6	
Approach LOS	B			B	B	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	9.9	20.6			30.4	24.0
Change Period (Y+Rc), s	5.5	5.5			5.5	5.5
Max Green Setting (Gmax), s	5.8	19.2			30.5	18.5
Max Q Clear Time (g_c+l1), s	4.1	5.6			13.5	6.9
Green Ext Time (p_c), s	0.1	3.1			11.4	0.8
Intersection Summary						
HCM 7th Control Delay, s/veh			13.3			
HCM 7th LOS			B			

Lanes, Volumes, Timings
2: Stay True Trail & Hillcamp Trail

JR Engineering
11/18/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	1	1	26	1	6	1	1	77	17	1	1
Future Volume (vph)	1	1	1	26	1	6	1	1	77	17	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.955			0.974			0.868			0.994	
Flt Protected		0.984			0.962			0.999			0.956	
Satd. Flow (prot)	0	1750	0	0	1745	0	0	1615	0	0	1770	0
Flt Permitted		0.984			0.962			0.999			0.956	
Satd. Flow (perm)	0	1750	0	0	1745	0	0	1615	0	0	1770	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		478			504			462			420	
Travel Time (s)		10.9			11.5			10.5			9.5	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.81	0.78	0.78	0.78
Adj. Flow (vph)	1	1	1	33	1	8	1	1	95	22	1	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	3	0	0	42	0	0	97	0	0	24	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	18.3%											
Analysis Period (min)	15											
	ICU Level of Service A											

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	1	26	1	6	1	1	77	17	1	1
Future Vol, veh/h	1	1	1	26	1	6	1	1	77	17	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	81	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	1	1	33	1	8	1	1	95	22	1	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	50	144	2	97	98	49	3	0	0	96	0	0
Stage 1	46	46	-	51	51	-	-	-	-	-	-	-
Stage 2	4	99	-	46	46	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	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	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	950	747	1082	885	793	1020	1620	-	-	1497	-	-
Stage 1	968	857	-	961	852	-	-	-	-	-	-	-
Stage 2	1018	813	-	968	856	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	927	735	1082	869	780	1020	1620	-	-	1497	-	-
Mov Cap-2 Maneuver	927	735	-	869	780	-	-	-	-	-	-	-
Stage 1	954	844	-	961	851	-	-	-	-	-	-	-
Stage 2	1008	812	-	952	844	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	9.05	9.25	0.09	6.66
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	20	-	-	892	890	1464	-
HCM Lane V/C Ratio	0.001	-	-	0.004	0.048	0.015	-
HCM Ctrl Dly (s/v)	7.2	0	-	9.1	9.2	7.4	0
HCM Lane LOS	A	A	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-

Lanes, Volumes, Timings
3: Hillcamp Trail (West) & Gambel Edge Drive

JR Engineering
11/18/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	17	1	1	1	0	0	0	0	20	31	6
Future Volume (vph)	0	17	1	1	1	0	0	0	0	20	31	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.994										0.985	
Flt Protected					0.976						0.983	
Satd. Flow (prot)	0	1852	0	0	1818	0	0	0	0	0	1804	0
Flt Permitted					0.976						0.983	
Satd. Flow (perm)	0	1852	0	0	1818	0	0	0	0	0	1804	0
Link Speed (mph)	30				30		30				30	
Link Distance (ft)	346				784		378				315	
Travel Time (s)	7.9				17.8		8.6				7.2	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Adj. Flow (vph)	0	22	1	1	1	0	0	0	0	26	40	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	23	0	0	2	0	0	0	0	0	74	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0				0		0				0	
Link Offset(ft)	0				0		0				0	
Crosswalk Width(ft)	16				16		16				16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control	Stop				Stop				Free			
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 13.3%												
ICU Level of Service A												
Analysis Period (min) 15												

Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱			↰						↰↱	
Traffic Vol, veh/h	0	17	1	1	1	0	0	0	0	20	31	6
Future Vol, veh/h	0	17	1	1	1	0	0	0	0	20	31	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	22	1	1	1	0	0	0	0	26	40	8
Major/Minor	Minor2		Minor1				Major2					
Conflicting Flow All	-	95	44	102	99	-				0	0	0
Stage 1	-	95	-	0	0	-				-	-	-
Stage 2	-	0	-	102	99	-				-	-	-
Critical Hdwy	-	6.52	6.22	7.12	6.52	-				4.12	-	-
Critical Hdwy Stg 1	-	5.52	-	-	-	-				-	-	-
Critical Hdwy Stg 2	-	-	-	6.12	5.52	-				-	-	-
Follow-up Hdwy	-	4.018	3.318	3.518	4.018	-				2.218	-	-
Pot Cap-1 Maneuver	0	795	1027	879	791	0				-	-	-
Stage 1	0	816	-	-	-	0				-	-	-
Stage 2	0	-	-	904	813	0				-	-	-
Platoon blocked, %											-	-
Mov Cap-1 Maneuver	-	795	1027	854	791	-				-	-	-
Mov Cap-2 Maneuver	-	795	-	854	791	-				-	-	-
Stage 1	-	816	-	-	-	-				-	-	-
Stage 2	-	-	-	879	813	-				-	-	-
Approach	EB		WB				SB					
HCM Ctrl Dly, s/v	9.6		9.4									
HCM LOS	A		A									
Minor Lane/Major Mvmt	EBLn1WBLn1		SBL	SBT	SBR							
Capacity (veh/h)	805 821		-	-	-							
HCM Lane V/C Ratio	0.029 0.003		-	-	-							
HCM Ctrl Dly (s/v)	9.6 9.4		-	-	-							
HCM Lane LOS	A A		-	-	-							
HCM 95th %tile Q(veh)	0.1 0		-	-	-							

Lanes, Volumes, Timings
4: Hillcamp Trail (East) & Gambel Edge Drive

JR Engineering
11/18/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	20	0	0	1	61	1	93	1	0	0	0
Future Volume (vph)	17	20	0	0	1	61	1	93	1	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.867					0.999						
Flt Protected	0.978											
Satd. Flow (prot)	0	1822	0	0	1615	0	0	1861	0	0	0	0
Flt Permitted	0.978											
Satd. Flow (perm)	0	1822	0	0	1615	0	0	1861	0	0	0	0
Link Speed (mph)	30				30				30			
Link Distance (ft)	784				347				350			
Travel Time (s)	17.8				7.9				8.0			
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.79	0.78	0.82	0.78	0.78	0.78	0.78
Adj. Flow (vph)	22	26	0	0	1	77	1	113	1	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	48	0	0	78	0	0	115	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0		0				0					
Link Offset(ft)	0		0				0					
Crosswalk Width(ft)	16		16				16					
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control	Stop		Stop				Free				Free	
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 20.3%												
ICU Level of Service A												
Analysis Period (min) 15												

Intersection												
Int Delay, s/veh	4.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰			↱			↰↱				
Traffic Vol, veh/h	17	20	0	0	1	61	1	93	1	0	0	0
Future Vol, veh/h	17	20	0	0	1	61	1	93	1	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	79	78	82	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	26	0	0	1	77	1	113	1	0	0	0

Major/Minor	Minor2		Minor1		Major1				
Conflicting Flow All	117	117	-	-	117	114	0	0	0
Stage 1	0	0	-	-	117	-	-	-	-
Stage 2	117	117	-	-	0	-	-	-	-
Critical Hdwy	7.12	6.52	-	-	6.52	6.22	4.12	-	-
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	-	-	4.018	3.318	2.218	-	-
Pot Cap-1 Maneuver	860	773	0	0	774	939	-	-	-
Stage 1	-	-	0	0	799	-	-	-	-
Stage 2	888	799	0	0	-	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	788	773	-	-	774	939	-	-	-
Mov Cap-2 Maneuver	788	773	-	-	774	-	-	-	-
Stage 1	-	-	-	-	799	-	-	-	-
Stage 2	814	799	-	-	-	-	-	-	-

