

TRAFFIC IMPACT STUDY

For

**895 Ridge Road Commercial
(Ridgeview Town Center)
Castle Rock, Colorado**

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I. Introduction

Project Overview

This Traffic Impact Study has been prepared as a planning document in support of the Planned Development and Zoning Regulations application for the proposed 895 Ridge Road Commercial development, also known as Ridgeview Town Center. The study evaluates the roadway capacity, geometric, and traffic control considerations associated with the proposed development.

This traffic impact study has been revised to address Town review comments regarding updated traffic counts, updated growth rates along Ridge Road, anticipated improvements, and associated updates to text, tables, and figures throughout. The latest revision to this study updates the non-residential building square footage to correspond with that shown on the Planned Development and Zoning Regulations document.

This proposed commercial development consists of multiple retail, and office pad sites. The development is located to the southwest of the intersection of N Ridge Road with Fifth Street in Castle Rock, Colorado.

Study Area Boundaries

The study area to be examined in this analysis encompasses N Ridge Road between Fifth Street to the north and Plum Creek Parkway to the south including all existing and proposed intersections.

Figure 1 illustrates location of the site and study intersections.

Site Description

Land for the development is generally vacant with one existing single-family residence located within the property boundaries. The site is surrounded by a mix of commercial, residential, and open space land uses.

The Planned Development Plan and Zoning Regulations (PDP) document submitted for Town approval establishes a maximum of 54,000 square feet of non-residential development. Because the proposed development is conceptual, the specific land uses and building areas may change as the project advances. For traffic analysis purposes, and based on the best available land use information, the development is assumed to consist of approximately 30,000 square feet of mixed-use retail, 12,000 square feet of general office, and 12,000 square feet of medical/dental office space, distributed among multiple on-site buildings.

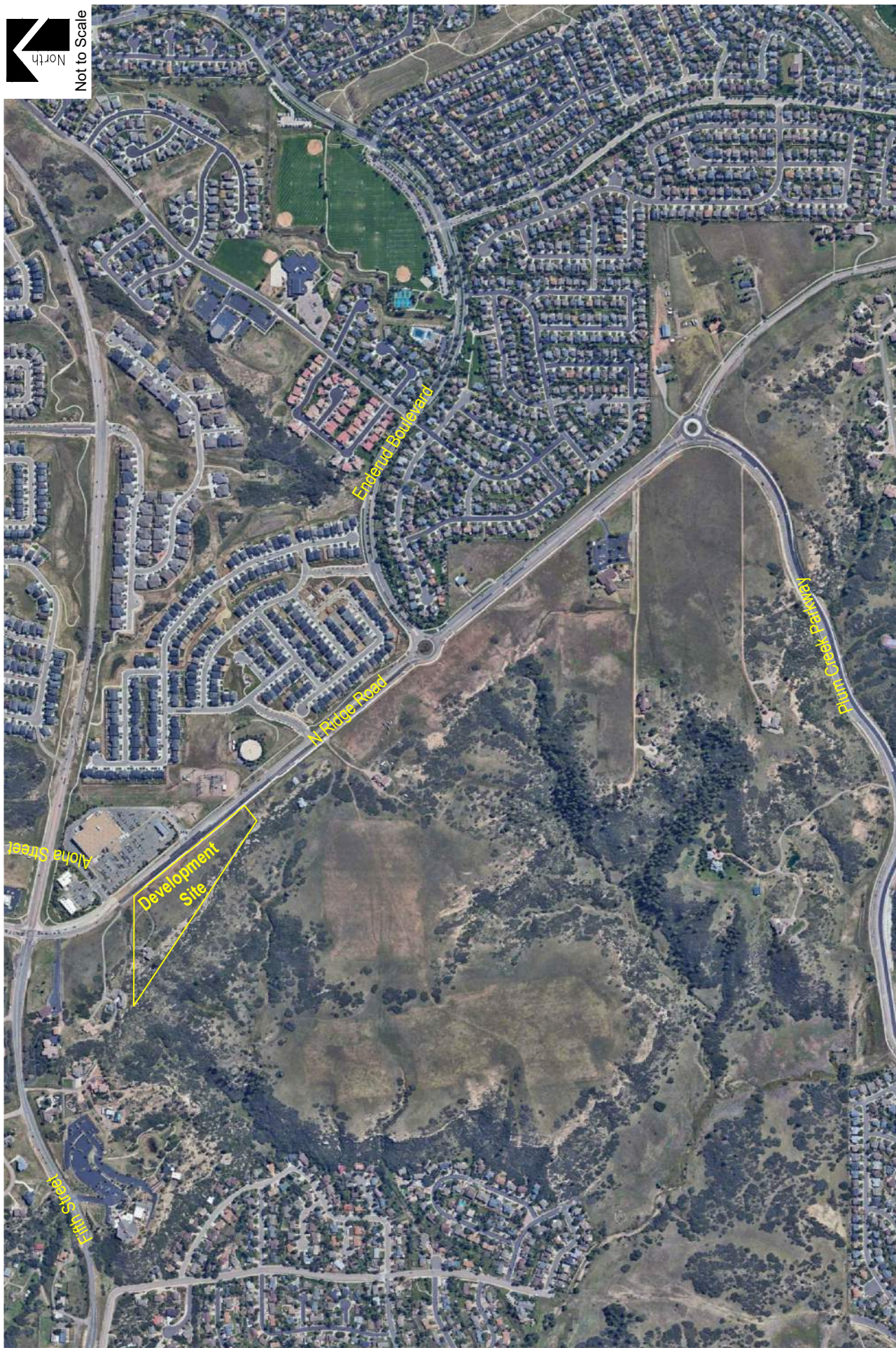
Proposed access to the development is provided at the following locations: one full-movement access at the existing intersection of N Ridge Road with King Soopers Access (referred to as Site Access). Additional emergency vehicle access is also proposed onto N Ridge Road south of King Soopers Access.

For purposes of this study, it is anticipated that development construction would be completed by end of Year 2026.

General site and access locations are shown in Figure 1. A conceptual site plan, as provided by PCS Group, is shown on Figure 2. This plan is provided for illustrative purposes only.



Not to Scale



RIDGE ROAD COMMERCIAL
Traffic Impact Study

Figure 1
SITE LOCATION



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Figure 2
CONCEPTUAL SITE PLAN
July 2026
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Existing and Committed Surface Transportation Network

Within the study area, N Ridge Road is the primary roadway that will accommodate traffic to and from the proposed development. The secondary roadways include Fifth Street, Enderud Boulevard, Aloha Street, Plum Creek Parkway, and King Soopers Access. A brief description of each roadway is provided below:

N Ridge Road is a north-south arterial roadway having between four and two through lanes (two to one lane in each direction) with exclusive turn lanes at the intersections within the study area. N Ridge Road provides a posted speed limit of 45 MPH. It is noted that N Ridge Road becomes Founders Parkway north of Fifth Street. For ease of analysis Founders Parkway is not directly referenced and occurrences of N Ridge Road are generalized to refer to both the northern and southern legs of the intersection. It is also noted that Founders Parkway is a continuation of State Highway 86 north of Fifth Street. The Colorado Department of Transportation (CDOT) categorizes this segment of State Highway 86-B as a Regional Highway (R-A) and provides a posted speed limit of 50 MPH.

Fifth Street is an east-west arterial roadway having two through lanes (one lane in each direction) with exclusive turn lanes at the intersection within the study area. Fifth Street provides a posted speed limit of 45 MPH. It is noted that Fifth Street becomes State Highway 86-A east of N Ridge Road. For ease of analysis State Highway 86-A is not directly referenced and occurrences of Fifth Street are generalized to refer to both the eastern and western legs of the intersection. The Colorado Department of Transportation (CDOT) categorizes State Highway 86-A as a Non-Rural Principal Highway (NR-A) and provides a posted speed limit of 55 MPH.

Aloha Street is an east-west collector roadway having two through lanes (one lane in each direction) with exclusive turn lanes at the intersection within the study area. Aloha Street does not provide a posted speed limit. However, pursuant to its classification it is assumed to provide a speed limit of 25 MPH.

Enderud Boulevard is an east-west collector roadway having four through lanes (two lanes in each direction) with exclusive turn lanes at the intersection within the study area. Enderud Boulevard provides a posted speed limit of 35 MPH.

Plum Creek Parkway is an east-west arterial roadway having two through lanes (one lane in each direction) west of the intersection with N Ridge Road with a combination of shared and exclusive turn lanes at the study intersections. Plum Creek Parkway provides a posted speed limit of 35 MPH.

King Soopers Access is an east-west private local roadway having two through lanes (one lane in each direction) with exclusive turn lanes at the study intersection. King Soopers Access does not provide a posted speed limit. However, pursuant to its classification it is assumed to provide a speed limit of 25 MPH.

The study intersections of N Ridge Road with Fifth Street and King Soopers Access are signalized. The study intersections of N Ridge Road with Enderud Boulevard and Plum Creek Parkway operate as roundabouts. All other study intersections operate under a stop-controlled condition. A stop-controlled intersection is defined as a roadway intersection where vehicle rights-of-way are controlled by one or more “STOP” signs.

Pursuant to Town’s transportation plan¹ and current construction at the intersection of N Ridge Road and Fifth Street, Fifth Street is currently being expanded at its intersection with N Ridge Road to allow for four through lanes, and northbound and southbound left turning movements at the study intersection would be accommodated by dual left turn lanes by Year 2026. Additionally, all right turn movements are expected to operate as free-flowing channelized right turns.

It is also noted that, pursuant to the Town’s transportation plan, Plum Creek Parkway is anticipated to be widened from two to four through lanes between Eaton Street and N Ridge Road. However, the transportation plan does not identify when this improvement may occur. Therefore, for analysis purposes, it is assumed to be completed by Year 2044.

It is also important to note that the N Ridge Road intersection with Fifth street is currently under construction.

As of the date of this study revision, the improvements described above for N Ridge Road and Plum Creek Parkway have been substantially completed. The completion of these improvements does not affect the validity of this study, as they were previously assumed and incorporated into the analyses presented herein.

All other study area roadways appear to be built to their ultimate cross-sections.

¹ Town of Castle Rock Transportation Master Plan, Felsburg Holt & Ullevig, October 2017.

II. Existing Traffic Conditions

Morning (AM) and afternoon (PM) peak hour traffic counts were collected at the intersections of N Ridge Road with Fifth Street, Aloha Street, King Soopers Access, Enderud Boulevard, and Plum Creek Parkway. Peak hour traffic counts shown for the Mountain Sun Drive at its intersection with N Ridge Road were obtained from the Sunstone Village traffic study². Average daily (24-hour) traffic volumes were collected on N Ridge Road. Counts were collected on June 25, 2024, with AM peak hour counts being collected during the period of 7:00 a.m. to 9:00 a.m. and PM peak hour counts being collected during the period of 4:00 p.m. to 6:00 p.m.

In order to better represent current existing traffic volumes, and to provide a conservative analysis, collected traffic volumes were grown by one year using a compounded annual growth rate of two percent. This annual growth rate is considered to be consistent with regional growth projections and the level of in-fill development expected within the area.

Existing volumes and intersection geometry are shown on Figure 3. Traffic count data is included for reference in Appendix A.

Existing signal timing parameters for N Ridge Road and Fifth Street were obtained from CDOT and used throughout this study to the best extent possible in order to remain consistent with existing signal coordination plans. CDOT signal timing information received is included for reference in Appendix A.

Existing signal timing parameters for N Ridge Road and King Soopers Access were obtained from Town Staff and used throughout this study to the best extent possible in order to remain consistent with existing signal coordination plans. Town signal timing information received is included for reference in Appendix A.

² Sunstone Village PA 47, 51 & 52 Traffic Impact Analysis, LSC Transportation Consultants, Inc., December 2018.

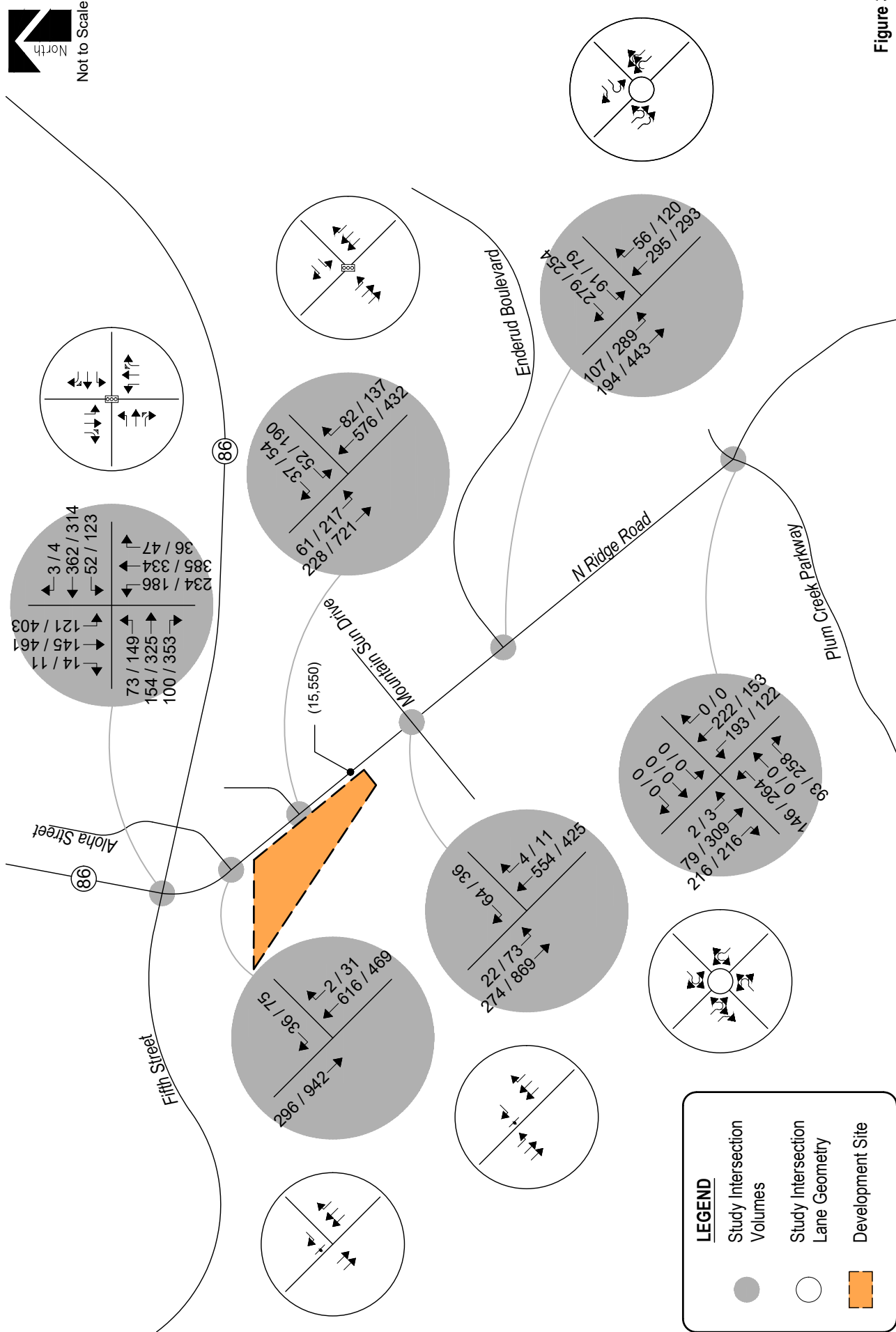


Figure 3
EXISTING TRAFFIC
Volumes & Intersection Geometry
AM / PM Peak Hour
(ADT) : Average Daily Traffic

The Signalized, Unsignalized and Roundabout Intersection Analysis techniques, as published in the Highway Capacity Manual (HCM) by the Transportation Research Board and as incorporated into the SYNCHRO computer program, were used to analyze the study intersections for existing traffic conditions. These nationally accepted techniques allow for the determination of intersection level of service (LOS) based on the congestion and delay of each traffic movement or based on the volume to capacity ratio and control delay for each approach as applicable.

Level of service is a method of measurement used by transportation professionals to quantify a driver's perception of travel conditions that include travel time, number of stops, and total amount of stopped delay experienced on a roadway network. The HCM categorizes level of service into a range from "A" which indicates little, if any, vehicle delay, to "F" which indicates a level of operation considered unacceptable to most drivers. These levels of service grades with brief descriptions of the operating condition, for unsignalized and signalized intersections, are included for reference in Appendix B and have been used throughout this study.

The level of service analyses results for existing conditions are summarized in Table 1.

Intersection capacity worksheets developed for this study are provided in Appendix D.

Table 1 – Intersection Capacity Analysis Summary – Existing Traffic

INTERSECTION LANE GROUPS	LEVEL OF SERVICE	
	AM PEAK HOUR	PM PEAK HOUR
N Ridge Road / Fifth Street (Signalized)	C (28.1)	C (33.4)
N Ridge Road / King Soopers Access (Signalized)	A (6.9)	B (10.8)
N Ridge Road / Enderud Boulevard (Roundabout)		
Westbound Left	A	A
Westbound Right	A	A
Northbound Through	A	A
Northbound Through and Right	A	A
Southbound Left	A	A
Southbound Through	A	A
N Ridge Road / Plum Creek Parkway (Roundabout)		
Eastbound Left, Through and Right	A	B
Westbound Left, Through and Right	A	A
Northbound Left, Through and Right	A	A
Southbound Left and Through	A	A
Southbound Right	A	A
N Ridge Road / Aloha Street (Stop-Controlled)		
Westbound Right	B	A
N Ridge Road / Mountain Sun Drive (Stop-Controlled)		
Westbound Right	B	A
Southbound Left	A	A

Key: Signalized Intersection: Level of Service (Control Delay in sec/veh)
 Roundabout Intersection: Level of Service
 Stop-Controlled Intersection: Level of Service

Existing Traffic Analysis Results

Under existing conditions, operational analysis shows that the signalized intersection of N Ridge Road with Fifth Street has overall operations at LOS C during both the morning and afternoon peak traffic hours.

The signalized intersection of N Ridge Road with King Soopers Access has overall operations at LOS A during the morning peak traffic hour and LOS B during the afternoon peak traffic hour.

The roundabout intersection of N Ridge Road with Enderud Boulevard has turning movement operations at LOS A during the morning and afternoon peak traffic hours.

The roundabout intersection of N Ridge Road with Plum Creek Parkway has turning movement operations at LOS A during the morning peak traffic hour and LOS B or better during the afternoon peak traffic hour.

The unsignalized intersection of N Ridge Road with Aloha Street has turning movement operations at LOS B during the morning peak traffic hour and LOS A during the afternoon peak traffic hour.

The unsignalized intersection of N Ridge Road with Mountain Sun Drive has turning movement operations at LOS B or better during the morning peak traffic hour and LOS A during the afternoon peak traffic hour.

III. Future Traffic Conditions Without Proposed Development

Background traffic is the traffic projected to be on area roadways without consideration of the proposed development. Background traffic includes traffic generated by development of vacant parcels in the area.

To account for projected increases in background traffic for Years 2026 and 2044, a compounded annual growth rate was determined using traffic data provided by CDOT's Online Transportation Information System (OTIS), which anticipates a 20-year growth rate less than one percent along State Highway 86. However, pursuant to ongoing adjacent developments, in coordination with the Town, and in order to provide for a conservative analysis, a growth rate of two percent was applied to existing traffic volumes along Fifth Street and a growth rate of one and a half percent was applied to existing traffic volumes along N Ridge Road. This annual growth rate is considered to be consistent with regional growth projections and the level of in-fill development expected within the area.

To account for projected traffic from adjacent developments not yet built, trip generations from the Founders Vista traffic study³ were added to background traffic volumes. It is noted that with the Founders Vista development, it is anticipated that Enderud Boulevard will be extended further west thereby creating a four-leg roundabout intersection. Additionally, Founders Vista is anticipated to provide a three-quarter movement access intersection onto N Ridge Road.

Pursuant to the anticipated and proposed area roadway improvements discussed in Section I, Year 2026 background traffic conditions assume no additional roadway improvements to accommodate regional transportation demands beyond those previously described. Year 2044 assumes signal timing parameters for the N Ridge Road intersections of Fifth Street and King Soopers Access with optimized intersection splits in effort to better long-term intersection performance. This assumption provides for a conservative analysis.

Projected background traffic volumes and intersection geometry for Years 2026 and 2044 are shown on Figure 4 and Figure 5, respectively.

³ Traffic Impact Study: Founders Vista, SM ROCHA LLC, April 2022.

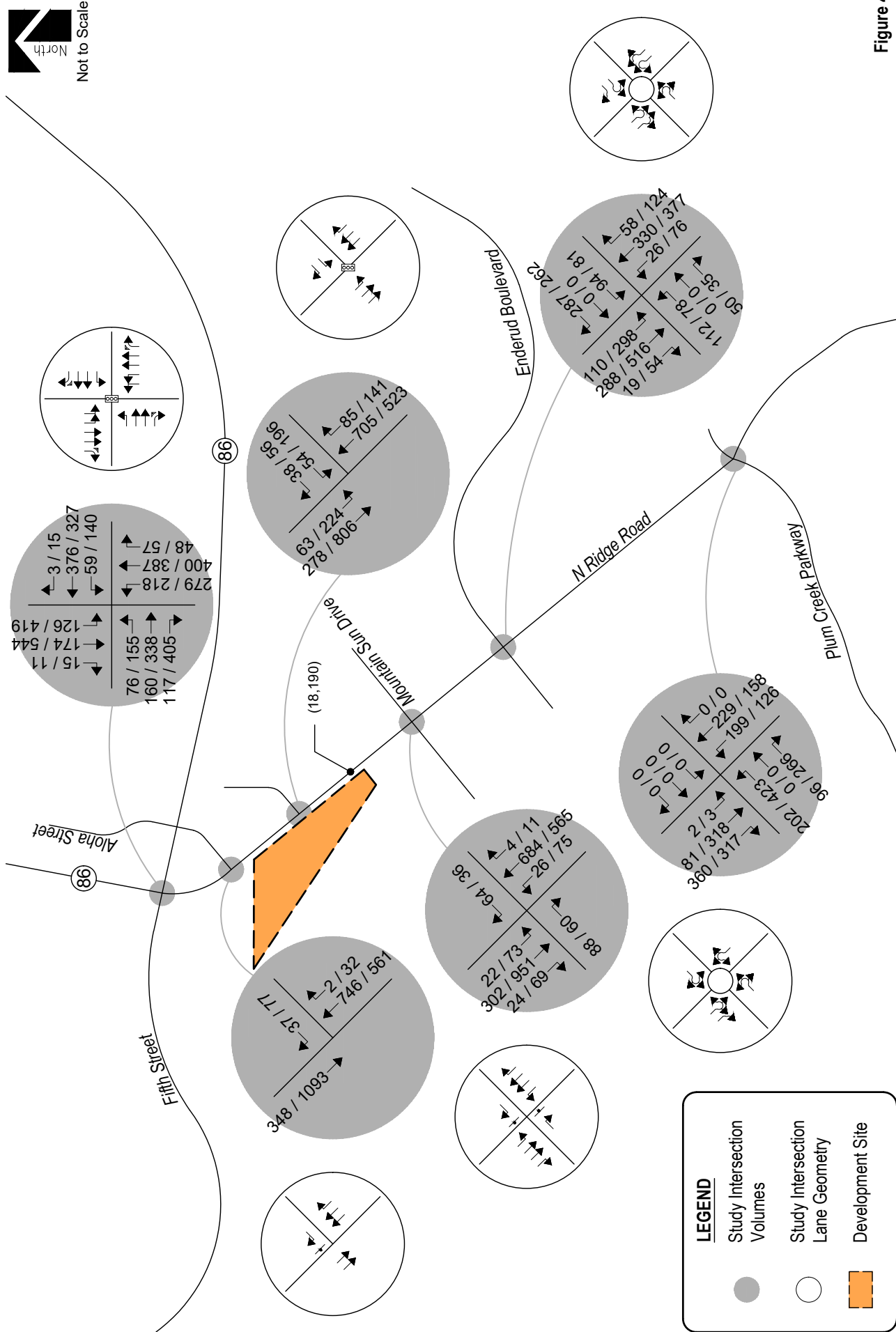


Figure 4
BACKGROUND TRAFFIC - YEAR 2026
Volumes & Intersection Geometry
AM / PM Peak Hour
(ADT) : Average Daily Traffic

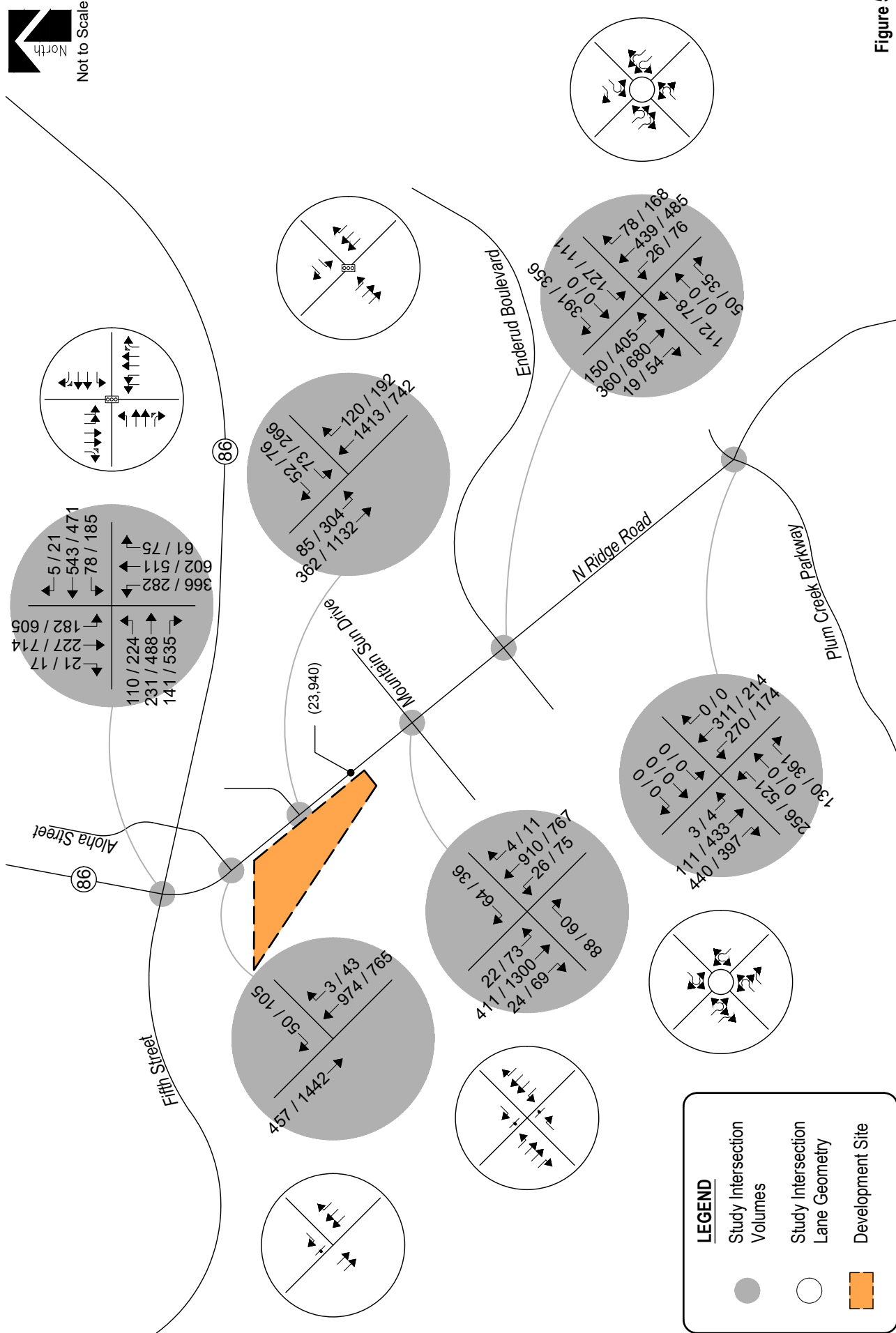


Figure 5
BACKGROUND TRAFFIC - YEAR 2044
Volumes & Intersection Geometry
AM / PM Peak Hour
(ADT) : Average Daily Traffic

As with existing traffic conditions, the operations of study intersections were analyzed under background conditions, without the proposed development, using the SYNCHRO computer program.

Background traffic level of service analysis results for Year 2026 are listed in Table 2. Year 2044 operational results are summarized in Table 3.

Definitions of levels of service are given in Appendix B. Intersection capacity worksheets are provided in Appendix D.

Table 2 – Intersection Capacity Analysis Summary – Background Traffic – Year 2026

INTERSECTION LANE GROUPS	LEVEL OF SERVICE	
	AM PEAK HOUR	PM PEAK HOUR
N Ridge Road / Fifth Street (Signalized)	C (30.4)	C (31.2)
N Ridge Road / King Soopers Access (Signalized)	A (7.0)	B (11.1)
N Ridge Road / Enderud Boulevard (Roundabout)		
Eastbound Left, Through and Right	A	A
Westbound Left and Through	A	A
Westbound Right	A	A
Northbound Left and Through	A	A
Northbound Through and Right	A	A
Southbound Left and Through	A	A
Southbound Through and Right	A	A
N Ridge Road / Plum Creek Parkway (Roundabout)		
Eastbound Left, Through and Right	A	C
Westbound Left, Through and Right	A	A
Northbound Left, Through and Right	A	A
Southbound Left and Through	A	A
Southbound Right	A	A
N Ridge Road / Aloha Street (Stop-Controlled)		
Westbound Right	A	A
N Ridge Road / Mountain Sun Drive (Stop-Controlled)		
Eastbound Right	A	B
Westbound Right	B	B
Northbound Left	A	A
Southbound Left	A	A

Key: Signalized Intersection: Level of Service (Control Delay in sec/veh)

Roundabout Intersection: Level of Service

Stop-Controlled Intersection: Level of Service

Background Traffic Analysis Results – Year 2026

Year 2026 background traffic analysis indicates that the signalized intersection of N Ridge Road with Fifth Street has overall operations at LOS C during both the AM and PM peak traffic hours.

The signalized intersection of N Ridge Road with King Soopers Access has overall operations at LOS A during the AM peak traffic hour and LOS B during the PM peak traffic hour.

Roundabout and unsignalized intersections within the study area operate at or better than LOS B during the AM peak traffic hour and LOS C or better during the PM peak traffic hour.

Table 3 – Intersection Capacity Analysis Summary – Background Traffic – Year 2044

INTERSECTION LANE GROUPS	LEVEL OF SERVICE	
	AM PEAK HOUR	PM PEAK HOUR
N Ridge Road / Fifth Street (Signalized)	D (35.1)	D (35.4)
N Ridge Road / King Soopers Access (Signalized)	A (8.5)	B (14.3)
N Ridge Road / Enderud Boulevard (Roundabout)		
Eastbound Left, Through and Right	A	B
Westbound Left and Through	A	A
Westbound Right	B	B
Northbound Left and Through	A	B
Northbound Through and Right	A	B
Southbound Left and Through	A	A
Southbound Through and Right	A	A
N Ridge Road / Plum Creek Parkway (Roundabout)		
Eastbound Left and Through	A	B
Eastbound Right	A	A
Westbound Left, Through and Right	A	A
Northbound Left, Through and Right	B	B
Southbound Left and Through	A	A
Southbound Right	A	A
N Ridge Road / Aloha Street (Stop-Controlled)		
Westbound Right	B	B
N Ridge Road / Mountain Sun Drive (Stop-Controlled)		
Eastbound Right	A	B
Westbound Right	B	B
Northbound Left	A	A
Southbound Left	B	B

Key: Signalized Intersection: Level of Service (Control Delay in sec/veh)

Roundabout Intersection: Level of Service

Stop-Controlled Intersection: Level of Service

Background Traffic Analysis Results – Year 2044

By Year 2044 and without the proposed development, the study intersection of N Ridge Road with Fifth Street experiences LOS D operations during both the AM and PM peak traffic hours.

The study intersection of N Ridge Road with King Soopers Access experiences LOS A operations during the AM peak traffic hour and LOS B operations during the PM peak traffic hour.

The study intersection of N Ridge Road with Enderud Boulevard experiences LOS B or better operations during the AM and PM peak traffic hours.

The study intersection of N Ridge Road with Plum Creek Parkway experiences LOS B or better operations during the AM and PM peak traffic hours.

The study intersection of N Ridge Road with Aloha Street experiences LOS B operations during both the AM and PM peak traffic hours.

The study intersection of N Ridge Road with Mountain Sun Drive experiences LOS B or better operations during the AM and PM peak traffic hours.

These intersection operations are similar to existing conditions.

IV. Proposed Project Traffic

Trip Generation

Standard traffic generation characteristics compiled by the Institute of Transportation Engineers (ITE) in their report entitled Trip Generation Manual, 11th Edition, were applied to the proposed land use in order to estimate average daily traffic (ADT), AM Peak Hour, and PM Peak Hour vehicle trips. A vehicle trip is defined as a one-way vehicle movement from a point of origin to a point of destination.

The ITE land use codes 710 (General Office Building), 720 (Medical-Dental Office), and 822 (Strip Retail Plaza (<40K)) were used for estimating trip generation because of their conservative rates and best fit to the anticipated land use descriptions.

As actual land uses, densities or site plans within the 895 Ridge Road Commercial development area become defined over time, it is expected that traffic generation characteristics considered within this study will need to be updated by more specific traffic analyses or studies to help assess if transportation improvements are needed to mitigate potential traffic impacts.

Trip generation rates used in this study are presented in Table 4.

Table 4 – Trip Generation Rates

ITE CODE LAND USE UNIT			TRIP GENERATION RATES						
			24 HOUR	AM PEAK HOUR			PM PEAK HOUR		
				ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
710	General Office Building	KSF	10.84	1.34	0.18	1.52	0.24	1.20	1.44
720	Medical-Dental Office	KSF	36.00	2.45	0.65	3.10	1.18	2.75	3.93
822	Strip Retail Plaza	KSF	54.45	1.42	0.94	2.36	3.30	3.30	6.59

Key: KSF = Thousand Square Feet Gross Floor Area.

Note: All data and calculations above are subject to being rounded to nearest value.

Table 5 illustrates projected ADT, AM Peak Hour, and PM Peak Hour traffic volumes likely generated by the proposed development upon build-out.

Table 5 – Trip Generation Summary

ITE CODELAND USESIZE				TOTAL TRIPS GENERATED						
				24 HOUR	AM PEAK HOUR			PM PEAK HOUR		
					ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
710	General Office Building	12.0	KSF	130	16	2	18	3	14	17
720	Medical-Dental Office	12.0	KSF	432	29	8	37	14	33	47
822	Strip Retail Plaza	30.0	KSF	1,634	42	28	71	99	99	198
Total Trips:				2,196	88	38	126	116	146	262

Key: KSF = Thousand Square Feet Gross Floor Area.

Note: All data and calculations above are subject to being rounded to nearest value.

Upon build-out, Table 5 illustrates that the proposed development has the potential to generate approximately 2,196 daily trips with 126 of those occurring during the morning peak hour and 262 during the afternoon peak hour.

