



October 1, 2026

JRW Family Limited Partnership LLLP
5975 East Jamison Place
Centennial, CO 80112

Attn: Mr. Kurt Walker, M.A.
Principal Project Manager

Re: Traffic Compliance Letter Update
Pine Canyon – Planning Areas 2 & 3 (Rising Sun Drive and Founders Parkway)
Castle Rock, Colorado

Dear Mr. Walker,

This letter documents the results of a trip generation analysis to identify traffic compliance with the originally completed master traffic impact study for the proposed Planning Area 2 and 3 of the overall Pine Canyon development located along the west side of Founders Parkway (SH 86) at the Crimson Sky Drive and Rising Sun Drive intersections in Castle Rock, Colorado.

The *Pine Canyon Master Traffic Impact Study* (MTIS) completed by Kimley-Horn and Associates in November 2021 was previously approved by Douglas County with referral reviews also provided by the Town of Castle Rock and State of Colorado Department of Transportation (CDOT) prior to the annexation of the development area in the Town of Castle Rock. With the recent annexation, the Pine Canyon MTIS has been updated and has been submitted concurrently with this Pine Canyon Planning Areas 2 & 3 Traffic Study Letter. With the recently updated MTIS not been reviewed or approved, the trip generation traffic compliance comparison is based on the previously approved MTIS from 2021.

In addition, this study has been updated with concurrent 20-year planning horizons of 2035 and 2050 in order to provide an operational, queueing, and turn lane evaluation of the Founders Parkway (SH-86) intersections with Crimson Sky Drive and Rising Sun Drive due to the internal street network change internal to Pine Canyon. A short-term analysis of 2030 has also been provided to show that all project traffic assigned to Founders Parkway/Crimson Sky Drive (#9) and Founders Parkway/Rising Sun Drive (#10) will operate acceptably prior to other planning area accesses are built. The updated Pine Canyon site plan shows that more traffic will use the northern street connection that aligns with Crimson Sky Drive instead of Rising Sun Drive based on the proposed street network planned. Therefore, the previous trip distribution and project traffic assignment was updated so that an updated analysis could be performed. Of note, new existing traffic counts were collected for the Pine Canyon MTIS and have been incorporated in Pine Canyon Planning Area 2 and 3 analysis.

SITE CHARACTERISTICS

Planning Area 2 of the overall Pine Canyon is currently proposed to contain 50 single family detached houses while Planning Area 3 is proposed with 85 single family detached houses for a total of 135 single family detached houses among the current application. A conceptual site plan for the current proposal of Pine Canyon Planning Areas 2 and 3 project is attached. There were 22 Planning Areas evaluated in the *Pine Canyon Traffic Impact Study* completed by Kimley-Horn and Associates in November 2021. The current proposal consists of Planning Areas 2 and 3 (PA-2 and PA-3), which were previously evaluated as a total of 145 single family detached dwelling units in the original traffic study. As such, the traffic generation of PA-2 and PA-3 with the current proposal of 135 single family detached houses will be compared to the 145 single family detached houses originally evaluated

within the original master traffic impact study. Applicable documents from the master study are attached.

TRIP GENERATION COMPARISON

Site-generated traffic estimates are determined through a process known as trip generation. Rates and equations are applied to the proposed land use to estimate traffic generated by the development during a specific time interval. The acknowledged source for trip generation rates is the *Trip Generation Manual*¹ published by the Institute of Transportation Engineers (ITE). ITE has established trip rates in nationwide studies of similar land uses.

For this study, Kimley-Horn used the ITE Trip Generation Manual fitted curve equations that apply to Single-Family Detached Housing (ITE Land Use Code 210) for traffic associated with this development. Trip generation for the currently proposed uses within Planning Areas 2 and 3 were calculated using the 12th Edition of the ITE Trip Generation Manual while the trip generation in the original master traffic study utilized the 10th Edition (current edition at the time) due to the project being initiated in 2018 and finalized in 2021. The following **Table 1** compares the trip generation of the applicable Planning Area 2 and 3 from the original master traffic impact study to the trip generation for the current proposals of Planning Area 2 and 3 (calculations attached).

Table 1 – Trip Generation Comparison: Original Study vs Current Proposal

Land Use and Size	Weekday Vehicles Trips						
	Daily	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Original Study – ITE 10 th Edition: Pine Canyon Planning Areas 2 & 3							
Single-Family Detached Housing (ITE 210) – 145 Dwelling Units	1,370	26	75	101	85	51	136
Current Proposal – ITE 12 th Edition: Pine Canyon Planning Areas 2 & 3							
Single-Family Detached Housing (ITE 210) – 135 Dwelling Units	1,356	26	70	96	79	48	127
Net Difference in Trips	-14	0	-5	-5	-6	-3	-9

As shown in the table and based on ITE Trip Generation calculations, the Pine Canyon – Planning Areas 2 & 3 development is anticipated to generate approximately 1,356 weekday daily trips, with 96 of these trips occurring during the morning peak hour and 127 of these trips occurring during the afternoon peak hour. The previous traffic study with 145 single-family detached housing dwelling units using ITE 10th Edition equations anticipated these same Planning Areas 2 and 3 to generate 1,370 weekday daily trips, with 101 of these trips occurring during the morning peak hour and 136 of these trips occurring during the afternoon peak hour.

Based on these results, the current proposal is calculated to generate 14 fewer weekday daily trips, with five (5) fewer morning peak hour trips and nine (9) fewer afternoon peak hour trips when compared to what was evaluated for the same development area in the original traffic study. As such, it is believed this current proposal is in traffic compliance with the originally completed traffic study for the overall Pine Canyon area.

¹ Institute of Transportation Engineers, *Trip Generation Manual*, Twelfth Edition, Washington DC, 2025.

UPDATED TRIP DISTRIBUTION AND PROJECT TRAFFIC ASSIGNMENT

With the internal street network configuration modification which will make the northern Pine Canyon access street more used by the public and residents, the project trip distribution and subsequent project traffic assignment was modified. The trip generation of Planning Areas 2 & 3 is approximately seven (7) percent of the zone 2 trip generation (no planning areas other than PA 2 & 3 will utilize Rising Sun Drive/Founders Parkway intersection due to connectivity plan) while it is estimated that 50 percent of Planning Areas 2/3 will utilize Crimson Sky Drive for access (with the remaining 50 percent at Rising Sun Drive). This would equate closer to a 96.5%/3.5% split; however, with the planning areas in the western half of trip distribution Zone 2 from the master development area utilizing other access outlets than Crimson Sky Drive, the trip distribution split was balanced closer to 84% Crimson Sky Drive versus 16% Rising Sun Drive project usage. With a more refined overall planning areas evaluation, the split has been updated to 84%/16% with 4% of Zone 2 areas utilizing Rising Sun Drive and 21% utilizing Crimson Sky Drive. **Figure 1** illustrates the modified project trip distribution for the short-term horizon year of 2030, where all project traffic has been distributed between the Founders Parkway/Crimson Sky Drive (#9) and Founders Parkway/ Rising Sun Drive (#10). **Figures 2 and 3** illustrate the updated project traffic assignment in 2030 and the total traffic volumes, respectively. **Figures 4 and 5** illustrate the updated traffic volume totals to the 2035 and 2050 horizons.

OPERATIONAL ANALYSIS METHODOLOGY

Capacity analysis results are listed in terms of Level of Service (LOS). LOS is a qualitative term describing operating conditions a driver will experience while traveling on a particular street or highway during a specific time interval. It ranges from A (very little delay) to F (long delays and congestion). For intersections and roadways in this study area, standard traffic engineering practice recommends overall intersection LOS D and movement/approach LOS E as the minimum desirable thresholds for acceptable operations. **Table 2** shows the definition of level of service for signalized and unsignalized intersections.

Table 2 – Level of Service Definitions

Level of Service	Signalized Intersection Average Control Delay (sec/veh)	Unsignalized Intersection Average Control 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, Seventh Edition, Transportation Research Board, 2022.

With the intersection of Crimson Sky Drive and Founders Parkway planned for signalization soon, study area intersections were analyzed based on average total delay analysis for signalized intersections. LOS for signalized intersections are defined for each approach and for the overall intersection.

KEY INTERSECTION OPERATIONAL ANALYSIS

Calculations for the operational level of service at the key intersections with the updated trip distribution and traffic assignment are attached. Existing peak hour factors were utilized in the analysis. The signalized intersection analysis utilizes the observed cycle lengths with optimized phasing and timing. Synchro traffic analysis software was used to analyze the signalized key intersections for HCM level of service. Lane geometry is provided by the recommended geometry for both the short-term 2030/2035 and long-term 2050 analyses from the *Pine Canyon Traffic Impact Study*. The recommended geometry was analyzed to ensure that the change in traffic distribution complies with the previously recommended geometry provided in the original report. Applicable pages from the *Pine Canyon Traffic Impact Study* are attached.

Founders Parkway (SH-86) & Crimson Sky Drive (#9)

In the short-term 2030 and 2035 background plus project analyses, the intersection of Founders Parkway (SH-86) & Crimson Sky Drive (#9) is planned to operate with a traffic signal and protected-permissive left-turn phasing with a left turn lane, two through lanes, and one right turn lane on the northbound and southbound approaches. The future eastbound approach is proposed to provide a left turn lane with left turn movements that will operate with permissive only left-turn phasing, one through lane, and a right turn lane. The westbound approach is proposed to be modified to provide a left turn lane with the left turn movements operating with permissive only left turn phasing and a shared through/right turn lane. In the long-term 2050 background plus analysis, the signalized intersection of Founders Parkway (SH-86) & Crimson Sky Drive (#9) is anticipated to be improved to include three through lanes with the outside through lane being a shared through/right turn lane on the northbound and southbound Founders Parkway approaches.

With project traffic, the intersection is anticipated to operate at an acceptable level of service of C or better throughout the 2050 horizon. Therefore, no modifications to the previously recommended intersection control and lane configuration are anticipated to be needed based on the increase in project traffic accessing the intersection and this operational level of service analysis. **Table 3** provides the results of the LOS analysis conducted at this intersection.

Table 3 – Founders Parkway (SH-86) & Crimson Sky Drive LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2030 Background Plus Project #	20.9	C	8.1	A
2035 Background Plus Project #	27.7	C	11.6	B
2050 Background Plus Project ##	25.2	C	16.0	B

= Signal Control and West Leg + NB Left Turn Lane & SB Right Turn Lane + EB to SB Accel Lane;
= # + Three NB & SB Through Lanes

Founders Parkway (SH-86) & Rising Sun Drive (#10)

In the short-term 2030 and 2035 background plus project analyses, the signalized intersection of Founders Parkway (SH-86) & Rising Sun Drive (#10) operates with permissive only left-turn phasing with a left turn lane, two through lanes, and one right turn lane on the northbound/southbound approaches. The eastbound/westbound approaches will provide a left turn lane with left turn movements that operate with permissive only left turn phasing and a shared through/right turn lane. By the long-term 2050 horizon, Founders Parkway (SH-86) is expected to provide three through lanes in each direction through this Rising Sun Drive (#10) intersection. The outside through lane will act as a shared through/right turn lane on the northbound/southbound approaches.

With project traffic, the intersection is anticipated to operate at an acceptable level of service of B or better throughout the 2050 horizon. Therefore, no modifications to the previously recommended intersection control and lane configuration are anticipated to be needed at this intersection based on the updated project traffic volume assigned to this intersection and the operational level of service analysis. **Table 4** provides the LOS analysis results for this intersection.

Table 4 – Founders Parkway (SH-86) & Rising Sun Drive LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2030 Background Plus Project #	15.2	B	11.7	B
2035 Background Plus Project #	11.3	B	8.7	A
2050 Background Plus Project ##	10.7	B	8.6	A

= West Leg plus NB Left Turn Lane & SB Right Turn Lane;

= # + Three NB & SB Through Lanes

Street H & Street G (#24)

In the short-term 2030/2035 and long-term 2050 background plus project analyses, the intersection of Street H and Street G (#24) is planned to operate as a T-intersection with stop control for the northbound approach. The future eastbound approach is proposed to provide a shared through/right turn lane, the westbound approach is proposed to provide a through lane and a left turn lane, and the northbound approach is proposed to include a shared left/right turn lane.

With project traffic, the intersection is anticipated to operate at an acceptable level of service of A throughout the 2050 horizon. Therefore, no modifications to the previously recommended intersection control and lane configuration are anticipated to be needed based on the increase in project traffic accessing the intersection and this operational level of service analysis. **Table 5** provides the results of the LOS analysis conducted at this intersection.

Table 5 – Street H & Street G LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2030 Background Plus Project				
Northbound Approach	8.4	A	8.4	A
Westbound Left	7.2	A	7.3	A
2035 Background Plus Project				
Northbound Approach	9.3	A	9.1	A
Westbound Left	7.5	A	7.4	A
2050 Background Plus Project				
Northbound Approach	9.4	A	9.1	A
Westbound Left	7.5	A	7.4	A

Therefore, the lane geometry that is recommended for both the short-term 2030, 2035, and long-term 2050 analyses from the *Pine Canyon Traffic Impact Study* adequately accommodate the change in traffic distribution.

CDOT AUXILIARY TURN LANE WARRANT & LENGTH EVALUATION

The threshold for requiring an access permit along CDOT roadways occurs when a new access is proposed or if project traffic is anticipated to increase an existing access's traffic volumes by more than 20 percent. Based on proposed new west legs at the existing intersections of Founders Parkway/Crimson Sky Drive and Founders Parkway/Rising Sun Drive, CDOT access permits will be required for these new accesses in association with this project. In the *Pine Canyon Traffic Impact Study*, CDOT access permits have been provided for both intersections in association with this project.

