TRAFFIC IMPACT STUDY

SAGE COLLEGIATE PHASE 2

LAS VEGAS, NEVADA

APN: 139-31-801-007, 139-31-801-009, AND 139-31-801-017

Prepared for:
Red Hook Capital Partners
2120 E. Grand Avenue
Suite 135
El Segundo, CA 90245

Prepared by:
Kimley»Horn

May 2023
092815003

Kimley»Horn

TRAFFIC IMPACT STUDY

FOR

SAGE COLLEGIATE PHASE 2

Devin Moore, PE, PTOE, RSP2

Digitally signed by Devin Moore, PE, PTOE, RSP2
DN: cn=Devin Moore, PE, PTOE, RSP2, c=US, o=Kimley-Horn and Associates, Inc., ou=Las Vegas Office, email=devin.moore@kimley-horn.com
Date: 2023.05.31 16:13:34 -07'00'

Prepared for:
Red Hook Capital Partners
2120 E. Grand Avenue
Suite 135
El Segundo, CA 90245

Prepared by:
Kimley-Horn and Associates, Inc.
6671 Las Vegas Boulevard South
Suite 320
Las Vegas, Nevada 89119
702-862-3600

Kimley»Horn

EXECUTIVE SUMMARY

The purpose of this traffic study update is to identify traffic generation characteristics of a proposed charter school expansion, identify potential traffic related impacts on the surrounding street network, and develop mitigation measures required for identified impacts. This traffic study update was prepared to update the *Sage Collegiate Phase 1) Traffic Impact Study* (TIA 76144), prepared by Kimley-Horn in December 2021.

The existing Sage Collegiate Public Charter School is located at the northwest corner of Charleston Boulevard and Hinson Street within APN 139-31-801-009 in the City of Las Vegas, Nevada. The school currently serves 215 students in Grades K-8. With the anticipated increase in enrollment and proposed site expansion into APN 139-31-801-007 and 139-31-801-017 to include a new building, the school is planned to serve up to 796 students, resulting in a net increase of 581 students over four (4) years. The Sage Collegiate Public Charter School currently operates and plans to continue to operate with one arrival/dismissal time with drop-off at 7:30 AM and dismissal at 3:45 PM to comply with the 30-minute separation from Hyde Park Middle School arrival/dismissal times.

This study serves as an update to the Sage Collegiate Phase 1 Traffic Impact Study (TIA 76144). The City of Las Vegas Scope of Study (included in **Appendix A** and dated March 28, 2023) identified two (2) intersections for analysis:

- Charleston Boulevard and Hinson Street (#1)
- Charleston Boulevard and Valley View Boulevard (#2)

Regional access to Sage Collegiate is provided via Charleston Boulevard, US-95, and I-15. Primary access to the school is provided by Hinson Street and Valley View Boulevard. Direct access to the development is planned to be provided by one (1) existing full access drive on Charleston Boulevard (Drive A) and one (1) existing full access drive on Hinson Street (Drive B). Drive A is not currently used or planned to be used for student pick-up and drop-off operations. **Figure E-1** shows the locations of the key study intersections and project access drives.

Upon expected project completion in 2027, Sage Collegiate Phase 2 is anticipated to generate 604 additional AM and 465 additional PM peak hour trips during the school peak periods to the surrounding street network. Project traffic is anticipated to generate traffic volumes resulting in the following recommendations:

- It is recommended that the City of Las Vegas continue to work with RTC FAST to optimize the signal operations at the intersection of Charleston Boulevard and Valley View Boulevard (#2).
- Sidewalks and sidewalk ramps along the development street frontages are currently constructed. During project design, it is recommended that the developer's design team review the pedestrian facilities along the project's Charleston Boulevard and Hinson Street frontages for Public Rights-of-Way Accessibility Guidelines (PROWAG) compliance and construct off-site improvements, if necessary, to ensure compliance.
- Adequate on-site storage for student pick-up/drop-off was calculated to be provided with Phase 2 to accommodate the anticipated vehicle queues. It is recommended that the school operator consistently review queueing operations and provide communication and instruction to those who pick-up and drop-off students to assure that vehicle queueing into the public right of way does not occur.

SOURCE: NEARMAP US, INC.

NORTH
NTS

STUDY INTERSECTIONS

1. Charleston Boulevard (SR 159)/Hinson Street
2. Charleston Boulevard (SR 159)/Valley View Boulevard

LEGEND:

1	Study Area Key Intersection
A	Project Access Drive

SAGE COLLEGIATE PHASE 2
STUDY AREA INTERSECTIONS AND PROJECT ACCESS DRIVES

FIGURE E-1

Date: May 08, 2023 – 5:26pm / User: luke.lazzarini
Path: C:\Users\LUKE~1.LAZ\AppData\Local\Temp\AcPublish_21004\2023-04-04 Sage Charter11x17.dwg / Xref:

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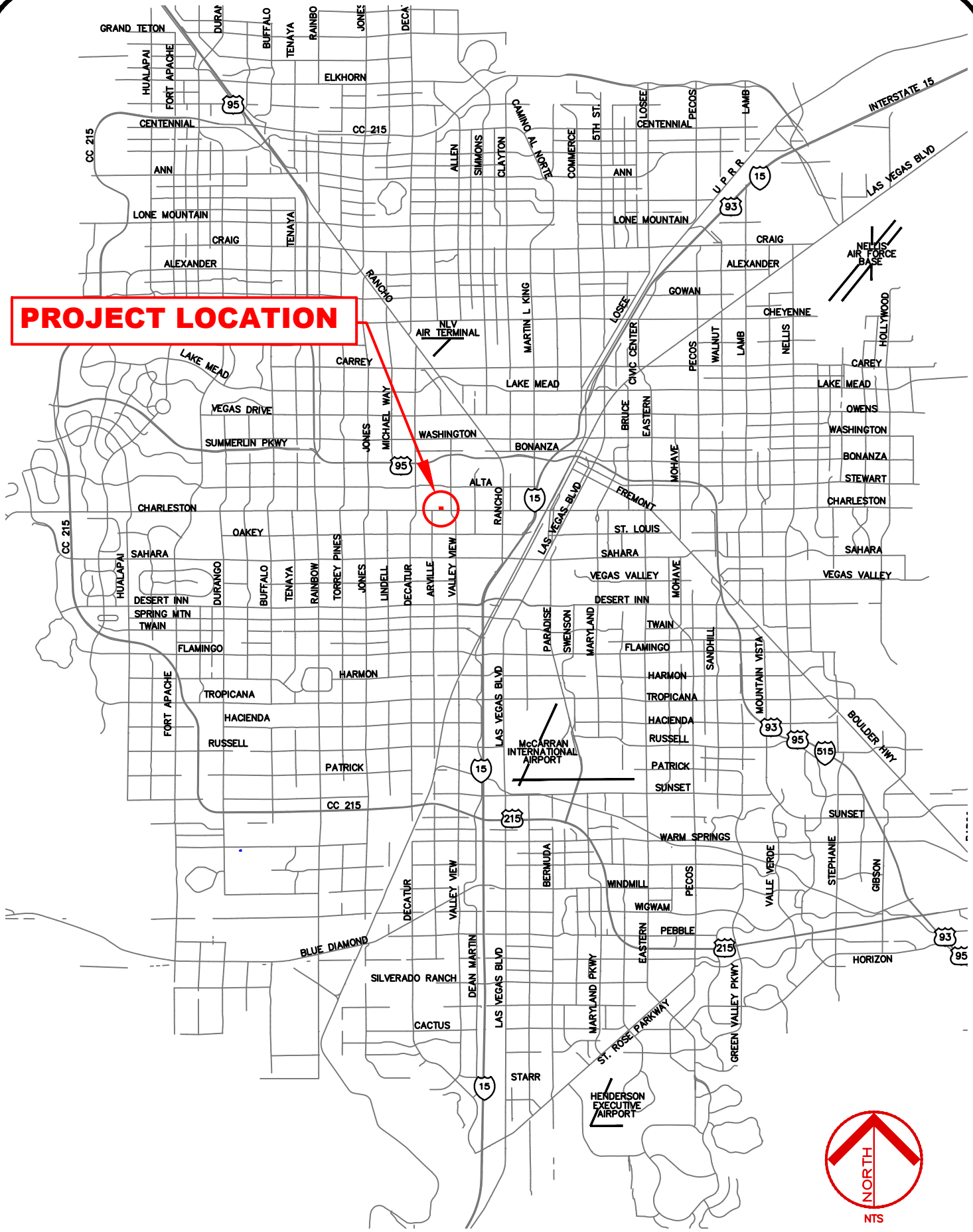
1. INTRODUCTION

Kimley-Horn and Associates, Inc. has been retained by Red Hook Capital Partners to prepare an update to the Sage Collegiate Phase 1 Traffic Impact Study (TIA 76144) for the proposed charter school expansion. The purpose of this traffic impact study update is to identify traffic generation characteristics of the project, identify potential traffic related impacts on the local street system, and develop mitigation measures required for the identified impacts.

The existing Sage Collegiate Public Charter School is located on the northwest corner of Charleston Boulevard and Hinson Street within APN 139-31-801-009 in the City of Las Vegas, Nevada. The school currently serves 215 students in Grades K-8. With the planned increase to student enrollment and the proposed site expansion into APN 139-31-801-007 and 139-31-801-017 to include a new building, the school is planned to serve 796 students, resulting in a net increase of 581 students over four (4) years. The Sage Collegiate Public Charter School plans to operate with one arrival/dismissal time with drop-off at 7:30 AM and dismissal at 3:45 PM to comply with the 30-minute separation from Hyde Park Middle School arrival/dismissal times.

Regional access to Sage Collegiate is provided via Charleston Boulevard, US-95, and I-15. Primary access to the school is provided by Hinson Street and Valley View Boulevard. Direct access to the development is planned to be provided by one (1) existing full access drive on Charleston Boulevard (Drive A) and one (1) existing full access drive on Hinson Street (Drive B). Drive A is not currently used or planned to be used for student pick-up and drop-off operations.

A site plan for the proposed development is located in **Appendix M**. The project is anticipated to be completed in 2027. The location of the charter school with respect to the Las Vegas Valley is shown on **Figure 1**.



SAGE COLLEGIATE PHASE 2
VICINITY MAP

FIGURE 1

Date: April 06, 2023 – 11:31am / User: luke.lazzarini
Path: C:\Users\LUKE~1.LAZ\AppData\Local\Temp\AcPublish_13604\2023-04-06 Vicinity Map.dwg

2. EXISTING CONDITIONS

This section of the report details existing conditions adjacent to the project site.

2.1. Study Area Intersections

The City of Las Vegas Scope of Study (included in **Appendix A** and dated March 28, 2023) identified two (2) intersections for analysis:

- Charleston Boulevard and Hinson Street (#1)
- Charleston Boulevard and Valley View Boulevard (#2)

2.2. Existing Land Uses

The proposed charter school expansion is to be located directly north of the existing Sage Collegiate Public Charter School. The area surrounding the project site is comprised primarily of residential and commercial land uses along with Hyde Park Middle School and the Las Vegas Valley Water District. The location of the project site, study area intersections, and existing land uses are shown on **Figure 2**.

2.3. 2023 Existing Lane Configuration and Control

Regional access to Sage Collegiate is provided via Charleston Boulevard, US-95, and I-15. Primary access to the school is provided by Hinson Street and Valley View Boulevard. Existing speed limits, lane configuration, and traffic control at the time of this study are illustrated in **Figure 3**.

2.4. 2023 Existing Peak Hour Traffic Volumes

Existing AM and PM peak hour turning movement data was field counted on Thursday, March 30, 2023, for the study area intersections identified in **Section 2.1**. A summary of the peak hour count data is shown in **Figure 4** and the count data sheets are provided in **Appendix B**.

SOURCE: NEARMAP US, INC.

NORTH
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STUDY INTERSECTIONS

1. Charleston Boulevard (SR 159)/Hinson Street
2. Charleston Boulevard (SR 159)/Valley View Boulevard

LEGEND:

1	Study Area Key Intersection
A	Project Access Drive

SAGE COLLEGIATE PHASE 2
STUDY AREA

FIGURE 2

Date: May 08, 2023 – 5:26pm / User: luke.lazzarini
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SOURCE: NEARMAP US, INC.

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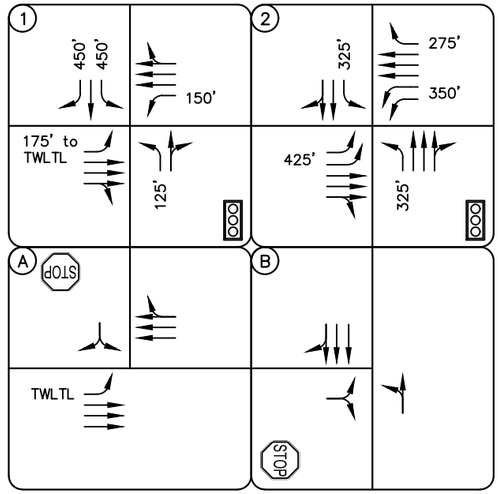

* Drive A is not currently used during school pick-up/ drop-off operations

LEGEND:

(1)	Study Area Key Intersection
(A)	Project Access Drive
SPEED LIMIT 25	Roadway Speed Limit
STOP	Stop Controlled Approach
	Signalized Intersection

SAGE COLLEGIATE PHASE 2
2023 EXISTING LANE CONFIGURATION AND CONTROL

FIGURE 3

Date: May 08, 2023 – 5:26pm / User: luke.lazzarini
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SOURCE: NEARMAP US, INC.

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Thursday, March 30, 2023 7:30–8:30 AM, 3:00–4:00 PM		Thusday, March 30, 2023 7:30–8:30 AM, 3:30–4:30 PM	
1		2	
↙ 266(203) ↓ 78(79) ↘ 111(81)	↖ 59(30) ← 762(1335) ↖ 28(45)	↙ 110(147) ↓ 744(654) ↘ 136(93)	↖ 69(167) ← 571(1110) ↖ 120(170)
169(100) ↗ 1070(999) → 11(20) ↘	9(22) ↑ 91(27) ↑ 16(21) ↗	118(205) ↗ 907(761) → 157(168) ↘	126(143) ↑ 406(1131) ↑ 35(47) ↗
Derived From Adjacent Intersection		Thursday, March 30, 2023 7:15–8:15 AM, 3:00–4:00 PM	
A		B	
	← 1037(1560)	↙ 60(43) ↓ 321(158)	
1250(1119) →		16(13) ↗ 105(77) ↘	57(45) ↑ 257(67) ↑

* Drive A is not currently used during school pick–up/ drop–off operations

LEGEND:

(1)	Study Area Key Intersection
(A)	Project Access Drive
←XX(XX)	AM(PM) Peak Hour Traffic Volumes

SAGE COLLEGIATE PHASE 2
2023 EXISTING PEAK HOUR TRAFFIC VOLUMES

FIGURE 4

Kimley»Horn ©2023

Date: May 19, 2023 – 3:07pm / User: Emily.Roberts
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3. FUTURE CONDITIONS

This section of the report details conditions that are expected in the future at the time Sage Collegiate Phase 2 is anticipated to be completed in 2027.

3.1. 2027 Future Lane Configuration and Control

Regional access to Sage Collegiate is provided via Charleston Boulevard, US-95, and I-15. Primary access to the school is provided by Hinson Street and Valley View Boulevard. Expected speed limits, lane configuration, and traffic control in 2027 are expected remain the same as the 2023 existing speed limits, lane configuration, and traffic control illustrated in **Figure 3**.

3.2. 2027 Background Peak Hour Traffic Volumes

To accurately determine the impact of project traffic, it is necessary to establish future baseline traffic volumes along roadways in the vicinity of the proposed development. An annual growth rate of approximately 0.68 percent (0.68%) was obtained from the evaluation of four (4) Nevada Department of Transportation (NDOT) count stations (0035210, 0030553, 0030972, and 0030612). Two (2) of the count stations are located on Charleston Boulevard and two (2) are located along Valley View Boulevard. Detailed growth calculations are included in **Appendix C**.

For conservative analysis, existing year (2023) peak hour traffic volumes were grown for four (4) years at a 1 percent (1%) annual growth rate to obtain future background traffic volumes in 2027 when the proposed development is anticipated to be completed. The existing turning movements into and out of Drive B were not grown as growth of these movements will be due to Phase 2. The 2027 background peak hour traffic volumes at the key study intersections and project access drives are illustrated in **Figure 5**.

SOURCE: NEARMAP US, INC.

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1		2	
↖ 277(211) ← 81(82) ↙ 116(84)	↖ 61(31) ← 793(1389) ↖ 29(47)	↖ 114(153) ← 774(681) ↙ 142(97)	↖ 72(174) ← 594(1155) ↖ 125(177)
176(104) ↗ 1113(1040) → 11(21) ↘	9(23) ↗ 95(28) → 17(22) ↗	123(213) ↘ 944(792) → 163(175) ↘	131(149) ↗ 422(1177) → 36(49) ↗
A	← 1079(1623)	B	↖ 60(43) ← 334(164)
1301(1164) →		16(13) ↗ 105(77) ↘	57(45) ↗ 267(70) →

* Drive A is not planned to be used during school pick-up/ drop-off operations

LEGEND:

(1)	Study Area Key Intersection
(A)	Project Access Drive
← XX(XX)	AM(PM) Peak Hour Traffic Volumes

SAGE COLLEGIATE PHASE 2
2027 BACKGROUND PEAK HOUR TRAFFIC VOLUMES

FIGURE 5

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3.3. Project Trip Generation

For the purposes of estimating the number of new trips that are anticipated to be generated by the proposed charter school expansion, the Regional Transportation Commission of Southern Nevada's (RTC) *School Trip Generation Study* (prepared by Kimley-Horn, dated June 2020) was used (excerpt provided in **Appendix D**). The study compared calculated trip generation based on data collection at existing schools to the trip generation provided in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition. The ITE Trip Generation Manual informational report is a standard reference used by jurisdictions throughout the country and is based on actual trip generation studies performed at numerous locations in areas of various populations. The trip generation rates from the *School Trip Generation Study* were used as they are understood to be more reflective of the school trip generation characteristics in the City of Las Vegas.

The proposed development is anticipated to generate 604 AM and 465 PM net new peak hour trips during the school peak periods, as summarized in **Table 1**.

Table 1 – School Trip Generation

Description	Size	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Existing Use Southern Nevada Charter School (K-8)	215 Students	125	99	224	96	76	172
Proposed Use Southern Nevada Charter School (K-8)	796 Students	464	364	828	357	280	637
Net Change in Trips		**+339**	**+265**	**+604**	**+261**	**+204**	**+465**

Source: RTC School Trip Generation Study (prepared by Kimley-Horn, dated June 2020)

Based on our collected traffic volumes, the existing Sage Collegiate Public Charter School generated 117 inbound and 121 outbound for a total of 238 total trips in the AM peak hour and 88 inbound and 90 outbound for a total of 178 total PM peak hour trips, consistent with the results of the 2020 RTC School Trip Generation Study.

3.4. Project Trip Distribution

The study area street network characteristics, including the existing traffic patterns, expected street network, access to regional facilities (Charleston Boulevard, US-95, and I-15), existing traffic volumes at the project access drive (Drive B), and proposed pick-up/drop-off circulation plan, were used to determine the distribution of site-generated traffic. The directional distribution of traffic is a means to quantify the percentage of site-generated traffic that approaches the site from a given direction and departs the site in the same or different direction. **Figure 6** shows the project trip distribution at the study area intersections and project access drives.

3.5. Project Traffic Assignment

Assignment of project traffic was obtained by applying the developed trip distribution in **Figure 6** to the estimated traffic generation in **Table 1**. Project traffic assignment is illustrated in **Figure 7** for the study area intersections and proposed project access drives. The entering and exiting trips at the project access drives are rounded to the nearest whole number when assigned. Therefore, the number of trips assigned to the project driveways in **Figure 7** may differ slightly from the total trip generation.

3.6. 2027 Background Plus Project Peak Hour Traffic Volumes

The project-generated traffic volumes in **Figure 7** were added to the 2027 background traffic volumes in **Figure 5** to represent estimated traffic conditions for full project development in 2027. The 2027 background plus project peak hour traffic volumes for the study area intersections and project access drives are illustrated in **Figure 8**.

SOURCE: NEARMAP US, INC.

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1 0%(35%) ↙ 0%(2%) ↓ 0%(60%) ↘	↖ 23%(0%)	2	↖ 15%(0%) ← 15%(0%)
17%(0%) ↗	MIN ↑	0%(15%) ↗ 0%(30%) → 0%(15%) ↘	8%(0%) ↗ 9%(0%) ↑
A	← 0%(35%)	B 60%(0%) ↓	40%(0%) ↑
17%(0%) →		0%(3%) ↗ 0%(97%) ↘	

* Drive A is not planned to be used during school pick-up/drop-off operations

* Inbound distribution modified to reflect school pick-up/drop-off operations requiring a southbound right into Drive B for queue

LEGEND:

(1)	Study Area Key Intersection
(A)	Project Access Drive
← XX%(XX%)	IN(OUT) Peak Hour Trip Distribution
<--XX%-->	Global Peak Hour Trip Distribution

SAGE COLLEGIATE PHASE 2
PROJECT TRIP DISTRIBUTION

FIGURE 6

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SOURCE: NEARMAP US, INC.

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1 94(72) ← 6(5) ← 160(123) ↙	↖ 78(60)	2	↖ 51(39) ← 51(39)
58(45) ↗		40(31) ↗ 80(62) → 40(31) ↘	28(21) ↗ 31(24) →
A	← 94(72)	B ↙ 204(156)	
58(45) →		8(7) ↗ 259(199) ↘	136(104) ↗

* Drive A is not planned to be used during school pick-up/ drop-off operations

LEGEND:

(1)	Study Area Key Intersection
(A)	Project Access Drive
←XX(XX)	AM(PM) Peak Hour Traffic Volumes

SAGE COLLEGIATE PHASE 2
PROJECT TRAFFIC ASSIGNMENT

FIGURE 7

Date: May 19, 2023 – 3:10pm / User: Emily.Roberts
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SOURCE: NEARMAP US, INC.

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1 371(283) ↖ 87(87) ← 276(207) ↙	↖ 139(91) ← 793(1389) ↙ 29(47)	2 114(153) ↖ 774(681) ← 142(97) ↙	↖ 123(213) ← 645(1194) ↖ 125(177)
234(149) ↖ 1113(1040) → 11(21) ↘	9(23) ↗ 95(28) → 17(22) ↗	163(244) ↖ 1024(854) → 203(206) ↘	159(170) ↗ 453(1201) → 36(49) ↗
A	← 1131(1632)	B 264(199) ↖ 334(164) ←	
1308(1164) →		24(20) ↗ 364(276) ↘	193(149) ↗ 267(70) →

* Drive A is not planned to be used during school pick-up/ drop-off operations

LEGEND:

(1)	Study Area Key Intersection
(A)	Project Access Drive
←XX(XX)	AM(PM) Peak Hour Traffic Volumes

SAGE COLLEGIATE PHASE 2
2027 BACKGROUND PLUS PROJECT PEAK HOUR TRAFFIC VOLUMES

FIGURE 8

4. TRAFFIC IMPACT ANALYSIS

Traffic analyses for 2023 existing, 2027 background, and 2027 background plus project scenarios were conducted at the identified key intersections and Drive B to determine possible existing and/or future deficiencies in the street network (Drive A is not currently used or planned to be used for student pick-up and drop-off operations).

4.1. Analysis Methodology

Study area intersections were analyzed based on average total delay analysis for signalized and unsignalized intersections presented in the Transportation Research Board's "Highway Capacity Manual" 6th Edition (HCM). Under the unsignalized analysis, the level of service (LOS) for a two-way stop-controlled intersection is determined by the computed or measured control delay and is defined for each minor movement. LOS for a two-way stop-controlled intersection is not defined for the intersection as a whole. LOS for a signalized or four-way stop controlled intersection is defined for the intersection as a whole. **Table 2** shows the definition of LOS for intersections.

Table 2 – Level of Service Definitions

Level of Service	Signalized Intersection Average Total Delay (sec/veh)	Unsignalized Intersection Average Total Delay (sec/veh)
A	≤10	10
B	>10 and ≤20	>10 and ≤15
C	>20 and ≤35	>15 and ≤25
D	>35 and ≤55	>25 and ≤35
E	>55 and ≤80	>35 and ≤50
F	>80	>50

Definitions provided from the Highway Capacity Manual, 6th Edition, Transportation Research Board.

Synchro 11 was used to analyze the study area intersections and Drive B for LOS. Synchro is an interactive computer program that enables planners and engineers to forecast the traffic impacts of developments, conduct area-wide traffic forecasting studies, test different mitigation measures, and compare different traffic scenarios. Synchro 11 utilizes HCM 6 methodology to analyze intersection delay and LOS.

4.2. Key Intersection Operational Analysis

Calculations for the LOS at the key intersections are provided in **Appendix E**. All existing, background, and background plus project analyses are based on the lane geometry and intersection control shown in **Figure 3**. The existing analyses are based on the traffic volumes shown in **Figure 4**, the background analyses are based on the traffic volumes shown in **Figure 5**, and the background plus project analyses are based on the traffic volumes shown in **Figure 8**. Signalized intersections were analyzed using the signal timing provided by RTC FAST (included in **Appendix F**). The results of the key intersection peak hour LOS analysis are shown in **Table 3**.

Table 3 – Key Intersection Peak Hour LOS Results

Int. No	Intersection	2023 Existing		2027 Background		2027 Background + Project	
		AM	PM	AM	PM	AM	PM
		Delay (LOS)	Delay (LOS)	Delay (LOS)	Delay (LOS)	Delay (LOS)	Delay (LOS)
1	**Charleston Boulevard and Hinson Street** Signalized	21.5 (C)	14.7 (B)	22.0 (C)	14.8 (B)	43.3 (D)	19.9 (B)
2	**Charleston Boulevard and Valley View Boulevard** Signalized	51.5 (D)	53.4 (D)	53.3 (D)	54.3 (D)	52.4 (D)	54.1 (D)

The intersections of Charleston Boulevard and Hinson Street (#1) and Charleston Boulevard and Valley View Boulevard (#2) are expected to operate at acceptable LOS for all evaluated scenarios.

4.3. Project Access Operational Analysis

Table 4 shows the results of the LOS analysis performed at Drive B. The analysis is based on the lane configuration and control shown in **Figure 3** as well as the traffic volumes shown in **Figure 8**. Calculations are located in **Appendix G**.

Table 4 – Project Access Drive Peak Hour LOS Results

Intersection	2023 Existing		2027 Background		2027 Background + Project	
	AM	PM	AM	PM	AM	PM
	Delay (LOS)	Delay (LOS)	Delay (LOS)	Delay (LOS)	Delay (LOS)	Delay (LOS)
Hinson Street and Drive B						
Two-Way Stop Control						
Northbound Left	12.0 (B)	9.6 (A)	12.2 (B)	9.7 (A)	34.5 (D)	13.3 (B)
Eastbound Left/Right	18.0 (C)	11.4 (B)	18.7 (C)	11.5 (B)	***** (F)**	32.3 (D)

**** Delay calculated to exceed 300 seconds*

Drive B was calculated to operate with significant delay during the 2027 background plus project AM peak hour. It should be noted that the HCM 6 methodology does not account for gaps in the traffic stream and platooning from nearby signalized intersections or adjacent access drives. Additionally, delay at this eastbound left/right turn movement will be managed with queuing on-site and is not anticipated to impact the local roadway network.

4.4. Left Turn Storage Bay Analysis

Left turn storage bay analysis was conducted for all left turn movements at the study intersections and Drive B. The analysis was conducted using the Poisson method with a 95% confidence interval and a 3-minute wait time for stop-controlled movements. The length of the desired storage per lane was calculated to include the maximum of the AM or PM peak hour volumes. Results of the analysis are provided in **Table 5** with calculations provided in **Appendix H**. Only left turn movements anticipated to be impacted by project traffic were considered for mitigation measures.

Table 5 – Left Turn Storage Bay Analysis Results

Int. No.	Intersection Left Turn Movement	Control Storage Length	Desired Storage per Lane		
			2023 Existing	2027 Background	2027 Background Plus Project
1	**Charleston Boulevard and Hinson Street**	Signalized			
	Northbound Left	125'	71'	73'	73'
	Southbound Left	450'	215'	222'	**451'**
	Southbound Left - SimTraffic	*450'*	-	-	*345'*
	Eastbound Left	175'/TWLTL	300'	311'	393'
	Westbound Left	150'	118'	122'	122'
2	**Charleston Boulevard and Valley View Boulevard**	Signalized			
	Northbound Left	325'	289'	298'	**332'**
	Southbound Left	325'	252'	261'	261'
	Eastbound Left	DUAL 425'	194'	200'	224'
	Westbound Left	DUAL 350'	166'	172'	172'
B	**Hinson Street and Drive B**	Two-Way Stop Control			
	Northbound Left	Shared	129'	129'	335'
	Eastbound Left	On-Site	52'	52'	69'

In general, the evaluated left turn storage bays are expected to provide adequate storage under 2023 existing, 2027 background, and 2027 background plus project scenarios with the following exceptions:

- Charleston Boulevard and Hinson Street (#1) – Southbound Left
- Charleston Boulevard and Valley View Boulevard (#2) – Northbound Left

For the left turn evaluation criteria, the southbound left-turn at Charleston Boulevard and Hinson Street (#1) was calculated to exceed the provided storage by 1 foot in the 2027 background plus project scenario.

Through a SimTraffic queuing analysis using the 95th percentile queue length of the southbound to eastbound left-turn movement of the Charleston Boulevard and Hinson Street intersection in the 2027 background plus project scenario was calculated to be 345 feet with a maximum simulation queue length of 319 feet, compared to the 451 feet calculated through the city-proscribed conservative, planning-level analysis methodology in the background plus project scenario. Therefore, traffic queuing is not anticipated to exceed available storage at the Charleston Boulevard and Hinson Street (#1) intersection. The SimTraffic queuing analysis report is included in **Appendix K**.

For the left turn evaluation criteria, the southbound left-turn at Charleston Boulevard and Valley View Boulevard (#2) was calculated to exceed the provided storage by 7 feet in the 2027 background plus project scenario. Traffic queuing is expected to exceed the provided 325 feet of storage by less than one (1) vehicle. It is recommended that the City of Las Vegas continue to work with RTC FAST to optimize the signal operations at the intersection of Charleston Boulevard and Valley View Boulevard (#2).

4.5. Right Turn Storage Bay Analysis

Right turn storage lengths for all movements were calculated at the signalized study area anticipated to be impacted by the addition of project traffic. The analysis was calculated using Equation 5-7 from the ITE *Transportation and Land Development* publication (excerpt included in **Appendix I**). Per the ITE *Transportation and Land Development* publication, "only minimum storage for right-turning vehicles should be needed at unsignalized access connections." The right turn storage bay calculations include AM and PM peak hour volumes. The length of the desired storage per lane was taken to be the maximum of the two peak hours. Results of the analysis are provided in **Table 6** with calculations provided in **Appendix J**. Only right turn storage bays expected to be impacted by project traffic were considered for mitigation measures.

Table 6 – Right Turn Storage Bay Analysis Results

Int. No.	Intersection Left Turn Movement	Control Storage Length	Desired Storage per Lane		
			2023 Existing	2027 Background	2027 Background Plus Project
1	**Charleston Boulevard and Hinson Street**	Signalized			
	Northbound Right	Shared	31'	32'	32'
	Southbound Right	450'	299'	311'	417'
	Eastbound Right	Shared	29'	31'	31'
	Westbound Right	Shared	66'	68'	156'
2	**Charleston Boulevard and Valley View Boulevard**	Signalized			
	Northbound Right	Shared	69'	71'	71'
	Southbound Right	Shared	214'	223'	223'
	Eastbound Right	Shared	245'	255'	300'
	Westbound Right	275'	244'	254'	**311'**
	Westbound Right - SimTraffic	275'	-	-	288'

In general, the evaluated right turn storage bays are expected to provide adequate storage under 2023 existing, 2027 background, and 2027 background plus project scenarios with the exception of the westbound right at Charleston Boulevard and Valley View Boulevard (#2). Based on the conservative calculation methodology, the westbound right at Charleston Boulevard and Valley View Boulevard (#2) is expected to exceed provided storage under 2027 background plus project conditions. Using SimTraffic analysis, the westbound right at Charleston Boulevard and Valley View Boulevard (#2) is expected to exceed the provided 275 feet of storage by less than one (1) vehicle. SimTraffic reports are provided in **Appendix K**.

5. ACTIVE TRANSPORTATION ANALYSIS

This section of the report details pedestrian, bicycle, and transit measures, potential PROWAG/ADA compliance concerns, as well as potential active transportation access measures.

5.1. Pedestrian and Bicycle Access and Safety

Sidewalks and crosswalks are provided in the vicinity of the school. No bicycle facilities are provided in the vicinity of the project site.

Given the ages of students and safety concerns, the school does not currently and does not plan to permit walkers to/from campus in the future, aside from potentially walking to the park on the east side of Hinson Street.

5.2. Transit Requirements

As part of the Sage Collegiate Phase 1 Traffic Impact Study (TIA 76144), right-of-way was dedicated for a bus turnout at the existing bus stop location along the project's Charleston Boulevard frontage.

5.1. PROWAG and ADA Compliance

Sidewalks and sidewalk ramps along the development street frontages are currently constructed. During project design, it is recommended that the developer's design team review the pedestrian facilities along the project's Charleston Boulevard and Hinson Street frontages for Public Rights-of-Way Accessibility Guidelines (PROWAG) compliance and construct off-site improvements, if necessary, to ensure compliance.

6. QUEUING AND SITE CIRCULATION

This section analyzes the on-site student drop-off and pick-up circulation proposed to be provided at Sage Collegiate, with the addition of Phase 2.

6.1. Bell Times and Student Pick-Up/Drop-Off Circulation

For the purposes of calculating the required queuing storage length for the proposed charter school, the Regional Transportation Commission of Southern Nevada (RTC) *School Trip Generation Study* (prepared by Kimley-horn, dated June 2020) was used. The study recommended that for charter schools in the Las Vegas Valley, a ratio of 0.2 vehicles per student be used for queue length.

Based on the Sage Collegiate Public Charter School Circulation Plan Update, accepted by the City on March 8, 2023, the school is currently accepted for an enrollment of 400 students using the existing pick-up/drop-off circulation plan. The current pick-up/drop-off queuing operation maximizes the available queue space onsite by using a serpentine queue through the parking aisles along with utilizing the excess parking stalls for vehicle queuing to queue pick-up/drop-off vehicles onsite with minimal impact to the public right of way.

A total of 796 students are proposed at full buildout of the Sage Collegiate Public Charter School which results in a required queue length of 4,000 linear feet, assuming 25 feet per vehicle.

The Sage Collegiate Public Charter School plans to operate with one arrival/dismissal time with drop-off at 7:30 AM and dismissal at 3:45 PM to comply with the 30-minute separation from Hyde Park Middle School arrival/dismissal times.

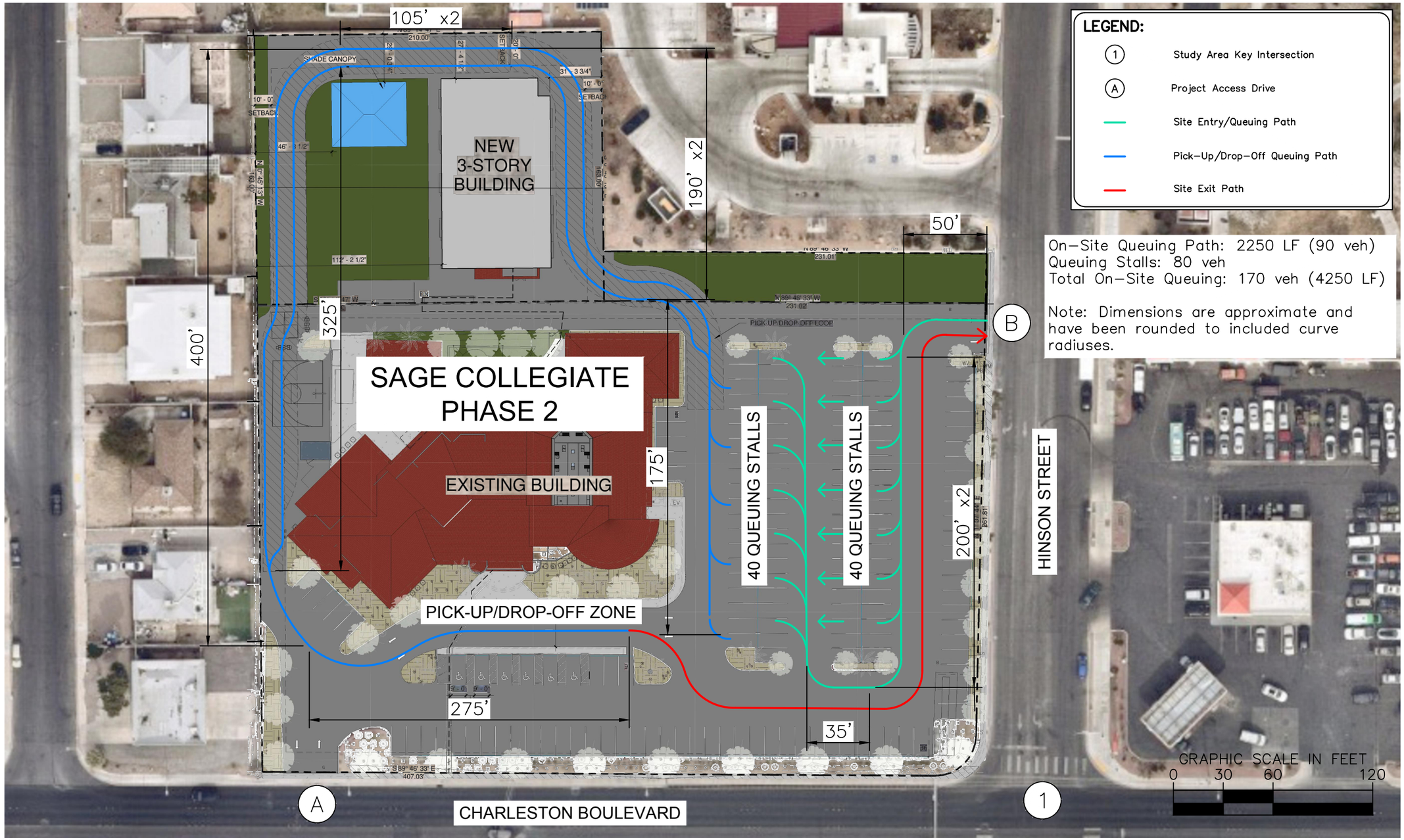
To provide the requirement 4,000 linear feet of queuing with one bell time, the vehicles are recommended to maintain their existing arrival/dismissal operations which provide 2,550 feet of queue space and then provide a dual vehicle queuing lanes around the northern perimeter of the site circulating down the western boundary of the site and picking up students at the front of the existing school building. The dual circulation lanes provide an additional 1,700 feet of queue space for a total of 4,250 feet of vehicle storage on-site. The proposed drop-off/pick-up site circulation plan is illustrated in **Figure 9**.