Approach	EB		WB		NB		
HCM Ctrl Dly, s/v	9.92		9.2				
HCM LOS	A		A				

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1			
Capacity (veh/h)	-	-	-	780	935		
HCM Lane V/C Ratio	-	-	-	0.061	0.084		
HCM Ctrl Dly (s/v)	-	-	-	9.9	9.2		
HCM Lane LOS	-	-	-	A	A		
HCM 95th %tile Q(veh)	-	-	-	0.2	0.3		

Lanes, Volumes, Timings
1: Cabela Drive & Ridgeway Parkway

JR Engineering
11/18/2025

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↑	↑↑	↑↑	↑↑↑↑	↑↑	↑↑
Traffic Volume (vph)	1270	220	320	535	145	278
Future Volume (vph)	1270	220	320	535	145	278
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		150	225		300	0
Storage Lanes		1	2		1	1
Taper Length (ft)			25		25	
Lane Util. Factor	0.86	1.00	0.97	0.86	1.00	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	6408	1583	3433	6408	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	6408	1583	3433	6408	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		253				316
Link Speed (mph)	40			40	25	
Link Distance (ft)	1042			1066	868	
Travel Time (s)	17.8			18.2	23.7	
Peak Hour Factor	0.94	0.87	0.89	0.92	0.85	0.88
Adj. Flow (vph)	1351	253	360	582	171	316
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1351	253	360	582	171	316
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	24			24	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	2	1	1	2	1	1
Detector Template	Thru	Right	Left	Thru	Left	Right
Leading Detector (ft)	100	20	20	100	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	6	20	20	6	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)	94			94		
Detector 2 Size(ft)	6			6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8

Hillcamp 4:15 pm 07/01/2028 Opening Day (Total)
Timing Plan: PM Peak Hour

Synchro 12 Report
Page 1

Lanes, Volumes, Timings
1: Cabela Drive & Ridgeway Parkway

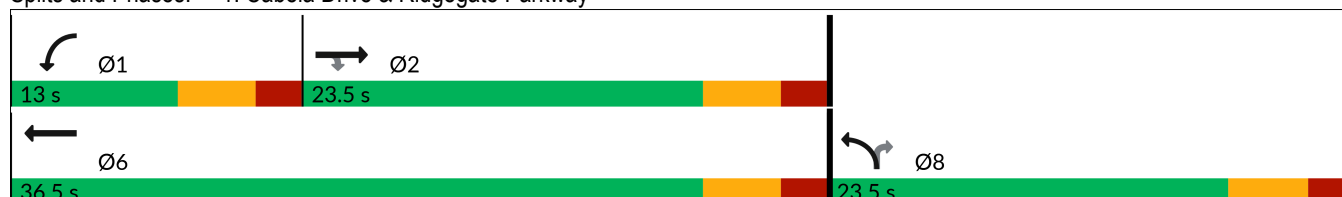
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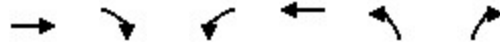
	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.5	23.5	10.5	23.5	23.5	23.5
Total Split (s)	23.5	23.5	13.0	36.5	23.5	23.5
Total Split (%)	39.2%	39.2%	21.7%	60.8%	39.2%	39.2%
Maximum Green (s)	18.0	18.0	7.5	31.0	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0	7.0
Flash Don't Walk (s)	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0
Act Effect Green (s)	17.9	17.9	7.5	30.9	18.0	18.0
Actuated g/C Ratio	0.30	0.30	0.13	0.52	0.30	0.30
v/c Ratio	0.71	0.39	0.84	0.18	0.32	0.45
Control Delay (s/veh)	21.1	4.6	45.6	7.9	18.4	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	21.1	4.6	45.6	7.9	18.4	4.7
LOS	C	A	D	A	B	A
Approach Delay (s/veh)	18.5			22.3	9.5	
Approach LOS	B			C	A	

Intersection Summary

Area Type: Other
 Cycle Length: 60
 Actuated Cycle Length: 59.9
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.84
 Intersection Signal Delay (s/veh): 18.2
 Intersection LOS: B
 Intersection Capacity Utilization 49.3%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 1: Cabela Drive & Ridgeway Parkway





Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	1351	253	360	582	171	316
v/c Ratio	0.71	0.39	0.84	0.18	0.32	0.45
Control Delay (s/veh)	21.1	4.6	45.6	7.9	18.4	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	21.1	4.6	45.6	7.9	18.4	4.7
Queue Length 50th (ft)	124	0	67	29	47	0
Queue Length 95th (ft)	160	40	#128	42	86	45
Internal Link Dist (ft)	962			986	788	
Turn Bay Length (ft)		150	225		300	
Base Capacity (vph)	1925	653	430	3316	532	697
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.39	0.84	0.18	0.32	0.45

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 7th Signalized Intersection Summary

1: Cabela Drive & Ridgeway Parkway

JR Engineering
11/18/2025

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↑	↑	↘↙	↑↑↑↑	↘	↑
Traffic Volume (veh/h)	1270	220	320	535	145	278
Future Volume (veh/h)	1270	220	320	535	145	278
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1351	253	360	582	171	316
Peak Hour Factor	0.94	0.87	0.89	0.92	0.85	0.88
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1833	451	441	3257	546	486
Arrive On Green	0.28	0.28	0.13	0.51	0.31	0.31
Sat Flow, veh/h	6696	1585	3456	6696	1781	1585
Grp Volume(v), veh/h	1351	253	360	582	171	316
Grp Sat Flow(s),veh/h/ln	1609	1585	1728	1609	1781	1585
Q Serve(g_s), s	11.2	8.0	6.0	2.9	4.3	10.1
Cycle Q Clear(g_c), s	11.2	8.0	6.0	2.9	4.3	10.1
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1833	451	441	3257	546	486
V/C Ratio(X)	0.74	0.56	0.82	0.18	0.31	0.65
Avail Cap(c_a), veh/h	1972	486	441	3396	546	486
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.0	17.9	24.9	7.9	15.6	17.6
Incr Delay (d2), s/veh	1.4	1.3	11.3	0.0	1.5	6.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	2.7	2.9	0.8	1.9	4.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	20.4	19.1	36.2	7.9	17.1	24.3
LnGrp LOS	C	B	D	A	B	C
Approach Vol, veh/h	1604			942	487	
Approach Delay, s/veh	20.2			18.7	21.8	
Approach LOS	C			B	C	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	13.0	22.2			35.2	23.5
Change Period (Y+Rc), s	5.5	5.5			5.5	5.5
Max Green Setting (Gmax), s	7.5	18.0			31.0	18.0
Max Q Clear Time (g_c+I1), s	8.0	13.2			4.9	12.1
Green Ext Time (p_c), s	0.0	3.6			3.9	0.9
Intersection Summary						
HCM 7th Control Delay, s/veh			20.0			
HCM 7th LOS			B			

Lanes, Volumes, Timings
2: Stay True Trail & Hillcamp Trail

JR Engineering
11/18/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	1	1	89	1	20	1	1	53	12	1	1
Future Volume (vph)	1	1	1	89	1	20	1	1	53	12	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.955			0.974			0.869			0.992	
Flt Protected		0.984			0.961			0.999			0.958	
Satd. Flow (prot)	0	1750	0	0	1744	0	0	1617	0	0	1770	0
Flt Permitted		0.984			0.961			0.999			0.958	
Satd. Flow (perm)	0	1750	0	0	1744	0	0	1617	0	0	1770	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		478			504			462			420	
Travel Time (s)		10.9			11.5			10.5			9.5	
Peak Hour Factor	0.78	0.78	0.78	0.82	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Adj. Flow (vph)	1	1	1	109	1	26	1	1	68	15	1	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	3	0	0	136	0	0	70	0	0	17	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	27.0%											
Analysis Period (min)	15											
	ICU Level of Service A											