Auxiliary turn lanes along CDOT controlled highways are to be implemented based on volume threshold requirements set forth in the State Highway Access Code. Further, turn lane lengths should be designed based on the State Highway Access Code. SH-86 (Founders Parkway) is categorized as an R-A: Regional Highway with a speed limit of 50 miles per hour adjacent to the site. According to the State Highway Access Code for roadway category of Regional Highway (R-A) roadways, the turn lane warrants are as follows:

- A left turn deceleration lane and taper with storage length is required for any access with a projected peak hour ingress turning volume greater than 10 vehicles per hour (vph). The taper length will be included within the required deceleration length.
- A right turn deceleration lane and taper is required for any access with a projected peak hour ingress turning volume greater than 25 vph. The taper length will be included within the required deceleration length.
- Right turn acceleration lane and taper is required for any access with a projected peak hour right turning volume greater than 50 vph when the posted speed on the highway is greater than 40 mph. The taper length will be included within the required acceleration length.

Based on the traffic volume projections, turn lane requirements at the existing project access intersections along Founders Parkway (SH-86) are as follows:

Founders Parkway (SH-86) & Crimson Sky Drive (#9)

- A northbound left turn deceleration lane is warranted based on projected 2050 background plus project traffic being 110 northbound left turns during the peak hour and the threshold being 10 vph. Since Founders Parkway has a category of R-A, the left turn lane requirement is storage length plus deceleration length, with taper length included within the required deceleration length. The required storage length is one (1) foot per vehicle. Founders Parkway should be reconstructed to include a northbound left-turn lane in place of the existing median. Based on a speed limit of 50 mph and a projected 110 vehicles in the peak hour, the required total northbound left turn lane length is 430 feet (110 feet of storage + 320 feet deceleration) plus a 180-foot taper length (15 to 1 ratio). This ultimate turn lane length will also accommodate the Phase 1 Planning Areas 2 & 3 traffic volumes when access is only provided to the Crimson Sky Drive/Founders Parkway and Rising Sun Drive/Founders Parkway intersections.
- A southbound right turn deceleration lane is warranted based on projected 2050 background plus project traffic being 170 southbound right turns during the peak hour and the threshold being 25 vph. Since Founders Parkway has a category of R-A, the right turn lane requirement is deceleration length with taper length included within the required deceleration length. Based on a speed limit of 50 mph, the required southbound right turn deceleration length is 500 feet (a 320-foot deceleration length plus a 180-foot taper length, at a 15 to 1 ratio). This ultimate turn lane length will also accommodate the Phase 1 Planning Areas 2 & 3 traffic

- volumes when access is only provided to the Crimson Sky Drive/Founders Parkway and Rising Sun Drive/Founders Parkway intersections.
- An acceleration lane from the eastbound to southbound right turn is warranted based on projected 2050 background plus project traffic being 90 eastbound right turns during the peak hour and the threshold being 50 vph. Based on a speed limit of 50, the required total right turn acceleration lane length is 580 feet plus a 180-foot taper (760 feet of total length).

Founders Parkway (SH-86) & Rising Sun Drive (#10)

- A northbound left turn deceleration lane is warranted based on projected 2050 background plus project traffic being 15 northbound left turns during the peak hour and the threshold being 10 vph. Since Founders Parkway has a category of R-A, the left turn lane requirement is storage length plus deceleration length, with taper length included within the required deceleration length. The required storage length is one (1) foot per vehicle. Based on a speed limit of 50 mph and a projected 15 vehicles in the peak hour, the required total northbound left turn lane length is 345 feet (25 feet of storage + 320 feet deceleration) plus a 180-foot taper length (15 to 1 ratio). This ultimate turn lane length will also accommodate the Phase 1 Planning Areas 2 & 3 traffic volumes when access is only provided to the Crimson Sky Drive/Founders Parkway and Rising Sun Drive/Founders Parkway intersections.
- A southbound right turn deceleration lane is not warranted based on projected 2050 background plus project traffic being 15 southbound right turns during the peak hour and the threshold being 25 vph. In the original *Pine Canyon Traffic Impact Study*, it is recommended that a southbound right turn lane be provided with a 320-foot deceleration lane with a 180-foot taper. Even though the right turn lane is not warranted, it is recommended to be constructed with the project to accommodate the future widening of Founders Parkway to three through lanes and due to the high through volume along southbound Founders Parkway today.
- A southbound acceleration lane from the eastbound right turn to southbound through is not warranted based on projected 2050 background plus project traffic being 15 eastbound right turns during the peak hour and the threshold being 50 vph.

VEHICLE QUEUING ANALYSIS

A vehicle queuing analysis was conducted for the study area intersections. The queuing analysis was performed using Synchro presenting the results of the 95th percentile queue lengths. Results are shown in the following **Table 6** with calculations provided within the level of service operational sheets for signalized intersections are attached. The proposed turn lane lengths are provided by the recommended geometry for both the short-term 2030/2035 and long-term 2050 analysis from the *Pine Canyon Traffic Impact Study*. The recommended geometry was analyzed to ensure that the change in traffic distribution complies with the previously recommended geometry provided in the original report.

Table 6 – Turn Lane Queuing Analysis Results

Intersection Turn Lane	2030 Calc. Queue (AM/PM)	2030 Rec Length	2035 Calc. Queue (AM/PM)	2035 Rec Length	2050 Calc. Queue (AM/PM)	2050 Rec Length
SH-86 & Crimson Dr (#9)						
Eastbound Left	53'/42'	C	145'/72'	225'	211'/163'	225'
Eastbound Right	25'/25'	100'	25'/25'	150'	25'/25'	150'
Westbound Left	25'/25'	275'	25'/26'	275'	25'/25'	275'
Northbound Left	25'/25'	430'	25'/25'	430'	28'/66'	430'
Northbound Right	25'/25'	425'	25'/25'	425'	Absorb	Absorb
Southbound Left	26'/52'	525'	33'/97'	525'	30'/184'	525'
Southbound Right	25'/25'	320'	25'/25'	320'	Absorb	Absorb
SH-86 & Rising Sun Dr (#10)						
Eastbound Left	33'/28'	100'	28'/25'	150'	30'/25'	150'
Westbound Left	117'/116'	C	118'/116'	C	122'/118'	C
Northbound Left	25'/25'	345'	25'/25'	345'	25'/25'	345'
Northbound Right	25'/25'	475'	25'/25'	475'	Absorb	Absorb
Southbound Left	41'/43'	525'	57'/53'	525'	95'/182'	525'
Southbound Right	25'/25'	320'	25'/25'	320'	Absorb	Absorb
H Street & G Street (#24)						
Northbound Approach	25'/25'	C	25'/25'	C	25'/25'	C
Westbound Left	25'/25'	100'	25'/25'	100'	25'/25'	100'

C = Continuous Lane; **Blue** Text = Recommendation, Absorb = changed to be shared through/right turn lane due to incorporation of three through lanes in each direction

The vehicle queues are anticipated to remain within the existing or recommended turn lane lengths throughout the 2050 horizon.

SITE ACCESS AND IMPROVEMENTS

As part of the project, the west leg of the existing Rising Sun Drive and Founders Parkway (SH-86) intersection will be constructed and provide direct access to the currently proposed Planning Area 3. The extension of Rising Sun Drive to the west of Founders Parkway will bisect Planning Area 3. Likewise, the west leg of the existing Crimson Sky Drive and Founders Parkway (SH-86) intersection will be constructed as part of the project and provide additional access to both Planning Areas 2 and 3. The intersection of Rising Sun Drive and Founders Parkway (SH-86) is currently signalized. It is understood that the Town of Castle Rock plans to install a traffic signal at the intersection of Crimson Sky Drive and Founders Parkway (SH-86) soon. With the proposal, the new west leg of the Rising Sun Drive and Founders Parkway (SH-86) intersection will provide access only to PA-2 and PA-3. Whereas the original master plan included access to PA-4 and PA-5; therefore, the improvements outlined below have been modified to account for the change in internal roadway network and consistent with the recently updated MTIS.

With access being provided to the west leg of the Crimson Sky Drive and Founders Parkway (SH-86) as part of this application, the following improvements to the intersection will be:

- A three-lane eastbound approach consisting of one 225-foot eastbound left turn lane, one through lane, and a 150-foot right turn lane,
- A 430-foot northbound left turn lane plus an 180-foot taper,
- A 320-foot southbound right turn lane plus an 180-foot taper, and

- A southbound acceleration lane extending from eastbound right turn movements consisting of 580 feet of lane length plus an 180-foot taper.

With direct access being provided to the west leg of the Rising Sun Drive and Founders Parkway (SH-86) as part of Pine Canyon Planning Areas 2 and 3, the following improvements to the intersection will be necessary consistent with the updated master traffic study:

- A two-lane eastbound approach consisting of a 150-foot left turn and shared through/right turn lane,
- A 345-foot northbound left turn lane plus an 180-foot taper, and
- A 320-foot southbound right turn lane plus an 180-foot taper.

Based on the results of the intersection operational and vehicle queuing analysis, the key intersection recommended improvements and control are attached as shown in **Figures 6 and 7**.

FOUNDERS PARKWAY PHASE 1 2030 OPERATIONAL ANALYSIS

The master traffic impact study for the overall Pine Canyon development was recently updated in October 2026. To account for the development traffic impacts of only Planning Areas 2 & 3 (the first planned development areas), a 2030 Phase 1 intersectional operational analysis has been provided for Founders Parkway corridor as requested by the Town of Castle Rock. This includes development of Planning Areas 2 & 3 and other programmed traffic growth in the area consistent with the 1.56 percent annual traffic growth rate utilized for the short-term horizon in the updated Pine Canyon master traffic study.

The 2035 full buildout improvements from the updated *Pine Canyon Master Traffic Impact Study* from October 2026 are identified below with a summary of Planning Area 2 & 3 traffic contributions for these improvements.

Meadows Parkway & Santa Fe Drive (#1)

- Extend northbound right turn lane from 200 feet to 425 feet of length
 - With only Planning Area 2 & 3 only providing access at Crimson Sky Drive as well as Rising Sun Drive in the interim Phase 1 conditions, project traffic is not anticipated to contribute to this movement in the 2030 horizon.

Founders Parkway & I-25 Southbound Ramps (#3)

- Extend outside southbound right turn lane from 175 feet to 625 feet of length (matching length of inside right turn lane)
 - Project traffic is not anticipated to contribute to this movement in the 2030 horizon.

Founders Parkway & Woodlands Boulevard (#7)

- Extend southbound left turn lane from 150 feet to 300 feet of length
 - Project traffic is not anticipated to contribute to this movement in the 2030 horizon.

Founders Parkway & Crimson Sky Drive (#9)

- Improvements identified above and installed by the applicant with exception of the traffic signal planned for installation soon by others.

Founders Parkway & Rising Sun Drive (#10)

- Improvements identified above and installed by the applicant

Table 7 illustrates the level of service results for the study area key intersections along the Founders Parkway corridor (intersections #1 - #11 as studied in the MTIS) in the 2030 Phase 1 horizon evaluated under existing lane configurations and control.

Table 7 – 2030 Founders Parkway LOS Results

Intersection	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
Meadows Pkwy & Santa Fe Dr (#1)	30.7	C	43.7	D
Meadows Pkwy & Factory Shops Blvd (#2)	17.1	B	31.9	C
Meadows Pkwy & 1-25 SB Ramps (#3)	14.5	B	17.6	B
Founders Pkwy & 1-25 NB Ramps (#4)	10.4	B	9.8	A
Founders Pkwy & Allen Way (#5)	24.7	C	23.2	C
Founders Pkwy & Front Street (#6)	19.2	B	25.5	C
Founders Pkwy & Woodlands Blvd (#7)	16.0	B	27.6	C
Founders Pkwy & Crowfoot Valley Rd (#8)	21.7	C	23.3	C
Crimson Sky Drive & Founders Pkwy (#9)	20.9	C	8.1	A
Rising Sun Drive & Founders Pkwy (#10)	15.2	B	11.7	B
Fifth St & Founders Pkwy (#11)	40.3	D	40.4	D

With the existing intersections along the Founders Parkway corridor expected to operate acceptably with Planning 2 & 3 development traffic under existing configurations and control, the recommended improvements at the Crimson Sky Drive/Founders Parkway (#9) and Rising Sun Drive/Founders Parkway (#10) intersections are the only Planning Area 2 & 3 project related improvements along the Founders Parkway corridor.

CONCLUSIONS

Based on the traffic analysis presented in this report, Kimley-Horn and Associates, Inc. believes that Pine Canyon – Planning Areas 2 & 3 is in traffic compliance with the originally completed master traffic impact study and that the project will be successfully incorporated into the existing and future roadway network. The following outlines the conclusions from our traffic evaluation:

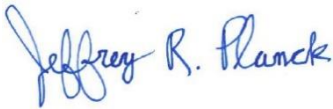
- The Pine Canyon Planning Areas 2 & 3 site is proposed to include 135 Single-Family Detached Housing dwelling units. This site would be expected to generate 1,356 weekday daily trips, with 96 of these trips occurring during the morning peak hour and 127 of these trips occurring during the afternoon peak hour.
- The current proposal would be expected to generate approximately 14 fewer weekday daily trips, with five (5) fewer morning peak hour trips, and nine (9) fewer afternoon peak hour trips than the use evaluated in the original master traffic study for the same development Planning Areas 2 and 3.

- With Planning Areas 2 & 3 initiating the west legs at both the intersections of Crimson Sky Drive/Founder Parkway and Rising Sun Drive/Founders Parkway, the improvements identified as summarized in this traffic letter should be implemented at these two intersections. It is understood that the Town of Castle Rock plans to install a traffic signal at the intersection of Crimson Sky Drive and Founders Parkway (SH-86) soon.

If you have any questions or require anything further, please feel free to call me.

Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.