Adjustments to Trip Generation Rates

It is considered likely that a mixed-use development of this type will attract trips from within area land uses. Utilizing research obtained by the National Cooperative Highway Research Program (NCHRP), ITE created an estimation tool⁴ for determining internal capture for mixed-use developments. Using NCHRP Report 684 methodology, it was determined that the proposed land uses have various internal capture percentages ranging from 5 to 30 percent. Applying vehicle occupancy estimates from ITE's Trip Generation Handbook, 3rd Edition, it is determined that overall averages of approximately 14% of total AM peak hour trips and approximately 13% of total PM peak hour trips will be captured internally.

ITE's internal capture spreadsheets are provided for reference in Appendix C.

Table 6 illustrates projected ADT, AM Peak Hour, and PM Peak Hour traffic volumes likely generated by the proposed development upon build-out with reductions applied due to internal capture.

Table 6 – Trip Generation Summary with Reductions

ITE CODELAND USESIZE				TOTAL EXTERNAL TRIPS GENERATED						
				24 HOUR	AM PEAK HOUR			PM PEAK HOUR		
					ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
Internal Capture Reduction:				17%	5%	30%	18%	13%	21%	17%
710	General Office Building	12.0	KSF	108	15	2	17	3	11	14
Internal Capture Reduction:				17%	5%	30%	18%	13%	21%	17%
720	Medical-Dental Office	12.0	KSF	357	28	5	31	12	26	39
Internal Capture Reduction:				6%	6%	6%	6%	8%	2%	5%
822	Strip Retail Plaza	30.0	KSF	1,544	40	27	66	91	97	188
Total External Trips:				2,009	83	34	114	106	134	241

Key: KSF = Thousand Square Feet Gross Floor Area.

Note: All data and calculations above are subject to being rounded to nearest value.

Upon build-out and with consideration for internal capture trip reductions, Table 6 illustrates that the proposed development has the potential to generate approximately 2,009 daily external trips with 114 of those occurring during the morning peak hour and 241 during the afternoon peak hour.

⁴ NCHRP Report 684: Enhancing Internal Trip Capture Estimation for Mixed-Use Developments, National Cooperative Highway Research Program, October 2010.

Trip Distribution

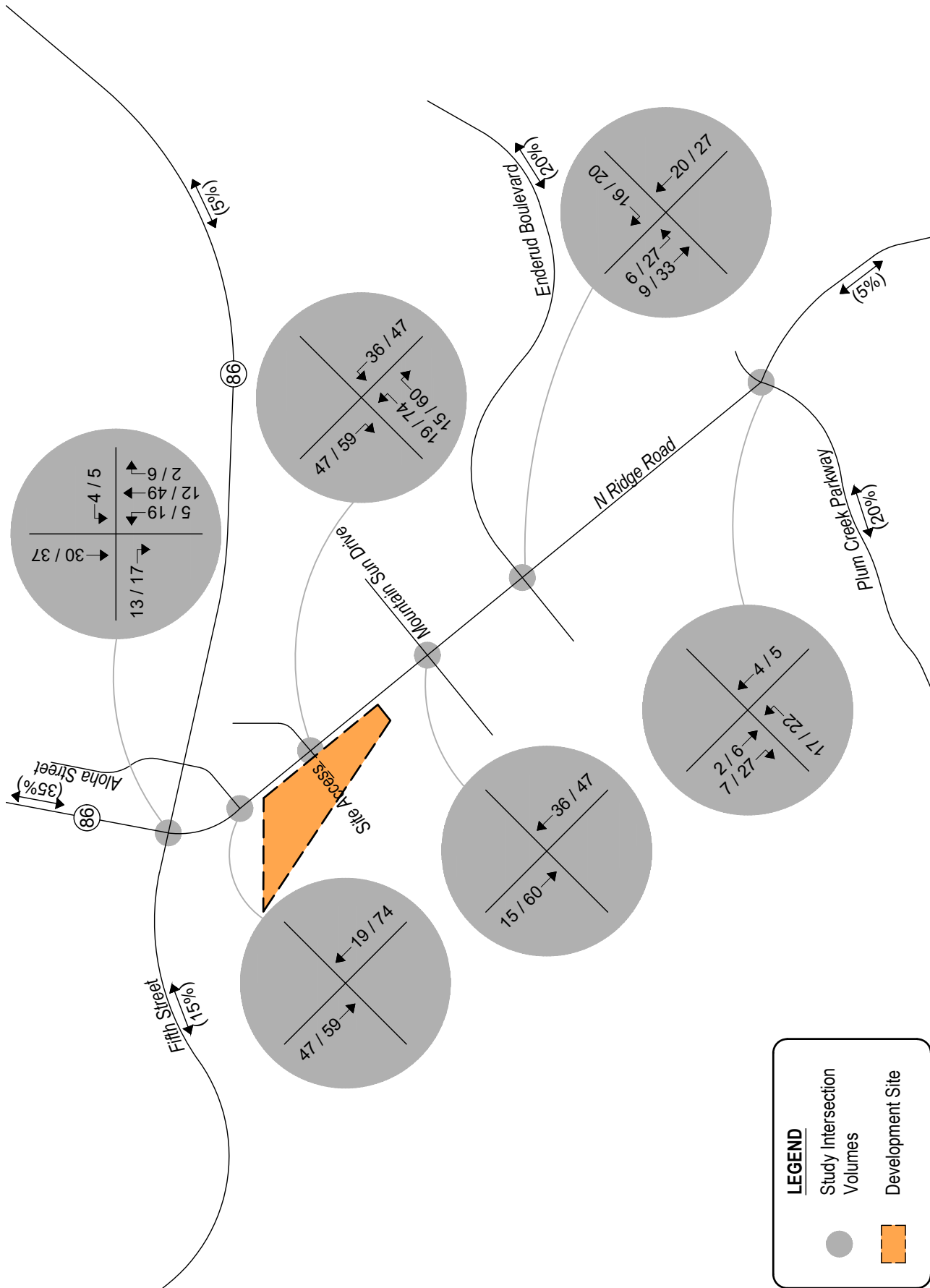
The overall directional distribution of site-generated traffic was determined based on the location of development site within the Town, proposed and existing area land uses, allowed turning movements, and available roadway network.

Overall trip distribution patterns for the development are shown on Figure 6.

Trip Assignment

Traffic assignment is how generated and distributed vehicle trips are expected to be loaded onto the available roadway network.

Applying trip distribution patterns to site-generated traffic provides the overall site-generated trip assignments shown on Figure 6.



LEGEND

- Study Intersection Volumes
- Development Site

Figure 6
SITE DEVELOPMENT DISTRIBUTION
(%) : Overall
SITE-GENERATED
AM / PM Peak Hour

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V. Future Traffic Conditions With Proposed Developments

Site-generated traffic was added to background traffic projections for Years 2026 and 2044 to develop total traffic projections. For analysis purposes, it was assumed that development construction would be completed by end of Year 2026.

Pursuant to area roadway improvement discussions provided in Section III, Year 2026 and Year 2044 total traffic conditions assume no additional roadway improvements to accommodate regional transportation demands. Roadway improvements associated with site development are expected to be limited to site access and frontage as required by the governing agency.

Projected Year 2026 total traffic volumes and intersection geometry are shown in Figure 7.

Figure 8 shows projected total traffic volumes and intersection geometry for Year 2044.

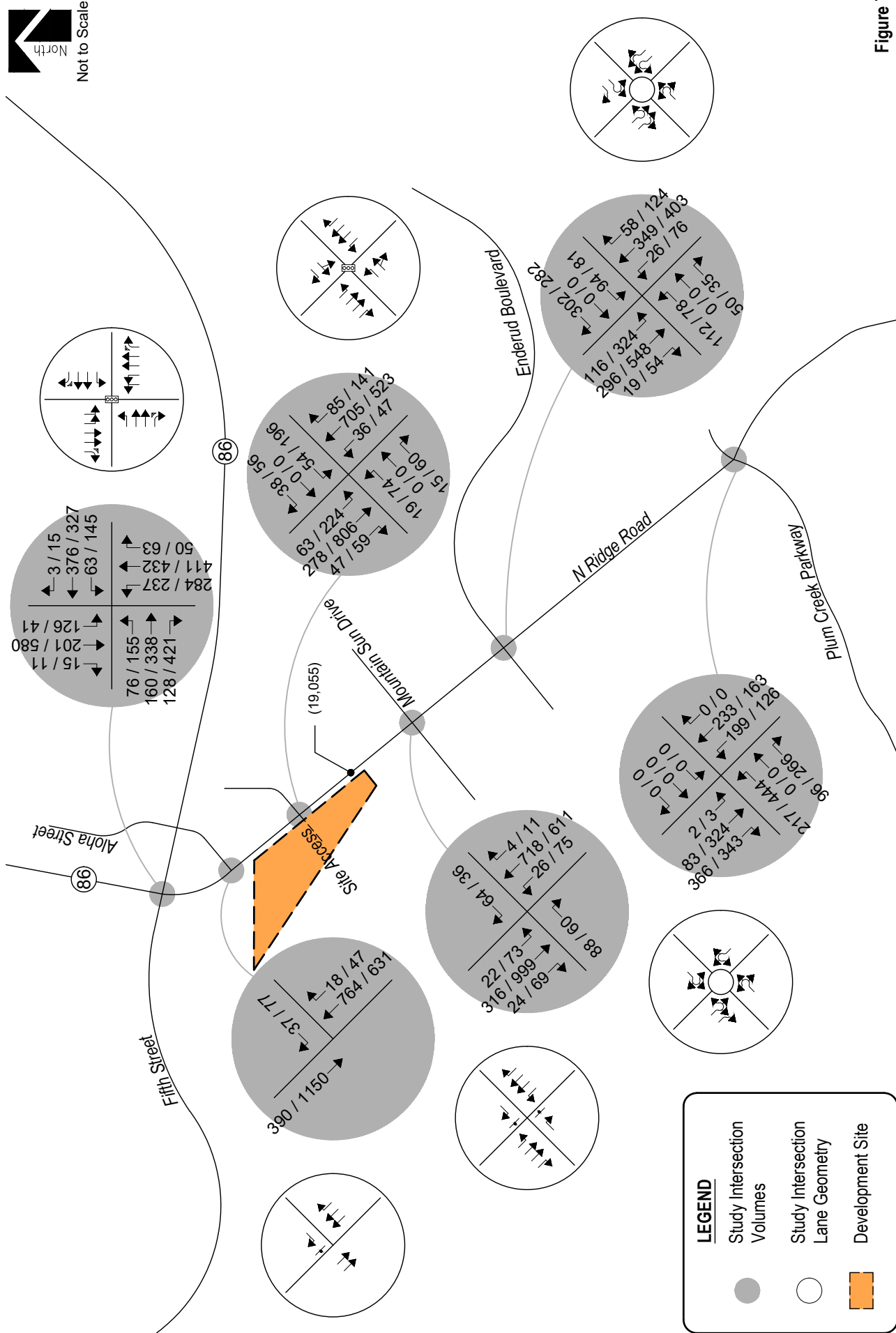


Figure 7
TOTAL TRAFFIC - YEAR 2026
Volumes & Intersection Geometry
AM / PM Peak Hour
(ADT) : Average Daily Traffic

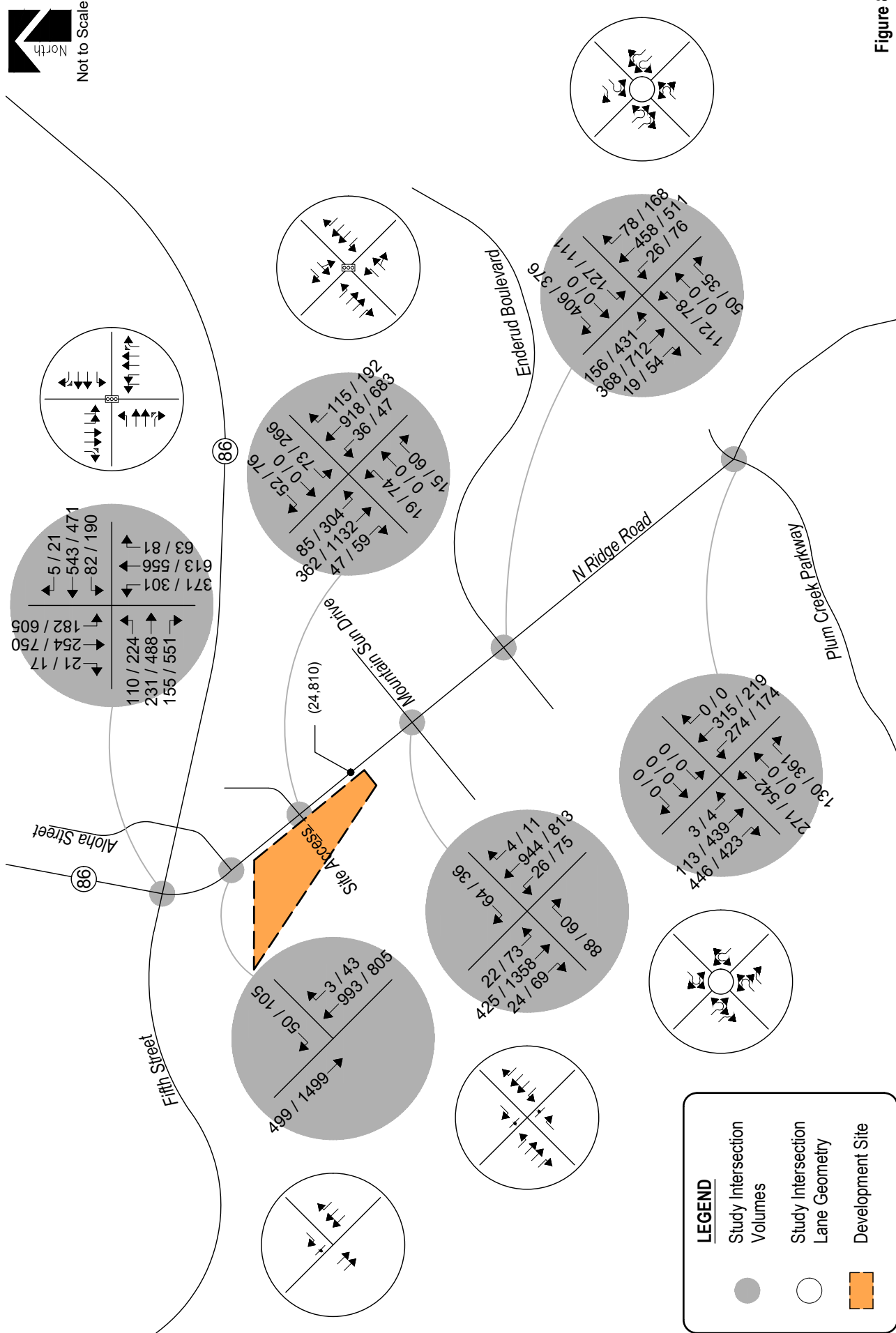


Figure 8
TOTAL TRAFFIC - YEAR 2044
Volumes & Intersection Geometry
AM / PM Peak Hour
(ADT) : Average Daily Traffic

VI. Project Impacts

The analyses and procedures described in this study were performed in accordance with the Highway Capacity Manual (HCM) and are based upon the worst-case conditions that occur during a typical weekday upon build-out of site development and analyzed land uses. Therefore, study intersections are likely to operate with traffic conditions better than those described within this study, which represent the peak hours of weekday operations only.

Peak Hour Intersection Levels of Service

As with background traffic, the operations of the study intersections were analyzed under projected total traffic conditions using the SYNCHRO computer program. Total traffic level of service analysis results for Years 2026 and 2044 are summarized in Table 7 and Table 8, respectively.

Definitions of levels of service are given in Appendix B. Intersection capacity worksheets are provided in Appendix D.

Table 7 – Intersection Capacity Analysis Summary – Total Traffic – Year 2026

INTERSECTION LANE GROUPS	LEVEL OF SERVICE	
	AM PEAK HOUR	PM PEAK HOUR
N Ridge Road / Fifth Street (Signalized)	C (31.0)	C (31.9)
N Ridge Road / KS Access / Site Access (Signalized)	B (10.4)	C (20.5)
N Ridge Road / Enderud Boulevard (Roundabout)		
Eastbound Left, Through and Right	A	A
Westbound Left and Through	A	A
Westbound Right	A	A
Northbound Left and Through	A	A
Northbound Through and Right	A	A
Southbound Left and Through	A	A
Southbound Through and Right	A	A
N Ridge Road / Plum Creek Parkway (Roundabout)		
Eastbound Left, Through and Right	A	C
Westbound Left, Through and Right	A	A
Northbound Left, Through and Right	A	A
Southbound Left and Through	A	A
Southbound Right	A	A
N Ridge Road / Aloha Street (Stop-Controlled)		
Westbound Right	A	A
N Ridge Road / Mountain Sun Drive (Stop-Controlled)		
Eastbound Right	A	B
Westbound Right	B	B
Northbound Left	A	A
Southbound Left	A	A

Key: Signalized Intersection: Level of Service (Control Delay in sec/veh)

Roundabout Intersection: Level of Service

Stop-Controlled Intersection: Level of Service

Table 8 – Intersection Capacity Analysis Summary – Total Traffic – Year 2044

INTERSECTION LANE GROUPS	LEVEL OF SERVICE	
	AM PEAK HOUR	PM PEAK HOUR
N Ridge Road / Fifth Street (Signalized)	D (36.3)	D (37.7)
N Ridge Road / KS Access / Site Access (Signalized)	B (11.8)	C (29.7)
N Ridge Road / Enderud Boulevard (Roundabout)		
Eastbound Left, Through and Right	A	B
Westbound Left and Through	A	A
Westbound Right	B	B
Northbound Left and Through	A	B
Northbound Through and Right	A	B
Southbound Left and Through	A	B
Southbound Through and Right	A	B
N Ridge Road / Plum Creek Parkway (Roundabout)		
Eastbound Left and Through	A	B
Eastbound Right	A	A
Westbound Left, Through and Right	A	A
Northbound Left, Through and Right	B	B
Southbound Left and Through	A	A
Southbound Right	A	A
N Ridge Road / Aloha Street (Stop-Controlled)		
Westbound Right	B	B
N Ridge Road / Mountain Sun Drive (Stop-Controlled)		
Eastbound Right	A	B
Westbound Right	B	B
Northbound Left	A	B
Southbound Left	B	B

Key: Signalized Intersection: Level of Service (Control Delay in sec/veh)

Roundabout Intersection: Level of Service

Stop-Controlled Intersection: Level of Service

Total Traffic Analysis Results Upon Development Build-Out

Table 8 illustrates how, by Year 2044 and upon development build-out, the signalized intersection of N Ridge Road with Fifth Street shows an overall operations at LOS D during the morning and afternoon peak traffic hours. Compared to the background traffic analysis, the traffic generated by the proposed development is not expected to significantly change the operations of the study intersection.

The signalized intersection of N Ridge Road with King Soopers Access, and Site Access is projected to have morning peak traffic hour operations at LOS B and LOS C during the afternoon peak traffic hour.

The roundabout intersection of N Ridge Road with Enderud Boulevard is projected to have turning movement operations at LOS B or better for the morning peak and afternoon peak traffic hours.

The roundabout intersection of N Ridge Road with Plum Creek Parkway is projected to have turning movement operations at LOS B or better for the morning and afternoon peak traffic hours.

The stop-controlled intersection of N Ridge Road with Aloha Street is projected to have turning movement operations at LOS B for both the morning and afternoon peak traffic hours.

The stop-controlled intersection of N Ridge Road with Mountain Sun Drive is projected to have turning movement operations at LOS B or better for the morning and afternoon peak traffic hours.

These intersection operations are similar to background conditions.

Queue Length Analysis

Queue lengths for proposed site access intersections with N Ridge Road were analyzed using Year 2044 total traffic conditions. The analysis yields estimate of 95th percentile queue lengths, which have only a five percent probability of being exceeded during the analysis time period. Queue lengths were modeled and are included with the Synchro worksheets in Appendix D.

No significant queuing at the proposed site access was indicated. The greatest on-site queue length anticipated occurs during the afternoon peak hour at Site Access. The queue length is approximately fourteen vehicles for the westbound left turn movement. However, these volumes are associated with the adjacent King Soopers and are unaffected by site-generated trips.

Auxiliary Lane Analysis

Auxiliary lanes for site development accesses are to be based on the Town's *Transportation Design Criteria Manual*⁵.

Considering development build-out, an evaluation of auxiliary lane requirements, pursuant to Section 2.8.1, Table 2.6 of the Town's Design Criteria, access classification is considered in accordance with the CDOT *State Highway Access Code*⁶ (SHAC) which reveals a classification of NR-B (Non-Rural Arterial) for N Ridge Road. Based on this criterion, the CDOT SHAC reveals that both left turn and right turn decelerations lane at Site Access along N Ridge Road are required since the development's projected peak hour right turn and left turn ingress volumes exceed CDOT's thresholds of 25 and 10 vehicles per hour, respectively. Therefore, total traffic conditions were analyzed including right turn and left turn deceleration lanes at Site Access.

Based on the posted speed limit of 45 MPH, the required deceleration lanes would need to provide a taper length of 162 feet plus a storage length long enough to accommodate 95th percentile queues. Given the queueing analysis provided this would result in a storage length of 25 feet. However, pursuant to Town standards, it is recommended that a minimum storage length of 100 feet be provided. This would result in deceleration lanes of 262 feet.

⁵ Town of Castle Rock *Transportation Design Criteria Manual*, Town of Castle Rock, December 2018.

⁶ *State Highway Access Code*, The Transportation Commission of Colorado, March 2002.

VII. Executive Summary & Conclusion

This traffic impact study is provided as a planning document and addressed the capacity, geometric, and control requirements associated with the development entitled 895 Ridge Road Commercial. This proposed commercial development consists of multiple retail and office pad sites. The development is located to the southwest of the intersection of N Ridge Road with Fifth Street in Castle Rock, Colorado.

The study area examined in this analysis encompassed N Ridge Road between Fifth Street to the north and Plum Creek Parkway to the south including all existing and proposed intersections.

Analysis was conducted for critical AM Peak Hour and PM Peak Hour traffic operations for existing traffic conditions, Year 2026 and Year 2044 background traffic conditions, and Year 2026 and Year 2044 total traffic conditions.

Under existing conditions, operational analysis shows that study area intersections operate at LOS C or better during both the morning and afternoon peak traffic hours.

Year 2026 background traffic analysis indicates that signalized intersections in the study area operate at or better than LOS C during both peak traffic hours. Roundabout and unsignalized intersections within the study area operate at or better than LOS B during the AM peak traffic hour and LOS C or better during the PM peak traffic hour.

By Year 2044 and without the proposed development, the signalized intersections in the study area operate at or better than LOS D during both peak traffic hours. Roundabout and unsignalized intersections within the study area operate at or better than LOS B during the AM and PM peak traffic hours.

Analysis of future traffic conditions indicates that the addition of site-generated traffic is expected to create no negative impact to traffic operations for the existing and surrounding roadway system upon consideration of the various roadway and intersection control improvements assumed within this analysis. With all conservative assumptions defined in this analysis, the study intersections are projected to operate at future levels of service comparable to Year 2044 background traffic conditions. Proposed Site Access has long-term operations at LOS D or better during peak traffic periods and upon build-out.

A summary of key areas impact for which the proposed development may be subject to transportation impact fees or other contributions as required by the Town of Castle Rock are as follows:

- An exclusive northbound left turn deceleration lane and exclusive right turn deceleration lane at Site Access along N Ridge Road.

With implementation of this mitigation method, in coordination with planned Town improvement projects, future roadway and intersection operations are projected to be within acceptable levels of service. It is concluded that proposed development can be accommodated while mitigating potential transportation impacts as described in this report through conformance with Town engineering design standards and procedures.

APPENDIX A

**Traffic Count Data
Signal Timing Information**



(303) 216-2439
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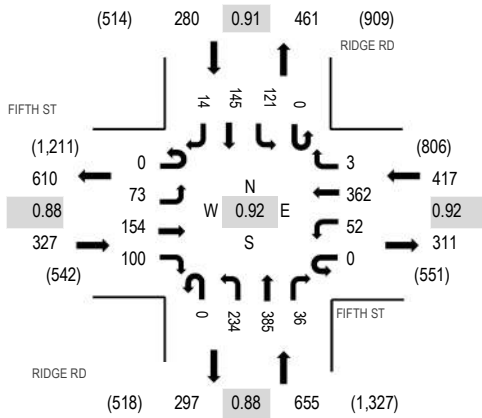
Location: 1 RIDGE RD & FIFTH ST AM

Date: Tuesday, June 25, 2024

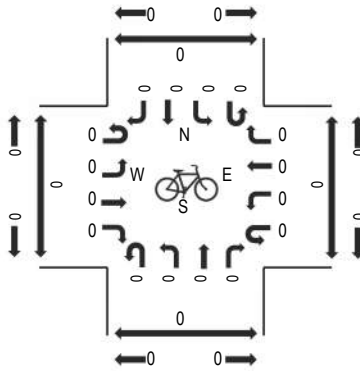
Peak Hour: 08:00 AM - 09:00 AM

Peak 15-Minutes: 08:45 AM - 09:00 AM

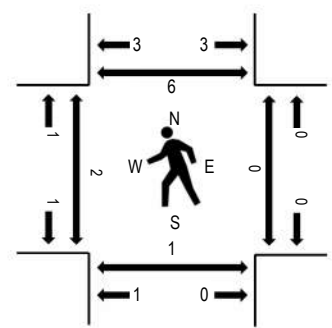
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	FIFTH ST Eastbound				FIFTH ST Westbound				RIDGE RD Northbound				RIDGE RD 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	12	29	11	0	14	71	0	0	51	93	11	0	17	19	3	331	1,510	0	0	0	0
7:15 AM	0	13	16	10	0	14	76	2	0	38	104	8	0	33	28	3	345	1,584	0	0	0	0
7:30 AM	0	16	25	13	0	11	87	1	0	67	101	5	0	32	30	2	390	1,636	0	0	0	0
7:45 AM	0	14	33	23	0	15	98	0	0	99	92	3	0	28	33	6	444	1,667	0	0	0	0
8:00 AM	0	24	34	32	0	13	83	1	0	49	93	10	0	30	34	2	405	1,679	1	0	0	0
8:15 AM	0	14	29	20	0	14	84	2	0	52	102	6	0	36	34	4	397		0	0	0	1
8:30 AM	0	21	43	29	0	15	93	0	0	61	87	9	0	23	38	2	421		1	0	1	5
8:45 AM	0	14	48	19	0	10	102	0	0	72	103	11	0	32	39	6	456		0	0	0	0
Count Total	0	128	257	157	0	106	694	6	0	489	775	63	0	231	255	28	3,189		2	0	1	6
Peak Hour	0	73	154	100	0	52	362	3	0	234	385	36	0	121	145	14	1,679		2	0	1	6



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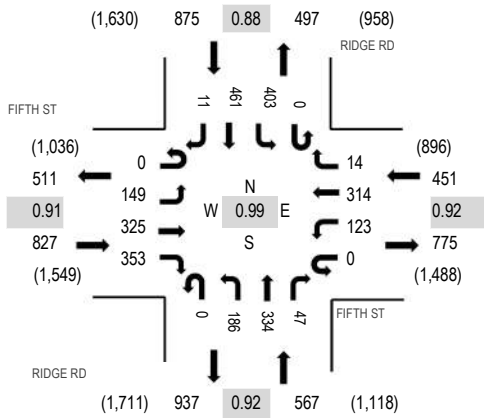
Location: 1 RIDGE RD & FIFTH ST PM

Date: Tuesday, June 25, 2024

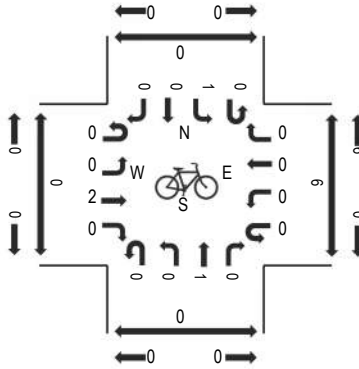
Peak Hour: 04:45 PM - 05:45 PM

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

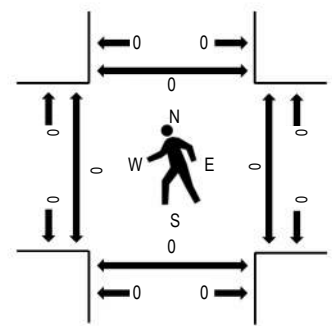
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	FIFTH ST Eastbound				FIFTH ST Westbound				RIDGE RD Northbound				RIDGE RD 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	27	68	53	0	19	69	4	0	44	80	8	0	94	95	3	564	2,498	0	1	0	0
4:15 PM	0	36	77	65	1	31	82	1	0	56	84	9	0	85	96	3	626	2,619	0	0	0	0
4:30 PM	0	35	82	68	0	27	87	2	0	45	80	12	0	82	119	2	641	2,677	0	0	0	0
4:45 PM	0	29	76	76	0	31	74	8	0	49	95	13	0	98	115	3	667	2,720	0	0	0	0
5:00 PM	0	44	99	93	0	35	91	2	0	46	68	12	0	82	112	1	685	2,695	0	0	0	0
5:15 PM	0	41	70	96	0	27	78	1	0	38	74	9	0	114	132	4	684		0	0	0	0
5:30 PM	0	35	80	88	0	30	71	3	0	53	97	13	0	109	102	3	684		0	0	0	0
5:45 PM	0	31	92	88	0	30	90	2	0	41	79	13	0	90	83	3	642		0	0	0	0
Count Total	0	278	644	627	1	230	642	23	0	372	657	89	0	754	854	22	5,193		0	1	0	0
Peak Hour	0	149	325	353	0	123	314	14	0	186	334	47	0	403	461	11	2,720		0	0	0	0



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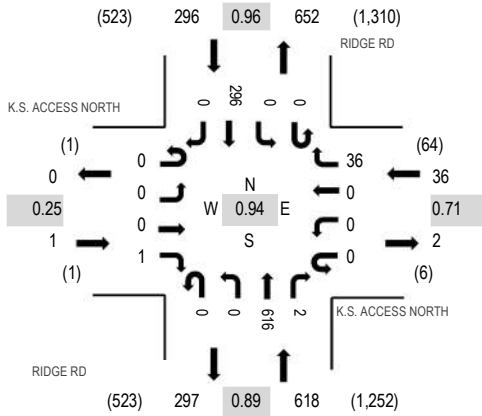
Location: 2 RIDGE RD & K.S. ACCESS NORTH AM

Date: Tuesday, June 25, 2024

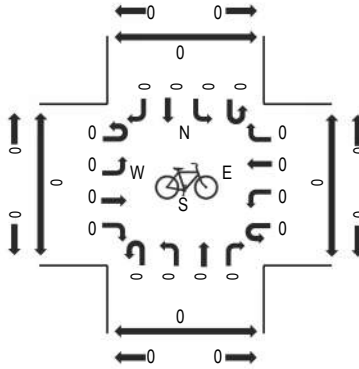
Peak Hour: 07:45 AM - 08:45 AM

Peak 15-Minutes: 08:30 AM - 08:45 AM

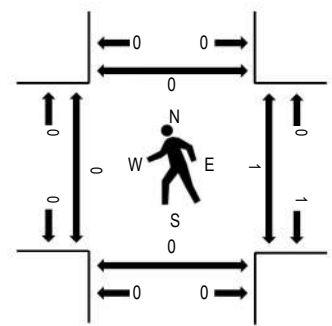
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	K.S. ACCESS NORTH Eastbound				K.S. ACCESS NORTH Westbound				RIDGE RD Northbound				RIDGE RD 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	0	0	0	0	0	4	0	0	154	1	0	0	45	0	204	900	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	4	0	0	141	2	0	0	52	0	199	927	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	11	0	0	180	1	0	0	56	1	249	946	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	13	0	0	165	0	0	0	70	0	248	951	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	9	0	0	148	1	0	0	73	0	231	940	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	3	0	0	140	0	0	0	75	0	218		0	0	0	0
8:30 AM	0	0	0	1	0	0	0	11	0	0	163	1	0	0	78	0	254		0	1	0	0
8:45 AM	0	0	0	0	0	0	0	9	0	0	155	0	0	0	73	0	237		0	2	0	0
Count Total	0	0	0	1	0	0	0	64	0	0	1,246	6	0	0	522	1	1,840		0	3	0	0
Peak Hour	0	0	0	1	0	0	0	36	0	0	616	2	0	0	296	0	951		0	1	0	0



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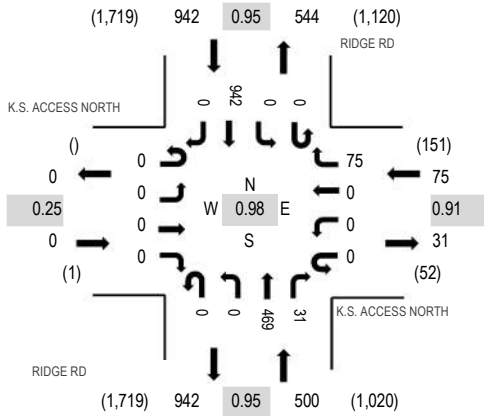
Location: 2 RIDGE RD & K.S. ACCESS NORTH PM

Date: Tuesday, June 25, 2024

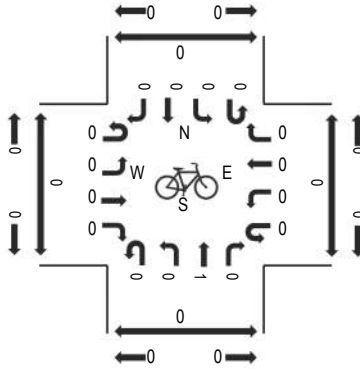
Peak Hour: 04:45 PM - 05:45 PM

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

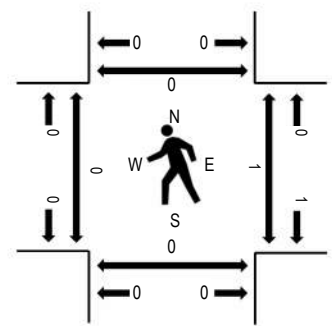
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	K.S. ACCESS NORTH Eastbound				K.S. ACCESS NORTH Westbound				RIDGE RD Northbound				RIDGE RD 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	0	0	0	0	0	21	0	0	115	3	0	0	170	0	309	1,391	0	1	0	0
4:15 PM	0	0	0	1	0	0	0	15	0	0	128	8	0	0	196	0	348	1,469	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	17	0	0	137	2	0	1	206	0	363	1,502	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	14	0	0	120	7	0	0	230	0	371	1,517	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	22	0	0	117	7	0	0	241	0	387	1,500	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	22	0	0	102	8	0	0	249	0	381		0	1	0	0
5:30 PM	0	0	0	0	0	0	0	17	0	0	130	9	0	0	222	0	378		0	0	0	0
5:45 PM	0	0	0	0	0	0	0	23	0	0	120	7	0	0	204	0	354		0	1	0	0
Count Total	0	0	0	1	0	0	0	151	0	0	969	51	0	1	1,718	0	2,891		0	3	0	0
Peak Hour	0	0	0	0	0	0	0	75	0	0	469	31	0	0	942	0	1,517		0	1	0	0