Intersection												
Int Delay, s/veh	6.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	1	89	1	20	1	1	53	12	1	1
Future Vol, veh/h	1	1	1	89	1	20	1	1	53	12	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	82	78	78	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	1	1	109	1	26	1	1	68	15	1	1
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	37	104	2	71	71	35	3	0	0	69	0	0
Stage 1	33	33	-	38	38	-	-	-	-	-	-	-
Stage 2	4	72	-	33	33	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	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	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	968	786	1082	921	819	1038	1620	-	-	1532	-	-
Stage 1	984	868	-	977	863	-	-	-	-	-	-	-
Stage 2	1018	835	-	984	867	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	932	777	1082	909	810	1038	1620	-	-	1532	-	-
Mov Cap-2 Maneuver	932	777	-	909	810	-	-	-	-	-	-	-
Stage 1	974	859	-	977	863	-	-	-	-	-	-	-
Stage 2	990	834	-	971	859	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Ctrl Dly, s/v	8.96		9.53		0.13		6.32					
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	27	-	-	914	929	1403	-	-				
HCM Lane V/C Ratio	0.001	-	-	0.004	0.146	0.01	-	-				
HCM Ctrl Dly (s/v)	7.2	0	-	9	9.5	7.4	0	-				
HCM Lane LOS	A	A	-	A	A	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0	0.5	0	-	-				

Lanes, Volumes, Timings
3: Hillcamp Trail (West) & Gambel Edge Drive

JR Engineering
11/18/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	12	1	1	1	0	0	0	0	71	108	20
Future Volume (vph)	0	12	1	1	1	0	0	0	0	71	108	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.992										0.986	
Flt Protected					0.976						0.982	
Satd. Flow (prot)	0	1848	0	0	1818	0	0	0	0	0	1804	0
Flt Permitted					0.976						0.982	
Satd. Flow (perm)	0	1848	0	0	1818	0	0	0	0	0	1804	0
Link Speed (mph)	30				30		30				30	
Link Distance (ft)	346				784		378				315	
Travel Time (s)	7.9				17.8		8.6				7.2	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.80	0.83	0.78
Adj. Flow (vph)	0	15	1	1	1	0	0	0	0	89	130	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	16	0	0	2	0	0	0	0	0	245	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0				0		0				0	
Link Offset(ft)	0				0		0				0	
Crosswalk Width(ft)	16				16		16				16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control	Stop				Stop				Free			
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 20.8%					ICU Level of Service A							
Analysis Period (min) 15												

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	12	1	1	1	0	0	0	0	71	108	20
Future Vol, veh/h	0	12	1	1	1	0	0	0	0	71	108	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	80	83	78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	15	1	1	1	0	0	0	0	89	130	26

Major/Minor	Minor2		Minor1		Major2	
Conflicting Flow All	-	320	143	315	333	-
Stage 1	-	320	-	0	0	-
Stage 2	-	0	-	315	333	-
Critical Hdwy	-	6.52	6.22	7.12	6.52	-
Critical Hdwy Stg 1	-	5.52	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.12	5.52	-
Follow-up Hdwy	-	4.018	3.318	3.518	4.018	-
Pot Cap-1 Maneuver	0	596	905	637	587	0
Stage 1	0	652	-	-	-	0
Stage 2	0	-	-	696	644	0
Platoon blocked, %						
Mov Cap-1 Maneuver	-	596	905	620	587	-
Mov Cap-2 Maneuver	-	596	-	620	587	-
Stage 1	-	652	-	-	-	-
Stage 2	-	-	-	678	644	-

Approach	EB		WB		SB	
HCM Ctrl Dly, s/v	11.04		11			
HCM LOS	B		B			

Minor Lane/Major Mvmt	EBLn1WBLn1		SBL	SBT	SBR
Capacity (veh/h)	613	603	-	-	-
HCM Lane V/C Ratio	0.027	0.004	-	-	-
HCM Ctrl Dly (s/v)	11	11	-	-	-
HCM Lane LOS	B	B	-	-	-
HCM 95th %tile Q(veh)	0.1	0	-	-	-

Lanes, Volumes, Timings
4: Hillcamp Trail (East) & Gambel Edge Drive

JR Engineering
11/18/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	71	0	0	1	42	1	64	1	0	0	0
Future Volume (vph)	12	71	0	0	1	42	1	64	1	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.867			0.998				
Flt Protected		0.993						0.999				
Satd. Flow (prot)	0	1850	0	0	1615	0	0	1857	0	0	0	0
Flt Permitted		0.993						0.999				
Satd. Flow (perm)	0	1850	0	0	1615	0	0	1857	0	0	0	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		784			347			350			315	
Travel Time (s)		17.8			7.9			8.0			7.2	
Peak Hour Factor	0.78	0.80	0.78	0.78	0.78	0.78	0.78	0.79	0.78	0.78	0.78	0.78
Adj. Flow (vph)	15	89	0	0	1	54	1	81	1	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	104	0	0	55	0	0	83	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	21.2%											
Analysis Period (min)	15											
ICU Level of Service A												

Intersection												
Int Delay, s/veh	6.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰			↱			↰↱				
Traffic Vol, veh/h	12	71	0	0	1	42	1	64	1	0	0	0
Future Vol, veh/h	12	71	0	0	1	42	1	64	1	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	80	78	78	78	78	78	79	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	89	0	0	1	54	1	81	1	0	0	0

Major/Minor	Minor2		Minor1		Major1						
Conflicting Flow All	84	85	-	-	84	82	0	0	0		
Stage 1	0	0	-	-	84	-	-	-	-		
Stage 2	84	85	-	-	0	-	-	-	-		
Critical Hdwy	7.12	6.52	-	-	6.52	6.22	4.12	-	-		
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-		
Critical Hdwy Stg 2	6.12	5.52	-	-	-	-	-	-	-		
Follow-up Hdwy	3.518	4.018	-	-	4.018	3.318	2.218	-	-		
Pot Cap-1 Maneuver	902	805	0	0	806	978	-	-	-		
Stage 1	-	-	0	0	825	-	-	-	-		
Stage 2	924	824	0	0	-	-	-	-	-		
Platoon blocked, %								-	-		
Mov Cap-1 Maneuver	851	805	-	-	806	978	-	-	-		
Mov Cap-2 Maneuver	851	805	-	-	806	-	-	-	-		
Stage 1	-	-	-	-	825	-	-	-	-		
Stage 2	872	824	-	-	-	-	-	-	-		

Approach	EB		WB		NB		
HCM Ctrl Dly, s/v	10.09		8.92				
HCM LOS	B		A				

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	
Capacity (veh/h)	-	-	-	812	973
HCM Lane V/C Ratio	-	-	-	0.128	0.057
HCM Ctrl Dly (s/v)	-	-	-	10.1	8.9
HCM Lane LOS	-	-	-	B	A
HCM 95th %tile Q(veh)	-	-	-	0.4	0.2

Lanes, Volumes, Timings
1: Cabela Drive & Ridgeway Parkway

JR Engineering
11/18/2025

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↑	↑	↑↑	↑↑↑↑	↑	↑
Traffic Volume (vph)	632	61	94	2194	53	70
Future Volume (vph)	632	61	94	2194	53	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		150	225		300	0
Storage Lanes		1	2		1	1
Taper Length (ft)			25		25	
Lane Util. Factor	0.86	1.00	0.97	0.86	1.00	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	6408	1583	3433	6408	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	6408	1583	3433	6408	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		77				88
Link Speed (mph)	40			40	25	
Link Distance (ft)	1042			1066	868	
Travel Time (s)	17.8			18.2	23.7	
Peak Hour Factor	0.92	0.79	0.82	0.95	0.78	0.80
Adj. Flow (vph)	687	77	115	2309	68	88
Shared Lane Traffic (%)						
Lane Group Flow (vph)	687	77	115	2309	68	88
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	24			24	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	2	1	1	2	1	1
Detector Template	Thru	Right	Left	Thru	Left	Right
Leading Detector (ft)	100	20	20	100	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	6	20	20	6	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)	94			94		
Detector 2 Size(ft)	6			6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8