Jeffrey R. Planck, P.E.
Associate – Traffic Project Manager



Figures

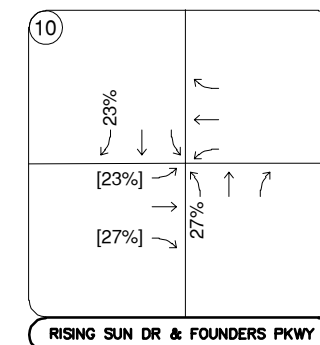
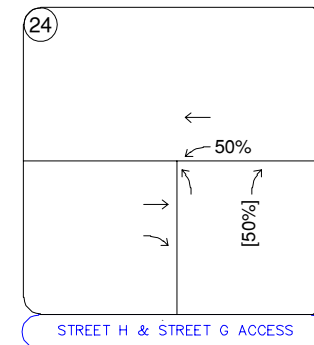
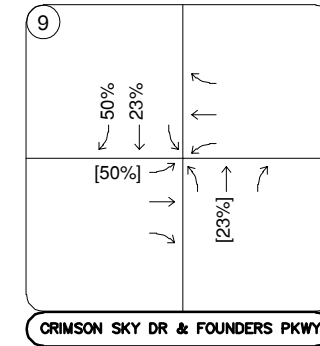
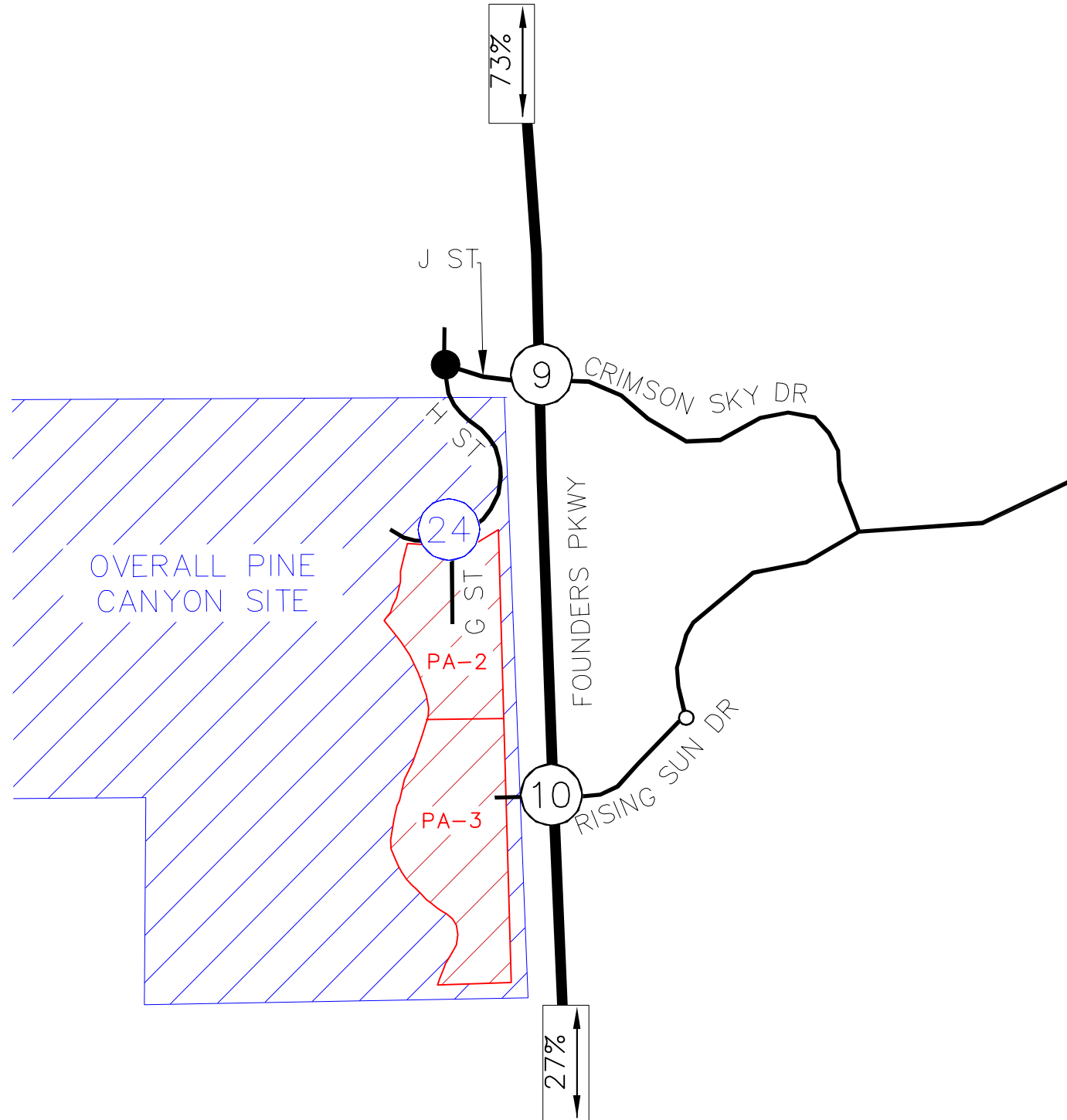
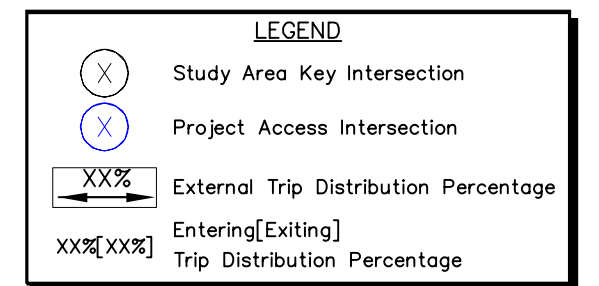


FIGURE 1
Pine Canyon PA 2 & 3
Castle Rock, Colorado
2030 Project Trip Distribution (Planning Areas 2 & 3)



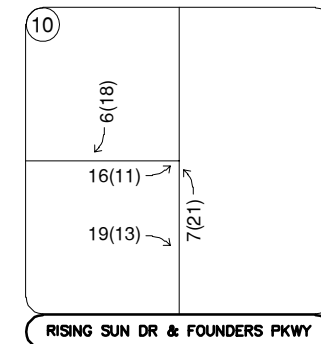
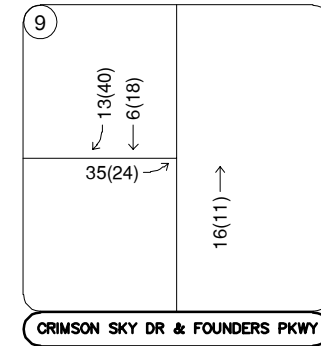
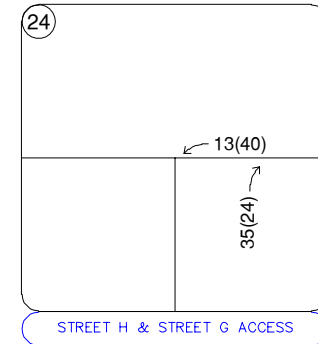
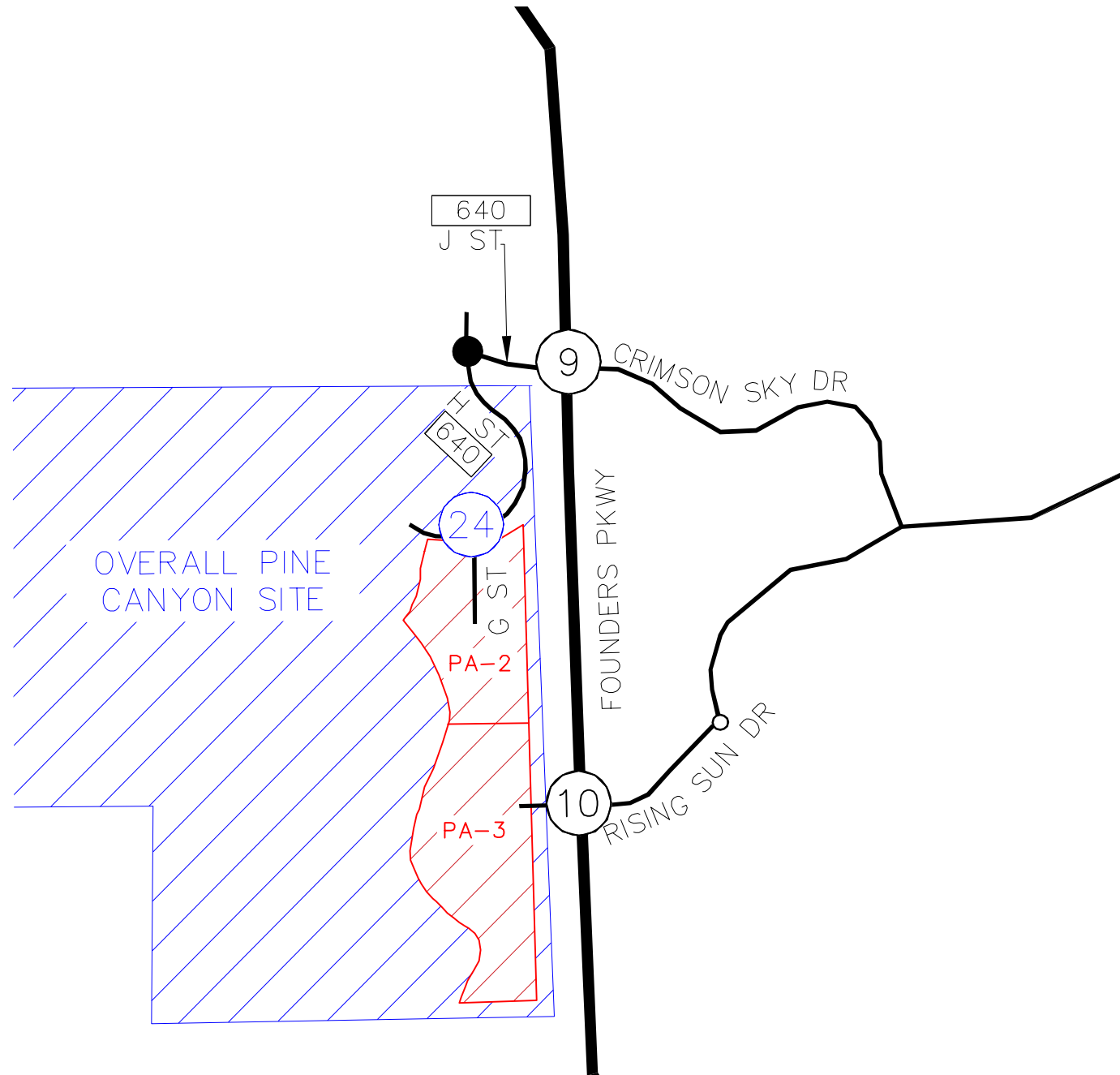


FIGURE 2
Pine Canyon PA 2 & 3
Castle Rock, Colorado
2030 Project Traffic Assignment (Planning Area 2 & 3)

LEGEND	
	Study Area Key Intersection
	Project Access Intersection
xxx(XXX)	Weekday AM(PM) Peak Hour Traffic Volumes
xx,x00	Estimated Daily Traffic Volume

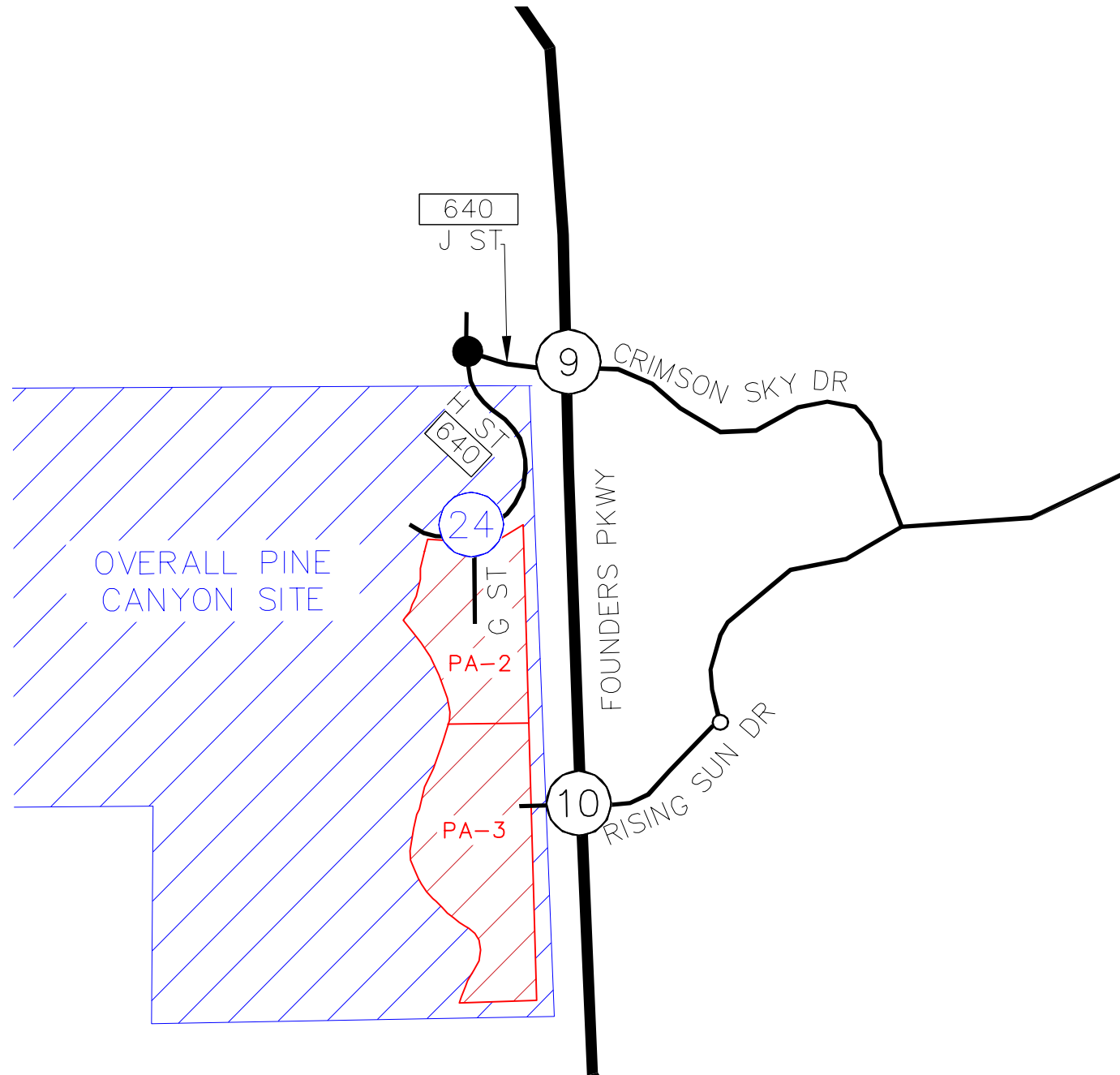


FIGURE 3
Pine Canyon PA 2 & 3
Castle Rock, Colorado
2030 Total Traffic Volumes (Planning Areas 2 & 3)