Adequate on-site storage for student pick-up/drop-off was calculated to be provided with Phase 2 to accommodate the anticipated vehicle queues. It is recommended that the school operator consistently review queueing operations and provide communication and instruction to those who pick-up and drop-off students to assure that vehicle queueing into the public right of way does not occur.

In the event that vehicles being queuing onto Hinson Street and additional queuing space is required, the school is recommended to consider adding a second bell time.

6.2. Site Circulation

With the implementation of the school's pick-up/drop-off circulation plan, parents will be directed to enter the student drop-off/pick-up queue by making a southbound right from Hinson Street at Drive B and exit the campus back onto Hinson Street from Drive B. Drive A is not currently used or planned to be used for student pick-up and drop-off operations.



SOURCE: NEARMAP US, INC.

SAGE COLLEGIATE PHASE 2
2027 BACKGROUND PLUS PROJECT POTENTIAL SITE QUEUING PLAN

FIGURE 9

Kimley»Horn ©2023

Date: May 19, 2023 – 2:46pm / User: Emily.Roberts
Path: K:\LAV_TPTO\092815003 – Sage Collegiate Phase 2\Figures\Dwg Files\2023–04–04 Sage Charter11x17.dwg / Xref:

7. CRASH DATA ANALYSIS

Crash data for the two (2) study area intersections was obtained from the Nevada Department of Transportation (NDOT) Safety Engineering Division for the five-year period from January 1, 2016 – January 1, 2021. The crash data is included in **Appendix L** and is summarized in **Table 7**. No crash data was reported for Hinson Street and Drive B.

Table 7 – Crash Data Summary

Intersection	Total Crashes	Property Damage Only	Injury	Fatal
Charleston Boulevard and Hinson Street (#1)	34	12 (35%)	22 (65%)	0 (0%)
Charleston Boulevard and Valley View Boulevard (#2)	72	33 (46%)	39 (54%)	0 (0%)
Total	**106**	**45 (42%)**	**61 (58%)**	**0 (0%)**

A total of 106 crashes were recorded at the study area intersections during the five-year period. Those 106 crashes resulted in 61 injury crashes (58%), and 45 property damage only crashes (42%). No fatal crashes were reported for the study area intersections.

8. RECOMMENDATIONS

Upon expected project completion in 2027, Sage Collegiate Phase 2 is anticipated to generate traffic volumes resulting in the following recommendations:

- It is recommended that the City of Las Vegas continue to work with RTC FAST to optimize the signal operations at the intersection of Charleston Boulevard and Valley View Boulevard (#2).
- Sidewalks and sidewalk ramps along the development street frontages are currently constructed. During project design, it is recommended that the developer's design team review the pedestrian facilities along the project's Charleston Boulevard and Hinson Street frontages for Public Rights-of-Way Accessibility Guidelines (PROWAG) compliance and construct off-site improvements, if necessary, to ensure compliance.
- Adequate on-site storage for student pick-up/drop-off was calculated to be provided with Phase 2 to accommodate the anticipated vehicle queues. It is recommended that the school operator consistently review queueing operations and provide communication and instruction to those who pick-up and drop-off students to assure that vehicle queueing into the public right of way does not occur.

APPENDIX A

SCOPE OF STUDY

Traffic Impact Analysis Scoping Checklist

Department of Public Works – Transportation Division

Date:	March 28, 2023
To:	Jasmin Mohyuddin, Kimley-Horn
Project Name:	Sage Collegiate Charter School Expansion
Description:	Expansion of an existing 215 student charter school to 796 students.
Project Location:	NWC Charleston Blvd & Hinson St

Required Study/ Analysis:

☐	***Master Traffic Study***	☐	***Update Master Traffic Study*** *to*
☐	***Traffic Study***	☒	***Update Traffic Study*** *to 76144*
☐	***Addendum*** *to*	☐	***Conceptual/Courtesy***
☐	***Pedestrian Connectivity Study***	☐	

Intersections	LOS	Crash History	Left / Right Turn Lane Storage Analysis
Charleston & Hinson	X	X	X
Charleston & Valley View	X	X	X
Site driveways	X	X	X

Remarks:

1. Provide drop-off/pick-up plans. Provide recommendations in the event that these plans need to be modified after opening.

☒	***Identify all sidewalk and sidewalk ramp PROWAG deficiencies adjacent to the project boundary.***
☒	***Include a section addressing Standard Drawings #201.1, 234.1, #234.2 and #234.4 to determine additional right-of-way requirements for exclusive right turn lanes, dual left turn lanes***
☒	***Recommend measures to accommodate pedestrians, such as but not limited to pedestrian accesses, crosswalks, flashing beacons and temporary sidewalks.***
☒	***Include scaled site plan that dimension adjacent driveways, medians, and driveway throat depths.***
☒	***TIAs may be submitted either electronically or in hard copy. For hard copies, submit 1 hard copy, 1 PDF copy and completed TIA submittal form to 495 S. Main Street, 1st Floor. Include this form with submittal, either electronic or hard copy. Electronic submittals may be emailed to me if they are not larger than 10GB and can meet NAC 625.610 for sealing electronic submittals. Contact me if email is not feasible.***
☐	

Please contact Rick Schroder, Rschroder@lasvegasnevada.gov or Christina Karanikolas, ckaranikolas@lasvegasnevada.gov if you have any questions.

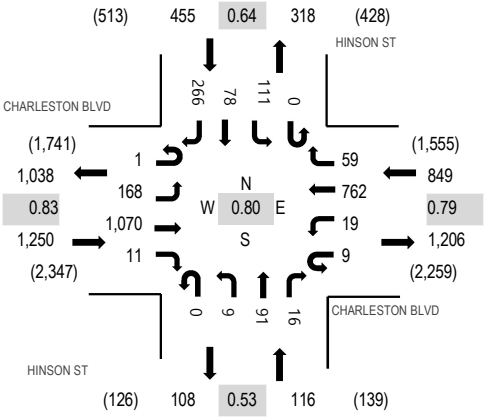
APPENDIX B

COUNT DATA

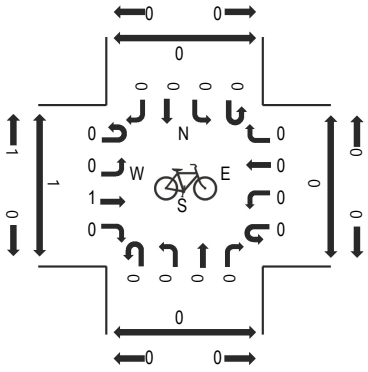
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 1 HINSON ST & CHARLESTON BLVD AM
Date: Thursday, March 30, 2023
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

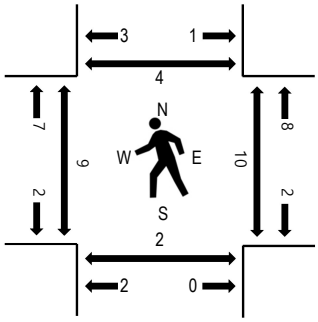
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

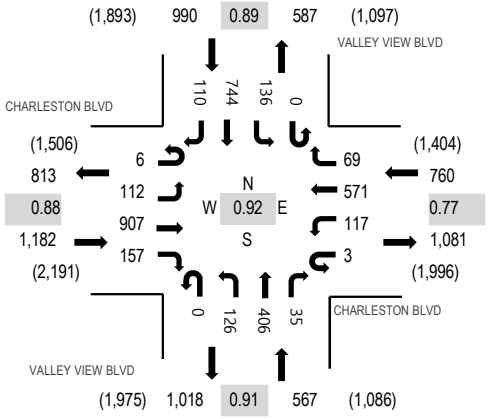
Traffic Counts - Motorized Vehicles

Interval Start Time	CHARLESTON BLVD Eastbound				CHARLESTON BLVD Westbound				HINSON ST Northbound				HINSON ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	21	198	2	2	2	138	6	0	0	1	2	0	4	0	5	381	2,445	0	2	0	0
7:15 AM	0	35	262	1	0	1	127	15	0	0	7	4	0	5	1	19	477	2,654	0	2	0	0
7:30 AM	0	52	253	2	0	3	190	21	0	2	48	5	0	36	36	107	755	2,670	6	5	0	0
7:45 AM	0	81	306	2	2	5	230	31	0	3	27	2	0	31	24	88	832	2,419	1	0	0	2
8:00 AM	0	23	264	4	6	6	159	5	0	1	14	3	0	34	17	54	590	2,109	1	4	1	0
8:15 AM	1	12	247	3	1	5	183	2	0	3	2	6	0	10	1	17	493		1	1	1	0
8:30 AM	0	6	268	0	1	2	205	4	0	0	2	4	0	3	1	8	504		1	0	0	0
8:45 AM	0	8	295	1	1	6	193	3	0	1	2	0	0	4	1	7	522		0	1	1	0
Count Total	1	238	2,093	15	13	30	1,425	87	0	10	103	26	0	127	81	305	4,554		10	15	3	2
Peak Hour	1	168	1,070	11	9	19	762	59	0	9	91	16	0	111	78	266	2,670		9	10	2	4

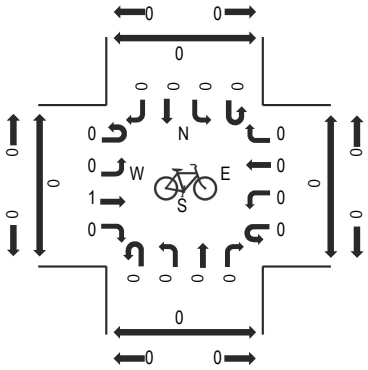
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 2 VALLEY VIEW BLVD & CHARLESTON BLVD AM
Date: Thursday, March 30, 2023
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

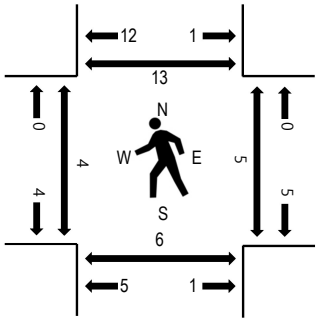
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

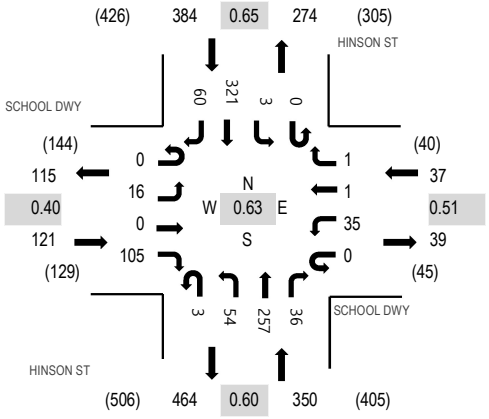
Traffic Counts - Motorized Vehicles

Interval Start Time	CHARLESTON BLVD Eastbound				CHARLESTON BLVD Westbound				VALLEY VIEW BLVD Northbound				VALLEY VIEW BLVD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	13	154	24	2	12	104	9	0	17	58	10	0	12	184	15	614	3,214	2	0	3	4
7:15 AM	1	13	219	38	0	22	110	14	0	28	96	7	0	15	207	19	789	3,474	0	2	0	1
7:30 AM	1	30	223	39	2	29	148	15	0	30	103	3	0	31	184	20	858	3,499	0	1	4	2
7:45 AM	4	39	245	54	1	37	189	21	0	38	90	7	0	29	173	26	953	3,464	2	2	0	6
8:00 AM	0	30	225	37	0	26	93	20	0	37	115	12	0	38	205	36	874	3,360	0	0	1	0
8:15 AM	1	13	214	27	0	25	141	13	0	21	98	13	0	38	182	28	814		2	2	1	5
8:30 AM	2	24	204	39	0	20	141	15	0	37	100	8	1	28	176	28	823		3	0	2	1
8:45 AM	0	27	212	39	4	33	136	22	0	34	117	7	1	33	163	21	849		3	5	3	5
Count Total	9	189	1,696	297	9	204	1,062	129	0	242	777	67	2	224	1,474	193	6,574		12	12	14	24
Peak Hour	6	112	907	157	3	117	571	69	0	126	406	35	0	136	744	110	3,499		4	5	6	13

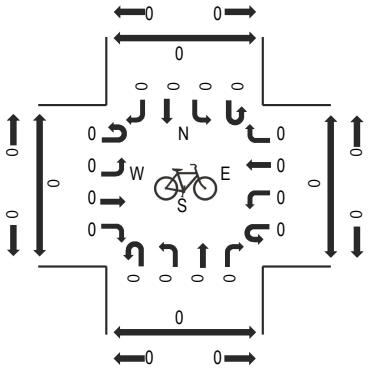
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 3 HINSON ST & SCHOOL DWY AM
Date: Thursday, March 30, 2023
Peak Hour: 07:15 AM - 08:15 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

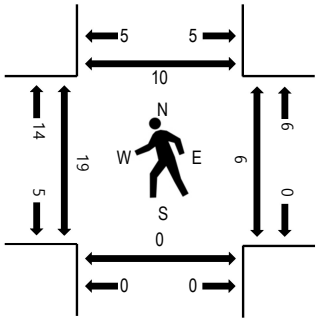
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

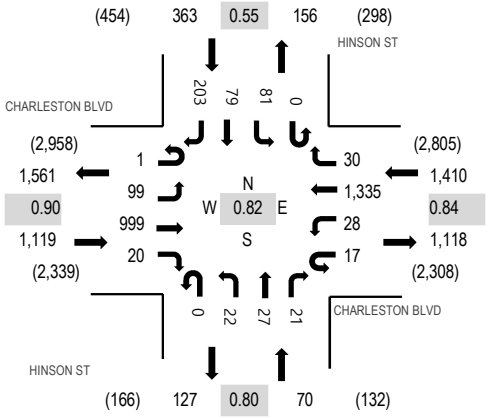
Traffic Counts - Motorized Vehicles

Interval Start Time	SCHOOL DWY Eastbound				SCHOOL DWY Westbound				HINSON ST Northbound				HINSON ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	0	2	0	0	0	0	0	11	13	5	0	0	5	9	45	815	0	0	0	0
7:15 AM	0	2	0	1	0	2	0	0	0	15	30	8	0	0	23	24	105	892	0	0	0	2
7:30 AM	0	8	0	67	0	18	0	0	2	26	72	15	0	1	112	35	356	818	12	1	0	8
7:45 AM	0	5	0	32	0	10	1	0	0	12	122	12	0	1	113	1	309	482	6	3	0	0
8:00 AM	0	1	0	5	0	5	0	1	1	1	33	1	0	1	73	0	122	185	1	2	0	0
8:15 AM	0	0	0	3	0	1	0	0	0	3	9	0	0	0	15	0	31		1	3	0	1
8:30 AM	0	2	0	0	0	0	0	0	0	3	5	0	0	0	9	1	20		0	1	1	0
8:45 AM	0	0	0	1	0	2	0	0	1	2	2	1	0	0	3	0	12		0	0	0	0
Count Total	0	18	0	111	0	38	1	1	4	73	286	42	0	3	353	70	1,000		20	10	1	11
Peak Hour	0	16	0	105	0	35	1	1	3	54	257	36	0	3	321	60	892		19	6	0	10

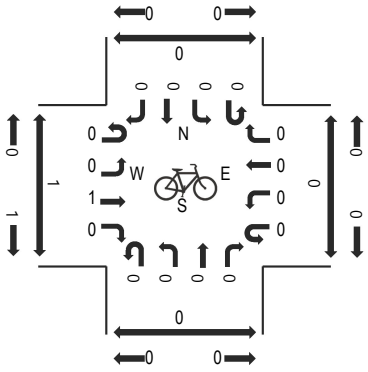
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 1 HINSON ST & CHARLESTON BLVD PM
Date: Thursday, March 30, 2023
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:00 PM - 03:15 PM

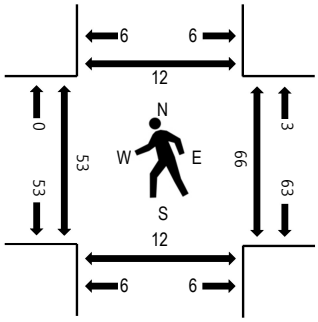
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

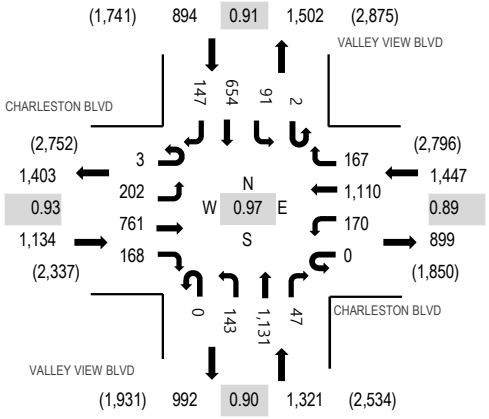
Traffic Counts - Motorized Vehicles

Interval Start Time	CHARLESTON BLVD Eastbound				CHARLESTON BLVD Westbound				HINSON ST Northbound				HINSON ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:30 PM	1	19	297	1	6	5	286	11	0	1	3	5	0	4	2	5	646	2,878	0	0	0	0
2:45 PM	0	47	260	4	1	12	352	13	0	6	14	4	0	13	1	7	734	2,899	0	2	1	0
3:00 PM	0	30	259	6	9	9	398	11	0	8	8	4	0	31	47	88	908	2,962	50	59	8	6
3:15 PM	0	23	207	6	3	5	266	8	0	6	7	4	0	15	10	30	590	2,776	2	4	1	3
3:30 PM	0	19	252	5	3	7	325	7	0	4	10	2	0	9	7	17	667	2,852	0	2	1	1
3:45 PM	1	27	281	3	2	7	346	4	0	4	2	11	0	26	15	68	797		1	1	2	2
4:00 PM	0	16	306	4	4	1	336	3	0	4	2	10	0	8	4	24	722		4	1	1	1
4:15 PM	0	8	257	0	6	4	354	1	0	6	5	2	0	7	1	15	666		0	2	6	1
Count Total	2	189	2,119	29	34	50	2,663	58	0	39	51	42	0	113	87	254	5,730		57	71	20	14
Peak Hour	1	99	999	20	17	28	1,335	30	0	22	27	21	0	81	79	203	2,962		53	66	12	12

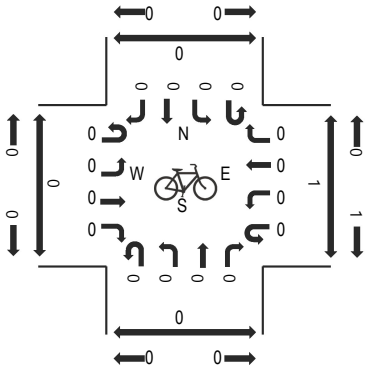
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 2 VALLEY VIEW BLVD & CHARLESTON BLVD PM
Date: Thursday, March 30, 2023
Peak Hour: 03:30 PM - 04:30 PM
Peak 15-Minutes: 04:15 PM - 04:30 PM

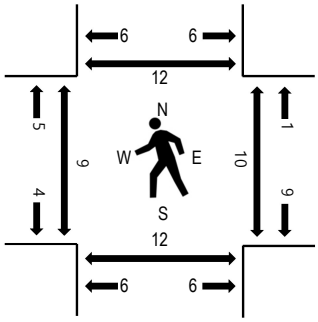
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

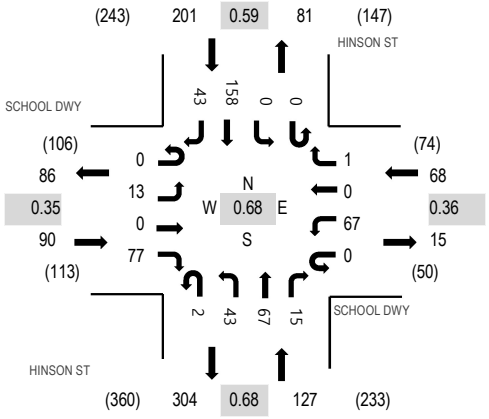
Traffic Counts - Motorized Vehicles

Interval Start Time	CHARLESTON BLVD Eastbound				CHARLESTON BLVD Westbound				VALLEY VIEW BLVD Northbound				VALLEY VIEW BLVD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:30 PM	1	42	211	55	1	25	244	49	0	42	252	15	0	19	119	32	1,107	4,612	0	2	9	0
2:45 PM	2	35	180	45	1	43	274	46	1	49	266	9	1	18	140	45	1,155	4,637	1	0	1	0
3:00 PM	0	57	195	56	0	39	284	47	0	44	208	9	0	34	141	49	1,163	4,685	4	1	3	6
3:15 PM	4	55	227	38	0	56	188	52	0	44	261	13	2	19	181	47	1,187	4,748	1	3	4	1
3:30 PM	0	39	172	36	0	39	267	35	0	30	281	13	0	22	161	37	1,132	4,796	1	2	3	5
3:45 PM	0	49	212	53	0	52	261	49	0	50	261	11	0	21	133	51	1,203		1	3	4	1
4:00 PM	1	66	181	45	0	35	257	45	0	40	314	14	1	27	174	26	1,226		1	4	3	2
4:15 PM	2	48	196	34	0	44	325	38	0	23	275	9	1	21	186	33	1,235		6	1	2	4
Count Total	10	391	1,574	362	2	333	2,100	361	1	322	2,118	93	5	181	1,235	320	9,408		15	16	29	19
Peak Hour	3	202	761	168	0	170	1,110	167	0	143	1,131	47	2	91	654	147	4,796		9	10	12	12

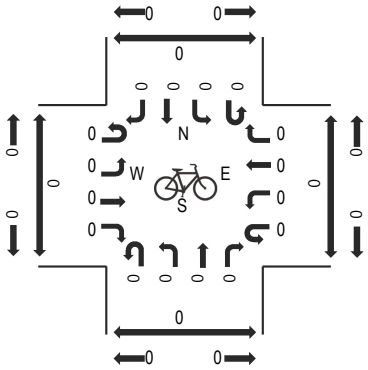
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 3 HINSON ST & SCHOOL DWY PM
Date: Thursday, March 30, 2023
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:00 PM - 03:15 PM

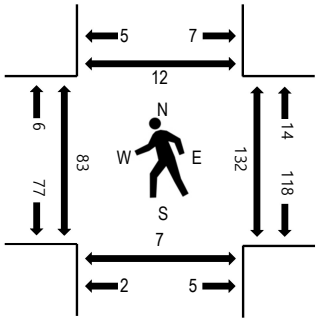
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SCHOOL DWY Eastbound				SCHOOL DWY Westbound				HINSON ST Northbound				HINSON ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:30 PM	0	0	0	0	0	1	0	0	0	1	16	11	1	0	7	0	37	372	0	4	0	0
2:45 PM	0	0	0	3	0	2	1	0	0	5	31	22	0	1	4	4	73	412	0	4	0	0
3:00 PM	0	0	0	6	0	47	0	0	2	5	30	5	0	0	80	5	180	486	77	108	0	1
3:15 PM	0	0	0	1	0	9	0	1	0	10	11	7	0	0	33	10	82	353	2	15	0	3
3:30 PM	0	2	0	8	0	8	0	0	0	17	12	1	0	0	16	13	77	291	1	8	7	5
3:45 PM	0	11	0	62	0	3	0	0	0	11	14	2	0	0	29	15	147		3	1	0	3
4:00 PM	0	2	0	15	0	2	0	0	0	3	8	1	1	0	11	4	47		4	1	0	0
4:15 PM	0	1	0	2	0	0	0	0	0	2	6	0	0	0	9	0	20		0	0	0	0
Count Total	0	16	0	97	0	72	1	1	2	54	128	49	2	1	189	51	663		87	141	7	12
Peak Hour	0	13	0	77	0	67	0	1	2	43	67	15	0	0	158	43	486		83	132	7	12

APPENDIX C

GROWTH CALCULATIONS

Kimley»Horn

Project:	Sage Collegiate Phase 2	*Project Number:*	092815003
Subject:	NDOT Growth Rate Calculations	*Date:*	4/4/2023
Designed By:	EKR	*Page:*	1 of 1

Existing Growth Rate Calculations

Ref: Nevada Department of Transportation - Annual Traffic Report 2019

Number of Count Stations Analyzed = 4

Average Annual Growth Rate in the Vicinity of the Proposed Project = **0.68%**

NDOT COUNT STATION:	0035210
ROADWAY:	SR 159
LOCATION:	280 ft E of Cashman Drive

Year	AADT	Annual Growth Rate
2016	33,000	**0.00%**
2019	33,000	
YEARS =	3	

PROJECTED TRAFFIC VOLUMES	
Year	AADT
2020	33000
2021	33000
2022	33000

NDOT COUNT STATION:	0030553
ROADWAY:	SR 159
LOCATION:	385 ft W of Mohawk St

Year	AADT	Annual Growth Rate
2016	32,000	**1.03%**
2019	33,000	
YEARS =	3	

PROJECTED TRAFFIC VOLUMES	
Year	AADT
2020	33340
2021	33684
2022	34031

NDOT COUNT STATION:	0030972
ROADWAY:	Valley View Blvd
LOCATION:	575 ft S of Fulton Pl

Year	AADT	Annual Growth Rate
2016	21,000	**1.25%**
2019	21,800	
YEARS =	3	

PROJECTED TRAFFIC VOLUMES	
Year	AADT
2020	21800
2021	21800
2022	21800

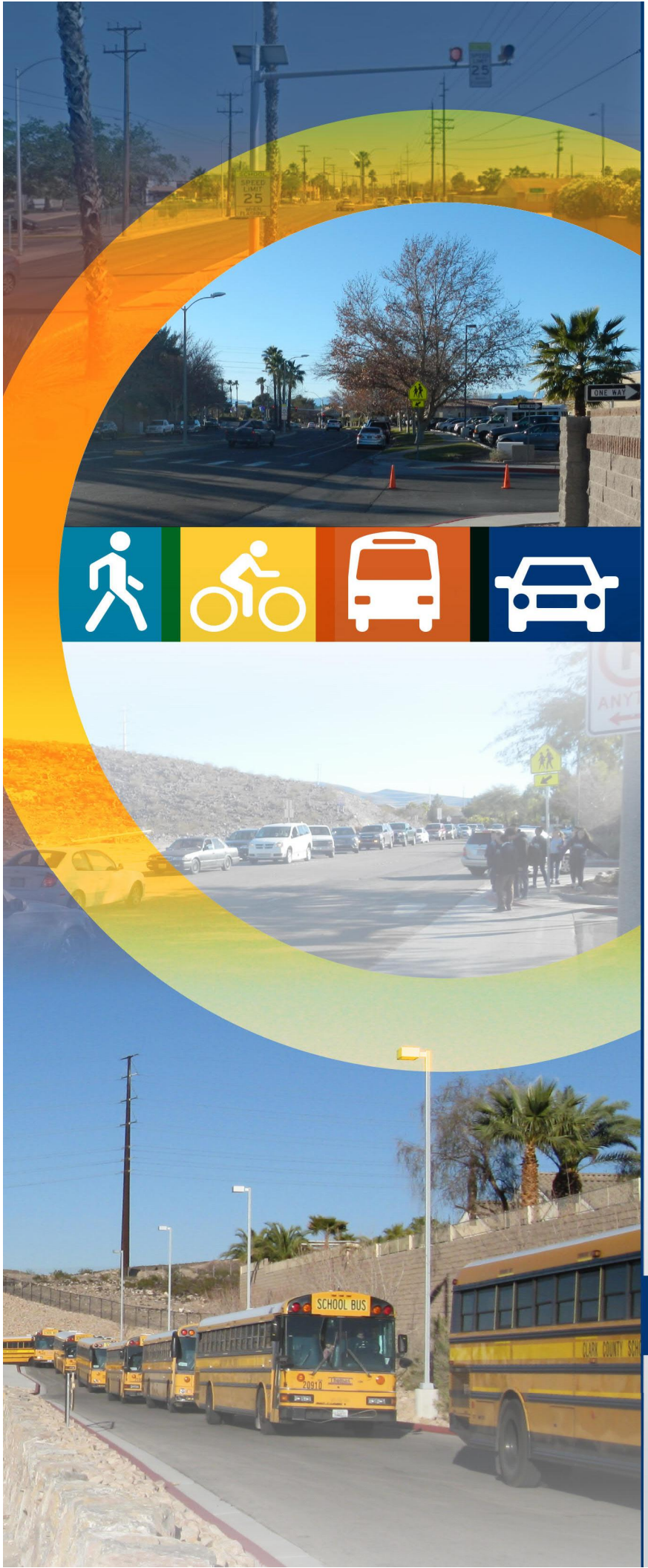
NDOT COUNT STATION:	0030612
ROADWAY:	Valley View Blvd
LOCATION:	335 ft N of W Oakey Blvd

Year	AADT	Annual Growth Rate
2016	23,000	**0.43%**
2019	23,300	
YEARS =	3	

PROJECTED TRAFFIC VOLUMES	
Year	AADT
2020	23540
2021	23783
2022	24028

APPENDIX D

RTC *SCHOOL TRIP GENERATION STUDY* EXCERPT



RTC

School Trip Generation Study

June 30, 2020

Final Report

Kimley»Horn

Expect More. Experience Better.

Table E.1 – Southern Nevada Vehicle Trip Generation Rates for the Peak Hour of the Trip Generator – Number of Students

Trip Generation Rate Sources	Sample Size	AM Rate (Trips/Student)	PM Rate (Trips/Student)
ITE Land Use Code 537 (Charter Elementary School)	**10 and 11**	**1.14**	**0.69**
Southern Nevada Charter School (All)	8	1.00	0.77
Southern Nevada Charter Schools (K-8)	5	1.04*	0.80*
Southern Nevada Charter Schools (K-12)	3	0.95	0.74
Southern Nevada Charter Schools (Multiple Bell Times)	5	0.98	0.75
ITE Land Use Code 520 (Elementary School)	**34**	**0.65**	**0.34**
Southern Nevada Public Elementary Schools	6	0.83*	0.71
ITE Land Use Code 522 (Middle/Junior High School)	**18 and 20**	**0.70**	**0.35**
Southern Nevada Public Middle Schools	6	0.75*	0.43*

**Values that had a coefficient of determination equal to or less than 0.50.*

Table E.2 – Southern Nevada Vehicle Trip Generation Rates for the Peak Hour of the Trip Generator – Number of Employees

Trip Generation Rate Sources	Sample Size	AM Rate (Trips/Employee)	PM Rate (Trips/Employee)
ITE Land Use Code 520 (Elementary School)	**22 and 20**	**7.26**	**3.57**
Southern Nevada Public Elementary Schools	6	8.00*	6.89
ITE Land Use Code 522 (Middle/Junior High School)	**9 and 6**	**7.71**	**3.70**
Southern Nevada Public Middle Schools	6	11.43*	6.52*

**Values that had a coefficient of determination equal to or less than 0.50.*

5.1.1.7. Summary of Significance of Independent Variables

It was determined that the number of students, employees, and gross floor area (school building size) would be included in the regression analysis for this study to present and provide consistent results to compare with ITE.

The number of buses (or other potential independent variables) were not used in the regression analysis. For public elementary and middle schools, the number of buses in service and the number of students that utilize the bus service provided varies between schools. ITE recommends that future studies report additional detail on the percentage of students who were bused to school and the percentage that were dropped off and picked up by car.

5.2. Directional Distribution

The directional distribution for entering and existing vehicles based on total trips of the peak hour was determined for each school type and compared to the distribution percentage from the ITE *Trip Generation Manual,* 10th Edition for each school type as shown in **Table 39**.

Table 39 – Directional Distribution by Peak Hour

School Type	AM Peak		PM Peak	
	Entering	Exiting	Entering	Exiting
ITE Land Use Code 537 (Charter Elementary School)	***53%***	***47%***	***46%***	***54%***
Southern Nevada Charter Schools – All Schools	55%	45%	53%	47%
Southern Nevada Charter Schools – K-8	56%	44%	56%	44%
Southern Nevada Charter Schools – K-12	53%	47%	50%	50%
ITE Land Use Code 520 (Elementary School)	***54%***	***46%***	***45%***	***55%***
Southern Nevada Elementary Schools	51%	49%	47%	53%
ITE Land Use Code 522 (Middle School)	***55%***	***45%***	***46%***	***54%***
Southern Nevada Middle Schools	53%	47%	50%	50%

5.3. Generated Trips

The data collected for each school was evaluated to determine the average AM and PM peak hour trip rates for each school type. Analysis was conducted in accordance with procedures outlined by ITE, as summarized in **Section 4.5** (excerpts included in **Appendix D**). The following sections provide a summary of both vehicle and person trips generated by the schools in this study.