Hillcamp 7:15 am 07/01/2045 Future Year (Background)
Timing Plan: AM Peak Hour

Synchro 12 Report
Page 1

Lanes, Volumes, Timings
1: Cabela Drive & Ridgeway Parkway

JR Engineering
11/18/2025

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.5	23.5	10.5	23.5	23.5	23.5
Total Split (s)	25.5	25.5	11.0	36.5	23.5	23.5
Total Split (%)	42.5%	42.5%	18.3%	60.8%	39.2%	39.2%
Maximum Green (s)	20.0	20.0	5.5	31.0	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0	7.0
Flash Don't Walk (s)	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0
Act Effect Green (s)	22.2	22.2	5.5	31.0	18.0	18.0
Actuated g/C Ratio	0.37	0.37	0.09	0.52	0.30	0.30
v/c Ratio	0.29	0.12	0.37	0.70	0.13	0.16
Control Delay (s/veh)	14.5	4.8	29.2	12.4	16.2	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	14.5	4.8	29.2	12.4	16.2	5.2
LOS	B	A	C	B	B	A
Approach Delay (s/veh)	13.5			13.2	10.0	
Approach LOS	B			B	A	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.70

Intersection Signal Delay (s/veh): 13.1

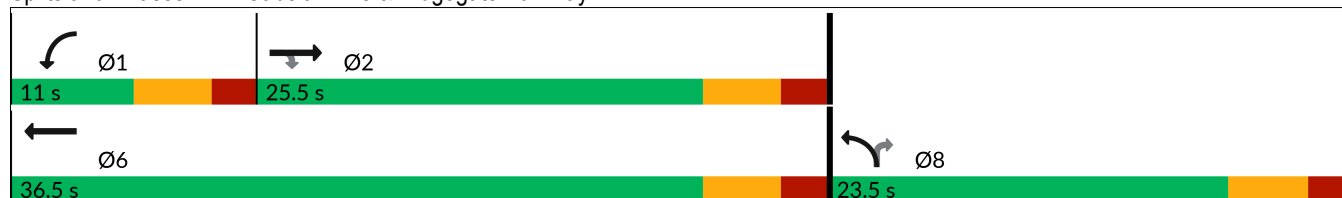
Intersection LOS: B

Intersection Capacity Utilization 45.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: Cabela Drive & Ridgeway Parkway

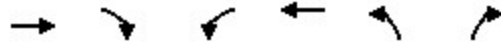


Queues

JR Engineering

1: Cabela Drive & Ridgeway Parkway

11/18/2025



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	687	77	115	2309	68	88
v/c Ratio	0.29	0.12	0.37	0.70	0.13	0.16
Control Delay (s/veh)	14.5	4.8	29.2	12.4	16.2	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	14.5	4.8	29.2	12.4	16.2	5.2
Queue Length 50th (ft)	52	0	20	168	18	0
Queue Length 95th (ft)	73	18	38	207	37	21
Internal Link Dist (ft)	962			986	788	
Turn Bay Length (ft)		150	225		300	
Base Capacity (vph)	2371	634	314	3310	531	536
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.12	0.37	0.70	0.13	0.16
Intersection Summary						

HCM 7th Signalized Intersection Summary

1: Cabela Drive & Ridgeway Parkway

JR Engineering
11/18/2025

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↑	↑	↘↙	↑↑↑↑	↘	↑
Traffic Volume (veh/h)	632	61	94	2194	53	70
Future Volume (veh/h)	632	61	94	2194	53	70
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	687	77	115	2309	68	88
Peak Hour Factor	0.92	0.79	0.82	0.95	0.78	0.80
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2146	529	251	3222	552	491
Arrive On Green	0.33	0.33	0.07	0.50	0.31	0.31
Sat Flow, veh/h	6696	1585	3456	6696	1781	1585
Grp Volume(v), veh/h	687	77	115	2309	68	88
Grp Sat Flow(s),veh/h/ln	1609	1585	1728	1609	1781	1585
Q Serve(g_s), s	4.6	2.0	1.9	16.2	1.6	2.4
Cycle Q Clear(g_c), s	4.6	2.0	1.9	16.2	1.6	2.4
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2146	529	251	3222	552	491
V/C Ratio(X)	0.32	0.15	0.46	0.72	0.12	0.18
Avail Cap(c_a), veh/h	2215	546	327	3433	552	491
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.4	13.6	25.8	11.3	14.4	14.7
Incr Delay (d2), s/veh	0.1	0.1	1.3	0.7	0.5	0.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.6	0.7	4.4	0.7	0.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	14.5	13.7	27.1	12.0	14.8	15.4
LnGrp LOS	B	B	C	B	B	B
Approach Vol, veh/h	764			2424	156	
Approach Delay, s/veh	14.4			12.7	15.2	
Approach LOS	B			B	B	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	9.7	24.9			34.6	23.5
Change Period (Y+Rc), s	5.5	5.5			5.5	5.5
Max Green Setting (Gmax), s	5.5	20.0			31.0	18.0
Max Q Clear Time (g_c+I1), s	3.9	6.6			18.2	4.4
Green Ext Time (p_c), s	0.0	3.9			10.9	0.4
Intersection Summary						
HCM 7th Control Delay, s/veh			13.2			
HCM 7th LOS			B			

Lanes, Volumes, Timings
1: Cabela Drive & Ridgeway Parkway

JR Engineering
11/18/2025

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↑	↑	↑↑	↑↑↑↑	↑	↑
Traffic Volume (vph)	1639	167	238	691	113	247
Future Volume (vph)	1639	167	238	691	113	247
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		150	225		300	0
Storage Lanes		1	2		1	1
Taper Length (ft)			25		25	
Lane Util. Factor	0.86	1.00	0.97	0.86	1.00	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	6408	1583	3433	6408	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	6408	1583	3433	6408	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		194				281
Link Speed (mph)	40			40	25	
Link Distance (ft)	1042			1066	868	
Travel Time (s)	17.8			18.2	23.7	
Peak Hour Factor	0.94	0.86	0.88	0.92	0.84	0.88
Adj. Flow (vph)	1744	194	270	751	135	281
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1744	194	270	751	135	281
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	24			24	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	2	1	1	2	1	1
Detector Template	Thru	Right	Left	Thru	Left	Right
Leading Detector (ft)	100	20	20	100	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	6	20	20	6	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)	94			94		
Detector 2 Size(ft)	6			6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8

Hillcamp 4:15 pm 07/01/2045 Future Year (Background)
Timing Plan: PM Peak Hour

Synchro 12 Report
Page 1

Lanes, Volumes, Timings
1: Cabela Drive & Ridgeway Parkway

JR Engineering
11/18/2025

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.5	23.5	10.5	23.5	23.5	23.5
Total Split (s)	27.5	27.5	14.0	41.5	23.5	23.5
Total Split (%)	42.3%	42.3%	21.5%	63.8%	36.2%	36.2%
Maximum Green (s)	22.0	22.0	8.5	36.0	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0	7.0
Flash Don't Walk (s)	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0
Act Effect Green (s)	22.0	22.0	8.3	35.8	18.0	18.0
Actuated g/C Ratio	0.34	0.34	0.13	0.55	0.28	0.28
v/c Ratio	0.80	0.29	0.62	0.21	0.27	0.44
Control Delay (s/veh)	22.9	4.1	33.4	7.5	20.3	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.9	4.1	33.4	7.5	20.3	5.2
LOS	C	A	C	A	C	A
Approach Delay (s/veh)	21.0			14.4	10.1	
Approach LOS	C			B	B	

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 64.8

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.80

Intersection Signal Delay (s/veh): 17.7

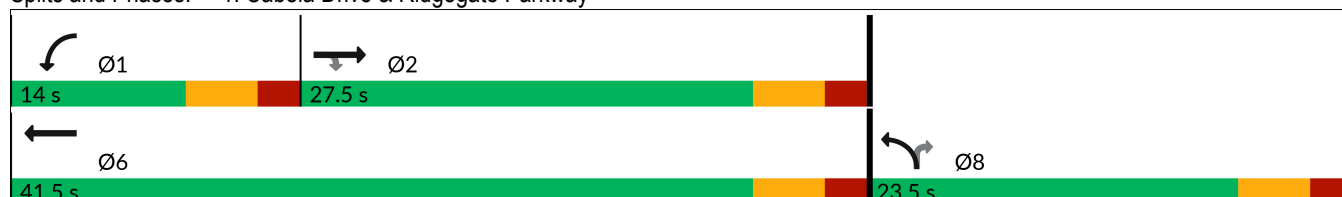
Intersection LOS: B

Intersection Capacity Utilization 50.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: Cabela Drive & Ridgeway Parkway