LEGEND	
	Study Area Key Intersection
	Project Access Intersection
xxx(XXX)	Weekday AM(PM) Peak Hour Traffic Volumes
xx,X00	Estimated Daily Traffic Volume

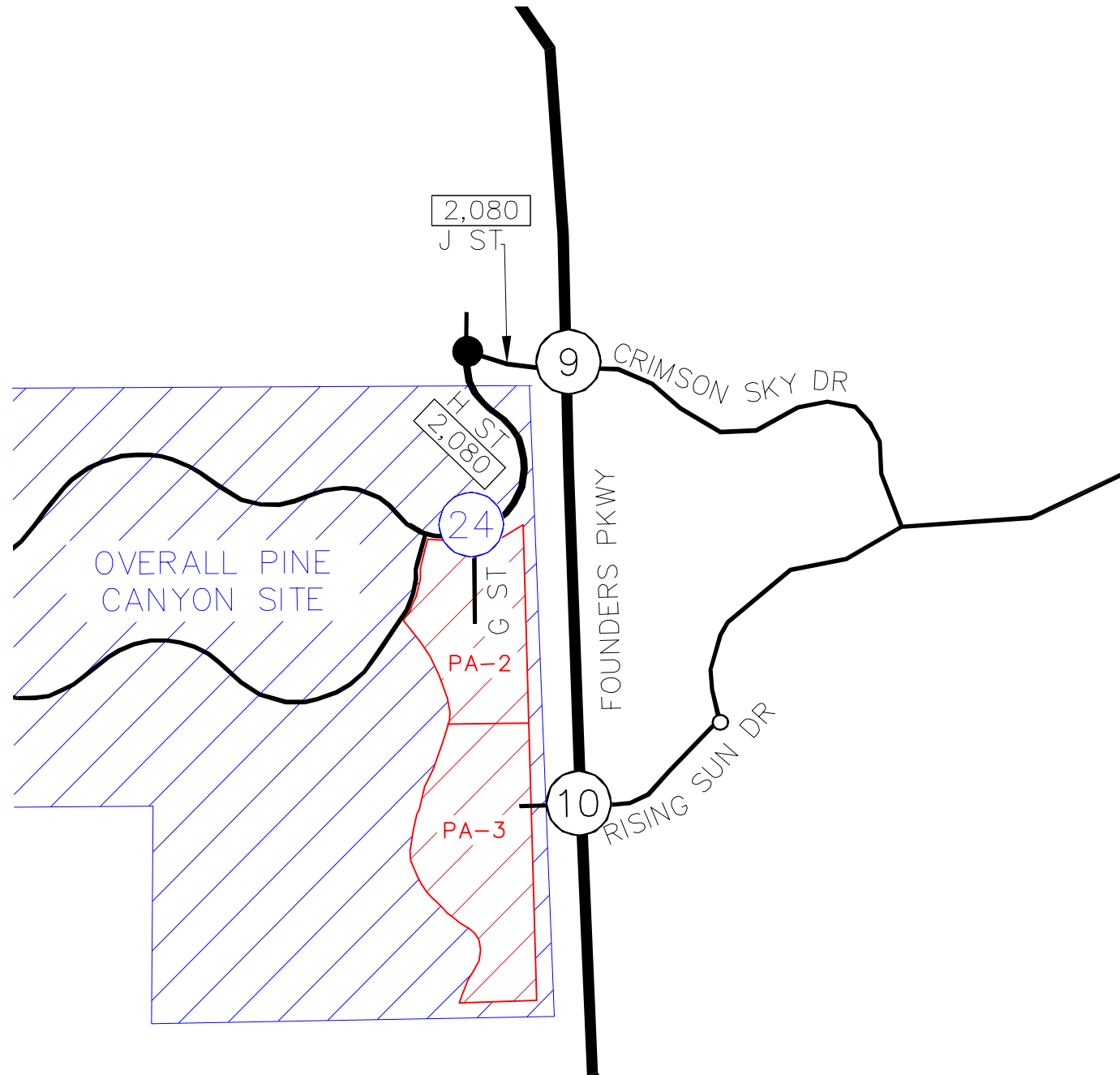
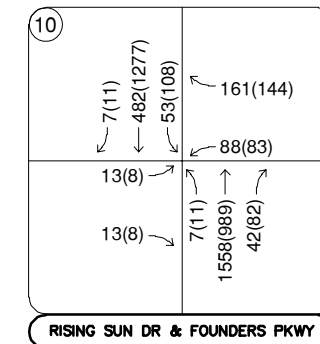
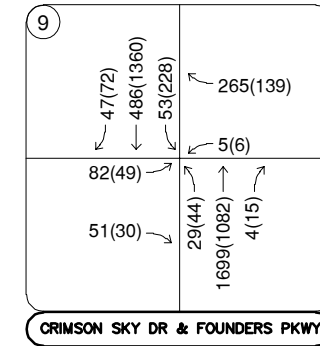
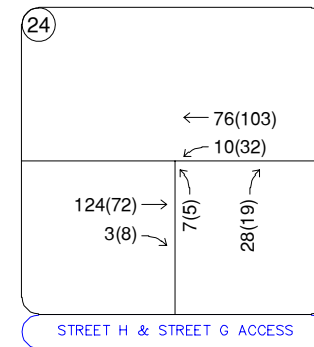


FIGURE 4
Pine Canyon PA 2 & 3
Castle Rock, Colorado
2035 Total Traffic Volumes



LEGEND

(X)	Study Area Key Intersection
(X)	Project Access Intersection
xxx(XXX)	Weekday AM(PM) Peak Hour Traffic Volumes
xx,x00	Estimated Daily Traffic Volume

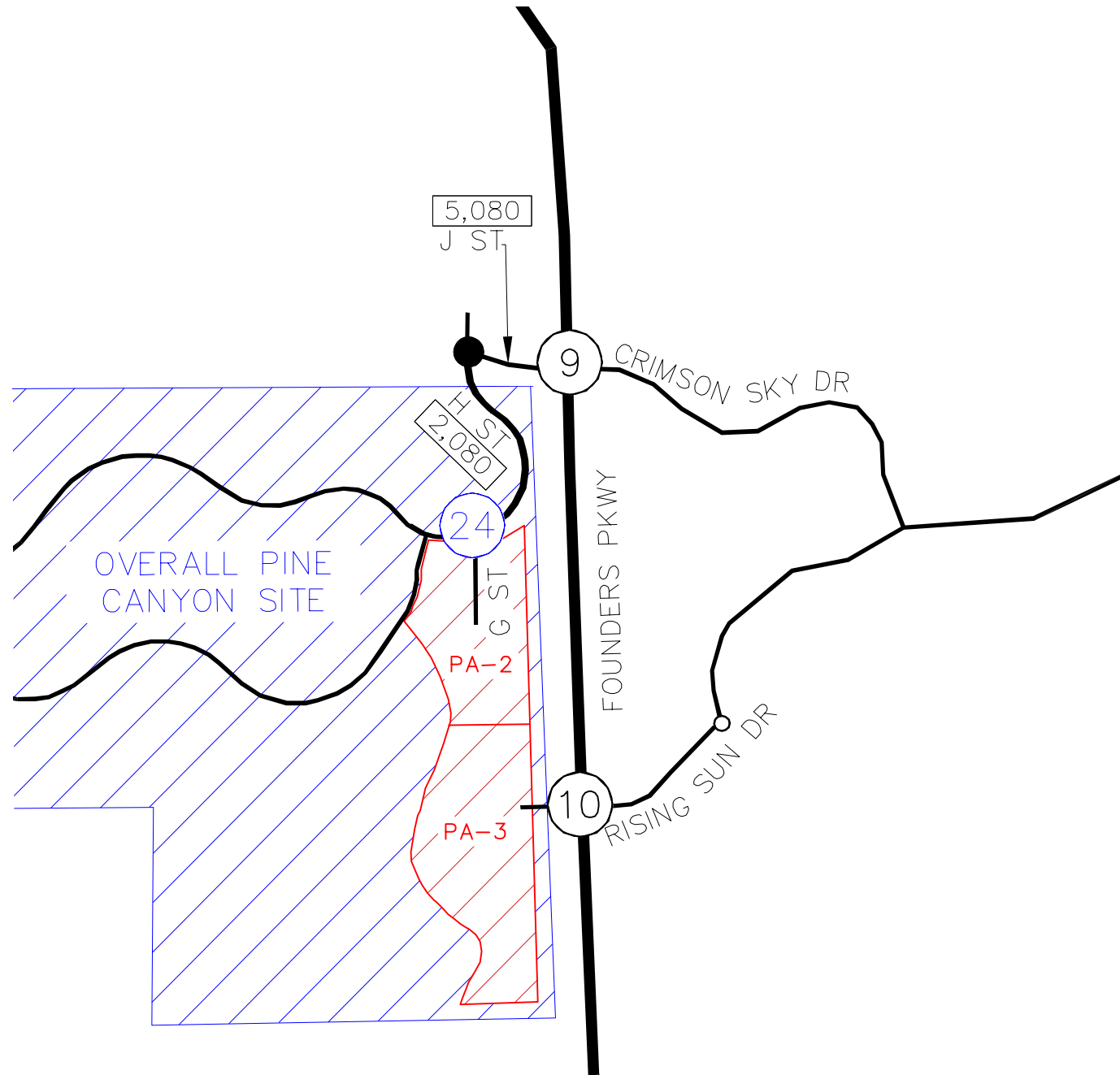
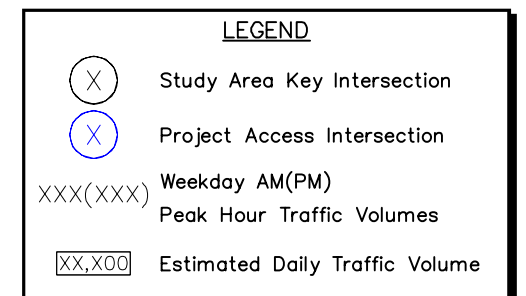
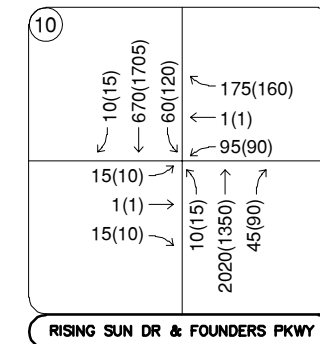
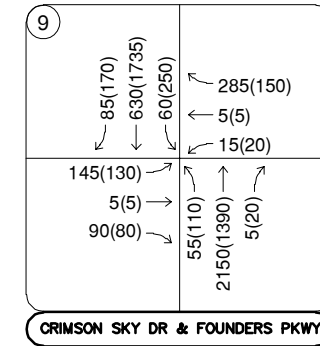
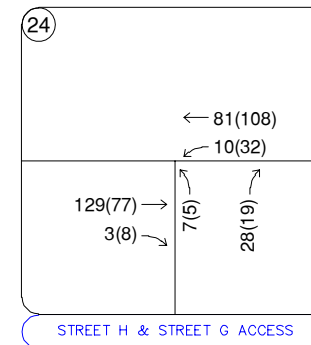