5.3.1. Vehicle Trips

Vehicle trips are defined by ITE as person trips that cross a site's boundary in a personal passenger vehicle or truck. Any trip where a person used a personal passenger vehicle or truck for any element of the trip is accounted for in vehicle trips. For example, if the person parked their vehicle off-site (within the school's vicinity) and walked to the school they were considered a vehicle trip. Total vehicle trips generated by each school were calculated in the field by accounting for and adding together the number of vehicles entering and exiting a school's vicinity. The vehicle trips presented in **Table 40** consider all vehicles entering and exiting the school's vicinity, including vehicles that entered and exited through school driveways, those that parked at adjacent parks, and those that parked on adjacent or neighborhood streets. Vehicles parked on the

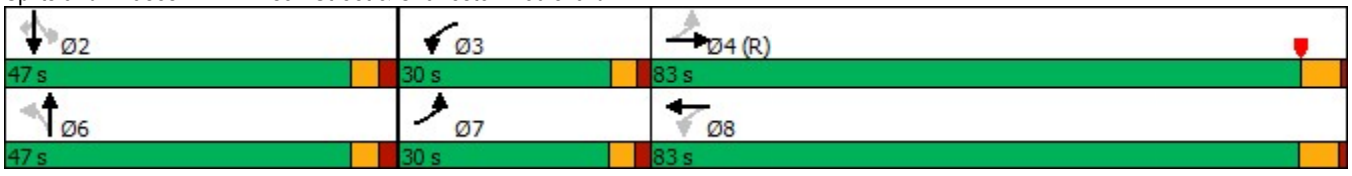
APPENDIX E

KEY INTERSECTION PEAK HOUR LOS CALCULATIONS

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	169	1070	28	762	9	91	111	78	266
Future Volume (vph)	169	1070	28	762	9	91	111	78	266
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	NA	Perm
Protected Phases	7	4	3	8		6		2	
Permitted Phases	4		8		6		2		2
Detector Phase	7	4	3	8	6	6	2	2	2
Switch Phase									
Minimum Initial (s)	5.0	15.0	5.0	15.0	9.0	9.0	9.0	9.0	9.0
Minimum Split (s)	10.0	20.7	9.8	30.0	35.8	35.8	35.8	35.8	35.8
Total Split (s)	30.0	83.0	30.0	83.0	47.0	47.0	47.0	47.0	47.0
Total Split (%)	18.8%	51.9%	18.8%	51.9%	29.4%	29.4%	29.4%	29.4%	29.4%
Yellow Time (s)	3.0	4.7	3.0	4.7	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	2.0	1.0	1.8	1.3	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.7	4.8	6.0	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	None	Ped	None	None	None	None	None
Act Effct Green (s)	123.9	115.5	115.5	108.8	24.7	24.7	24.7	24.7	24.7
Actuated g/C Ratio	0.77	0.72	0.72	0.68	0.15	0.15	0.15	0.15	0.15
v/c Ratio	0.50	0.37	0.12	0.30	0.06	0.47	0.91	0.34	0.64
Control Delay	9.5	9.9	5.8	9.1	53.6	62.9	116.7	61.4	11.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.5	9.9	5.8	9.1	53.6	62.9	116.7	61.4	11.7
LOS	A	A	A	A	D	E	F	E	B
Approach Delay		9.8		9.0		62.2		45.8	
Approach LOS		A		A		E		D	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 10 (6%), Referenced to phase 4:EBTL, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 18.0	Intersection LOS: B
Intersection Capacity Utilization 54.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 1: Hinson Street & Charleston Boulevard



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	169	1070	11	28	762	59	9	91	16	111	78	266
Future Volume (veh/h)	169	1070	11	28	762	59	9	91	16	111	78	266
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	211	1338	14	35	952	74	11	114	20	139	98	332
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	484	3377	35	301	2973	231	218	346	61	248	418	354
Arrive On Green	0.06	0.65	0.65	0.05	1.00	1.00	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1781	5210	55	1781	4832	375	958	1550	272	1256	1870	1585
Grp Volume(v), veh/h	211	874	478	35	670	356	11	0	134	139	98	332
Grp Sat Flow(s),veh/h/ln	1781	1702	1861	1781	1702	1803	958	0	1821	1256	1870	1585
Q Serve(g_s), s	6.8	19.4	19.4	1.1	0.0	0.0	1.5	0.0	9.9	16.7	6.9	32.9
Cycle Q Clear(g_c), s	6.8	19.4	19.4	1.1	0.0	0.0	8.4	0.0	9.9	26.6	6.9	32.9
Prop In Lane	1.00		0.03	1.00		0.21	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	484	2207	1206	301	2094	1109	218	0	407	248	418	354
V/C Ratio(X)	0.44	0.40	0.40	0.12	0.32	0.32	0.05	0.00	0.33	0.56	0.23	0.94
Avail Cap(c_a), veh/h	662	2207	1206	538	2094	1109	251	0	469	291	482	408
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.92	0.92	0.92	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.1	13.3	13.3	11.0	0.0	0.0	54.4	0.0	52.1	63.2	50.9	61.0
Incr Delay (d2), s/veh	0.2	0.5	1.0	0.1	0.1	0.3	0.1	0.0	0.5	0.7	0.1	26.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	7.3	8.1	0.4	0.0	0.1	0.4	0.0	4.7	5.5	3.3	15.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.3	13.9	14.3	11.0	0.1	0.3	54.5	0.0	52.6	64.0	51.0	87.1
LnGrp LOS	A	B	B	B	A	A	D	A	D	E	D	F
Approach Vol, veh/h		1563			1061			145			569	
Approach Delay, s/veh		13.4			0.5			52.7			75.2	
Approach LOS		B			A			D			E	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		41.5	8.7	109.7		41.5	14.0	104.4				
Change Period (Y+Rc), s		* 5.8	* 4.8	* 6		* 5.8	5.0	* 6				
Max Green Setting (Gmax), s		* 41	* 25	* 77		* 41	25.0	* 77				
Max Q Clear Time (g_c+I1), s		34.9	3.1	21.4		11.9	8.8	2.0				
Green Ext Time (p_c), s		0.8	0.0	20.9		0.8	0.2	14.3				

Intersection Summary	
HCM 6th Ctrl Delay	21.5
HCM 6th LOS	C

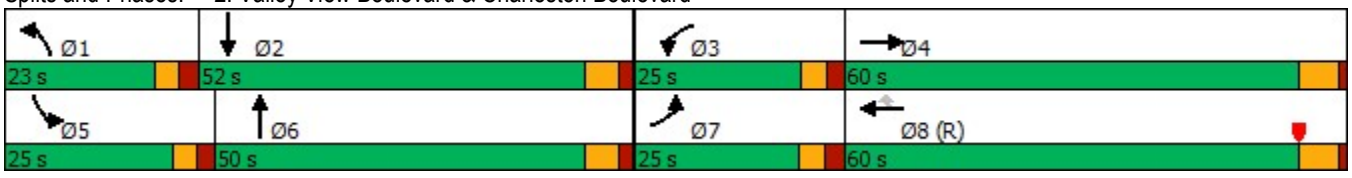
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	118	907	120	571	69	126	406	136	744
Future Volume (vph)	118	907	120	571	69	126	406	136	744
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		1	6	5	2
Permitted Phases					8				
Detector Phase	7	4	3	8	8	1	6	5	2
Switch Phase									
Minimum Initial (s)	5.0	15.0	5.0	15.0	15.0	5.0	9.0	5.0	9.0
Minimum Split (s)	10.4	30.0	10.2	27.9	27.9	10.2	34.9	10.1	36.9
Total Split (s)	25.0	60.0	25.0	60.0	60.0	23.0	50.0	25.0	52.0
Total Split (%)	15.6%	37.5%	15.6%	37.5%	37.5%	14.4%	31.3%	15.6%	32.5%
Yellow Time (s)	3.0	4.7	3.0	4.7	4.7	3.0	4.0	3.0	4.0
All-Red Time (s)	2.4	1.3	2.2	1.2	1.2	2.2	1.9	2.1	1.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	6.0	5.2	5.9	5.9	5.2	5.9	5.1	5.9
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	C-Max	C-Max	None	Max	None	Max
Act Effct Green (s)	10.4	63.4	10.4	63.3	63.3	15.5	47.3	16.7	48.4
Actuated g/C Ratio	0.06	0.40	0.06	0.40	0.40	0.10	0.30	0.10	0.30
v/c Ratio	0.58	0.58	0.58	0.31	0.11	0.80	0.32	0.80	0.88
Control Delay	78.3	34.1	82.8	34.1	3.8	101.5	44.3	99.1	63.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.3	34.1	82.8	34.1	3.8	101.5	44.3	99.1	63.3
LOS	E	C	F	C	A	F	D	F	E
Approach Delay		38.5		39.0			57.0		68.2
Approach LOS		D		D			E		E

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 0 (0%), Referenced to phase 8:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 50.0	Intersection LOS: D
Intersection Capacity Utilization 74.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 2: Valley View Boulevard & Charleston Boulevard



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	118	907	157	120	571	69	126	406	35	136	744	110
Future Volume (veh/h)	118	907	157	120	571	69	126	406	35	136	744	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	128	986	171	130	621	75	137	441	38	148	809	120
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	170	1482	256	174	1726	536	158	1354	115	169	894	133
Arrive On Green	0.10	0.68	0.68	0.05	0.34	0.34	0.09	0.28	0.28	0.09	0.29	0.29
Sat Flow, veh/h	3456	4380	758	3456	5106	1585	1781	4793	408	1781	3104	460
Grp Volume(v), veh/h	128	766	391	130	621	75	137	312	167	148	463	466
Grp Sat Flow(s),veh/h/ln	1728	1702	1734	1728	1702	1585	1781	1702	1797	1781	1777	1787
Q Serve(g_s), s	5.8	21.2	21.3	5.9	14.7	5.3	12.2	11.6	11.8	13.1	40.1	40.2
Cycle Q Clear(g_c), s	5.8	21.2	21.3	5.9	14.7	5.3	12.2	11.6	11.8	13.1	40.1	40.2
Prop In Lane	1.00		0.44	1.00		1.00	1.00		0.23	1.00		0.26
Lane Grp Cap(c), veh/h	170	1152	587	174	1726	536	158	962	508	169	512	515
V/C Ratio(X)	0.75	0.66	0.67	0.75	0.36	0.14	0.87	0.32	0.33	0.88	0.90	0.90
Avail Cap(c_a), veh/h	423	1152	587	428	1726	536	198	962	508	222	512	515
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.2	20.5	20.6	75.0	39.9	36.8	72.0	45.3	45.4	71.5	54.8	54.8
Incr Delay (d2), s/veh	2.3	2.8	5.4	2.4	0.6	0.5	23.3	0.9	1.7	21.2	22.0	21.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	5.9	6.4	2.7	6.2	2.1	6.6	5.1	5.6	7.0	21.0	21.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.5	23.3	26.0	77.4	40.5	37.3	95.3	46.2	47.2	92.7	76.9	76.8
LnGrp LOS	E	C	C	E	D	D	F	D	D	F	E	E
Approach Vol, veh/h		1285			826			616			1077	
Approach Delay, s/veh		29.1			46.0			57.4			79.0	
Approach LOS		C			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.4	52.0	13.3	60.1	20.3	51.1	13.3	60.1
Change Period (Y+Rc), s	* 5.2	* 5.9	* 5.2	* 6	5.1	* 5.9	5.4	* 6
Max Green Setting (Gmax), s	* 18	* 46	* 20	* 54	19.9	* 44	19.6	* 54
Max Q Clear Time (g_c+I1), s	14.2	42.2	7.9	23.3	15.1	13.8	7.8	16.7
Green Ext Time (p_c), s	0.1	2.0	0.1	15.0	0.1	6.1	0.1	8.4

Intersection Summary	
HCM 6th Ctrl Delay	51.5
HCM 6th LOS	D

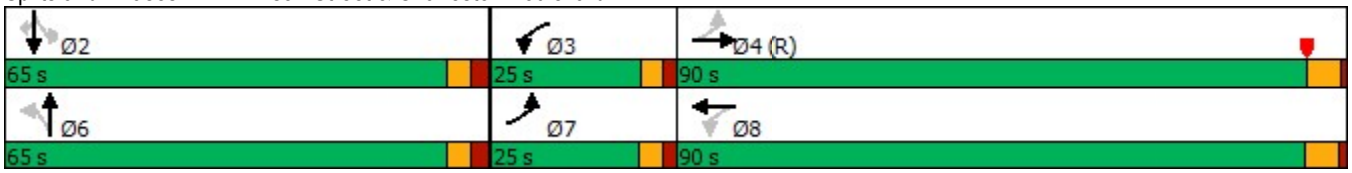
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	100	999	45	1335	22	27	81	79	203
Future Volume (vph)	100	999	45	1335	22	27	81	79	203
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	NA	Perm
Protected Phases	7	4	3	8		6		2	
Permitted Phases	4		8		6		2		2
Detector Phase	7	4	3	8	6	6	2	2	2
Switch Phase									
Minimum Initial (s)	5.0	15.0	5.0	15.0	9.0	9.0	9.0	9.0	9.0
Minimum Split (s)	10.0	20.7	9.8	30.0	35.8	35.8	35.8	35.8	35.8
Total Split (s)	25.0	90.0	25.0	90.0	65.0	65.0	65.0	65.0	65.0
Total Split (%)	13.9%	50.0%	13.9%	50.0%	36.1%	36.1%	36.1%	36.1%	36.1%
Yellow Time (s)	3.0	4.7	3.0	4.7	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	2.0	1.0	1.8	1.3	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.7	4.8	6.0	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	None	Ped	None	None	None	None	None
Act Effct Green (s)	149.4	142.0	143.6	136.9	18.1	18.1	18.1	18.1	18.1
Actuated g/C Ratio	0.83	0.79	0.80	0.76	0.10	0.10	0.10	0.10	0.10
v/c Ratio	0.49	0.31	0.16	0.43	0.25	0.30	0.74	0.51	0.70
Control Delay	9.6	6.2	3.4	5.8	77.8	49.5	107.5	85.0	23.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.6	6.2	3.4	5.8	77.8	49.5	107.5	85.0	23.9
LOS	A	A	A	A	E	D	F	F	C
Approach Delay		6.5		5.7		58.4		55.8	
Approach LOS		A		A		E		E	

Intersection Summary	
Cycle Length: 180	
Actuated Cycle Length: 180	
Offset: 20 (11%), Referenced to phase 4:EBTL, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 13.4	Intersection LOS: B
Intersection Capacity Utilization 61.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: Hinson Street & Charleston Boulevard



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	999	20	45	1335	30	22	27	21	81	79	203
Future Volume (veh/h)	100	999	20	45	1335	30	22	27	21	81	79	203
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	122	1218	24	55	1628	37	27	33	26	99	96	248
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	306	3667	72	365	3623	82	170	165	130	230	319	270
Arrive On Green	0.03	0.71	0.71	0.05	1.00	1.00	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	1781	5155	102	1781	5137	117	1037	969	764	1344	1870	1585
Grp Volume(v), veh/h	122	804	438	55	1079	586	27	0	59	99	96	248
Grp Sat Flow(s),veh/h/ln	1781	1702	1852	1781	1702	1849	1037	0	1733	1344	1870	1585
Q Serve(g_s), s	3.5	16.1	16.1	1.5	0.0	0.0	4.2	0.0	5.3	12.3	8.1	27.7
Cycle Q Clear(g_c), s	3.5	16.1	16.1	1.5	0.0	0.0	12.3	0.0	5.3	17.6	8.1	27.7
Prop In Lane	1.00		0.05	1.00		0.06	1.00		0.44	1.00		1.00
Lane Grp Cap(c), veh/h	306	2422	1318	365	2401	1304	170	0	295	230	319	270
V/C Ratio(X)	0.40	0.33	0.33	0.15	0.45	0.45	0.16	0.00	0.20	0.43	0.30	0.92
Avail Cap(c_a), veh/h	448	2422	1318	519	2401	1304	334	0	570	443	615	521
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.70	0.70	0.70	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.7	9.8	9.8	7.2	0.0	0.0	70.7	0.0	64.1	71.7	65.3	73.4
Incr Delay (d2), s/veh	0.3	0.4	0.7	0.0	0.2	0.3	0.4	0.0	0.3	0.5	0.2	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	5.8	6.5	0.5	0.1	0.1	1.2	0.0	2.4	4.3	3.9	11.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.0	10.2	10.5	7.3	0.2	0.3	71.1	0.0	64.5	72.1	65.5	78.7
LnGrp LOS	A	B	B	A	A	A	E	A	E	E	E	E
Approach Vol, veh/h		1364			1720			86			443	
Approach Delay, s/veh		10.0			0.4			66.5			74.4	
Approach LOS		B			A			E			E	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		36.5	9.5	134.1		36.5	10.6	132.9				
Change Period (Y+Rc), s		* 5.8	* 4.8	* 6		* 5.8	5.0	* 6				
Max Green Setting (Gmax), s		* 59	* 20	* 84		* 59	20.0	* 84				
Max Q Clear Time (g_c+I1), s		29.7	3.5	18.1		14.3	5.5	2.0				
Green Ext Time (p_c), s		1.0	0.0	19.0		0.5	0.1	34.0				

Intersection Summary	
HCM 6th Ctrl Delay	14.7
HCM 6th LOS	B

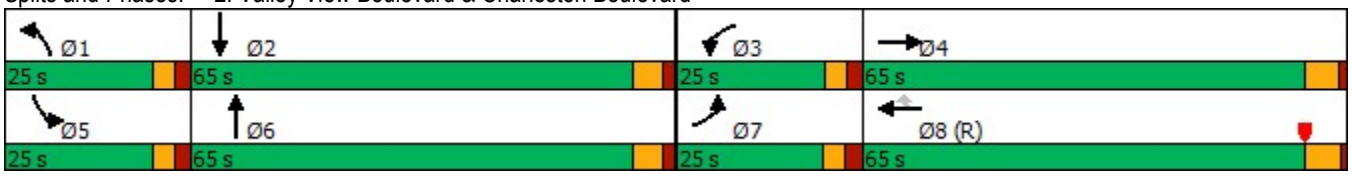
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	205	761	170	1110	167	143	1131	93	654
Future Volume (vph)	205	761	170	1110	167	143	1131	93	654
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		1	6	5	2
Permitted Phases					8				
Detector Phase	7	4	3	8	8	1	6	5	2
Switch Phase									
Minimum Initial (s)	5.0	15.0	5.0	15.0	15.0	5.0	9.0	5.0	9.0
Minimum Split (s)	10.4	30.0	10.2	27.9	27.9	10.2	34.9	10.1	36.9
Total Split (s)	25.0	65.0	25.0	65.0	65.0	25.0	65.0	25.0	65.0
Total Split (%)	13.9%	36.1%	13.9%	36.1%	36.1%	13.9%	36.1%	13.9%	36.1%
Yellow Time (s)	3.0	4.7	3.0	4.7	4.7	3.0	4.0	3.0	4.0
All-Red Time (s)	2.4	1.3	2.2	1.2	1.2	2.2	1.9	2.1	1.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	6.0	5.2	5.9	5.9	5.2	5.9	5.1	5.9
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	C-Max	C-Max	None	Max	None	Max
Act Effct Green (s)	15.4	65.3	13.5	63.3	63.3	17.8	64.9	14.1	61.1
Actuated g/C Ratio	0.09	0.36	0.08	0.35	0.35	0.10	0.36	0.08	0.34
v/c Ratio	0.72	0.53	0.68	0.64	0.26	0.84	0.67	0.70	0.70
Control Delay	86.1	43.4	94.2	51.2	9.8	114.9	50.9	105.1	54.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	86.1	43.4	94.2	51.2	9.8	114.9	50.9	105.1	54.8
LOS	F	D	F	D	A	F	D	F	D
Approach Delay		51.1		51.5			57.8		60.0
Approach LOS		D		D			E		E

Intersection Summary	
Cycle Length: 180	
Actuated Cycle Length: 180	
Offset: 0 (0%), Referenced to phase 8:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 54.7	Intersection LOS: D
Intersection Capacity Utilization 76.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 2: Valley View Boulevard & Charleston Boulevard



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	205	761	168	170	1110	167	143	1131	47	93	654	147
Future Volume (veh/h)	205	761	168	170	1110	167	143	1131	47	93	654	147
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	211	785	173	175	1144	172	147	1166	48	96	674	152
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	248	1422	311	215	1676	520	166	1799	74	114	946	213
Arrive On Green	0.14	0.68	0.68	0.06	0.33	0.33	0.09	0.36	0.36	0.06	0.33	0.33
Sat Flow, veh/h	3456	4193	916	3456	5106	1585	1781	5030	207	1781	2881	649
Grp Volume(v), veh/h	211	636	322	175	1144	172	147	789	425	96	415	411
Grp Sat Flow(s),veh/h/ln	1728	1702	1705	1728	1702	1585	1781	1702	1833	1781	1777	1754
Q Serve(g_s), s	10.7	17.3	17.6	9.0	34.9	14.7	14.7	34.9	34.9	9.6	36.9	37.0
Cycle Q Clear(g_c), s	10.7	17.3	17.6	9.0	34.9	14.7	14.7	34.9	34.9	9.6	36.9	37.0
Prop In Lane	1.00		0.54	1.00		1.00	1.00		0.11	1.00		0.37
Lane Grp Cap(c), veh/h	248	1154	578	215	1676	520	166	1217	656	114	583	576
V/C Ratio(X)	0.85	0.55	0.56	0.82	0.68	0.33	0.89	0.65	0.65	0.84	0.71	0.71
Avail Cap(c_a), veh/h	376	1154	578	380	1676	520	196	1217	656	197	583	576
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	76.1	21.9	22.0	83.4	52.3	45.5	80.7	48.3	48.4	83.3	53.0	53.0
Incr Delay (d2), s/veh	6.8	1.8	3.6	2.9	2.3	1.7	29.4	2.7	4.9	6.1	7.2	7.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	5.3	5.7	4.1	15.1	6.0	8.1	15.4	17.0	4.6	17.7	17.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.0	23.7	25.6	86.3	54.6	47.2	110.1	51.0	53.3	89.4	60.2	60.4
LnGrp LOS	F	C	C	F	D	D	F	D	D	F	E	E
Approach Vol, veh/h		1169			1491			1361			922	
Approach Delay, s/veh		34.9			57.5			58.1			63.3	
Approach LOS		C			E			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.9	65.0	16.4	67.0	16.7	70.3	18.3	65.1
Change Period (Y+Rc), s	* 5.2	* 5.9	* 5.2	* 6	5.1	* 5.9	5.4	* 6
Max Green Setting (Gmax), s	* 20	* 59	* 20	* 59	19.9	* 59	19.6	* 59
Max Q Clear Time (g_c+I1), s	16.7	39.0	11.0	19.6	11.6	36.9	12.7	36.9
Green Ext Time (p_c), s	0.1	5.1	0.2	13.3	0.1	14.2	0.2	13.4

Intersection Summary	
HCM 6th Ctrl Delay	53.4
HCM 6th LOS	D

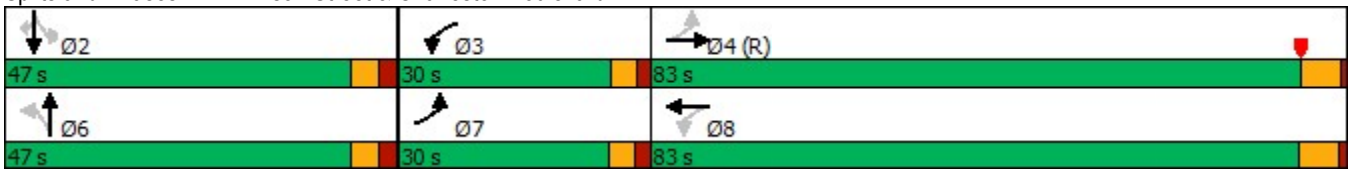
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	176	1113	29	793	9	95	116	81	277
Future Volume (vph)	176	1113	29	793	9	95	116	81	277
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	NA	Perm
Protected Phases	7	4	3	8		6		2	
Permitted Phases	4		8		6		2		2
Detector Phase	7	4	3	8	6	6	2	2	2
Switch Phase									
Minimum Initial (s)	5.0	15.0	5.0	15.0	9.0	9.0	9.0	9.0	9.0
Minimum Split (s)	10.0	20.7	9.8	30.0	35.8	35.8	35.8	35.8	35.8
Total Split (s)	30.0	83.0	30.0	83.0	47.0	47.0	47.0	47.0	47.0
Total Split (%)	18.8%	51.9%	18.8%	51.9%	29.4%	29.4%	29.4%	29.4%	29.4%
Yellow Time (s)	3.0	4.7	3.0	4.7	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	2.0	1.0	1.8	1.3	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.7	4.8	6.0	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	None	Ped	None	None	None	None	None
Act Effct Green (s)	122.9	114.2	113.9	107.2	25.9	25.9	25.9	25.9	25.9
Actuated g/C Ratio	0.77	0.71	0.71	0.67	0.16	0.16	0.16	0.16	0.16
v/c Ratio	0.54	0.39	0.13	0.32	0.06	0.47	0.92	0.33	0.66
Control Delay	10.8	10.6	6.2	9.6	52.3	61.9	116.9	60.2	13.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.8	10.6	6.2	9.6	52.3	61.9	116.9	60.2	13.8
LOS	B	B	A	A	D	E	F	E	B
Approach Delay		10.6		9.5		61.2		47.0	
Approach LOS		B		A		E		D	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 10 (6%), Referenced to phase 4:EBTL, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 18.7	Intersection LOS: B
Intersection Capacity Utilization 56.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: Hinson Street & Charleston Boulevard



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	176	1113	11	29	793	61	9	95	17	116	81	277
Future Volume (veh/h)	176	1113	11	29	793	61	9	95	17	116	81	277
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	220	1391	14	36	991	76	11	119	21	145	101	346
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	471	3334	34	284	2920	224	222	359	63	254	433	367
Arrive On Green	0.06	0.64	0.64	0.05	1.00	1.00	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1781	5213	52	1781	4837	370	943	1548	273	1249	1870	1585
Grp Volume(v), veh/h	220	908	497	36	697	370	11	0	140	145	101	346
Grp Sat Flow(s),veh/h/ln	1781	1702	1861	1781	1702	1804	943	0	1821	1249	1870	1585
Q Serve(g_s), s	7.3	21.0	21.0	1.2	0.0	0.0	1.5	0.0	10.2	17.5	7.0	34.3
Cycle Q Clear(g_c), s	7.3	21.0	21.0	1.2	0.0	0.0	8.6	0.0	10.2	27.7	7.0	34.3
Prop In Lane	1.00		0.03	1.00		0.21	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	471	2178	1190	284	2055	1089	222	0	422	254	433	367
V/C Ratio(X)	0.47	0.42	0.42	0.13	0.34	0.34	0.05	0.00	0.33	0.57	0.23	0.94
Avail Cap(c_a), veh/h	643	2178	1190	520	2055	1089	246	0	469	287	482	408
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.92	0.92	0.92	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.6	14.2	14.2	11.7	0.0	0.0	53.4	0.0	51.2	62.7	49.9	60.4
Incr Delay (d2), s/veh	0.3	0.6	1.1	0.1	0.1	0.3	0.1	0.0	0.5	0.9	0.1	27.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	7.9	8.8	0.5	0.0	0.1	0.4	0.0	4.8	5.7	3.4	16.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.9	14.8	15.2	11.8	0.1	0.3	53.5	0.0	51.6	63.6	50.0	88.3
LnGrp LOS	A	B	B	B	A	A	D	A	D	E	D	F
Approach Vol, veh/h		1625			1103			151			592	
Approach Delay, s/veh		14.2			0.6			51.8			75.7	
Approach LOS		B			A			D			E	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		42.9	8.8	108.4		42.9	14.6	102.6				
Change Period (Y+Rc), s		* 5.8	* 4.8	* 6		* 5.8	5.0	* 6				
Max Green Setting (Gmax), s		* 41	* 25	* 77		* 41	25.0	* 77				
Max Q Clear Time (g_c+I1), s		36.3	3.2	23.0		12.2	9.3	2.0				
Green Ext Time (p_c), s		0.7	0.0	22.0		0.9	0.2	15.2				

Intersection Summary	
HCM 6th Ctrl Delay	22.0
HCM 6th LOS	C

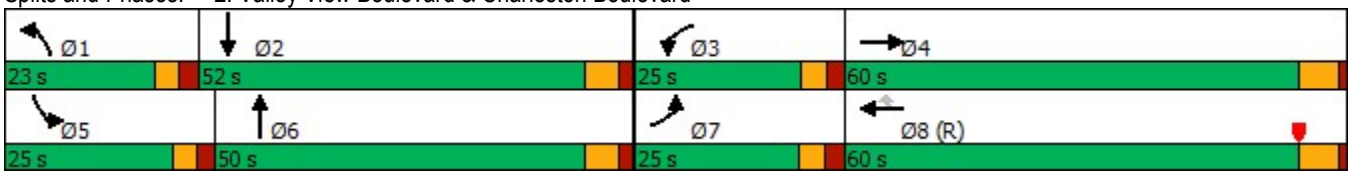
Notes

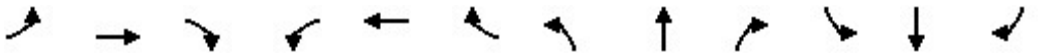
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	123	944	125	594	72	131	422	142	774
Future Volume (vph)	123	944	125	594	72	131	422	142	774
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		1	6	5	2
Permitted Phases					8				
Detector Phase	7	4	3	8	8	1	6	5	2
Switch Phase									
Minimum Initial (s)	5.0	15.0	5.0	15.0	15.0	5.0	9.0	5.0	9.0
Minimum Split (s)	10.4	30.0	10.2	27.9	27.9	10.2	34.9	10.1	36.9
Total Split (s)	25.0	60.0	25.0	60.0	60.0	23.0	50.0	25.0	52.0
Total Split (%)	15.6%	37.5%	15.6%	37.5%	37.5%	14.4%	31.3%	15.6%	32.5%
Yellow Time (s)	3.0	4.7	3.0	4.7	4.7	3.0	4.0	3.0	4.0
All-Red Time (s)	2.4	1.3	2.2	1.2	1.2	2.2	1.9	2.1	1.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	6.0	5.2	5.9	5.9	5.2	5.9	5.1	5.9
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	C-Max	C-Max	None	Max	None	Max
Act Effct Green (s)	10.6	63.1	10.7	63.1	63.1	15.8	46.9	17.1	48.1
Actuated g/C Ratio	0.07	0.39	0.07	0.39	0.39	0.10	0.29	0.11	0.30
v/c Ratio	0.59	0.61	0.59	0.32	0.11	0.82	0.34	0.81	0.92
Control Delay	80.5	34.4	82.9	34.5	4.3	102.8	44.9	100.1	67.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	80.5	34.4	82.9	34.5	4.3	102.8	44.9	100.1	67.6
LOS	F	C	F	C	A	F	D	F	E
Approach Delay		39.0		39.4			57.7		72.0
Approach LOS		D		D			E		E

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 0 (0%), Referenced to phase 8:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 51.5	Intersection LOS: D
Intersection Capacity Utilization 76.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 2: Valley View Boulevard & Charleston Boulevard





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	944	163	125	594	72	131	422	36	142	774	114
Future Volume (veh/h)	123	944	163	125	594	72	131	422	36	142	774	114
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	134	1026	177	136	646	78	142	459	39	154	841	124
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	176	1483	255	180	1726	536	163	1353	114	175	895	132
Arrive On Green	0.10	0.68	0.68	0.05	0.34	0.34	0.09	0.28	0.28	0.10	0.29	0.29
Sat Flow, veh/h	3456	4384	755	3456	5106	1585	1781	4799	403	1781	3107	458
Grp Volume(v), veh/h	134	796	407	136	646	78	142	324	174	154	481	484
Grp Sat Flow(s),veh/h/ln	1728	1702	1734	1728	1702	1585	1781	1702	1798	1781	1777	1788
Q Serve(g_s), s	6.0	22.8	22.8	6.2	15.3	5.5	12.6	12.1	12.3	13.7	42.3	42.3
Cycle Q Clear(g_c), s	6.0	22.8	22.8	6.2	15.3	5.5	12.6	12.1	12.3	13.7	42.3	42.3
Prop In Lane	1.00		0.44	1.00		1.00	1.00		0.22	1.00		0.26
Lane Grp Cap(c), veh/h	176	1151	587	180	1726	536	163	960	507	175	512	515
V/C Ratio(X)	0.76	0.69	0.69	0.75	0.37	0.15	0.87	0.34	0.34	0.88	0.94	0.94
Avail Cap(c_a), veh/h	423	1151	587	428	1726	536	198	960	507	222	512	515
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.90	0.90	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.9	20.8	20.8	74.8	40.1	36.9	71.8	45.6	45.7	71.2	55.6	55.6
Incr Delay (d2), s/veh	2.3	3.1	6.0	2.4	0.6	0.6	25.2	1.0	1.8	23.2	27.3	27.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	6.2	6.8	2.8	6.5	2.2	6.9	5.3	5.8	7.4	22.7	22.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.2	23.9	26.8	77.2	40.7	37.4	96.9	46.5	47.5	94.5	82.9	82.8
LnGrp LOS	E	C	C	E	D	D	F	D	D	F	F	F
Approach Vol, veh/h		1337			860			640			1119	
Approach Delay, s/veh		29.7			46.2			58.0			84.4	
Approach LOS		C			D			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.8	52.0	13.5	60.1	20.8	51.0	13.6	60.1
Change Period (Y+Rc), s	* 5.2	* 5.9	* 5.2	* 6	5.1	* 5.9	5.4	* 6
Max Green Setting (Gmax), s	* 18	* 46	* 20	* 54	19.9	* 44	19.6	* 54
Max Q Clear Time (g_c+I1), s	14.6	44.3	8.2	24.8	15.7	14.3	8.0	17.3
Green Ext Time (p_c), s	0.1	1.1	0.2	15.3	0.1	6.4	0.1	8.8

Intersection Summary	
HCM 6th Ctrl Delay	53.3
HCM 6th LOS	D

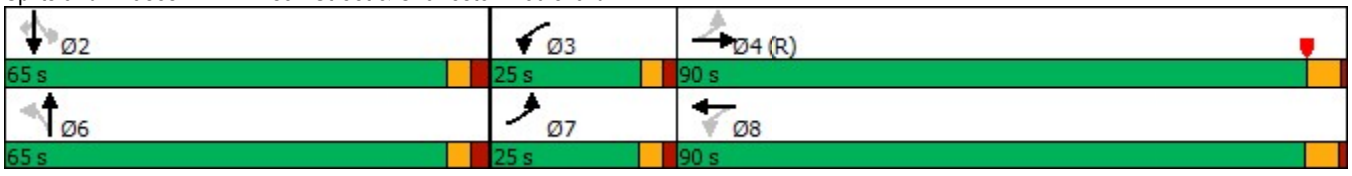
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	104	1040	47	1389	23	28	84	82	211
Future Volume (vph)	104	1040	47	1389	23	28	84	82	211
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	NA	Perm
Protected Phases	7	4	3	8		6		2	
Permitted Phases	4		8		6		2		2
Detector Phase	7	4	3	8	6	6	2	2	2
Switch Phase									
Minimum Initial (s)	5.0	15.0	5.0	15.0	9.0	9.0	9.0	9.0	9.0
Minimum Split (s)	10.0	20.7	9.8	30.0	35.8	35.8	35.8	35.8	35.8
Total Split (s)	25.0	90.0	25.0	90.0	65.0	65.0	65.0	65.0	65.0
Total Split (%)	13.9%	50.0%	13.9%	50.0%	36.1%	36.1%	36.1%	36.1%	36.1%
Yellow Time (s)	3.0	4.7	3.0	4.7	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	2.0	1.0	1.8	1.3	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.7	4.8	6.0	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	None	Ped	None	None	None	None	None
Act Effct Green (s)	149.4	141.4	141.9	135.1	18.7	18.7	18.7	18.7	18.7
Actuated g/C Ratio	0.83	0.79	0.79	0.75	0.10	0.10	0.10	0.10	0.10
v/c Ratio	0.52	0.33	0.17	0.46	0.26	0.30	0.74	0.52	0.72
Control Delay	10.8	6.5	3.6	6.2	77.4	48.7	106.2	84.5	26.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.8	6.5	3.6	6.3	77.4	48.7	106.2	84.5	26.3
LOS	B	A	A	A	E	D	F	F	C
Approach Delay		6.9		6.2		57.7		56.7	
Approach LOS		A		A		E		E	

Intersection Summary	
Cycle Length: 180	
Actuated Cycle Length: 180	
Offset: 20 (11%), Referenced to phase 4:EBTL, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 13.8	Intersection LOS: B
Intersection Capacity Utilization 62.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: Hinson Street & Charleston Boulevard



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	1040	21	47	1389	31	23	28	22	84	82	211
Future Volume (veh/h)	104	1040	21	47	1389	31	23	28	22	84	82	211
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	127	1268	26	57	1694	38	28	34	27	102	100	257
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	293	3633	74	346	3587	80	173	170	135	236	329	279
Arrive On Green	0.03	0.71	0.71	0.05	1.00	1.00	0.18	0.18	0.18	0.18	0.18	0.18
Sat Flow, veh/h	1781	5150	106	1781	5138	115	1024	966	767	1341	1870	1585
Grp Volume(v), veh/h	127	838	456	57	1122	610	28	0	61	102	100	257
Grp Sat Flow(s),veh/h/ln	1781	1702	1851	1781	1702	1850	1024	0	1732	1341	1870	1585
Q Serve(g_s), s	3.7	17.3	17.3	1.7	0.0	0.0	4.4	0.0	5.4	12.6	8.4	28.7
Cycle Q Clear(g_c), s	3.7	17.3	17.3	1.7	0.0	0.0	12.8	0.0	5.4	18.1	8.4	28.7
Prop In Lane	1.00		0.06	1.00		0.06	1.00		0.44	1.00		1.00
Lane Grp Cap(c), veh/h	293	2402	1306	346	2377	1291	173	0	305	236	329	279
V/C Ratio(X)	0.43	0.35	0.35	0.16	0.47	0.47	0.16	0.00	0.20	0.43	0.30	0.92
Avail Cap(c_a), veh/h	433	2402	1306	500	2377	1291	329	0	570	441	615	521
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.66	0.66	0.66	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.0	10.4	10.4	7.7	0.0	0.0	70.1	0.0	63.3	71.0	64.5	72.9
Incr Delay (d2), s/veh	0.4	0.4	0.7	0.1	0.2	0.3	0.4	0.0	0.3	0.5	0.2	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	6.3	7.0	0.6	0.1	0.1	1.2	0.0	2.5	4.5	4.1	11.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.4	10.8	11.1	7.7	0.2	0.3	70.5	0.0	63.6	71.5	64.7	78.1
LnGrp LOS	A	B	B	A	A	A	E	A	E	E	E	E
Approach Vol, veh/h		1421			1789			89			459	
Approach Delay, s/veh		10.6			0.4			65.8			73.7	
Approach LOS		B			A			E			E	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		37.5	9.5	133.0		37.5	10.8	131.7				
Change Period (Y+Rc), s		* 5.8	* 4.8	* 6		* 5.8	5.0	* 6				
Max Green Setting (Gmax), s		* 59	* 20	* 84		* 59	20.0	* 84				
Max Q Clear Time (g_c+I1), s		30.7	3.7	19.3		14.8	5.7	2.0				
Green Ext Time (p_c), s		1.0	0.0	20.3		0.5	0.1	36.6				