Queues
1: Cabela Drive & Ridgeway Parkway

JR Engineering
11/18/2025

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	1744	194	270	751	135	281
v/c Ratio	0.80	0.29	0.62	0.21	0.27	0.44
Control Delay (s/veh)	22.9	4.1	33.4	7.5	20.3	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.9	4.1	33.4	7.5	20.3	5.2
Queue Length 50th (ft)	179	0	53	39	42	0
Queue Length 95th (ft)	222	33	85	53	76	46
Internal Link Dist (ft)	962			986	788	
Turn Bay Length (ft)		150	225		300	
Base Capacity (vph)	2175	665	449	3560	491	642
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.80	0.29	0.60	0.21	0.27	0.44
Intersection Summary						

HCM 7th Signalized Intersection Summary

1: Cabela Drive & Ridgeway Parkway

JR Engineering
11/18/2025

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↑	↑	↘↙	↑↑↑↑	↘	↑
Traffic Volume (veh/h)	1639	167	238	691	113	247
Future Volume (veh/h)	1639	167	238	691	113	247
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1744	194	270	751	135	281
Peak Hour Factor	0.94	0.86	0.88	0.92	0.84	0.88
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2184	538	377	3452	512	456
Arrive On Green	0.34	0.34	0.11	0.54	0.29	0.29
Sat Flow, veh/h	6696	1585	3456	6696	1781	1585
Grp Volume(v), veh/h	1744	194	270	751	135	281
Grp Sat Flow(s),veh/h/ln	1609	1585	1728	1609	1781	1585
Q Serve(g_s), s	15.4	5.8	4.7	3.8	3.7	9.6
Cycle Q Clear(g_c), s	15.4	5.8	4.7	3.8	3.7	9.6
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2184	538	377	3452	512	456
V/C Ratio(X)	0.80	0.36	0.72	0.22	0.26	0.62
Avail Cap(c_a), veh/h	2262	557	469	3702	512	456
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.7	15.6	26.9	7.6	17.2	19.3
Incr Delay (d2), s/veh	2.0	0.4	3.9	0.0	1.3	6.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	1.9	2.0	1.0	1.6	4.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	20.8	16.0	30.8	7.6	18.4	25.4
LnGrp LOS	C	B	C	A	B	C
Approach Vol, veh/h	1938			1021	416	
Approach Delay, s/veh	20.3			13.8	23.1	
Approach LOS	C			B	C	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	12.3	26.7			39.1	23.5
Change Period (Y+Rc), s	5.5	5.5			5.5	5.5
Max Green Setting (Gmax), s	8.5	22.0			36.0	18.0
Max Q Clear Time (g_c+l1), s	6.7	17.4			5.8	11.6
Green Ext Time (p_c), s	0.2	3.9			5.4	0.8
Intersection Summary						
HCM 7th Control Delay, s/veh			18.7			
HCM 7th LOS			B			
Notes						
User approved pedestrian interval to be less than phase max green.						

Lanes, Volumes, Timings
1: Cabela Drive & Ridgeway Parkway

JR Engineering
11/18/2025

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑↑	↑↑↑	↑	↑
Traffic Volume (vph)	632	84	128	2194	121	173
Future Volume (vph)	632	84	128	2194	121	173
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		150	225		300	0
Storage Lanes		1	2		1	1
Taper Length (ft)			25		25	
Lane Util. Factor	0.86	1.00	0.97	0.86	1.00	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	6408	1583	3433	6408	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	6408	1583	3433	6408	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		104				201
Link Speed (mph)	40			40	25	
Link Distance (ft)	1042			1066	868	
Travel Time (s)	17.8			18.2	23.7	
Peak Hour Factor	0.92	0.81	0.84	0.95	0.84	0.86
Adj. Flow (vph)	687	104	152	2309	144	201
Shared Lane Traffic (%)						
Lane Group Flow (vph)	687	104	152	2309	144	201
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	24			24	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	2	1	1	2	1	1
Detector Template	Thru	Right	Left	Thru	Left	Right
Leading Detector (ft)	100	20	20	100	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	6	20	20	6	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)	94			94		
Detector 2 Size(ft)	6			6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8

Hillcamp 7:15 am 07/01/2045 Future Year (Total)
Timing Plan: AM Peak Hour

Synchro 12 Report
Page 1

Lanes, Volumes, Timings
1: Cabela Drive & Ridgeway Parkway

JR Engineering
11/18/2025

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.5	23.5	10.5	23.5	23.5	23.5
Total Split (s)	24.4	24.4	12.1	36.5	23.5	23.5
Total Split (%)	40.7%	40.7%	20.2%	60.8%	39.2%	39.2%
Maximum Green (s)	18.9	18.9	6.6	31.0	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0	7.0
Flash Don't Walk (s)	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0
Act Effect Green (s)	21.3	21.3	6.5	31.0	18.0	18.0
Actuated g/C Ratio	0.36	0.36	0.11	0.52	0.30	0.30
v/c Ratio	0.30	0.17	0.41	0.70	0.27	0.33
Control Delay (s/veh)	15.3	4.6	28.6	12.4	17.7	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	15.3	4.6	28.6	12.4	17.7	4.6
LOS	B	A	C	B	B	A
Approach Delay (s/veh)	13.9			13.4	10.1	
Approach LOS	B			B	B	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.70

Intersection Signal Delay (s/veh): 13.2

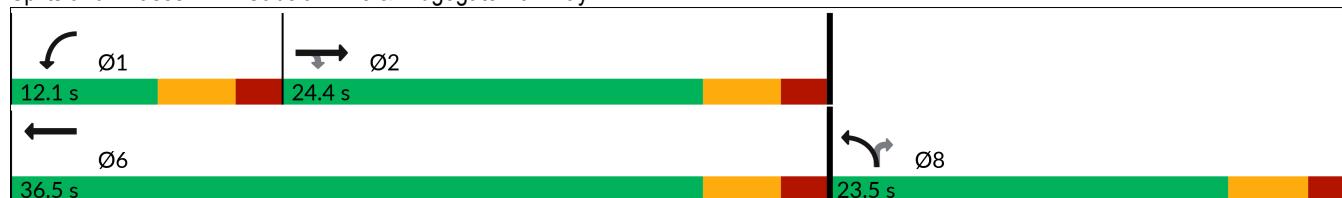
Intersection LOS: B

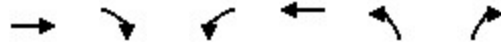
Intersection Capacity Utilization 47.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: Cabela Drive & Ridgeway Parkway





Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	687	104	152	2309	144	201
v/c Ratio	0.30	0.17	0.41	0.70	0.27	0.33
Control Delay (s/veh)	15.3	4.6	28.6	12.4	17.7	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	15.3	4.6	28.6	12.4	17.7	4.6
Queue Length 50th (ft)	54	0	26	168	39	0
Queue Length 95th (ft)	75	22	47	207	72	35
Internal Link Dist (ft)	962			986	788	
Turn Bay Length (ft)		150	225		300	
Base Capacity (vph)	2276	629	377	3310	531	615
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.17	0.40	0.70	0.27	0.33
Intersection Summary						