FIGURE 5
Pine Canyon PA 2 & 3
Castle Rock, Colorado
2050 Total Traffic Volumes



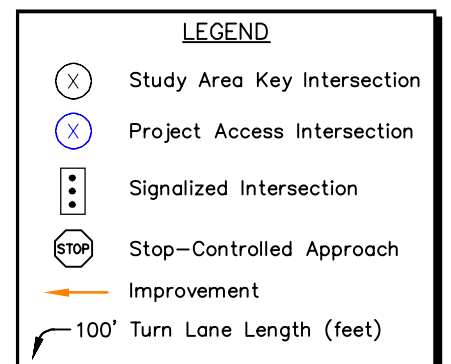
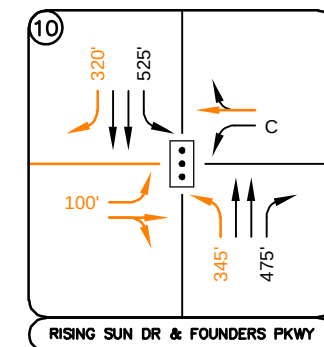
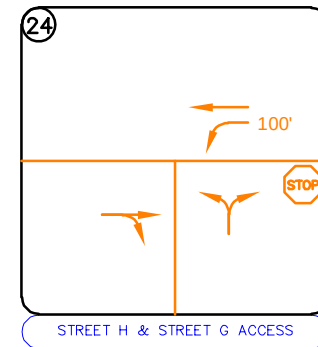
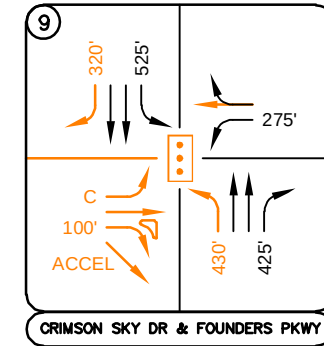
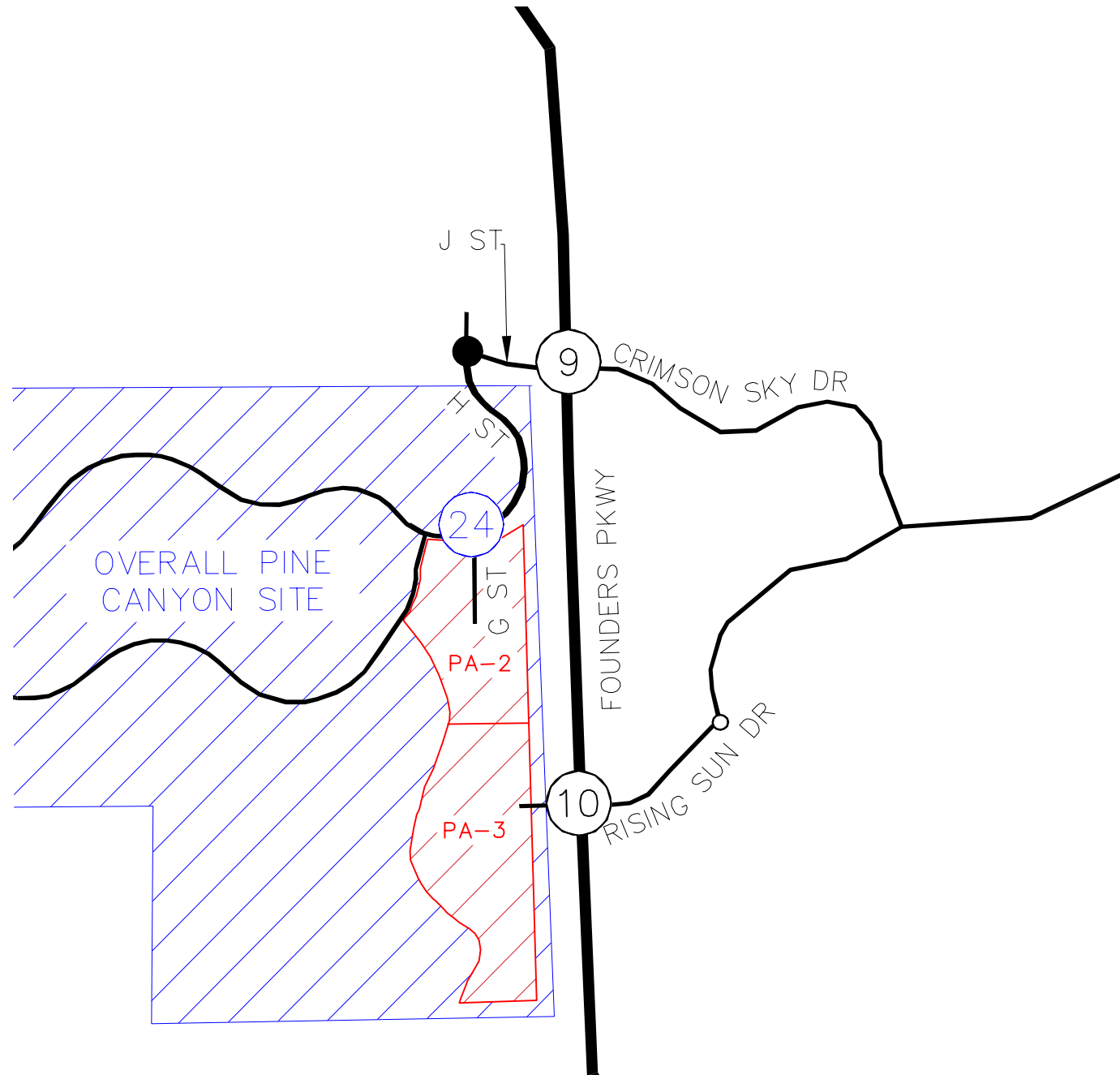


FIGURE 6
Pine Canyon PA 2 & 3
Castle Rock, Colorado
2030 & 2035 Recommended Geometry and Control

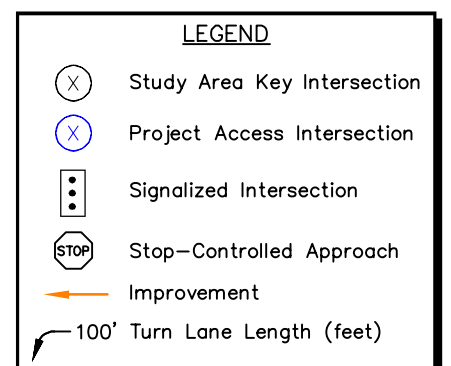
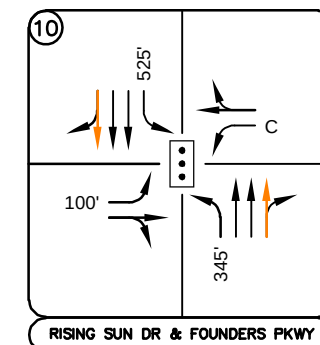
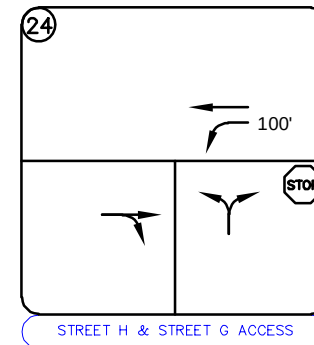
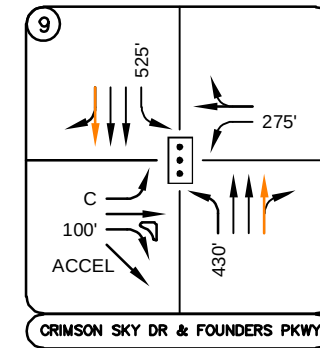
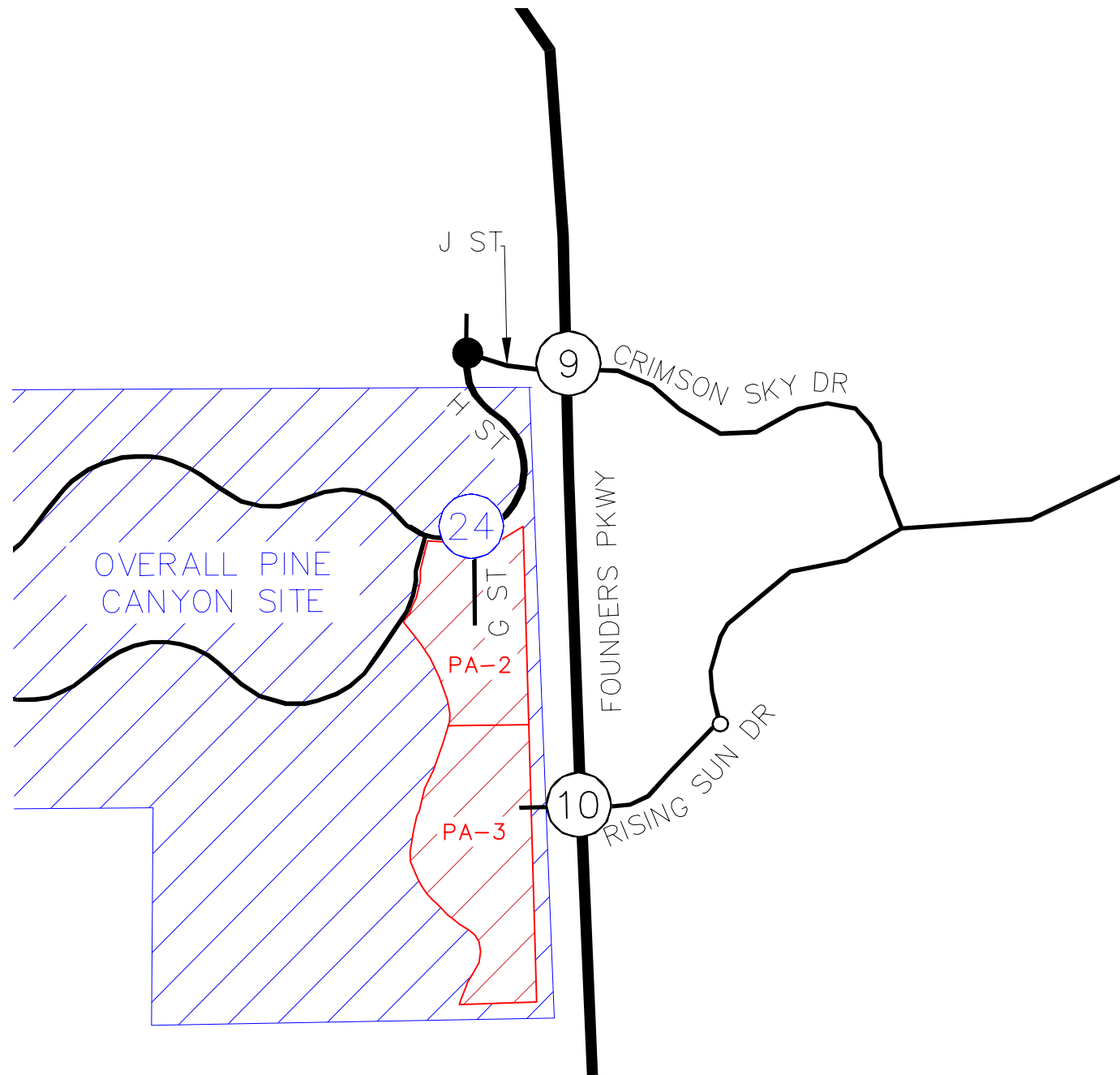


FIGURE 7
Pine Canyon PA 2 & 3
Castle Rock, Colorado
2050 Recommended Geometry and Control

Conceptual Site Plan

PA-2
PA-2
MINIMUM LOT SIZE
60' X 120'
(48 Homes)

PA-3
PA-3
MINIMUM LOT SIZE
50' X 110'
(85 Homes)

CRIMSON SKY DR

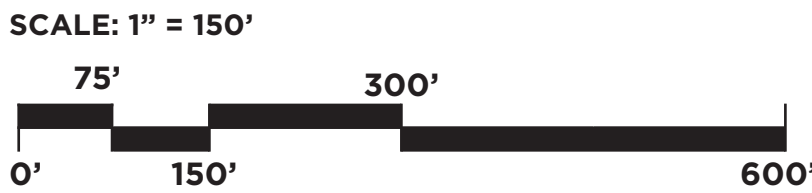
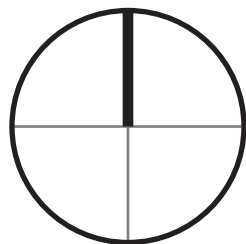
RISING SUN DR

FOUNDERS PKWY

150' BUFFER
FROM
EXISTING ROW

Trailhead
Park

Emergency
Access



Traffic Counts

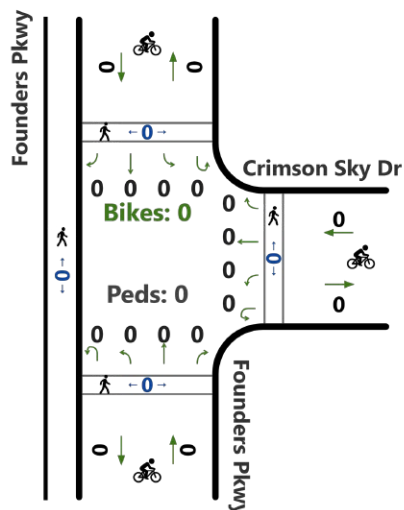
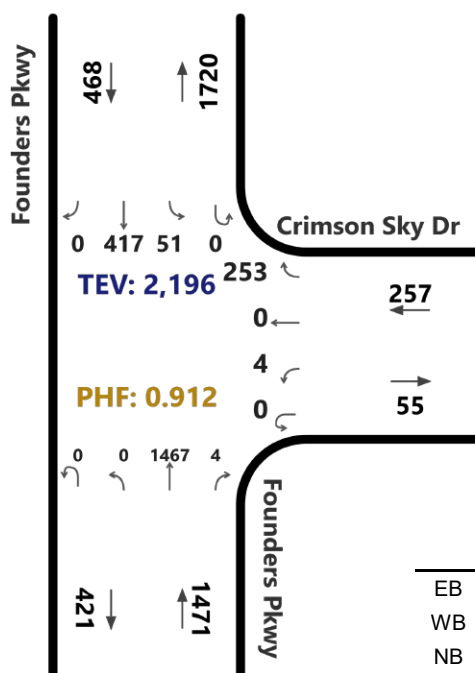


Founders Pkwy & Crimson Sky Dr

Date: 08/19/2026

Count Period: 7:00 AM to 9:00 AM

Peak Hour: 7:00 AM to 8:00 AM



	HV%	PHF
EB	--	--
WB	0%	0.89
NB	1%	0.84
SB	3%	0.80
TOTAL	1%	0.91

Peak Hour Count Summaries

Peak Hour Interval Start		n/a				Crimson Sky Dr				Founders Pkwy				Founders Pkwy				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	0	0	1	0	69	0	0	416	2	0	5	91	0	584	0
7:15 AM		0	0	0	0	0	1	0	71	0	0	440	0	0	8	82	0	602	0
7:30 AM		0	0	0	0	0	1	0	51	0	0	325	1	0	20	116	0	514	0
7:45 AM		0	0	0	0	0	1	0	62	0	0	286	1	0	18	128	0	496	2,196
Pk Hr	All	0	0	0	0	0	4	0	253	0	0	1,467	4	0	51	417	0	2,196	
	HV	0	0	0	0	0	0	0	0	0	0	14	0	0	1	12	0	27	
	HV%	-	-	-	-	-	0%	-	0%	-	-	1%	0%	-	2%	3%	-	1%	

Note: For complete count summary (all intervals), see following pages.