Intersection Summary	
HCM 6th Ctrl Delay	14.8
HCM 6th LOS	B

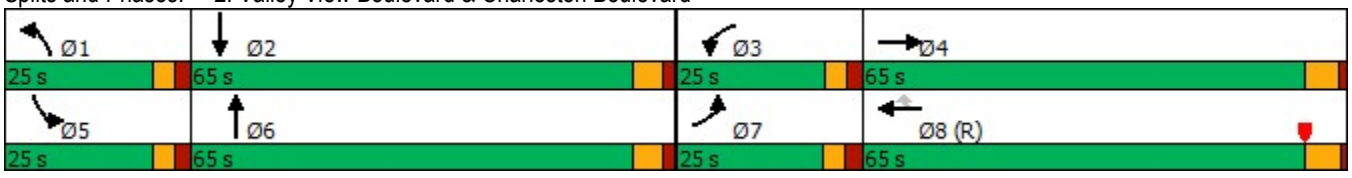
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	213	792	177	1155	174	149	1177	97	681
Future Volume (vph)	213	792	177	1155	174	149	1177	97	681
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		1	6	5	2
Permitted Phases					8				
Detector Phase	7	4	3	8	8	1	6	5	2
Switch Phase									
Minimum Initial (s)	5.0	15.0	5.0	15.0	15.0	5.0	9.0	5.0	9.0
Minimum Split (s)	10.4	30.0	10.2	27.9	27.9	10.2	34.9	10.1	36.9
Total Split (s)	25.0	65.0	25.0	65.0	65.0	25.0	65.0	25.0	65.0
Total Split (%)	13.9%	36.1%	13.9%	36.1%	36.1%	13.9%	36.1%	13.9%	36.1%
Yellow Time (s)	3.0	4.7	3.0	4.7	4.7	3.0	4.0	3.0	4.0
All-Red Time (s)	2.4	1.3	2.2	1.2	1.2	2.2	1.9	2.1	1.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	6.0	5.2	5.9	5.9	5.2	5.9	5.1	5.9
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	C-Max	C-Max	None	Max	None	Max
Act Effct Green (s)	15.8	64.9	13.9	62.9	62.9	18.2	64.6	14.4	60.7
Actuated g/C Ratio	0.09	0.36	0.08	0.35	0.35	0.10	0.36	0.08	0.34
v/c Ratio	0.73	0.55	0.69	0.67	0.28	0.87	0.70	0.71	0.73
Control Delay	86.2	44.0	94.2	52.4	10.7	117.9	52.2	105.7	56.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	86.2	44.0	94.2	52.4	10.7	117.9	52.2	105.7	56.3
LOS	F	D	F	D	B	F	D	F	E
Approach Delay		51.6		52.5			59.3		61.4
Approach LOS		D		D			E		E

Intersection Summary	
Cycle Length: 180	
Actuated Cycle Length: 180	
Offset: 0 (0%), Referenced to phase 8:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 55.8	Intersection LOS: E
Intersection Capacity Utilization 79.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 2: Valley View Boulevard & Charleston Boulevard



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	213	792	175	177	1155	174	149	1177	49	97	681	153
Future Volume (veh/h)	213	792	175	177	1155	174	149	1177	49	97	681	153
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	220	816	180	182	1191	179	154	1213	51	100	702	158
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	257	1423	312	222	1676	520	172	1805	76	118	946	213
Arrive On Green	0.15	0.68	0.68	0.06	0.33	0.33	0.10	0.36	0.36	0.07	0.33	0.33
Sat Flow, veh/h	3456	4191	918	3456	5106	1585	1781	5025	211	1781	2882	648
Grp Volume(v), veh/h	220	662	334	182	1191	179	154	822	442	100	433	427
Grp Sat Flow(s),veh/h/ln	1728	1702	1705	1728	1702	1585	1781	1702	1832	1781	1777	1754
Q Serve(g_s), s	11.2	18.4	18.6	9.4	36.8	15.4	15.4	36.7	36.7	10.0	38.9	39.0
Cycle Q Clear(g_c), s	11.2	18.4	18.6	9.4	36.8	15.4	15.4	36.7	36.7	10.0	38.9	39.0
Prop In Lane	1.00		0.54	1.00		1.00	1.00		0.12	1.00		0.37
Lane Grp Cap(c), veh/h	257	1156	579	222	1676	520	172	1223	658	118	583	576
V/C Ratio(X)	0.86	0.57	0.58	0.82	0.71	0.34	0.89	0.67	0.67	0.84	0.74	0.74
Avail Cap(c_a), veh/h	376	1156	579	380	1676	520	196	1223	658	197	583	576
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.94	0.94	0.94	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	75.7	22.0	22.1	83.2	53.0	45.8	80.4	48.7	48.7	83.1	53.7	53.7
Incr Delay (d2), s/veh	8.2	1.9	3.9	2.9	2.6	1.8	31.8	3.0	5.4	7.1	8.3	8.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	5.5	5.9	4.2	15.9	6.3	8.6	16.2	17.9	4.8	18.8	18.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.9	23.9	26.0	86.1	55.5	47.6	112.2	51.7	54.1	90.1	61.9	62.1
LnGrp LOS	F	C	C	F	E	D	F	D	D	F	E	E
Approach Vol, veh/h		1216			1552			1418			960	
Approach Delay, s/veh		35.3			58.2			59.0			64.9	
Approach LOS		D			E			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.6	65.0	16.7	67.1	17.1	70.5	18.8	65.1
Change Period (Y+Rc), s	* 5.2	* 5.9	* 5.2	* 6	5.1	* 5.9	5.4	* 6
Max Green Setting (Gmax), s	* 20	* 59	* 20	* 59	19.9	* 59	19.6	* 59
Max Q Clear Time (g_c+I1), s	17.4	41.0	11.4	20.6	12.0	38.7	13.2	38.8
Green Ext Time (p_c), s	0.0	5.2	0.2	13.8	0.1	13.8	0.2	13.1

Intersection Summary	
HCM 6th Ctrl Delay	54.3
HCM 6th LOS	D

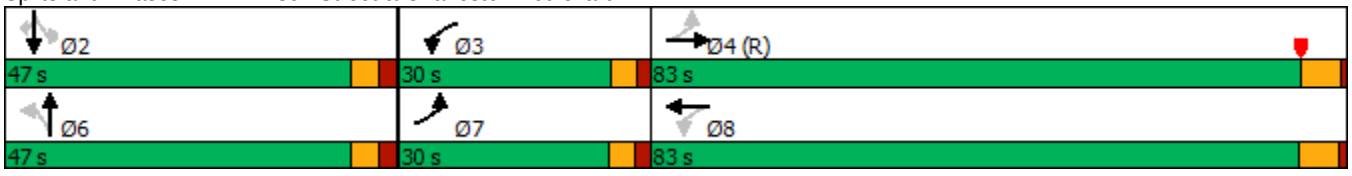
Notes

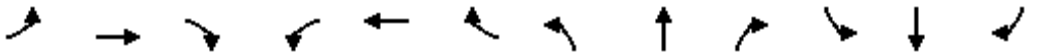
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	234	1113	29	793	9	95	276	87	371
Future Volume (vph)	234	1113	29	793	9	95	276	87	371
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	NA	Perm
Protected Phases	7	4	3	8		6		2	
Permitted Phases	4		8		6		2		2
Detector Phase	7	4	3	8	6	6	2	2	2
Switch Phase									
Minimum Initial (s)	5.0	15.0	5.0	15.0	9.0	9.0	9.0	9.0	9.0
Minimum Split (s)	10.0	20.7	9.8	30.0	35.8	35.8	35.8	35.8	35.8
Total Split (s)	30.0	83.0	30.0	83.0	47.0	47.0	47.0	47.0	47.0
Total Split (%)	18.8%	51.9%	18.8%	51.9%	29.4%	29.4%	29.4%	29.4%	29.4%
Yellow Time (s)	3.0	4.7	3.0	4.7	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	2.0	1.0	1.8	1.3	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.7	4.8	6.0	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	None	Ped	None	None	None	None	None
Act Effct Green (s)	108.0	98.8	92.7	85.9	41.2	41.2	41.2	41.2	41.2
Actuated g/C Ratio	0.68	0.62	0.58	0.54	0.26	0.26	0.26	0.26	0.26
v/c Ratio	0.80	0.45	0.16	0.43	0.04	0.30	1.20	0.23	0.72
Control Delay	30.4	17.1	9.7	16.6	45.1	48.1	168.4	48.4	23.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.4	17.1	9.7	16.6	45.1	48.1	168.4	48.4	23.1
LOS	C	B	A	B	D	D	F	D	C
Approach Delay		19.4		16.4		47.8		80.7	
Approach LOS		B		B		D		F	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 10 (6%), Referenced to phase 4:EBTL, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.20	
Intersection Signal Delay: 33.8	Intersection LOS: C
Intersection Capacity Utilization 67.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: Hinson Street & Charleston Boulevard





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	234	1113	11	29	793	139	9	95	17	276	87	371
Future Volume (veh/h)	234	1113	11	29	793	139	9	95	17	276	87	371
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	292	1391	14	36	991	174	11	119	21	345	109	464
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	460	3199	32	271	2423	424	223	399	70	289	482	408
Arrive On Green	0.08	0.61	0.61	0.05	1.00	1.00	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1781	5213	52	1781	4371	766	839	1548	273	1249	1870	1585
Grp Volume(v), veh/h	292	908	497	36	771	394	11	0	140	345	109	464
Grp Sat Flow(s),veh/h/ln	1781	1702	1861	1781	1702	1733	839	0	1821	1249	1870	1585
Q Serve(g_s), s	11.0	22.5	22.5	1.4	0.0	0.0	1.7	0.0	9.9	31.3	7.4	41.2
Cycle Q Clear(g_c), s	11.0	22.5	22.5	1.4	0.0	0.0	9.0	0.0	9.9	41.2	7.4	41.2
Prop In Lane	1.00		0.03	1.00		0.44	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	460	2089	1142	271	1887	960	223	0	469	289	482	408
V/C Ratio(X)	0.63	0.43	0.43	0.13	0.41	0.41	0.05	0.00	0.30	1.19	0.23	1.14
Avail Cap(c_a), veh/h	591	2089	1142	507	1887	960	223	0	469	289	482	408
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.88	0.88	0.88	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.8	16.3	16.3	14.6	0.0	0.0	50.4	0.0	47.8	66.8	46.8	59.4
Incr Delay (d2), s/veh	0.5	0.7	1.2	0.1	0.2	0.4	0.1	0.0	0.4	115.5	0.1	87.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	8.6	9.6	0.5	0.1	0.1	0.4	0.0	4.6	21.4	3.5	26.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.3	16.9	17.5	14.7	0.2	0.4	50.5	0.0	48.1	182.3	46.9	146.8
LnGrp LOS	B	B	B	B	A	A	D	A	D	F	D	F
Approach Vol, veh/h		1697			1201			151			918	
Approach Delay, s/veh		16.3			0.7			48.3			148.3	
Approach LOS		B			A			D			F	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		47.0	8.8	104.2		47.0	18.3	94.7				
Change Period (Y+Rc), s		* 5.8	* 4.8	* 6		* 5.8	5.0	* 6				
Max Green Setting (Gmax), s		* 41	* 25	* 77		* 41	25.0	* 77				
Max Q Clear Time (g_c+I1), s		43.2	3.4	24.5		11.9	13.0	2.0				
Green Ext Time (p_c), s		0.0	0.0	21.8		0.9	0.3	17.8				

Intersection Summary	
HCM 6th Ctrl Delay	43.3
HCM 6th LOS	D

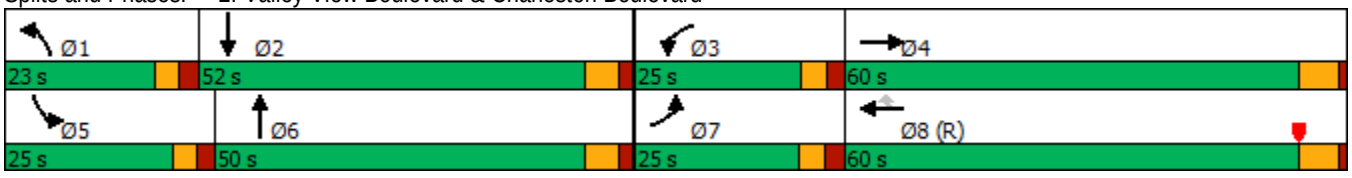
Notes

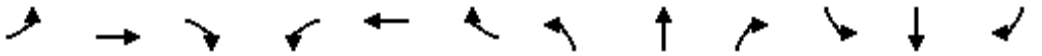
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	163	1024	125	645	123	159	453	142	774
Future Volume (vph)	163	1024	125	645	123	159	453	142	774
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		1	6	5	2
Permitted Phases					8				
Detector Phase	7	4	3	8	8	1	6	5	2
Switch Phase									
Minimum Initial (s)	5.0	15.0	5.0	15.0	15.0	5.0	9.0	5.0	9.0
Minimum Split (s)	10.4	30.0	10.2	27.9	27.9	10.2	34.9	10.1	36.9
Total Split (s)	25.0	60.0	25.0	60.0	60.0	23.0	50.0	25.0	52.0
Total Split (%)	15.6%	37.5%	15.6%	37.5%	37.5%	14.4%	31.3%	15.6%	32.5%
Yellow Time (s)	3.0	4.7	3.0	4.7	4.7	3.0	4.0	3.0	4.0
All-Red Time (s)	2.4	1.3	2.2	1.2	1.2	2.2	1.9	2.1	1.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	6.0	5.2	5.9	5.9	5.2	5.9	5.1	5.9
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	C-Max	C-Max	None	Max	None	Max
Act Effct Green (s)	12.6	63.1	10.7	61.1	61.1	17.2	46.9	17.1	46.7
Actuated g/C Ratio	0.08	0.39	0.07	0.38	0.38	0.11	0.29	0.11	0.29
v/c Ratio	0.66	0.68	0.59	0.36	0.20	0.92	0.36	0.81	0.95
Control Delay	90.7	34.4	82.9	36.5	5.6	115.4	45.3	100.1	72.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	90.7	34.4	82.9	36.5	5.6	115.4	45.3	100.1	72.4
LOS	F	C	F	D	A	F	D	F	E
Approach Delay		41.0		38.7			62.5		76.2
Approach LOS		D		D			E		E

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 0 (0%), Referenced to phase 8:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 53.1	Intersection LOS: D
Intersection Capacity Utilization 80.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 2: Valley View Boulevard & Charleston Boulevard





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	163	1024	203	125	645	123	159	453	36	142	774	114
Future Volume (veh/h)	163	1024	203	125	645	123	159	453	36	142	774	114
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	177	1113	221	136	701	134	173	492	39	154	841	124
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	219	1499	297	180	1726	536	193	1443	113	175	895	132
Arrive On Green	0.13	0.70	0.70	0.05	0.34	0.34	0.11	0.30	0.30	0.10	0.29	0.29
Sat Flow, veh/h	3456	4274	848	3456	5106	1585	1781	4828	379	1781	3107	458
Grp Volume(v), veh/h	177	886	448	136	701	134	173	345	186	154	481	484
Grp Sat Flow(s),veh/h/ln	1728	1702	1718	1728	1702	1585	1781	1702	1802	1781	1777	1788
Q Serve(g_s), s	8.0	26.0	26.0	6.2	16.9	9.8	15.3	12.7	12.9	13.7	42.3	42.3
Cycle Q Clear(g_c), s	8.0	26.0	26.0	6.2	16.9	9.8	15.3	12.7	12.9	13.7	42.3	42.3
Prop In Lane	1.00		0.49	1.00		1.00	1.00		0.21	1.00		0.26
Lane Grp Cap(c), veh/h	219	1194	602	180	1726	536	193	1018	539	175	512	515
V/C Ratio(X)	0.81	0.74	0.74	0.75	0.41	0.25	0.90	0.34	0.34	0.88	0.94	0.94
Avail Cap(c_a), veh/h	423	1194	602	428	1726	536	198	1018	539	222	512	515
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.77	0.77	0.77	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.9	19.4	19.4	74.8	40.6	38.3	70.4	43.8	43.8	71.2	55.6	55.6
Incr Delay (d2), s/veh	2.1	3.3	6.3	2.4	0.7	1.1	35.1	0.9	1.7	23.2	27.3	27.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	6.4	7.0	2.8	7.1	3.9	8.9	5.5	6.1	7.4	22.7	22.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.9	22.6	25.7	77.2	41.3	39.4	105.5	44.7	45.6	94.5	82.9	82.8
LnGrp LOS	E	C	C	E	D	D	F	D	D	F	F	F
Approach Vol, veh/h		1511			971			704			1119	
Approach Delay, s/veh		29.2			46.1			59.9			84.4	
Approach LOS		C			D			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.5	52.0	13.5	62.1	20.8	53.7	15.6	60.1
Change Period (Y+Rc), s	* 5.2	* 5.9	* 5.2	* 6	5.1	* 5.9	5.4	* 6
Max Green Setting (Gmax), s	* 18	* 46	* 20	* 54	19.9	* 44	19.6	* 54
Max Q Clear Time (g_c+I1), s	17.3	44.3	8.2	28.0	15.7	14.9	10.0	18.9
Green Ext Time (p_c), s	0.0	1.1	0.2	15.9	0.1	6.8	0.2	10.0

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

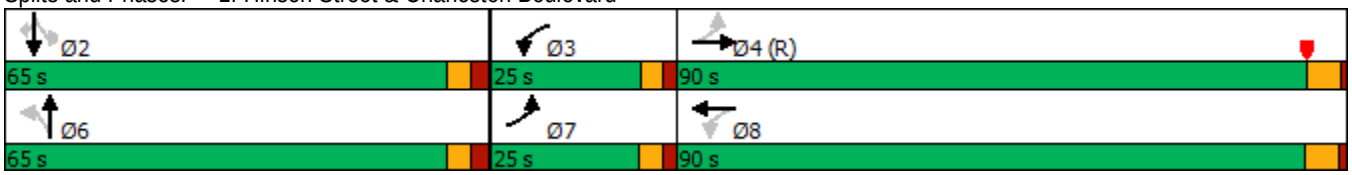
Notes

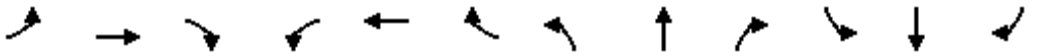
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	149	1040	47	1389	23	28	207	87	283
Future Volume (vph)	149	1040	47	1389	23	28	207	87	283
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	NA	Perm
Protected Phases	7	4	3	8		6		2	
Permitted Phases	4		8		6		2		2
Detector Phase	7	4	3	8	6	6	2	2	2
Switch Phase									
Minimum Initial (s)	5.0	15.0	5.0	15.0	9.0	9.0	9.0	9.0	9.0
Minimum Split (s)	10.0	20.7	9.8	30.0	35.8	35.8	35.8	35.8	35.8
Total Split (s)	25.0	90.0	25.0	90.0	65.0	65.0	65.0	65.0	65.0
Total Split (%)	13.9%	50.0%	13.9%	50.0%	36.1%	36.1%	36.1%	36.1%	36.1%
Yellow Time (s)	3.0	4.7	3.0	4.7	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	2.0	1.0	1.8	1.3	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.7	4.8	6.0	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	None	Ped	None	None	None	None	None
Act Effct Green (s)	129.2	119.3	113.4	105.8	40.0	40.0	40.0	40.0	40.0
Actuated g/C Ratio	0.72	0.66	0.63	0.59	0.22	0.22	0.22	0.22	0.22
v/c Ratio	0.72	0.39	0.21	0.61	0.11	0.15	0.85	0.26	0.66
Control Delay	44.0	15.6	8.0	14.3	52.3	33.2	90.9	56.9	28.1
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay	44.0	15.6	8.0	14.4	52.3	33.2	90.9	56.9	28.1
LOS	D	B	A	B	D	C	F	E	C
Approach Delay		19.1		14.2		39.2		55.0	
Approach LOS		B		B		D		D	

Intersection Summary	
Cycle Length: 180	
Actuated Cycle Length: 180	
Offset: 20 (11%), Referenced to phase 4:EBTL, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 23.4	Intersection LOS: C
Intersection Capacity Utilization 69.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: Hinson Street & Charleston Boulevard





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	1040	21	47	1389	91	23	28	22	207	87	283
Future Volume (veh/h)	149	1040	21	47	1389	91	23	28	22	207	87	283
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	182	1268	26	57	1694	111	28	34	27	252	106	345
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	289	3342	69	314	3064	201	215	225	178	314	435	369
Arrive On Green	0.05	0.65	0.65	0.05	1.00	1.00	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1781	5150	106	1781	4896	320	940	966	767	1341	1870	1585
Grp Volume(v), veh/h	182	838	456	57	1177	628	28	0	61	252	106	345
Grp Sat Flow(s),veh/h/ln	1781	1702	1851	1781	1702	1813	940	0	1732	1341	1870	1585
Q Serve(g_s), s	6.5	20.6	20.6	2.1	0.0	0.0	4.5	0.0	5.0	33.1	8.3	38.4
Cycle Q Clear(g_c), s	6.5	20.6	20.6	2.1	0.0	0.0	12.8	0.0	5.0	38.2	8.3	38.4
Prop In Lane	1.00		0.06	1.00		0.18	1.00		0.44	1.00		1.00
Lane Grp Cap(c), veh/h	289	2209	1202	314	2130	1134	215	0	403	314	435	369
V/C Ratio(X)	0.63	0.38	0.38	0.18	0.55	0.55	0.13	0.00	0.15	0.80	0.24	0.94
Avail Cap(c_a), veh/h	401	2209	1202	468	2130	1134	306	0	570	444	615	521
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.60	0.60	0.60	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.2	14.7	14.7	11.8	0.0	0.0	61.4	0.0	54.9	70.1	56.2	67.8
Incr Delay (d2), s/veh	0.8	0.5	0.9	0.1	0.3	0.5	0.3	0.0	0.2	4.5	0.1	17.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	7.9	8.8	0.8	0.1	0.2	1.1	0.0	2.3	11.9	4.0	17.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.1	15.2	15.6	11.9	0.3	0.5	61.7	0.0	55.1	74.6	56.3	84.7
LnGrp LOS	B	B	B	B	A	A	E	A	E	E	E	F
Approach Vol, veh/h		1476			1862			89			703	
Approach Delay, s/veh		14.8			0.7			57.2			76.8	
Approach LOS		B			A			E			E	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		47.7	9.5	122.8		47.7	13.7	118.6				
Change Period (Y+Rc), s		* 5.8	* 4.8	* 6		* 5.8	5.0	* 6				
Max Green Setting (Gmax), s		* 59	* 20	* 84		* 59	20.0	* 84				
Max Q Clear Time (g_c+I1), s		40.4	4.1	22.6		14.8	8.5	2.0				
Green Ext Time (p_c), s		1.4	0.0	20.1		0.5	0.2	39.7				

Intersection Summary	
HCM 6th Ctrl Delay	19.9
HCM 6th LOS	B

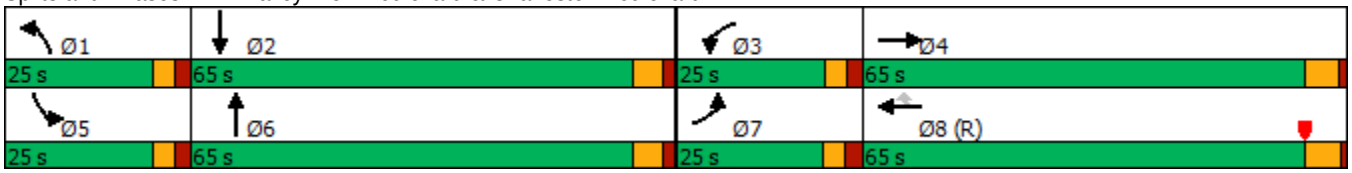
Notes

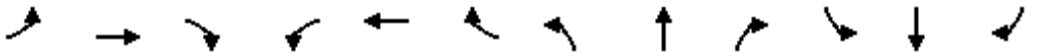
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	244	854	177	1194	213	170	1201	97	681
Future Volume (vph)	244	854	177	1194	213	170	1201	97	681
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		1	6	5	2
Permitted Phases					8				
Detector Phase	7	4	3	8	8	1	6	5	2
Switch Phase									
Minimum Initial (s)	5.0	15.0	5.0	15.0	15.0	5.0	9.0	5.0	9.0
Minimum Split (s)	10.4	30.0	10.2	27.9	27.9	10.2	34.9	10.1	36.9
Total Split (s)	25.0	65.0	25.0	65.0	65.0	25.0	65.0	25.0	65.0
Total Split (%)	13.9%	36.1%	13.9%	36.1%	36.1%	13.9%	36.1%	13.9%	36.1%
Yellow Time (s)	3.0	4.7	3.0	4.7	4.7	3.0	4.0	3.0	4.0
All-Red Time (s)	2.4	1.3	2.2	1.2	1.2	2.2	1.9	2.1	1.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	6.0	5.2	5.9	5.9	5.2	5.9	5.1	5.9
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	C-Max	C-Max	None	Max	None	Max
Act Effct Green (s)	17.0	64.9	13.9	61.7	61.7	19.2	64.6	14.4	59.7
Actuated g/C Ratio	0.09	0.36	0.08	0.34	0.34	0.11	0.36	0.08	0.33
v/c Ratio	0.78	0.61	0.69	0.71	0.33	0.93	0.71	0.71	0.75
Control Delay	98.2	40.4	94.2	54.3	11.9	126.6	52.7	105.7	57.4
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay	98.2	40.4	94.2	54.3	11.9	126.6	52.7	105.7	57.4
LOS	F	D	F	D	B	F	D	F	E
Approach Delay		51.3		53.1			61.5		62.4
Approach LOS		D		D			E		E

Intersection Summary	
Cycle Length: 180	
Actuated Cycle Length: 180	
Offset: 0 (0%), Referenced to phase 8:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 56.6	Intersection LOS: E
Intersection Capacity Utilization 81.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 2: Valley View Boulevard & Charleston Boulevard





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	244	854	206	177	1194	213	170	1201	49	97	681	153
Future Volume (veh/h)	244	854	206	177	1194	213	170	1201	49	97	681	153
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	252	880	212	182	1231	220	175	1238	51	100	702	158
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	288	1433	344	222	1676	520	193	1864	77	118	946	213
Arrive On Green	0.17	0.70	0.70	0.06	0.33	0.33	0.11	0.37	0.37	0.07	0.33	0.33
Sat Flow, veh/h	3456	4111	986	3456	5106	1585	1781	5030	207	1781	2882	648
Grp Volume(v), veh/h	252	728	364	182	1231	220	175	838	451	100	433	427
Grp Sat Flow(s),veh/h/ln	1728	1702	1693	1728	1702	1585	1781	1702	1833	1781	1777	1754
Q Serve(g_s), s	12.8	20.4	20.6	9.4	38.4	19.5	17.5	37.0	37.0	10.0	38.9	39.0
Cycle Q Clear(g_c), s	12.8	20.4	20.6	9.4	38.4	19.5	17.5	37.0	37.0	10.0	38.9	39.0
Prop In Lane	1.00		0.58	1.00		1.00	1.00		0.11	1.00		0.37
Lane Grp Cap(c), veh/h	288	1187	590	222	1676	520	193	1262	679	118	583	576
V/C Ratio(X)	0.87	0.61	0.62	0.82	0.73	0.42	0.91	0.66	0.66	0.84	0.74	0.74
Avail Cap(c_a), veh/h	376	1187	590	380	1676	520	196	1262	679	197	583	576
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.89	0.89	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	74.1	20.8	20.9	83.2	53.5	47.1	79.4	47.3	47.3	83.1	53.7	53.7
Incr Delay (d2), s/veh	12.5	2.1	4.3	2.9	2.9	2.5	38.3	2.8	5.1	7.1	8.3	8.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	5.8	6.2	4.2	16.7	8.0	10.1	16.2	17.9	4.8	18.8	18.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	86.6	22.9	25.1	86.1	56.4	49.7	117.6	50.1	52.4	90.1	61.9	62.1
LnGrp LOS	F	C	C	F	E	D	F	D	D	F	E	E
Approach Vol, veh/h		1344			1633			1464			960	
Approach Delay, s/veh		35.5			58.8			58.8			64.9	
Approach LOS		D			E			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.7	65.0	16.7	68.8	17.1	72.6	20.4	65.1
Change Period (Y+Rc), s	* 5.2	* 5.9	* 5.2	* 6	5.1	* 5.9	5.4	* 6
Max Green Setting (Gmax), s	* 20	* 59	* 20	* 59	19.9	* 59	19.6	* 59
Max Q Clear Time (g_c+I1), s	19.5	41.0	11.4	22.6	12.0	39.0	14.8	40.4
Green Ext Time (p_c), s	0.0	5.2	0.2	15.3	0.1	13.9	0.2	12.9

Intersection Summary	
HCM 6th Ctrl Delay	54.1
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX F

FAST SIGNAL TIMING

Regional Transportation Commission of Southern Nevada

Intersection Timing Sheet

Station ID [6.1]

Intersection : 3070 - Charleston Blvd & Hinson St (P/P)(15G) (Standard File)

Unit Parameters [6.5]	I/O Mode [1.8.6]	Print Date	Date Implemented
Phase Mode:		4/12/2023 10:49:27 AM	

Communication [6.5]

IP Address	Subnet Mask	Gateway	PORT
10.201.4.47	255.255.255.0	10.201.4.1	5070

Phase Timings [1.1.1]

	ϕ1	ϕ2 (ST)	ϕ3 (WL)	ϕ4 (ET)	ϕ5	ϕ6 (NT)	ϕ7 (EL)	ϕ8 (WT)	ϕ9	ϕ10	ϕ11	ϕ12	ϕ13	ϕ14	ϕ15	ϕ16
Walk	0	7	0	7	0	7	0	7	0	0	0	0	0	0	0	0
Ped Clearance	0	23	0	10	0	23	0	17	0	0	0	0	0	0	0	0
Min Green	0	9	5	15	0	9	5	15	0	0	0	0	0	0	0	0
Gap Ext	0	2	2	4.4	0	3	2	4.4	0	0	0	0	0	0	0	0
Max1	0	30	20	30	0	30	20	30	0	0	0	0	0	0	0	0
Max2	0	15	10	15	0	15	10	15	0	0	0	0	0	0	0	0
Yellow Clr	0	3.3	3	4.7	0	3.3	3	4.7	0	0	0	0	0	0	0	0
Red Clr	0	2.5	1.8	1	0	2.5	2	1.3	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
Added Initial	0	0	0	2	0	2	0	2	0	0	0	0	0	0	0	0
Max Initial	0	0	0	20	0	20	0	20	0	0	0	0	0	0	0	0
Time Before Reduce	0	0	0	8	0	8	0	8	0	0	0	0	0	0	0	0
Cars Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	22	0	22	0	22	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
Min Gap	0	0	0	2	0	2	0	2	0	0	0	0	0	0	0	0
Dynamic Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Step	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Auto Flash Entry																
Auto Flash Exit																
Non-Actuated 1																
Non-Actuated 2																

Phase Options [1.1.2]

	ϕ1	ϕ2 (ST)	ϕ3 (WL)	ϕ4 (ET)	ϕ5	ϕ6 (NT)	ϕ7 (EL)	ϕ8 (WT)	ϕ9	ϕ10	ϕ11	ϕ12	ϕ13	ϕ14	ϕ15	ϕ16
Enable		ON	ON	ON		ON	ON	ON								
Lock Call		ON		ON		ON		ON	ON	ON	ON	ON	ON	ON	ON	ON
Min Recall				ON				ON								
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry		ON		ON		ON		ON								
Sim Gap Enable				ON				ON								
Guar Passage																
Rest In Walk																
Cond Service																
Add Init Calc																

Phase Options Plus [1.1.3]

	ϕ1	ϕ2	ϕ3	ϕ4	ϕ5	ϕ6	ϕ7	ϕ8	ϕ9	ϕ10	ϕ11	ϕ12	ϕ13	ϕ14	ϕ15	ϕ16
Reservice																
Ped Clr Thru Yellow																
Skip Red-NoCall																
Red Rest																
Max 2																
Max Inhibit		ON	ON	ON		ON	ON	ON								
Ped Delay																
Red Rest On Gap																
Conflicting P																

Green Ped Delay Time																
Omit Yel																
Ped Out																
Start Yel																
Redirect P Calls From 1																
Redirect P Calls To 1																
Redirect P Calls From 2																
Redirect P Calls To 2																
Redirect P Calls From 3																
Redirect P Calls To 3																
Redirect P Calls From 4																
Redirect P Calls To 4																

Channel Assignment [1.8.1]

Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
PH/OLP #	1	2	3	4	5	6	7	8	1	2	3	4	2	4	6	8								
Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	OLP	OLP	OLP	OLP	PED	PED	PED	PED	PED	PED	PED	PED	VEH	VEH	VEH	VEH
Flash	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Alt Hz																								
Dimming Green																								
Dimming Yellow																								
Dimming Red																								
Dimming Cyc	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

I/O Channel Plus [1.8.4]

Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	10	21	22	23	24
Flash Red																								
Flash Yellow																								
Flash Green																								
Inh Red Flash in Preempt																								
Color Flash Rate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Override Type	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Olap Ovrd	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Overlap Program Parameters [1.5.2.1]

Overlap	Included Phases								Modifer Phases								Type	Green	Yellow	Red
Overlap 1																	NORMAL		3.5	1.5
Overlap 2																	NORMAL		3.5	1.5
Overlap 3																	NORMAL		3.5	1.5
Overlap 4																	NORMAL		3.5	1.5
Overlap 5																	NORMAL		3.5	1.5
Overlap 6																	NORMAL		3.5	1.5
Overlap 7																	NORMAL		3.5	1.5
Overlap 8																	NORMAL		3.5	1.5
Overlap 9																	NORMAL		3.5	1.5
Overlap 10																	NORMAL		3.5	1.5
Overlap 11																	NORMAL		3.5	1.5
Overlap 12																	NORMAL		3.5	1.5
Overlap 13																	NORMAL		3.5	1.5
Overlap 14																	NORMAL		3.5	1.5
Overlap 15																	NORMAL		3.5	1.5
Overlap 16																	NORMAL		3.5	1.5

Overlap Conflict Parameters+ [1.5.2.2]

Overlap	Conflicting Phases								Conflicting Overlaps								Conflicting Peds							
Overlap 1																								
Overlap 2																								
Overlap 3																								
Overlap 4																								
Overlap 5																								
Overlap 6																								
Overlap 7																								
Overlap 8																								
Overlap 9																								
Overlap 10																								
Overlap 11																								
Overlap 12																								
Overlap 13																								
Overlap 14																								
Overlap 15																								
Overlap 16																								

Ring Sequence [1.2.4]

Ring	P1	P2	P3	P4	P5	P6	P7	P8
Ring 1	1	2	3	4				
Ring 2	5	6	7	8				
Ring 3								
Ring 4								

Phase Startup, Concur [1.1.4]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Startup	RED	RED	RED	GREEN	RED	RED	RED	GREEN	RED	RED	RED	RED	RED	RED	RED	RED
Ring	1	1	1	1	2	2	2	2	0	0	0	0	0	0	0	0
Concur 1	5	5	7	7	1	1	3	3	0	0	0	0	0	0	0	0
Concur 2	6	6	8	8	2	2	4	4	0	0	0	0	0	0	0	0
Concur 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Concur 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Concur 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Concur 6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Concur 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Concur 8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Preemption Times[3.1]/Phases[3.2]/Options[3.3]

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash	ON	ON	ON	ON	ON	ON
Override Higher Preempt						
Flash in Dwell						
Link to Preempt	0	0	0	0	0	0
Delay	0	0	0	0	0	0
Min Duration	0	0	5	5	5	5
Min Green	0	0	5	5	5	0
Min Walk	0	0	0	0	0	0
Ped Clear	0	0	0	0	0	0
Track Green	0	0	0	0	0	0
Min Dwell	0	0	10	10	10	10
Max Presence	0	0	120	120	120	120
Track Veh 1	0	0	0	0	0	0
Track Veh 2	0	0	0	0	0	0
Track Veh 3	0	0	0	0	0	0
Track Veh 4	0	0	0	0	0	0
Dwell Cyc Veh 1	0	0	2	4	6	8
Dwell Cyc Veh 2	0	0	6	8	2	4
Dwell Cyc Veh 3	0	0	0	0	0	0
Dwell Cyc Veh 4	0	0	0	0	0	0
Dwell Cyc Veh 5	0	0	0	0	0	0
Dwell Cyc Veh 6	0	0	0	0	0	0
Dwell Cyc Veh 7	0	0	0	0	0	0
Dwell Cyc Veh 8	0	0	0	0	0	0
Dwell Cyc Veh 9	0	0	0	0	0	0
Dwell Cyc Veh 10	0	0	0	0	0	0
Dwell Cyc Veh 11	0	0	0	0	0	0
Dwell Cyc Veh 12	0	0	0	0	0	0
Dwell Cyc Ped1	0	0	0	0	0	0
Dwell Cyc Ped2	0	0	0	0	0	0
Dwell Cyc Ped3	0	0	0	0	0	0
Dwell Cyc Ped4	0	0	0	0	0	0
Dwell Cyc Ped5	0	0	0	0	0	0
Dwell Cyc Ped6	0	0	0	0	0	0
Dwell vPed7	0	0	0	0	0	0
Dwell Cyc Ped8	0	0	0	0	0	0
Exit 1	0	0	0	0	0	0
Exit 2	0	0	0	0	0	0
Exit 3	0	0	0	0	0	0
Exit 4	0	0	0	0	0	0

Preemption Times+[3.4]/Overlaps+[3.5]/Options+[3.6]