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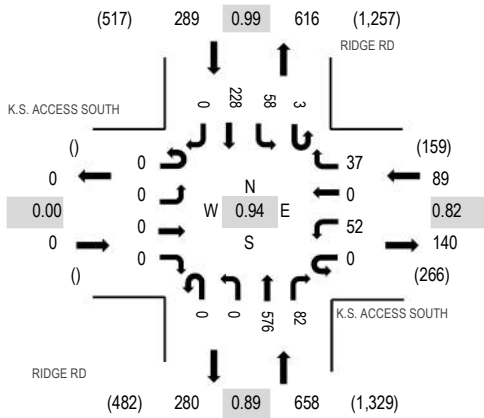
Location: 3 RIDGE RD & K.S. ACCESS SOUTH AM

Date: Tuesday, June 25, 2024

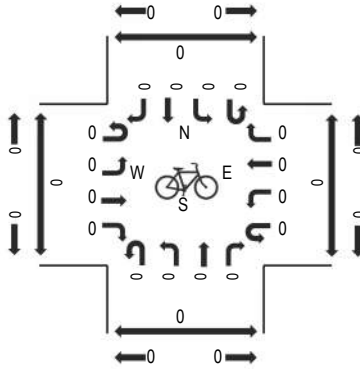
Peak Hour: 07:45 AM - 08:45 AM

Peak 15-Minutes: 08:30 AM - 08:45 AM

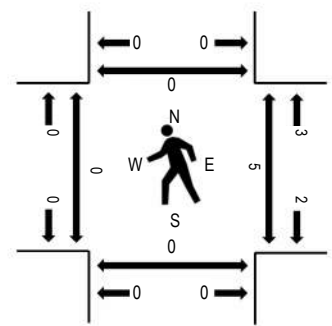
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	K.S. ACCESS SOUTH Eastbound				K.S. ACCESS SOUTH Westbound				RIDGE RD Northbound				RIDGE RD 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	0	0	0	4	0	14	0	0	140	15	1	13	32	0	219	978	0	0	0	0
7:15 AM	0	0	0	0	0	10	0	7	0	0	137	19	1	10	40	0	224	1,002	0	0	0	0
7:30 AM	0	0	0	0	0	3	0	10	0	0	174	21	0	10	46	0	264	1,023	0	0	0	0
7:45 AM	0	0	0	0	0	10	0	9	0	0	163	23	0	7	59	0	271	1,036	0	0	0	0
8:00 AM	0	0	0	0	0	17	0	7	0	0	131	13	2	13	60	0	243	1,027	0	0	0	0
8:15 AM	0	0	0	0	0	12	0	6	0	0	136	18	0	17	56	0	245		0	0	0	0
8:30 AM	0	0	0	0	0	13	0	15	0	0	146	28	1	21	53	0	277		0	5	0	0
8:45 AM	0	0	0	0	0	10	0	12	0	0	141	24	4	14	57	0	262		0	0	0	0
Count Total	0	0	0	0	0	79	0	80	0	0	1,168	161	9	105	403	0	2,005		0	5	0	0
Peak Hour	0	0	0	0	0	52	0	37	0	0	576	82	3	58	228	0	1,036		0	5	0	0



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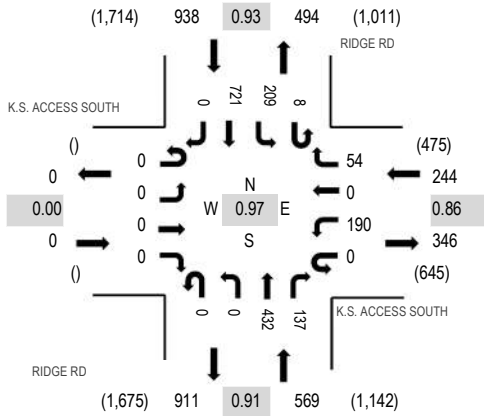
Location: 3 RIDGE RD & K.S. ACCESS SOUTH PM

Date: Tuesday, June 25, 2024

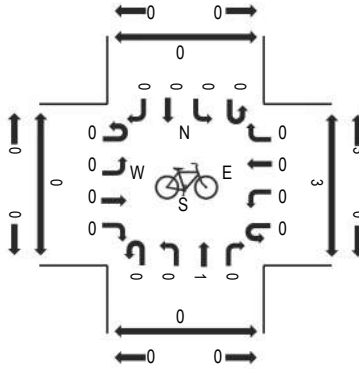
Peak Hour: 04:45 PM - 05:45 PM

Peak 15-Minutes: 05:15 PM - 05:30 PM

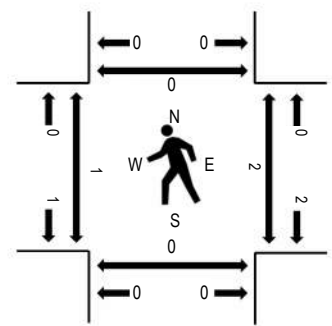
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	K.S. ACCESS SOUTH Eastbound				K.S. ACCESS SOUTH Westbound				RIDGE RD Northbound				RIDGE RD 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	0	0	0	48	0	19	0	0	101	38	1	32	129	0	368	1,613	0	1	0	0
4:15 PM	0	0	0	0	0	38	0	19	0	0	114	29	1	42	164	0	407	1,664	0	0	0	0
4:30 PM	0	0	0	0	0	39	0	22	0	0	114	33	3	43	154	0	408	1,708	0	2	0	0
4:45 PM	0	0	0	0	0	42	0	13	0	0	116	25	0	58	176	0	430	1,751	0	2	0	0
5:00 PM	0	0	0	0	0	42	0	7	0	0	106	35	4	50	175	0	419	1,718	0	0	0	0
5:15 PM	0	0	0	0	0	52	0	17	0	0	88	42	2	54	196	0	451		1	0	0	0
5:30 PM	0	0	0	0	0	54	0	17	0	0	122	35	2	47	174	0	451		0	0	0	0
5:45 PM	0	0	0	0	0	33	0	13	0	0	107	37	3	45	159	0	397		1	3	0	0
Count Total	0	0	0	0	0	348	0	127	0	0	868	274	16	371	1,327	0	3,331		2	8	0	0
Peak Hour	0	0	0	0	0	190	0	54	0	0	432	137	8	209	721	0	1,751		1	2	0	0



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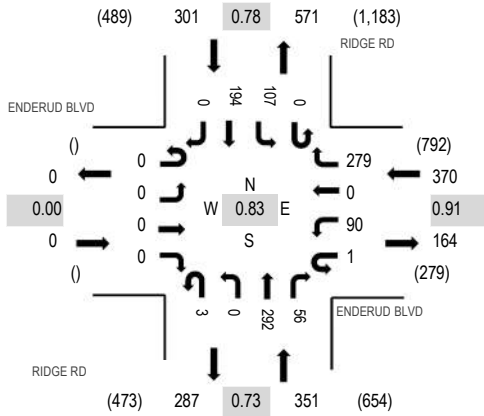
Location: 4 RIDGE RD & ENDERUD BLVD AM

Date: Thursday, June 27, 2024

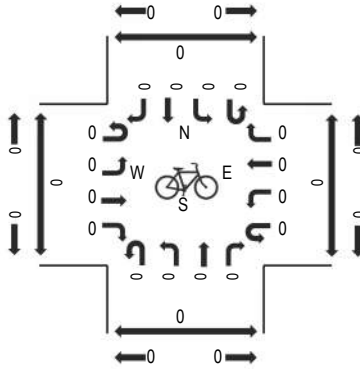
Peak Hour: 08:00 AM - 09:00 AM

Peak 15-Minutes: 08:45 AM - 09:00 AM

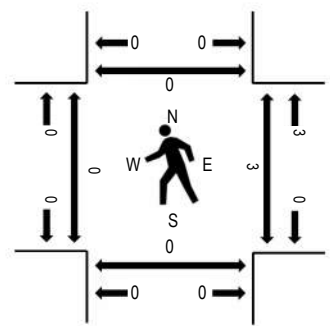
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	ENDERUD BLVD Eastbound				ENDERUD BLVD Westbound				RIDGE RD Northbound				RIDGE RD 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	0	0	0	11	0	79	0	0	57	9	0	18	22	0	196	913	0	0	0	0
7:15 AM	0	0	0	0	0	20	0	88	0	0	72	8	1	17	29	0	235	939	0	3	0	0
7:30 AM	0	0	0	0	0	19	0	97	1	0	54	17	0	20	29	0	237	938	0	0	0	0
7:45 AM	0	0	0	0	0	17	0	91	0	0	73	12	0	14	38	0	245	961	0	0	0	0
8:00 AM	0	0	0	0	0	20	0	71	1	0	61	5	0	28	36	0	222	1,022	0	2	0	0
8:15 AM	0	0	0	0	0	21	0	67	0	0	71	14	0	23	38	0	234		0	0	0	0
8:30 AM	0	0	0	0	1	23	0	77	1	0	65	13	0	27	53	0	260		0	0	0	0
8:45 AM	0	0	0	0	0	26	0	64	1	0	95	24	0	29	67	0	306		0	1	0	0
Count Total	0	0	0	0	1	157	0	634	4	0	548	102	1	176	312	0	1,935		0	6	0	0
Peak Hour	0	0	0	0	1	90	0	279	3	0	292	56	0	107	194	0	1,022		0	3	0	0



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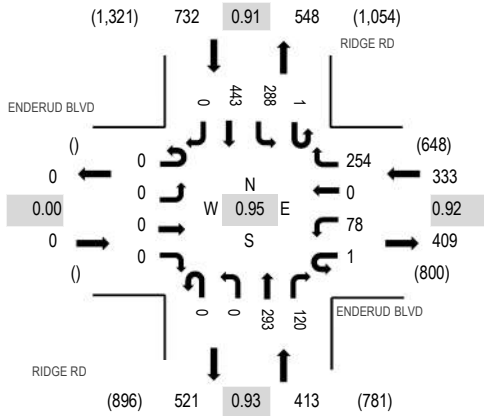
Location: 4 RIDGE RD & ENDERUD BLVD PM

Date: Thursday, June 27, 2024

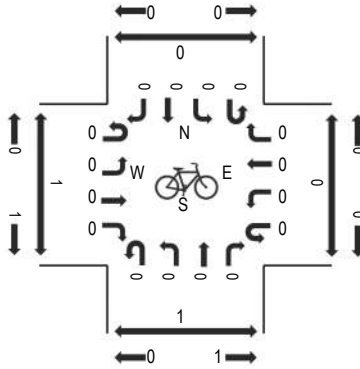
Peak Hour: 04:45 PM - 05:45 PM

Peak 15-Minutes: 05:15 PM - 05:30 PM

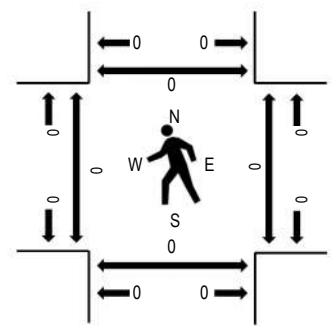
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	ENDERUD BLVD Eastbound				ENDERUD BLVD Westbound				RIDGE RD Northbound				RIDGE RD 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	0	0	1	16	0	52	1	0	64	24	2	62	72	0	294	1,323	0	0	0	0
4:15 PM	0	0	0	0	0	23	0	57	0	0	78	26	0	69	72	0	325	1,384	0	0	0	0
4:30 PM	0	0	0	0	0	20	0	67	0	0	62	27	3	77	86	0	342	1,447	0	1	0	0
4:45 PM	0	0	0	0	0	18	0	59	0	0	69	36	1	78	101	0	362	1,478	0	0	0	0
5:00 PM	0	0	0	0	1	18	0	61	0	0	69	26	0	75	105	0	355	1,427	0	0	0	0
5:15 PM	0	0	0	0	0	17	0	68	0	0	72	30	0	77	124	0	388		0	0	0	0
5:30 PM	0	0	0	0	0	25	0	66	0	0	83	28	0	58	113	0	373		0	0	0	0
5:45 PM	0	0	0	0	0	12	0	67	0	0	54	32	0	73	73	0	311		0	0	0	0
Count Total	0	0	0	0	2	149	0	497	1	0	551	229	6	569	746	0	2,750		0	1	0	0
Peak Hour	0	0	0	0	1	78	0	254	0	0	293	120	1	288	443	0	1,478		0	0	0	0



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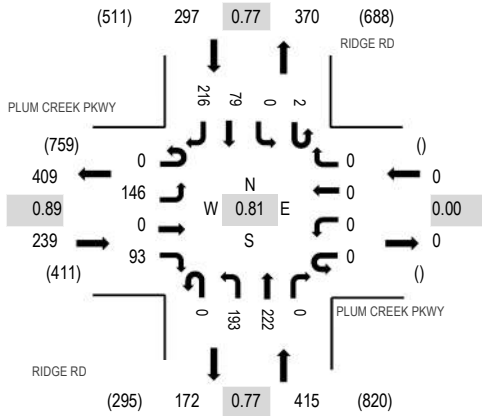
Location: 5 RIDGE RD & PLUM CREEK PKWY AM

Date: Thursday, June 27, 2024

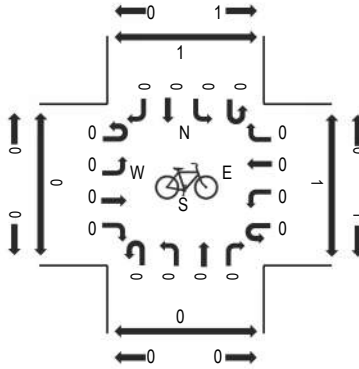
Peak Hour: 08:00 AM - 09:00 AM

Peak 15-Minutes: 08:45 AM - 09:00 AM

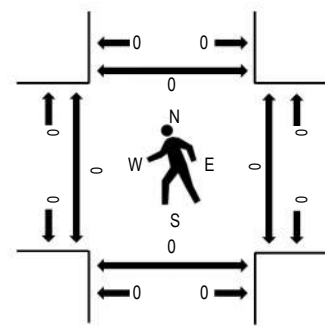
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	PLUM CREEK PKWY Eastbound				PLUM CREEK PKWY Westbound				RIDGE RD Northbound				RIDGE RD 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	23	0	10	0	0	0	0	0	50	48	0	1	0	13	20	165	791	0	2	0	0
7:15 AM	0	24	0	11	0	0	0	0	0	53	57	0	1	0	13	46	205	822	0	0	0	0
7:30 AM	0	29	0	21	0	0	0	0	0	43	46	0	0	0	12	47	198	841	0	1	0	0
7:45 AM	0	40	0	14	0	0	0	0	0	60	48	0	1	0	29	31	223	881	0	1	0	0
8:00 AM	0	24	0	20	0	0	0	0	0	46	47	0	0	0	17	42	196	951	0	0	0	0
8:15 AM	0	41	0	26	0	0	0	0	0	46	50	0	0	0	13	48	224		0	0	0	0
8:30 AM	0	39	0	26	0	0	0	0	0	47	45	0	2	0	19	60	238		0	0	0	0
8:45 AM	0	42	0	21	0	0	0	0	0	54	80	0	0	0	30	66	293		0	0	0	0
Count Total	0	262	0	149	0	0	0	0	0	399	421	0	5	0	146	360	1,742		0	4	0	0
Peak Hour	0	146	0	93	0	0	0	0	0	193	222	0	2	0	79	216	951		0	0	0	0



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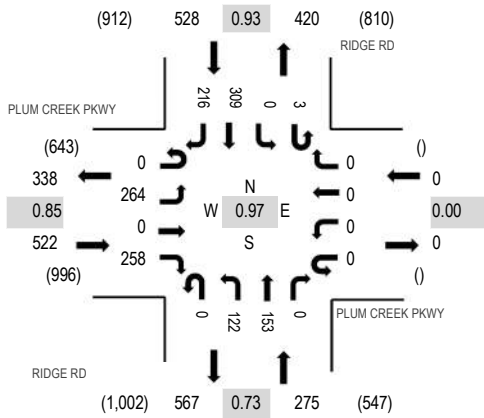
Location: 5 RIDGE RD & PLUM CREEK PKWY PM

Date: Thursday, June 27, 2024

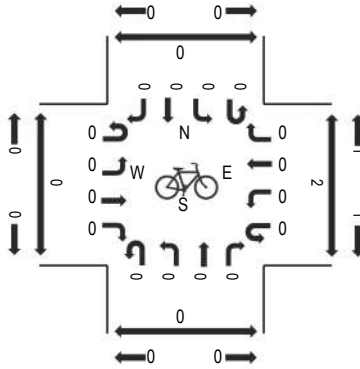
Peak Hour: 04:45 PM - 05:45 PM

Peak 15-Minutes: 05:30 PM - 05:45 PM

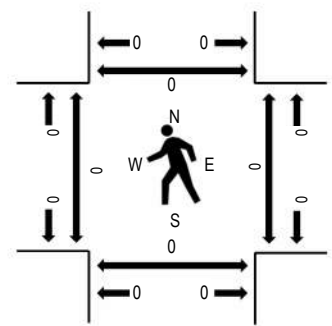
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	PLUM CREEK PKWY Eastbound				PLUM CREEK PKWY Westbound				RIDGE RD Northbound				RIDGE RD 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	51	0	55	0	0	0	0	0	22	45	0	0	0	48	43	264	1,194	0	0	0	0
4:15 PM	0	57	0	62	0	0	0	0	0	44	53	0	1	0	33	64	314	1,242	0	0	0	0
4:30 PM	0	70	0	53	0	0	0	0	0	33	22	0	1	0	73	34	286	1,269	0	3	0	0
4:45 PM	0	87	0	68	0	0	0	0	0	36	19	0	0	0	67	53	330	1,325	0	0	0	0
5:00 PM	0	54	0	58	0	0	0	0	0	33	42	0	0	0	71	54	312	1,261	0	0	0	0
5:15 PM	0	66	0	69	0	0	0	0	0	27	37	0	0	0	83	59	341		0	0	0	0
5:30 PM	0	57	0	63	0	0	0	0	0	26	55	0	3	0	88	50	342		0	0	0	0
5:45 PM	0	57	0	69	0	0	0	0	0	22	31	0	2	0	42	43	266		0	4	0	0
Count Total	0	499	0	497	0	0	0	0	0	243	304	0	7	0	505	400	2,455		0	7	0	0
Peak Hour	0	264	0	258	0	0	0	0	0	122	153	0	3	0	309	216	1,325		0	0	0	0

Start Time	25-Jun-24 Tue	NB	SB	Total
12:00 AM		23	30	53
01:00		6	14	20
02:00		6	8	14
03:00		21	6	27
04:00		78	10	88
05:00		195	28	223
06:00		496	86	582
07:00		692	204	896
08:00		637	278	915
09:00		515	341	856
10:00		454	375	829
11:00		473	391	864
12:00 PM		465	505	970
01:00		493	458	951
02:00		415	515	930
03:00		493	628	1121
04:00		570	790	1360
05:00		572	885	1457
06:00		475	687	1162
07:00		334	492	826
08:00		224	386	610
09:00		166	261	427
10:00		70	172	242
11:00		39	90	129
Total		7912	7640	15552
Percent		50.9%	49.1%	
AM Peak	-	07:00	11:00	-
Vol.	-	692	391	-
PM Peak	-	17:00	17:00	-
Vol.	-	572	885	-
Grand Total		7912	7640	15552
Percent		50.9%	49.1%	
ADT		ADT 15,552	AADT 15,552	

Colo Dept of Trans.

Administration

MaxTime Timing Shee

2.1.2

Unit Information

Controller ID

0

Main St.

SH 86

Side St.

Founders Pkwy/Ridge Rd

Cross Black_White.jpg

Adapter

IP Address

Subnet Mask

Default Gateway

ARP

DHCP

1	10.11.79.96	255.255.255.0	10.11.79.1	Disable	
2	10.20.70.51	255.255.0.0	0.0.0.0	Disable	

Serial Ports:

Port	Description	Function	Address	Baud	Bits	Stop	Parity	Flow	CTS	RTS
1	Port 2/C21S	None	1	9600	8	1	None	None	0	0
2	Aux_P3/C22S	None	1	9600	8	1	None	None	0	0
3	SDLC Port 1	None	1	9600	8	1	None	None	0	0
4	Com A/C50S	None	1	9600	8	1	None	None	0	0
5	FIO	None	1	9600	8	1	None	None	0	0
6	DISPLAY/C60M	None	1	9600	8	1	None	None	0	0
7	SP7	None	1	9600	8	1	None	None	0	0
8	SP8/Com B	None	1	9600	8	1	None	None	0	0

Unit Parameters

Startup Flash	0	Auto Ped Clr	Enable	Red Revert	4.0	Backup Time	600	Ext Mode	Disable
All Red Exit	6	Grn Flash Freq.	60	Yel Flash Freq.	60	MCE Enable	Enable	Free Seq.	1
MCE Seq.	1	Start Yellow	0.0	Start Red	0.0	Start Clear Hold	6		

Phase Parameters

Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Walk Time	0	4	0	4	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0
Clear Time	0	15	0	15	0	16	0	16	0	0	0	0	0	0	0	0	0	0	0	0
Don't Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Green	4	15	0	5	4	15	0	5	1	1	1	1	1	1	1	1	1	1	1	1
Min Green 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Passage	4.0	6.0	0.0	5.0	4.0	6.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max-1	15	30	0	40	15	30	0	40	0	0	0	0	0	0	0	0	0	0	0	0
Max-2	10	30	0	45	10	30	0	45	0	0	0	0	0	0	0	0	0	0	0	0
Max-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Yel Change	3.0	4.5	0.0	3.0	3.0	4.5	0.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	2.0	2.0	0.0	2.0	2.0	2.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Add Red Clear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Red Revert	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Added Initial	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Initial	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time B4 Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars B4 Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduce By	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dyn Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dyn Max Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advance Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Ped	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Ped Clr																				
Pre Green	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pre Clearance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Phases	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Walk Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Clear Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Don't Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Green	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Min Green 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Passage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Yel Change	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Add Red Clear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Red Revert	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Added Initial	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Initial	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time B4 Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars B4 Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduce By	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dyn Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dyn Max Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advance Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Ped	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Ped Clr																				
Pre Green	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pre Clearance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Phase Options

Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Enable	X	X		X	X	X		X												
Auto Flash Ent		X				X														
Auto Flash Exit		X				X														
Non Actuated I																				
Non Actuated II																				
Non Lock Mem	X	X	X	X	X	X	X	X												
Min Veh Recall																				
Max Veh Recall		X				X														
Ped Recall																				
Soft Veh Recall																				
Dual Entry																				
Sim Gap Dis																				
Guaranteed Pass																				
Act Rest Walk																				
Cond Service																				
Add Initial																				

Phases	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Enable																				
Auto Flash Ent																				
Auto Flash Exit																				
Non Actuated I																				
Non Actuated II																				
Non Lock Mem																				
Min Veh Recall																				
Max Veh Recall																				
Ped Recall																				
Soft Veh Recall																				
Dual Entry																				
Sim Gap Dis																				
Guaranteed Pass																				

Act Rest Walk																				
---------------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Cond Service																				
Add Initial																				

Additional Phase Options

Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Ped Clr During Yel																				
Ped Clr During Red																				
Cond Reservice																				
Yel Min Override																				
No Startup Call																				
Adv. Warn Flasher																				
No Ped Str Up Call																				
Ped Clr OVTG																				
Flash Exit Call																				
Flash Exit Ped Call																				
MinGreen2																				
MaxGreen2																				
MaxGreen3																				
Ped2																				
Ped Clear Pre Clear																				
Ped NA+ Mode																				
Red Rest																				
Serve Evy Oth Even																				
Serve Evy Oth Odd																				

Phases	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Ped Clr During Yel																				
Ped Clr During Red																				
Cond Reservice																				
Yel Min Override																				
No Startup Call																				
Adv. Warn Flasher																				
No Ped Str Up Call																				
Ped Clr OVTG																				
Flash Exit Call																				
Flash Exit Ped Call																				
MinGreen2																				
MaxGreen2																				
MaxGreen3																				
Ped2																				
Ped Clear Pre Clear																				
Ped NA+ Mode																				
Red Rest																				
Serve Evy Oth Even																				
Serve Evy Oth Odd																				

Phase Configuration

Ph.	Startup	Ring	Concurrent	No Served Phases	Startup Mir	Description
1	Phase Not On	1	5,6		0	
2	Green No Walk	1	5,6		0	
3	Phase Not On	0			0	
4	Phase Not On	1			0	
5	Phase Not On	2	1,2		0	
6	Green No Walk	2	1,2		0	
7	Phase Not On	0			0	
8	Phase Not On	1			0	
9	None	0			0	
10	None	0			0	
11	None	0			0	
12	None	0			0	
13	None	0			0	
14	None	0			0	
15	None	0			0	
16	None	0			0	
17	None	0			0	

18	None	0			0	
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19	None	0			0	
20	None	0			0	
21	None	0			0	
22	None	0			0	
23	None	0			0	
24	None	0			0	
25	None	0			0	
26	None	0			0	
27	None	0			0	
28	None	0			0	
29	None	0			0	
30	None	0			0	
31	None	0			0	
32	None	0			0	
33	None	0			0	
34	None	0			0	
35	None	0			0	
36	None	0			0	
37	None	0			0	
38	None	0			0	
39	None	0			0	
40	None	0			0	

Sequence Configuration

Sequence 1

Ring	Phases
1	1,2,a,4,8,b
2	5,6,a,b
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	

Sequence 2

Ring	Phases
1	2,1,a,3,4,b
2	5,6,a,7,8,b
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	

Sequence 3

Ring	Phases
1	1,2,a,4,3,b
2	5,6,a,7,8,b
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	

Sequence 4

Ring	Phases
1	2,1,a,4,3,b
2	5,6,a,7,8,b
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	

Sequence 5

Ring	Phases
1	1,2,a,3,4,b
2	6,5,a,7,8,b
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	

Sequence 6

Ring	Phases
1	2,1,a,3,4,b
2	6,5,a,7,8,b
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	

Sequence 7

Ring	Phases
1	1,2,a,4,3,b
2	6,5,a,7,8,b
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	

Sequence 8

Ring	Phases
1	2,1,a,4,3,b
2	6,5,a,7,8,b
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	

Sequence 9

Sequence 10

Sequence 11

Sequence 12

Ring	Phases	Ring	Phases	Ring	Phases	Ring	Phases
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1	1,2,a,3,4,b	1	2,1,a,3,4,b	1	1,2,a,4,3,b	1	2,1,a,4,3,b
2	5,6,a,8,7,b	2	5,6,a,8,7,b	2	5,6,a,8,7,b	2	5,6,a,8,7,b
3		3		3		3	
4		4		4		4	
5		5		5		5	
6		6		6		6	
7		7		7		7	
8		8		8		8	
9		9		9		9	
10		10		10		10	
11		11		11		11	
12		12		12		12	
13		13		13		13	
14		14		14		14	
15		15		15		15	
16		16		16		16	

Sequence 13

Ring	Phases
1	1,2,a,3,4,b
2	6,5,a,8,7,b
3	
4	
5	
6	
7	
8	
9	
10	

Sequence 14

Ring	Phases
1	2,1,a,3,4,b
2	6,5,a,8,7,b
3	
4	
5	
6	
7	
8	
9	
10	

Sequence 15

Ring	Phases
1	1,2,a,4,3,b
2	6,5,a,8,7,b
3	
4	
5	
6	
7	
8	
9	
10	

Sequence 16

Ring	Phases
1	2,1,a,4,3,b
2	6,5,a,8,7,b
3	
4	
5	
6	
7	
8	
9	
10	

Sequence 13

11	
12	
13	
14	
15	
16	

Sequence 14

11	
12	
13	
14	
15	
16	

Sequence 15

11	
12	
13	
14	
15	
16	

Sequence 16

11	
12	
13	
14	
15	
16	

Sequence 17

Ring	Phases
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	

Sequence 18

Ring	Phases
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	

Sequence 19

Ring	Phases
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	

Sequence 20

Ring	Phases
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	

Vehicle Detection Parameters

Det.	Call Phs	Call Ovl	Additional Call Phase	Switch Phase	Delay	Extend	Queue Limit	No Activity	Max Presence	Erratic Counts	Failed Time	Description
1	1	0		0	0,0	0,0	0	0	0	0	0	
2	2	0		0	0,0	0,0	0	0	0	0	0	
3	2	0		0	0,0	0,0	0	0	0	0	0	

4	2	0		0	0.0	0.0	0	0	0	0	0	
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5	2	0		0	0,0	0,0	0	0	0	0	0	
6	2	0		0	0,0	0,0	0	0	0	0	0	
7	3	0		0	0,0	0,0	0	0	0	0	0	
8	4	0		0	0,0	0,0	0	0	0	0	0	
9	4	0		0	0,0	0,0	0	0	0	0	0	
10	4	0		0	0,0	0,0	0	0	0	0	0	
11	4	0		0	0,0	0,0	0	0	0	0	0	
12	4	0		0	0,0	0,0	0	0	0	0	0	
13	1	0		0	0,0	0,0	0	0	0	0	0	
14	3	0		0	0,0	0,0	0	0	0	0	0	
15	5	0		0	0,0	0,0	0	0	0	0	0	
16	6	0		0	0,0	0,0	0	0	0	0	0	
17	6	0		0	0,0	0,0	0	0	0	0	0	
18	6	0		0	0,0	0,0	0	0	0	0	0	
19	6	0		0	0,0	0,0	0	0	0	0	0	
20	6	0		0	0,0	0,0	0	0	0	0	0	
21	7	0		0	0,0	0,0	0	0	0	0	0	
22	8	0		0	0,0	0,0	0	0	0	0	0	
23	8	0		0	0,0	0,0	0	0	0	0	0	
24	8	0		0	0,0	0,0	0	0	0	0	0	
25	8	0		0	0,0	0,0	0	0	0	0	0	
26	8	0		0	0,0	0,0	0	0	0	0	0	
27	5	0		0	0,0	0,0	0	0	0	0	0	
28	7	0		0	0,0	0,0	0	0	0	0	0	
29	0	0		0	0,0	0,0	0	0	0	0	0	
30	0	0		0	0,0	0,0	0	0	0	0	0	
31	0	0		0	0,0	0,0	0	0	0	0	0	
32	0	0		0	0,0	0,0	0	0	0	0	0	
33	0	0		0	0,0	0,0	0	0	0	0	0	
34	0	0		0	0,0	0,0	0	0	0	0	0	
35	0	0		0	0,0	0,0	0	0	0	0	0	
36	0	0		0	0,0	0,0	0	0	0	0	0	
37	0	0		0	0,0	0,0	0	0	0	0	0	
38	0	0		0	0,0	0,0	0	0	0	0	0	
39	0	0		0	0,0	0,0	0	0	0	0	0	
40	0	0		0	0,0	0,0	0	0	0	0	0	
41	0	0		0	0,0	0,0	0	0	0	0	0	
42	0	0		0	0,0	0,0	0	0	0	0	0	
43	0	0		0	0,0	0,0	0	0	0	0	0	
44	0	0		0	0,0	0,0	0	0	0	0	0	
45	0	0		0	0,0	0,0	0	0	0	0	0	
46	0	0		0	0,0	0,0	0	0	0	0	0	
47	0	0		0	0,0	0,0	0	0	0	0	0	
48	0	0		0	0,0	0,0	0	0	0	0	0	
49	0	0		0	0,0	0,0	0	0	0	0	0	
50	0	0		0	0,0	0,0	0	0	0	0	0	
51	0	0		0	0,0	0,0	0	0	0	0	0	
52	0	0		0	0,0	0,0	0	0	0	0	0	
53	0	0		0	0,0	0,0	0	0	0	0	0	
54	0	0		0	0,0	0,0	0	0	0	0	0	
55	0	0		0	0,0	0,0	0	0	0	0	0	
56	0	0		0	0,0	0,0	0	0	0	0	0	
57	0	0		0	0,0	0,0	0	0	0	0	0	
58	0	0		0	0,0	0,0	0	0	0	0	0	
59	0	0		0	0,0	0,0	0	0	0	0	0	
60	0	0		0	0,0	0,0	0	0	0	0	0	
61	0	0		0	0,0	0,0	0	0	0	0	0	
62	0	0		0	0,0	0,0	0	0	0	0	0	
63	0	0		0	0,0	0,0	0	0	0	0	0	
64	0	0		0	0,0	0,0	0	0	0	0	0	
65	0	0		0	0,0	0,0	0	0	0	0	0	
66	0	0		0	0,0	0,0	0	0	0	0	0	
67	0	0		0	0,0	0,0	0	0	0	0	0	

68	0	0		0	0.0	0.0	0	0	0	0	0	
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69	0	0		0	0.0	0.0	0	0	0	0	0	
70	0	0		0	0.0	0.0	0	0	0	0	0	
71	0	0		0	0.0	0.0	0	0	0	0	0	
72	0	0		0	0.0	0.0	0	0	0	0	0	

Vehicle Detection Options

Detector	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Volume Detector	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Occupancy	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Yellow Lock Call																				
Red Lock call																				
Passage	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Queue																				
Call	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Terminate																				

Detector	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Volume Detector	X	X	X	X	X	X	X	X												
Occupancy	X	X	X	X	X	X	X	X												
Yellow Lock Call																				
Red Lock call			X																	
Passage	X	X	X	X	X	X	X	X												
Queue																				
Call	X	X	X	X	X	X	X	X												
Terminate																				

Detector	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Volume Detector																				
Occupancy																				
Yellow Lock Call																				
Red Lock call																				
Passage																				
Queue																				
Call																				
Terminate																				

Detector	61	62	63	64	65	66	67	68	69	70	71	72	Data Collection Period		60
Volume Detector															
Occupancy															
Yellow Lock Call															
Red Lock call															
Passage															
Queue															
Call															
Terminate															

Pedestrian Detectors

	Call	Call	No	Max	
Det	Phase	Ovlp	Act	Presence	Erratic Count
1	0	0	0	0	0
2	2	0	0	0	0
3	0	0	0	0	0
4	4	0	0	0	0
5	0	0	0	0	0
6	6	0	0	0	0
7	0	0	0	0	0
8	8	0	0	0	0
9	0	0	0	0	0
10	0	0	0	0	0
11	0	0	0	0	0
12	0	0	0	0	0
13	0	0	0	0	0
14	0	0	0	0	0

	Call	Call	No	Max	
Det	Phase	Ovlp	Act	Presence	Erratic Count
21	0	0	0	0	0
22	0	0	0	0	0
23	0	0	0	0	0
24	0	0	0	0	0
25	0	0	0	0	0
26	0	0	0	0	0
27	0	0	0	0	0
28	0	0	0	0	0
29	0	0	0	0	0
30	0	0	0	0	0
31	0	0	0	0	0
32	0	0	0	0	0
33	0	0	0	0	0
34	0	0	0	0	0