** Heavy Vehicle Classifications include FHWA Classes 4-13.

** Count Summaries include heavy vehicles, but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:00 AM	0	0	2	3	5	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	3	4	7	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	4	3	7	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	5	3	8	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	14	13	27	0	0	0	0	0	0	0	0	0	0

Count Summaries - All Vehicles

Interval Start		n/a				Crimson Sky Dr				Founders Pkwy				Founders Pkwy				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	0	0	1	0	69	0	0	416	2	0	5	91	0	584	0
7:15 AM		0	0	0	0	0	1	0	71	0	0	440	0	0	8	82	0	602	0
7:30 AM		0	0	0	0	0	1	0	51	0	0	325	1	0	20	116	0	514	0
7:45 AM		0	0	0	0	0	1	0	62	0	0	286	1	0	18	128	0	496	2,196
8:00 AM		0	0	0	0	0	1	0	34	0	0	299	5	0	15	113	0	467	2,079
8:15 AM		0	0	0	0	0	2	0	44	0	0	294	0	0	18	119	0	477	1,954
8:30 AM		0	0	0	0	0	0	0	36	0	0	242	0	0	19	167	0	464	1,904
8:45 AM		0	0	0	0	0	1	0	31	0	0	277	2	0	20	184	0	515	1,923
Count Total		0	0	0	0	0	8	0	398	0	0	2,579	11	0	123	1,000	0	4,119	
Pk Hr	All	0	0	0	0	0	4	0	253	0	0	1,467	4	0	51	417	0	2,196	
	HV	0	0	0	0	0	0	0	0	0	0	14	0	0	1	12	0	27	
	HV%	-	-	-	-	-	0%	-	0%	-	-	1%	0%	-	2%	3%	-	1%	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:00 AM	0	0	2	3	5	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	3	4	7	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	4	3	7	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	5	3	8	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	2	1	3	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	6	8	14	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	8	5	13	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	4	6	10	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	34	33	67	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	14	13	27	0	0	0	0	0	0	0	0	0	0

Count Summaries - Heavy Vehicles

Interval Start	n/a				Crimson Sky Dr				Founders Pkwy				Founders Pkwy				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0	5	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	1	3	0	7	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	3	0	7	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	3	0	8	27
8:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3	25
8:15 AM	0	0	0	0	0	0	0	0	0	0	6	0	0	1	7	0	14	32
8:30 AM	0	0	0	0	0	0	0	0	0	0	8	0	0	1	4	0	13	38
8:45 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	1	5	0	10	40
Count Total	0	0	0	0	0	0	0	0	0	0	34	0	0	4	29	0	67	
Pk Hr Heavy	0	0	0	0	0	0	0	0	0	0	14	0	0	1	12	0	27	

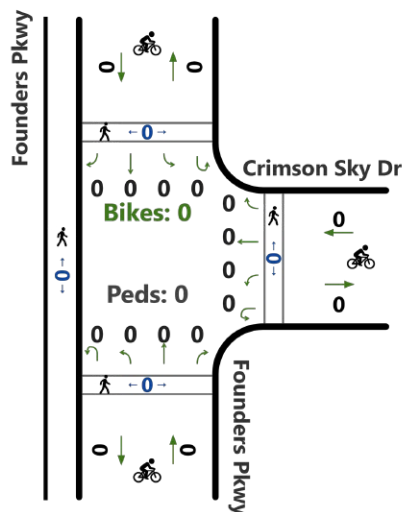
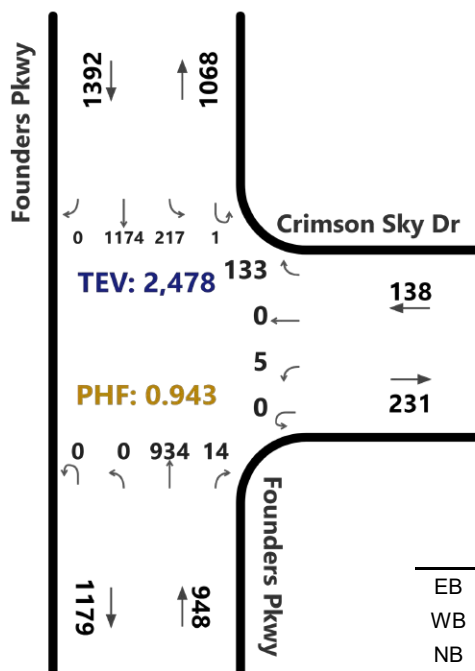
Count Summaries - Bikes

Interval Start	n/a				Crimson Sky Dr				Founders Pkwy				Founders Pkwy				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Pk Hr Bike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		



Founders Pkwy & Crimson Sky Dr

Date: 08/19/2026
 Count Period: 4:00 PM to 6:00 PM
 Peak Hour: 4:00 PM to 5:00 PM



	HV%	PHF
EB	--	--
WB	4%	0.86
NB	2%	0.89
SB	1%	0.97
TOTAL	1%	0.94

Peak Hour Count Summaries

Peak Hour Interval Start		n/a				Crimson Sky Dr				Founders Pkwy				Founders Pkwy				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	0	0	0	0	0	39	0	0	248	6	0	56	301	0	650	0
4:15 PM		0	0	0	0	0	1	0	39	0	0	263	4	0	52	298	0	657	0
4:30 PM		0	0	0	0	0	3	0	26	0	0	232	1	0	54	289	0	605	0
4:45 PM		0	0	0	0	0	1	0	29	0	0	191	3	1	55	286	0	566	2,478
Pk Hr	All	0	0	0	0	0	5	0	133	0	0	934	14	1	217	1,174	0	2,478	
	HV	0	0	0	0	0	0	0	5	0	0	15	0	1	3	10	0	34	
	HV%	-	-	-	-	-	0%	-	4%	-	-	2%	0%	100%	1%	1%	-	1%	

Note: For complete count summary (all intervals), see following pages.

** Heavy Vehicle Classifications include FHWA Classes 4-13.

** Count Summaries include heavy vehicles, but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	0	1	6	3	10	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	5	2	7	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	2	4	2	8	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	2	0	7	9	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	5	15	14	34	0	0	0	0	0	0	0	0	0	0

Count Summaries - All Vehicles

Interval Start		n/a				Crimson Sky Dr				Founders Pkwy				Founders Pkwy				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	0	0	0	0	0	39	0	0	248	6	0	56	301	0	650	0
4:15 PM		0	0	0	0	0	1	0	39	0	0	263	4	0	52	298	0	657	0
4:30 PM		0	0	0	0	0	3	0	26	0	0	232	1	0	54	289	0	605	0
4:45 PM		0	0	0	0	0	1	0	29	0	0	191	3	1	55	286	0	566	2,478
5:00 PM		0	0	0	0	0	1	0	31	0	0	187	3	0	54	306	0	582	2,410
5:15 PM		0	0	0	0	0	2	0	30	0	0	197	2	0	49	304	0	584	2,337
5:30 PM		0	0	0	0	0	0	0	25	0	0	161	6	0	52	271	0	515	2,247
5:45 PM		0	0	0	0	0	0	0	22	0	0	164	2	0	43	300	0	531	2,212
Count Total		0	0	0	0	0	8	0	241	0	0	1,643	27	1	415	2,355	0	4,690	
Pk Hr	All	0	0	0	0	0	5	0	133	0	0	934	14	1	217	1,174	0	2,478	
	HV	0	0	0	0	0	0	0	5	0	0	15	0	1	3	10	0	34	
	HV%	-	-	-	-	-	0%	-	4%	-	-	2%	0%	100%	1%	1%	-	1%	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	0	1	6	3	10	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	5	2	7	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	2	4	2	8	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	2	0	7	9	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	1	0	1	2	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	2	1	3	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	1	0	2	3	0	0	0	0	0	0	0	0	0	0
Count Total	0	7	17	18	42	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	5	15	14	34	0	0	0	0	0	0	0	0	0	0

Count Summaries - Heavy Vehicles

Interval Start	n/a				Crimson Sky Dr				Founders Pkwy				Founders Pkwy				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	1	0	0	6	0	0	0	3	0	10	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	2	0	7	0
4:30 PM	0	0	0	0	0	0	0	2	0	0	4	0	0	0	2	0	8	0
4:45 PM	0	0	0	0	0	0	0	2	0	0	0	0	1	3	3	0	9	34
5:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	2	26
5:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3	22
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	0	3	8
Count Total	0	0	0	0	0	0	0	7	0	0	17	0	1	3	14	0	42	
Pk Hr Heavy	0	0	0	0	0	0	0	5	0	0	15	0	1	3	10	0	34	

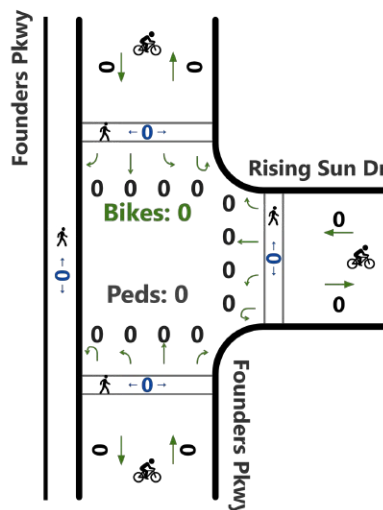
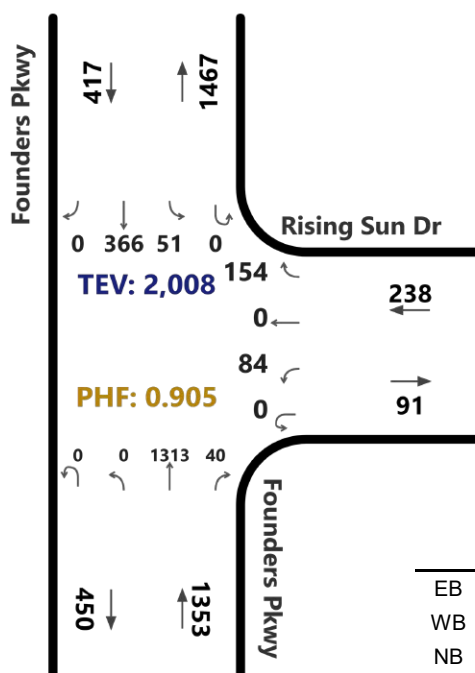
Count Summaries - Bikes

Interval Start	n/a				Crimson Sky Dr				Founders Pkwy				Founders Pkwy				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Pk Hr Bike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		



Founders Pkwy & Rising Sun Dr

Date: 08/19/2026
 Count Period: 7:00 AM to 9:00 AM
 Peak Hour: 7:00 AM to 8:00 AM



	HV%	PHF
EB	--	--
WB	1%	0.79
NB	1%	0.83
SB	3%	0.85
TOTAL	1%	0.90

Peak Hour Count Summaries

Peak Hour Interval Start		n/a				Rising Sun Dr				Founders Pkwy				Founders Pkwy				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	0	0	32	0	43	0	0	369	7	0	3	93	0	547	0
7:15 AM		0	0	0	0	0	16	0	46	0	0	394	12	0	9	78	0	555	0
7:30 AM		0	0	0	0	0	23	0	40	0	0	291	11	0	14	98	0	477	0
7:45 AM		0	0	0	0	0	13	0	25	0	0	259	10	0	25	97	0	429	2,008
Pk Hr	All	0	0	0	0	0	84	0	154	0	0	1,313	40	0	51	366	0	2,008	
	HV	0	0	0	0	0	0	0	2	0	0	13	0	0	0	12	0	27	
	HV%	-	-	-	-	-	0%	-	1%	-	-	1%	0%	-	0%	3%	-	1%	

Note: For complete count summary (all intervals), see following pages.