Preempt	1	2	3	4	5	6
Enable			ON	ON	ON	ON
Type	EMERG	EMERG	EMERG	EMERG	EMERG	EMERG
Skip Track						
Volt Mon Flash						
Coord in Preempt			ON	ON	ON	ON
Return Max/Min	MAX	MAX	MAX	MAX	MAX	MAX
Extend Dwell	0	0	0	0	0	0
Pattern	0	0	0	0	0	0
Output Mode	TS2	TS2	TS2	TS2	TS2	TS2
Track Over 1	0	0	0	0	0	0
Track Over 2	0	0	0	0	0	0
Track Over 3	0	0	0	0	0	0
Track Over 4	0	0	0	0	0	0
Track Over 5	0	0	0	0	0	0
Track Over 6	0	0	0	0	0	0
Track Over 7	0	0	0	0	0	0
Track Over 8	0	0	0	0	0	0
Track Over 9	0	0	0	0	0	0
Track Over 10	0	0	0	0	0	0
Track Over 11	0	0	0	0	0	0
Track Over 12	0	0	0	0	0	0
DwellCyc Over 1	0	0	0	4	0	0
DwellCyc Over 2	0	0	0	8	0	0
DwellCyc Over 3	0	0	0	0	0	0
DwellCyc Over 4	0	0	0	0	0	0
DwellCyc Over 5	0	0	0	0	0	0
DwellCyc Over 6	0	0	0	0	0	0
DwellCyc Over 7	0	0	0	0	0	0
DwellCyc Over 8	0	0	0	0	0	0
DwellCyc Over 9	0	0	0	0	0	0
DwellCyc Over 10	0	0	0	0	0	0
DwellCyc Over 11	0	0	0	0	0	0
DwellCyc Over 12	0	0	0	0	0	0
Ped Clear	0	0	0	0	0	0
Yellow	0	0	0	0	0	0
Red	0	0	0	0	0	0
Return Max	0	0	0	0	0	0

Detector, Vehicle Parameters [5.1][5.2]

1-16

Detector #	1	2 (ST1)	3 (WL1)	4 (ET1)	5	6 (NT1)	7 (EL1)	8 (WT1)	9	10	11	12	13	14	15	16
Volume														ON	ON	ON
Occupancy														ON	ON	ON
Yellow Lock																
Red Lock		ON		ON		ON		ON		ON			ON			
Extend	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Added Initial		ON		ON		ON		ON	ON	ON	ON	ON	ON	ON	ON	ON
Queue																
Call	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Call Phase	1	2	3	4	5	6	7	8	5	5	5	5	2	2	2	2
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
Extend Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Queue Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erratic Counts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fail Time	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2

17-32

Detector #	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Volume	ON		ON					ON	ON	ON			ON			
Occupancy	ON		ON					ON	ON	ON			ON			
Yellow Lock																
Red Lock							ON							ON		
Extend	ON	ON	ON	ON			ON	ON	ON	ON			ON	ON		
Added Initial	ON	ON												ON		
Queue																
Call	ON	ON	ON	ON			ON	ON	ON	ON			ON	ON		
Call Phase	2	0	7	7	7	7	4	4	4	4	4	4	1	1	1	1
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Queue Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erratic Counts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fail Time	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0

33-48

Detector #	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Volume		ON	ON	ON			ON					ON	ON	ON		
Occupancy		ON	ON	ON			ON					ON	ON	ON		
Yellow Lock																
Red Lock	ON										ON					
Extend	ON	ON	ON	ON			ON	ON			ON	ON	ON	ON		
Added Initial																
Queue																
Call	ON	ON	ON	ON			ON	ON			ON	ON	ON	ON		
Call Phase	6	6	6	0	6	6	3	3	3	3	8	8	8	8	8	8
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Queue Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erratic Counts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fail Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

49-64

	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
Volume																
Occupancy																
Yellow Lock																
Red Lock																
Extend																
Added Initial																
Queue																
Call																
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Queue Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erratic Counts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fail Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Detector, Vehicle Parameters+ [5.3]

1-16

	1	2 (ST1)	3 (WL1)	4 (ET1)	5	6 (NT1)	7 (EL1)	8 (WT1)	9	10	11	12	13	14	15	16
Green Occupancy																
Yellow Occupancy																
Red Occupancy																
External Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Delay Phase 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Phase 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Source	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

17-32

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Green Occupancy																
Yellow Occupancy																
Red Occupancy																
External Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Delay Phase 1	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Phase 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Source	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

33-48

	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Green Occupancy																
Yellow Occupancy																
Red Occupancy																
External Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Delay Phase 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Phase 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Source	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

49-64

	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
Green Occupancy																
Yellow Occupancy																
Red Occupancy																
External Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Delay Phase 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Phase 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Source	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Detector, Ped Detectors 1-16 [5.4]

Detector	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Call Phase	0	2	0	4	0	6	0	8								
No Activity	0	0	0	0	0	0	0	0								
Max Presence	0	0	0	0	0	0	0	0								
Erratic Cnt	0	0	0	0	0	0	0	0								

Detector Alternate Program 1, Vehicle Parameters [5.5.1]

Detector #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Volume																
Occupancy																
Yellow Lock																
Red Lock																
Extend																
Added Initial																
Queue																
Call																
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Queue Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erratic Cnt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fail Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Green Occupancy																
Yellow Occupancy																
Red Occupancy																
Ext Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Delay Phase 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Phase 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Source	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Det Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Detector Alternate Program 2, Vehicle Parameters [5.5.2]

Detector #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Volume																
Occupancy																
Yellow Lock																
Red Lock																
Extend																
Added Initial																
Queue																
Call																
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Queue Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erratic Cnt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fail Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Green Occupancy																
Yellow Occupancy																
Red Occupancy																
Ext Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Delay Phase 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Phase 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Source	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Det Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 1, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	0	0	0	0	0	0	0	
2	7	23	9	2	15	12	3.3	2.5	2	
3	0	0	5	2	8	8	3	1.8	3	
4	7	10	15	4.4	30	30	4.7	1	4	
5	0	0	0	0	0	0	0	0	0	
6	7	23	9	3	15	12	3.3	2.5	6	
7	0	0	5	2	10	8	3	2	7	
8	7	17	15	4.4	30	30	4.7	1.3	8	

Alternate Phase Program 2, Interval Times [1.1.6.2]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	0	0	0	0	0	0	0	
2	0	0	0	0	0	0	0	0	0	
3	0	0	0	0	0	0	0	0	0	
4	0	0	0	0	0	0	0	0	0	
5	0	0	0	0	0	0	0	0	0	
6	0	0	0	0	0	0	0	0	0	
7	0	0	0	0	0	0	0	0	0	
8	0	0	0	0	0	0	0	0	0	

Alternate Phase Program 1, Phase Options [1.1.6.2.1]

Column	Non Act1	Lock Call	Soft Recall	Dual Entry	Sim Gap Enb	Guar Pass	RIW	Cond Service	Reservice	Red Rest	Max 2	Ped Delay	Conf Phs1	Conf Phs1	Assign Phase
1														0	0
2		ON		ON								ON		0	0
3												ON		0	0
4		ON		ON	ON		ON					ON		0	0
5														0	0
6		ON		ON								ON		0	0
7												ON		0	0
8		ON		ON	ON		ON					ON		0	0

Alternate Phase Program 2, Phase Options [1.1.6.2.2]

Column	Non Act1	Lock Call	Soft Recall	Dual Entry	Sim Gap Enb	Guar Pass	RIW	Cond Service	Reservice	Red Rest	Max 2	Ped Delay	Conf Phs1	Conf Phs1	Assign Phase
1														0	0
2		ON		ON								ON		0	0
3												ON		0	0
4		ON		ON	ON							ON		0	0
5														0	0
6		ON		ON								ON		0	0
7												ON		0	0
8		ON		ON	ON							ON		0	0

Alternate Phase Program 3, Phase Options [1.1.6.2.3]

Column	Non Act1	Lock Call	Soft Recall	Dual Entry	Sim Gap Enb	Guar Pass	RIW	Cond Service	Reservice	Red Rest	Max 2	Ped Delay	Conf Phs1	Conf Phs1	Assign Phase
1														0	0
2		ON		ON								ON		0	0
3												ON		0	0
4		ON		ON	ON		ON					ON		0	0
5														0	0
6		ON		ON								ON		0	0
7												ON		0	0
8		ON		ON	ON		ON					ON		0	0

Alternate Phase Program 1, Calls and Redirection [1.1.6.3]

ENTRY	Call Phases				From	to	From	to	From	to	From	to	Assigned Ph
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 2, Calls and Redirection [1.1.6.3]

ENTRY	Call Phases				From	to	From	to	From	to	From	to	Assigned Ph
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0

Coordination, Splits [2.7.1]

Split Table 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	MIN	NON	NON	NON	MIN	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	PED	NON	NON	NON	PED	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time		20	15	35		20	15	35								
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase				ON												

Split Table 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time		20	15	35		20	15	35								
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase				ON												

Split Table 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time		25	15	40		25	15	40								
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase				ON												

Split Table 7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time		25	15	40		25	15	40								
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase				ON												

Split Table 8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time		30	15	45		30	15	45								
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase				ON												

Split Table 9	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time		39	17	49		39	17	49								
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase				ON												

Split Table 10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time		39	17	49		39	17	49								
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase				ON												

Split Table 11	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time		32	18	70		32	18	70								
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase				ON												

Split Table 12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time		35	18	67		35	18	67								
Mode	NON	NON	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase				ON												

Split Table 13	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time		45	15	80		45	24	71								
Mode	NON	NON	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase				ON												

Split Table 14	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time		38	18	84		38	18	84								
Mode	NON	NON	NON	PED	NON	NON	NON	PED	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase				ON												

Split Table 15	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time		38	18	84		38	18	84								
Mode	NON	NON	NON	PED	NON	NON	NON	PED	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase				ON												

Split Table 16	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time		36	17	87		36	17	87								
Mode	NON	NON	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase				ON												

Split Table 17	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time		47	30	83		47	30	83								
Mode	NON	NON	NON	PED	NON	NON	NON	PED	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase				ON												

Split Table 18	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time		47	30	83		47	30	83								
Mode	NON	NON	NON	PED	NON	NON	NON	PED	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase				ON												

Split Table 19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time		47	30	83		47	30	83								
Mode	NON	NON	NON	PED	NON	NON	NON	PED	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase				ON												

Split Table 20	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time		65	25	90		65	25	90								
Mode	NON	NON	NON	PED	NON	NON	NON	PED	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase				ON												

Split Table 21	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time		65	25	90		65	25	90								
Mode	NON	NON	NON	PED	NON	NON	NON	PED	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase				ON												

Split Table 22	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 23	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time		47	30	83		47	30	83								
Mode	NON	NON	NON	PED	NON	NON	NON	PED	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase				ON												

Split Table 25	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 26	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time		20	15	35		20	15	35								
Mode	NON	NON	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase				ON												

Split Table 27	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time		35	15	55		35	15	55								
Mode	NON	NON	NON	PED	NON	NON	NON	PED	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase				ON												

Split Table 28	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time		35	15	70		35	15	70								
Mode	NON	NON	NON	PED	NON	NON	NON	PED	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase				ON												

Split Table 29	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time		38	18	84		38	18	84								
Mode	NON	NON	NON	PED	NON	NON	NON	PED	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase				ON												

Split Table 30	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time		47	30	83		47	30	83								
Mode	NON	NON	NON	PED	NON	NON	NON	PED	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase				ON												

Split Table 31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 32	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Coordination, Pattern 1-16 [2.4]

Pattern	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle Time								90	105	105	120	120	140	140	140	140
Offset Time				1	1	1	1	1	50	50	75	65	111	1	115	130
Split Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Seq Number	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Coordination, Pattern 17-32 [2.4]

Pattern	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Cycle Time	160	160	160	180	180			160			105	120	140	160		
Offset Time	10	10	10	1	20			10		1	50	75	10	150		
Split Number	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Seq Number	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Coordination, Pattern+ 1-8 [2.5]

Pattern	1	2	3	4	5	6	7	8
Short				5	5	5	5	5
Long				17	17	17	17	17
Dwell								
No Short P 1				1	1	1	1	1
No Short P 2				3	3	3	3	3
No Short P 3				5	5	5	5	5
No Short P 4				7	7	7	7	7
Early Yield								
Offset	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN
CNA								
Max 2		ON						
Float				ON	ON	ON	ON	ON
Min Veh Perm				ON	ON	ON	ON	ON
Min Ped Perm				ON	ON	ON	ON	ON
Percentage								
MI								
Ret Hold				ON	ON	ON	ON	ON
ASC								
Ph Opt Table			1	2	2	2	2	2
Ph Time Table								
Det Grp								
Call Inh								
Olp Off 1								
Olp Off 2								
Olp Off 3								
Olp Off 4								
Olp Off 5								
Olp Off 6								
Olp Off 7								
Olp Off 8								
Dia Mode	DFT	DFT	DFT	DFT	DFT	DFT	DFT	DFT
Force Mode	DFT	DFT	DFT	DFT	DFT	DFT	DFT	DFT

Coordination, Pattern+ 9-16 [2.5]

Pattern	9	10	11	12	13	14	15	16
Short	20	5	5	20	20	20	20	20
Long	40	17	17	40	40	40	40	40
Dwell								
No Short P 1		1	1		1	1	1	1
No Short P 2		3	3		3	3	3	3
No Short P 3		5	5		5	5	5	5
No Short P 4		7	7		7	7	7	7
Early Yield								
Offset	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN
CNA								
Max 2	ON	ON						
Float			ON	ON	ON	ON	ON	ON
Min Veh Perm	ON	ON	ON	ON	ON	ON	ON	ON
Min Ped Perm	ON	ON	ON	ON	ON	ON	ON	ON
Percentage								
MI								
Ret Hold	ON	ON	ON	ON	ON	ON	ON	ON
ASC								
Ph Opt Table	4	4	2	1	1	1	1	1
Ph Time Table	1	1		1	1		1	1
Det Grp								
Call Inh								
Olp Off 1								
Olp Off 2								
Olp Off 3								
Olp Off 4								
Olp Off 5								
Olp Off 6								
Olp Off 7								
Olp Off 8								
Dia Mode	DFT	DFT	DFT	DFT	DFT	DFT	DFT	DFT
Force Mode	DFT	DFT	DFT	DFT	DFT	DFT	DFT	DFT

Coordination, Pattern+ 17 - 24 [2.5]

Pattern	17	18	19	20	21	22	23	24
Short	20	20	20	5	20	5	5	20
Long	40	40	40	17	40	17	17	40
Dwell								
No Short P 1				1		1	1	
No Short P 2				3		3	3	
No Short P 3				5		5	5	
No Short P 4				7		7	7	
Early Yield								
Offset	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN
CNA								
Max 2								
Float				ON		ON	ON	
Min Veh Perm	ON	ON	ON	ON	ON	ON	ON	ON
Min Ped Perm	ON	ON	ON	ON	ON	ON	ON	ON
Percentage								
MI								
Ret Hold	ON	ON	ON	ON	ON	ON	ON	ON
ASC								
Ph Opt Table	1	1	1	1	1			1
Ph Time Table								
Det Grp								
Call Inh								
Olp Off 1								
Olp Off 2								
Olp Off 3								
Olp Off 4								
Olp Off 5								
Olp Off 6								
Olp Off 7								
Olp Off 8								
Dia Mode	DFT	DFT	DFT	DFT	DFT	DFT	DFT	DFT
Force Mode	DFT	DFT	DFT	DFT	DFT	DFT	DFT	DFT

TB Coor, Day Plan [4.4]

Day Plan Table 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		5	6	9	14	15	18	19	22							
Minute		15	30	15												
Action	1	9	17	24	19	21	19	16	12							

Day Plan Table 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		5	6	9	14	15	18	19	22							
Minute		15	30	15												
Action	1	9	17	24	19	21	19	16	12							

Day Plan Table 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		5	6	9	14	15	18	19	22							
Minute		15	30	15												
Action	1	9	17	24	19	21	19	16	12							

Day Plan Table 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		5	6	9	14	15	18	19	22							
Minute		15	30	15												
Action	1	9	17	24	19	21	19	16	12							

Day Plan Table 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		5	6	9	14	15	18	19	22							
Minute		15	30	15												
Action	1	9	17	24	19	21	19	16	12							

Day Plan Table 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		5	6	8	21	22										
Minute		30	30			30										
Action	1	27	28	29	28	27										

Day Plan Table 7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		5	6	8	21	22										
Minute		30	30			30										
Action	1	27	28	29	28	27										

Day Plan Table 8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 9	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 11	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 13	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 14	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 15	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 16	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 17	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 18	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 20	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

TB Coor, Advanced Scheduler [4.3]

	Month												Day of Week							Day of Month									1									2									3		
Plan	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	Day Plan
1	1	1	1	1	1	1	1	1	1	1	1	1		1						1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1			1					1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
3	1	1	1	1	1	1	1	1	1	1	1	1				1				1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
4	1	1	1	1	1	1	1	1	1	1	1	1					1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4
5	1	1	1	1	1	1	1	1	1	1	1	1						1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5
6	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6
7	1	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	7
8																																																	1
9																																																	1
10																																																	1
11																																																	1
12																																																	1
13																																																	1
14																																																	1
15																																																	1
16																																																	1
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18																																																	1
19																																																	1
20																																																	1
21																																																	1
22																																																	1
23																																																	1
24																																																	1

DISCLAIMER

FAST does not continually save records of all database changes. We cannot guarantee that the plan you will receive is the actual database in effect at the time in question. There are numerous events not tracked which can significantly alter the operation and sequencing of a traffic signal. These include emergency vehicle preemptions, detector failures, and lack of detector calls for specific traffic movements. In addition to these events, technicians from local agencies that are responsible for maintaining the traffic signals sometimes make timing changes in response to site-specific timing concerns. We do not track these changes. If local agency technicians changed timing at the intersection it will not be reflected in the attached database.

Phase Sequence Chart	
Sequence	
1	No Reversals
2	Rev 1 & 2
3	Rev 3 & 4
4	Rev 1 & 2, 3 & 4
5	Rev 5 & 6
6	Rev 1 & 2, 5 & 6
7	Rev 3 & 4, 5 & 6
8	Rev 1 & 2, 3 & 4, 5 & 6
9	Rev 7 & 8
10	Rev 1 & 2, 7 & 8
11	Rev 3 & 4, 7 & 8
12	Rev 1 & 2, 3 & 4, 7 & 8
13	Rev 5 & 6, 7 & 8
14	Rev 1 & 2, 5 & 6, 7 & 8
15	Rev 3 & 4, 5 & 6, 7 & 8
16	Rev 1 & 2, 3 & 4, 5 & 6, 7 & 8

Regional Transportation Commission of Southern Nevada

Intersection Timing Sheet

Station ID [6.1]

Intersection : 3084 - Charleston Blvd & Valley View Blvd (15G) (Standard File)

Unit Parameters [6.5]	I/O Mode [1.8.6]	Print Date	Date Implemented
Phase Mode:		4/12/2023 10:48:11 AM	

Communication [6.5]

IP Address	Subnet Mask	Gateway	PORT
10.3.10.31	255.255.192.0	10.3.1.1	5084

Phase Timings [1.1.1]

	ϕ1 (NL)	ϕ2 (ST)	ϕ3 (WL)	ϕ4 (ET)	ϕ5 (SL)	ϕ6 (NT)	ϕ7 (EL)	ϕ8 (WT)	ϕ9	ϕ10	ϕ11	ϕ12	ϕ13	ϕ14	ϕ15	ϕ16
Walk	0	7	0	7	0	7	0	7	0	0	0	0	0	0	0	0
Ped Clearance	0	24	0	17	0	22	0	15	0	0	0	0	0	0	0	0
Min Green	5	9	5	15	5	9	5	15	0	0	0	0	0	0	0	0
Gap Ext	2	3	2	4.8	2	5.1	2	4.7	0	0	0	0	0	0	0	0
Max1	20	30	20	30	20	30	20	30	0	0	0	0	0	0	0	0
Max2	10	15	10	15	10	15	10	15	0	0	0	0	0	0	0	0
Yellow Clr	3	4	3	4.7	3	4	3	4.7	0	0	0	0	0	0	0	0
Red Clr	2.2	1.9	2.2	1.3	2.1	1.9	2.4	1.2	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
Added Initial	0	0	0	2	0	2	0	2	0	0	0	0	0	0	0	0
Max Initial	0	0	0	20	0	20	0	20	0	0	0	0	0	0	0	0
Time Before Reduce	0	0	0	8	0	8	0	8	0	0	0	0	0	0	0	0
Cars Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	22	0	22	0	22	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
Min Gap	0	0	0	2	0	2	0	2	0	0	0	0	0	0	0	0
Dynamic Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Step	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Auto Flash Entry																
Auto Flash Exit																
Non-Actuated 1																
Non-Actuated 2																

Phase Options [1.1.2]

	ϕ1 (NL)	ϕ2 (ST)	ϕ3 (WL)	ϕ4 (ET)	ϕ5 (SL)	ϕ6 (NT)	ϕ7 (EL)	ϕ8 (WT)	ϕ9	ϕ10	ϕ11	ϕ12	ϕ13	ϕ14	ϕ15	ϕ16
Enable	ON	ON	ON	ON	ON	ON	ON	ON								
Lock Call	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Min Recall				ON				ON								
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry		ON		ON		ON		ON								
Sim Gap Enable		ON		ON		ON		ON								
Guar Passage																
Rest In Walk																
Cond Service																
Add Init Calc																

Phase Options Plus [1.1.3]

	ϕ1	ϕ2	ϕ3	ϕ4	ϕ5	ϕ6	ϕ7	ϕ8	ϕ9	ϕ10	ϕ11	ϕ12	ϕ13	ϕ14	ϕ15	ϕ16
Reservice																
Ped Clr Thru Yellow																
Skip Red-NoCall																
Red Rest																
Max 2																
Max Inhibit																
Ped Delay																
Red Rest On Gap																
Conflicting P																

Green Ped Delay Time																
Omit Yel																
Ped Out																
Start Yel																
Redirect P Calls From 1																
Redirect P Calls To 1																
Redirect P Calls From 2																
Redirect P Calls To 2																
Redirect P Calls From 3																
Redirect P Calls To 3																
Redirect P Calls From 4																
Redirect P Calls To 4																

Channel Assignment [1.8.1]

Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
PH/OLP #	1	2	3	4	5	6	7	8	1	2	3	4	2	4	6	8	1	3	5	7				
Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	OLP	OLP	OLP	OLP	PED	PED	PED	PED	PED	PED	PED	PED	VEH	VEH	VEH	VEH
Flash	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Alt Hz																								
Dimming Green																								
Dimming Yellow																								
Dimming Red																								
Dimming Cyc	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

I/O Channel Plus [1.8.4]

Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	10	21	22	23	24
Flash Red																								
Flash Yellow																								
Flash Green																								
Inh Red Flash in Preempt																								
Color Flash Rate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Override Type	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Olap Ovrd	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Overlap Program Parameters [1.5.2.1]

Overlap	Included Phases								Modifer Phases								Type	Green	Yellow	Red
Overlap 1																	NORMAL		3.5	1.5
Overlap 2																	NORMAL		3.5	1.5
Overlap 3																	NORMAL		3.5	1.5
Overlap 4																	NORMAL		3.5	1.5
Overlap 5																	NORMAL		3.5	1.5
Overlap 6																	NORMAL		3.5	1.5
Overlap 7																	NORMAL		3.5	1.5
Overlap 8																	NORMAL		3.5	1.5
Overlap 9																	NORMAL		3.5	1.5
Overlap 10																	NORMAL		3.5	1.5
Overlap 11																	NORMAL		3.5	1.5
Overlap 12																	NORMAL		3.5	1.5
Overlap 13																	NORMAL		3.5	1.5
Overlap 14																	NORMAL		3.5	1.5
Overlap 15																	NORMAL		3.5	1.5
Overlap 16																	NORMAL		3.5	1.5

Overlap Conflict Parameters+ [1.5.2.2]

Overlap	Conflicting Phases								Conflicting Overlaps								Conflicting Peds							
Overlap 1																								
Overlap 2																								
Overlap 3																								
Overlap 4																								
Overlap 5																								
Overlap 6																								
Overlap 7																								
Overlap 8																								
Overlap 9																								
Overlap 10																								
Overlap 11																								
Overlap 12																								
Overlap 13																								
Overlap 14																								
Overlap 15																								
Overlap 16																								

Ring Sequence [1.2.4]

Ring	P1	P2	P3	P4	P5	P6	P7	P8
Ring 1	1	2	3	4				
Ring 2	5	6	7	8				
Ring 3								
Ring 4								

Phase Startup, Concur [1.1.4]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Startup	RED	RED	RED	GREEN	RED	RED	RED	GREEN	RED	RED	RED	RED	RED	RED	RED	RED
Ring	1	1	1	1	2	2	2	2	0	0	0	0	0	0	0	0
Concur 1	5	5	7	7	1	1	3	3	0	0	0	0	0	0	0	0
Concur 2	6	6	8	8	2	2	4	4	0	0	0	0	0	0	0	0
Concur 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Concur 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Concur 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Concur 6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Concur 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Concur 8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Preemption Times[3.1]/Phases[3.2]/Options[3.3]

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash	ON	ON	ON	ON	ON	ON
Override Higher Preempt						
Flash in Dwell						
Link to Preempt	0	0	0	0	0	0
Delay	0	0	0	0	0	0
Min Duration	0	0	5	5	5	5
Min Green	0	0	5	5	5	5
Min Walk	0	0	0	0	0	0
Ped Clear	0	0	0	0	0	0
Track Green	0	0	0	0	0	0
Min Dwell	0	0	10	10	10	10
Max Presence	0	0	120	120	120	120
Track Veh 1	0	0	0	0	0	0
Track Veh 2	0	0	0	0	0	0
Track Veh 3	0	0	0	0	0	0
Track Veh 4	0	0	0	0	0	0
Dwell Cyc Veh 1	0	0	2	4	1	3
Dwell Cyc Veh 2	0	0	5	7	6	8
Dwell Cyc Veh 3	0	0	0	0	0	0
Dwell Cyc Veh 4	0	0	0	0	0	0
Dwell Cyc Veh 5	0	0	0	0	0	0
Dwell Cyc Veh 6	0	0	0	0	0	0
Dwell Cyc Veh 7	0	0	0	0	0	0
Dwell Cyc Veh 8	0	0	0	0	0	0
Dwell Cyc Veh 9	0	0	0	0	0	0
Dwell Cyc Veh 10	0	0	0	0	0	0
Dwell Cyc Veh 11	0	0	0	0	0	0
Dwell Cyc Veh 12	0	0	0	0	0	0
Dwell Cyc Ped1	0	0	0	0	0	0
Dwell Cyc Ped2	0	0	0	0	0	0
Dwell Cyc Ped3	0	0	0	0	0	0
Dwell Cyc Ped4	0	0	0	0	0	0
Dwell Cyc Ped5	0	0	0	0	0	0
Dwell Cyc Ped6	0	0	0	0	0	0
Dwell vPed7	0	0	0	0	0	0
Dwell Cyc Ped8	0	0	0	0	0	0
Exit 1	0	0	0	0	0	0
Exit 2	0	0	0	0	0	0
Exit 3	0	0	0	0	0	0
Exit 4	0	0	0	0	0	0

Preemption Times+[3.4]/Overlaps+[3.5]/Options+[3.6]

Preempt	1	2	3	4	5	6
Enable			ON	ON	ON	ON
Type	EMERG	EMERG	EMERG	EMERG	EMERG	EMERG
Skip Track						
Volt Mon Flash						
Coord in Preempt	ON	ON	ON	ON	ON	ON
Return Max/Min	MAX	MAX	MAX	MAX	MAX	MAX
Extend Dwell	0	0	0	0	0	0
Pattern	0	0	0	0	0	0
Output Mode	TS2	TS2	TS2	TS2	TS2	TS2
Track Over 1	0	0	0	0	0	0
Track Over 2	0	0	0	0	0	0
Track Over 3	0	0	0	0	0	0
Track Over 4	0	0	0	0	0	0
Track Over 5	0	0	0	0	0	0
Track Over 6	0	0	0	0	0	0
Track Over 7	0	0	0	0	0	0
Track Over 8	0	0	0	0	0	0
Track Over 9	0	0	0	0	0	0
Track Over 10	0	0	0	0	0	0
Track Over 11	0	0	0	0	0	0
Track Over 12	0	0	0	0	0	0
DwellCyc Over 1	0	0	0	0	0	0
DwellCyc Over 2	0	0	0	0	0	0
DwellCyc Over 3	0	0	0	0	0	0
DwellCyc Over 4	0	0	0	0	0	0
DwellCyc Over 5	0	0	0	0	0	0
DwellCyc Over 6	0	0	0	0	0	0
DwellCyc Over 7	0	0	0	0	0	0
DwellCyc Over 8	0	0	0	0	0	0
DwellCyc Over 9	0	0	0	0	0	0
DwellCyc Over 10	0	0	0	0	0	0
DwellCyc Over 11	0	0	0	0	0	0
DwellCyc Over 12	0	0	0	0	0	0
Ped Clear	0	0	0	0	0	0
Yellow	0	0	0	0	0	0
Red	0	0	0	0	0	0
Return Max	0	0	0	0	0	0

Detector, Vehicle Parameters [5.1][5.2]

1-16

Detector #	1	2	3	4	5	6	7	8	9 (SL1)	10	11	12	13	14 (ST1)	15 (ST2)	16
Volume									ON					ON	ON	
Occupancy									ON					ON	ON	
Yellow Lock			ON	ON			ON	ON								
Red Lock	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON			ON	ON	ON	
Extend	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Added Initial		ON		ON		ON		ON	ON	ON	ON	ON	ON	ON	ON	ON
Queue																
Call	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Call Phase	1	2	3	4	5	6	7	8	5	5	0	0	2	2	2	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Queue Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erratic Counts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fail Time	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2

17-32

Detector #	17	18	19	20	21 (EL2)	22	23	24 (ET1)	25 (ET2)	26 (ET3)	27	28	29 (NL1)	30	31	32
Volume			ON		ON			ON	ON	ON			ON			
Occupancy			ON		ON			ON	ON	ON			ON			
Yellow Lock																
Red Lock			ON	ON	ON	ON	ON	ON	ON	ON			ON	ON		
Extend	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON			ON	ON		
Added Initial	ON	ON														
Queue																
Call	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON			ON	ON		
Call Phase	0	0	7	7	7	7	4	4	4	4	0	0	1	1	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Queue Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erratic Counts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fail Time	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0

33-48

Detector #	33	34 (NT1)	35 (NT2)	36 (NT3)	37	38	39 (WL1)	40	41 (WL2)	42	43	44 (WT1)	45 (WT2)	46 (WT3)	47 (WT4)	48
Volume		ON	ON	ON			ON		ON			ON	ON	ON	ON	
Occupancy		ON	ON	ON			ON		ON			ON	ON	ON	ON	
Yellow Lock																
Red Lock	ON	ON	ON	ON			ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Extend	ON	ON	ON	ON			ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Added Initial																
Queue																
Call	ON	ON	ON	ON			ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Call Phase	6	6	6	6	0	0	3	3	3	3	8	8	8	8	8	8
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Queue Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erratic Counts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fail Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

49-64

	49	50	51	52	53	54	55	56	57	58	59	60	61 (EL1)	62	63	64
Volume																
Occupancy																
Yellow Lock																
Red Lock																
Extend																
Added Initial																
Queue																
Call																
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Queue Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erratic Counts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fail Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Detector, Vehicle Parameters+ [5.3]

1-16

	1	2	3	4	5	6	7	8	9 (SL1)	10	11	12	13	14 (ST1)	15 (ST2)	16
Green Occupancy																
Yellow Occupancy																
Red Occupancy																
External Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Delay Phase 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Phase 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Source	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

17-32

	17	18	19	20	21 (EL2)	22	23	24 (ET1)	25 (ET2)	26 (ET3)	27	28	29 (NL1)	30	31	32
Green Occupancy																
Yellow Occupancy																
Red Occupancy																
External Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Delay Phase 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Phase 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Source	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

33-48

	33	34 (NT1)	35 (NT2)	36 (NT3)	37	38	39 (WL1)	40	41 (WL2)	42	43	44 (WT1)	45 (WT2)	46 (WT3)	47 (WT4)	48
Green Occupancy																
Yellow Occupancy																
Red Occupancy																
External Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Delay Phase 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Phase 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Source	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

49-64

	49	50	51	52	53	54	55	56	57	58	59	60	61 (EL1)	62	63	64
Green Occupancy																
Yellow Occupancy																
Red Occupancy																
External Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Delay Phase 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Phase 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Source	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Detector, Ped Detectors 1-16 [5.4]

Detector	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Call Phase	0	2	0	4	0	6	0	8								
No Activity	0	0	0	0	0	0	0	0								
Max Presence	0	0	0	0	0	0	0	0								
Erratic Cnt	0	0	0	0	0	0	0	0								

Detector Alternate Program 1, Vehicle Parameters [5.5.1]

Detector #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Volume																
Occupancy																
Yellow Lock																
Red Lock																
Extend																
Added Initial																
Queue																
Call																
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Queue Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erratic Cnt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fail Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Green Occupancy																
Yellow Occupancy																
Red Occupancy																
Ext Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Delay Phase 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Phase 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Source	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Det Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Detector Alternate Program 2, Vehicle Parameters [5.5.2]

Detector #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Volume																
Occupancy																
Yellow Lock																
Red Lock																
Extend																
Added Initial																
Queue																
Call																
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Queue Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erratic Cnt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fail Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Green Occupancy																
Yellow Occupancy																
Red Occupancy																
Ext Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Delay Phase 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Phase 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Source	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Det Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 1, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	0	0	0	0	0	0	0	
2	0	0	0	0	0	0	0	0	0	
3	0	0	0	0	0	0	0	0	0	
4	0	0	0	0	0	0	0	0	0	
5	0	0	0	0	0	0	0	0	0	
6	0	0	0	0	0	0	0	0	0	
7	0	0	0	0	0	0	0	0	0	
8	0	0	0	0	0	0	0	0	0	

Alternate Phase Program 2, Interval Times [1.1.6.2]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	0	0	0	0	0	0	0	
2	0	0	0	0	0	0	0	0	0	
3	0	0	0	0	0	0	0	0	0	
4	0	0	0	0	0	0	0	0	0	
5	0	0	0	0	0	0	0	0	0	
6	0	0	0	0	0	0	0	0	0	
7	0	0	0	0	0	0	0	0	0	
8	0	0	0	0	0	0	0	0	0	

Alternate Phase Program 1, Phase Options [1.1.6.2.1]

Column	Non Act1	Lock Call	Soft Recall	Dual Entry	Sim Gap Enb	Guar Pass	RIW	Cond Service	Reservice	Red Rest	Max 2	Ped Delay	Conf Phs1	Conf Phs1	Assign Phase
1		ON										ON		0	0
2		ON		ON	ON							ON		0	0
3		ON										ON		0	0
4		ON		ON	ON		ON					ON		0	0
5		ON										ON		0	0
6		ON		ON	ON							ON		0	0
7		ON										ON		0	0
8		ON		ON	ON		ON					ON		0	0

Alternate Phase Program 2, Phase Options [1.1.6.2.2]

Column	Non Act1	Lock Call	Soft Recall	Dual Entry	Sim Gap Enb	Guar Pass	RIW	Cond Service	Reservice	Red Rest	Max 2	Ped Delay	Conf Phs1	Conf Phs1	Assign Phase
1		ON										ON		0	0
2		ON		ON	ON							ON		0	0
3		ON										ON		0	0
4		ON		ON	ON							ON		0	0
5		ON										ON		0	0
6		ON		ON	ON							ON		0	0
7		ON										ON		0	0
8		ON		ON	ON							ON		0	0

Alternate Phase Program 3, Phase Options [1.1.6.2.3]

Column	Non Act1	Lock Call	Soft Recall	Dual Entry	Sim Gap Enb	Guar Pass	RIW	Cond Service	Reservice	Red Rest	Max 2	Ped Delay	Conf Phs1	Conf Phs1	Assign Phase
1		ON										ON		0	0
2		ON		ON	ON							ON		0	0
3		ON										ON		0	0
4		ON		ON	ON		ON					ON		0	0
5		ON										ON		0	0
6		ON		ON	ON							ON		0	0
7		ON										ON		0	0
8		ON		ON	ON		ON					ON		0	0

Alternate Phase Program 1, Calls and Redirection [1.1.6.3]

ENTRY	Call Phases				From	to	From	to	From	to	From	to	Assigned Ph
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 2, Calls and Redirection [1.1.6.3]

ENTRY	Call Phases				From	to	From	to	From	to	From	to	Assigned Ph
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0

Coordination, Splits [2.7.1]

Split Table 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time		40		35				35								
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	PED	NON	NON	NON	PED	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	15	20	15	20	15	20	15	20								
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase				ON												

Split Table 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	15	20	15	20	15	20	15	20								
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase				ON												

Split Table 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	15	25	15	25	15	25	15	25								
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase				ON												

Split Table 7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	15	25	15	25	15	25	15	25								
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase				ON												

Split Table 8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	15	30	15	30	15	30	15	30								
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase				ON												

Split Table 9	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	15	38	17	35	15	38	17	35								
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase				ON												

Split Table 10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	15	38	17	35	15	38	17	35								
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase				ON												

Split Table 11	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	20	37	19	44	25	32	19	44								
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase				ON												

Split Table 12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	20	37	19	44	22	35	19	44								
Mode	NON	NON	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase				ON												

Split Table 13	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	19	50	15	56	32	37	22	49								
Mode	NON	NON	NON	PED	NON	NON	NON	PED	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase								ON								

Split Table 14	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	20	42	18	60	22	40	20	58								
Mode	NON	NON	NON	PED	NON	NON	NON	PED	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase				ON												

Split Table 15	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	20	47	18	55	22	45	20	53								
Mode	NON	NON	NON	PED	NON	NON	NON	PED	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase								ON								

Split Table 16	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	20	50	20	50	20	50	20	50								
Mode	NON	MAX	NON	MXP	NON	MAX	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase				ON												

Split Table 17	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	23	52	25	60	25	50	25	60								
Mode	NON	MXP	NON	MXP	NON	MXP	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase								ON								