15	0	0	0	0	0
----	---	---	---	---	---

35	0	0	0	0	0
----	---	---	---	---	---

16	0	0	0	0	0
17	0	0	0	0	0
18	0	0	0	0	0
19	0	0	0	0	0
20	0	0	0	0	0

36	0	0	0	0	0
37	0	0	0	0	0
38	0	0	0	0	0
39	0	0	0	0	0
40	0	0	0	0	0

Overlaps

OLP	Type	Included Phases	Modifier Phases	Trail	Trail	Trail	Walk	Ped	Walk	Ped	Delay	Flash	Descriptions
				GRN	YEL	RED	1	Clr 1	2	Clr 2			
1	Off			0	0.0	0.0	0	0	0	0	0.0	Off	
2	Off			0	0.0	0.0	0	0	0	0	0.0	Off	
3	Off			0	0.0	0.0	0	0	0	0	0.0	Off	
4	Off			0	0.0	0.0	0	0	0	0	0.0	Off	
5	Off			0	0.0	0.0	0	0	0	0	0.0	Off	
6	Off			0	0.0	0.0	0	0	0	0	0.0	Off	
7	Off			0	0.0	0.0	0	0	0	0	0.0	Off	
8	Off			0	0.0	0.0	0	0	0	0	0.0	Off	
9	Off			0	0.0	0.0	0	0	0	0	0.0	Off	
10	Off			0	0.0	0.0	0	0	0	0	0.0	Off	
11	Off			0	0.0	0.0	0	0	0	0	0.0	Off	
12	Off			0	0.0	0.0	0	0	0	0	0.0	Off	
13	Off			0	0.0	0.0	0	0	0	0	0.0	Off	
14	Off			0	0.0	0.0	0	0	0	0	0.0	Off	
15	Off			0	0.0	0.0	0	0	0	0	0.0	Off	
16	Off			0	0.0	0.0	0	0	0	0	0.0	Off	
17	Off			0	0.0	0.0	0	0	0	0	0.0	Off	
18	Off			0	0.0	0.0	0	0	0	0	0.0	Off	
19	Off			0	0.0	0.0	0	0	0	0	0.0	Off	
20	Off			0	0.0	0.0	0	0	0	0	0.0	Off	
21	Off			0	0.0	0.0	0	0	0	0	0.0	Off	
22	Off			0	0.0	0.0	0	0	0	0	0.0	Off	
23	Off			0	0.0	0.0	0	0	0	0	0.0	Off	
24	Off			0	0.0	0.0	0	0	0	0	0.0	Off	
25	Off			0	0.0	0.0	0	0	0	0	0.0	Off	
26	Off			0	0.0	0.0	0	0	0	0	0.0	Off	
27	Off			0	0.0	0.0	0	0	0	0	0.0	Off	
28	Off			0	0.0	0.0	0	0	0	0	0.0	Off	
29	Off			0	0.0	0.0	0	0	0	0	0.0	Off	
30	Off			0	0.0	0.0	0	0	0	0	0.0	Off	
31	Off			0	0.0	0.0	0	0	0	0	0.0	Off	
32	Off			0	0.0	0.0	0	0	0	0	0.0	Off	

Coordination Parameters

Operational Mode	Correction Mode	Maximum Mode	Force Mode
Automatic	Dwell	Per Pattern	Floating

Patterns

Patt.	Cycle	Offset 1	Offset 2	Offset 2	Split	Sequence	Ref. Color	Max Mode	Phs	Det	Ped
									Pln	Pln	Pln
1	0	0	0	0	1	1	Yel	Inh	1	1	1
2	0	0	0	0	2	1	Yel	Inh	1	1	1
3	0	0	0	0	3	1	Yel	Inh	1	1	1
4	0	0	0	0	4	1	Yel	Inh	1	1	1
5	0	0	0	0	0	0	Yel	Inh	1	1	1
6	0	0	0	0	0	0	Yel	Inh	1	1	1
7	0	0	0	0	0	0	Yel	Inh	1	1	1
8	0	0	0	0	0	0	Yel	Inh	1	1	1
9	0	0	0	0	0	0	Yel	Inh	1	1	1
10	0	0	0	0	0	0	Yel	Inh	1	1	1
11	0	0	0	0	0	0	Yel	Inh	1	1	1
12	0	0	0	0	0	0	Yel	Inh	1	1	1
13	0	0	0	0	0	0	Yel	Inh	1	1	1
14	0	0	0	0	0	0	Yel	Inh	1	1	1
15	0	0	0	0	0	0	Yel	Inh	1	1	1
16	0	0	0	0	0	0	Yel	Inh	1	1	1

17	0	0	0	0	0	0	Yel	Inh	1	1	1
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18	0	0	0	0	0	0	Yel	Inh	1	1	1
19	0	0	0	0	19	1	Yel	Max1	1	1	1
20	0	0	0	0	20	1	Yel	Max2	1	1	1
21	0	0	0	0	0	0	Yel	Inh	1	1	1
22	0	0	0	0	0	0	Yel	Inh	1	1	1
23	0	0	0	0	0	0	Yel	Inh	1	1	1
24	0	0	0	0	0	0	Yel	Inh	1	1	1
25	0	0	0	0	0	0	Yel	Inh	1	1	1
26	0	0	0	0	0	0	Yel	Inh	1	1	1
27	0	0	0	0	0	0	Yel	Inh	1	1	1
28	0	0	0	0	0	0	Yel	Inh	1	1	1
29	0	0	0	0	0	0	Yel	Inh	1	1	1
30	0	0	0	0	0	0	Yel	Inh	1	1	1
31	0	0	0	0	0	0	Yel	Inh	1	1	1
32	0	0	0	0	0	0	Yel	Inh	1	1	1
33	0	0	0	0	0	0	Yel	Inh	1	1	1
34	0	0	0	0	0	0	Yel	Inh	1	1	1
35	0	0	0	0	0	0	Yel	Inh	1	1	1
36	0	0	0	0	0	0	Yel	Inh	1	1	1
37	0	0	0	0	0	0	Yel	Inh	1	1	1
38	0	0	0	0	0	0	Yel	Inh	1	1	1
39	0	0	0	0	0	0	Yel	Inh	1	1	1
40	0	0	0	0	0	0	Yel	Inh	1	1	1
41	0	0	0	0	0	0	Yel	Inh	1	1	1
42	0	0	0	0	0	0	Yel	Inh	1	1	1
43	0	0	0	0	0	0	Yel	Inh	1	1	1
44	0	0	0	0	0	0	Yel	Inh	1	1	1
45	0	0	0	0	0	0	Yel	Inh	1	1	1
46	0	0	0	0	0	0	Yel	Inh	1	1	1
47	0	0	0	0	0	0	Yel	Inh	1	1	1
48	0	0	0	0	0	0	Yel	Inh	1	1	1
49	0	0	0	0	0	0	Yel	Inh	1	1	1
50	0	0	0	0	0	0	Yel	Inh	1	1	1
51	0	0	0	0	0	0	Yel	Inh	1	1	1
52	0	0	0	0	0	0	Yel	Inh	1	1	1
53	0	0	0	0	0	0	Yel	Inh	1	1	1
54	0	0	0	0	0	0	Yel	Inh	1	1	1
55	0	0	0	0	0	0	Yel	Inh	1	1	1
56	0	0	0	0	0	0	Yel	Inh	1	1	1
57	0	0	0	0	0	0	Yel	Inh	1	1	1
58	0	0	0	0	0	0	Yel	Inh	1	1	1
59	0	0	0	0	0	0	Yel	Inh	1	1	1
60	0	0	0	0	0	0	Yel	Inh	1	1	1
61	0	0	0	0	0	0	Yel	Inh	1	1	1
62	0	0	0	0	0	0	Yel	Inh	1	1	1
63	0	0	0	0	0	0	Yel	Inh	1	1	1
64	0	0	0	0	0	0	Yel	Inh	1	1	1
65	0	0	0	0	0	0	Yel	Inh	1	1	1
66	0	0	0	0	0	0	Yel	Inh	1	1	1
67	0	0	0	0	0	0	Yel	Inh	1	1	1
68	0	0	0	0	0	0	Yel	Inh	1	1	1
69	0	0	0	0	0	0	Yel	Inh	1	1	1
70	0	0	0	0	0	0	Yel	Inh	1	1	1
71	0	0	0	0	0	0	Yel	Inh	1	1	1
72	0	0	0	0	0	0	Yel	Inh	1	1	1
73	0	0	0	0	0	0	Yel	Inh	1	1	1
74	0	0	0	0	0	0	Yel	Inh	1	1	1
75	0	0	0	0	0	0	Yel	Inh	1	1	1
76	0	0	0	0	0	0	Yel	Inh	1	1	1
77	0	0	0	0	0	0	Yel	Inh	1	1	1
78	0	0	0	0	0	0	Yel	Inh	1	1	1
79	0	0	0	0	0	0	Yel	Inh	1	1	1
80	0	0	0	0	0	0	Yel	Inh	1	1	1

81	0	0	0	0	0	0	Yel	Inh	1	1	1
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82	0	0	0	0	0	0	Yel	Inh	1	1	1
83	0	0	0	0	0	0	Yel	Inh	1	1	1
84	0	0	0	0	0	0	Yel	Inh	1	1	1
85	0	0	0	0	0	0	Yel	Inh	1	1	1
86	0	0	0	0	0	0	Yel	Inh	1	1	1
87	0	0	0	0	0	0	Yel	Inh	1	1	1
88	0	0	0	0	0	0	Yel	Inh	1	1	1
89	0	0	0	0	0	0	Yel	Inh	1	1	1
90	0	0	0	0	0	0	Yel	Inh	1	1	1
91	0	0	0	0	0	0	Yel	Inh	1	1	1
92	0	0	0	0	0	0	Yel	Inh	1	1	1
93	0	0	0	0	0	0	Yel	Inh	1	1	1
94	0	0	0	0	0	0	Yel	Inh	1	1	1
95	0	0	0	0	0	0	Yel	Inh	1	1	1
96	0	0	0	0	0	0	Yel	Inh	1	1	1
97	0	0	0	0	0	0	Yel	Inh	1	1	1
98	0	0	0	0	0	0	Yel	Inh	1	1	1
99	0	0	0	0	0	0	Yel	Inh	1	1	1
100	0	0	0	0	0	0	Yel	Inh	1	1	1
101	0	0	0	0	0	0	Yel	Inh	1	1	1
102	0	0	0	0	0	0	Yel	Inh	1	1	1
103	0	0	0	0	0	0	Yel	Inh	1	1	1
104	0	0	0	0	0	0	Yel	Inh	1	1	1
105	0	0	0	0	0	0	Yel	Inh	1	1	1
106	0	0	0	0	0	0	Yel	Inh	1	1	1
107	0	0	0	0	0	0	Yel	Inh	1	1	1
108	0	0	0	0	0	0	Yel	Inh	1	1	1
109	0	0	0	0	0	0	Yel	Inh	1	1	1
110	0	0	0	0	0	0	Yel	Inh	1	1	1
111	0	0	0	0	0	0	Yel	Inh	1	1	1
112	0	0	0	0	0	0	Yel	Inh	1	1	1
113	0	0	0	0	0	0	Yel	Inh	1	1	1
114	0	0	0	0	0	0	Yel	Inh	1	1	1
115	0	0	0	0	0	0	Yel	Inh	1	1	1
116	0	0	0	0	0	0	Yel	Inh	1	1	1
117	0	0	0	0	0	0	Yel	Inh	1	1	1
118	0	0	0	0	0	0	Yel	Inh	1	1	1
119	0	0	0	0	0	0	Yel	Inh	1	1	1
120	0	0	0	0	0	0	Yel	Inh	1	1	1
121	0	0	0	0	0	0	Yel	Inh	1	1	1
122	0	0	0	0	0	0	Yel	Inh	1	1	1
123	0	0	0	0	0	0	Yel	Inh	1	1	1
124	0	0	0	0	0	0	Yel	Inh	1	1	1
125	0	0	0	0	0	0	Yel	Inh	1	1	1
126	0	0	0	0	0	0	Yel	Inh	1	1	1
127	0	0	0	0	0	0	Yel	Inh	1	1	1
128	0	0	0	0	0	0	Yel	Inh	1	1	1

Split Parameters

Split 1		Coord	Ref	Mode
PH.	Time	PH	PH	
1	0			None
2	0	X	X	None
3	0			None
4	0			None
5	0			None
6	0	X	X	None
7	0			None
8	0			None
9	0			None
10	0			None
11	0			None
12	0			None

Split 2		Coord	Ref	Mode
PH.	Time	PH	PH	
1	0			None
2	0	X	X	None
3	0			None
4	0			None
5	0			None
6	0	X	X	None
7	0			None
8	0			None
9	0			None
10	0			None
11	0			None
12	0			None

13	0			None
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13	0			None
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14	0			None
15	0			None
16	0			None

14	0			None
15	0			None
16	0			None

Split 3		Coord	Ref	Mode
PH.	Time	PH	PH	
1	0			None
2	0	X	X	None
3	0			None
4	0			None
5	0			None
6	0	X	X	None
7	0			None
8	0			None
9	0			None
10	0			None
11	0			None
12	0			None
13	0			None
14	0			None
15	0			None
16	0			None

Split 4		Coord	Ref	Mode
PH.	Time	PH	PH	
1	0			None
2	0	X	X	None
3	0			None
4	0			None
5	0			None
6	0	X	X	None
7	0			None
8	0			None
9	0			None
10	0			None
11	0			None
12	0			None
13	0			None
14	0			None
15	0			None
16	0			None

Split 5		Coord	Ref	Mode
PH.	Time	PH	PH	
1	0			None
2	0			None
3	0			None
4	0			None
5	0			None
6	0			None
7	0			None
8	0			None
9	0			None
10	0			None
11	0			None
12	0			None
13	0			None
14	0			None
15	0			None
16	0			None

Split 6		Coord	Ref	Mode
PH.	Time	PH	PH	
1	0			None
2	0			None
3	0			None
4	0			None
5	0			None
6	0			None
7	0			None
8	0			None
9	0			None
10	0			None
11	0			None
12	0			None
13	0			None
14	0			None
15	0			None
16	0			None

Split 7		Coord	Ref	Mode
PH.	Time	PH	PH	
1	0			None
2	0			None
3	0			None
4	0			None
5	0			None
6	0			None
7	0			None
8	0			None
9	0			None
10	0			None
11	0			None
12	0			None
13	0			None
14	0			None
15	0			None
16	0			None

Split 8		Coord	Ref	Mode
PH.	Time	PH	PH	
1	0			None
2	0			None
3	0			None
4	0			None
5	0			None
6	0			None
7	0			None
8	0			None
9	0			None
10	0			None
11	0			None
12	0			None
13	0			None
14	0			None
15	0			None
16	0			None

Split 9		Coord	Ref	Mode
PH.	Time	PH	PH	

Split 10		Coord	Ref	Mode
PH.	Time	PH	PH	

1	0			None
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1	0			None
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2	0			None
3	0			None
4	0			None
5	0			None
6	0			None
7	0			None
8	0			None
9	0			None

2	0			None
3	0			None
4	0			None
5	0			None
6	0			None
7	0			None
8	0			None
9	0			None

Split 9		Coord	Ref	Mode
PH.	Time	PH	PH	
10	0			None
11	0			None
12	0			None
13	0			None
14	0			None
15	0			None
16	0			None

Split 10		Coord	Ref	Mode
PH.	Time	PH	PH	
10	0			None
11	0			None
12	0			None
13	0			None
14	0			None
15	0			None
16	0			None

Split 11		Coord	Ref	Mode
PH.	Time	PH	PH	
1	0			None
2	0			None
3	0			None
4	0			None
5	0			None
6	0			None
7	0			None
8	0			None
9	0			None
10	0			None
11	0			None
12	0			None
13	0			None
14	0			None
15	0			None
16	0			None

Split 12		Coord	Ref	Mode
PH.	Time	PH	PH	
1	0			None
2	0			None
3	0			None
4	0			None
5	0			None
6	0			None
7	0			None
8	0			None
9	0			None
10	0			None
11	0			None
12	0			None
13	0			None
14	0			None
15	0			None
16	0			None

Split 13		Coord	Ref	Mode
PH.	Time	PH	PH	
1	0			None
2	0			None
3	0			None
4	0			None
5	0			None
6	0			None
7	0			None
8	0			None
9	0			None
10	0			None
11	0			None
12	0			None
13	0			None
14	0			None
15	0			None
16	0			None

Split 14		Coord	Ref	Mode
PH.	Time	PH	PH	
1	0			None
2	0			None
3	0			None
4	0			None
5	0			None
6	0			None
7	0			None
8	0			None
9	0			None
10	0			None
11	0			None
12	0			None
13	0			None
14	0			None
15	0			None
16	0			None

Split 15		Coord	Ref	Mode
PH.	Time	PH	PH	
1	0			None
2	0			None
3	0			None
4	0			None

Split 16		Coord	Ref	Mode
PH.	Time	PH	PH	
1	0			None
2	0			None
3	0			None
4	0			None

5	0			None
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5	0			None
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6	0			None
7	0			None
8	0			None
9	0			None
10	0			None
11	0			None
12	0			None
13	0			None
14	0			None
15	0			None
16	0			None

6	0			None
7	0			None
8	0			None
9	0			None
10	0			None
11	0			None
12	0			None
13	0			None
14	0			None
15	0			None
16	0			None

Split 17		Coord	Ref	Mode
PH.	Time	PH	PH	
1	0			None
2	0			None
3	0			None
4	0			None
5	0			None
6	0			None
7	0			None
8	0			None
9	0			None
10	0			None
11	0			None
12	0			None
13	0			None
14	0			None
15	0			None
16	0			None

Split 18		Coord	Ref	Mode
PH.	Time	PH	PH	
1	0			None
2	0			None
3	0			None
4	0			None
5	0			None
6	0			None
7	0			None
8	0			None
9	0			None
10	0			None
11	0			None
12	0			None
13	0			None
14	0			None
15	0			None
16	0			None

Split 19		Coord	Ref	Mode
PH.	Time	PH	PH	
1	0			None
2	0			None
3	0			None
4	0			None
5	0			None
6	0			None

Split 20		Coord	Ref	Mode
PH.	Time	PH	PH	
1	0			None
2	0			None
3	0			None
4	0			None
5	0			None
6	0			None

Split 19		Coord	Ref	Mode
PH.	Time	PH	PH	
7	0			None
8	0			None
9	0			None
10	0			None
11	0			None
12	0			None
13	0			None
14	0			None
15	0			None
16	0			None

Split 20		Coord	Ref	Mode
PH.	Time	PH	PH	
7	0			None
8	0			None
9	0			None
10	0			None
11	0			None
12	0			None
13	0			None
14	0			None
15	0			None
16	0			None

Ring	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Offset																

Day Plan		1															
Month of Year		Days of Week							Days of Month								
J	F	M	A	M	J	S	M	T	W	T	F	S	1	2	3	4	5
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
J	A	S	O	N	D								17	18	19	20	21
X	X	X	X	X	X								X	X	X	X	X

Day Plan		2																										
Month of Year		Days of Week							Days of Month																			
J	F	M	A	M	J	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
X	X	X	X	X	X	X						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
J	A	S	O	N	D								17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
X	X	X	X	X	X								X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

Day Plan		3																										
Month of Year					Days of Week							Days of Month																
J	F	M	A	M	J	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
J	A	S	O	N	D								17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
X	X	X	X	X	X								X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

Day Plan		4																													
Month of Year					Days of Week								Days of Month																		
J	F	M	A	M	J	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16			
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
J	A	S	O	N	D								17	18	19	20	21	22	23	24	25	26	27	28	29	30	31				
X	X	X	X	X	X								X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			

Day Plan		5																																	
Month of Year					Days of Week								Days of Month																						
J	F	M	A	M	J	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
J	A	S	O	N	D								17	18	19	20	21	22	23	24	25	26	27	28	29	30	31								
X	X	X	X	X	X								X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				

Day Plan		6																												
Month of Year					Days of Week							Days of Month																		
J	F	M	A	M	J	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
J	A	S	O	N	D								17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
X	X	X	X	X	X								X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

Day Plan		7																												
Month of Year					Days of Week							Days of Month																		
J	F	M	A	M	J	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
J	A	S	O	N	D								17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
X	X	X	X	X	X								X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		

Day Plan		8																										
Month of Year		Days of Week							Days of Month																			
J	F	M	A	M	J	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
J	A	S	O	N	D								17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
X	X	X	X	X	X								X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

Day Plan		9																													
Month of Year					Days of Week								Days of Month																		
J	F	M	A	M	J	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16			
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
J	A	S	O	N	D								17	18	19	20	21	22	23	24	25	26	27	28	29	30	31				
X	X	X	X	X	X								X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				

Day Plan		10																										
Month of Year		Days of Week							Days of Month																			
J	F	M	A	M	J	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
J	A	S	O	N	D								17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
X	X	X	X	X	X								X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

Month of Year					Days of Week							Days of Month																
J	F	M	A	M	J	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
J	A	S	O	N	D								17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	

Day Plan

12

Month of Year					Days of Week							Days of Month																
J	F	M	A	M	J	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
J	A	S	O	N	D								17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	

Day Plan

13

Month of Year					Days of Week							Days of Month																
J	F	M	A	M	J	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
J	A	S	O	N	D								17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	

Day Plan

14

Month of Year					Days of Week							Days of Month																
J	F	M	A	M	J	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
J	A	S	O	N	D								17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	

Day Plan

15

Month of Year					Days of Week							Days of Month																
J	F	M	A	M	J	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
J	A	S	O	N	D								17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	

Day Plan

1

Event	Hour	Min.	Act
1	5	30	19
2	18	0	20
3	0	0	
4	0	0	
5	0	0	

Day Plan

2

Event	Hour	Min.	Act
1	0	0	
2	0	0	
3	0	0	
4	0	0	
5	0	0	

Day Plan

3

Event	Hour	Min.	Act
1	0	0	
2	0	0	
3	0	0	
4	0	0	
5	0	0	

Day Plan

4

Event	Hour	Min.	Act
1	0	0	
2	0	0	
3	0	0	
4	0	0	
5	0	0	

Day Plan

1

Event	Hour	Min.	Act
6	0	0	
7	0	0	
8	0	0	
9	0	0	
10	0	0	

Day Plan

2

Event	Hour	Min.	Act
6	0	0	
7	0	0	
8	0	0	
9	0	0	
10	0	0	

Day Plan

3

Event	Hour	Min.	Act
6	0	0	
7	0	0	
8	0	0	
9	0	0	
10	0	0	

Day Plan

4

Event	Hour	Min.	Act
6	0	0	
7	0	0	
8	0	0	
9	0	0	
10	0	0	

Day Plan

5

Event	Hour	Min.	Act
1	0	0	
2	0	0	
3	0	0	
4	0	0	
5	0	0	
6	0	0	
7	0	0	
8	0	0	
9	0	0	
10	0	0	

Day Plan

6

Event	Hour	Min.	Act
1	0	0	
2	0	0	
3	0	0	
4	0	0	
5	0	0	
6	0	0	
7	0	0	
8	0	0	
9	0	0	
10	0	0	

Day Plan

7

Event	Hour	Min.	Act
1	0	0	
2	0	0	
3	0	0	
4	0	0	
5	0	0	
6	0	0	
7	0	0	
8	0	0	
9	0	0	
10	0	0	

Day Plan

8

Event	Hour	Min.	Act
1	0	0	
2	0	0	
3	0	0	
4	0	0	
5	0	0	
6	0	0	
7	0	0	
8	0	0	
9	0	0	
10	0	0	

Day Plan	9	
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Day Plan	10	
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Day Plan	11	
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Day Plan	12	
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Event	Hour	Min.	Act
1	0	0	
2	0	0	
3	0	0	
4	0	0	
5	0	0	
6	0	0	
7	0	0	
8	0	0	
9	0	0	
10	0	0	

Day Plan		13	
Event	Hour	Min.	Act
1	0	0	
2	0	0	
3	0	0	
4	0	0	
5	0	0	
6	0	0	
7	0	0	
8	0	0	
9	0	0	
10	0	0	

Day Plan		14	
Event	Hour	Min.	Act
1	0	0	
2	0	0	
3	0	0	
4	0	0	
5	0	0	
6	0	0	
7	0	0	
8	0	0	
9	0	0	
10	0	0	

Day Plan		15	
Event	Hour	Min.	Act
1	0	0	
2	0	0	
3	0	0	
4	0	0	
5	0	0	
6	0	0	
7	0	0	
8	0	0	
9	0	0	
10	0	0	

Day Plan		16	
Event	Hour	Min.	Act
1	0	0	
2	0	0	
3	0	0	
4	0	0	
5	0	0	
6	0	0	
7	0	0	
8	0	0	
9	0	0	
10	0	0	

Day Plan		17	
Event	Hour	Min.	Act
1	0	0	
2	0	0	
3	0	0	
4	0	0	
5	0	0	
6	0	0	
7	0	0	
8	0	0	
9	0	0	
10	0	0	

Day Plan		18	
Event	Hour	Min.	Act
1	0	0	
2	0	0	
3	0	0	
4	0	0	
5	0	0	
6	0	0	
7	0	0	
8	0	0	
9	0	0	
10	0	0	

Day Plan		19	
Event	Hour	Min.	Act
1	0	0	
2	0	0	
3	0	0	
4	0	0	
5	0	0	
6	0	0	
7	0	0	
8	0	0	
9	0	0	
10	0	0	

Day Plan		20	
Event	Hour	Min.	Act
1	0	0	
2	0	0	
3	0	0	
4	0	0	
5	0	0	
6	0	0	
7	0	0	
8	0	0	
9	0	0	
10	0	0	

Actions		Aux.			Special Functions							
Act	Pattern	1	2	3	1	2	3	4	5	6	7	8
1	Pattern 1											
2	Pattern 2											
3	Pattern 3											
4	Pattern 4											
5	Pattern 5											
6	Pattern 6											
7	Pattern 7											
8	Pattern 8											
9	Pattern 9											
10	Pattern 10											
11	None											
12	None											
13	None											
14	None											
15	None											
16	None											
17	None											
18	None											
19	Pattern 19											
20	Pattern 20											
21	None											
22	None											
23	None											

Actions		Aux.			Special Functions							
Act	Pattern	1	2	3	1	2	3	4	5	6	7	8
33	None											
34	None											
35	None											
36	None											
37	None											
38	None											
39	None											
40	None											
41	None											
42	None											
43	None											
44	None											
45	None											
46	None											
47	None											
48	None											
49	None											
50	None											
51	None											
52	None											
53	None											
54	None											
55	None											

24	None																		
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56	None																		
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25	None								
26	None								
27	None								
28	None								
29	None								
30	None								
31	None								
32	None								

57	None								
58	None								
59	None								
60	None								
61	None								
62	None								
63	None								
64	None								

Preemption Parameters

Preempt	1	2	3	4	5	6	7	8
Link	0	0	0	0	0	0	0	0
Delay	0	0	0	0	0	0	0	0
Min Duration	0	0	10	10	10	10	0	0
Min Green	0	0	0	0	0	0	0	0
Min Walk	0	0	0	0	0	0	0	0
Ent. Ped Clear	255	255	255	255	255	255	255	255
Track Green	0	0	0	0	0	0	0	0
Dwell Green	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0
Enter Yellow	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
Ent. Red Clear	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5

Preemption Parameters

Preempt	1	2	3	4	5	6	7	8
Track Yellow	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
Track Red Clear	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
Exit Red	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
Exit Ped Clear	255	255	255	255	255	255	255	255
Exit Yellow	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
Exit Red	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
Preempt	1	2	3	4	5	6	7	8
Non Lock Mem								
Not Override Flash								
NotOverrideNextPre								
Flash Dwell								

Preemption Configuration

Preempt	1	2	3	4	5	6	7	8
Track phase								
Dwell Phase			8	1,6	4	2,5		
Dwell Ped								
Exit Phase								
Track Overlap								
Dwell overlap								
Cycling phase								
Cycling Ped								
Cycling Overlap								

IO Modules

IO Mod	TYPE
1	Caltrans 332
2	None
3	None
4	None
5	None
6	None
7	None
8	None
9	None
10	None

Channel Configuration

Chan	Ctrl Type	Source
1	Phs Veh	1
2	Phs Veh	2
3	Phs Veh	3
4	Phs Veh	4
5	Phs Veh	5
6	Phs Veh	6
7	Phs Veh	7
8	Phs Veh	8
9	Olp	1
10	Olp	2

Chan	Ctrl Type	Source
11	Olp	3
12	Olp	4
13	Phs Ped	2
14	Phs Ped	4
15	Phs Ped	6
16	Phs Ped	8
17	Olp	5
18	Olp	6
19	None	0
20	None	0

Channel Options

Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Flash Yellow																
Flash Red	X	X	X	X	X	X	X	X								
Alt Flash	X			X	X			X								
Channel	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Flash Yellow																
Flash Red																
Alt Flash																

Startup Clearance Hold Type

1=off, 2=On, 3=Flash and 4= Alt Flash

Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Red																
Yellow																
Green																

Channel	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
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Red															
Yellow															
Green															

Phase Intervals

Interval	Description	Red	Yel	Grn	Type
1	notActive	On	Off	Off	Red
2	dtlGrn	On	Off	Off	Red
3	PreGrn	Off	Off	On	Green
4	minGrn	Off	Off	On	Green
5	grnExt	Off	Off	On	Green
6	grnDwell	Off	Off	On	Green
7	preClear	Off	Off	On	Green
8	yelChange	Off	On	Off	Yellow
9	redClear	On	Off	Off	Red
10	redDwell	On	Off	Off	Red
11	Barrier	On	Off	Off	Red
12					

Pedestrian Intervals

Interval	Description	DWK	CLR	Wlk	Type
1	notActive	On	Off	Off	Dont Walk
2	dtlPed	On	Off	Off	Dont Walk
3	walk	Off	Off	On	Walk
4	walkDwell	Off	Off	On	Walk
5	flashDtWlk	Flash	Off	Off	Ped Clear
6	dWalk	On	Off	Off	Dont Walk
7					
8					

Countdown Display

Display	Addr	Phase	Time
1			
2			
3			
4			
5			
6			
7			
8			

Display	Addr	Phase	Time
9			
10			
11			
12			
13			
14			
15			
16			

Display	Addr	Phase	Time
17			
18			
19			
20			
21			
22			
23			
24			

Display	Addr	Phase	Time
25			
26			
27			
28			
29			
30			
31			
32			

Manual Control Phase Groups

Grp 1		Grp 2		Grp 3		Grp 4		Grp 5		Grp 6		Grp 7		Grp 8	
Ring	Ph	Ring	Ph	Ring	Ph	Ring	Ph	Ring	Ph	Ring	Ph	Ring	Ph	Ring	Ph
1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
3	0	3	0	3	0	3	0	3	0	3	0	3	0	3	0
4	0	4	0	4	0	4	0	4	0	4	0	4	0	4	0
5	0	5	0	5	0	5	0	5	0	5	0	5	0	5	0
6	0	6	0	6	0	6	0	6	0	6	0	6	0	6	0
7	0	7	0	7	0	7	0	7	0	7	0	7	0	7	0
8	0	8	0	8	0	8	0	8	0	8	0	8	0	8	0
9	0	9	0	9	0	9	0	9	0	9	0	9	0	9	0
10	0	10	0	10	0	10	0	10	0	10	0	10	0	10	0
11	0	11	0	11	0	11	0	11	0	11	0	11	0	11	0
12	0	12	0	12	0	12	0	12	0	12	0	12	0	12	0
13	0	13	0	13	0	13	0	13	0	13	0	13	0	13	0
14	0	14	0	14	0	14	0	14	0	14	0	14	0	14	0
15	0	15	0	15	0	15	0	15	0	15	0	15	0	15	0
16	0	16	0	16	0	16	0	16	0	16	0	16	0	16	0

Prioritor Settings

Prioritor	Priority Ph	Output Dly
1		0
2		0
3		0
4		0
5		0
6		0
7		0
8		0

Enabled	Lock Out Time
No	0

Loopback Functions

Func	Result	Function Type	Index	Source	Function Type	Index
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Func	Result	Function Type	Index	Source	Function Type	Index
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1					51				
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2					52				
3					53				
4					54				
5					55				
6					56				
7					57				
8					58				
9					59				
10					60				
11					61				
12					62				
13					63				
14					64				
15					65				
16					66				
17					67				
18					68				
19					69				
20					70				
21					71				
22					72				
23					73				
24					74				
25					75				
26					76				
27					77				
28					78				
29					79				
30					80				
31					81				
32					82				
33					83				
34					84				
35					85				
36					86				
37					87				
38					88				
39					89				
40					90				
41					91				
42					92				
43					93				
44					94				
45					95				
46					96				
47					97				
48					98				
49					99				
50					100				

Peer Configuration

Ctrl	Peer ID	IP address	SNMP Port	Hot Port	Serial Port	Serial Addr.	Master Sect.	P2P TO	Description
1	0		161	80	0	0	0	15	
2	0		161	80	0	0	0	15	
3	0		161	80	0	0	0	15	
4	0		161	80	0	0	0	15	
5	0		161	80	0	0	0	15	
6	0		161	80	0	0	0	15	
7	0		161	80	0	0	0	15	
8	0		161	80	0	0	0	15	
9	0		161	80	0	0	0	15	
10	0		161	80	0	0	0	15	

11	0		161	80	0	0	0	15	
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12	0		161	80	0	0	0	15	
13	0		161	80	0	0	0	15	
14	0		161	80	0	0	0	15	
15	0		161	80	0	0	0	15	
16	0		161	80	0	0	0	15	
17	0		161	80	0	0	0	15	
18	0		161	80	0	0	0	15	
19	0		161	80	0	0	0	15	
20	0		161	80	0	0	0	15	
21	0		161	80	0	0	0	15	
22	0		161	80	0	0	0	15	
23	0		161	80	0	0	0	15	
24	0		161	80	0	0	0	15	
25	0		161	80	0	0	0	15	
26	0		161	80	0	0	0	15	
27	0		161	80	0	0	0	15	
28	0		161	80	0	0	0	15	
29	0		161	80	0	0	0	15	
30	0		161	80	0	0	0	15	
31	0		161	80	0	0	0	15	
32	0		161	80	0	0	0	15	
33	0		161	80	0	0	0	15	
34	0		161	80	0	0	0	15	
35	0		161	80	0	0	0	15	
36	0		161	80	0	0	0	15	
37	0		161	80	0	0	0	15	
38	0		161	80	0	0	0	15	
39	0		161	80	0	0	0	15	
40	0		161	80	0	0	0	15	
41	0		161	80	0	0	0	15	
42	0		161	80	0	0	0	15	
43	0		161	80	0	0	0	15	
44	0		161	80	0	0	0	15	
45	0		161	80	0	0	0	15	
46	0		161	80	0	0	0	15	
47	0		161	80	0	0	0	15	
48	0		161	80	0	0	0	15	
49	0		161	80	0	0	0	15	
50	0		161	80	0	0	0	15	
51	0		161	80	0	0	0	15	
52	0		161	80	0	0	0	15	
53	0		161	80	0	0	0	15	
54	0		161	80	0	0	0	15	
55	0		161	80	0	0	0	15	
56	0		161	80	0	0	0	15	
57	0		161	80	0	0	0	15	
58	0		161	80	0	0	0	15	
59	0		161	80	0	0	0	15	
60	0		161	80	0	0	0	15	
61	0		161	80	0	0	0	15	
62	0		161	80	0	0	0	15	
63	0		161	80	0	0	0	15	
64	0		161	80	0	0	0	15	
65	0		161	80	0	0	0	15	
66	0		161	80	0	0	0	15	
67	0		161	80	0	0	0	15	
68	0		161	80	0	0	0	15	
69	0		161	80	0	0	0	15	
70	0		161	80	0	0	0	15	
71	0		161	80	0	0	0	15	
72	0		161	80	0	0	0	15	
73	0		161	80	0	0	0	15	
74	0		161	80	0	0	0	15	