** Heavy Vehicle Classifications include FHWA Classes 4-13.

** Count Summaries include heavy vehicles, but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:00 AM	0	0	3	3	6	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	1	3	3	7	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	4	3	7	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	1	3	3	7	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	2	13	12	27	0	0	0	0	0	0	0	0	0	0

Count Summaries - All Vehicles

Interval Start		n/a				Rising Sun Dr				Founders Pkwy				Founders Pkwy				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	0	0	32	0	43	0	0	369	7	0	3	93	0	547	0
7:15 AM		0	0	0	0	0	16	0	46	0	0	394	12	0	9	78	0	555	0
7:30 AM		0	0	0	0	0	23	0	40	0	0	291	11	0	14	98	0	477	0
7:45 AM		0	0	0	0	0	13	0	25	0	0	259	10	0	25	97	0	429	2,008
8:00 AM		0	0	0	0	0	11	0	23	0	0	282	7	0	16	100	0	439	1,900
8:15 AM		0	0	0	0	0	12	0	17	0	0	282	5	0	12	111	0	439	1,784
8:30 AM		0	0	0	0	0	26	0	14	0	0	228	10	0	19	145	0	442	1,749
8:45 AM		0	0	0	0	0	26	0	51	0	0	226	14	0	32	156	0	505	1,825
Count Total		0	0	0	0	0	159	0	259	0	0	2,331	76	0	130	878	0	3,833	
Pk Hr	All	0	0	0	0	0	84	0	154	0	0	1,313	40	0	51	366	0	2,008	
	HV	0	0	0	0	0	0	0	2	0	0	13	0	0	0	12	0	27	
	HV%	-	-	-	-	-	0%	-	1%	-	-	1%	0%	-	0%	3%	-	1%	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:00 AM	0	0	3	3	6	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	1	3	3	7	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	4	3	7	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	1	3	3	7	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	4	1	5	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	5	6	11	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	6	4	10	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	5	6	11	0	0	0	0	0	0	0	0	0	0
Count Total	0	2	33	29	64	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	2	13	12	27	0	0	0	0	0	0	0	0	0	0

Count Summaries - Heavy Vehicles

Interval Start	n/a				Rising Sun Dr				Founders Pkwy				Founders Pkwy				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	6	0
7:15 AM	0	0	0	0	0	0	0	1	0	0	3	0	0	0	3	0	7	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	3	0	7	0
7:45 AM	0	0	0	0	0	0	0	1	0	0	3	0	0	0	3	0	7	27
8:00 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	1	0	5	26
8:15 AM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	6	0	11	30
8:30 AM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	4	0	10	33
8:45 AM	0	0	0	0	0	0	0	0	0	0	4	1	0	1	5	0	11	37
Count Total	0	0	0	0	0	0	0	2	0	0	32	1	0	1	28	0	64	
Pk Hr Heavy	0	0	0	0	0	0	0	2	0	0	13	0	0	0	12	0	27	

Count Summaries - Bikes

Interval Start	n/a				Rising Sun Dr				Founders Pkwy				Founders Pkwy				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Pk Hr Bike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

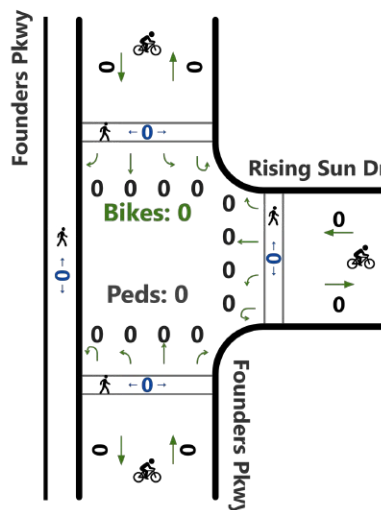
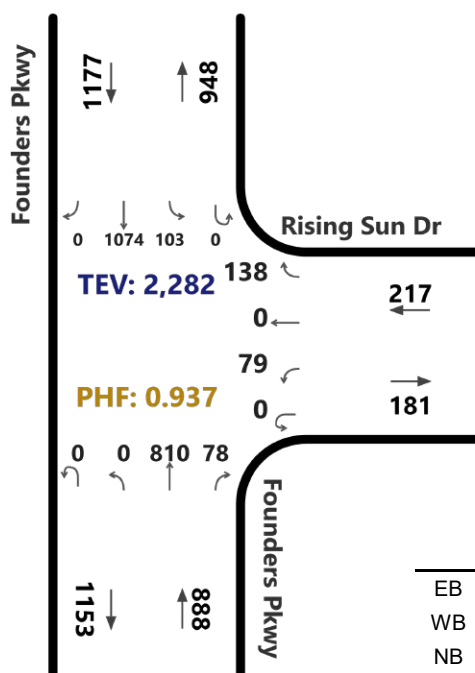


Founders Pkwy & Rising Sun Dr

Date: 08/19/2026

Count Period: 4:00 PM to 6:00 PM

Peak Hour: 4:00 PM to 5:00 PM



	HV%	PHF
EB	--	--
WB	2%	0.76
NB	1%	0.89
SB	1%	0.98
TOTAL	1%	0.94

Peak Hour Count Summaries

Peak Hour Interval Start		n/a				Rising Sun Dr				Founders Pkwy				Founders Pkwy				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	0	0	0	19	0	52	0	0	203	21	0	26	272	0	593	0
4:15 PM		0	0	0	0	0	22	0	36	0	0	232	18	0	18	283	0	609	0
4:30 PM		0	0	0	0	0	20	0	32	0	0	201	21	0	36	256	0	566	0
4:45 PM		0	0	0	0	0	18	0	18	0	0	174	18	0	23	263	0	514	2,282
Pk Hr	All	0	0	0	0	0	79	0	138	0	0	810	78	0	103	1,074	0	2,282	
	HV	0	0	0	0	0	1	0	3	0	0	12	0	0	2	8	0	26	
	HV%	-	-	-	-	-	1%	-	2%	-	-	1%	0%	-	2%	1%	-	1%	

Note: For complete count summary (all intervals), see following pages.

** Heavy Vehicle Classifications include FHWA Classes 4-13.

** Count Summaries include heavy vehicles, but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	0	2	4	3	9	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	1	5	3	9	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	3	1	5	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	4	12	10	26	0	0	0	0	0	0	0	0	0	0

Count Summaries - All Vehicles

Interval Start		n/a				Rising Sun Dr				Founders Pkwy				Founders Pkwy				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	0	0	0	19	0	52	0	0	203	21	0	26	272	0	593	0
4:15 PM		0	0	0	0	0	22	0	36	0	0	232	18	0	18	283	0	609	0
4:30 PM		0	0	0	0	0	20	0	32	0	0	201	21	0	36	256	0	566	0
4:45 PM		0	0	0	0	0	18	0	18	0	0	174	18	0	23	263	0	514	2,282
5:00 PM		0	0	0	0	0	24	0	16	0	0	175	15	0	23	280	0	533	2,222
5:15 PM		0	0	0	0	0	28	0	21	0	0	175	16	1	33	278	0	552	2,165
5:30 PM		0	0	0	0	0	13	0	21	0	0	147	15	0	28	244	0	468	2,067
5:45 PM		0	0	0	0	0	18	0	13	0	0	153	15	0	26	273	0	498	2,051
Count Total		0	0	0	0	0	162	0	209	0	0	1,460	139	1	213	2,149	0	4,333	
Pk Hr	All	0	0	0	0	0	79	0	138	0	0	810	78	0	103	1,074	0	2,282	
	HV	0	0	0	0	0	1	0	3	0	0	12	0	0	2	8	0	26	
	HV%	-	-	-	-	-	1%	-	2%	-	-	1%	0%	-	2%	1%	-	1%	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	0	2	4	3	9	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	1	5	3	9	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	3	1	5	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	3	2	6	0	0	0	0	0	1	0	0	0	1
5:30 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
Count Total	0	5	16	14	35	0	0	0	0	0	1	0	0	0	1
Peak Hour	0	4	12	10	26	0	0	0	0	0	0	0	0	0	0

Count Summaries - Heavy Vehicles																		
Interval Start	n/a				Rising Sun Dr				Founders Pkwy				Founders Pkwy				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	2	0	0	4	0	0	0	3	0	9	0
4:15 PM	0	0	0	0	0	1	0	0	0	0	5	0	0	1	2	0	9	0
4:30 PM	0	0	0	0	0	0	0	1	0	0	3	0	0	0	1	0	5	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	3	26
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
5:15 PM	0	0	0	0	0	1	0	0	0	0	2	1	0	0	2	0	6	14
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	10
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	9
Count Total	0	0	0	0	0	2	0	3	0	0	14	2	0	2	12	0	35	
Pk Hr Heavy	0	0	0	0	0	1	0	3	0	0	12	0	0	2	8	0	26	

Count Summaries - Bikes																		
Interval Start	n/a				Rising Sun Dr				Founders Pkwy				Founders Pkwy				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pk Hr Bike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Master Traffic Study Excerpts

T R A F F I C I M P A C T S T U D Y

Pine Canyon

Douglas County, Colorado

Prepared for

JRW Family Limited Partnership LLLP
One Tabor Center, Suite 3000
1200 Seventeenth Street
Denver, CO 80202

Prepared by

Kimley-Horn and Associates, Inc.
Curtis D. Rowe, P.E., PTOE
4582 South Ulster Street
Suite 1500
Denver, Colorado 80237
(303) 228-2300



November 2021

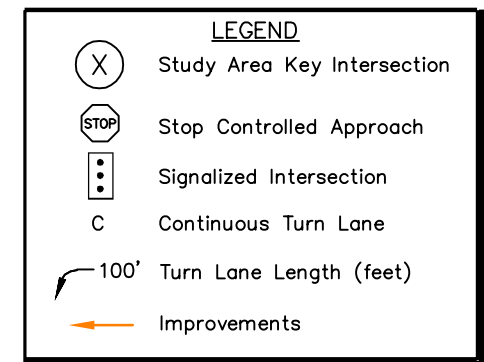
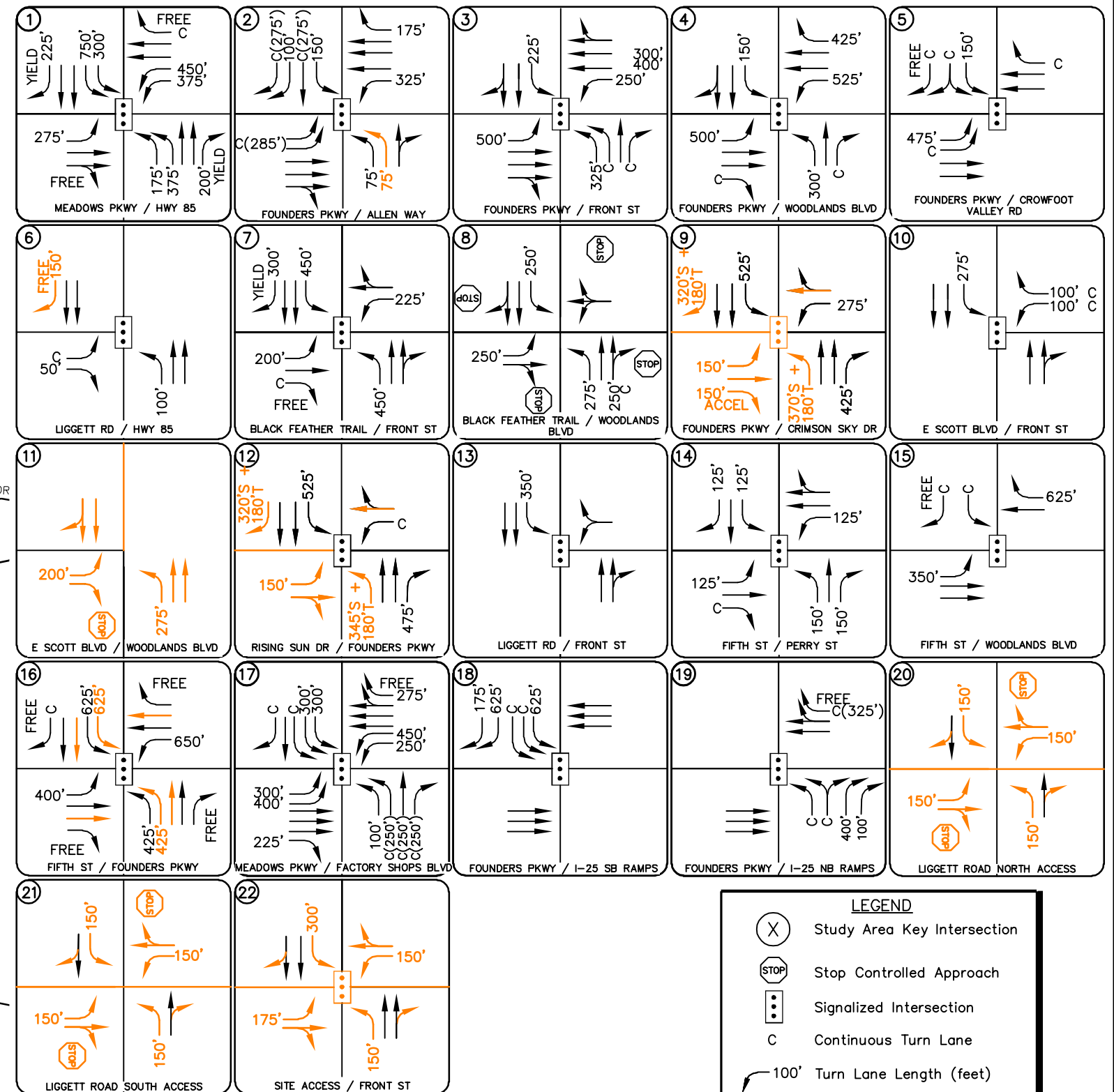
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

elementary school is proposed to be located near the center of the project site and it will serve the anticipated residents of Pine Canyon and Pioneer Ranch, 50 percent internal capture trips are expected from the residents of these communities. It is believed that 50 percent of external traffic being assigned to the elementary school is appropriate as elementary schools draw more localized traffic. These internal capture trips are shared trips from vehicles already within the internal street network. These shared trips reduce the number of total external trips. The total site generated external trips, Zones 1 and 2, are anticipated at 22,052 external daily trips, with 2,110 of these trips occurring during the morning peak hour and 2,109 trips occurring during the afternoon peak hour. **Table 1** provides the estimated trip generation for the project. The trip generation worksheets/calculations are included in **Appendix C**.