Split Table 18	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	25	45	25	65	25	45	25	65								
Mode	NON	MXP	NON	MXP	NON	MXP	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase								ON								

Split Table 19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	25	55	25	55	25	55	25	55								
Mode	NON	MXP	NON	MXP	NON	MXP	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase								ON								

Split Table 20	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	25	65	25	65	25	65	25	65								
Mode	NON	NON	NON	PED	NON	NON	NON	PED	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase				ON												

Split Table 21	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	25	65	25	65	25	65	25	65								
Mode	NON	NON	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase								ON								

Split Table 22	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	20	75	18	60	35	40	20	58								
Mode	NON	MAX	NON	PED	NON	NON	NON	PED	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase				ON												

Split Table 23	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	25	45	25	65	25	45	25	65								
Mode	NON	MXP	NON	MXP	NON	MXP	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase								ON								

Split Table 25	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 26	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	15	20	15	20	15	20	15	20								
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase				ON												

Split Table 27	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	15	38	17	35	15	38	17	35								
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase				ON												

Split Table 28	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	20	37	21	42	21	36	20	43								
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase								ON								

Split Table 29	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	25	45	25	45	25	45	25	45								
Mode	NON	NON	NON	PED	NON	NON	NON	PED	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase								ON								

Split Table 30	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	25	55	25	55	25	55	25	55								
Mode	NON	MXP	NON	MXP	NON	MXP	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase						ON										

Split Table 31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 32	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Coordination, Pattern 1-16 [2.4]

Pattern	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle Time									105	105	120	120	140	140	140	140
Offset Time				1	1	1	1	1	50	50	60	65	100	1	100	110
Split Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Seq Number	1	1	1	1	1	1	1	1	1	1	9	10	4	1	4	4

Coordination, Pattern 17-32 [2.4]

Pattern	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Cycle Time	160	160	160	180	180			160			105	120	140	160		
Offset Time				1				155		1	50	60				
Split Number	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Seq Number	4	4	4	1	4	4	1	4	1	1	1	9	4	4	1	1

Coordination, Pattern+ 1-8 [2.5]

Pattern	1	2	3	4	5	6	7	8
Short				5	5	5	5	5
Long				17	17	17	17	17
Dwell								
No Short P 1				1	1	1	1	1
No Short P 2				3	3	3	3	3
No Short P 3				5	5	5	5	5
No Short P 4				7	7	7	7	7
Early Yield								
Offset	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN
CNA								
Max 2		ON						
Float				ON	ON	ON	ON	ON
Min Veh Perm						ON	ON	ON
Min Ped Perm						ON	ON	ON
Percentage								
MI								
Ret Hold				ON	ON	ON	ON	ON
ASC								
Ph Opt Table			1	2	2	2	2	2
Ph Time Table								
Det Grp								
Call Inh								
Olp Off 1								
Olp Off 2								
Olp Off 3								
Olp Off 4								
Olp Off 5								
Olp Off 6								
Olp Off 7								
Olp Off 8								
Dia Mode	DFT	DFT	DFT	DFT	DFT	DFT	DFT	DFT
Force Mode	DFT	DFT	DFT	DFT	DFT	DFT	DFT	DFT

Coordination, Pattern+ 9-16 [2.5]

Pattern	9	10	11	12	13	14	15	16
Short	20	5	5	20	20	20	20	20
Long	40	17	17	40	40	40	40	40
Dwell								
No Short P 1		1	1		1	1	1	
No Short P 2		3	3		3	3	3	
No Short P 3		5	5		5	5	5	
No Short P 4		7	7		7	7	7	
Early Yield								
Offset	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN
CNA								
Max 2								
Float	ON	ON	ON		ON	ON	ON	
Min Veh Perm	ON	ON	ON	ON	ON	ON	ON	ON
Min Ped Perm	ON	ON	ON	ON	ON	ON	ON	ON
Percentage								
MI								
Ret Hold	ON	ON	ON	ON	ON	ON	ON	ON
ASC								
Ph Opt Table	2	2	2	2	1	1	1	1
Ph Time Table								
Det Grp								
Call Inh								
Olp Off 1								
Olp Off 2								
Olp Off 3								
Olp Off 4								
Olp Off 5								
Olp Off 6								
Olp Off 7								
Olp Off 8								
Dia Mode	DFT	DFT	DFT	DFT	DFT	DFT	DFT	DFT
Force Mode	DFT	DFT	DFT	DFT	DFT	DFT	DFT	DFT

Coordination, Pattern+ 17 - 24 [2.5]

Pattern	17	18	19	20	21	22	23	24
Short	20	20	20	5	20	5	5	20
Long	40	40	40	17	40	17	17	40
Dwell								
No Short P 1				1		1	1	
No Short P 2				3		3	3	
No Short P 3				5		5	5	
No Short P 4				7		7	7	
Early Yield								
Offset	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN
CNA								
Max 2								
Float				ON		ON	ON	
Min Veh Perm	ON	ON	ON	ON	ON	ON	ON	ON
Min Ped Perm	ON	ON	ON	ON	ON	ON	ON	ON
Percentage								
MI								
Ret Hold	ON	ON	ON	ON	ON	ON	ON	ON
ASC								
Ph Opt Table	1	1	1	1	1			1
Ph Time Table								
Det Grp								
Call Inh								
Olp Off 1								
Olp Off 2								
Olp Off 3								
Olp Off 4								
Olp Off 5								
Olp Off 6								
Olp Off 7								
Olp Off 8								
Dia Mode	DFT	DFT	DFT	DFT	DFT	DFT	DFT	DFT
Force Mode	DFT	DFT	DFT	DFT	DFT	DFT	DFT	DFT

TB Coor, Day Plan [4.4]

Day Plan Table 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		5	6	9	14	15	18	19	22							
Minute		15	30	15												
Action	1	9	17	24	19	21	19	16	12							

Day Plan Table 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		5	6	9	14	15	18	19	22							
Minute		15	30	15												
Action	1	9	17	24	19	21	19	16	12							

Day Plan Table 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		5	6	9	14	15	18	19	22							
Minute		15	30	15												
Action	1	9	17	24	19	21	19	16	12							

Day Plan Table 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		5	6	9	14	15	18	19	22							
Minute		15	30	15												
Action	1	9	17	24	19	21	19	16	12							

Day Plan Table 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		5	6	9	14	15	18	19	22							
Minute		15	30	15												
Action	1	9	17	24	19	21	19	16	12							

Day Plan Table 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		5	6	8	21	22										
Minute		30	30			30										
Action	1	27	28	29	28	27										

Day Plan Table 7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		5	6	8	21	22										
Minute		30	30			30										
Action	1	27	28	29	28	27										

Day Plan Table 8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 9	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 11	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 13	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 14	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 15	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 16	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 17	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 18	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 20	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

TB Coor, Advanced Scheduler [4.3]

	Month												Day of Week							Day of Month										1										2										3		
Plan	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	Day Plan
1	1	1	1	1	1	1	1	1	1	1	1	1		1						1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1			1					1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
3	1	1	1	1	1	1	1	1	1	1	1	1				1				1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
4	1	1	1	1	1	1	1	1	1	1	1	1					1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4
5	1	1	1	1	1	1	1	1	1	1	1	1						1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5
6	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6
7	1	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	7
8																																																		1
9																																																			1
10																																																			1
11																																																			1
12																																																			1
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22																																																			1
23																																																			1
24																																																			1

DISCLAIMER

FAST does not continually save records of all database changes. We cannot guarantee that the plan you will receive is the actual database in effect at the time in question. There are numerous events not tracked which can significantly alter the operation and sequencing of a traffic signal. These include emergency vehicle preemptions, detector failures, and lack of detector calls for specific traffic movements. In addition to these events, technicians from local agencies that are responsible for maintaining the traffic signals sometimes make timing changes in response to site-specific timing concerns. We do not track these changes. If local agency technicians changed timing at the intersection it will not be reflected in the attached database.

Phase Sequence Chart	
Sequence	
1	No Reversals
2	Rev 1 & 2
3	Rev 3 & 4
4	Rev 1 & 2, 3 & 4
5	Rev 5 & 6
6	Rev 1 & 2, 5 & 6
7	Rev 3 & 4, 5 & 6
8	Rev 1 & 2, 3 & 4, 5 & 6
9	Rev 7 & 8
10	Rev 1 & 2, 7 & 8
11	Rev 3 & 4, 7 & 8
12	Rev 1 & 2, 3 & 4, 7 & 8
13	Rev 5 & 6, 7 & 8
14	Rev 1 & 2, 5 & 6, 7 & 8
15	Rev 3 & 4, 5 & 6, 7 & 8
16	Rev 1 & 2, 3 & 4, 5 & 6, 7 & 8

APPENDIX G

PROJECT ACCESS DRIVE PEAK HOUR LOS CALCULATIONS

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	16	105	57	257	321	60
Future Vol, veh/h	16	105	57	257	321	60
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	63	63	63	63	63	63
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	167	90	408	510	95

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1146	303	605	0	-	0
Stage 1	558	-	-	-	-	-
Stage 2	588	-	-	-	-	-
Critical Hdwy	6.08	7.13	5.33	-	-	-
Critical Hdwy Stg 1	6.63	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.669	3.919	3.119	-	-	-
Pot Cap-1 Maneuver	240	592	606	-	-	-
Stage 1	460	-	-	-	-	-
Stage 2	537	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	194	592	606	-	-	-
Mov Cap-2 Maneuver	194	-	-	-	-	-
Stage 1	372	-	-	-	-	-
Stage 2	537	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18	2.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	606	-	466	-	-
HCM Lane V/C Ratio	0.149	-	0.412	-	-
HCM Control Delay (s)	12	0	18	-	-
HCM Lane LOS	B	A	C	-	-
HCM 95th %tile Q(veh)	0.5	-	2	-	-

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	13	77	45	67	158	43
Future Vol, veh/h	13	77	45	67	158	43
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	68	68	68	68	68	68
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	19	113	66	99	232	63

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	495	148	295	0	-	0
Stage 1	264	-	-	-	-	-
Stage 2	231	-	-	-	-	-
Critical Hdwy	6.08	7.13	5.33	-	-	-
Critical Hdwy Stg 1	6.63	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.669	3.919	3.119	-	-	-
Pot Cap-1 Maneuver	542	742	845	-	-	-
Stage 1	688	-	-	-	-	-
Stage 2	777	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	497	742	845	-	-	-
Mov Cap-2 Maneuver	497	-	-	-	-	-
Stage 1	631	-	-	-	-	-
Stage 2	777	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.4	3.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	845	-	693	-	-
HCM Lane V/C Ratio	0.078	-	0.191	-	-
HCM Control Delay (s)	9.6	0	11.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.7	-	-

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	16	105	57	267	334	60
Future Vol, veh/h	16	105	57	267	334	60
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	63	63	63	63	63	63
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	167	90	424	530	95

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1182	313	625	0	-	0
Stage 1	578	-	-	-	-	-
Stage 2	604	-	-	-	-	-
Critical Hdwy	6.08	7.13	5.33	-	-	-
Critical Hdwy Stg 1	6.63	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.669	3.919	3.119	-	-	-
Pot Cap-1 Maneuver	229	583	593	-	-	-
Stage 1	448	-	-	-	-	-
Stage 2	528	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	183	583	593	-	-	-
Mov Cap-2 Maneuver	183	-	-	-	-	-
Stage 1	359	-	-	-	-	-
Stage 2	528	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.7	2.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	593	-	452	-	-
HCM Lane V/C Ratio	0.153	-	0.425	-	-
HCM Control Delay (s)	12.2	0	18.7	-	-
HCM Lane LOS	B	A	C	-	-
HCM 95th %tile Q(veh)	0.5	-	2.1	-	-

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	13	77	45	70	164	43
Future Vol, veh/h	13	77	45	70	164	43
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	68	68	68	68	68	68
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	19	113	66	103	241	63

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	508	152	304	0	-	0
Stage 1	273	-	-	-	-	-
Stage 2	235	-	-	-	-	-
Critical Hdwy	6.08	7.13	5.33	-	-	-
Critical Hdwy Stg 1	6.63	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.669	3.919	3.119	-	-	-
Pot Cap-1 Maneuver	533	738	837	-	-	-
Stage 1	680	-	-	-	-	-
Stage 2	774	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	488	738	837	-	-	-
Mov Cap-2 Maneuver	488	-	-	-	-	-
Stage 1	623	-	-	-	-	-
Stage 2	774	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.5	3.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	837	-	687	-	-
HCM Lane V/C Ratio	0.079	-	0.193	-	-
HCM Control Delay (s)	9.7	0	11.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.7	-	-

Intersection	
Int Delay, s/veh	1225.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	24	364	193	267	334	264
Future Vol, veh/h	24	364	193	267	334	264
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	63	63	63	63	63	63
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	578	306	424	530	419

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1776	475	949	0	-	0
Stage 1	740	-	-	-	-	-
Stage 2	1036	-	-	-	-	-
Critical Hdwy	6.08	7.13	5.33	-	-	-
Critical Hdwy Stg 1	6.63	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.669	3.919	3.119	-	-	-
Pot Cap-1 Maneuver	106	~ 459	415	-	-	-
Stage 1	358	-	-	-	-	-
Stage 2	333	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 4	~ 459	415	-	-	-
Mov Cap-2 Maneuver	~ 4	-	-	-	-	-
Stage 1	~ 13	-	-	-	-	-
Stage 2	333	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	$4548.8	14.5	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	415	-	57	-	-
HCM Lane V/C Ratio	0.738	-	10.805	-	-
HCM Control Delay (s)	34.5	-	$4548.8	-	-
HCM Lane LOS	D	A	F	-	-
HCM 95th %tile Q(veh)	5.9	-	73	-	-

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

Intersection	
Int Delay, s/veh	13.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	20	276	149	70	164	199
Future Vol, veh/h	20	276	149	70	164	199
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	68	68	68	68	68	68
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	29	406	219	103	241	293

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	929	267	534	0	-	0
Stage 1	388	-	-	-	-	-
Stage 2	541	-	-	-	-	-
Critical Hdwy	6.08	7.13	5.33	-	-	-
Critical Hdwy Stg 1	6.63	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.669	3.919	3.119	-	-	-
Pot Cap-1 Maneuver	316	624	654	-	-	-
Stage 1	581	-	-	-	-	-
Stage 2	564	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	204	624	654	-	-	-
Mov Cap-2 Maneuver	204	-	-	-	-	-
Stage 1	375	-	-	-	-	-
Stage 2	564	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	32.3	9	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	654	-	548	-	-
HCM Lane V/C Ratio	0.335	-	0.794	-	-
HCM Control Delay (s)	13.3	0	32.3	-	-
HCM Lane LOS	B	A	D	-	-
HCM 95th %tile Q(veh)	1.5	-	7.5	-	-

APPENDIX H

LEFT TURN STORAGE CALCULATIONS

Kimley»Horn

Project: Sage Collegiate Phase 2
Project No: 092815003
Date: 5/10/2022
Prepared By: JM

UNSIGNALIZED LEFT TURN STORAGE LENGTH
Equation = [(number of vehicles/60 minutes)*3 minutes]*25 feet per vehicle
N= Number of vehicles per hour
Storage Length =((Vehicles per hour/60)*3)*25
3 wait time (minutes)

SIGNALIZED LEFT TURN STORAGE LENGTH
(Poisson Method)
Storage = [(veh/interval) + z(sqrt(veh/interval))] x 25 ft/veh
N = (veh/interval)
N = [(V) x (C/3600)]
Where:
z=1.282 for 90% confidence level
z=1.645 for 95% confidence level
Where:
V = vehicles per hour
C = cycle length in seconds (180 seconds)
25 ft/veh = Average Length of Vehicle
V = vehicle\s per hour (Shown on table)
AM C= 160 seconds PM C= 180 seconds
z= 1.645
N= V (C/3600)
S = Desirable Storage = {N + (z x [sqrt N])} x 25 ft/veh

Kimley»Horn

Project: Sage Collegiate Phase 2
Project No: 092815003
Date: 5/10/2022
Prepared By: JM

Location: 1
Charleston Boulevard and Hinson Street

	Lane Configurations					
	Existing		Background		Background Plus Project	
Signalized (Y or N)	Y		Y		Y	
Movement	**Lanes**	**Storage Length (ft)**	**Lanes**	**Storage Length (ft)**	**Lanes**	**Storage Length (ft)**
NBL	1	125	1	125	1	125
SBL	1	450	1	450	1	450
EBL	1	175/TWLTL	1	175/TWLTL	1	175/TWLTL
WBL	1	150	1	150	1	150

		Left Turn Volume (Vehicles per Hour)		
Movement		**Existing**	Background	Background Plus Project
NBL	AM	9	9	9
	PM	22	23	23
SBL	AM	111	116	276
	PM	81	84	207
EBL	AM	169	176	234
	PM	100	104	149
WBL	AM	28	29	29
	PM	45	47	47

		Left Turn Storage Requirements per Lane (ft)					
		Existing		Background		Background Plus Project	
Movement		**Calculated Requirements**	**Storage Provided**	**Calculated Requirements**	**Storage Provided**	**Calculated Requirements**	**Storage Provided**
NBL	AM	36	125	36	125	36	125
	PM	71		73		73	
SBL	AM	215	450	222	450	451	450
	PM	184		189		391	
EBL	AM	300	175/TWLTL	311	175/TWLTL	393	175/TWLTL
	PM	217		224		298	
WBL	AM	77	150	79	150	79	150
	PM	118		122		122	

Kimley»Horn

Project: Sage Collegiate Phase 2
Project No: 092815003
Date: 5/10/2022
Prepared By: JM

Location: 2
Charleston Boulevard and Valley View Boulevard

	Lane Configurations					
	Existing		Background		Background Plus Project	
Signalized (Y or N)	Y		Y		Y	
Movement	**Lanes**	**Storage Length (ft)**	**Lanes**	**Storage Length (ft)**	**Lanes**	**Storage Length (ft)**
NBL	1	325	1	325	1	325
SBL	1	325	1	325	1	325
EBL	2	425	2	425	2	425
WBL	2	350	2	350	2	350

		Left Turn Volume (Vehicles per Hour)		
Movement		**Existing**	Background	Background Plus Project
NBL	AM	126	131	159
	PM	143	149	170
SBL	AM	136	142	142
	PM	93	97	97
EBL	AM	118	123	163
	PM	205	213	244
WBL	AM	120	125	125
	PM	170	177	177

		Left Turn Storage Requirements per Lane (ft)					
		Existing		Background		Background Plus Project	
Movement		**Calculated Requirements**	**Storage Provided**	**Calculated Requirements**	**Storage Provided**	**Calculated Requirements**	**Storage Provided**
NBL	AM	237	325	245	325	286	325
	PM	289		298		332	
SBL	AM	252	325	261	325	261	325
	PM	205		212		212	
EBL	AM	113	425	116	425	146	425
	PM	194		200		224	
WBL	AM	114	350	118	350	118	350
	PM	166		172		172	

Kimley»Horn

Project: Sage Collegiate Phase 2
Project No: 092815003
Date: 5/10/2022
Prepared By: JM

Location: 4
Hinson Street and Drive B

	Lane Configurations					
	Existing		Background		Background Plus Project	
Signalized (Y or N)	Y		Y		Y	
Movement	**Lanes**	**Storage Length (ft)**	**Lanes**	**Storage Length (ft)**	**Lanes**	**Storage Length (ft)**
NBL	1	Shared	1	Shared	1	Shared
SBL						
EBL	1	On-Site	1	On-Site	1	On-Site
WBL						

		Left Turn Volume (Vehicles per Hour)		
Movement		**Existing**	Background	Background Plus Project
NBL	AM	57	57	193
	PM	45	45	149
SBL	AM	0	0	0
	PM	0	0	0
EBL	AM	16	16	24
	PM	13	13	20
WBL	AM	0	0	0
	PM	0	0	0

		Left Turn Storage Requirements per Lane (ft)					
		Existing		Background		Background Plus Project	
Movement		**Calculated Requirements**	**Storage Provided**	**Calculated Requirements**	**Storage Provided**	**Calculated Requirements**	**Storage Provided**
NBL	AM	129	Shared	129	Shared	335	Shared
	PM	118		118		298	
SBL	AM	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0
	PM	#DIV/0!		#DIV/0!		#DIV/0!	
EBL	AM	52	On-Site	52	On-Site	69	On-Site
	PM	49		49		66	
WBL	AM	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0
	PM	#DIV/0!		#DIV/0!		#DIV/0!	

APPENDIX I

ITE'S TRANSPORTATION AND LAND DEVELOPMENT

Table 5–18. *Comparison of Queue Storage*[1]

Method	Volume (vph)	Cycle Length (sec.)	Storage (ft.)	
			Desirable	Minimum
Nomograph	240	60	200	150
	240	120	400	300
L=(V/N)(k)(25)	240	60	200	
	240	120	400	
1 ft. per vph	240	60	240	
		120	240	
2 ft. per vph	240	120	480	

[1]Assumes 0% trucks.

Factors Controlling Left-Turnbay Length

The minimum length of a left-turn bay may be controlled by any one of the following conditions:

1. **Deceleration/maneuver distance plus queue storage.** The minimum length will be influenced by the acceptable speed differential or the percentage of following through vehicles to be impacted and the criteria selected for queue storage;
2. **Length of queue in the adjacent through lane.** Where progression is poor or traffic volumes exceed intersection capacity, the queue in the through traffic lane may block entry into the left-turnbay. This will interfere with efficient signal operation, especially if a leading left-turn is to be used. The length of the left-turnbay (elements $d_3 + d_4$ in Figure 5–19) should at least be as long as the longest expected queue in the adjacent through lane; and
3. **Vertical alignment.** The beginning of the left-turn lane should not be obscured by a vertical curve. In some cases it may be necessary to extend the left-turn bay so that it is clearly visible to drivers when the perception-reaction decision process should begin, so as not to surprise unfamiliar drivers.

Warrants for Right-Turn Bays

Warrants for right-turn lanes are not as universally adopted as for left-turns. However, many states follow a practice of striping right-turn bays where wide shoulders are already present. Suggest warrants are given in Figure 5–25.

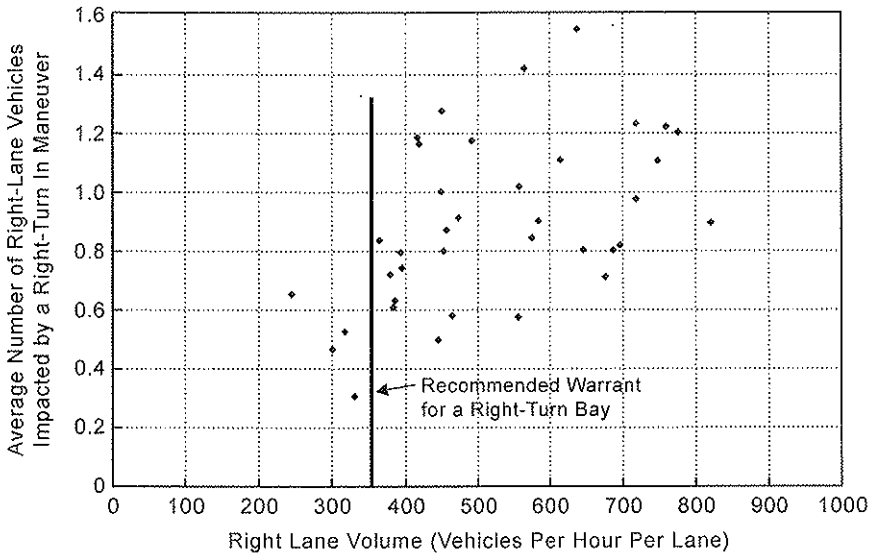

Figure 5–25. *Suggested Warrant for Right-Turn Bays*

Source: Unpublished information from NCHRP Project 3-52.

Right-Turn Bay Length

The length of a right-turn bay should permit drivers to clear the through traffic lane at a speed differential of 10 mph (15 km/h) or less and decelerate to a stop before reaching the end of the stopped queue. The deceleration/maneuver distance may be obtained using Table 5–13. Table 5–14 can be used to estimate the resulting speed differential when the length of the turn bay to be provided is less than the desirable length. Urban arterial-residential collector intersections typically have low right-turn volumes during off-peak periods. The on-site circulation system should be designed to internally store traffic after the vehicles have entered the site. Similarly, the corner clearance on public streets should be sufficient so that conflicts at a downstream intersection do not cause spill-back onto the major street (Figure 5–26). Therefore, only minimum storage for right-turning vehicles should be needed at unsignalized access connections.

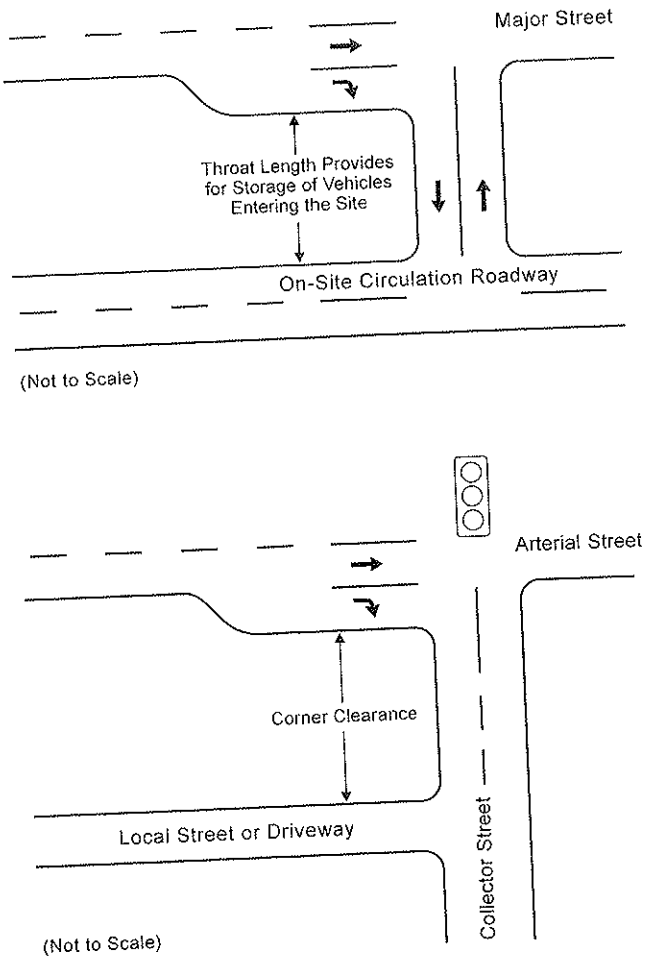

Figure 5–26. *Schematic Illustration of Designs that Store Right-Turning Vehicles After the Turn is Completed*

At signalized locations with a separate phase for left-turns from the major street, some right-turning vehicles must be stored. Equation 5–7 may be used to estimate the queue storage length.

$$L = \left[\left(\frac{V}{N}\right)\left(\frac{R}{C}\right)\right]ks \qquad \textit{(Equation 5–7)}$$

Where:

L = right-turn storage length (ft.)
V = right-turn volume (vph)
N = the number of cycles per hour

R = red phase (seconds)
C = cycle length in seconds
k = random arrival factor; k = 2 where right-turn on red is not permitted, k = 1.5 if right-turn-on-red is permitted
s = storage length per vehicle (ft.), commonly 25 ft. (see Equation 5–5 for adjustments for large vehicles)

Where dual right-turns lanes are provided, the storage length may be estimated by dividing the distance L by 1.8 unless an inbalance in the number of vehicles in each lane is expected. (See the previous section on "Dual Left-turn Lanes".)

The higher off-peak speeds require much larger deceleration/maneuver distances than during the peak periods. The difference commonly provides more than the needed queue storage for the higher peak period right-turn volumes.

Taper Length

Common practice has been to specify taper lengths as a ratio, with the ratio increasing with speed. Some state DOTs use a more elaborate series of taper rates, or taper lengths which increase with design speed. Such practice may be logical in rural areas where the 85th percentile speed is close to the design speed.

In urbanized areas, the peak period speeds are commonly less than the off-peak or posted speed and a taper length based on the peak period, rather than posted or design speed, is appropriate. During the off-peak, drivers simply steer a longer transition from the through to the auxiliary lane. At a peak period speed of 30 mph (45 km/h) a driver will travel approximately 120 ft. (35 m) while moving laterally 12 ft. (3.6 m). A longer taper restricts lateral movement as illustrated in Figure 5–27. This results in undesirably high-speed differentials as well as disruption of platooned flow.

It is recommended that a standard length be adopted in lieu of taper ratios that are a function of design speed. A standard taper length of 100 ft. (30 m) is suggested for single left-turn and right-turn lanes; 150 ft. (45 m) is suggested for dual turn lanes. Shorter taper lengths are appropriate in business districts or where speeds are 25 mph (40 km/h) or less. Where a very short auxiliary lane must be used, the taper should be shorter than the full-width portion.

A straight line taper (Figure 5–28a) is easily constructed and therefore, commonly is used on highways in undeveloped areas; it is a suitable design where curbs are not present and a paved shoulder is striped for a turn lane. With short tapers, the distinct "corner" at the

APPENDIX J

RIGHT TURN STORAGE CALCULATIONS

Project: Sage Collegiate Phase 2
Project No: 092815003
Date: 5/10/2022
Prepared By: JM

SIGNALIZED RIGHT TURN STORAGE LENGTH

Source: ITE's *Transportation and Land Development*
Storage (L) = [(V/N)*(R/C)]*ks

V = right turn volume (vph)
N = # of cycles per hour
R = red phase
C = cycle length
k = random arrival factor (k=2 when RTOR not permitted, k=1.5 when RTOR is permitted)
s= storage length per vehicle (assumed 25 ft)

N =	26	cycles per hour	N =	20	cycles per hour
R=	109	seconds	R=	140	seconds
AM C =	**140**	seconds	PM C =	**180**	seconds
k =	**1.5**		k =	**1.5**	
s =	25	feet	s =	25	feet

Kimley»Horn

Project: Sage Collegiate Phase 2
Project No: 092815003
Date: 5/10/2022
Prepared By: JM

Location: 1
Charleston Boulevard and Hinson Street

	Lane Configurations					
	Existing		Background		Background Plus Project	
Signalized (Y or N)	Y		Y		Y	
Movement	Lanes	Storage Length (ft)	Lanes	Storage Length (ft)	Lanes	Storage Length (ft)
NBR	1	Shared	1	Shared	1	Shared
SBR	1	450	1	450	1	450
EBR	1	Shared	1	Shared	1	Shared
WBR	1	Shared	1	Shared	1	Shared

		Right Turn Volume (Vehicles per Hour)		
Movement		Existing	Background	Background Plus Project
NBR	AM	16	17	17
	PM	21	22	22
SBR	AM	266	277	371
	PM	203	211	283
EBR	AM	11	11	11
	PM	20	21	21
WBR	AM	59	61	139
	PM	30	31	91

		Right Turn Storage Requirements per Lane (ft)					
		Existing		Background		Background Plus Project	
Movement		Calculated Requirements	Storage Provided	Calculated Requirements	Storage Provided	Calculated Requirements	Storage Provided
NBR	AM	18	Shared	19	Shared	19	Shared
	PM	31		32		32	
SBR	AM	299	450	311	450	417	450
	PM	296		308		413	
EBR	AM	12	Shared	12	Shared	12	Shared
	PM	29		31		31	
WBR	AM	66	Shared	68	Shared	156	Shared
	PM	44		45		133	

Kimley»Horn

Project: Sage Collegiate Phase 2
Project No: 092815003
Date: 5/10/2022
Prepared By: JM

Location: 2
Charleston Boulevard and Valley View Boulevard

	Lane Configurations					
	Existing		Background		Background Plus Project	
Signalized (Y or N)	Y		Y		Y	
Movement	Lanes	Storage Length (ft)	Lanes	Storage Length (ft)	Lanes	Storage Length (ft)
NBR	1	Shared	1	Shared	1	Shared
SBR	1	Shared	1	Shared	1	Shared
EBR	1	Shared	1	Shared	1	Shared
WBR	1	275	1	275	1	275

		Right Turn Volume (Vehicles per Hour)		
Movement		Existing	Background	Background Plus Project
NBR	AM	35	36	36
	PM	47	49	49
SBR	AM	110	114	114
	PM	147	153	153
EBR	AM	157	163	203
	PM	168	175	206
WBR	AM	69	72	123
	PM	167	174	213

		Right Turn Storage Requirements per Lane (ft)					
		Existing		Background		Background Plus Project	
Movement		Calculated Requirements	Storage Provided	Calculated Requirements	Storage Provided	Calculated Requirements	Storage Provided
NBR	AM	39	Shared	40	Shared	40	Shared
	PM	69		71		71	
SBR	AM	124	Shared	128	Shared	128	Shared
	PM	214		223		223	
EBR	AM	176	Shared	183	Shared	228	Shared
	PM	245		255		300	
WBR	AM	77	275	81	275	138	275
	PM	244		254		311	

APPENDIX K

SIMTRAFFIC REPORTS

Intersection: 1: Hinson Street & Charleston Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	L	TR	L	T
Maximum Queue (ft)	187	206	187	187	50	174	474	586	149	379	319	139
Average Queue (ft)	158	176	69	51	7	105	148	226	8	265	304	57
95th Queue (ft)	239	236	195	159	30	161	313	492	56	458	345	133
Link Distance (ft)		172	172	172		737	737	737		340	250	250
Upstream Blk Time (%)	62	50	3	1						57	68	
Queuing Penalty (veh)	0	0	0	0						0	192	
Storage Bay Dist (ft)	175				150				125			
Storage Blk Time (%)	62	50				1				70		
Queuing Penalty (veh)	252	123				0				7		

Intersection: 1: Hinson Street & Charleston Boulevard

Movement	SB
Directions Served	R
Maximum Queue (ft)	224
Average Queue (ft)	73
95th Queue (ft)	140
Link Distance (ft)	250
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Valley View Boulevard & Charleston Boulevard

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	TR	L	L	T	T	T	R	L
Maximum Queue (ft)	146	162	287	301	350	134	132	242	219	222	75	324
Average Queue (ft)	57	77	108	124	151	46	65	149	136	122	32	173
95th Queue (ft)	130	149	240	250	307	95	119	224	203	204	66	266
Link Distance (ft)			737	737	737			686	686	686		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	425	425				350	350				275	325
Storage Blk Time (%)												0
Queuing Penalty (veh)												0

Intersection: 2: Valley View Boulevard & Charleston Boulevard

Movement	NB	NB	NB	SB	SB	SB
Directions Served	T	T	TR	L	T	TR
Maximum Queue (ft)	177	162	156	350	608	546
Average Queue (ft)	124	114	82	207	377	377
95th Queue (ft)	174	172	146	381	540	515
Link Distance (ft)	471	471	471		678	678
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)				325		
Storage Blk Time (%)				1	16	
Queuing Penalty (veh)				2	24	

Intersection: 4: Hinson Street & Access Drive B

Movement	EB	NB	SB	SB
Directions Served	LR	LT	T	TR
Maximum Queue (ft)	296	274	177	75
Average Queue (ft)	253	242	41	12
95th Queue (ft)	273	312	119	39
Link Distance (ft)	244	250	468	468
Upstream Blk Time (%)	93	36		
Queuing Penalty (veh)	0	192		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 792

Intersection: 1: Hinson Street & Charleston Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	L	TR	L	T
Maximum Queue (ft)	217	187	187	187	70	201	219	222	74	117	289	178
Average Queue (ft)	122	162	120	72	18	95	113	118	30	55	183	79
95th Queue (ft)	202	233	233	170	50	176	194	191	67	102	262	147
Link Distance (ft)		172	172	172		737	737	737		340	250	250
Upstream Blk Time (%)	6	11	3	2							3	
Queuing Penalty (veh)	0	0	0	0							6	
Storage Bay Dist (ft)	175				150				125			
Storage Blk Time (%)	6	11				1				0		
Queuing Penalty (veh)	22	18				1				0		

Intersection: 1: Hinson Street & Charleston Boulevard

Movement	SB
Directions Served	R
Maximum Queue (ft)	274
Average Queue (ft)	108
95th Queue (ft)	205
Link Distance (ft)	250
Upstream Blk Time (%)	1
Queuing Penalty (veh)	1
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Valley View Boulevard & Charleston Boulevard

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	TR	L	L	T	T	T	R	L
Maximum Queue (ft)	251	286	348	379	370	149	374	438	434	428	300	349
Average Queue (ft)	135	153	220	236	275	71	122	315	307	291	130	215
95th Queue (ft)	232	251	338	346	375	128	249	394	385	387	288	336
Link Distance (ft)			737	737	737			686	686	686		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	425	425				350	350				275	325
Storage Blk Time (%)								3		8	0	0
Queuing Penalty (veh)								4		18	0	0

Intersection: 2: Valley View Boulevard & Charleston Boulevard

Movement	NB	NB	NB	SB	SB	SB
Directions Served	T	T	TR	L	T	TR
Maximum Queue (ft)	486	486	486	349	474	514
Average Queue (ft)	331	318	298	130	284	285
95th Queue (ft)	493	465	436	280	416	413
Link Distance (ft)	471	471	471		678	678
Upstream Blk Time (%)	3	1	1			
Queuing Penalty (veh)	0	0	0			
Storage Bay Dist (ft)				325		
Storage Blk Time (%)	11				6	
Queuing Penalty (veh)	19				6	