75	0		161	80	0	0	0	15	
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76	0		161	80	0	0	0	15	
77	0		161	80	0	0	0	15	
78	0		161	80	0	0	0	15	
79	0		161	80	0	0	0	15	
80	0		161	80	0	0	0	15	
81	0		161	80	0	0	0	15	
82	0		161	80	0	0	0	15	
83	0		161	80	0	0	0	15	
84	0		161	80	0	0	0	15	
85	0		161	80	0	0	0	15	
86	0		161	80	0	0	0	15	
87	0		161	80	0	0	0	15	
88	0		161	80	0	0	0	15	
89	0		161	80	0	0	0	15	
90	0		161	80	0	0	0	15	
91	0		161	80	0	0	0	15	
92	0		161	80	0	0	0	15	
93	0		161	80	0	0	0	15	
94	0		161	80	0	0	0	15	
95	0		161	80	0	0	0	15	
96	0		161	80	0	0	0	15	
97	0		161	80	0	0	0	15	
98	0		161	80	0	0	0	15	
99	0		161	80	0	0	0	15	
100	0		161	80	0	0	0	15	
101	0		161	80	0	0	0	15	
102	0		161	80	0	0	0	15	
103	0		161	80	0	0	0	15	
104	0		161	80	0	0	0	15	
105	0		161	80	0	0	0	15	
106	0		161	80	0	0	0	15	
107	0		161	80	0	0	0	15	
108	0		161	80	0	0	0	15	
109	0		161	80	0	0	0	15	
110	0		161	80	0	0	0	15	
111	0		161	80	0	0	0	15	
112	0		161	80	0	0	0	15	
113	0		161	80	0	0	0	15	
114	0		161	80	0	0	0	15	
115	0		161	80	0	0	0	15	
116	0		161	80	0	0	0	15	
117	0		161	80	0	0	0	15	
118	0		161	80	0	0	0	15	
119	0		161	80	0	0	0	15	
120	0		161	80	0	0	0	15	
121	0		161	80	0	0	0	15	
122	0		161	80	0	0	0	15	
123	0		161	80	0	0	0	15	
124	0		161	80	0	0	0	15	
125	0		161	80	0	0	0	15	
126	0		161	80	0	0	0	15	
127	0		161	80	0	0	0	15	
128	0		161	80	0	0	0	15	
129	0		161	80	0	0	0	15	
130	0		161	80	0	0	0	15	
131	0		161	80	0	0	0	15	
132	0		161	80	0	0	0	15	
133	0		161	80	0	0	0	15	
134	0		161	80	0	0	0	15	
135	0		161	80	0	0	0	15	
136	0		161	80	0	0	0	15	
137	0		161	80	0	0	0	15	
138	0		161	80	0	0	0	15	

139	0		161	80	0	0	0	15	
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140	0		161	80	0	0	0	15	
141	0		161	80	0	0	0	15	
142	0		161	80	0	0	0	15	
143	0		161	80	0	0	0	15	
144	0		161	80	0	0	0	15	
145	0		161	80	0	0	0	15	
146	0		161	80	0	0	0	15	
147	0		161	80	0	0	0	15	
148	0		161	80	0	0	0	15	
149	0		161	80	0	0	0	15	
150	0		161	80	0	0	0	15	
151	0		161	80	0	0	0	15	
152	0		161	80	0	0	0	15	
153	0		161	80	0	0	0	15	
154	0		161	80	0	0	0	15	
155	0		161	80	0	0	0	15	
156	0		161	80	0	0	0	15	
157	0		161	80	0	0	0	15	
158	0		161	80	0	0	0	15	
159	0		161	80	0	0	0	15	
160	0		161	80	0	0	0	15	
161	0		161	80	0	0	0	15	
162	0		161	80	0	0	0	15	
163	0		161	80	0	0	0	15	
164	0		161	80	0	0	0	15	
165	0		161	80	0	0	0	15	
166	0		161	80	0	0	0	15	
167	0		161	80	0	0	0	15	
168	0		161	80	0	0	0	15	
169	0		161	80	0	0	0	15	
170	0		161	80	0	0	0	15	
171	0		161	80	0	0	0	15	
172	0		161	80	0	0	0	15	
173	0		161	80	0	0	0	15	
174	0		161	80	0	0	0	15	
175	0		161	80	0	0	0	15	
176	0		161	80	0	0	0	15	
177	0		161	80	0	0	0	15	
178	0		161	80	0	0	0	15	
179	0		161	80	0	0	0	15	
180	0		161	80	0	0	0	15	
181	0		161	80	0	0	0	15	
182	0		161	80	0	0	0	15	
183	0		161	80	0	0	0	15	
184	0		161	80	0	0	0	15	
185	0		161	80	0	0	0	15	
186	0		161	80	0	0	0	15	
187	0		161	80	0	0	0	15	
188	0		161	80	0	0	0	15	
189	0		161	80	0	0	0	15	
190	0		161	80	0	0	0	15	
191	0		161	80	0	0	0	15	
192	0		161	80	0	0	0	15	
193	0		161	80	0	0	0	15	
194	0		161	80	0	0	0	15	
195	0		161	80	0	0	0	15	
196	0		161	80	0	0	0	15	
197	0		161	80	0	0	0	15	
198	0		161	80	0	0	0	15	
199	0		161	80	0	0	0	15	
200	0		161	80	0	0	0	15	
201	0		161	80	0	0	0	15	
202	0		161	80	0	0	0	15	

203	0		161	80	0	0	0	15	
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204	0		161	80	0	0	0	15	
205	0		161	80	0	0	0	15	
206	0		161	80	0	0	0	15	
207	0		161	80	0	0	0	15	
208	0		161	80	0	0	0	15	
209	0		161	80	0	0	0	15	
210	0		161	80	0	0	0	15	
211	0		161	80	0	0	0	15	
212	0		161	80	0	0	0	15	
213	0		161	80	0	0	0	15	
214	0		161	80	0	0	0	15	
215	0		161	80	0	0	0	15	
216	0		161	80	0	0	0	15	
217	0		161	80	0	0	0	15	
218	0		161	80	0	0	0	15	
219	0		161	80	0	0	0	15	
220	0		161	80	0	0	0	15	
221	0		161	80	0	0	0	15	
222	0		161	80	0	0	0	15	
223	0		161	80	0	0	0	15	
224	0		161	80	0	0	0	15	
225	0		161	80	0	0	0	15	
226	0		161	80	0	0	0	15	
227	0		161	80	0	0	0	15	
228	0		161	80	0	0	0	15	
229	0		161	80	0	0	0	15	
230	0		161	80	0	0	0	15	
231	0		161	80	0	0	0	15	
232	0		161	80	0	0	0	15	
233	0		161	80	0	0	0	15	
234	0		161	80	0	0	0	15	
235	0		161	80	0	0	0	15	
236	0		161	80	0	0	0	15	
237	0		161	80	0	0	0	15	
238	0		161	80	0	0	0	15	
239	0		161	80	0	0	0	15	
240	0		161	80	0	0	0	15	
241	0		161	80	0	0	0	15	
242	0		161	80	0	0	0	15	
243	0		161	80	0	0	0	15	
244	0		161	80	0	0	0	15	
245	0		161	80	0	0	0	15	
246	0		161	80	0	0	0	15	
247	0		161	80	0	0	0	15	
248	0		161	80	0	0	0	15	
249	0		161	80	0	0	0	15	
250	0		161	80	0	0	0	15	
251	0		161	80	0	0	0	15	
252	0		161	80	0	0	0	15	
253	0		161	80	0	0	0	15	
254	0		161	80	0	0	0	15	
255	0		161	80	0	0	0	15	

Section Configuration

Section	Control	Poll	Req #	Fail Time	Algorithm Period	Description
1	None	60	1	300	240	
2	None	60	1	300	240	
3	None	60	1	300	240	
4	None	60	1	300	240	
5	None	60	1	300	240	
6	None	60	1	300	240	
7	None	60	1	300	240	
8	None	60	1	300	240	

9	None	60	1	300	240	
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10	None	60	1	300	240	
11	None	60	1	300	240	
12	None	60	1	300	240	
13	None	60	1	300	240	
14	None	60	1	300	240	
15	None	60	1	300	240	
16	None	60	1	300	240	

User Program Info

Pgrm	Description
1	Stop Time
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
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Castle Rock, CO



MOVING TRAFFIC FORWARD

091 - Ridge Road @ 750 N Ridge Rd - Cobalt @ 10.50.70.55 - Econolite Type - Cobalt

Configuration Controller Sequence**Phase Ring Sequence and Assignment (MM) 1-1-1**

Hardware Alternate Sequence Enable: No

Phase Ring Sequence.....(Note: Sequences identical to the prior one are not printed)

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
	B	B	B	B	B											
Sequence 1																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 2																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 3																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 4																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 5																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 6																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 7																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 8																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 9																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 10																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 11																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 12																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 13																

Ring 1		1	2		3	4		9	10		13	14		.	.	.	.	.	.	.	.
Ring 2		6	5		8	7		12	11		16	15		.	.	.	.	.	.	.	.
Sequence 14																					
Ring 1		2	1		3	4		10	9		13	14		.	.	.	.	.	.	.	.
Ring 2		6	5		8	7		12	11		16	15		.	.	.	.	.	.	.	.
Sequence 15																					
Ring 1		1	2		4	3		9	10		14	13		.	.	.	.	.	.	.	.
Ring 2		6	5		8	7		12	11		16	15		.	.	.	.	.	.	.	.
Sequence 16																					
Ring 1		2	1		4	3		10	9		14	13		.	.	.	.	.	.	.	.
Ring 2		6	5		8	7		12	11		16	15		.	.	.	.	.	.	.	.

Phases In Use/Exclusive Ped (MM) 1-2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phases In Use	X	X				X		X								
Exclusive Ped																

Phase Compatibility (MM)**1-1-2**

Phase	
n/a	Barrier Mode

Phase and Overlap Descriptions

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Approach	N	S	E	W	S	N	W	E	N	N	N	N	N	N	N	N
Movement	L	T	L	T	L	T	L	T								
Associated PED																
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Approach	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Movement																

Administration (MM) 1-7-1

Enable Controller/Cabinet	No
Interlock CRC	
CRC (16 bit)	44E9
Enable Automatic Backup to Datakey	No

Backup Prevent (MM) 1-1-3

Phases		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Timing Phases	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	6	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	7	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	8	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	10	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	13	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	14	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Simultaneous Gap (MM) 1-1-4

Phases		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase Must Gap With Phase Disable	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	2	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.
	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	6	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	7	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	8	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	10	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	13	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	14	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Disable	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Load Switch Assignments (MM) 1-3

	Phase / Overlap	Type	Dimming				Power Up	Auto		Flash Together
			Red	Yellow	Green	Dark		Red	Yellow	
1	1	V				-	Auto	X		
2	2	V				-	Auto	X		X
3	3	V				-	Auto	X		
4	4	V				-	Auto	X		X
5	5	V				+	Auto	X		
6	6	V				+	Auto	X		X
7	7	V				+	Auto	X		
8	8	V				+	Auto	X		X
9	2	P				-	Auto			

10	4	P				-	Auto			
11	6	P				+	Auto			
12	8	P				+	Auto			
13	1	O				-	Auto	X		
14	2	O				+	Auto	X		X
15	3	O				-	Auto	X		
16	4	O				+	Auto	X		X

Castle Rock, CO



MOVING TRAFFIC FORWARD

091 - Ridge Road @ 750 N Ridge Rd - Cobalt @ 10.50.70.55 - Econolite Type - Cobalt

Controller Timing Plan (MM) 2-1

Plan 1 - ""

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Min Green	5	12	0	0	0	12	0	7	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	7	0	0	0	0	0	0	0	10	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	15	0	0	0	0	0	0	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	1.0	2.0	0.0	0.0	0.0	2.0	0.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	8	35	0	0	0	35	0	15	35	35	35	35	35	35	35	35
Max2	7	12	0	0	0	12	0	7	40	40	40	40	40	40	40	40
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	4.3	0.0	0.0	0.0	4.7	0.0	3.0	3.0	4.3	0.0	0.0	0.0	4.7	0.0	3.0
Red Clear	1.9	1.0	0.0	0.0	0.0	1.0	0.0	2.3	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	7	12	0	0	0	12	0	7	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	2.0	2.0	0.0	0.0	0.0	2.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Castle Rock, CO



MOVING TRAFFIC FORWARD

091 - Ridge Road @ 750 N Ridge Rd - Cobalt @ 10.50.70.55 - Econolite Type - Cobalt

Controller Overlaps

Vehicle Overlaps (MM) 2-2

Overlap	Type	Lag Green	Yellow	Red	Adv. Green
---------	------	-----------	--------	-----	------------

Phases

Overlap	Phase	Included	Protect	Ped Protect	Not Overlap	Modifier	Lag X Phases	Lag 2 Phases	Flash Green
---------	-------	----------	---------	-------------	-------------	----------	--------------	--------------	-------------

PPLT FYA

Overlap	Protected Phase (Left Turn)	Permissive Phase (Opposing Thru)	Flashing Arrow Output	Flashing Arrow Output CH	Delay Start of FYA	Delay Start of Clearance	Action Plan SF Bit Disable	Ped Protected Enable
A	1	2	Yellow Ped	9	0.0	0.0	0	No

Guaranteed Minimum Time Data (MM) 2-4

Phase	Min Green	Walk	Ped Clear	Yellow	Red Clear	Overlap Green
A01	5	0	7	3.0	0.0	5
B02	5	0	7	3.0	0.0	5
C03	5	0	7	3.0	0.0	5
D04	5	0	7	3.0	0.0	5
E05	5	0	7	3.0	0.0	5
F06	5	0	7	3.0	0.0	5
G07	5	0	7	3.0	0.0	5
H08	5	0	7	3.0	0.0	5
I09	5	0	7	3.0	0.0	5
J10	5	0	7	3.0	0.0	5
K11	5	0	7	3.0	0.0	5
L12	5	0	7	3.0	0.0	5
M13	5	0	7	3.0	0.0	5
N14	5	0	7	3.0	0.0	5
O15	5	0	7	3.0	0.0	5
P16	5	0	7	3.0	0.0	5

Castle Rock, CO



MOVING TRAFFIC FORWARD

091 - Ridge Road @ 750 N Ridge Rd - Cobalt @ 10.50.70.55 - Econolite Type - Cobalt

Coordination Options**Options (MM) 3-1**

Manual Pattern	Auto	ECPI Coord	Yes
System Source	SYS	System Format	PTN
Splits In	Seconds	Offsets In	Seconds
Transition	Dwell	Max Select	MAXINH
Dwell / Add Time	0		
Delay Coord Wk-LZ	No	Force Off	Float
Offset Reference	Lead	Use Ped Time	Yes
Ped Recall	No	Ped Reservice	No
Local Zero Override	No	FO Added Ini Green	No
Re-sync Count	0	Multisync	No

Auto Perm Minimum Green (Seconds) (MM) 3-4

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Minimum Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Split Demand (MM) 3-5

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Demand 1																
Demand 2																

Demand	1	2
Detector	0	0
Call Time (Sec)	0	0
Cycle Count	0	0

Castle Rock, CO



MOVING TRAFFIC FORWARD

091 - Ridge Road @ 750 N Ridge Rd - Cobalt @ 10.50.70.55 - Econolite Type - Cobalt

Coordination Pattern Data**Coordinator Pattern Data (MM) 3-2**

Castle Rock, CO



MOVING TRAFFIC FORWARD

091 - Ridge Road @ 750 N Ridge Rd - Cobalt @ 10.50.70.55 - Econolite Type - Cobalt

Coordination Split Pattern
Split Pattern Data (MM) 3-3

Castle Rock, CO



MOVING TRAFFIC FORWARD

091 - Ridge Road @ 750 N Ridge Rd - Cobalt @ 10.50.70.55 - Econolite Type - Cobalt

Time Base Clock/Calendar**Clock/Calendar Data (MM) 5-1**

Manual Action Plan: 0
SYNC Reference Time: 00:00
SYNC Reference: Reference Time
Day Light Savings: USDLS
Time Reset Input Set Time: 3:30:00
Standard Time From GMT: 0

Castle Rock, CO



MOVING TRAFFIC FORWARD

091 - Ridge Road @ 750 N Ridge Rd - Cobalt @ 10.50.70.55 - Econolite Type - Cobalt

Time Base Action Plan
Action Plan (MM) 5-2
Action Plan - 1 - "1"

Pattern	Auto	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 20 - "20"

Pattern	Free	Override Sys	No
Timing Plan	1	Sequence	0
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 21 - "21"

Pattern	Free	Override Sys	No
Timing Plan	1	Sequence	0
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2	X	X				X		X								
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																

Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Castle Rock, CO



MOVING TRAFFIC FORWARD

091 - Ridge Road @ 750 N Ridge Rd - Cobalt @ 10.50.70.55 - Econolite Type - Cobalt

Time Base Day Plan/Schedule
Day Plan (MM) 5-3

Day Plan #1 - "1"

Event	Action Plan	Start Time
1	21	23:59
2	20	05:30

Schedule (MM) 5-4

Castle Rock, CO



MOVING TRAFFIC FORWARD

091 - Ridge Road @ 750 N Ridge Rd - Cobalt @ 10.50.70.55 - Econolite Type - Cobalt

Time Base Exceptions**Exception Day Program (MM) 5-5**

Excep Day	Float/Fixed	Mon/Mon	DOW/DOM	WOM/Year	Day Plan
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APPENDIX B

Level of Service Definitions

The following information is referenced from the Highway Capacity Manual: A Guide for Multimodal Mobility Analysis, 6th Edition, Transportation Research Board, 2016: Chapter 19 – Signalized Intersections.

Motorized Vehicle Level of Service (LOS) for Signalized Intersections

Levels of service are defined to represent reasonable ranges in control delay.

LOS A Describes operations with a control delay of 10 s/veh or less and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is exceptionally favorable or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.

LOS B Describes operations with control delay between 10 and 20 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.

LOS C Describes operations with control delay between 20 and 35 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when progression is favorable or the cycle length is moderate. Individual *cycle failures* (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.

LOS D Describes operations with control delay between 35 and 55 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.

LOS E Describes operations with control delay between 55 and 80 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.

LOS F Describes operations with control delay exceeding 80 s/veh or a volume-to-capacity ratio greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.

Control Delay (s/veh)	LOS by Volume-to-Capacity Ratio ^a	
	$v/c \leq 1.0$	$v/c > 1.0$
≤ 10	A	F
$> 10 - 20$	B	F
$> 20 - 35$	C	F
$> 35 - 55$	D	F
$> 55 - 80$	E	F
> 80	F	F

Note: ^a For approach-based and intersectionwide assessments, LOS is defined solely by control delay.

The following information is referenced from the Highway Capacity Manual: A Guide for Multimodal Mobility Analysis, 6th Edition, Transportation Research Board, 2016: Chapter 20 – Two-Way Stop-Controlled Intersections, Chapter 21 – All-Way Stop-Controlled Intersections, and Chapter 22 - Roundabouts.

Motorized Vehicle Level of Service (LOS) for Unsignalized & Roundabout Intersections

LOS is a quantitative stratification of performance measure(s) representing quality of service. Quality of service describes how well a transportation facility or service operates from a traveler's perspective. LOS is measured on an A – F scale, with LOS A representing the best operating conditions from a traveler's perspective.

Control Delay (s/veh)	<u>LOS by Volume-to-Capacity Ratio^a</u>	
	$v/c \leq 1.0$	$v/c > 1.0$
0 – 10	A	F
> 10 – 15	B	F
> 15 – 25	C	F
> 25 – 35	D	F
> 35 – 50	E	F
> 50	F	F

Note: The LOS criteria apply to each lane on a given approach and to each approach on the minor street. LOS is not calculated for major-street approaches or for the intersection as a whole.

^a For approaches and intersectionwide assessment, LOS is defined solely by control delay.

APPENDIX C

Internal Capture Worksheets

NCHRP 684 Internal Trip Capture Estimation Tool					
Project Name:	895 Ridge Road Commercial		Organization:	SM ROCHA LLC	
Project Location:	SWC N Ridge Road & Fifth Street		Performed By:	ZT	
Scenario Description:	Build-Out		Date:	7/8/2024	
Analysis Year:	Year 2026		Checked By:		
Analysis Period:	AM Street Peak Hour		Date:		

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips ³		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office	710,720	20	KSF	46	37	9
Retail	822	30	KSF	70	42	28
Restaurant				0		
Cinema/Entertainment				0		
Residential				0		
Hotel				0		
All Other Land Uses ²				0		
				116	79	37

Table 2-A: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. ⁴	% Transit	% Non-Motorized	Veh. Occ. ⁴	% Transit	% Non-Motorized
Office	1.06	0%	0%	1.06	0%	0%
Retail	1.17	0%	0%	1.16	0%	0%
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses ²						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		3	0	0	0	0
Retail	2		0	0	0	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	0	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	130	88	42
Internal Capture Percentage	8%	6%	12%
External Vehicle-Trips ⁵	107	74	33
External Transit-Trips ⁶	0	0	0
External Non-Motorized Trips ⁶	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	5%	30%
Retail	6%	6%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	N/A	N/A
Hotel	N/A	N/A

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

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

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

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

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

⁶Person-Trips

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

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

Project Name:	895 Ridge Road Commercial
Analysis Period:	AM Street Peak Hour

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends						
Land Use	Table 7-A (D): Entering Trips				Table 7-A (O): Exiting Trips	
	Veh. Occ.	Vehicle-Trips	Person-Trips*		Veh. Occ.	Person-Trips*
Office	1.06	37	39		1.06	10
Retail	1.17	42	49		1.16	32
Restaurant	1.00	0	0		1.00	0
Cinema/Entertainment	1.00	0	0		1.00	0
Residential	1.00	0	0		1.00	0
Hotel	1.00	0	0		1.00	0

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		3	6	0	0	0
Retail	9		4	0	4	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	0	0		0
Hotel	0	0	0	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		16	0	0	0	0
Retail	2		0	0	0	0
Restaurant	5	4		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	1	8	0	0		0
Hotel	1	2	0	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)						
Destination Land Use	Person-Trip Estimates				External Trips by Mode*	
	Internal	External	Total		Vehicles ¹	Non-Motorized ²
Office	2	37	39		35	0
Retail	3	46	49		39	0
Restaurant	0	0	0		0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	0		0	0
Hotel	0	0	0		0	0
All Other Land Uses ³	0	0	0		0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)						
Origin Land Use	Person-Trip Estimates				External Trips by Mode*	
	Internal	External	Total		Vehicles ¹	Non-Motorized ²
Office	3	7	10		7	0
Retail	2	30	32		26	0
Restaurant	0	0	0		0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	0		0	0
Hotel	0	0	0		0	0
All Other Land Uses ³	0	0	0		0	0

¹ Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A
² Person-Trips
³ Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator
*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool					
Project Name:	895 Ridge Road Commercial		Organization:	SM ROCHA LLC	
Project Location:	SWC N Ridge Road & Fifth Street		Performed By:	ZT	
Scenario Description:	Build-Out		Date:	7/8/2024	
Analysis Year:	Year 2026		Checked By:		
Analysis Period:	PM Street Peak Hour		Date:		

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips ³		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office	710, 720	20	KSF	54	14	40
Retail	822	30	KSF	198	99	99
Restaurant				0		
Cinema/Entertainment				0		
Residential				0		
Hotel				0		
All Other Land Uses ²				0		
				252	113	139

Table 2-P: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. ⁴	% Transit	% Non-Motorized	Veh. Occ. ⁴	% Transit	% Non-Motorized
Office	1.11	0%	0%	1.07	0%	0%
Retail	1.21	0%	0%	1.18	0%	0%
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses ²						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		9	0	0	0	0
Retail	2		0	0	0	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	0	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	296	136	160
Internal Capture Percentage	7%	8%	7%
External Vehicle-Trips ⁵	234	105	129
External Transit-Trips ⁶	0	0	0
External Non-Motorized Trips ⁶	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	13%	21%
Retail	8%	2%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	N/A	N/A
Hotel	N/A	N/A

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

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

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

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

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

⁶Person-Trips

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

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

Project Name:	895 Ridge Road Commercial
Analysis Period:	PM Street Peak Hour

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends						
Land Use	Table 7-P (D): Entering Trips				Table 7-P (O): Exiting Trips	
	Veh. Occ.	Vehicle-Trips	Person-Trips*		Veh. Occ.	Person-Trips*
Office	1.11	14	16		1.07	43
Retail	1.21	99	120		1.18	117
Restaurant	1.00	0	0		1.00	0
Cinema/Entertainment	1.00	0	0		1.00	0
Residential	1.00	0	0		1.00	0
Hotel	1.00	0	0		1.00	0

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		9	2	0	1	0
Retail	2		34	5	30	6
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	0	0		0
Hotel	0	0	0	0	0	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		10	0	0	0	0
Retail	5		0	0	0	0
Restaurant	5	60		0	0	0
Cinema/Entertainment	1	5	0		0	0
Residential	9	12	0	0		0
Hotel	0	2	0	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)						
Destination Land Use	Person-Trip Estimates				External Trips by Mode*	
	Internal	External	Total		Vehicles ¹	Non-Motorized ²
Office	2	14	16		13	0
Retail	9	111	120		92	0
Restaurant	0	0	0		0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	0		0	0
Hotel	0	0	0		0	0
All Other Land Uses ³	0	0	0		0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)						
Origin Land Use	Person-Trip Estimates				External Trips by Mode*	
	Internal	External	Total		Vehicles ¹	Non-Motorized ²
Office	9	34	43		32	0
Retail	2	115	117		97	0
Restaurant	0	0	0		0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	0		0	0
Hotel	0	0	0		0	0
All Other Land Uses ³	0	0	0		0	0

¹ Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P
² Person-Trips
³ Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator
*Indicates computation that has been rounded to the nearest whole number.

APPENDIX D

Capacity Worksheets

Timings

Existing Traffic Volumes

1: N Ridge Road/Founders Parkway & Fifth Street/State Highway 86

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	73	154	100	52	362	3	234	385	36	121	145	14
Future Volume (vph)	73	154	100	52	362	3	234	385	36	121	145	14
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.210			0.616			0.588			0.346		
Satd. Flow (perm)	391	1863	1583	1147	1863	1583	1095	1863	1583	645	1863	1583
Satd. Flow (RTOR)			185			185			185			185
Lane Group Flow (vph)	79	167	109	57	393	3	254	418	39	132	158	15
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		Free	2		Free	6		Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	24.0		10.0	24.0		10.0	24.0		10.0	24.0	
Total Split (s)	15.0	40.0		15.0	40.0		15.0	30.0		15.0	30.0	
Total Split (%)	15.0%	40.0%		15.0%	40.0%		15.0%	30.0%		15.0%	30.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		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		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Act Effect Green (s)	34.7	27.4	100.0	32.7	26.4	100.0	49.9	38.1	100.0	44.6	35.4	100.0
Actuated g/C Ratio	0.35	0.27	1.00	0.33	0.26	1.00	0.50	0.38	1.00	0.45	0.35	1.00
v/c Ratio	0.31	0.32	0.06	0.13	0.79	0.00	0.40	0.58	0.02	0.33	0.23	0.00
Control Delay (s/veh)	20.3	29.2	0.0	17.0	46.3	0.0	18.7	33.1	0.0	18.2	28.2	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	20.3	29.2	0.0	17.0	46.3	0.0	18.7	33.1	0.0	18.2	28.2	0.0
LOS	C	C	A	B	D	A	B	C	A	B	C	A
Approach Delay (s/veh)		18.3			42.4			26.2			22.5	
Approach LOS		B			D			C			C	
Queue Length 50th (ft)	31	84	0	22	233	0	92	221	0	44	76	0
Queue Length 95th (ft)	51	127	0	40	309	0	172	#434	0	93	141	0
Internal Link Dist (ft)		780			1110			518			814	
Turn Bay Length (ft)	360		415	590		825	230			600		
Base Capacity (vph)	276	652	1583	457	652	1583	634	709	1583	413	659	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.26	0.07	0.12	0.60	0.00	0.40	0.59	0.02	0.32	0.24	0.01

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green, Master Intersection

Natural Cycle: 70

Control Type: Actuated-Coordinated

Timings

Existing Traffic Volumes

1: N Ridge Road/Founders Parkway & Fifth Street/State Highway 86

AM Peak Hour

Maximum v/c Ratio: 0.80

Intersection Signal Delay (s/veh): 28.1

Intersection LOS: C

Intersection Capacity Utilization 66.9%

ICU Level of Service C

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 1: N Ridge Road/Founders Parkway & Fifth Street/State Highway 86

 Ø1 15 s	 Ø2 (R) 30 s	 Ø3 15 s	 Ø4 40 s
 Ø5 15 s	 Ø6 (R) 30 s	 Ø7 15 s	 Ø8 40 s

Timings

2: N Ridge Road & King Soopers Access

Existing Traffic Volumes
AM Peak Hour

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	52	37	576	82	61	228
Future Volume (vph)	52	37	576	82	61	228
Satd. Flow (prot)	1770	1583	3539	1583	1770	3539
Flt Permitted	0.950				0.368	
Satd. Flow (perm)	1770	1583	3539	1583	685	3539
Satd. Flow (RTOR)		40		89		
Lane Group Flow (vph)	57	40	626	89	66	248
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	12.0	12.0	5.0	12.0
Minimum Split (s)	23.3	23.3	35.0	35.0	10.0	35.0
Total Split (s)	25.0	25.0	35.0	35.0	10.0	45.0
Total Split (%)	35.7%	35.7%	50.0%	50.0%	14.3%	64.3%
Yellow Time (s)	3.0	3.0	4.3	4.3	3.0	4.7
All-Red Time (s)	2.3	2.3	1.0	1.0	1.9	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.3	5.3	5.3	4.9	5.7
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effect Green (s)	8.1	8.1	47.9	47.9	54.1	54.5
Actuated g/C Ratio	0.12	0.12	0.68	0.68	0.77	0.78
v/c Ratio	0.27	0.18	0.25	0.08	0.10	0.09
Control Delay (s/veh)	31.3	11.8	6.9	2.3	3.1	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	31.3	11.8	6.9	2.3	3.1	2.8
LOS	C	B	A	A	A	A
Approach Delay (s/veh)	23.3		6.4			2.9
Approach LOS	C		A			A
Queue Length 50th (ft)	23	0	64	0	6	12
Queue Length 95th (ft)	53	25	106	18	16	24
Internal Link Dist (ft)	575		1186			578
Turn Bay Length (ft)	70			180	285	
Base Capacity (vph)	498	474	2421	1111	626	2754
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	0.11	0.08	0.26	0.08	0.11	0.09

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 70

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

Timings

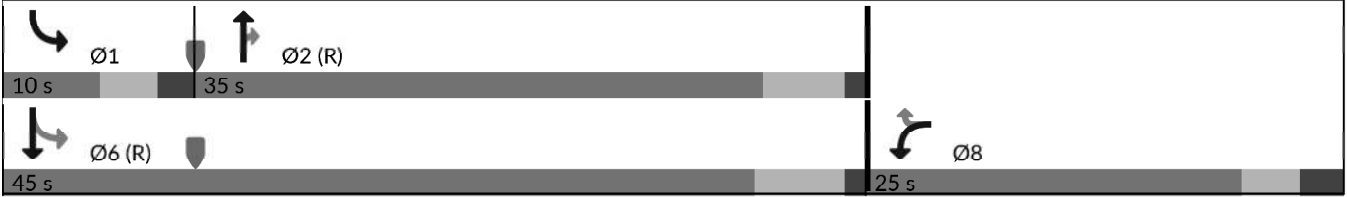
2: N Ridge Road & King Soopers Access

Existing Traffic Volumes

AM Peak Hour

Maximum v/c Ratio: 0.28	
Intersection Signal Delay (s/veh): 6.9	Intersection LOS: A
Intersection Capacity Utilization 38.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: N Ridge Road & King Soopers Access



HCM 6th Roundabout
3: N Ridge Road & Enderud Boulevard

Existing Traffic Volumes
AM Peak Hour

Intersection						
Intersection Delay, s/veh 5.0						
Intersection LOS A						
Approach	WB		NB		SB	
Entry Lanes	2		2		2	
Conflicting Circle Lanes	2		2		2	
Adj Approach Flow, veh/h	97		715		314	
Demand Flow Rate, veh/h	99		730		320	
Vehicles Circulating, veh/h	639		67		58	
Vehicles Exiting, veh/h	158		311		680	
Ped Vol Crossing Leg, #/h	0		0		0	
Ped Cap Adj	1.000		1.000		1.000	
Approach Delay, s/veh	5.4		5.3		4.1	
Approach LOS	A		A		A	
Lane	Left	Right	Left	Right	Left	Right
Designated Moves	L	TR	LT	TR	L	TR
Assumed Moves	L	TR	LT	TR	L	TR
RT Channelized						
Lane Util	0.586	0.414	0.470	0.530	0.209	0.791
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	58	41	343	387	67	253
Cap Entry Lane, veh/h	750	825	1269	1341	1280	1352
Entry HV Adj Factor	0.983	0.976	0.980	0.980	0.985	0.980
Flow Entry, veh/h	57	40	336	379	66	248
Cap Entry, veh/h	737	805	1244	1314	1261	1325
V/C Ratio	0.077	0.050	0.270	0.288	0.052	0.187
Control Delay, s/veh	5.7	5.0	5.3	5.3	3.3	4.3
LOS	A	A	A	A	A	A
95th %tile Queue, veh	0	0	1	1	0	1

HCM 6th Roundabout
4: N Ridge Road & Plum Creek Parkway

Existing Traffic Volumes
AM Peak Hour

Intersection					
Intersection Delay, s/veh 4.7					
Intersection LOS A					
Approach	EB	WB	NB	SB	
Entry Lanes	1	1	1	1	
Conflicting Circle Lanes	1	1	1	1	
Adj Approach Flow, veh/h	260	0	451	323	
Demand Flow Rate, veh/h	265	0	460	330	
Vehicles Circulating, veh/h	90	622	164	214	
Vehicles Exiting, veh/h	214	2	191	408	
Ped Vol Crossing Leg, #/h	0	0	0	0	
Ped Cap Adj	1.000	1.000	1.000	1.000	
Approach Delay, s/veh	4.7	0.0	7.1	1.1	
Approach LOS	A	-	A	A	
Lane	Left	Left	Left	Left	Bypass
Designated Moves	LTR	LTR	LTR	LT	R
Assumed Moves	LTR	LTR	LTR	LT	
RT Channelized					Free
Lane Util	1.000	1.000	1.000	1.000	
Follow-Up Headway, s	2.609	2.609	2.609	2.609	
Critical Headway, s	4.976	4.976	4.976	4.976	
Entry Flow, veh/h	265	0	460	90	240
Cap Entry Lane, veh/h	1259	732	1167	1109	1938
Entry HV Adj Factor	0.981	1.000	0.981	0.981	0.980
Flow Entry, veh/h	260	0	451	88	235
Cap Entry, veh/h	1235	732	1145	1088	1900
V/C Ratio	0.211	0.000	0.394	0.081	0.124
Control Delay, s/veh	4.7	4.9	7.1	4.0	0.0
LOS	A	A	A	A	A
95th %tile Queue, veh	1	0	2	0	0