HCM 7th Signalized Intersection Summary

1: Cabela Drive & Ridgeway Parkway

JR Engineering
11/18/2025

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↑	↑	↘↙	↑↑↑↑	↘	↑
Traffic Volume (veh/h)	632	84	128	2194	121	173
Future Volume (veh/h)	632	84	128	2194	121	173
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	687	104	152	2309	144	201
Peak Hour Factor	0.92	0.81	0.84	0.95	0.84	0.86
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2107	519	272	3222	552	491
Arrive On Green	0.33	0.33	0.08	0.50	0.31	0.31
Sat Flow, veh/h	6696	1585	3456	6696	1781	1585
Grp Volume(v), veh/h	687	104	152	2309	144	201
Grp Sat Flow(s),veh/h/ln	1609	1585	1728	1609	1781	1585
Q Serve(g_s), s	4.7	2.7	2.5	16.2	3.5	5.8
Cycle Q Clear(g_c), s	4.7	2.7	2.5	16.2	3.5	5.8
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2107	519	272	3222	552	491
V/C Ratio(X)	0.33	0.20	0.56	0.72	0.26	0.41
Avail Cap(c_a), veh/h	2107	519	393	3433	552	491
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.7	14.1	25.8	11.3	15.1	15.8
Incr Delay (d2), s/veh	0.1	0.2	1.8	0.7	1.1	2.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.9	1.0	4.4	1.5	2.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	14.8	14.2	27.6	12.0	16.2	18.4
LnGrp LOS	B	B	C	B	B	B
Approach Vol, veh/h	791			2461	345	
Approach Delay, s/veh	14.7			12.9	17.5	
Approach LOS	B			B	B	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	10.1	24.5			34.6	23.5
Change Period (Y+Rc), s	5.5	5.5			5.5	5.5
Max Green Setting (Gmax), s	6.6	18.9			31.0	18.0
Max Q Clear Time (g_c+l1), s	4.5	6.7			18.2	7.8
Green Ext Time (p_c), s	0.1	3.8			10.9	0.8
Intersection Summary						
HCM 7th Control Delay, s/veh			13.8			
HCM 7th LOS			B			
Notes						
User approved pedestrian interval to be less than phase max green.						

Lanes, Volumes, Timings
2: Stay True Trail & Hillcamp Trail

JR Engineering
11/18/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	1	1	26	1	6	1	1	77	17	1	1
Future Volume (vph)	1	1	1	26	1	6	1	1	77	17	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.955			0.974			0.868			0.994	
Flt Protected		0.984			0.962			0.999			0.956	
Satd. Flow (prot)	0	1750	0	0	1745	0	0	1615	0	0	1770	0
Flt Permitted		0.984			0.962			0.999			0.956	
Satd. Flow (perm)	0	1750	0	0	1745	0	0	1615	0	0	1770	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		478			504			462			420	
Travel Time (s)		10.9			11.5			10.5			9.5	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.81	0.78	0.78	0.78
Adj. Flow (vph)	1	1	1	33	1	8	1	1	95	22	1	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	3	0	0	42	0	0	97	0	0	24	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	18.3%											
Analysis Period (min)	15											
	ICU Level of Service A											

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	1	26	1	6	1	1	77	17	1	1
Future Vol, veh/h	1	1	1	26	1	6	1	1	77	17	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	81	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	1	1	33	1	8	1	1	95	22	1	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	50	144	2	97	98	49	3	0	0	96	0	0
Stage 1	46	46	-	51	51	-	-	-	-	-	-	-
Stage 2	4	99	-	46	46	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	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	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	950	747	1082	885	793	1020	1620	-	-	1497	-	-
Stage 1	968	857	-	961	852	-	-	-	-	-	-	-
Stage 2	1018	813	-	968	856	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	927	735	1082	869	780	1020	1620	-	-	1497	-	-
Mov Cap-2 Maneuver	927	735	-	869	780	-	-	-	-	-	-	-
Stage 1	954	844	-	961	851	-	-	-	-	-	-	-
Stage 2	1008	812	-	952	844	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	9.05	9.25	0.09	6.66
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	20	-	-	892	890	1464	-
HCM Lane V/C Ratio	0.001	-	-	0.004	0.048	0.015	-
HCM Ctrl Dly (s/v)	7.2	0	-	9.1	9.2	7.4	0
HCM Lane LOS	A	A	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-

Lanes, Volumes, Timings
3: Hillcamp Trail (West) & Gambel Edge Drive

JR Engineering
11/18/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	17	1	1	1	0	0	0	0	20	31	6
Future Volume (vph)	0	17	1	1	1	0	0	0	0	20	31	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.994										0.985	
Flt Protected											0.976	
Satd. Flow (prot)	0	1852	0	0	1818	0	0	0	0	0	1804	0
Flt Permitted											0.976	
Satd. Flow (perm)	0	1852	0	0	1818	0	0	0	0	0	1804	0
Link Speed (mph)	30				30		30				30	
Link Distance (ft)	346				784		378				315	
Travel Time (s)	7.9				17.8		8.6				7.2	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Adj. Flow (vph)	0	22	1	1	1	0	0	0	0	26	40	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	23	0	0	2	0	0	0	0	0	74	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0				0		0				0	
Link Offset(ft)	0				0		0				0	
Crosswalk Width(ft)	16				16		16				16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control	Stop		Stop				Free				Free	
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 13.3%												
ICU Level of Service A												
Analysis Period (min) 15												

Intersection													
Int Delay, s/veh	2.5												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Vol, veh/h	0	17	1	1	1	0	0	0	0	20	31	6	
Future Vol, veh/h	0	17	1	1	1	0	0	0	0	20	31	6	
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None	
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-	
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78	
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	
Mvmt Flow	0	22	1	1	1	0	0	0	0	26	40	8	
Major/Minor	Minor2		Minor1				Major2						
Conflicting Flow All	-	95	44	102	99	-	0			0	0		
Stage 1	-	95	-	0	0	-	-			-	-		
Stage 2	-	0	-	102	99	-	-			-	-		
Critical Hdwy	-	6.52	6.22	7.12	6.52	-	4.12			-	-		
Critical Hdwy Stg 1	-	5.52	-	-	-	-	-			-	-		
Critical Hdwy Stg 2	-	-	-	6.12	5.52	-	-			-	-		
Follow-up Hdwy	-	4.018	3.318	3.518	4.018	-	2.218			-	-		
Pot Cap-1 Maneuver	0	795	1027	879	791	0	-			-	-		
Stage 1	0	816	-	-	-	0	-			-	-		
Stage 2	0	-	-	904	813	0	-			-	-		
Platoon blocked, %											-	-	
Mov Cap-1 Maneuver	-	795	1027	854	791	-	-			-	-		
Mov Cap-2 Maneuver	-	795	-	854	791	-	-			-	-		
Stage 1	-	816	-	-	-	-	-			-	-		
Stage 2	-	-	-	879	813	-	-			-	-		
Approach	EB		WB				SB						
HCM Ctrl Dly, s/v	9.6		9.4										
HCM LOS	A		A										
Minor Lane/Major Mvmt	EBLn1WBLn1		SBL	SBT	SBR								
Capacity (veh/h)	805 821		-	-	-								
HCM Lane V/C Ratio	0.029 0.003		-	-	-								
HCM Ctrl Dly (s/v)	9.6 9.4		-	-	-								
HCM Lane LOS	A A		-	-	-								
HCM 95th %tile Q(veh)	0.1 0		-	-	-								

Lanes, Volumes, Timings
4: Hillcamp Trail (East) & Gambel Edge Drive

JR Engineering
11/18/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	20	0	0	1	61	1	93	1	0	0	0
Future Volume (vph)	17	20	0	0	1	61	1	93	1	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.867					0.999						
Flt Protected	0.978											
Satd. Flow (prot)	0	1822	0	0	1615	0	0	1861	0	0	0	0
Flt Permitted	0.978											
Satd. Flow (perm)	0	1822	0	0	1615	0	0	1861	0	0	0	0
Link Speed (mph)	30				30				30			
Link Distance (ft)	784				347				350			
Travel Time (s)	17.8				7.9				8.0			
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.79	0.78	0.92	0.78	0.78	0.78	0.78
Adj. Flow (vph)	22	26	0	0	1	77	1	101	1	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	48	0	0	78	0	0	103	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0				0				0			
Link Offset(ft)	0				0				0			
Crosswalk Width(ft)	16				16				16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control	Stop			Stop				Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 20.3%												
ICU Level of Service A												
Analysis Period (min) 15												