Intersection: 4: Hinson Street & Access Drive B

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	185	197	31
Average Queue (ft)	87	65	4
95th Queue (ft)	158	141	20
Link Distance (ft)	244	250	468
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 96

APPENDIX L

CRASH DATA

1 - Charleston Boulevard and Hinson Street

Property Damage Only	12	35.3%
Injury	22	64.7%
Fatal	0	0.0%
Total	34	100.0%

Crash Severity	Crash Date	Crash Year	Crash Time	Primary Street	Distance	Dir	Secondary Street	Weather	Fatalities	Injured	Property Damage Only	Injury Type	Crash Type	Total Vehicles	V1 Type	V1 Dir	V1 Driver Age	V1 Lane Num	V1 Action	V1 Driver Factors	V1 Driver Distracted	V1 Vehicle Factors	V1 Most Harmful Event	V1 All Events	V2 Type	V2 Driver Dir	V2 Driver App	V2 Lane Num	V2 Action	V2 Driver Factors	V2 Driver Distracted	V2 Vehicle Factors	V2 Most Harmful Event	V2 All Events	First Harmful Event	Nonmotorist Factors	Factors Roadway	Lighting	HWY Factors	Agency	Accident Rec Num
PROPERTY DAMAGE ONLY	2/15/2016, 1:00 AM	2016	9:00:00 AM	SR159	10	W	HINSON ST	CLEAR	No Data	No Data	PDO	No Data	ANGLE	2	No Data	E	No Data	No Data	UNKNOWN	No Data	No Data	FAILURE TO KEEP IN PROPER LANE OR RUNNIN	No Data	No Data	SEDAN, 4 DOOR	E	29	No Data	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	No Data	No Data	No Data	No Data	DRY	DAYLIGHT	NONE	LVMPD	2223335
INJURY CRASH	3/19/2016, 7:52 AM	2016	2:52:00 PM	SR159	182	E	HINSON ST	CLEAR	No Data	1	No Data	B	ANGLE	2	CARRY-ALL	W	46	3	CHANGING LANES	APPARENTLY NORMAL	No Data	MADE AN IMPROPER TURN	No Data	No Data	MOTORCYCLE	W	32	3	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	No Data	OTHER NON-COLLISION: SLOW/S	No Data	No Data	DRY	DAYLIGHT	NONE	LVMPD	2231390
INJURY CRASH	3/27/2016, 6:43 AM	2016	1:43:00 PM	SR159	No Data	AT INT	HINSON ST	CLEAR	No Data	2	No Data	C	ANGLE	2	SEDAN, 4 DOOR	E	35	No Data	TURNING LEFT	APPARENTLY NORMAL	No Data	FAILED TO YIELD RIGHT OF WAY	No Data	No Data	CARRY-ALL	W	28	No Data	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	No Data	No Data	No Data	No Data	DRY	DAYLIGHT	NONE	LVMPD	2231763
INJURY CRASH	5/15/2016, 11:56 PM	2016	6:56:00 AM	SR159	142	E	HINSON ST	CLEAR	No Data	1	No Data	C	REAR-END	2	SEDAN, 4 DOOR	E	30	3	GOING STRAIGHT	APPARENTLY NORMAL	No Data	OTHER IMPROPER DRIVING	No Data	SLOW/STOPPED VEHICLE	BUS	E	51	3	STOPPED	APPARENTLY NORMAL	No Data	No Data	No Data	No Data	No Data	No Data	DRY	DAYLIGHT	NONE	LVMPD	2353782
INJURY CRASH	5/21/2016, 1:41 PM	2016	8:41:00 PM	SR159	100	E	HINSON ST	CLEAR	No Data	1	No Data	B	NON-COLLISIO	1	CARRY-ALL	E	28	2	GOING STRAIGHT	APPARENTLY NORMAL	No Data	No Data	No Data	PEDESTRIAN	No Data	No	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	IMPROPER CR	DRY	DARK - CONTINUOU	NONE	LVMPD	2316784
PROPERTY DAMAGE ONLY	6/23/2016, 10:21 AM	2016	5:21:00 PM	SR159	12	W	HINSON ST	CLEAR	No Data	No Data	PDO	No Data	REAR-END	2	SEDAN, 2 DOOR	E	18	2	GOING STRAIGHT	APPARENTLY NORMAL	No Data	FOLLOWED TOO CLOSELY	No Data	SLOW/STOPPED VEHICLE	SEDAN, 2 DOOR	E	26	2	STOPPED	APPARENTLY NORMAL	No Data	No Data	No Data	No Data	No Data	No Data	DRY	DAYLIGHT	NONE	LVMPD	2318479
INJURY CRASH	7/19/2016, 11:23 AM	2016	6:23:00 PM	SR159	No Data	AT INT	HINSON ST	CLEAR	No Data	1	No Data	C	ANGLE	2	CARRY-ALL	W	21	No Data	MAKING U-TURN	APPARENTLY NORMAL	No Data	FAILED TO YIELD RIGHT OF WAY	No Data	No Data	CARRY-ALL	E	25	No Data	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	No Data	No Data	No Data	No Data	DRY	DAYLIGHT	NONE	LVMPD	2319707
PROPERTY DAMAGE ONLY	9/17/2016, 12:19 PM	2016	7:19:00 PM	HINSON ST	35	N	SR159	CLEAR	No Data	No Data	PDO	No Data	REAR-END	2	CARRY-ALL	S	No Data	No Data	GOING STRAIGHT	APPARENTLY NORMAL	No Data	No Data	No Data	SLOW/STOPPED VEHICLE	SEDAN, 4 DOOR	S	No Data	No Data	STOPPED	APPARENTLY NORMAL	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	DRY	DAYLIGHT	NONE	LVMPD	2322629
PROPERTY DAMAGE ONLY	1/5/2017, 2:17 AM	2017	10:17:00 AM	SR159	No Data	AT INT	HINSON ST	CLOUDY	No Data	No Data	PDO	No Data	ANGLE	2	SEDAN, 4 DOOR	E	26	No Data	TURNING LEFT	APPARENTLY NORMAL	No Data	FAILED TO YIELD RIGHT OF WAY: HIT AND RUN	No Data	No Data	SEDAN, 4 DOOR	W	21	No Data	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	No Data	No Data	No Data	No Data	DRY	DAYLIGHT	NONE	LVMPD	2354526
INJURY CRASH	1/5/2017, 2:17 AM	2017	10:17:00 AM	SR159	200	W	HINSON ST	CLOUDY	No Data	1	No Data	C	ANGLE	2	SEDAN, 4 DOOR	W	26	2	GOING STRAIGHT	HAD BEEN DRINKING	No Data	HIT AND RUN: OTHER IMPROPER DRIVING	No Data	No Data	PICKUP	W	56	2	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	No Data	No Data	No Data	No Data	DRY	DAYLIGHT	NONE	LVMPD	2354527
INJURY CRASH	4/3/2017, 7:24 AM	2017	2:24:00 PM	SR159	No Data	AT INT	HINSON ST	CLOUDY	No Data	2	No Data	C	ANGLE	2	SEDAN, 2 DOOR	E	37	No Data	TURNING LEFT	APPARENTLY NORMAL	No Data	FAILED TO YIELD RIGHT OF WAY	No Data	RAN OFF ROAD LEFT: OTHER	CARRY-ALL	W	55	No Data	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	No Data	No Data	No Data	No Data	DRY	DAYLIGHT	NONE	LVMPD	2373511
INJURY CRASH	4/17/2017, 12:31 AM	2017	7:31:00 AM	SR159	20	E	HINSON ST	CLEAR	No Data	1	No Data	C	REAR-END	2	PICKUP	W	80	1	GOING STRAIGHT	APPARENTLY NORMAL	No Data	FOLLOWED TOO CLOSELY	No Data	SLOW/STOPPED VEHICLE	SEDAN, 4 DOOR	W	19	1	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	No Data	No Data	No Data	No Data	DRY	DAYLIGHT	NONE	LVMPD	2374266
INJURY CRASH	8/15/2017, 7:21 AM	2017	2:21:00 PM	SR159	80	W	HINSON ST	CLEAR	No Data	3	No Data	C	REAR-END	2	PICKUP	E	48	1	GOING STRAIGHT	APPARENTLY NORMAL	No Data	FOLLOWED TOO CLOSELY	No Data	SLOW/STOPPED VEHICLE	SEDAN, 4 DOOR	E	45	1	STOPPED	APPARENTLY NORMAL	No Data	No Data	No Data	No Data	No Data	No Data	DRY	DAYLIGHT	NONE	LVMPD	2390223
INJURY CRASH	10/4/2017, 10:24 AM	2017	5:24:00 PM	SR159	300	W	HINSON ST	CLEAR	No Data	2	No Data	C	REAR-END	4	CARRY-ALL	E	68	1	GOING STRAIGHT	APPARENTLY NORMAL	No Data	No Data	No Data	SLOW/STOPPED VEHICLE	SEDAN, 4 DOOR	E	45	1	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	No Data	No Data	No Data	SLOW/STOPPED VEHICLE	No Data	No Data	DRY	DAYLIGHT	OTHER HIGHWAY	LVMPD	2392999
INJURY CRASH	10/15/2017, 7:44 AM	2017	2:44:00 PM	SR159	67	W	HINSON ST	CLEAR	No Data	2	No Data	B	REAR-END	3	VAN	E	56	2	GOING STRAIGHT	ILLNESS	No Data	No Data	No Data	SLOW/STOPPED VEHICLE	VAN	E	39	2	STOPPED	APPARENTLY NORMAL	No Data	No Data	No Data	No Data	No Data	No Data	DRY	DAYLIGHT	NONE	LVMPD	2393485
INJURY CRASH	12/28/2017, 4:58 AM	2017	12:58:00 PM	SR159	252	W	HINSON ST	CLEAR	No Data	1	No Data	C	REAR-END	3	CARRY-ALL	E	63	2	GOING STRAIGHT	APPARENTLY NORMAL	No Data	DRIVING TOO FAST FOR CONDITIONS	No Data	SLOW/STOPPED VEHICLE	SEDAN, 4 DOOR	E	57	2	STOPPED	APPARENTLY NORMAL	No Data	No Data	No Data	No Data	No Data	SLOW/STOPPED VEHICLE	No Data	No Data	DRY	DAYLIGHT	OTHER HIGHWAY	LVMPD	2409651
INJURY CRASH	1/5/2018, 2:50 AM	2018	10:50:00 AM	HINSON ST	No Data	AT INT	SR159	CLEAR	No Data	1	No Data	B	ANGLE	2	VAN	E	41	No Data	GOING STRAIGHT	APPARENTLY NORMAL	No Data	DISREGARDED TRAFFIC SIGNS, SIGNALS, ROAD	No Data	RAN OFF ROAD RIGHT	SEDAN, 4 DOOR	S	26	No Data	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	No Data	No Data	No Data	No Data	DRY	DAYLIGHT	NONE	LVMPD	2410062
PROPERTY DAMAGE ONLY	4/14/2018, 5:42 AM	2018	12:42:00 PM	SR159	No Data	AT INT	HINSON ST	CLEAR	No Data	No Data	PDO	No Data	SIDESWIPE, OV	2	PICKUP	E	No Data	CL	GOING STRAIGHT	APPARENTLY NORMAL	No Data	OTHER IMPROPER DRIVING	MOTOR VEHIC	No Data	SEDAN, 4 DOOR	E	No Data	1	CHANGING LA	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data	No Data	No Data	No Data	No Data	LVMPD	3078270
PROPERTY DAMAGE ONLY	6/13/2018, 6:15 AM	2018	1:15:00 PM	SR159	100	W	HINSON ST	CLEAR	No Data	No Data	PDO	No Data	ANGLE	2	SEDAN, 4 DOOR	E	31	2	CHANGING LANES	APPARENTLY NORMAL	No Data	UNSAFE LANE CHANGE	MOTOR VEHIC	No Data	SEDAN, 4 DOOR	E	37	3	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data	MOTOR VEHICL	No Data	DRY	DAYLIGHT	NONE	NHP	3086486
PROPERTY DAMAGE ONLY	7/10/2018, 4:39 AM	2018	11:39:00 AM	SR159	100	E	HINSON ST	CLEAR	No Data	No Data	PDO	No Data	ANGLE	2	SEDAN, 4 DOOR	E	No Data	2	CHANGING LANES	APPARENTLY NORMAL	No Data	UNSAFE LANE CHANGE	MOTOR VEHIC	No Data	SEDAN, 4 DOOR	E	No Data	1	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data	No Data	No Data	No Data	No Data	LVMPD	3090411
PROPERTY DAMAGE ONLY	8/9/2018, 4:51 AM	2018	11:51:00 AM	SR159	No Data	AT INT	HINSON ST	CLEAR	No Data	No Data	PDO	No Data	ANGLE	2	SEDAN, 4 DOOR	E	23	L1	TURNING LEFT	OTHER IMPROPER DRIVI	No Data	FAILED TO YIELD RIGHT OF WAY	MOTOR VEHIC	No Data	VAN	W	41	2	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	RAN OFF ROAD RIGHT: CURB: UT	MOTOR VEHICL	No Data	DRY	DAYLIGHT	NONE	LVMPD	3094312
PROPERTY DAMAGE ONLY	8/16/2018, 12:28 AM	2018	7:28:00 AM	SR159	100	W	HINSON ST	CLEAR	No Data	No Data	PDO	No Data	REAR-END	2	CARRY-ALL	W	No Data	1	GOING STRAIGHT	APPARENTLY NORMAL	No Data	FOLLOWED TOO CLOSELY	SLOW/STOPPE	SLOW/STOPPED VEHICLE	CARRY-ALL	W	No Data	1	STOPPED	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data	No Data	No Data	No Data	No Data	LVMPD	3095781
INJURY CRASH	10/5/2018, 8:23 AM	2018	3:23:00 PM	SR159	No Data	AT INT	HINSON ST	CLEAR	No Data	3	No Data	B	ANGLE	2	HATCHBACK, 4 DOO	No Data	48	L1	TURNING LEFT	APPARENTLY NORMAL	No Data	FAILED TO YIELD RIGHT OF WAY	MOTOR VEHIC	No Data	SEDAN, 4 DOOR	E	22	1	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data	MOTOR VEHICL	No Data	DRY	DAYLIGHT	NONE	LVMPD	3103317
INJURY CRASH	10/17/2018, 2:39 AM	2018	9:39:00 AM	SR159	350	W	HINSON ST	CLEAR	No Data	3	No Data	C	REAR-END	2	SEDAN, 4 DOOR	No Data	28	1	GOING STRAIGHT	APPARENTLY NORMAL	No Data	OTHER IMPROPER DRIVING	SLOW/STOPPE	SLOW/STOPPED VEHICLE	SEDAN, 4 DOOR	E	56	1	STOPPED	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data	SLOW/STOPPE	No Data	DRY	DAYLIGHT	NONE	LVMPD	3104141
INJURY CRASH	11/19/2018, 9:07 AM	2018	5:07:00 PM	SR159	150	E	BEDFORD RD	CLEAR	No Data	1	No Data	C	REAR-END	2	HATCHBACK, 4 DOO	No Data	58	1	GOING STRAIGHT	APPARENTLY NORMAL	No Data	FOLLOWED TOO CLOSELY	SLOW/STOPPE	SLOW/STOPPED VEHICLE	CARRY-ALL	W	75	1	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data	SLOW/STOPPE	No Data	DRY	DARK - CONTINUOU	NONE	LVMPD	3109952
INJURY CRASH	11/19/2018, 9:07 AM	2018	5:07:00 PM	SR159	260	W	HINSON ST	CLEAR	No Data	1	No Data	C	REAR-END	2	HARDTOP, 4 DOOR	No Data	30	1	GOING STRAIGHT	APPARENTLY NORMAL	No Data	OTHER IMPROPER DRIVING	SLOW/STOPPE	SLOW/STOPPED VEHICLE	CARRY-ALL	W	28	1	STOPPED	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data	MOTOR VEHICL	No Data	DRY	DARK - CONTINUOU	NONE	LVMPD	3109959
INJURY CRASH	11/19/2018, 9:07 AM	2018	5:07:00 PM	SR159	150	E	BEDFORD RD	CLEAR	No Data	1	No Data	C	REAR-END	2	CARRY-ALL	No Data	75	1	GOING STRAIGHT	APPARENTLY NORMAL	No Data	FOLLOWED TOO CLOSELY	SLOW/STOPPE	SLOW/STOPPED VEHICLE	HARDTOP, 4 DOOR	W	30	1	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	SLOW/STOP	SLOW/STOPPED VEHICLE	SLOW/STOPPE	No Data	DRY	DARK - CONTINUOU	NONE	LVMPD	3109960
PROPERTY DAMAGE ONLY	2/19/2019, 6:37 AM	2019	2:37:00 PM	SR159	No Data	AT INT	HINSON ST	CLEAR	No Data	No Data	PDO	No Data	REAR-END	2	SEDAN, 4 DOOR	No Data	No Data	No Data	3	GOING STRAIGHT	OTHER IMPROPER DRIVI	No Data	FOLLOWED TOO CLOSELY	SLOW/STOPPE	SLOW/STOPPED VEHICLE	SEDAN, 4 DOOR	E	No Data	3	STOPPED	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data	No Data	No Data	No Data	No Data	LVMPD	3070729
INJURY CRASH	3/1/2019, 5:32 AM	2019	1:32:00 PM	SR159	No Data	AT INT	HINSON ST	CLEAR	No Data	1	No Data	B	ANGLE	2	SEDAN, 4 DOOR	No Data	75	L1	TURNING LEFT	APPARENTLY NORMAL	No Data	FAILED TO YIELD RIGHT OF WAY	MOTOR VEHIC	No Data	HATCHBACK, 4 DOOR	E	61	3	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data	MOTOR VEHICL	No Data	DRY	DAYLIGHT	BACKUP DUE TO REGULAR	LVMPD	3117618
PROPERTY DAMAGE ONLY	8/30/2019, 9:00 AM	2019	4:00:00 PM	HINSON ST	1	N	SR159	CLEAR	No Data	No Data	PDO	No Data	SIDESWIPE, OV	2	SEDAN, 2 DOOR	E	19	1	NEGOTIATING A CU	APPARENTLY NORMAL	No Data	DRIVING TOO FAST FOR CONDITIONS	PARKED MOTO	PARKED MOTOR VEHICLE	SEDAN, 4 DOOR	E	No Data	No Data	PARKED	No Data	No Data	No Data	MOTOR VEH	RAN OFF ROAD RIGHT	RAN OFF ROAD	No Data	DRY	DAYLIGHT	NONE	CLSD	3072419
INJURY CRASH	10/19/2019, 10:08 AM	2019	5:08:00 PM	SR159	No Data	AT INT	HINSON ST	CLEAR	No Data	1	No Data	B	SIDESWIPE, OV	2	HARDTOP, 4 DOOR	E	42	2	CHANGING LANES	APPARENTLY NORMAL	No Data	UNSAFE LANE CHANGE	MOTOR VEHIC	No Data	PICKUP	E	45	1	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data	MOTOR VEHICL	No Data	DRY	DAYLIGHT	NONE	LVMPD	3013654
INJURY CRASH	11/22/2019, 10:57 AM	2019	6:57:00 PM	SR159	205	W	HINSON ST	CLEAR	No Data	1	No Data	A	NON-COLLISIO	1	CARRY-ALL	W	86	3	GOING STRAIGHT	APPARENTLY NORMAL	No Data	No Data	PEDESTRIAN	PEDESTRIAN: CURB	No Data	No	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	PEDESTRIAN	IMPROPER CR	DRY	DARK - CONTINUOU	NONE	LVMPD	3023258
INJURY CRASH	11/26/2019, 3:51 AM	2019	11:51:00 AM	SR159	300	E	HINSON ST	CLEAR	No Data	5	No Data	C	REAR-END	2	HATCHBACK, 4 DOO	W	38	3	CHANGING LANES	APPARENTLY NORMAL	No Data	FOLLOWED TOO CLOSELY	SLOW/STOPPE	SLOW/STOPPED VEHICLE	SEDAN, 4 DOOR	W	23	3	STOPPED	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data	SLOW/STOPPE	No Data	DRY	DAYLIGHT	NONE	LVMPD	3023428
PROPERTY DAMAGE ONLY	7/10/2020, 1:13 PM	2020	8:13:00 PM	HINSON ST	13	S	SR159	CLEAR	No Data	No Data	PDO	No Data	NON-COLLISIO	1	SEDAN, 4 DOOR	S	No Data	1	UNKNOWN	UNKNOWN	No Data	FAILURE TO KEEP IN PROPER LANE OR RUNNIN	MOTOR VEHIC	No Data	No Data	No	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	MOTOR VEHICL	No Data	DRY	DARK - CONTINUOU	NONE	LVMPD	3058803

2 - Charleston Boulevard and Valley View Boulevard

Property Damage Only	33	45.8%
Injury	39	54.2%
Fatal	0	0.0%
Total	72	100.0%

Crash Severity	Crash Date	Crash Year	Crash Time	Primary Street	Distance	Dir	Secondary Street	Weather	Fatalities	Injured	Property Damage Only
INJURY CRASH	1/18/2016, 8:20 PM	2016	4:20:00 AM	S VALLEY VIEW BLVD	No Data	AT INT	SR159	CLEAR	No Data	1	No Data
PROPERTY DAMAGE ONLY	1/27/2016, 7:06 AM	2016	3:06:00 PM	SR159	80	W	S VALLEY VIEW BLV	CLEAR	No Data	No Data	PDO
PROPERTY DAMAGE ONLY	1/24/2016, 10:34 PM	2016	6:34:00 AM	SR159	26	E	S VALLEY VIEW BLV	CLEAR	No Data	No Data	PDO
INJURY CRASH	2/13/2016, 9:27 PM	2016	5:27:00 AM	SR159	45	E	S VALLEY VIEW BLV	CLEAR	No Data	3	No Data
PROPERTY DAMAGE ONLY	3/28/2016, 3:36 AM	2016	10:36:00 AM	S VALLEY VIEW BLVD	90	S	SR159	CLEAR	No Data	No Data	PDO
INJURY CRASH	4/2/2016, 4:24 PM	2016	11:24:00 PM	S VALLEY VIEW BLVD	30	S	SR159	CLEAR	No Data	1	No Data
INJURY CRASH	4/19/2016, 12:51 PM	2016	7:51:00 PM	S VALLEY VIEW BLVD	7	S	SR159	CLEAR	No Data	1	No Data
PROPERTY DAMAGE ONLY	5/23/2016, 6:18 AM	2016	1:18:00 PM	SR159	No Data	AT INT	S VALLEY VIEW BLV	CLEAR	No Data	No Data	PDO
INJURY CRASH	5/26/2016, 12:45 AM	2016	7:45:00 AM	S VALLEY VIEW BLVD	50	N	SR159	CLEAR	No Data	1	No Data
INJURY CRASH	5/24/2016, 5:20 AM	2016	12:20:00 PM	SR159	13	W	S VALLEY VIEW BLV	CLEAR	No Data	1	No Data
PROPERTY DAMAGE ONLY	6/2/2016, 4:05 PM	2016	11:05:00 PM	SR159	264	W	S VALLEY VIEW BLV	CLEAR	No Data	No Data	PDO
INJURY CRASH	7/25/2016, 2:01 AM	2016	9:01:00 AM	S VALLEY VIEW BLVD	400	N	SR159	CLEAR	No Data	1	No Data
INJURY CRASH	9/9/2016, 12:48 PM	2016	7:48:00 PM	SR159	120	W	S VALLEY VIEW BLV	CLEAR	No Data	2	No Data
PROPERTY DAMAGE ONLY	10/28/2016, 7:55 PM	2016	2:55:00 AM	S VALLEY VIEW BLVD	254	N	SR159	CLEAR	No Data	No Data	PDO
PROPERTY DAMAGE ONLY	10/28/2016, 3:13 AM	2016	10:13:00 AM	S VALLEY VIEW BLVD	35	S	SR159	CLOUDY	No Data	No Data	PDO
PROPERTY DAMAGE ONLY	12/9/2016, 7:48 AM	2016	3:48:00 PM	SR159	30	W	S VALLEY VIEW BLV	CLOUDY	No Data	No Data	PDO
PROPERTY DAMAGE ONLY	1/4/2017, 8:48 AM	2017	4:48:00 PM	S VALLEY VIEW BLVD	217	S	SR159	CLEAR	No Data	No Data	PDO
INJURY CRASH	2/16/2017, 11:30 PM	2017	7:30:00 AM	S VALLEY VIEW BLVD	71	N	SR159	CLOUDY: RAII	No Data	1	No Data
INJURY CRASH	3/7/2017, 8:53 AM	2017	4:53:00 PM	S VALLEY VIEW BLVD	425	N	SR159	CLEAR	No Data	1	No Data
INJURY CRASH	3/18/2017, 10:48 AM	2017	5:48:00 PM	SR159	No Data	AT INT	S VALLEY VIEW BLV	CLEAR	No Data	3	No Data
INJURY CRASH	5/24/2017, 4:17 PM	2017	11:17:00 PM	SR159	No Data	AT INT	S VALLEY VIEW BLV	CLEAR	No Data	2	No Data
INJURY CRASH	5/20/2017, 3:21 AM	2017	10:21:00 AM	S VALLEY VIEW BLVD	No Data	AT INT	SR159	CLEAR	No Data	3	No Data
PROPERTY DAMAGE ONLY	6/4/2017, 3:25 AM	2017	10:25:00 AM	SR159	280	W	S VALLEY VIEW BLV	CLEAR	No Data	No Data	PDO
INJURY CRASH	6/8/2017, 10:52 AM	2017	5:52:00 PM	S VALLEY VIEW BLVD	50	S	SR159	CLOUDY	No Data	1	No Data
INJURY CRASH	6/24/2017, 5:55 PM	2017	12:55:00 AM	SR159	52	W	S VALLEY VIEW BLV	CLEAR	No Data	1	No Data
INJURY CRASH	7/12/2017, 7:11 AM	2017	2:11:00 PM	SR159	152	E	S VALLEY VIEW BLV	CLEAR	No Data	1	No Data
PROPERTY DAMAGE ONLY	7/25/2017, 8:45 AM	2017	3:45:00 PM	S VALLEY VIEW BLVD	132	S	SR159	CLOUDY	No Data	No Data	PDO
INJURY CRASH	8/11/2017, 10:09 AM	2017	5:09:00 PM	SR159	No Data	AT INT	S VALLEY VIEW BLV	CLOUDY	No Data	2	No Data
INJURY CRASH	9/14/2017, 11:28 AM	2017	6:28:00 PM	SR159	No Data	AT INT	S VALLEY VIEW BLV	CLEAR	No Data	1	No Data
INJURY CRASH	12/16/2017, 9:42 AM	2017	5:42:00 PM	S VALLEY VIEW BLVD	401	N	SR159	CLEAR	No Data	1	No Data
INJURY CRASH	1/18/2018, 6:56 AM	2018	2:56:00 PM	SR159	12	W	S VALLEY VIEW BLV	CLEAR	No Data	2	No Data
INJURY CRASH	1/29/2018, 3:07 AM	2018	11:07:00 AM	SR159	296	W	S VALLEY VIEW BLV	CLEAR	No Data	1	No Data
INJURY CRASH	2/1/2018, 7:50 AM	2018	3:50:00 PM	SR159	60	E	S VALLEY VIEW BLV	CLEAR	No Data	1	No Data
INJURY CRASH	3/7/2018, 11:20 PM	2018	7:20:00 AM	S VALLEY VIEW BLVD	125	N	SR159	CLEAR	No Data	1	No Data
PROPERTY DAMAGE ONLY	3/13/2018, 6:18 AM	2018	1:18:00 PM	S VALLEY VIEW BLVD	300	S	SR159	CLEAR	No Data	No Data	PDO
INJURY CRASH	3/26/2018, 6:30 AM	2018	1:30:00 PM	S VALLEY VIEW BLVD	300	S	SR159	CLEAR	No Data	2	No Data
INJURY CRASH	4/6/2018, 12:35 PM	2018	7:35:00 PM	S VALLEY VIEW BLVD	No Data	AT INT	SR159	CLOUDY	No Data	1	No Data
PROPERTY DAMAGE ONLY	5/9/2018, 5:27 AM	2018	12:27:00 PM	S VALLEY VIEW BLVD	No Data	AT INT	SR159	CLEAR	No Data	No Data	PDO
INJURY CRASH	6/9/2018, 10:19 AM	2018	5:19:00 PM	SR159	No Data	AT INT	S VALLEY VIEW BLV	CLEAR	No Data	3	No Data
PROPERTY DAMAGE ONLY	6/21/2018, 11:00 AM	2018	6:00:00 PM	SR159	50	E	S VALLEY VIEW BLV	CLEAR	No Data	No Data	PDO
INJURY CRASH	7/12/2018, 11:12 AM	2018	6:12:00 PM	SR159	100	E	S VALLEY VIEW BLV	CLEAR	No Data	2	No Data
PROPERTY DAMAGE ONLY	8/4/2018, 8:55 AM	2018	3:55:00 PM	S VALLEY VIEW BLVD	No Data	AT INT	SR159	CLEAR	No Data	No Data	PDO
PROPERTY DAMAGE ONLY	9/25/2018, 7:24 AM	2018	2:24:00 PM	S VALLEY VIEW BLVD	490	S	SR159	CLEAR	No Data	No Data	PDO
INJURY CRASH	9/26/2018, 12:44 AM	2018	7:44:00 AM	S VALLEY VIEW BLVD	495	S	SR159	CLEAR	No Data	1	No Data
PROPERTY DAMAGE ONLY	10/23/2018, 12:18 PM	2018	7:18:00 PM	SR159	No Data	AT INT	S VALLEY VIEW BLV	CLEAR	No Data	No Data	PDO
PROPERTY DAMAGE ONLY	10/26/2018, 11:59 PM	2018	6:59:00 AM	SR159	No Data	AT INT	S VALLEY VIEW BLV	CLEAR	No Data	No Data	PDO
INJURY CRASH	1/7/2019, 1:58 AM	2019	9:58:00 AM	S VALLEY VIEW BLVD	452	S	SR159	CLOUDY	No Data	1	No Data
PROPERTY DAMAGE ONLY	1/10/2019, 5:27 AM	2019	1:27:00 PM	SR159	116	W	S VALLEY VIEW BLV	CLEAR	No Data	No Data	PDO
PROPERTY DAMAGE ONLY	1/16/2019, 6:34 AM	2019	2:34:00 PM	S VALLEY VIEW BLVD	200	N	SR159	CLEAR	No Data	No Data	PDO
PROPERTY DAMAGE ONLY	3/2/2019, 12:37 AM	2019	8:37:00 AM	SR159	187	E	S VALLEY VIEW BLV	CLOUDY	No Data	No Data	PDO
INJURY CRASH	4/21/2019, 6:28 AM	2019	1:28:00 PM	S VALLEY VIEW BLVD	50	S	SR159	CLEAR	No Data	1	No Data
PROPERTY DAMAGE ONLY	4/19/2019, 10:32 AM	2019	5:32:00 PM	S VALLEY VIEW BLVD	195	S	SR159	CLEAR	No Data	No Data	PDO
INJURY CRASH	4/26/2019, 2:18 PM	2019	9:18:00 PM	SR159	300	E	S VALLEY VIEW BLV	CLEAR	No Data	1	No Data
PROPERTY DAMAGE ONLY	9/20/2019, 9:42 AM	2019	4:42:00 PM	S VALLEY VIEW BLVD	300	S	SR159	CLEAR	No Data	No Data	PDO
INJURY CRASH	9/22/2019, 3:35 PM	2019	10:35:00 PM	SR159	No Data	AT INT	S VALLEY VIEW BLV	CLEAR	No Data	1	No Data
INJURY CRASH	11/13/2019, 9:05 AM	2019	5:05:00 PM	S VALLEY VIEW BLVD	139	N	SR159	CLEAR	No Data	1	No Data
PROPERTY DAMAGE ONLY	12/18/2019, 4:36 AM	2019	12:36:00 PM	S VALLEY VIEW BLVD	47	S	SR159	CLEAR	No Data	No Data	PDO
PROPERTY DAMAGE ONLY	1/3/2020, 9:06 AM	2020	5:06:00 PM	SR159	No Data	AT INT	VALLEY VIEW BLVD	CLEAR	No Data	No Data	PDO
INJURY CRASH	1/11/2020, 2:59 PM	2020	10:59:00 PM	SR159	150	W	VALLEY VIEW BLVD	CLOUDY	No Data	1	No Data
PROPERTY DAMAGE ONLY	1/13/2020, 5:01 AM	2020	1:01:00 PM	SR159	24	E	VALLEY VIEW BLVD	CLEAR	No Data	No Data	PDO
PROPERTY DAMAGE ONLY	2/24/2020, 10:53 PM	2020	6:53:00 AM	VALLEY VIEW BLVD	65	S	SR159	CLEAR	No Data	No Data	PDO
PROPERTY DAMAGE ONLY	3/1/2020, 2:25 AM	2020	10:25:00 AM	SR159	10	W	VALLEY VIEW BLVD	CLEAR	No Data	No Data	PDO
PROPERTY DAMAGE ONLY	3/20/2020, 12:37 AM	2020	7:37:00 AM	VALLEY VIEW BLVD	40	N	SR159	CLOUDY	No Data	No Data	PDO
PROPERTY DAMAGE ONLY	3/30/2020, 11:33 AM	2020	6:33:00 PM	SR159	34	E	VALLEY VIEW BLVD	CLEAR	No Data	No Data	PDO
PROPERTY DAMAGE ONLY	5/2/2020, 4:19 AM	2020	11:19:00 AM	VALLEY VIEW BLVD	16	S	SR159	CLEAR	No Data	No Data	PDO
INJURY CRASH	7/13/2020, 1:09 AM	2020	8:09:00 AM	SR159	74	W	VALLEY VIEW BLVD	CLEAR	No Data	2	No Data
PROPERTY DAMAGE ONLY	9/8/2020, 6:49 AM	2020	1:49:00 PM	S VALLEY VIEW BLVD	70	N	SR159	CLEAR	No Data	No Data	PDO
PROPERTY DAMAGE ONLY	9/23/2020, 5:36 AM	2020	12:36:00 PM	S VALLEY VIEW BLVD	100	N	SR159	CLEAR	No Data	No Data	PDO
INJURY CRASH	9/16/2020, 7:53 AM	2020	2:53:00 PM	SR159	260	N	S VALLEY VIEW BLV	CLEAR	No Data	1	No Data
INJURY CRASH	10/30/2020, 12:53 AM	2020	7:53:00 AM	SR159	76	E	S VALLEY VIEW BLV	CLEAR	No Data	1	No Data
INJURY CRASH	12/26/2020, 10:47 AM	2020	6:47:00 PM	SR159	25	E	S VALLEY VIEW BLV	CLEAR	No Data	2	No Data
INJURY CRASH	12/31/2020, 6:17 AM	2020	2:17:00 PM	SR159	No Data	AT INT	S VALLEY VIEW BLV	CLEAR	No Data	3	No Data