HCM 6th TWSC
5: N Ridge Road & Aloha Street

Existing Traffic Volumes
AM Peak Hour

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↖	↗		↖↖
Traffic Vol, veh/h	0	36	616	2	0	296
Future Vol, veh/h	0	36	616	2	0	296
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	0	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	39	670	2	0	322

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	670	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.23	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.319	-
Pot Cap-1 Maneuver	0	*593	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %		1	-
Mov Cap-1 Maneuver	-	*593	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	11.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	593
HCM Lane V/C Ratio	-	-	0.066
HCM Control Delay (s/veh)	-	-	11.5
HCM Lane LOS	-	-	B
HCM 95th %tile Q (veh)	-	-	0.2

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th TWSC
6: N Ridge Road & Mountain Sun Drive

Existing Traffic Volumes
AM Peak Hour

Intersection						
Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↗↗	↗	↘	↗↗
Traffic Vol, veh/h	0	64	554	4	22	274
Future Vol, veh/h	0	64	554	4	22	274
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	250	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	70	602	4	24	298
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	301	0	0	606	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	0	695	-	-	968	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	695	-	-	968	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s/v	10.8	0		0.7		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	695	968	-	
HCM Lane V/C Ratio	-	-	0.1	0.025	-	
HCM Control Delay (s/veh)	-	-	10.8	8.8	-	
HCM Lane LOS	-	-	B	A	-	
HCM 95th %tile Q (veh)	-	-	0.3	0.1	-	

Timings

1: N Ridge Road/Founders Parkway & Fifth Street/State Highway 86

Existing Traffic Volumes

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	149	325	353	123	314	14	186	334	47	403	461	11
Future Volume (vph)	149	325	353	123	314	14	186	334	47	403	461	11
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.272			0.252			0.342			0.201		
Satd. Flow (perm)	507	1863	1583	469	1863	1583	637	1863	1583	374	1863	1583
Satd. Flow (RTOR)			384			185			185			185
Lane Group Flow (vph)	162	353	384	134	341	15	202	363	51	438	501	12
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		Free	2		Free	6		Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	24.0		10.0	24.0		10.0	24.0		10.0	24.0	
Total Split (s)	10.0	45.0		10.0	45.0		15.0	30.0		15.0	30.0	
Total Split (%)	10.0%	45.0%		10.0%	45.0%		15.0%	30.0%		15.0%	30.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		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		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Act Effect Green (s)	29.7	24.7	100.0	29.7	24.7	100.0	38.2	25.0	100.0	54.3	37.2	100.0
Actuated g/C Ratio	0.30	0.25	1.00	0.30	0.25	1.00	0.38	0.25	1.00	0.54	0.37	1.00
v/c Ratio	0.76	0.76	0.24	0.66	0.74	0.00	0.51	0.78	0.03	0.78	0.72	0.00
Control Delay (s/veh)	48.1	45.9	0.3	39.3	44.3	0.0	19.3	48.1	0.0	31.9	37.2	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	48.1	45.9	0.3	39.3	44.3	0.0	19.3	48.1	0.0	31.9	37.2	0.0
LOS	D	D	A	D	D	A	B	D	A	C	D	A
Approach Delay (s/veh)		26.9			41.6			34.7			34.3	
Approach LOS		C			D			C			C	
Queue Length 50th (ft)	73	210	0	60	201	0	61	216	0	174	271	0
Queue Length 95th (ft)	#113	279	0	91	269	0	121	#351	0	#446	#556	0
Internal Link Dist (ft)		780			1110			518			814	
Turn Bay Length (ft)	360		415	590		825	230			600		
Base Capacity (vph)	213	745	1583	203	745	1583	397	465	1583	557	692	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.47	0.24	0.66	0.46	0.01	0.51	0.78	0.03	0.79	0.72	0.01

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green, Master Intersection

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.79	
Intersection Signal Delay (s/veh): 33.4	Intersection LOS: C
Intersection Capacity Utilization 81.4%	ICU Level of Service D
Analysis Period (min) 15	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 1: N Ridge Road/Founders Parkway & Fifth Street/State Highway 86

 Ø1 15 s	 Ø2 (R) 30 s	 Ø3 10 s	 Ø4 45 s
 Ø5 15 s	 Ø6 (R) 30 s	 Ø7 10 s	 Ø8 45 s

Timings 2: N Ridge Road & King Soopers Access

Existing Traffic Volumes

PM Peak Hour

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	190	54	432	137	217	721
Future Volume (vph)	190	54	432	137	217	721
Satd. Flow (prot)	1770	1583	3539	1583	1770	3539
Flt Permitted	0.950				0.413	
Satd. Flow (perm)	1770	1583	3539	1583	769	3539
Satd. Flow (RTOR)		59		149		
Lane Group Flow (vph)	207	59	470	149	236	784
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	12.0	12.0	5.0	12.0
Minimum Split (s)	23.3	23.3	35.0	35.0	10.0	35.0
Total Split (s)	25.0	25.0	35.0	35.0	10.0	45.0
Total Split (%)	35.7%	35.7%	50.0%	50.0%	14.3%	64.3%
Yellow Time (s)	3.0	3.0	4.3	4.3	3.0	4.7
All-Red Time (s)	2.3	2.3	1.0	1.0	1.9	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.3	5.3	5.3	4.9	5.7
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effect Green (s)	13.4	13.4	33.3	33.3	46.4	45.6
Actuated g/C Ratio	0.19	0.19	0.48	0.48	0.66	0.65
v/c Ratio	0.61	0.16	0.27	0.17	0.38	0.33
Control Delay (s/veh)	33.2	7.7	12.4	3.1	7.2	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	33.2	7.7	12.4	3.1	7.2	6.5
LOS	C	A	B	A	A	A
Approach Delay (s/veh)	27.6		10.2			6.7
Approach LOS	C		B			A
Queue Length 50th (ft)	82	0	63	0	33	67
Queue Length 95th (ft)	133	25	100	30	75	120
Internal Link Dist (ft)	575		1036			578
Turn Bay Length (ft)	70			180	285	
Base Capacity (vph)	498	487	1682	830	621	2306
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	0.42	0.12	0.28	0.18	0.38	0.34
Intersection Summary						
Cycle Length: 70						
Actuated Cycle Length: 70						
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green						
Natural Cycle: 70						
Control Type: Actuated-Coordinated						

Timings

2: N Ridge Road & King Soopers Access

Existing Traffic Volumes

PM Peak Hour

Maximum v/c Ratio: 0.61

Intersection Signal Delay (s/veh): 10.8

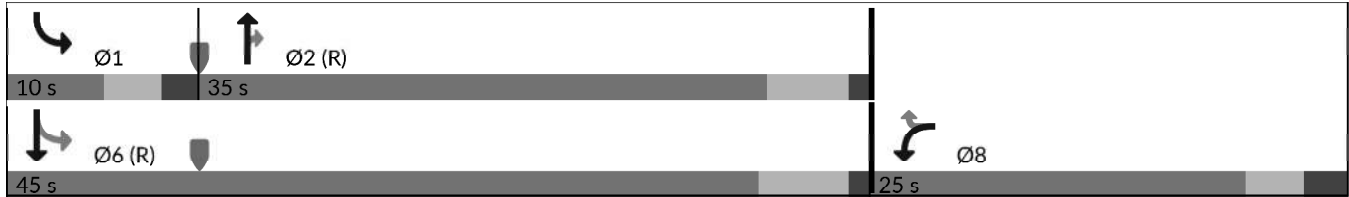
Intersection LOS: B

Intersection Capacity Utilization 47.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 2: N Ridge Road & King Soopers Access



HCM 6th Roundabout
3: N Ridge Road & Enderud Boulevard

Existing Traffic Volumes
PM Peak Hour

Intersection						
Intersection Delay, s/veh 5.7						
Intersection LOS A						
Approach	WB		NB		SB	
Entry Lanes	2		2		2	
Conflicting Circle Lanes	2		2		2	
Adj Approach Flow, veh/h	362		448		796	
Demand Flow Rate, veh/h	370		457		812	
Vehicles Circulating, veh/h	324		320		88	
Vehicles Exiting, veh/h	453		580		606	
Ped Vol Crossing Leg, #/h	0		0		0	
Ped Cap Adj	1.000		1.000		1.000	
Approach Delay, s/veh	5.6		5.6		5.9	
Approach LOS	A		A		A	
Lane	Left	Right	Left	Right	Left	Right
Designated Moves	L	TR	LT	TR	L	TR
Assumed Moves	L	TR	LT	TR	L	TR
RT Channelized						
Lane Util	0.238	0.762	0.470	0.530	0.394	0.606
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	88	282	215	242	320	492
Cap Entry Lane, veh/h	1002	1078	1006	1082	1245	1318
Entry HV Adj Factor	0.977	0.979	0.979	0.980	0.981	0.980
Flow Entry, veh/h	86	276	210	237	314	482
Cap Entry, veh/h	979	1055	984	1061	1222	1292
V/C Ratio	0.088	0.262	0.214	0.224	0.257	0.373
Control Delay, s/veh	4.5	5.9	5.7	5.5	5.2	6.3
LOS	A	A	A	A	A	A
95th %tile Queue, veh	0	1	1	1	1	2

HCM 6th Roundabout
4: N Ridge Road & Plum Creek Parkway

Existing Traffic Volumes
PM Peak Hour

Intersection					
Intersection Delay, s/veh 7.5					
Intersection LOS A					
Approach	EB	WB	NB	SB	
Entry Lanes	1	1	1	1	
Conflicting Circle Lanes	1	1	1	1	
Adj Approach Flow, veh/h	567	0	299	574	
Demand Flow Rate, veh/h	579	0	305	586	
Vehicles Circulating, veh/h	346	598	296	136	
Vehicles Exiting, veh/h	136	3	629	462	
Ped Vol Crossing Leg, #/h	0	0	0	0	
Ped Cap Adj	1.000	1.000	1.000	1.000	
Approach Delay, s/veh	12.2	0.0	6.6	3.4	
Approach LOS	B	-	A	A	
Lane	Left	Left	Left	Left	Bypass
Designated Moves	LTR	LTR	LTR	LT	R
Assumed Moves	LTR	LTR	LTR	LT	
RT Channelized					Free
Lane Util	1.000	1.000	1.000	1.000	
Follow-Up Headway, s	2.609	2.609	2.609	2.609	
Critical Headway, s	4.976	4.976	4.976	4.976	
Entry Flow, veh/h	579	0	305	346	240
Cap Entry Lane, veh/h	970	750	1020	1201	1938
Entry HV Adj Factor	0.979	1.000	0.979	0.981	0.980
Flow Entry, veh/h	567	0	299	339	235
Cap Entry, veh/h	949	750	999	1178	1900
V/C Ratio	0.597	0.000	0.299	0.288	0.124
Control Delay, s/veh	12.2	4.8	6.6	5.7	0.0
LOS	B	A	A	A	A
95th %tile Queue, veh	4	0	1	1	0

HCM 6th TWSC
5: N Ridge Road & Aloha Street

Existing Traffic Volumes
PM Peak Hour

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↗↗	↗		↗↗
Traffic Vol, veh/h	0	75	469	31	0	942
Future Vol, veh/h	0	75	469	31	0	942
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	0	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	82	510	34	0	1024

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	255	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	*899	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %		1	-
Mov Cap-1 Maneuver	-	*899	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9.4	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	899
HCM Lane V/C Ratio	-	-	0.091
HCM Control Delay (s/veh)	-	-	9.4
HCM Lane LOS	-	-	A
HCM 95th %tile Q (veh)	-	-	0.3

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th TWSC
6: N Ridge Road & Mountain Sun Drive

Existing Traffic Volumes
PM Peak Hour

Intersection						
Int Delay, s/veh	0.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↗↗	↗	↘	↗↗
Traffic Vol, veh/h	0	36	425	11	73	869
Future Vol, veh/h	0	36	425	11	73	869
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	250	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	39	462	12	79	945

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	231	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	771	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	-	771	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9.9	0	0.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	771	1084
HCM Lane V/C Ratio	-	-	0.051	0.073
HCM Control Delay (s/veh)	-	-	9.9	8.6
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q (veh)	-	-	0.2	0.2

Timings

Background Traffic Volumes

1: N Ridge Road/Founders Parkway & Fifth Street/State Highway 86

AM Peak Hour - Year 2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	76	160	117	59	376	3	279	400	48	126	174	15
Future Volume (vph)	76	160	117	59	376	3	279	400	48	126	174	15
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.314			0.642			0.950			0.950		
Satd. Flow (perm)	585	3539	1583	1196	3539	1583	3433	3539	1583	3433	3539	1583
Satd. Flow (RTOR)			185			185			185			185
Lane Group Flow (vph)	83	174	127	64	409	3	303	435	52	137	189	16
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	Prot	NA	Free	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		Free			Free			Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	24.0		10.0	24.0		10.0	24.0		10.0	24.0	
Total Split (s)	15.0	40.0		15.0	40.0		15.0	30.0		15.0	30.0	
Total Split (%)	15.0%	40.0%		15.0%	40.0%		15.0%	30.0%		15.0%	30.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		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		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Act Effect Green (s)	24.9	17.5	100.0	23.9	17.0	100.0	14.7	47.3	100.0	9.3	41.9	100.0
Actuated g/C Ratio	0.25	0.18	1.00	0.24	0.17	1.00	0.15	0.47	1.00	0.09	0.42	1.00
v/c Ratio	0.33	0.28	0.08	0.19	0.68	0.00	0.60	0.26	0.03	0.42	0.12	0.01
Control Delay (s/veh)	27.8	36.1	0.1	24.8	44.7	0.0	44.8	18.4	0.0	46.5	21.0	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	27.8	36.1	0.1	24.8	44.7	0.0	44.8	18.4	0.0	46.5	21.0	0.0
LOS	C	D	A	C	D	A	D	B	A	D	C	A
Approach Delay (s/veh)		22.4			41.8			27.4			30.3	
Approach LOS		C			D			C			C	
Queue Length 50th (ft)	38	51	0	29	130	0	93	90	0	43	40	0
Queue Length 95th (ft)	68	78	0	56	172	0	134	144	0	71	73	0
Internal Link Dist (ft)		780			1110			518			814	
Turn Bay Length (ft)	360		415	590		825	230			600		
Base Capacity (vph)	267	1238	1583	355	1238	1583	505	1673	1583	359	1482	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.14	0.08	0.18	0.33	0.00	0.60	0.26	0.03	0.38	0.13	0.01

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection

Natural Cycle: 70

Control Type: Actuated-Coordinated

Timings

Background Traffic Volumes

1: N Ridge Road/Founders Parkway & Fifth Street/State Highway 86

AM Peak Hour - Year 2026

Maximum v/c Ratio: 0.68

Intersection Signal Delay (s/veh): 30.4

Intersection LOS: C

Intersection Capacity Utilization 46.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: N Ridge Road/Founders Parkway & Fifth Street/State Highway 86

 Ø1 15 s	 Ø2 (R) 30 s	 Ø3 15 s	 Ø4 40 s
 Ø5 15 s	 Ø6 (R) 30 s	 Ø7 15 s	 Ø8 40 s

Timings

2: N Ridge Road & King Soopers Access

Background Traffic Volumes

AM Peak Hour - Year 2026

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	54	38	705	85	63	278
Future Volume (vph)	54	38	705	85	63	278
Satd. Flow (prot)	1770	1583	3539	1583	1770	3539
Flt Permitted	0.950				0.307	
Satd. Flow (perm)	1770	1583	3539	1583	572	3539
Satd. Flow (RTOR)		41		92		
Lane Group Flow (vph)	59	41	766	92	68	302
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	12.0	12.0	5.0	12.0
Minimum Split (s)	23.3	23.3	35.0	35.0	10.0	35.0
Total Split (s)	25.0	25.0	35.0	35.0	10.0	45.0
Total Split (%)	35.7%	35.7%	50.0%	50.0%	14.3%	64.3%
Yellow Time (s)	3.0	3.0	4.3	4.3	3.0	4.7
All-Red Time (s)	2.3	2.3	1.0	1.0	1.9	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.3	5.3	5.3	4.9	5.7
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effect Green (s)	8.2	8.2	47.8	47.8	54.1	54.4
Actuated g/C Ratio	0.12	0.12	0.68	0.68	0.77	0.78
v/c Ratio	0.28	0.18	0.31	0.08	0.12	0.10
Control Delay (s/veh)	31.4	11.7	7.3	2.2	3.3	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	31.4	11.7	7.3	2.2	3.3	2.9
LOS	C	B	A	A	A	A
Approach Delay (s/veh)	23.4		6.8			3.0
Approach LOS	C		A			A
Queue Length 50th (ft)	24	0	83	0	6	15
Queue Length 95th (ft)	54	25	135	19	17	29
Internal Link Dist (ft)	575		926			578
Turn Bay Length (ft)	70			180	285	
Base Capacity (vph)	498	474	2415	1109	549	2751
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	0.12	0.09	0.32	0.08	0.12	0.11
Intersection Summary						
Cycle Length: 70						
Actuated Cycle Length: 70						
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green						
Natural Cycle: 70						
Control Type: Actuated-Coordinated						

Timings

2: N Ridge Road & King Soopers Access

Background Traffic Volumes

AM Peak Hour - Year 2026

Maximum v/c Ratio: 0.32

Intersection Signal Delay (s/veh): 7.0

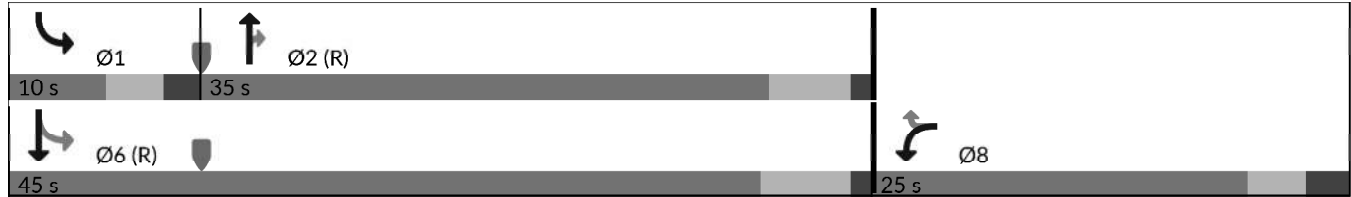
Intersection LOS: A

Intersection Capacity Utilization 42.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 2: N Ridge Road & King Soopers Access



HCM 6th Roundabout
3: N Ridge Road & Enderud Boulevard

Background Traffic Volumes
AM Peak Hour - Year 2026

Intersection							
Intersection Delay, s/veh 5.7							
Intersection LOS A							
Approach	EB	WB		NB		SB	
Entry Lanes	1	2		2		2	
Conflicting Circle Lanes	2	2		2		2	
Adj Approach Flow, veh/h	176	414		450		454	
Demand Flow Rate, veh/h	179	422		459		462	
Vehicles Circulating, veh/h	545	519		246		133	
Vehicles Exiting, veh/h	50	186		478		808	
Ped Vol Crossing Leg, #/h	0	0		0		0	
Ped Cap Adj	1.000	1.000		1.000		1.000	
Approach Delay, s/veh	6.1	7.3		5.2		4.6	
Approach LOS	A	A		A		A	
Lane	Left	Left	Right	Left	Right	Left	Right
Designated Moves	LTR	LT	R	LT	TR	LT	TR
Assumed Moves	LTR	LT	R	LT	TR	LT	TR
RT Channelized							
Lane Util	1.000	0.246	0.754	0.471	0.529	0.470	0.530
Follow-Up Headway, s	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	179	104	318	216	243	217	245
Cap Entry Lane, veh/h	894	837	913	1076	1152	1194	1268
Entry HV Adj Factor	0.983	0.981	0.981	0.979	0.981	0.983	0.982
Flow Entry, veh/h	176	102	312	211	238	213	240
Cap Entry, veh/h	879	821	896	1054	1130	1174	1245
V/C Ratio	0.200	0.124	0.348	0.201	0.211	0.182	0.193
Control Delay, s/veh	6.1	5.6	7.9	5.3	5.1	4.7	4.5
LOS	A	A	A	A	A	A	A
95th %tile Queue, veh	1	0	2	1	1	1	1

HCM 6th Roundabout 4: N Ridge Road & Plum Creek Parkway

Background Traffic Volumes
AM Peak Hour - Year 2026

Intersection					
Intersection Delay, s/veh 4.6					
Intersection LOS A					
Approach	EB	WB	NB	SB	
Entry Lanes	1	1	1	1	
Conflicting Circle Lanes	1	1	1	1	
Adj Approach Flow, veh/h	324	0	465	481	
Demand Flow Rate, veh/h	330	0	474	491	
Vehicles Circulating, veh/h	92	698	226	220	
Vehicles Exiting, veh/h	220	2	196	478	
Ped Vol Crossing Leg, #/h	0	0	0	0	
Ped Cap Adj	1.000	1.000	1.000	1.000	
Approach Delay, s/veh	5.3	0.0	8.0	0.8	
Approach LOS	A	-	A	A	
Lane	Left	Left	Left	Left	Bypass
Designated Moves	LTR	LTR	LTR	LT	R
Assumed Moves	LTR	LTR	LTR	LT	
RT Channelized					Free
Lane Util	1.000	1.000	1.000	1.000	
Follow-Up Headway, s	2.609	2.609	2.609	2.609	
Critical Headway, s	4.976	4.976	4.976	4.976	
Entry Flow, veh/h	330	0	474	92	399
Cap Entry Lane, veh/h	1256	677	1096	1103	1938
Entry HV Adj Factor	0.982	1.000	0.981	0.981	0.980
Flow Entry, veh/h	324	0	465	90	391
Cap Entry, veh/h	1233	677	1075	1081	1900
V/C Ratio	0.263	0.000	0.433	0.083	0.206
Control Delay, s/veh	5.3	5.3	8.0	4.0	0.0
LOS	A	A	A	A	A
95th %tile Queue, veh	1	0	2	0	1

HCM 6th TWSC
5: N Ridge Road & Aloha Street

Background Traffic Volumes
AM Peak Hour - Year 2026

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↗↗	↗		↗↗
Traffic Vol, veh/h	0	37	746	2	0	348
Future Vol, veh/h	0	37	746	2	0	348
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	0	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	40	811	2	0	378
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	406	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	*812	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		1	-	-		-
Mov Cap-1 Maneuver	-	*812	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s/v	9.7		0		0	
HCM LOS	A					
Minor Lane/Major Mvmt	NBT		NBRWBLn1		SBT	
Capacity (veh/h)	-		-		812	
HCM Lane V/C Ratio	-		-		0.05	
HCM Control Delay (s/veh)	-		-		9.7	
HCM Lane LOS	-		-		A	
HCM 95th %tile Q (veh)	-		-		0.2	
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

HCM 6th TWSC
6: N Ridge Road & Mountain Sun Drive

Background Traffic Volumes
AM Peak Hour - Year 2026

Intersection												
Int Delay, s/veh		1.6										
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↰			↰	↰	↰↰	↰	↰	↰↰	↰
Traffic Vol, veh/h	0	0	88	0	0	64	26	684	4	22	302	24
Future Vol, veh/h	0	0	88	0	0	64	26	684	4	22	302	24
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	-	-	0	-	-	0	250	-	250	250	-	250
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	96	0	0	70	28	743	4	24	328	26
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	164	-	-	372	354	0	0	747	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	-	-	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	-	-	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	0	0	*987	0	0	625	1362	-	-	857	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %			1			1	-	-		-	-	
Mov Cap-1 Maneuver	-	-	*987	-	-	625	1362	-	-	857	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v	9		11.5		0.3		0.6					
HCM LOS	A		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1362	-	-	987	625	857	-	-				
HCM Lane V/C Ratio	0.021	-	-	0.097	0.111	0.028	-	-				
HCM Control Delay (s/veh)	7.7	-	-	9	11.5	9.3	-	-				
HCM Lane LOS	A	-	-	A	B	A	-	-				
HCM 95th %tile Q (veh)	0.1	-	-	0.3	0.4	0.1	-	-				
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined				*: All major volume in platoon				

Timings

Background Traffic Volumes

1: N Ridge Road/Founders Parkway & Fifth Street/State Highway 86

PM Peak Hour - Year 2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	155	338	405	140	327	15	218	387	57	419	544	11
Future Volume (vph)	155	338	405	140	327	15	218	387	57	419	544	11
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.377			0.360			0.950			0.950		
Satd. Flow (perm)	702	3539	1583	671	3539	1583	3433	3539	1583	3433	3539	1583
Satd. Flow (RTOR)			440			185			185			185
Lane Group Flow (vph)	168	367	440	152	355	16	237	421	62	455	591	12
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	Prot	NA	Free	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		Free			Free			Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	24.0		10.0	24.0		10.0	24.0		10.0	24.0	
Total Split (s)	10.0	45.0		10.0	45.0		15.0	30.0		15.0	30.0	
Total Split (%)	10.0%	45.0%		10.0%	45.0%		15.0%	30.0%		15.0%	30.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		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		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Act Effect Green (s)	20.8	15.8	100.0	20.8	15.8	100.0	12.2	34.7	100.0	24.4	47.0	100.0
Actuated g/C Ratio	0.21	0.16	1.00	0.21	0.16	1.00	0.12	0.35	1.00	0.24	0.47	1.00
v/c Ratio	0.84	0.65	0.27	0.78	0.63	0.01	0.56	0.34	0.03	0.54	0.35	0.00
Control Delay (s/veh)	67.4	44.9	0.4	59.5	44.3	0.0	46.5	25.2	0.0	36.5	18.6	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	67.4	44.9	0.4	59.5	44.3	0.0	46.5	25.2	0.0	36.5	18.6	0.0
LOS	E	D	A	E	D	A	D	C	A	D	B	A
Approach Delay (s/veh)		28.8			47.4			30.0			26.1	
Approach LOS		C			D			C			C	
Queue Length 50th (ft)	88	116	0	79	112	0	74	100	0	134	122	0
Queue Length 95th (ft)	#166	157	0	#145	152	0	109	150	0	186	188	0
Internal Link Dist (ft)		780			1110			518			814	
Turn Bay Length (ft)	360		415	590		825	230			600		
Base Capacity (vph)	199	1415	1583	194	1415	1583	426	1228	1583	838	1661	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.84	0.26	0.28	0.78	0.25	0.01	0.56	0.34	0.04	0.54	0.36	0.01

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection

Natural Cycle: 70

Control Type: Actuated-Coordinated

Timings

Background Traffic Volumes

1: N Ridge Road/Founders Parkway & Fifth Street/State Highway 86

PM Peak Hour - Year 2026

Maximum v/c Ratio: 0.84

Intersection Signal Delay (s/veh): 31.2

Intersection LOS: C

Intersection Capacity Utilization 56.9%

ICU Level of Service B

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 1: N Ridge Road/Founders Parkway & Fifth Street/State Highway 86

 Ø1	 Ø2 (R)	 Ø3	 Ø4
15 s	30 s	10 s	45 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
15 s	30 s	10 s	45 s

Timings

2: N Ridge Road & King Soopers Access

Background Traffic Volumes

PM Peak Hour - Year 2026

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	196	56	523	141	224	806
Future Volume (vph)	196	56	523	141	224	806
Satd. Flow (prot)	1770	1583	3539	1583	1770	3539
Flt Permitted	0.950				0.358	
Satd. Flow (perm)	1770	1583	3539	1583	667	3539
Satd. Flow (RTOR)		61		153		
Lane Group Flow (vph)	213	61	568	153	243	876
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	12.0	12.0	5.0	12.0
Minimum Split (s)	23.3	23.3	35.0	35.0	10.0	35.0
Total Split (s)	25.0	25.0	35.0	35.0	10.0	45.0
Total Split (%)	35.7%	35.7%	50.0%	50.0%	14.3%	64.3%
Yellow Time (s)	3.0	3.0	4.3	4.3	3.0	4.7
All-Red Time (s)	2.3	2.3	1.0	1.0	1.9	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.3	5.3	5.3	4.9	5.7
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effect Green (s)	13.6	13.6	33.1	33.1	46.2	45.4
Actuated g/C Ratio	0.19	0.19	0.47	0.47	0.66	0.65
v/c Ratio	0.62	0.17	0.33	0.18	0.43	0.38
Control Delay (s/veh)	33.2	7.5	13.0	3.0	8.1	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	33.2	7.5	13.0	3.0	8.1	6.9
LOS	C	A	B	A	A	A
Approach Delay (s/veh)	27.6		11.0			7.2
Approach LOS	C		B			A
Queue Length 50th (ft)	85	0	80	0	35	79
Queue Length 95th (ft)	136	26	122	30	78	138
Internal Link Dist (ft)	575		996			578
Turn Bay Length (ft)	70			180	285	
Base Capacity (vph)	498	489	1673	829	563	2295
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	0.43	0.12	0.34	0.18	0.43	0.38
Intersection Summary						
Cycle Length: 70						
Actuated Cycle Length: 70						
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green						
Natural Cycle: 70						
Control Type: Actuated-Coordinated						

Timings

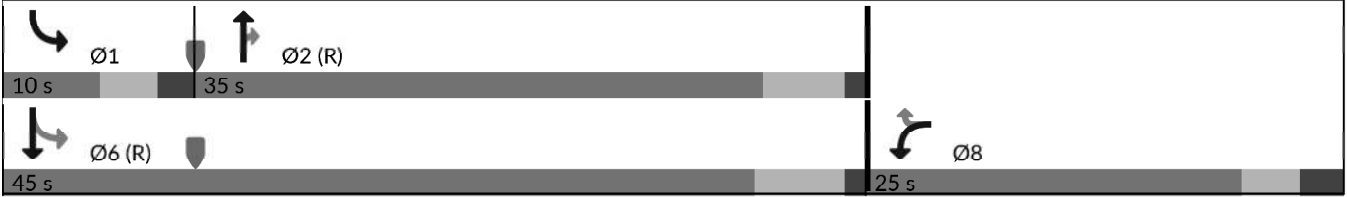
2: N Ridge Road & King Soopers Access

Background Traffic Volumes

PM Peak Hour - Year 2026

Maximum v/c Ratio: 0.62	
Intersection Signal Delay (s/veh): 11.1	Intersection LOS: B
Intersection Capacity Utilization 50.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: N Ridge Road & King Soopers Access



HCM 6th Roundabout
3: N Ridge Road & Enderud Boulevard

Background Traffic Volumes
PM Peak Hour - Year 2026

Intersection							
Intersection Delay, s/veh 7.4							
Intersection LOS A							
Approach	EB	WB		NB		SB	
Entry Lanes	1	2		2		2	
Conflicting Circle Lanes	2	2		2		2	
Adj Approach Flow, veh/h	123	373		628		944	
Demand Flow Rate, veh/h	126	381		641		962	
Vehicles Circulating, veh/h	992	590		417		175	
Vehicles Exiting, veh/h	145	468		701		796	
Ped Vol Crossing Leg, #/h	0	0		0		0	
Ped Cap Adj	1.000	1.000		1.000		1.000	
Approach Delay, s/veh	8.6	7.6		7.4		7.2	
Approach LOS	A	A		A		A	
Lane	Left	Left	Right	Left	Right	Left	Right
Designated Moves	LTR	LT	R	LT	TR	LT	TR
Assumed Moves	LTR	LT	R	LT	TR	LT	TR
RT Channelized							
Lane Util	1.000	0.236	0.764	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	126	90	291	301	340	452	510
Cap Entry Lane, veh/h	611	784	860	920	996	1149	1224
Entry HV Adj Factor	0.976	0.978	0.979	0.980	0.979	0.981	0.981
Flow Entry, veh/h	123	88	285	295	333	444	500
Cap Entry, veh/h	596	767	842	902	975	1128	1200
V/C Ratio	0.206	0.115	0.338	0.327	0.341	0.393	0.417
Control Delay, s/veh	8.6	5.9	8.1	7.6	7.3	7.2	7.2
LOS	A	A	A	A	A	A	A
95th %tile Queue, veh	1	0	2	1	2	2	2

HCM 6th Roundabout

4: N Ridge Road & Plum Creek Parkway

Background Traffic Volumes
PM Peak Hour - Year 2026

Intersection					
Intersection Delay, s/veh 11.6					
Intersection LOS B					
Approach	EB	WB	NB	SB	
Entry Lanes	1	1	1	1	
Conflicting Circle Lanes	1	1	1	1	
Adj Approach Flow, veh/h	749	0	309	694	
Demand Flow Rate, veh/h	764	0	315	708	
Vehicles Circulating, veh/h	356	784	472	140	
Vehicles Exiting, veh/h	140	3	648	644	
Ped Vol Crossing Leg, #/h	0	0	0	0	
Ped Cap Adj	1.000	1.000	1.000	1.000	
Approach Delay, s/veh	20.9	0.0	8.7	2.9	
Approach LOS	C	-	A	A	
Lane	Left	Left	Left	Left	Bypass
Designated Moves	LTR	LTR	LTR	LT	R
Assumed Moves	LTR	LTR	LTR	LT	
RT Channelized					Free
Lane Util	1.000	1.000	1.000	1.000	
Follow-Up Headway, s	2.609	2.609	2.609	2.609	
Critical Headway, s	4.976	4.976	4.976	4.976	
Entry Flow, veh/h	764	0	315	356	352
Cap Entry Lane, veh/h	960	620	853	1196	1938
Entry HV Adj Factor	0.980	1.000	0.980	0.981	0.980
Flow Entry, veh/h	749	0	309	349	345
Cap Entry, veh/h	941	620	835	1173	1900
V/C Ratio	0.796	0.000	0.369	0.298	0.182
Control Delay, s/veh	20.9	5.8	8.7	5.9	0.0
LOS	C	A	A	A	A
95th %tile Queue, veh	9	0	2	1	1

HCM 6th TWSC
5: N Ridge Road & Aloha Street

Background Traffic Volumes
PM Peak Hour - Year 2026

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↗↗	↗		↗↗
Traffic Vol, veh/h	0	77	561	32	0	1093
Future Vol, veh/h	0	77	561	32	0	1093
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	0	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	84	610	35	0	1188
Major/Minor	Minor1		Major1	Major2		
Conflicting Flow All	-	305	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	*856	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		1	-	-		-
Mov Cap-1 Maneuver	-	*856	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB		NB	SB		
HCM Control Delay, s/v	9.7		0	0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT		NBRWBLn1	SBT		
Capacity (veh/h)	-		- 856	-		
HCM Lane V/C Ratio	-		- 0.098	-		
HCM Control Delay (s/veh)	-		- 9.7	-		
HCM Lane LOS	-		- A	-		
HCM 95th %tile Q (veh)	-		- 0.3	-		
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