Intersection												
Int Delay, s/veh	5.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰			↱			↰↱				
Traffic Vol, veh/h	17	20	0	0	1	61	1	93	1	0	0	0
Future Vol, veh/h	17	20	0	0	1	61	1	93	1	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	79	78	92	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	26	0	0	1	77	1	101	1	0	0	0

Major/Minor	Minor2		Minor1		Major1					
Conflicting Flow All	104	105	-	-	104	102	0	0	0	
Stage 1	0	0	-	-	104	-	-	-	-	
Stage 2	104	105	-	-	0	-	-	-	-	
Critical Hdwy	7.12	6.52	-	-	6.52	6.22	4.12	-	-	
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-	
Critical Hdwy Stg 2	6.12	5.52	-	-	-	-	-	-	-	
Follow-up Hdwy	3.518	4.018	-	-	4.018	3.318	2.218	-	-	
Pot Cap-1 Maneuver	876	785	0	0	786	953	-	-	-	
Stage 1	-	-	0	0	809	-	-	-	-	
Stage 2	901	808	0	0	-	-	-	-	-	
Platoon blocked, %								-	-	
Mov Cap-1 Maneuver	803	785	-	-	786	953	-	-	-	
Mov Cap-2 Maneuver	803	785	-	-	786	-	-	-	-	
Stage 1	-	-	-	-	809	-	-	-	-	
Stage 2	827	808	-	-	-	-	-	-	-	

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	9.83	9.13	
HCM LOS	A	A	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1
Capacity (veh/h)	-	-	-	793 950
HCM Lane V/C Ratio	-	-	-	0.06 0.083
HCM Ctrl Dly (s/v)	-	-	-	9.8 9.1
HCM Lane LOS	-	-	-	A A
HCM 95th %tile Q(veh)	-	-	-	0.2 0.3

Lanes, Volumes, Timings
1: Cabela Drive & Ridgeway Parkway

JR Engineering
11/18/2025

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↑	↗	↘	↑↑↑↑	↗	↘
Traffic Volume (vph)	1639	247	358	691	160	318
Future Volume (vph)	1639	247	358	691	160	318
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		150	225		300	0
Storage Lanes		1	2		1	1
Taper Length (ft)			25		25	
Lane Util. Factor	0.86	1.00	0.97	0.86	1.00	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	6408	1583	3433	6408	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	6408	1583	3433	6408	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		281				340
Link Speed (mph)	40			40	25	
Link Distance (ft)	1042			1066	868	
Travel Time (s)	17.8			18.2	23.7	
Peak Hour Factor	0.94	0.88	0.90	0.92	0.85	0.89
Adj. Flow (vph)	1744	281	398	751	188	357
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1744	281	398	751	188	357
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	24			24	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	2	1	1	2	1	1
Detector Template	Thru	Right	Left	Thru	Left	Right
Leading Detector (ft)	100	20	20	100	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	6	20	20	6	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)	94			94		
Detector 2 Size(ft)	6			6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8

Hillcamp 4:15 pm 07/01/2045 Future Year (Total)
Timing Plan: PM Peak Hour

Synchro 12 Report
Page 1

Lanes, Volumes, Timings
1: Cabela Drive & Ridgeway Parkway

JR Engineering
11/18/2025

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.5	23.5	10.5	23.5	23.5	23.5
Total Split (s)	26.5	26.5	15.0	41.5	23.5	23.5
Total Split (%)	40.8%	40.8%	23.1%	63.8%	36.2%	36.2%
Maximum Green (s)	21.0	21.0	9.5	36.0	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0	7.0
Flash Don't Walk (s)	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0
Act Effect Green (s)	21.0	21.0	9.5	36.0	18.0	18.0
Actuated g/C Ratio	0.32	0.32	0.15	0.55	0.28	0.28
v/c Ratio	0.84	0.40	0.79	0.21	0.38	0.52
Control Delay (s/veh)	25.3	4.4	40.6	7.5	21.8	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	25.3	4.4	40.6	7.5	21.8	6.2
LOS	C	A	D	A	C	A
Approach Delay (s/veh)	22.4			19.0	11.6	
Approach LOS	C			B	B	

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Natural Cycle: 65

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay (s/veh): 19.8

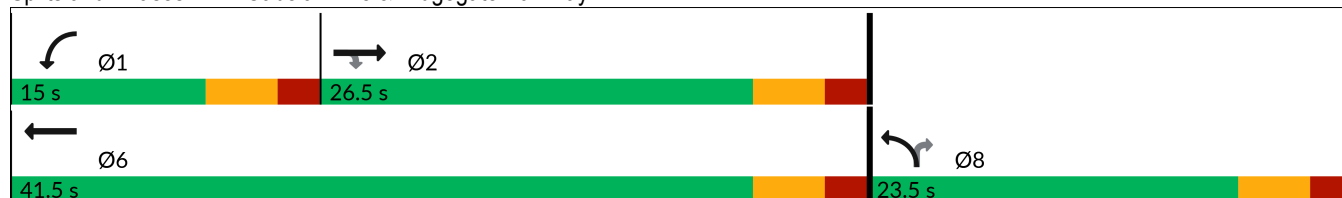
Intersection LOS: B

Intersection Capacity Utilization 56.6%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 1: Cabela Drive & Ridgeway Parkway



Queues
1: Cabela Drive & Ridgeway Parkway

JR Engineering
11/18/2025

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	1744	281	398	751	188	357
v/c Ratio	0.84	0.40	0.79	0.21	0.38	0.52
Control Delay (s/veh)	25.3	4.4	40.6	7.5	21.8	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	25.3	4.4	40.6	7.5	21.8	6.2
Queue Length 50th (ft)	184	0	79	39	60	5
Queue Length 95th (ft)	228	43	#142	53	104	59
Internal Link Dist (ft)	962			986	788	
Turn Bay Length (ft)		150	225		300	
Base Capacity (vph)	2070	701	501	3549	490	684
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.84	0.40	0.79	0.21	0.38	0.52

Intersection Summary

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

HCM 7th Signalized Intersection Summary

1: Cabela Drive & Ridgeway Parkway

JR Engineering
11/18/2025

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↑	↑	↘↙	↑↑↑↑	↘	↑
Traffic Volume (veh/h)	1639	247	358	691	160	318
Future Volume (veh/h)	1639	247	358	691	160	318
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1744	281	398	751	188	357
Peak Hour Factor	0.94	0.88	0.90	0.92	0.85	0.89
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2064	508	495	3536	498	443
Arrive On Green	0.32	0.32	0.14	0.55	0.28	0.28
Sat Flow, veh/h	6696	1585	3456	6696	1781	1585
Grp Volume(v), veh/h	1744	281	398	751	188	357
Grp Sat Flow(s),veh/h/ln	1609	1585	1728	1609	1781	1585
Q Serve(g_s), s	16.3	9.4	7.2	3.8	5.5	13.5
Cycle Q Clear(g_c), s	16.3	9.4	7.2	3.8	5.5	13.5
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2064	508	495	3536	498	443
V/C Ratio(X)	0.85	0.55	0.80	0.21	0.38	0.81
Avail Cap(c_a), veh/h	2099	517	510	3598	498	443
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.4	18.1	26.7	7.4	18.7	21.6
Incr Delay (d2), s/veh	3.3	1.2	8.9	0.0	2.2	14.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	3.2	3.3	1.0	2.4	6.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	23.7	19.3	35.6	7.4	20.9	36.0
LnGrp LOS	C	B	D	A	C	D
Approach Vol, veh/h	2025			1149	545	
Approach Delay, s/veh	23.1			17.2	30.8	
Approach LOS	C			B	C	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	14.7	26.2			40.9	23.5
Change Period (Y+Rc), s	5.5	5.5			5.5	5.5
Max Green Setting (Gmax), s	9.5	21.0			36.0	18.0
Max Q Clear Time (g_c+l1), s	9.2	18.3			5.8	15.5
Green Ext Time (p_c), s	0.1	2.4			5.4	0.6
Intersection Summary						
HCM 7th Control Delay, s/veh			22.4			
HCM 7th LOS			C			
Notes						
User approved pedestrian interval to be less than phase max green.						