Crash Date	Injury Type	Crash Type	Total Vehicles	V1 Type	V1 Dir	V1 Driver Age	V1 Lane Num	V1 Action	V1 Driver Factors	V1 Driver Distracted	V1 Vehicle Factors
1/18/2016, 8:20 PM	B	ANGLE	2	SEDAN, 4 DOOR	W	No Data	No Data	GOING STRAIGHT	No Data	No Data	HIT AND RUN
1/27/2016, 7:06 AM	No Data	ANGLE	2	CARRY-ALL	S	No Data	No Data	NOT REPORTED	OTHER IMPROPER DRIVII	No Data	FAILED TO YIELD RIGHT OF WAY
1/24/2016, 10:34 PM	No Data	SIDESWIPE, MI	2	VAN	W	45	No Data	NOT REPORTED	APPARENTLY NORMAL	No Data	OTHER IMPROPER DRIVING
2/13/2016, 9:27 PM	B	REAR-END	3	PICKUP	W	26	No Data	GOING STRAIGHT	HAD BEEN DRINKING	No Data	FOLLOWED TOO CLOSELY
3/28/2016, 3:36 AM	No Data	REAR-END	2	PICKUP	N	28	No Data	GOING STRAIGHT	APPARENTLY NORMAL	No Data	UNKNOWN
4/2/2016, 4:24 PM	C	REAR-END	2	CARRY-ALL	N	24	1	GOING STRAIGHT	APPARENTLY NORMAL	No Data	HIT AND RUN
4/19/2016, 12:51 PM	B	NON-COLLISIO	1	SEDAN, 4 DOOR	E	59	2	TURNING RIGHT	No Data	No Data	FAILED TO YIELD RIGHT OF WAY: HIT AND RUN
5/23/2016, 6:18 AM	No Data	ANGLE	2	SEDAN, 4 DOOR	E	91	No Data	TURNING LEFT	APPARENTLY NORMAL	No Data	UNKNOWN
5/26/2016, 12:45 AM	C	REAR-END	2	HARDTOP, 4 DOOR	S	17	2	GOING STRAIGHT	APPARENTLY NORMAL	No Data	No Data
5/24/2016, 5:20 AM	C	REAR-END	2	CARRY-ALL	E	32	3	GOING STRAIGHT	APPARENTLY NORMAL	No Data	FOLLOWED TOO CLOSELY
6/2/2016, 4:05 PM	No Data	SIDESWIPE, OV	3	VAN	W	No Data	No Data	CHANGING LANES	APPARENTLY NORMAL	No Data	UNSAFE LANE CHANGE
7/25/2016, 2:01 AM	C	ANGLE	2	CARRY-ALL	N	76	1	MAKING U-TURN	APPARENTLY NORMAL	No Data	MADE AN IMPROPER TURN
9/9/2016, 12:48 PM	C	REAR-END	2	CARRY-ALL	E	19	2	GOING STRAIGHT	No Data	No Data	HIT AND RUN
10/28/2016, 7:55 PM	No Data	NON-COLLISIO	1	PICKUP	N	68	3	GOING STRAIGHT	APPARENTLY NORMAL	No Data	FAILURE TO KEEP IN PROPER LANE OR RUNNIN(
10/28/2016, 3:13 AM	No Data	REAR-END	2	CARRY-ALL	N	No Data	No Data	GOING STRAIGHT	APPARENTLY NORMAL	No Data	FOLLOWED TOO CLOSELY
12/9/2016, 7:48 AM	No Data	REAR-END	2	PICKUP	E	No Data	No Data	GOING STRAIGHT	APPARENTLY NORMAL	No Data	No Data
1/4/2017, 8:48 AM	No Data	SIDESWIPE, OV	2	VAN	N	63	No Data	NOT REPORTED	APPARENTLY NORMAL	No Data	FAILED TO YIELD RIGHT OF WAY
2/16/2017, 11:30 PM	C	REAR-END	4	SEDAN, 2 DOOR	S	36	2	GOING STRAIGHT	APPARENTLY NORMAL	No Data	DRIVING TOO FAST FOR CONDITIONS
3/7/2017, 8:53 AM	C	REAR-END	2	VAN CAMPER	S	33	1	GOING STRAIGHT	APPARENTLY NORMAL	No Data	FOLLOWED TOO CLOSELY
3/18/2017, 10:48 AM	C	ANGLE	2	HARDTOP, 2 DOOR	N	33	No Data	GOING STRAIGHT	APPARENTLY NORMAL	No Data	DISREGARDED TRAFFIC SIGNS, SIGNALS, ROAD I
5/24/2017, 4:17 PM	C	ANGLE	2	CARRY-ALL	W	26	No Data	GOING STRAIGHT	APPARENTLY NORMAL	No Data	No Data
5/20/2017, 3:21 AM	C	ANGLE	5	HATCHBACK, 4 DOC	E	22	No Data	GOING STRAIGHT	APPARENTLY NORMAL	No Data	DISREGARDED TRAFFIC SIGNS, SIGNALS, ROAD I
6/4/2017, 3:25 AM	No Data	NON-COLLISIO	1	SEDAN, 4 DOOR	W	No Data	No Data	DRIVERLESS-MOVIN	OTHER IMPROPER DRIVII	No Data	DRIVERLESS VEHICLE
6/8/2017, 10:52 AM	C	REAR-END	2	OTHER	N	30	1	GOING STRAIGHT	APPARENTLY NORMAL	No Data	FOLLOWED TOO CLOSELY
6/24/2017, 5:55 PM	C	REAR-END	2	CARRY-ALL	E	68	3	GOING STRAIGHT	HAD BEEN DRINKING	No Data	FAILED TO YIELD RIGHT OF WAY
7/12/2017, 7:11 AM	B	NON-COLLISIO	1	MOTORSCOOTER	E	63	3	GOING STRAIGHT	HAD BEEN DRINKING	No Data	FAILURE TO KEEP IN PROPER LANE OR RUNNIN(
7/25/2017, 8:45 AM	No Data	REAR-END	2	SEDAN, 4 DOOR	N	No Data	No Data	GOING STRAIGHT	APPARENTLY NORMAL	No Data	FOLLOWED TOO CLOSELY
8/11/2017, 10:09 AM	C	ANGLE	2	HATCHBACK, 4 DOC	E	55	No Data	GOING STRAIGHT	APPARENTLY NORMAL	No Data	FAILED TO YIELD RIGHT OF WAY: DISREGARDED
9/14/2017, 11:28 AM	C	BACKING	2	SEDAN, 4 DOOR	W	45	No Data	GOING STRAIGHT	APPARENTLY NORMAL	No Data	DISREGARDED TRAFFIC SIGNS, SIGNALS, ROAD I
12/16/2017, 9:42 AM	C	REAR-END	2	SEDAN, 4 DOOR	S	35	1	GOING STRAIGHT	APPARENTLY NORMAL	No Data	FOLLOWED TOO CLOSELY
1/18/2018, 6:56 AM	C	REAR-END	2	CARRY-ALL	E	60	1	GOING STRAIGHT	APPARENTLY NORMAL	No Data	FOLLOWED TOO CLOSELY
1/29/2018, 3:07 AM	B	ANGLE	2	MOTORCYCLE	E	58	3	CHANGING LANES	APPARENTLY NORMAL	No Data	UNSAFE LANE CHANGE
2/1/2018, 7:50 AM	C	REAR-END	2	HARDTOP, 4 DOOR	W	24	2	GOING STRAIGHT	APPARENTLY NORMAL	No Data	FOLLOWED TOO CLOSELY
3/7/2018, 11:20 PM	C	REAR-END	2	CARRY-ALL	S	33	2	GOING STRAIGHT	APPARENTLY NORMAL	No Data	DRIVING TOO FAST FOR CONDITIONS: FOLLOW
3/13/2018, 6:18 AM	No Data	UNKNOWN	2	SEDAN, 4 DOOR	S	No Data	No Data	UNKNOWN	APPARENTLY NORMAL	No Data	UNKNOWN
3/26/2018, 6:30 AM	C	SIDESWIPE, OV	2	SEDAN, 2 DOOR	N	16	3	CHANGING LANES	APPARENTLY NORMAL	No Data	UNSAFE LANE CHANGE
4/6/2018, 12:35 PM	C	ANGLE	2	CARRY-ALL	W	No Data	L1	TURNING LEFT	No Data	No Data	HIT AND RUN
5/9/2018, 5:27 AM	No Data	REAR-END	2	HARDTOP, 4 DOOR	N	No Data	L1	GOING STRAIGHT	APPARENTLY NORMAL	No Data	FOLLOWED TOO CLOSELY
6/9/2018, 10:19 AM	C	ANGLE	2	CARRY-ALL	E	50	1	GOING STRAIGHT	APPARENTLY NORMAL	No Data	DISREGARDED TRAFFIC SIGNS, SIGNALS, ROAD I
6/21/2018, 11:00 AM	No Data	REAR-END	2	SEDAN, 4 DOOR	W	No Data	3	GOING STRAIGHT	APPARENTLY NORMAL	No Data	OTHER
7/12/2018, 11:12 AM	C	ANGLE	2	PICKUP	E	55	1	TRAVELING WRONG	APPARENTLY NORMAL	No Data	WRONG SIDE OR WRONG WAY
8/4/2018, 8:55 AM	No Data	ANGLE	2	SEDAN, 4 DOOR	E	No Data	1	GOING STRAIGHT	APPARENTLY NORMAL	No Data	DISREGARDED TRAFFIC SIGNS, SIGNALS, ROAD I
9/25/2018, 7:24 AM	No Data	ANGLE	2	SEDAN, 4 DOOR	N	87	L1	TURNING LEFT	APPARENTLY NORMAL	No Data	FAILED TO YIELD RIGHT OF WAY
9/26/2018, 12:44 AM	B	ANGLE	2	CARRY-ALL	S	75	L1	TURNING LEFT	APPARENTLY NORMAL	No Data	FAILED TO YIELD RIGHT OF WAY
10/23/2018, 12:18 PM	No Data	ANGLE	2	CARRY-ALL	No Data	21	L2	TURNING LEFT	INATTENTION/DISTRACTI	UNKNOWN	DISREGARDED TRAFFIC SIGNS, SIGNALS, ROAD I
10/26/2018, 11:59 PM	No Data	ANGLE	2	SEDAN, 4 DOOR	No Data	No Data	L1	TURNING LEFT	APPARENTLY NORMAL	No Data	DISREGARDED TRAFFIC SIGNS, SIGNALS, ROAD I
1/7/2019, 1:58 AM	C	REAR-END	2	SEDAN, 4 DOOR	No Data	82	1	OTHER	APPARENTLY NORMAL	No Data	FOLLOWED TOO CLOSELY
1/10/2019, 5:27 AM	No Data	ANGLE	2	HARDTOP, 2 DOOR	No Data	27	2	CHANGING LANES	OTHER IMPROPER DRIVII	No Data	UNSAFE LANE CHANGE
1/16/2019, 6:34 AM	No Data	REAR-END	2	HATCHBACK, 2 DOC	No Data	No Data	2	GOING STRAIGHT	APPARENTLY NORMAL	No Data	DRIVING TOO FAST FOR CONDITIONS
3/2/2019, 12:37 AM	No Data	REAR-END	2	SEDAN, 4 DOOR	No Data	42	2	GOING STRAIGHT	APPARENTLY NORMAL	No Data	OTHER IMPROPER DRIVING
4/21/2019, 6:28 AM	C	REAR-END	2	SEDAN, 4 DOOR	No Data	44	L1	GOING STRAIGHT	APPARENTLY NORMAL	No Data	OTHER
4/19/2019, 10:32 AM	No Data	ANGLE	3	VAN	No Data	No Data	L1	TURNING LEFT	APPARENTLY NORMAL	No Data	FAILED TO YIELD RIGHT OF WAY
4/26/2019, 2:18 PM	B	NON-COLLISIO	2	MOTORCYCLE	E	22	1	GOING STRAIGHT	HAD BEEN DRINKING	No Data	FAILURE TO KEEP IN PROPER LANE OR RUNNIN(
9/20/2019, 9:42 AM	No Data	REAR-END	2	CARRY-ALL	N	55	3	GOING STRAIGHT	HAD BEEN DRINKING	No Data	OTHER
9/22/2019, 3:35 PM	B	ANGLE	2	SEDAN, 4 DOOR	E	26	2	GOING STRAIGHT	OTHER IMPROPER DRIVII	No Data	DISREGARDED TRAFFIC SIGNS, SIGNALS, ROAD I
11/13/2019, 9:05 AM	A	NON-COLLISIO	1	PICKUP	S	58	L1	GOING STRAIGHT	APPARENTLY NORMAL	No Data	No Data
12/18/2019, 4:36 AM	No Data	SIDESWIPE, OV	3	SEDAN, 4 DOOR	N	29	2	CHANGING LANES	OTHER IMPROPER DRIVII	No Data	UNSAFE LANE CHANGE
1/3/2020, 9:06 AM	No Data	SIDESWIPE, MI	2	SEDAN, 2 DOOR	S	69	L2	LEAVING LANE	APPARENTLY NORMAL	No Data	FAILURE TO KEEP IN PROPER LANE OR RUNNIN(
1/11/2020, 2:59 PM	C	REAR-END	2	SEDAN, 4 DOOR	E	22	1	GOING STRAIGHT	HAD BEEN DRINKING	No Data	FOLLOWED TOO CLOSELY
1/13/2020, 5:01 AM	No Data	REAR-END	2	SEDAN, 4 DOOR	W	70	R1	GOING STRAIGHT	APPARENTLY NORMAL	No Data	OTHER
2/24/2020, 10:53 PM	No Data	SIDESWIPE, OV	2	DUMP	N	32	3	GOING STRAIGHT	APPARENTLY NORMAL	No Data	OTHER IMPROPER DRIVING
3/1/2020, 2:25 AM	No Data	REAR-END	2	SEDAN, 4 DOOR	E	16	3	GOING STRAIGHT	APPARENTLY NORMAL	No Data	OTHER
3/20/2020, 12:37 AM	No Data	SIDESWIPE, OV	2	SEDAN, 4 DOOR	S	25	1	CHANGING LANES	APPARENTLY NORMAL	No Data	UNSAFE LANE CHANGE
3/30/2020, 11:33 AM	No Data	SIDESWIPE, OV	2	PICKUP	E	No Data	3	GOING STRAIGHT	UNKNOWN	No Data	FAILURE TO KEEP IN PROPER LANE OR RUNNIN(
5/2/2020, 4:19 AM	No Data	REAR-END	2	SEDAN, 4 DOOR	S	31	1	GOING STRAIGHT	OTHER IMPROPER DRIVII	No Data	FOLLOWED TOO CLOSELY
7/13/2020, 1:09 AM	B	REAR-END	2	CARRY-ALL	E	57	2	GOING STRAIGHT	APPARENTLY NORMAL	No Data	OTHER IMPROPER DRIVING
9/8/2020, 6:49 AM	No Data	REAR-END	2	SEDAN, 2 DOOR	S	17	1	GOING STRAIGHT	APPARENTLY NORMAL	No Data	OTHER IMPROPER DRIVING
9/23/2020, 5:36 AM	No Data	NON-COLLISIO	1	COUPE	N	84	3	PASSING OTHER VEI	No Data	No Data	FAILED TO YIELD RIGHT OF WAY
9/16/2020, 7:53 AM	C	REAR-END	2	SEDAN, 4 DOOR	S	37	R1	TURNING RIGHT	APPARENTLY NORMAL	No Data	FAILED TO YIELD RIGHT OF WAY
10/30/2020, 12:53 AM	C	REAR-END	2	SEDAN, 4 DOOR	W	44	2	GOING STRAIGHT	APPARENTLY NORMAL	No Data	OBJECT AVOIDANCE
12/26/2020, 10:47 AM	C	REAR-END	2	PICKUP	W	No Data	2	GOING STRAIGHT	No Data	No Data	HIT AND RUN
12/31/2020, 6:17 AM	C	ANGLE	2	SEDAN, 4 DOOR	E	17	1	GOING STRAIGHT	INATTENTION/DISTRACTI	ELECTRON	DISREGARDED TRAFFIC SIGNS, SIGNALS, ROAD I

Crash Date	V1 Most Harmful Event	V1 All Events	V2 Type	V2 Dir	V2 Driver Age	V2 Lane Num	V2 Action	V2 Driver Factors	V2 Driver Distracted	V2 Vehicle Factors	V2 Most Harmful Event	V2 All Events
1/18/2016, 8:20 PM	No Data	No Data	SEDAN, 4 DOOR	S	64	No Data	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	No Data	No Data
1/27/2016, 7:06 AM	No Data	No Data	PICKUP	W	No Data	No Data	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	No Data	No Data
1/24/2016, 10:34 PM	No Data	No Data	TRACTOR TRUCK, DIE	W	55	No Data	TURNING RIGH	APPARENTLY NORMAL	No Data	No Data	No Data	SLOW/STOPPED VEHICLE
2/13/2016, 9:27 PM	No Data	SLOW/STOPPED VEHICLE	HATCHBACK, 4 DOOI	W	76	No Data	STOPPED	APPARENTLY NORMAL	No Data	No Data	No Data	No Data
3/28/2016, 3:36 AM	No Data	No Data	TRACTOR TRUCK, DIE	N	48	No Data	STOPPED	APPARENTLY NORMAL	No Data	UNKNOWN	No Data	No Data
4/2/2016, 4:24 PM	No Data	SLOW/STOPPED VEHICLE	SEDAN, 4 DOOR	N	38	1	STOPPED	APPARENTLY NORMAL	No Data	No Data	No Data	No Data
4/19/2016, 12:51 PM	No Data	PEDAL CYCLE	No Data	No	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data
5/23/2016, 6:18 AM	No Data	No Data	TRACTOR TRUCK, DIE	E	53	No Data	LEAVING PARK	APPARENTLY NORMAL	No Data	UNKNOWN	No Data	No Data
5/26/2016, 12:45 AM	No Data	SLOW/STOPPED VEHICLE	HATCHBACK, 4 DOOI	S	60	2	STOPPED	APPARENTLY NORMAL	No Data	No Data	No Data	SLOW/STOPPED VEHICLE
5/24/2016, 5:20 AM	No Data	SLOW/STOPPED VEHICLE	SEDAN, 4 DOOR	E	26	3	STOPPED	APPARENTLY NORMAL	No Data	No Data	No Data	PEDESTRIAN
6/2/2016, 4:05 PM	No Data	No Data	SEDAN, 4 DOOR	W	No Data	No Data	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	No Data	No Data
7/25/2016, 2:01 AM	No Data	No Data	SEDAN, 4 DOOR	S	37	1	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	No Data	No Data
9/9/2016, 12:48 PM	No Data	SLOW/STOPPED VEHICLE	VAN	E	68	2	STOPPED	APPARENTLY NORMAL	No Data	No Data	No Data	No Data
10/28/2016, 7:55 PM	No Data	RAN OFF ROAD RIGHT: LIGH	No Data	No	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data
10/28/2016, 3:13 AM	No Data	SLOW/STOPPED VEHICLE	CARRY-ALL	N	No Data	No Data	STOPPED	APPARENTLY NORMAL	No Data	No Data	No Data	No Data
12/9/2016, 7:48 AM	No Data	SLOW/STOPPED VEHICLE	CARRY-ALL	E	No Data	No Data	STOPPED	APPARENTLY NORMAL	No Data	No Data	No Data	No Data
1/4/2017, 8:48 AM	No Data	No Data	VAN	N	54	No Data	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	No Data	No Data
2/16/2017, 11:30 PM	No Data	SLOW/STOPPED VEHICLE	PICKUP	S	24	2	GOING STRAIG	APPARENTLY NORMAL	No Data	DRIVING TOO FA	No Data	SLOW/STOPPED VEHICLE
3/7/2017, 8:53 AM	No Data	SLOW/STOPPED VEHICLE	SEDAN, 4 DOOR	S	20	1	STOPPED	APPARENTLY NORMAL	No Data	No Data	No Data	No Data
3/18/2017, 10:48 AM	No Data	No Data	SEDAN, 4 DOOR	N	56	No Data	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	No Data	No Data
5/24/2017, 4:17 PM	No Data	No Data	PICKUP	N	47	No Data	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	No Data	No Data
5/20/2017, 3:21 AM	No Data	SLOW/STOPPED VEHICLE	VAN	S	72	No Data	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	No Data	No Data
6/4/2017, 3:25 AM	No Data	RAN OFF ROAD RIGHT: OTHI	No Data	No	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data
6/8/2017, 10:52 AM	No Data	SLOW/STOPPED VEHICLE	SEDAN, 4 DOOR	N	42	1	STOPPED	APPARENTLY NORMAL	No Data	No Data	No Data	SLOW/STOPPED VEHICLE
6/24/2017, 5:55 PM	No Data	SLOW/STOPPED VEHICLE	SEDAN, 4 DOOR	E	34	3	STOPPED	APPARENTLY NORMAL	No Data	No Data	No Data	No Data
7/12/2017, 7:11 AM	No Data	UNKNOWN NON-COLLISION	No Data	No	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data
7/25/2017, 8:45 AM	No Data	No Data	CARRY-ALL	N	No Data	No Data	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	No Data	No Data
8/11/2017, 10:09 AM	No Data	No Data	SEDAN, 4 DOOR	S	25	No Data	GOING STRAIG	APPARENTLY NORMAL	No Data	UNKNOWN	No Data	No Data
9/14/2017, 11:28 AM	No Data	No Data	SEDAN, 4 DOOR	S	81	No Data	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	No Data	No Data
12/16/2017, 9:42 AM	No Data	No Data	CARRY-ALL	S	35	1	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	No Data	No Data
1/18/2018, 6:56 AM	No Data	SLOW/STOPPED VEHICLE	CARRY-ALL	E	25	1	STOPPED	APPARENTLY NORMAL	No Data	No Data	No Data	No Data
1/29/2018, 3:07 AM	No Data	No Data	CARRY-ALL	E	35	3	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	No Data	No Data
2/1/2018, 7:50 AM	No Data	SLOW/STOPPED VEHICLE	SEDAN, 4 DOOR	W	26	2	STOPPED	APPARENTLY NORMAL	No Data	No Data	No Data	No Data
3/7/2018, 11:20 PM	No Data	NOT REPORTED	SEDAN, 4 DOOR	S	52	2	STOPPED	APPARENTLY NORMAL	No Data	No Data	No Data	NOT REPORTED
3/13/2018, 6:18 AM	No Data	NOT REPORTED	PICKUP	S	No Data	No Data	UNKNOWN	APPARENTLY NORMAL	No Data	UNKNOWN	No Data	NOT REPORTED
3/26/2018, 6:30 AM	No Data	NOT REPORTED	CARRY-ALL	N	30	3	PASSING OTHI	APPARENTLY NORMAL	No Data	No Data	No Data	NOT REPORTED
4/6/2018, 12:35 PM	MOTOR VEHICL	No Data	CARRY-ALL	S	66	2	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data
5/9/2018, 5:27 AM	MOTOR VEHICL	No Data	STATION WAGON	N	No Data	L1	STOPPED	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data
6/9/2018, 10:19 AM	MOTOR VEHICL	No Data	SEDAN, 4 DOOR	N	62	3	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data
6/21/2018, 11:00 AM	SLOW/STOPPEI	SLOW/STOPPED VEHICLE	COUPE	W	No Data	3	STOPPED	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data
7/12/2018, 11:12 AM	RAN OFF ROAD	RAN OFF ROAD LEFT	SEDAN, 4 DOOR	W	69	1	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data
8/4/2018, 8:55 AM	MOTOR VEHICL	No Data	SEDAN, 4 DOOR	S	No Data	2	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data
9/25/2018, 7:24 AM	MOTOR VEHICL	No Data	SEDAN, 4 DOOR	S	31	2	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data
9/26/2018, 12:44 AM	MOTOR VEHICL	No Data	MOPED	N	22	1	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data
10/23/2018, 12:18 PM	MOTOR VEHICL	No Data	SEDAN, 4 DOOR	W	24	2	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data
10/26/2018, 11:59 PM	MOTOR VEHICL	No Data	SEDAN, 4 DOOR	W	No Data	1	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data
1/7/2019, 1:58 AM	MOTOR VEHICL	No Data	PICKUP	S	54	1	NEGOTIATING	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data
1/10/2019, 5:27 AM	TRAFFIC SIGNA	CURB: RAN OFF ROAD RIGHT	PICKUP	E	30	3	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data
1/16/2019, 6:34 AM	SLOW/STOPPEI	SLOW/STOPPED VEHICLE	BUS	S	No Data	2	STOPPED	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data
3/2/2019, 12:37 AM	SLOW/STOPPEI	SLOW/STOPPED VEHICLE	GARBAGE OR REFUSI	E	26	2	STOPPED	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data
4/21/2019, 6:28 AM	SLOW/STOPPEI	SLOW/STOPPED VEHICLE	VAN	N	48	L1	STOPPED	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data
4/19/2019, 10:32 AM	MOTOR VEHICL	No Data	SEDAN, 2 DOOR	N	No Data	3	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	SLOW/STOPPED VEHICLE
4/26/2019, 2:18 PM	OTHER NON-C	OTHER NON-COLLISION: CR(	CARRY-ALL	E	41	2	GOING STRAIG	APPARENTLY NORMAL	No Data	UNKNOWN	OTHER NON-	OTHER NON-COLLISION
9/20/2019, 9:42 AM	SLOW/STOPPEI	SLOW/STOPPED VEHICLE	CARRY-ALL	N	38	3	STOPPED	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data
9/22/2019, 3:35 PM	MOTOR VEHICL	No Data	SEDAN, 2 DOOR	S	22	1	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data
11/13/2019, 9:05 AM	PEDESTRIAN	PEDESTRIAN	No Data	No	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data
12/18/2019, 4:36 AM	MOTOR VEHICL	No Data	PICKUP	N	25	1	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	SLOW/STOPPED VEHICLE
1/3/2020, 9:06 AM	MOTOR VEHICL	No Data	PICKUP	S	37	L1	TURNING LEFT	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data
1/11/2020, 2:59 PM	MOTOR VEHICL	No Data	CARRY-ALL	E	53	1	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data
1/13/2020, 5:01 AM	SLOW/STOPPEI	SLOW/STOPPED VEHICLE	CARRY-ALL	W	42	R1	STOPPED	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data
2/24/2020, 10:53 PM	SLOW/STOPPEI	SLOW/STOPPED VEHICLE	BUS	N	57	2	STOPPED	APPARENTLY NORMAL	No Data	FAILURE TO KEEI	MOTOR VEH	No Data
3/1/2020, 2:25 AM	SLOW/STOPPEI	SLOW/STOPPED VEHICLE	SEDAN, 4 DOOR	E	51	3	STOPPED	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data
3/20/2020, 12:37 AM	SLOW/STOPPEI	SLOW/STOPPED VEHICLE	SEDAN, 4 DOOR	S	36	2	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data
3/30/2020, 11:33 AM	SLOW/STOPPEI	SLOW/STOPPED VEHICLE	PICKUP	E	73	2	STOPPED	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data
5/2/2020, 4:19 AM	SLOW/STOPPEI	SLOW/STOPPED VEHICLE	SEDAN, 4 DOOR	S	25	1	STOPPED	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data
7/13/2020, 1:09 AM	SLOW/STOPPEI	SLOW/STOPPED VEHICLE	SEDAN, 4 DOOR	E	28	2	STOPPED	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data
9/8/2020, 6:49 AM	SLOW/STOPPEI	SLOW/STOPPED VEHICLE	CARRY-ALL	S	51	1	STOPPED	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data
9/23/2020, 5:36 AM	PEDAL CYCLE	PEDAL CYCLE	No Data	No	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data
9/16/2020, 7:53 AM	MOTOR VEHICL	No Data	CARRY-ALL	S	65	2	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data
10/30/2020, 12:53 AM	SLOW/STOPPEI	SLOW/STOPPED VEHICLE	SEDAN, 4 DOOR	W	No Data	2	DRIVERLESS-M	No Data	No Data	No Data	MOTOR VEH	No Data
12/26/2020, 10:47 AM	SLOW/STOPPEI	SLOW/STOPPED VEHICLE	SEDAN, 4 DOOR	W	44	2	STOPPED	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data
12/31/2020, 6:17 AM	MOTOR VEHICL	No Data	VAN	N	26	2	GOING STRAIG	APPARENTLY NORMAL	No Data	No Data	MOTOR VEH	No Data

Crash Date	First Harmful Event	Nonmotorist Factors	Factors Roadway	Lighting	HWY Factors	Agency	Accident Rec Num
1/18/2016, 8:20 PM	No Data	No Data	DRY	DARK - CONTINUOU!	NONE	LVMPD	2222046
1/27/2016, 7:06 AM	No Data	No Data	No Data	No Data	NONE	LVMPD	2222477
1/24/2016, 10:34 PM	No Data	No Data	DRY	DAYLIGHT	NONE	LVMPD	2222351
2/13/2016, 9:27 PM	No Data	No Data	DRY	DARK - CONTINUOU!	NONE	LVMPD	2223287
3/28/2016, 3:36 AM	No Data	No Data	DRY	DAYLIGHT	NONE	LVMPD	2231793
4/2/2016, 4:24 PM	No Data	No Data	DRY	DARK - CONTINUOU!	NONE	LVMPD	2232130
4/19/2016, 12:51 PM	No Data	UNKNOWN	DRY	DARK - CONTINUOU!	NONE	LVMPD	2233077
5/23/2016, 6:18 AM	No Data	No Data	DRY	DAYLIGHT	NONE	LVMPD	2316859
5/26/2016, 12:45 AM	No Data	No Data	DRY	DAYLIGHT	NONE	LVMPD	2317009
5/24/2016, 5:20 AM	No Data	UNKNOWN	DRY	DAYLIGHT	NONE	LVMPD	2316915
6/2/2016, 4:05 PM	No Data	No Data	No Data	No Data	No Data	LVMPD	2317422
7/25/2016, 2:01 AM	No Data	No Data	DRY	DAYLIGHT	NONE	LVMPD	2319932
9/9/2016, 12:48 PM	No Data	No Data	DRY	DARK - CONTINUOU!	NONE	LVMPD	2353906
10/28/2016, 7:55 PM	No Data	No Data	DRY	DARK - CONTINUOU!	NONE	LVMPD	2334350
10/28/2016, 3:13 AM	No Data	No Data	No Data	No Data	No Data	LVMPD	2334308
12/9/2016, 7:48 AM	No Data	No Data	No Data	No Data	No Data	LVMPD	2336494
1/4/2017, 8:48 AM	No Data	No Data	DRY	DARK - CONTINUOU!	NONE	LVMPD	2354489
2/16/2017, 11:30 PM	No Data	No Data	DRY	DAYLIGHT	NONE	LVMPD	2362486
3/7/2017, 8:53 AM	No Data	No Data	DRY	DAYLIGHT	OTHER HIGHWAY	LVMPD	2363527
3/18/2017, 10:48 AM	No Data	No Data	DRY	DAYLIGHT	NONE	LVMPD	2364159
5/24/2017, 4:17 PM	No Data	No Data	DRY	DARK - CONTINUOU!	NONE	LVMPD	2376354
5/20/2017, 3:21 AM	No Data	No Data	DRY	DAYLIGHT	NONE	LVMPD	2376128
6/4/2017, 3:25 AM	No Data	No Data	No Data	No Data	No Data	LVMPD	2376871
6/8/2017, 10:52 AM	No Data	No Data	DRY	DAYLIGHT	NONE	LVMPD	2377099
6/24/2017, 5:55 PM	No Data	No Data	DRY	DARK - CONTINUOU!	NONE	LVMPD	2377896
7/12/2017, 7:11 AM	No Data	No Data	DRY	DAYLIGHT	NONE	LVMPD	2388484
7/25/2017, 8:45 AM	No Data	No Data	No Data	No Data	No Data	LVMPD	2389160
8/11/2017, 10:09 AM	No Data	No Data	DRY	DAYLIGHT	NONE	LVMPD	2390037
9/14/2017, 11:28 AM	No Data	No Data	DRY	DAYLIGHT	GLARE	LVMPD	2391858
12/16/2017, 9:42 AM	No Data	No Data	DRY	DARK - SPOT LIGHTII	NONE	LVMPD	2409073
1/18/2018, 6:56 AM	No Data	No Data	DRY	DAYLIGHT	NONE	LVMPD	2410821
1/29/2018, 3:07 AM	No Data	No Data	DRY	DAYLIGHT	NONE	LVMPD	2411380
2/1/2018, 7:50 AM	No Data	No Data	DRY	DAYLIGHT	OTHER HIGHWAY	LVMPD	2411561
3/7/2018, 11:20 PM	No Data	No Data	DRY	DAYLIGHT	OTHER HIGHWAY	LVMPD	2518822
3/13/2018, 6:18 AM	No Data	No Data	No Data	No Data	No Data	LVMPD	2519143
3/26/2018, 6:30 AM	No Data	No Data	DRY	DAYLIGHT	OTHER HIGHWAY	LVMPD	2519942
4/6/2018, 12:35 PM	MOTOR VEHICL	No Data	DRY	DARK - SPOT LIGHTII	NONE	LVMPD	3077304
5/9/2018, 5:27 AM	No Data	No Data	No Data	No Data	No Data	LVMPD	3081234
6/9/2018, 10:19 AM	MOTOR VEHICL	No Data	DRY	DAYLIGHT	NONE	LVMPD	3085615
6/21/2018, 11:00 AM	No Data	No Data	No Data	No Data	No Data	LVMPD	3087286
7/12/2018, 11:12 AM	MOTOR VEHICL	No Data	DRY	DAYLIGHT	NONE	LVMPD	3090530
8/4/2018, 8:55 AM	No Data	No Data	No Data	No Data	No Data	LVMPD	3092875
9/25/2018, 7:24 AM	MOTOR VEHICL	No Data	DRY	DAYLIGHT	NONE	LVMPD	3101563
9/26/2018, 12:44 AM	MOTOR VEHICL	No Data	DRY	DAYLIGHT	NONE	LVMPD	3101598
10/23/2018, 12:18 PM	MOTOR VEHICL	No Data	DRY	DAYLIGHT	NONE	LVMPD	3104546
10/26/2018, 11:59 PM	No Data	No Data	No Data	No Data	No Data	LVMPD	3106526
1/7/2019, 1:58 AM	MOTOR VEHICL	No Data	DRY	DAYLIGHT	NONE	LVMPD	3062823
1/10/2019, 5:27 AM	MOTOR VEHICL	No Data	DRY	DAYLIGHT	NONE	LVMPD	3064535
1/16/2019, 6:34 AM	No Data	No Data	No Data	No Data	No Data	LVMPD	3064910
3/2/2019, 12:37 AM	SLOW/STOPPEI	No Data	WET	DAYLIGHT	BACKUP DUE TO PRIOR CR/	LVMPD	3117665
4/21/2019, 6:28 AM	SLOW/STOPPEI	No Data	DRY	DAYLIGHT	NONE	LVMPD	3124817
4/19/2019, 10:32 AM	No Data	No Data	No Data	No Data	No Data	LVMPD	3124722
4/26/2019, 2:18 PM	CROSS MEDIAN	No Data	DRY	DARK - CONTINUOU!	NONE	LVMPD	3005191
9/20/2019, 9:42 AM	MOTOR VEHICL	No Data	DRY	DAYLIGHT	BACKUP DUE TO REGULAR	LVMPD	3153064
9/22/2019, 3:35 PM	MOTOR VEHICL	No Data	DRY	DARK - CONTINUOU!	NONE	LVMPD	3153376
11/13/2019, 9:05 AM	PEDESTRIAN	IMPROPER CR(	DRY	DARK - CONTINUOU!	BACKUP DUE TO REGULAR	LVMPD	3022711
12/18/2019, 4:36 AM	MOTOR VEHICL	No Data	DRY	DAYLIGHT	NONE	LVMPD	3041810
1/3/2020, 9:06 AM	MOTOR VEHICL	No Data	DRY	DARK - SPOT LIGHTII	NONE	LVMPD	3031815
1/11/2020, 2:59 PM	MOTOR VEHICL	No Data	DRY	DARK - SPOT LIGHTII	NONE	LVMPD	3033920
1/13/2020, 5:01 AM	SLOW/STOPPEI	No Data	DRY	DAYLIGHT	NONE	LVMPD	3033982
2/24/2020, 10:53 PM	MOTOR VEHICL	No Data	DRY	DAYLIGHT	NONE	LVMPD	3044274
3/1/2020, 2:25 AM	SLOW/STOPPEI	No Data	DRY	DAYLIGHT	NONE	LVMPD	3046085
3/20/2020, 12:37 AM	MOTOR VEHICL	No Data	DRY	DAYLIGHT	NONE	LVMPD	3048592
3/30/2020, 11:33 AM	SLOW/STOPPEI	No Data	DRY	DAYLIGHT	NONE	LVMPD	3048867
5/2/2020, 4:19 AM	MOTOR VEHICL	No Data	DRY	DAYLIGHT	NONE	LVMPD	3050999
7/13/2020, 1:09 AM	SLOW/STOPPEI	No Data	DRY	DAYLIGHT	NONE	LVMPD	3074084
9/8/2020, 6:49 AM	SLOW/STOPPEI	No Data	DRY	DAYLIGHT	NONE	LVMPD	3128892
9/23/2020, 5:36 AM	PEDAL CYCLE	LYING AND/OI	DRY	DAYLIGHT	NONE	LVMPD	3135889
9/16/2020, 7:53 AM	MOTOR VEHICL	No Data	DRY	DAYLIGHT	NONE	LVMPD	3131422
10/30/2020, 12:53 AM	SLOW/STOPPEI	No Data	DRY	DAYLIGHT	NONE	LVMPD	3137938
12/26/2020, 10:47 AM	SLOW/STOPPEI	No Data	DRY	DARK - CONTINUOU!	NONE	LVMPD	3145510
12/31/2020, 6:17 AM	MOTOR VEHICL	No Data	DRY	DAYLIGHT	NONE	LVMPD	3148360

APPENDIX M

SITE PLAN

SITE INFORMATION

APN: 139-31-801-009

ADDRESS: 4100 W CHARLESTON BLVD

JURISDICTION: LAS VEGAS

ZONING: LIMITED COMMERCIAL DISTRICT (C-1)
SPECIAL USE: PRIMARY SCHOOL

APPROXIMATE AREA:

PROPERTY: 124,146 SQUARE FEET, 2.85 ACRES

BUILDING:
NEW THREE STORY BUILDING
LEVEL 1: 7,500 SF
LEVEL 2: 7,500 SF
LEVEL 3: 7,500 SF
TOTAL: 22,500 SF

20 CLASSROOMS

LOT COVERAGE: XX.X%

LANDSCAPE COVERAGE: XX.X%

SETBACKS:
FRONT: 10'-0"
SIDE STREET CORNER: 10'-0"
INTERIOR SIDE/REAR: 10'-0" WHERE ADJACENT TO RESIDENTIAL USE OTHERWISE NONE

MAX HEIGHT: 60' - 0"

ACTUAL HEIGHT (MODULAR): 42' - 0"

PARKING CALUCLATIONS:
3: CLASSROOM

NEW REQUIRED = 60 SPACES
EXISTING REQUIRED = 28 SPACES
TOTAL REQUIRED = 88 SPACES

PROVIDED: 162 SPACES

STANDARD PARKING STALLS: 156

ACCESSIBLE

BASED ON REGULAR PARKING SPACES

REQUIRED = 6 SPACES (1 VAN ACCESSIBLE)
PROVIDED = 6 SPACES (3 VAN ACCESSIBLE)

5/11/2023 1:38:47 PM

SP01

SITE PLAN

SAGE COLLEGIATE - PHASE 2

Red Hook Capital

Orientation

Scale 1" = 30'-0"

Date 05.11.2023

IZ design studio
design...sustainability...architecture.
7229 West Sahara Avenue, Suite 120, Las Vegas, NV 89117 PH.702.441.0026 FX.702.475.4755 www.IZdesignstudio.com