HCM 6th TWSC
6: N Ridge Road & Mountain Sun Drive

Background Traffic Volumes
PM Peak Hour - Year 2026

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↱			↱	↱	↱↱	↱	↱	↱↱	↱
Traffic Vol, veh/h	0	0	60	0	0	36	75	565	11	73	951	69
Future Vol, veh/h	0	0	60	0	0	36	75	565	11	73	951	69
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	-	-	0	-	-	0	250	-	250	250	-	250
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	65	0	0	39	82	614	12	79	1034	75

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	517	-	-	307	1109	0	0	626	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	-	-	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	-	-	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	0	0	*724	0	0	689	938	-	-	952	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %			1			1		-	-		-	-
Mov Cap-1 Maneuver	-	-	*724	-	-	689	938	-	-	952	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	10.5	10.5	1.1	0.6
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	938	-	-	724	689	952	-	-
HCM Lane V/C Ratio	0.087	-	-	0.09	0.057	0.083	-	-
HCM Control Delay (s/veh)	9.2	-	-	10.5	10.5	9.1	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q (veh)	0.3	-	-	0.3	0.2	0.3	-	-

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Timings

Background Traffic Volumes

1: N Ridge Road/Founders Parkway & Fifth Street/State Highway 86

AM Peak Hour - Year 2044

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	231	144	78	543	5	366	602	61	182	227	21
Future Volume (vph)	110	231	144	78	543	5	366	602	61	182	227	21
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.171			0.596			0.950			0.950		
Satd. Flow (perm)	319	3539	1583	1110	3539	1583	3433	3539	1583	3433	3539	1583
Satd. Flow (RTOR)			240			240			240			240
Lane Group Flow (vph)	120	251	157	85	590	5	398	654	66	198	247	23
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	Prot	NA	Free	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		Free			Free			Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	24.0		10.0	24.0		10.0	24.0		10.0	24.0	
Total Split (s)	20.0	27.0		17.0	24.0		18.0	28.0		28.0	38.0	
Total Split (%)	20.0%	27.0%		17.0%	24.0%		18.0%	28.0%		28.0%	38.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		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		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Act Effect Green (s)	34.2	24.8	100.0	28.9	20.3	100.0	13.9	37.7	100.0	11.1	35.0	100.0
Actuated g/C Ratio	0.34	0.25	1.00	0.29	0.20	1.00	0.14	0.38	1.00	0.11	0.35	1.00
v/c Ratio	0.45	0.28	0.09	0.22	0.82	0.00	0.83	0.49	0.04	0.51	0.19	0.01
Control Delay (s/veh)	26.6	32.1	0.1	22.2	48.8	0.0	59.0	26.5	0.0	46.5	23.9	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	26.6	32.1	0.1	22.2	48.8	0.0	59.0	26.5	0.0	46.5	23.9	0.0
LOS	C	C	A	C	D	A	E	C	A	D	C	A
Approach Delay (s/veh)		21.4			45.2			36.5			32.3	
Approach LOS		C			D			D			C	
Queue Length 50th (ft)	50	68	0	35	185	0	129	171	0	62	59	0
Queue Length 95th (ft)	88	106	0	66	#281	0	#214	241	0	94	90	0
Internal Link Dist (ft)		780			1110			518			814	
Turn Bay Length (ft)	360		415	590		825	230			600		
Base Capacity (vph)	332	876	1583	437	728	1583	475	1334	1583	789	1237	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.29	0.10	0.19	0.81	0.00	0.84	0.49	0.04	0.25	0.20	0.01

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.84	
Intersection Signal Delay (s/veh): 35.1	Intersection LOS: D
Intersection Capacity Utilization 59.6%	ICU Level of Service B
Analysis Period (min) 15	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 1: N Ridge Road/Founders Parkway & Fifth Street/State Highway 86

 Ø1 28 s	 Ø2 (R) 28 s	 Ø3 17 s	 Ø4 27 s
 Ø5 18 s	 Ø6 38 s	 Ø7 20 s	 Ø8 24 s

Timings

2: N Ridge Road & King Soopers Access

Background Traffic Volumes
AM Peak Hour - Year 2044

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	73	52	918	115	85	362
Future Volume (vph)	73	52	918	115	85	362
Satd. Flow (prot)	1770	1583	3539	1583	1770	3539
Flt Permitted	0.950				0.217	
Satd. Flow (perm)	1770	1583	3539	1583	404	3539
Satd. Flow (RTOR)		57		125		
Lane Group Flow (vph)	79	57	998	125	92	393
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	12.0	12.0	5.0	12.0
Minimum Split (s)	23.3	23.3	35.0	35.0	10.0	35.0
Total Split (s)	23.3	23.3	35.7	35.7	11.0	46.7
Total Split (%)	33.3%	33.3%	51.0%	51.0%	15.7%	66.7%
Yellow Time (s)	3.0	3.0	4.3	4.3	3.0	4.7
All-Red Time (s)	2.3	2.3	1.0	1.0	1.9	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.3	5.3	5.3	4.9	5.7
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effect Green (s)	8.8	8.8	44.7	44.7	53.5	53.8
Actuated g/C Ratio	0.13	0.13	0.64	0.64	0.76	0.77
v/c Ratio	0.35	0.22	0.44	0.11	0.21	0.14
Control Delay (s/veh)	31.9	10.5	9.8	2.2	4.2	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	31.9	10.5	9.8	2.2	4.2	3.2
LOS	C	B	A	A	A	A
Approach Delay (s/veh)	23.0		9.0			3.4
Approach LOS	C		A			A
Queue Length 50th (ft)	32	0	124	0	9	22
Queue Length 95th (ft)	67	28	201	23	23	40
Internal Link Dist (ft)	575		1046			578
Turn Bay Length (ft)	70			180	285	
Base Capacity (vph)	455	449	2261	1056	439	2720
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	0.17	0.13	0.44	0.12	0.21	0.14

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 70

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

Timings

2: N Ridge Road & King Soopers Access

Background Traffic Volumes

AM Peak Hour - Year 2044

Maximum v/c Ratio: 0.44	
Intersection Signal Delay (s/veh): 8.5	Intersection LOS: A
Intersection Capacity Utilization 48.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: N Ridge Road & King Soopers Access



HCM 6th Roundabout
3: N Ridge Road & Enderud Boulevard

Background Traffic Volumes
AM Peak Hour - Year 2044

Intersection							
Intersection Delay, s/veh 7.4							
Intersection LOS A							
Approach	EB	WB		NB		SB	
Entry Lanes	1	2		2		2	
Conflicting Circle Lanes	2	2		2		2	
Adj Approach Flow, veh/h	176	563		590		575	
Demand Flow Rate, veh/h	179	575		603		586	
Vehicles Circulating, veh/h	706	640		290		170	
Vehicles Exiting, veh/h	50	253		595		1045	
Ped Vol Crossing Leg, #/h	0	0		0		0	
Ped Cap Adj	1.000	1.000		1.000		1.000	
Approach Delay, s/veh	7.2	10.7		6.2		5.3	
Approach LOS	A	B		A		A	
Lane	Left	Left	Right	Left	Right	Left	Right
Designated Moves	LTR	LT	R	LT	TR	LT	TR
Assumed Moves	LTR	LT	R	LT	TR	LT	TR
RT Channelized							
Lane Util	1.000	0.245	0.755	0.469	0.531	0.469	0.531
Follow-Up Headway, s	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	179	141	434	283	320	275	311
Cap Entry Lane, veh/h	779	749	824	1034	1110	1154	1229
Entry HV Adj Factor	0.983	0.979	0.979	0.981	0.978	0.983	0.980
Flow Entry, veh/h	176	138	425	278	313	270	305
Cap Entry, veh/h	766	733	807	1014	1085	1135	1205
V/C Ratio	0.230	0.188	0.527	0.274	0.288	0.238	0.253
Control Delay, s/veh	7.2	7.0	11.9	6.3	6.1	5.4	5.3
LOS	A	A	B	A	A	A	A
95th %tile Queue, veh	1	1	3	1	1	1	1

HCM 6th Roundabout

4: N Ridge Road & Plum Creek Parkway

Background Traffic Volumes
AM Peak Hour - Year 2044

Intersection						
Intersection Delay, s/veh 6.3						
Intersection LOS A						
Approach	EB		WB		NB	
Entry Lanes	2		1		1	
Conflicting Circle Lanes	1		1		1	
Adj Approach Flow, veh/h	419		0		631	
Demand Flow Rate, veh/h	428		0		644	
Vehicles Circulating, veh/h	126		928		287	
Vehicles Exiting, veh/h	299		3		267	
Ped Vol Crossing Leg, #/h	0		0		0	
Ped Cap Adj	1.000		1.000		1.000	
Approach Delay, s/veh	4.5		0.0		12.5	
Approach LOS	A		-		B	
Lane	Left	Right	Left	Left	Left	Bypass
Designated Moves	LT	R	LTR	LTR	LT	R
Assumed Moves	LT	R	LTR	LTR	LT	
RT Channelized						Free
Lane Util	0.664	0.336	1.000	1.000	1.000	
Follow-Up Headway, s	2.535	2.535	2.609	2.609	2.609	
Critical Headway, s	4.544	4.544	4.976	4.976	4.976	
Entry Flow, veh/h	284	144	0	644	126	488
Cap Entry Lane, veh/h	1266	1266	536	1030	1017	1938
Entry HV Adj Factor	0.979	0.979	1.000	0.980	0.981	0.980
Flow Entry, veh/h	278	141	0	631	124	478
Cap Entry, veh/h	1240	1240	536	1009	998	1900
V/C Ratio	0.224	0.114	0.000	0.625	0.124	0.252
Control Delay, s/veh	4.9	3.8	6.7	12.5	4.7	0.0
LOS	A	A	A	B	A	A
95th %tile Queue, veh	1	0	0	5	0	1

HCM 6th TWSC
5: N Ridge Road & Aloha Street

Background Traffic Volumes
AM Peak Hour - Year 2044

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↗↗	↗		↗↗
Traffic Vol, veh/h	0	50	974	3	0	457
Future Vol, veh/h	0	50	974	3	0	457
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	0	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	54	1059	3	0	497

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	530	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	*681	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %		1	-
Mov Cap-1 Maneuver	-	*681	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	10.7	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	681
HCM Lane V/C Ratio	-	-	0.08
HCM Control Delay (s/veh)	-	-	10.7
HCM Lane LOS	-	-	B
HCM 95th %tile Q (veh)	-	-	0.3

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th TWSC
6: N Ridge Road & Mountain Sun Drive

Background Traffic Volumes
AM Peak Hour - Year 2044

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↱			↱	↱	↱↱	↱	↱	↱↱	↱
Traffic Vol, veh/h	0	0	88	0	0	64	26	910	4	22	411	24
Future Vol, veh/h	0	0	88	0	0	64	26	910	4	22	411	24
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	-	-	0	-	-	0	250	-	250	250	-	250
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	96	0	0	70	28	989	4	24	447	26

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	224	-	-	495	473	0	0	993	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	-	-	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	-	-	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	0	0	*943	0	0	520	1300	-	-	692	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %			1			1		-	-		-	-
Mov Cap-1 Maneuver	-	-	*943	-	-	520	1300	-	-	692	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	9.2	13	0.2	0.5
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1300	-	-	943	520	692	-	-
HCM Lane V/C Ratio	0.022	-	-	0.101	0.134	0.035	-	-
HCM Control Delay (s/veh)	7.8	-	-	9.2	13	10.4	-	-
HCM Lane LOS	A	-	-	A	B	B	-	-
HCM 95th %tile Q (veh)	0.1	-	-	0.3	0.5	0.1	-	-

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Timings

Background Traffic Volumes

1: N Ridge Road/Founders Parkway & Fifth Street/State Highway 86

PM Peak Hour - Year 2044

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	224	488	535	185	471	21	282	511	75	605	714	17
Future Volume (vph)	224	488	535	185	471	21	282	511	75	605	714	17
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.196			0.275			0.950			0.950		
Satd. Flow (perm)	365	3539	1583	512	3539	1583	3433	3539	1583	3433	3539	1583
Satd. Flow (RTOR)			444			240			240			240
Lane Group Flow (vph)	243	530	582	201	512	23	307	555	82	658	776	18
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	Prot	NA	Free	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		Free			Free			Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	24.0		10.0	24.0		10.0	24.0		10.0	24.0	
Total Split (s)	20.0	27.0		17.0	24.0		18.0	28.0		28.0	38.0	
Total Split (%)	20.0%	27.0%		17.0%	24.0%		18.0%	28.0%		28.0%	38.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		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		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Act Effect Green (s)	34.4	20.4	100.0	29.3	17.9	100.0	12.4	26.1	100.0	22.1	35.8	100.0
Actuated g/C Ratio	0.34	0.20	1.00	0.29	0.18	1.00	0.12	0.26	1.00	0.22	0.36	1.00
v/c Ratio	0.75	0.73	0.36	0.68	0.80	0.01	0.72	0.60	0.05	0.86	0.61	0.01
Control Delay (s/veh)	39.0	43.6	0.6	35.4	50.1	0.0	52.5	36.6	0.0	50.8	29.7	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	39.0	43.6	0.6	35.4	50.1	0.0	52.5	36.6	0.0	50.8	29.7	0.0
LOS	D	D	A	D	D	A	D	D	A	D	C	A
Approach Delay (s/veh)		24.4			44.6			38.6			38.9	
Approach LOS		C			D			D			D	
Queue Length 50th (ft)	108	164	0	87	164	0	97	171	0	206	221	0
Queue Length 95th (ft)	#190	222	0	142	223	0	143	230	0	#292	287	0
Internal Link Dist (ft)		780			1110			518			814	
Turn Bay Length (ft)	360		415	590		825	230			600		
Base Capacity (vph)	339	778	1583	304	672	1583	446	922	1583	789	1266	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.68	0.37	0.66	0.76	0.01	0.69	0.60	0.05	0.83	0.61	0.01

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection

Natural Cycle: 80

Control Type: Actuated-Coordinated

Timings

Background Traffic Volumes

1: N Ridge Road/Founders Parkway & Fifth Street/State Highway 86

PM Peak Hour - Year 2044

Maximum v/c Ratio: 0.87

Intersection Signal Delay (s/veh): 35.4

Intersection LOS: D

Intersection Capacity Utilization 73.5%

ICU Level of Service D

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 1: N Ridge Road/Founders Parkway & Fifth Street/State Highway 86



Timings

2: N Ridge Road & King Soopers Access

Background Traffic Volumes

PM Peak Hour - Year 2044

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	266	76	683	192	304	1132
Future Volume (vph)	266	76	683	192	304	1132
Satd. Flow (prot)	1770	1583	3539	1583	1770	3539
Flt Permitted	0.950				0.268	
Satd. Flow (perm)	1770	1583	3539	1583	499	3539
Satd. Flow (RTOR)		83		209		
Lane Group Flow (vph)	289	83	742	209	330	1230
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	12.0	12.0	5.0	12.0
Minimum Split (s)	23.3	23.3	35.0	35.0	10.0	35.0
Total Split (s)	23.3	23.3	36.7	36.7	10.0	46.7
Total Split (%)	33.3%	33.3%	52.4%	52.4%	14.3%	66.7%
Yellow Time (s)	3.0	3.0	4.3	4.3	3.0	4.7
All-Red Time (s)	2.3	2.3	1.0	1.0	1.9	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.3	5.3	5.3	4.9	5.7
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effect Green (s)	15.4	15.4	32.1	32.1	44.4	43.6
Actuated g/C Ratio	0.22	0.22	0.46	0.46	0.63	0.62
v/c Ratio	0.74	0.20	0.45	0.24	0.74	0.55
Control Delay (s/veh)	37.2	6.8	14.3	2.7	21.9	9.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	37.2	6.8	14.3	2.7	21.9	9.3
LOS	D	A	B	A	C	A
Approach Delay (s/veh)	30.4		11.8			12.0
Approach LOS	C		B			B
Queue Length 50th (ft)	114	0	112	0	58	147
Queue Length 95th (ft)	188	30	156	33	#157	214
Internal Link Dist (ft)	575		976			578
Turn Bay Length (ft)	70			180	285	
Base Capacity (vph)	455	468	1620	838	443	2203
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	0.64	0.18	0.46	0.25	0.74	0.56
Intersection Summary						
Cycle Length: 70						
Actuated Cycle Length: 70						
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green						
Natural Cycle: 70						
Control Type: Actuated-Coordinated						

Timings

2: N Ridge Road & King Soopers Access

Background Traffic Volumes

PM Peak Hour - Year 2044

Maximum v/c Ratio: 0.74	
Intersection Signal Delay (s/veh): 14.3	Intersection LOS: B
Intersection Capacity Utilization 63.4%	ICU Level of Service B
Analysis Period (min) 15	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 2: N Ridge Road & King Soopers Access



HCM 6th Roundabout
3: N Ridge Road & Enderud Boulevard

Background Traffic Volumes
PM Peak Hour - Year 2044

Intersection							
Intersection Delay, s/veh 10.2							
Intersection LOS B							
Approach	EB	WB		NB		SB	
Entry Lanes	1	2		2		2	
Conflicting Circle Lanes	2	2		2		2	
Adj Approach Flow, veh/h	123	508		793		1238	
Demand Flow Rate, veh/h	126	518		810		1263	
Vehicles Circulating, veh/h	1326	710		536		208	
Vehicles Exiting, veh/h	145	636		916		1020	
Ped Vol Crossing Leg, #/h	0	0		0		0	
Ped Cap Adj	1.000	1.000		1.000		1.000	
Approach Delay, s/veh	12.4	10.9		10.3		9.7	
Approach LOS	B	B		B		A	
Lane	Left	Left	Right	Left	Right	Left	Right
Designated Moves	LTR	LT	R	LT	TR	LT	TR
Assumed Moves	LTR	LT	R	LT	TR	LT	TR
RT Channelized							
Lane Util	1.000	0.237	0.763	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	126	123	395	381	429	594	669
Cap Entry Lane, veh/h	460	702	777	824	900	1115	1190
Entry HV Adj Factor	0.976	0.984	0.980	0.979	0.980	0.980	0.981
Flow Entry, veh/h	123	121	387	373	421	582	656
Cap Entry, veh/h	449	691	761	807	883	1092	1167
V/C Ratio	0.274	0.175	0.509	0.462	0.476	0.533	0.562
Control Delay, s/veh	12.4	7.2	12.1	10.5	10.1	9.7	9.8
LOS	B	A	B	B	B	A	A
95th %tile Queue, veh	1	1	3	2	3	3	4

HCM 6th Roundabout
4: N Ridge Road & Plum Creek Parkway

Background Traffic Volumes
PM Peak Hour - Year 2044

Intersection						
Intersection Delay, s/veh 9.1						
Intersection LOS A						
Approach	EB		WB		NB	
Entry Lanes	2		1		1	
Conflicting Circle Lanes	1		1		1	
Adj Approach Flow, veh/h	958		0		422	
Demand Flow Rate, veh/h	977		0		431	
Vehicles Circulating, veh/h	484		1008		581	
Vehicles Exiting, veh/h	193		4		880	
Ped Vol Crossing Leg, #/h	0		0		0	
Ped Cap Adj	1.000		1.000		1.000	
Approach Delay, s/veh	11.9		0.0		13.7	
Approach LOS	B		-		B	
Lane	Left	Right	Left	Left	Left	Bypass
Designated Moves	LT	R	LTR	LTR	LT	R
Assumed Moves	LT	R	LTR	LTR	LT	
RT Channelized						Free
Lane Util	0.591	0.409	1.000	1.000	1.000	
Follow-Up Headway, s	2.535	2.535	2.609	2.609	2.609	
Critical Headway, s	4.544	4.544	4.976	4.976	4.976	
Entry Flow, veh/h	577	400	0	431	484	441
Cap Entry Lane, veh/h	914	914	494	763	1133	1938
Entry HV Adj Factor	0.981	0.980	1.000	0.980	0.981	0.980
Flow Entry, veh/h	566	392	0	422	475	432
Cap Entry, veh/h	897	896	494	748	1111	1900
V/C Ratio	0.631	0.438	0.000	0.565	0.427	0.227
Control Delay, s/veh	13.8	9.3	7.3	13.7	7.8	0.0
LOS	B	A	A	B	A	A
95th %tile Queue, veh	5	2	0	4	2	1

HCM 6th TWSC
5: N Ridge Road & Aloha Street

Background Traffic Volumes
PM Peak Hour - Year 2044

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↗↗	↗		↗↗
Traffic Vol, veh/h	0	105	735	43	0	1442
Future Vol, veh/h	0	105	735	43	0	1442
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	0	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	114	799	47	0	1567
Major/Minor	Minor1		Major1	Major2		
Conflicting Flow All	-	400	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	*812	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		1	-	-		-
Mov Cap-1 Maneuver	-	*812	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB		NB	SB		
HCM Control Delay, s/v	10.2		0	0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT		NBRWBLn1	SBT		
Capacity (veh/h)	-		- 812	-		
HCM Lane V/C Ratio	-		- 0.141	-		
HCM Control Delay (s/veh)	-		- 10.2	-		
HCM Lane LOS	-		- B	-		
HCM 95th %tile Q (veh)	-		- 0.5	-		
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

HCM 6th TWSC
6: N Ridge Road & Mountain Sun Drive

Background Traffic Volumes
PM Peak Hour - Year 2044

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↱			↱	↱	↱↱	↱	↱	↱↱	↱
Traffic Vol, veh/h	0	0	60	0	0	36	75	767	11	73	1300	69
Future Vol, veh/h	0	0	60	0	0	36	75	767	11	73	1300	69
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	-	-	0	-	-	0	250	-	250	250	-	250
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	65	0	0	39	82	834	12	79	1413	75

Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	-	-	707	-	-	417	1488	0
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	-	-	6.94	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	-	-	3.32	2.22	-
Pot Cap-1 Maneuver	0	0	*549	0	0	585	810	-
Stage 1	0	0	-	0	0	-	-	-
Stage 2	0	0	-	0	0	-	-	-
Platoon blocked, %			1			1	-	-
Mov Cap-1 Maneuver	-	-	*549	-	-	585	810	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	12.4	11.6	0.9	0.5
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	810	-	-	549	585	787	-	-
HCM Lane V/C Ratio	0.101	-	-	0.119	0.067	0.101	-	-
HCM Control Delay (s/veh)	9.9	-	-	12.4	11.6	10.1	-	-
HCM Lane LOS	A	-	-	B	B	B	-	-
HCM 95th %tile Q (veh)	0.3	-	-	0.4	0.2	0.3	-	-

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Timings

1: N Ridge Road/Founders Parkway & Fifth Street/State Highway 86

Total Traffic Volumes

AM Peak Hour - Year 2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	76	160	128	63	376	3	284	411	50	126	201	15
Future Volume (vph)	76	160	128	63	376	3	284	411	50	126	201	15
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.316			0.642			0.950			0.950		
Satd. Flow (perm)	589	3539	1583	1196	3539	1583	3433	3539	1583	3433	3539	1583
Satd. Flow (RTOR)			185			185			185			185
Lane Group Flow (vph)	83	174	139	68	409	3	309	447	54	137	218	16
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	Prot	NA	Free	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		Free			Free			Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	24.0		10.0	24.0		10.0	24.0		10.0	24.0	
Total Split (s)	15.0	40.0		15.0	40.0		15.0	30.0		15.0	30.0	
Total Split (%)	15.0%	40.0%		15.0%	40.0%		15.0%	30.0%		15.0%	30.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		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		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Act Effect Green (s)	24.8	17.4	100.0	24.0	17.0	100.0	15.0	47.3	100.0	9.3	41.6	100.0
Actuated g/C Ratio	0.25	0.17	1.00	0.24	0.17	1.00	0.15	0.47	1.00	0.09	0.42	1.00
v/c Ratio	0.33	0.28	0.08	0.20	0.68	0.00	0.60	0.26	0.03	0.42	0.14	0.01
Control Delay (s/veh)	27.8	36.3	0.1	25.0	44.7	0.0	55.0	16.0	0.0	46.5	21.2	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	27.8	36.3	0.1	25.0	44.7	0.0	55.0	16.0	0.0	46.5	21.2	0.0
LOS	C	D	A	C	D	A	E	B	A	D	C	A
Approach Delay (s/veh)		21.8			41.7			29.8			29.7	
Approach LOS		C			D			C			C	
Queue Length 50th (ft)	38	51	0	31	130	0	109	58	0	43	47	0
Queue Length 95th (ft)	68	78	0	58	172	0	152	101	0	71	83	0
Internal Link Dist (ft)		780			1110			518			814	
Turn Bay Length (ft)	360		415	590		825	230			600		
Base Capacity (vph)	267	1238	1583	355	1238	1583	515	1673	1583	359	1473	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.14	0.09	0.19	0.33	0.00	0.60	0.27	0.03	0.38	0.15	0.01

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection

Natural Cycle: 70

Control Type: Actuated-Coordinated

Timings

1: N Ridge Road/Founders Parkway & Fifth Street/State Highway 86

Total Traffic Volumes

AM Peak Hour - Year 2026

Maximum v/c Ratio: 0.68

Intersection Signal Delay (s/veh): 31.0

Intersection LOS: C

Intersection Capacity Utilization 46.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: N Ridge Road/Founders Parkway & Fifth Street/State Highway 86

 Ø1 15 s	 Ø2 (R) 30 s	 Ø3 15 s	 Ø4 40 s
 Ø5 15 s	 Ø6 (R) 30 s	 Ø7 15 s	 Ø8 40 s

Timings

2: N Ridge Road & Site Access/King Soopers Access

Total Traffic Volumes
AM Peak Hour - Year 2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	14	23	54	0	38	34	705	85	63	278	42
Future Volume (vph)	18	14	23	54	0	38	34	705	85	63	278	42
Satd. Flow (prot)	1770	1688	0	0	1770	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.448				0.731		0.568			0.314		
Satd. Flow (perm)	835	1688	0	0	1362	1583	1058	3539	1583	585	3539	1583
Satd. Flow (RTOR)		25				141			136			136
Lane Group Flow (vph)	20	40	0	0	59	41	37	766	92	68	302	46
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		6
Detector Phase	7	4		3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0	7.0	5.0	12.0	12.0	5.0	12.0	12.0
Minimum Split (s)	23.3	23.3		23.3	23.3	23.3	10.0	35.0	35.0	10.0	35.0	35.0
Total Split (s)	23.3	23.3		23.3	23.3	23.3	10.0	43.4	43.4	10.0	43.4	43.4
Total Split (%)	23.3%	23.3%		23.3%	23.3%	23.3%	10.0%	43.4%	43.4%	10.0%	43.4%	43.4%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	4.3	4.3	3.0	4.7	4.7
All-Red Time (s)	2.3	2.3		2.3	2.3	2.3	1.0	1.0	1.0	1.9	1.0	1.0
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.3			5.3	5.3	4.0	5.3	5.3	4.9	5.7	5.7
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effect Green (s)	15.4	15.4			10.2	10.2	73.3	68.0	68.0	74.9	70.9	70.9
Actuated g/C Ratio	0.15	0.15			0.10	0.10	0.73	0.68	0.68	0.75	0.71	0.71
v/c Ratio	0.10	0.14			0.42	0.14	0.04	0.31	0.08	0.13	0.12	0.03
Control Delay (s/veh)	31.8	17.1			50.8	1.0	5.5	10.5	1.0	5.7	7.0	0.2
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	31.8	17.1			50.8	1.0	5.5	10.5	1.0	5.7	7.0	0.2
LOS	C	B			D	A	A	B	A	A	A	A
Approach Delay (s/veh)		22.1			30.4			9.4			6.1	
Approach LOS		C			C			A			A	
Queue Length 50th (ft)	12	9			36	0	3	91	0	9	28	0
Queue Length 95th (ft)	27	32			74	0	20	214	10	26	55	0
Internal Link Dist (ft)		521			575			926			578	
Turn Bay Length (ft)	100						250		180	285		250
Base Capacity (vph)	345	378			245	400	821	2406	1120	517	2507	1161
Starvation Cap Reductn	0	0			0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0			0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0			0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.11			0.24	0.10	0.05	0.32	0.08	0.13	0.12	0.04

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 95

Control Type: Actuated-Coordinated

Timings 2: N Ridge Road & Site Access/King Soopers Access

Total Traffic Volumes
AM Peak Hour - Year 2026

Maximum v/c Ratio: 0.43

Intersection Signal Delay (s/veh): 10.4

Intersection LOS: B

Intersection Capacity Utilization 46.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 2: N Ridge Road & Site Access/King Soopers Access

 Ø1	 Ø2 (R)	 Ø3	 Ø4
10 s	43.4 s	23.3 s	23.3 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
10 s	43.4 s	23.3 s	23.3 s

HCM 6th Roundabout
3: N Ridge Road & Enderud Boulevard

Total Traffic Volumes
AM Peak Hour - Year 2026

Intersection							
Intersection Delay, s/veh 5.9							
Intersection LOS A							
Approach	EB	WB		NB		SB	
Entry Lanes	1	2		2		2	
Conflicting Circle Lanes	2	2		2		2	
Adj Approach Flow, veh/h	176	430		470		469	
Demand Flow Rate, veh/h	179	439		480		478	
Vehicles Circulating, veh/h	561	540		253		133	
Vehicles Exiting, veh/h	50	193		487		846	
Ped Vol Crossing Leg, #/h	0	0		0		0	
Ped Cap Adj	1.000	1.000		1.000		1.000	
Approach Delay, s/veh	6.2	7.8		5.3		4.7	
Approach LOS	A	A		A		A	
Lane	Left	Left	Right	Left	Right	Left	Right
Designated Moves	LTR	LT	R	LT	TR	LT	TR
Assumed Moves	LTR	LT	R	LT	TR	LT	TR
RT Channelized							
Lane Util	1.000	0.237	0.763	0.471	0.529	0.471	0.529
Follow-Up Headway, s	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	179	104	335	226	254	225	253
Cap Entry Lane, veh/h	881	821	897	1070	1145	1194	1268
Entry HV Adj Factor	0.983	0.981	0.979	0.978	0.982	0.979	0.982
Flow Entry, veh/h	176	102	328	221	249	220	248
Cap Entry, veh/h	867	806	879	1046	1124	1169	1245
V/C Ratio	0.203	0.127	0.373	0.211	0.222	0.188	0.199
Control Delay, s/veh	6.2	5.7	8.4	5.4	5.2	4.7	4.6
LOS	A	A	A	A	A	A	A
95th %tile Queue, veh	1	0	2	1	1	1	1

HCM 6th Roundabout
4: N Ridge Road & Plum Creek Parkway

Total Traffic Volumes
AM Peak Hour - Year 2026

Intersection					
Intersection Delay, s/veh 4.7					
Intersection LOS A					
Approach	EB	WB	NB	SB	
Entry Lanes	1	1	1	1	
Conflicting Circle Lanes	1	1	1	1	
Adj Approach Flow, veh/h	340	0	469	490	
Demand Flow Rate, veh/h	347	0	478	500	
Vehicles Circulating, veh/h	94	719	243	220	
Vehicles Exiting, veh/h	220	2	198	499	
Ped Vol Crossing Leg, #/h	0	0	0	0	
Ped Cap Adj	1.000	1.000	1.000	1.000	
Approach Delay, s/veh	5.4	0.0	8.3	0.8	
Approach LOS	A	-	A	A	
Lane	Left	Left	Left	Left	Bypass
Designated Moves	LTR	LTR	LTR	LT	R
Assumed Moves	LTR	LTR	LTR	LT	
RT Channelized					Free
Lane Util	1.000	1.000	1.000	1.000	
Follow-Up Headway, s	2.609	2.609	2.609	2.609	
Critical Headway, s	4.976	4.976	4.976	4.976	
Entry Flow, veh/h	347	0	478	94	406
Cap Entry Lane, veh/h	1254	663	1077	1103	1938
Entry HV Adj Factor	0.980	1.000	0.981	0.981	0.980
Flow Entry, veh/h	340	0	469	92	398
Cap Entry, veh/h	1228	663	1057	1081	1900
V/C Ratio	0.277	0.000	0.444	0.085	0.209
Control Delay, s/veh	5.4	5.4	8.3	4.1	0.0
LOS	A	A	A	A	A
95th %tile Queue, veh	1	0	2	0	1

HCM 6th TWSC
5: N Ridge Road & Aloha Street

Total Traffic Volumes
AM Peak Hour - Year 2026

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↗↗	↗		↗↗
Traffic Vol, veh/h	0	37	764	2	0	390
Future Vol, veh/h	0	37	764	2	0	390
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	0	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	40	830	2	0	424

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	415	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	*771	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %		1	-
Mov Cap-1 Maneuver	-	*771	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9.9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	771
HCM Lane V/C Ratio	-	-	0.052
HCM Control Delay (s/veh)	-	-	9.9
HCM Lane LOS	-	-	A
HCM 95th %tile Q (veh)	-	-	0.2

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th TWSC
6: N Ridge Road & Mountain Sun Drive

Total Traffic Volumes
AM Peak Hour - Year 2026

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↱			↱	↱	↱↱	↱	↱	↱↱	↱
Traffic Vol, veh/h	0	0	88	0	0	64	26	718	4	22	316	24
Future Vol, veh/h	0	0	88	0	0	64	26	718	4	22	316	24
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	-	-	0	-	-	0	250	-	250	250	-	250
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	96	0	0	70	28	780	4	24	343	26

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	172	-	-	390	369	0	0	784	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	-	-	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	-	-	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	0	0	*985	0	0	609	1347	-	-	830	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %			1			1	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	*985	-	-	609	1347	-	-	830	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	9	11.7	0.3	0.6
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1347	-	-	985	609	830	-	-
HCM Lane V/C Ratio	0.021	-	-	0.097	0.114	0.029	-	-
HCM Control Delay (s/veh)	7.7	-	-	9	11.7	9.5	-	-
HCM Lane LOS	A	-	-	A	B	A	-	-
HCM 95th %tile Q (veh)	0.1	-	-	0.3	0.4	0.1	-	-

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Timings

1: N Ridge Road/Founders Parkway & Fifth Street/State Highway 86

Total Traffic Volumes

PM Peak Hour - Year 2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	155	338	421	145	327	15	237	432	63	419	580	11
Future Volume (vph)	155	338	421	145	327	15	237	432	63	419	580	11
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.377			0.360			0.950			0.950		
Satd. Flow (perm)	702	3539	1583	671	3539	1583	3433	3539	1583	3433	3539	1583
Satd. Flow (RTOR)			458			185			185			185
Lane Group Flow (vph)	168	367	458	158	355	16	258	470	68	455	630	12
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	Prot	NA	Free	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		Free			Free			Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	24.0		10.0	24.0		10.0	24.0		10.0	24.0	
Total Split (s)	10.0	45.0		10.0	45.0		15.0	30.0		15.0	30.0	
Total Split (%)	10.0%	45.0%		10.0%	45.0%		15.0%	30.0%		15.0%	30.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		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		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Act Effect Green (s)	20.8	15.8	100.0	20.8	15.8	100.0	12.9	34.7	100.0	24.4	46.2	100.0
Actuated g/C Ratio	0.21	0.16	1.00	0.21	0.16	1.00	0.13	0.35	1.00	0.24	0.46	1.00
v/c Ratio	0.84	0.65	0.28	0.81	0.63	0.01	0.58	0.38	0.04	0.54	0.38	0.00
Control Delay (s/veh)	67.4	44.9	0.4	63.5	44.3	0.0	44.3	31.6	0.0	36.5	19.5	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	67.4	44.9	0.4	63.5	44.3	0.0	44.3	31.6	0.0	36.5	19.5	0.0
LOS	E	D	A	E	D	A	D	C	A	D	B	A
Approach Delay (s/veh)		28.3			48.7			33.1			26.4	
Approach LOS		C			D			C			C	
Queue Length 50th (ft)	88	116	0	82	112	0	89	94	0	134	133	0
Queue Length 95th (ft)	#166	157	0	#155	152	0	128	169	0	186	205	0
Internal Link Dist (ft)		780			1110			518			814	
Turn Bay Length (ft)	360		415	590		825	230			600		
Base Capacity (vph)	199	1415	1583	194	1415	1583	447	1228	1583	838	1635	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.84	0.26	0.29	0.81	0.25	0.01	0.58	0.38	0.04	0.54	0.39	0.01