Lanes, Volumes, Timings
2: Stay True Trail & Hillcamp Trail

JR Engineering
11/18/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	1	1	89	1	20	1	1	53	12	1	1
Future Volume (vph)	1	1	1	89	1	20	1	1	53	12	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.955			0.974			0.869			0.992	
Flt Protected		0.984			0.961			0.999			0.958	
Satd. Flow (prot)	0	1750	0	0	1744	0	0	1617	0	0	1770	0
Flt Permitted		0.984			0.961			0.999			0.958	
Satd. Flow (perm)	0	1750	0	0	1744	0	0	1617	0	0	1770	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		478			504			462			420	
Travel Time (s)		10.9			11.5			10.5			9.5	
Peak Hour Factor	0.78	0.78	0.78	0.82	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Adj. Flow (vph)	1	1	1	109	1	26	1	1	68	15	1	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	3	0	0	136	0	0	70	0	0	17	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	27.0%											
Analysis Period (min)	15											
	ICU Level of Service A											

Intersection												
Int Delay, s/veh	6.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	1	89	1	20	1	1	53	12	1	1
Future Vol, veh/h	1	1	1	89	1	20	1	1	53	12	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	82	78	78	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	1	1	109	1	26	1	1	68	15	1	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	37	104	2	71	71	35	3	0	0	69	0	0
Stage 1	33	33	-	38	38	-	-	-	-	-	-	-
Stage 2	4	72	-	33	33	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	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	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	968	786	1082	921	819	1038	1620	-	-	1532	-	-
Stage 1	984	868	-	977	863	-	-	-	-	-	-	-
Stage 2	1018	835	-	984	867	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	932	777	1082	909	810	1038	1620	-	-	1532	-	-
Mov Cap-2 Maneuver	932	777	-	909	810	-	-	-	-	-	-	-
Stage 1	974	859	-	977	863	-	-	-	-	-	-	-
Stage 2	990	834	-	971	859	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	8.96		9.53		0.13		6.32	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	27	-	-	914	929	1403	-
HCM Lane V/C Ratio	0.001	-	-	0.004	0.146	0.01	-
HCM Ctrl Dly (s/v)	7.2	0	-	9	9.5	7.4	0
HCM Lane LOS	A	A	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.5	0	-

Lanes, Volumes, Timings
3: Hillcamp Trail (West) & Gambel Edge Drive

JR Engineering
11/18/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	12	1	1	1	0	0	0	0	71	108	20
Future Volume (vph)	0	12	1	1	1	0	0	0	0	71	108	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.992										0.986	
Flt Protected					0.976						0.982	
Satd. Flow (prot)	0	1848	0	0	1818	0	0	0	0	0	1804	0
Flt Permitted					0.976						0.982	
Satd. Flow (perm)	0	1848	0	0	1818	0	0	0	0	0	1804	0
Link Speed (mph)	30				30		30				30	
Link Distance (ft)	346				784		378				315	
Travel Time (s)	7.9				17.8		8.6				7.2	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.80	0.83	0.78
Adj. Flow (vph)	0	15	1	1	1	0	0	0	0	89	130	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	16	0	0	2	0	0	0	0	0	245	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0				0		0				0	
Link Offset(ft)	0				0		0				0	
Crosswalk Width(ft)	16				16		16				16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control	Stop				Stop				Free			
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 20.8%					ICU Level of Service A							
Analysis Period (min) 15												

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	12	1	1	1	0	0	0	0	71	108	20
Future Vol, veh/h	0	12	1	1	1	0	0	0	0	71	108	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	80	83	78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	15	1	1	1	0	0	0	0	89	130	26

Major/Minor	Minor2		Minor1				Major2		
Conflicting Flow All	-	320	143	315	333	-	0	0	0
Stage 1	-	320	-	0	0	-	-	-	-
Stage 2	-	0	-	315	333	-	-	-	-
Critical Hdwy	-	6.52	6.22	7.12	6.52	-	4.12	-	-
Critical Hdwy Stg 1	-	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.12	5.52	-	-	-	-
Follow-up Hdwy	-	4.018	3.318	3.518	4.018	-	2.218	-	-
Pot Cap-1 Maneuver	0	596	905	637	587	0	-	-	-
Stage 1	0	652	-	-	-	0	-	-	-
Stage 2	0	-	-	696	644	0	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	-	596	905	620	587	-	-	-	-
Mov Cap-2 Maneuver	-	596	-	620	587	-	-	-	-
Stage 1	-	652	-	-	-	-	-	-	-
Stage 2	-	-	-	678	644	-	-	-	-

Approach	EB		WB		SB	
HCM Ctrl Dly, s/v	11.04		11			
HCM LOS	B		B			

Minor Lane/Major Mvmt	EBLn1WBLn1		SBL	SBT	SBR
Capacity (veh/h)	613	603	-	-	-
HCM Lane V/C Ratio	0.027	0.004	-	-	-
HCM Ctrl Dly (s/v)	11	11	-	-	-
HCM Lane LOS	B	B	-	-	-
HCM 95th %tile Q(veh)	0.1	0	-	-	-

Lanes, Volumes, Timings
4: Hillcamp Trail (East) & Gambel Edge Drive

JR Engineering
11/18/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	71	0	0	1	42	1	64	1	0	0	0
Future Volume (vph)	12	71	0	0	1	42	1	64	1	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.867		0.998					
Flt Protected	0.993						0.999					
Satd. Flow (prot)	0	1850	0	0	1615	0	0	1857	0	0	0	0
Flt Permitted	0.993						0.999					
Satd. Flow (perm)	0	1850	0	0	1615	0	0	1857	0	0	0	0
Link Speed (mph)	30				30		30		30			
Link Distance (ft)	784				347		350		315			
Travel Time (s)	17.8				7.9		8.0		7.2			
Peak Hour Factor	0.78	0.80	0.78	0.78	0.78	0.78	0.78	0.79	0.78	0.78	0.78	0.78
Adj. Flow (vph)	15	89	0	0	1	54	1	81	1	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	104	0	0	55	0	0	83	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0				0		0		0			
Link Offset(ft)	0				0		0		0			
Crosswalk Width(ft)	16				16		16		16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control	Stop				Stop		Free				Free	
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 21.2%												
ICU Level of Service A												
Analysis Period (min) 15												

Intersection												
Int Delay, s/veh	6.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	71	0	0	1	42	1	64	1	0	0	0
Future Vol, veh/h	12	71	0	0	1	42	1	64	1	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	80	78	78	78	78	78	79	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	89	0	0	1	54	1	81	1	0	0	0

Major/Minor	Minor2		Minor1		Major1						
Conflicting Flow All	84	85	-	-	84	82	0	0	0		
Stage 1	0	0	-	-	84	-	-	-	-		
Stage 2	84	85	-	-	0	-	-	-	-		
Critical Hdwy	7.12	6.52	-	-	6.52	6.22	4.12	-	-		
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-		
Critical Hdwy Stg 2	6.12	5.52	-	-	-	-	-	-	-		
Follow-up Hdwy	3.518	4.018	-	-	4.018	3.318	2.218	-	-		
Pot Cap-1 Maneuver	902	805	0	0	806	978	-	-	-		
Stage 1	-	-	0	0	825	-	-	-	-		
Stage 2	924	824	0	0	-	-	-	-	-		
Platoon blocked, %								-	-		
Mov Cap-1 Maneuver	851	805	-	-	806	978	-	-	-		
Mov Cap-2 Maneuver	851	805	-	-	806	-	-	-	-		
Stage 1	-	-	-	-	825	-	-	-	-		
Stage 2	872	824	-	-	-	-	-	-	-		

Approach	EB		WB		NB		
HCM Ctrl Dly, s/v	10.09		8.92				
HCM LOS	B		A				

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	
Capacity (veh/h)	-	-	-	812	973
HCM Lane V/C Ratio	-	-	-	0.128	0.057
HCM Ctrl Dly (s/v)	-	-	-	10.1	8.9
HCM Lane LOS	-	-	-	B	A
HCM 95th %tile Q(veh)	-	-	-	0.4	0.2