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection

Natural Cycle: 70

Control Type: Actuated-Coordinated

Timings

1: N Ridge Road/Founders Parkway & Fifth Street/State Highway 86

Total Traffic Volumes

PM Peak Hour - Year 2026

Maximum v/c Ratio: 0.84

Intersection Signal Delay (s/veh): 31.9

Intersection LOS: C

Intersection Capacity Utilization 58.2%

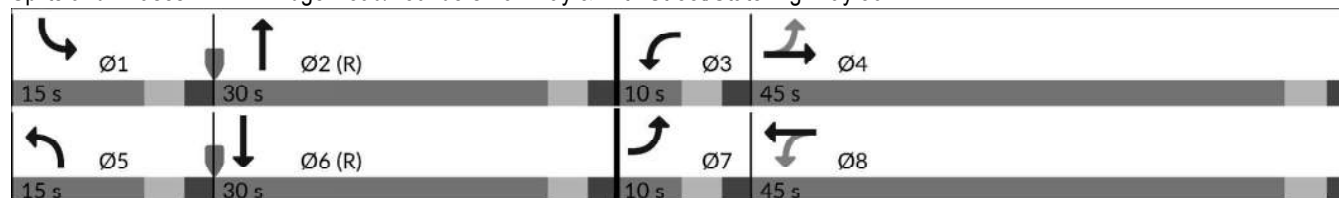
ICU Level of Service B

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 1: N Ridge Road/Founders Parkway & Fifth Street/State Highway 86



Timings

2: N Ridge Road & Site Access/King Soopers Access

Total Traffic Volumes

PM Peak Hour - Year 2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	0	58	196	0	56	46	523	141	224	866	75
Future Volume (vph)	70	0	58	196	0	56	46	523	141	224	866	75
Satd. Flow (prot)	1770	1583	0	0	1770	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.368				0.716		0.244			0.318		
Satd. Flow (perm)	685	1583	0	0	1334	1583	455	3539	1583	592	3539	1583
Satd. Flow (RTOR)		282				184			180			127
Lane Group Flow (vph)	76	63	0	0	213	61	50	568	153	243	941	82
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		6
Detector Phase	7	4		3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0	7.0	5.0	12.0	12.0	5.0	12.0	12.0
Minimum Split (s)	23.3	23.3		23.3	23.3	23.3	10.0	35.0	35.0	10.0	35.0	35.0
Total Split (s)	23.3	23.3		23.3	23.3	23.3	10.0	35.4	35.4	18.0	43.4	43.4
Total Split (%)	23.3%	23.3%		23.3%	23.3%	23.3%	10.0%	35.4%	35.4%	18.0%	43.4%	43.4%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	4.3	4.3	3.0	4.7	4.7
All-Red Time (s)	2.3	2.3		2.3	2.3	2.3	1.0	1.0	1.0	1.9	1.0	1.0
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.3			5.3	5.3	4.0	5.3	5.3	4.9	5.7	5.7
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effect Green (s)	33.3	33.3			20.6	20.6	47.1	39.8	39.8	56.5	47.5	47.5
Actuated g/C Ratio	0.33	0.33			0.21	0.21	0.47	0.40	0.40	0.57	0.48	0.48
v/c Ratio	0.22	0.08			0.77	0.12	0.17	0.40	0.20	0.51	0.55	0.10
Control Delay (s/veh)	21.4	0.2			56.9	0.5	14.6	25.6	3.3	17.6	17.2	0.3
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	21.4	0.2			56.9	0.5	14.6	25.6	3.3	17.6	17.2	0.3
LOS	C	A			E	A	B	C	A	B	B	A
Approach Delay (s/veh)		11.8			44.4			20.5			16.2	
Approach LOS		B			D			C			B	
Queue Length 50th (ft)	31	0			124	0	15	151	0	63	153	1
Queue Length 95th (ft)	58	0			#228	0	36	212	32	m123	190	m0
Internal Link Dist (ft)		468			575			996			578	
Turn Bay Length (ft)	100						250		180	285		250
Base Capacity (vph)	430	728			288	486	296	1407	737	489	1682	819
Starvation Cap Reductn	0	0			0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0			0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0			0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.09			0.74	0.13	0.17	0.40	0.21	0.50	0.56	0.10

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 95

Control Type: Actuated-Coordinated

Timings

2: N Ridge Road & Site Access/King Soopers Access

Total Traffic Volumes
PM Peak Hour - Year 2026

Maximum v/c Ratio: 0.78

Intersection Signal Delay (s/veh): 20.5

Intersection LOS: C

Intersection Capacity Utilization 58.1%

ICU Level of Service B

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: N Ridge Road & Site Access/King Soopers Access

 Ø1	 Ø2 (R)	 Ø3	 Ø4
18 s	35.4 s	23.3 s	23.3 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
10 s	43.4 s	23.3 s	23.3 s

HCM 6th Roundabout
3: N Ridge Road & Enderud Boulevard

Total Traffic Volumes
PM Peak Hour - Year 2026

Intersection							
Intersection Delay, s/veh 7.9							
Intersection LOS A							
Approach	EB	WB		NB		SB	
Entry Lanes	1	2		2		2	
Conflicting Circle Lanes	2	2		2		2	
Adj Approach Flow, veh/h	123	395		656		1007	
Demand Flow Rate, veh/h	126	403		670		1027	
Vehicles Circulating, veh/h	1057	619		446		175	
Vehicles Exiting, veh/h	145	497		737		847	
Ped Vol Crossing Leg, #/h	0	0		0		0	
Ped Cap Adj	1.000	1.000		1.000		1.000	
Approach Delay, s/veh	9.2	8.2		7.9		7.6	
Approach LOS	A	A		A		A	
Lane	Left	Left	Right	Left	Right	Left	Right
Designated Moves	LTR	LT	R	LT	TR	LT	TR
Assumed Moves	LTR	LT	R	LT	TR	LT	TR
RT Channelized							
Lane Util	1.000	0.223	0.777	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	126	90	313	315	355	483	544
Cap Entry Lane, veh/h	578	764	839	896	972	1149	1224
Entry HV Adj Factor	0.976	0.978	0.981	0.979	0.980	0.980	0.981
Flow Entry, veh/h	123	88	307	308	348	473	534
Cap Entry, veh/h	564	747	823	877	952	1126	1201
V/C Ratio	0.218	0.118	0.373	0.352	0.365	0.420	0.445
Control Delay, s/veh	9.2	6.1	8.8	8.1	7.8	7.6	7.6
LOS	A	A	A	A	A	A	A
95th %tile Queue, veh	1	0	2	2	2	2	2

HCM 6th Roundabout
4: N Ridge Road & Plum Creek Parkway

Total Traffic Volumes
PM Peak Hour - Year 2026

Intersection					
Intersection Delay, s/veh 12.6					
Intersection LOS B					
Approach	EB	WB	NB	SB	
Entry Lanes	1	1	1	1	
Conflicting Circle Lanes	1	1	1	1	
Adj Approach Flow, veh/h	772	0	314	728	
Demand Flow Rate, veh/h	788	0	321	742	
Vehicles Circulating, veh/h	362	814	496	140	
Vehicles Exiting, veh/h	140	3	654	674	
Ped Vol Crossing Leg, #/h	0	0	0	0	
Ped Cap Adj	1.000	1.000	1.000	1.000	
Approach Delay, s/veh	23.3	0.0	9.1	2.9	
Approach LOS	C	-	A	A	
Lane	Left	Left	Left	Left	Bypass
Designated Moves	LTR	LTR	LTR	LT	R
Assumed Moves	LTR	LTR	LTR	LT	
RT Channelized					Free
Lane Util	1.000	1.000	1.000	1.000	
Follow-Up Headway, s	2.609	2.609	2.609	2.609	
Critical Headway, s	4.976	4.976	4.976	4.976	
Entry Flow, veh/h	788	0	321	362	380
Cap Entry Lane, veh/h	954	602	832	1196	1938
Entry HV Adj Factor	0.980	1.000	0.980	0.981	0.980
Flow Entry, veh/h	772	0	314	355	373
Cap Entry, veh/h	935	602	815	1173	1900
V/C Ratio	0.826	0.000	0.386	0.303	0.196
Control Delay, s/veh	23.3	6.0	9.1	5.9	0.0
LOS	C	A	A	A	A
95th %tile Queue, veh	10	0	2	1	1

HCM 6th TWSC
5: N Ridge Road & Aloha Street

Total Traffic Volumes
PM Peak Hour - Year 2026

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↗↗	↗		↗↗
Traffic Vol, veh/h	0	77	631	32	0	1150
Future Vol, veh/h	0	77	631	32	0	1150
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	0	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	84	686	35	0	1250
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	343	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	*832	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		1	-	-		-
Mov Cap-1 Maneuver	-	*832	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s/v	9.8		0		0	
HCM LOS	A					
Minor Lane/Major Mvmt	NBT		NBRWBLn1		SBT	
Capacity (veh/h)	-		832		-	
HCM Lane V/C Ratio	-		0.101		-	
HCM Control Delay (s/veh)	-		9.8		-	
HCM Lane LOS	-		A		-	
HCM 95th %tile Q (veh)	-		0.3		-	
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

HCM 6th TWSC
6: N Ridge Road & Mountain Sun Drive/Mountain un Drive

Total Traffic Volumes
PM Peak Hour - Year 2026

Intersection												
Int Delay, s/veh		1.3										
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	60	0	0	36	75	611	11	73	999	69
Future Vol, veh/h	0	0	60	0	0	36	75	611	11	73	999	69
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	-	-	0	-	-	0	250	-	250	250	-	250
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	65	0	0	39	82	664	12	79	1086	75
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	543	-	-	332	1161	0	0	676	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	-	-	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	-	-	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	0	0	*679	0	0	664	961	-	-	911	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %			1			1	-	-		-	-	
Mov Cap-1 Maneuver	-	-	*679	-	-	664	961	-	-	911	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v	10.9		10.8		1		0.6					
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	961	-	-	679	664	911	-	-				
HCM Lane V/C Ratio	0.085	-	-	0.096	0.059	0.087	-	-				
HCM Control Delay (s/veh)	9.1	-	-	10.9	10.8	9.3	-	-				
HCM Lane LOS	A	-	-	B	B	A	-	-				
HCM 95th %tile Q (veh)	0.3	-	-	0.3	0.2	0.3	-	-				
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined				*: All major volume in platoon				

Timings

1: N Ridge Road/Founders Parkway & Fifth Street/State Highway 86

Total Traffic Volumes

AM Peak Hour - Year 2044

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	231	155	82	543	5	371	613	63	182	254	21
Future Volume (vph)	110	231	155	82	543	5	371	613	63	182	254	21
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.173			0.596			0.950			0.950		
Satd. Flow (perm)	322	3539	1583	1110	3539	1583	3433	3539	1583	3433	3539	1583
Satd. Flow (RTOR)			240			240			240			240
Lane Group Flow (vph)	120	251	168	89	590	5	403	666	68	198	276	23
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	Prot	NA	Free	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		Free			Free			Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	24.0		10.0	24.0		10.0	24.0		10.0	24.0	
Total Split (s)	20.0	27.0		17.0	24.0		18.0	28.0		28.0	38.0	
Total Split (%)	20.0%	27.0%		17.0%	24.0%		18.0%	28.0%		28.0%	38.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		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		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Act Effect Green (s)	34.0	24.6	100.0	29.1	20.3	100.0	14.0	37.7	100.0	11.1	34.9	100.0
Actuated g/C Ratio	0.34	0.25	1.00	0.29	0.20	1.00	0.14	0.38	1.00	0.11	0.35	1.00
v/c Ratio	0.44	0.28	0.10	0.23	0.82	0.00	0.84	0.49	0.04	0.51	0.22	0.01
Control Delay (s/veh)	26.6	32.2	0.1	22.3	48.8	0.0	67.4	27.6	0.0	46.5	24.2	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	26.6	32.2	0.1	22.3	48.8	0.0	67.4	27.6	0.0	46.5	24.2	0.0
LOS	C	C	A	C	D	A	E	C	A	D	C	A
Approach Delay (s/veh)		21.0			45.1			40.1			32.0	
Approach LOS		C			D			D			C	
Queue Length 50th (ft)	50	68	0	36	185	0	143	94	0	62	66	0
Queue Length 95th (ft)	88	106	0	69	#281	0	#226	218	0	94	99	0
Internal Link Dist (ft)		780			1110			518			814	
Turn Bay Length (ft)	360		415	590		825	230			600		
Base Capacity (vph)	332	871	1583	437	728	1583	479	1334	1583	789	1233	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.29	0.11	0.20	0.81	0.00	0.84	0.50	0.04	0.25	0.22	0.01

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.84	
Intersection Signal Delay (s/veh): 36.3	Intersection LOS: D
Intersection Capacity Utilization 59.9%	ICU Level of Service B
Analysis Period (min) 15	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 1: N Ridge Road/Founders Parkway & Fifth Street/State Highway 86

Ø1 28 s	Ø2 (R) 28 s	Ø3 17 s	Ø4 27 s
Ø5 18 s	Ø6 38 s	Ø7 20 s	Ø8 24 s

Timings

2: N Ridge Road & Site Access/King Soopers Access

Total Traffic Volumes
AM Peak Hour - Year 2044

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	0	14	73	0	52	34	918	115	85	362	42
Future Volume (vph)	18	0	14	73	0	52	34	918	115	85	362	42
Satd. Flow (prot)	1770	1583	0	0	1770	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.461				0.748		0.520			0.222		
Satd. Flow (perm)	859	1583	0	0	1393	1583	969	3539	1583	414	3539	1583
Satd. Flow (RTOR)		502				141			136			136
Lane Group Flow (vph)	20	15	0	0	79	57	37	998	125	92	393	46
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		6
Detector Phase	7	4		3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0	7.0	5.0	12.0	12.0	5.0	12.0	12.0
Minimum Split (s)	23.3	23.3		23.3	23.3	23.3	10.0	35.0	35.0	10.0	35.0	35.0
Total Split (s)	23.3	23.3		23.3	23.3	23.3	10.0	43.4	43.4	10.0	43.4	43.4
Total Split (%)	23.3%	23.3%		23.3%	23.3%	23.3%	10.0%	43.4%	43.4%	10.0%	43.4%	43.4%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	4.3	4.3	3.0	4.7	4.7
All-Red Time (s)	2.3	2.3		2.3	2.3	2.3	1.0	1.0	1.0	1.9	1.0	1.0
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.3			5.3	5.3	4.0	5.3	5.3	4.9	5.7	5.7
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effect Green (s)	16.7	16.7			11.4	11.4	71.6	66.2	66.2	74.1	69.5	69.5
Actuated g/C Ratio	0.17	0.17			0.11	0.11	0.72	0.66	0.66	0.74	0.70	0.70
v/c Ratio	0.09	0.02			0.49	0.18	0.04	0.42	0.11	0.22	0.15	0.04
Control Delay (s/veh)	30.2	0.0			51.3	1.3	6.3	13.0	2.6	7.6	7.3	0.2
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	30.2	0.0			51.3	1.3	6.3	13.0	2.6	7.6	7.3	0.2
LOS	C	A			D	A	A	B	A	A	A	A
Approach Delay (s/veh)		17.3			30.4			11.7			6.8	
Approach LOS		B			C			B			A	
Queue Length 50th (ft)	12	0			48	0	4	137	0	12	35	1
Queue Length 95th (ft)	27	0			90	0	21	321	28	34	69	0
Internal Link Dist (ft)		521			575			926			578	
Turn Bay Length (ft)	100						250		180	285		250
Base Capacity (vph)	353	740			250	400	745	2343	1094	404	2461	1142
Starvation Cap Reductn	0	0			0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0			0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0			0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.02			0.32	0.14	0.05	0.43	0.11	0.23	0.16	0.04

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 95

Control Type: Actuated-Coordinated

Timings 2: N Ridge Road & Site Access/King Soopers Access

Total Traffic Volumes
AM Peak Hour - Year 2044

Maximum v/c Ratio: 0.50

Intersection Signal Delay (s/veh): 11.8

Intersection LOS: B

Intersection Capacity Utilization 53.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 2: N Ridge Road & Site Access/King Soopers Access

 Ø1	 Ø2 (R)	 Ø3	 Ø4
10 s	43.4 s	23.3 s	23.3 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
10 s	43.4 s	23.3 s	23.3 s

HCM 6th Roundabout
3: N Ridge Road & Enderud Boulevard

Total Traffic Volumes
AM Peak Hour - Year 2044

Intersection							
Intersection Delay, s/veh 7.7							
Intersection LOS A							
Approach	EB	WB		NB		SB	
Entry Lanes	1	2		2		2	
Conflicting Circle Lanes	2	2		2		2	
Adj Approach Flow, veh/h	176	583		611		591	
Demand Flow Rate, veh/h	179	595		624		602	
Vehicles Circulating, veh/h	722	661		297		174	
Vehicles Exiting, veh/h	54	260		604		1082	
Ped Vol Crossing Leg, #/h	0	0		0		0	
Ped Cap Adj	1.000	1.000		1.000		1.000	
Approach Delay, s/veh	7.4	11.5		6.3		5.4	
Approach LOS	A	B		A		A	
Lane	Left	Left	Right	Left	Right	Left	Right
Designated Moves	LTR	LT	R	LT	TR	LT	TR
Assumed Moves	LTR	LT	R	LT	TR	LT	TR
RT Channelized							
Lane Util	1.000	0.244	0.756	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	179	145	450	293	331	283	319
Cap Entry Lane, veh/h	769	735	810	1027	1103	1150	1225
Entry HV Adj Factor	0.983	0.979	0.980	0.980	0.978	0.982	0.982
Flow Entry, veh/h	176	142	441	287	324	278	313
Cap Entry, veh/h	756	719	793	1007	1079	1129	1203
V/C Ratio	0.233	0.197	0.556	0.285	0.300	0.246	0.260
Control Delay, s/veh	7.4	7.2	12.8	6.4	6.3	5.5	5.3
LOS	A	A	B	A	A	A	A
95th %tile Queue, veh	1	1	3	1	1	1	1

HCM 6th Roundabout
4: N Ridge Road & Plum Creek Parkway

Total Traffic Volumes
AM Peak Hour - Year 2044

Intersection						
Intersection Delay, s/veh 6.4						
Intersection LOS A						
Approach	EB		WB		NB	
Entry Lanes	2		1		1	
Conflicting Circle Lanes	1		1		1	
Adj Approach Flow, veh/h	436		0		635	
Demand Flow Rate, veh/h	445		0		648	
Vehicles Circulating, veh/h	125		949		301	
Vehicles Exiting, veh/h	299		0		269	
Ped Vol Crossing Leg, #/h	0		0		0	
Ped Cap Adj	1.000		1.000		1.000	
Approach Delay, s/veh	4.6		0.0		13.0	
Approach LOS	A		-		B	
Lane	Left	Right	Left	Left	Left	Bypass
Designated Moves	LT	R	LTR	LTR	LT	R
Assumed Moves	LT	R	LTR	LTR	LT	
RT Channelized						Free
Lane Util	0.676	0.324	1.000	1.000	1.000	
Follow-Up Headway, s	2.535	2.535	2.609	2.609	2.609	
Critical Headway, s	4.544	4.544	4.976	4.976	4.976	
Entry Flow, veh/h	301	144	0	648	125	495
Cap Entry Lane, veh/h	1267	1267	524	1015	1017	1938
Entry HV Adj Factor	0.980	0.979	1.000	0.980	0.980	0.980
Flow Entry, veh/h	295	141	0	635	123	485
Cap Entry, veh/h	1242	1241	524	995	997	1900
V/C Ratio	0.237	0.114	0.000	0.638	0.123	0.255
Control Delay, s/veh	5.0	3.8	6.9	13.0	4.7	0.0
LOS	A	A	A	B	A	A
95th %tile Queue, veh	1	0	0	5	0	1

HCM 6th TWSC
5: N Ridge Road & Aloha Street

Total Traffic Volumes
AM Peak Hour - Year 2044

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↗↗	↗		↗↗
Traffic Vol, veh/h	0	50	993	3	0	499
Future Vol, veh/h	0	50	993	3	0	499
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	0	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	54	1079	3	0	542

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	540	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	*679	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %		1	-
Mov Cap-1 Maneuver	-	*679	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	10.8	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	679
HCM Lane V/C Ratio	-	-	0.08
HCM Control Delay (s/veh)	-	-	10.8
HCM Lane LOS	-	-	B
HCM 95th %tile Q (veh)	-	-	0.3

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th TWSC
6: N Ridge Road & Mountain Sun Drive

Total Traffic Volumes
AM Peak Hour - Year 2044

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↱			↱	↱	↱↱	↱	↱	↱↱	↱
Traffic Vol, veh/h	0	0	88	0	0	64	26	944	4	22	425	24
Future Vol, veh/h	0	0	88	0	0	64	26	944	4	22	425	24
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	-	-	0	-	-	0	250	-	250	250	-	250
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	96	0	0	70	28	1026	4	24	462	26

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	231	-	-	513	488	0	0	1030	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	-	-	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	-	-	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	0	0	*924	0	0	506	1320	-	-	670	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %			1			1	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	*924	-	-	506	1320	-	-	670	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	9.3	13.2	0.2	0.5
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1320	-	-	924	506	670	-	-
HCM Lane V/C Ratio	0.021	-	-	0.104	0.137	0.036	-	-
HCM Control Delay (s/veh)	7.8	-	-	9.3	13.2	10.6	-	-
HCM Lane LOS	A	-	-	A	B	B	-	-
HCM 95th %tile Q (veh)	0.1	-	-	0.3	0.5	0.1	-	-

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Timings

1: N Ridge Road/Founders Parkway & Fifth Street/State Highway 86

Total Traffic Volumes

PM Peak Hour - Year 2044

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	224	488	551	190	471	21	301	556	81	605	750	17
Future Volume (vph)	224	488	551	190	471	21	301	556	81	605	750	17
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.196			0.273			0.950			0.950		
Satd. Flow (perm)	365	3539	1583	509	3539	1583	3433	3539	1583	3433	3539	1583
Satd. Flow (RTOR)			437			240			240			240
Lane Group Flow (vph)	243	530	599	207	512	23	327	604	88	658	815	18
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	Prot	NA	Free	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		Free			Free			Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	24.0		10.0	24.0		10.0	24.0		10.0	24.0	
Total Split (s)	20.0	27.0		17.0	24.0		18.0	28.0		28.0	38.0	
Total Split (%)	20.0%	27.0%		17.0%	24.0%		18.0%	28.0%		28.0%	38.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		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		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Act Effect Green (s)	34.3	20.4	100.0	29.4	17.9	100.0	12.6	26.1	100.0	22.1	35.5	100.0
Actuated g/C Ratio	0.34	0.20	1.00	0.29	0.18	1.00	0.13	0.26	1.00	0.22	0.36	1.00
v/c Ratio	0.75	0.73	0.37	0.70	0.80	0.01	0.75	0.65	0.05	0.86	0.64	0.01
Control Delay (s/veh)	39.1	43.8	0.6	36.6	50.1	0.0	54.9	52.4	0.0	50.8	30.6	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	39.1	43.8	0.6	36.6	50.1	0.0	54.9	52.4	0.0	50.8	30.6	0.0
LOS	D	D	A	D	D	A	D	D	A	D	C	A
Approach Delay (s/veh)		24.2			44.8			48.7			39.2	
Approach LOS		C			D			D			D	
Queue Length 50th (ft)	108	164	0	90	164	0	113	184	0	206	236	0
Queue Length 95th (ft)	#190	222	0	#150	223	0	#162	244	m0	#292	305	0
Internal Link Dist (ft)		780			1110			518			814	
Turn Bay Length (ft)	360		415	590		825	230			600		
Base Capacity (vph)	339	778	1583	303	672	1583	447	922	1583	789	1257	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.68	0.38	0.68	0.76	0.01	0.73	0.66	0.06	0.83	0.65	0.01

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection

Natural Cycle: 80

Control Type: Actuated-Coordinated

Timings

1: N Ridge Road/Founders Parkway & Fifth Street/State Highway 86

Total Traffic Volumes

PM Peak Hour - Year 2044

Maximum v/c Ratio: 0.87

Intersection Signal Delay (s/veh): 37.7

Intersection LOS: D

Intersection Capacity Utilization 74.7%

ICU Level of Service D

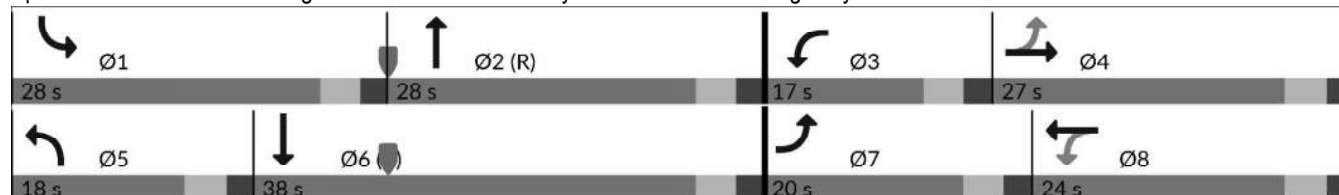
Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: N Ridge Road/Founders Parkway & Fifth Street/State Highway 86



Timings

2: N Ridge Road & Site Access/King Soopers Access

Total Traffic Volumes
PM Peak Hour - Year 2044

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	0	58	266	0	76	46	683	192	304	1132	57
Future Volume (vph)	70	0	58	266	0	76	46	683	192	304	1132	57
Satd. Flow (prot)	1770	1583	0	0	1770	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.284				0.716		0.119			0.195		
Satd. Flow (perm)	529	1583	0	0	1334	1583	222	3539	1583	363	3539	1583
Satd. Flow (RTOR)		228				184			209			127
Lane Group Flow (vph)	76	63	0	0	289	83	50	742	209	330	1230	62
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		6
Detector Phase	7	4		3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0	7.0	5.0	12.0	12.0	5.0	12.0	12.0
Minimum Split (s)	23.3	23.3		23.3	23.3	23.3	10.0	35.0	35.0	10.0	35.0	35.0
Total Split (s)	23.3	23.3		23.3	23.3	23.3	10.0	35.4	35.4	18.0	43.4	43.4
Total Split (%)	23.3%	23.3%		23.3%	23.3%	23.3%	10.0%	35.4%	35.4%	18.0%	43.4%	43.4%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	4.3	4.3	3.0	4.7	4.7
All-Red Time (s)	2.3	2.3		2.3	2.3	2.3	1.0	1.0	1.0	1.9	1.0	1.0
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.3			5.3	5.3	4.0	5.3	5.3	4.9	5.7	5.7
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effect Green (s)	36.0	36.0			23.3	23.3	41.9	34.6	34.6	53.8	44.9	44.9
Actuated g/C Ratio	0.36	0.36			0.23	0.23	0.42	0.35	0.35	0.54	0.45	0.45
v/c Ratio	0.24	0.08			0.92	0.16	0.27	0.60	0.30	0.84	0.77	0.07
Control Delay (s/veh)	20.7	0.2			74.7	0.6	18.0	31.2	5.0	49.2	23.0	0.7
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	20.7	0.2			74.7	0.6	18.0	31.2	5.0	49.2	23.0	0.7
LOS	C	A			E	A	B	C	A	D	C	A
Approach Delay (s/veh)		11.4			58.2			25.2			27.5	
Approach LOS		B			E			C			C	
Queue Length 50th (ft)	29	0			173	0	16	219	0	158	206	0
Queue Length 95th (ft)	58	0			#348	0	36	286	51	#291	#506	m1
Internal Link Dist (ft)		468			575			996			578	
Turn Bay Length (ft)	100						250		180	285		250
Base Capacity (vph)	414	718			313	512	186	1225	684	389	1589	780
Starvation Cap Reductn	0	0			0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0			0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0			0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.09			0.92	0.16	0.27	0.61	0.31	0.85	0.77	0.08

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 95

Control Type: Actuated-Coordinated

Timings

2: N Ridge Road & Site Access/King Soopers Access

Total Traffic Volumes
PM Peak Hour - Year 2044

Maximum v/c Ratio: 0.93

Intersection Signal Delay (s/veh): 29.7

Intersection LOS: C

Intersection Capacity Utilization 70.0%

ICU Level of Service C

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: N Ridge Road & Site Access/King Soopers Access

 Ø1 18 s	 Ø2 (R) 35.4 s	 Ø3 23.3 s	 Ø4 23.3 s
 Ø5 10 s	 Ø6 (R) 43.4 s	 Ø7 23.3 s	 Ø8 23.3 s

HCM 6th Roundabout
3: N Ridge Road & Enderud Boulevard

Total Traffic Volumes
PM Peak Hour - Year 2044

Intersection							
Intersection Delay, s/veh 11.0							
Intersection LOS B							
Approach	EB	WB		NB		SB	
Entry Lanes	1	2		2		2	
Conflicting Circle Lanes	2	2		2		2	
Adj Approach Flow, veh/h	123	530		821		1301	
Demand Flow Rate, veh/h	126	540		838		1326	
Vehicles Circulating, veh/h	1389	738		564		208	
Vehicles Exiting, veh/h	145	664		951		1070	
Ped Vol Crossing Leg, #/h	0	0		0		0	
Ped Cap Adj	1.000	1.000		1.000		1.000	
Approach Delay, s/veh	13.3	12.0		11.1		10.3	
Approach LOS	B	B		B		B	
Lane	Left	Left	Right	Left	Right	Left	Right
Designated Moves	LTR	LT	R	LT	TR	LT	TR
Assumed Moves	LTR	LT	R	LT	TR	LT	TR
RT Channelized							
Lane Util	1.000	0.228	0.772	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	126	123	417	394	444	623	703
Cap Entry Lane, veh/h	436	685	758	803	879	1115	1190
Entry HV Adj Factor	0.976	0.984	0.981	0.979	0.980	0.981	0.980
Flow Entry, veh/h	123	121	409	386	435	611	689
Cap Entry, veh/h	426	673	744	787	862	1094	1167
V/C Ratio	0.289	0.180	0.550	0.490	0.505	0.559	0.591
Control Delay, s/veh	13.3	7.4	13.3	11.3	10.9	10.2	10.4
LOS	B	A	B	B	B	B	B
95th %tile Queue, veh	1	1	3	3	3	4	4

HCM 6th Roundabout
4: N Ridge Road & Plum Creek Parkway

Total Traffic Volumes
PM Peak Hour - Year 2044

Intersection						
Intersection Delay, s/veh 9.6						
Intersection LOS A						
Approach	EB		WB		NB	
Entry Lanes	2		1		1	
Conflicting Circle Lanes	1		1		1	
Adj Approach Flow, veh/h	981		0		427	
Demand Flow Rate, veh/h	1001		0		436	
Vehicles Circulating, veh/h	491		1037		605	
Vehicles Exiting, veh/h	193		4		887	
Ped Vol Crossing Leg, #/h	0		0		0	
Ped Cap Adj	1.000		1.000		1.000	
Approach Delay, s/veh	12.7		0.0		14.6	
Approach LOS	B		-		B	
Lane	Left	Right	Left	Left	Left	Bypass
Designated Moves	LT	R	LTR	LTR	LT	R
Assumed Moves	LT	R	LTR	LTR	LT	
RT Channelized						Free
Lane Util	0.600	0.400	1.000	1.000	1.000	
Follow-Up Headway, s	2.535	2.535	2.609	2.609	2.609	
Critical Headway, s	4.544	4.544	4.976	4.976	4.976	
Entry Flow, veh/h	601	400	0	436	491	469
Cap Entry Lane, veh/h	908	908	479	744	1133	1938
Entry HV Adj Factor	0.980	0.980	1.000	0.980	0.981	0.980
Flow Entry, veh/h	589	392	0	427	481	460
Cap Entry, veh/h	890	890	479	730	1111	1900
V/C Ratio	0.662	0.440	0.000	0.586	0.433	0.242
Control Delay, s/veh	14.9	9.4	7.5	14.6	7.9	0.0
LOS	B	A	A	B	A	A
95th %tile Queue, veh	5	2	0	4	2	1

HCM 6th TWSC
5: N Ridge Road & Aloha Street

Total Traffic Volumes
PM Peak Hour - Year 2044

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↗↗	↗		↗↗
Traffic Vol, veh/h	0	105	805	43	0	1499
Future Vol, veh/h	0	105	805	43	0	1499
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	0	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	114	875	47	0	1629

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	438	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	*771	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %		1	-
Mov Cap-1 Maneuver	-	*771	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	10.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	771
HCM Lane V/C Ratio	-	-	0.148
HCM Control Delay (s/veh)	-	-	10.5
HCM Lane LOS	-	-	B
HCM 95th %tile Q (veh)	-	-	0.5

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th TWSC
6: N Ridge Road & Mountain Sun Drive/Mountain un Drive

Total Traffic Volumes
PM Peak Hour - Year 2044

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↗	↗	↗	↗	↗	↗
Traffic Vol, veh/h	0	0	60	0	0	36	75	813	11	73	1358	69
Future Vol, veh/h	0	0	60	0	0	36	75	813	11	73	1358	69
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	-	-	0	-	-	0	250	-	250	250	-	250
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	65	0	0	39	82	884	12	79	1476	75

Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	-	-	738	-	-	442	1551	0
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	-	-	6.94	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	-	-	3.32	2.22	-
Pot Cap-1 Maneuver	0	0	*526	0	0	563	778	-
Stage 1	0	0	-	0	0	-	-	-
Stage 2	0	0	-	0	0	-	-	-
Platoon blocked, %			1			1	-	-
Mov Cap-1 Maneuver	-	-	*526	-	-	563	778	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	12.8	11.9	0.8	0.5
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	778	-	-	526	563	753	-	-
HCM Lane V/C Ratio	0.105	-	-	0.124	0.07	0.105	-	-
HCM Control Delay (s/veh)	10.2	-	-	12.8	11.9	10.3	-	-
HCM Lane LOS	B	-	-	B	B	B	-	-
HCM 95th %tile Q (veh)	0.4	-	-	0.4	0.2	0.4	-	-

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

APPENDIX E

Recommended Intersection Geometry