Table 1 – Pine Canyon Project Traffic Generation

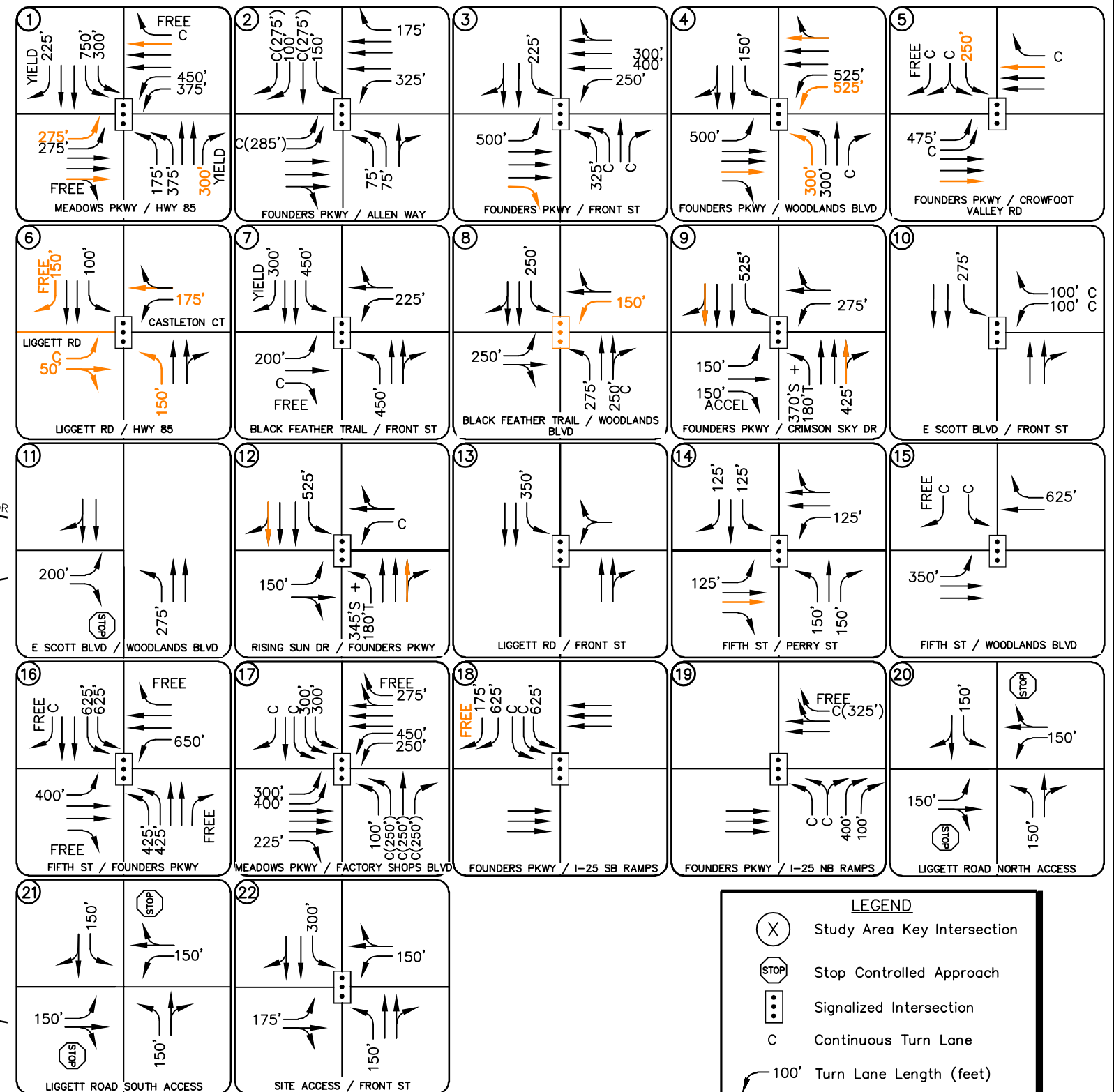
Zone	Land Use	Trips / Trip Rates	Weekday Vehicle Trips						
			Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
1	Mid-Rise Multifamily Housing (ITE 221) – 600 Dwelling Units	Trips	3,270	51	147	198	151	96	247
		Trip Rates	Eqn*	26%	74%	Eqn*	61%	39%	Eqn*
	Industrial Park (ITE Code 130) – 100,000 Square Feet	Trips	338	32	8	40	8	32	40
		Trip Rates	3.37	81%	19%	0.4	21%	79%	0.4
	Office Park (ITE Code 750) – 500,000 Square Feet	Trips	5,536	641	79	720	37	498	535
		Trip Rates	11.07	89%	11%	1.44	75	93%	1.07
	Park and Ride (Count Data) – 350 Spaces	Trips	580	45	30	75	50	95	145
		Trip Rates	1.66	60%	40%	0.214	34%	66%	0.414
Total Trips for Zone 1			9,724	769	264	1,033	246	721	967
2	Single-Family Detached Housing (ITE Code 210) – 800 Units	Trips	7,044	143	430	573	471	277	748
		Trip Rates	Eqn*	25%	75%	Eqn*	63%	37%	Eqn*
	Mid-Rise Multifamily Housing (ITE Code 221) – 400 Units	Trips	2,180	35	98	133	102	66	168
		Trip Rates	Eqn*	26%	74%	Eqn*	61%	39%	Eqn*
	Hotel (ITE Code 310) – 250 Rooms	Trips	2,396	71	49	120	82	79	161
		Trip Rates	Eqn*	59%	41%	Eqn*	51%	49%	Eqn*
	Elementary School (ITE 520) – 750 Students	Trips	1,418	272	230	502	61	67	128
		Trip Rates	1.89	54%	46%	0.67	48%	52%	0.17
Elementary School Trips after Internal Capture			710	136	115	251	31	34	65
Total Trips for Zone 2			13,038	521	807	1,328	716	489	1,205
Total Site Generated Trips			22,762	1,290	1,071	2,361	962	1,210	2,172
Total External Trips after Internal Capture			22,052	1,154	956	2,110	932	1,177	2,109

Eqn* = see Appendix for use of fitted curve equation



PINE CANYON
DOUGLAS COUNTY, CO
2025 RECOMMENDED LANE CONFIGURATIONS AND CONTROL

FIGURE 14



LEGEND

- (X) Study Area Key Intersection
- STOP Stop Controlled Approach
- Signalized Intersection
- C Continuous Turn Lane
- 100' Turn Lane Length (feet)
- Improvements

PINE CANYON
DOUGLAS COUNTY, CO
2040 RECOMMENDED LANE CONFIGURATIONS AND CONTROL

Project Pine Canyon
 Subject Trip Generation for Single-Family Detached Housing
 Designed by JRP Date 03-34-2020 Job No. 096628001
 Checked by _____ Date _____ Sheet No. _____ of _____

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Fitted Curve Equations

Land Use Code - Single-Family Detached Housing (210)

Independant Variable - Dwelling Units (X)

$$X = 800$$

T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (200 Series Page 3)

Average Weekday

$$(T) = 0.71 (X) + 4.80$$

$$(T) = 0.71 * (800) + 4.80$$

Directional Distribution: 25% ent. 75% exit.

$$T = 573 \text{ Average Vehicle Trip Ends}$$

$$143 \text{ entering } 430 \text{ exiting}$$

$$143 + 430 = 573$$

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (200 Series Page 4)

Average Weekday

$$\ln(T) = 0.96 \ln(X) + 0.20$$

$$\ln(T) = 0.96 * \ln(800) + 0.20$$

Directional Distribution: 63% ent. 37% exit.

$$T = 748 \text{ Average Vehicle Trip Ends}$$

$$471 \text{ entering } 277 \text{ exiting}$$

$$471 + 277 = 748$$

Peak Hour of Generator, Saturday (200 Series Page 8)

Average Saturday

$$(T) = 0.84 (X) + 17.99$$

$$(T) = 0.84 * (800) + 17.99$$

Directional Distribution: 54% ent. 46% exit.

$$T = 690 \text{ Average Vehicle Trip Ends}$$

$$373 \text{ entering } 317 \text{ exiting}$$

$$373 + 317 = 690$$

Weekday (200 Series Page 2)

Average Weekday

$$\ln(T) = 0.92 \ln(X) + 2.71$$

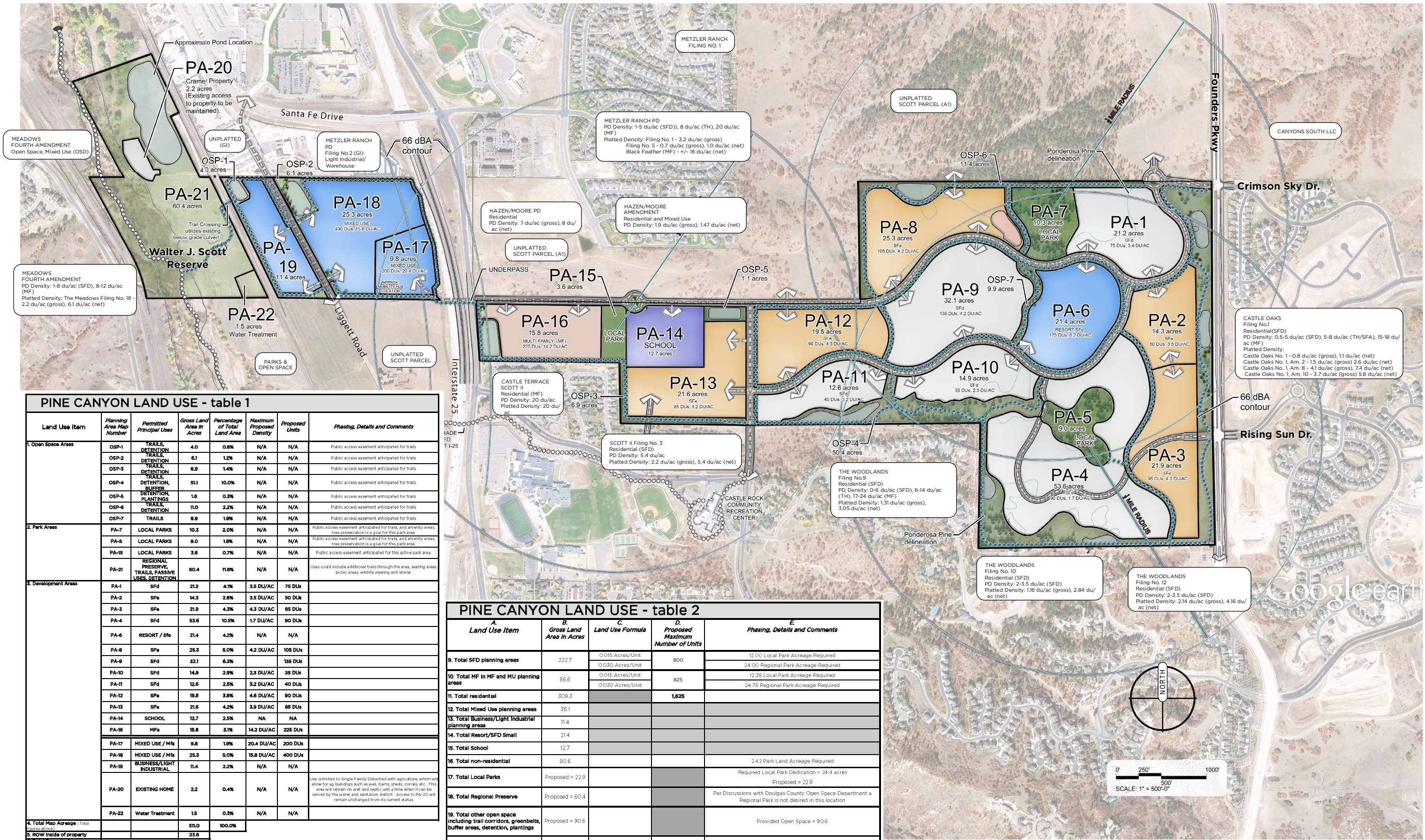
$$\ln(T) = 0.92 * \ln(800) + 2.71$$

Directional Distribution: 50% entering, 50% exiting

$$T = 7044 \text{ Average Vehicle Trip Ends}$$

$$3522 \text{ entering } 3522 \text{ exiting}$$

$$3522 + 3522 = 7044$$



PINE CANYON LAND USE - table 1

Land Use Item	Planning Area Map Number	Permitted Principal Uses	Gross Land Area in Acres	Percentage of Total Land Area	Maximum Proposed Density	Proposed Units	Phasing, Details and Comments
1. Open Space Areas	OSP-1	TRAILS, DETENTION	4.0	0.8%	N/A	N/A	Public access easement anticipated for trails
	OSP-2	TRAILS, DETENTION	6.1	1.2%	N/A	N/A	Public access easement anticipated for trails
	OSP-3	TRAILS, DETENTION	6.9	1.4%	N/A	N/A	Public access easement anticipated for trails
	OSP-4	TRAILS, DETENTION, BUFFER	51.1	10.0%	N/A	N/A	Public access easement anticipated for trails
	OSP-5	DETENTION PLANTINGS	1.6	0.3%	N/A	N/A	Public access easement anticipated for trails
	OSP-6	TRAILS, DETENTION	11.0	2.2%	N/A	N/A	Public access easement anticipated for trails
	OSP-7	TRAILS	9.9	1.9%	N/A	N/A	Public access easement anticipated for trails
2. Park Areas	PA-7	LOCAL PARKS	10.3	2.0%	N/A	N/A	Public access easement anticipated for trails, and amenity areas, tree preservation is a goal for this park area.
	PA-5	LOCAL PARKS	9.0	1.8%	N/A	N/A	Public access easement anticipated for trails, and amenity areas, tree preservation is a goal for this park area.
	PA-15	LOCAL PARKS	3.6	0.7%	N/A	N/A	Public access easement anticipated for this active park area.
	PA-21	REGIONAL PRESERVE, TRAILS, PASSIVE USES, DETENTION	60.4	11.8%	N/A	N/A	Uses could include additional trails through the area, seating areas, picnic areas, wildlife viewing and similar.
3. Development Areas	PA-1	SF	21.2	4.1%	3.5 DU/AC	75 DUs	
	PA-2	SF	14.3	2.8%	3.5 DU/AC	50 DUs	
	PA-3	SF	21.9	4.3%	4.3 DU/AC	95 DUs	
	PA-4	SF	53.6	10.5%	1.7 DU/AC	90 DUs	
	PA-6	RESORT / SF	21.4	4.2%	N/A	N/A	
	PA-8	SF	25.3	5.0%	4.2 DU/AC	105 DUs	
	PA-9	SF	32.1	6.3%		135 DUs	
	PA-10	SF	14.9	2.9%	2.3 DU/AC	35 DUs	
	PA-11	SF	12.6	2.5%	3.2 DU/AC	40 DUs	
	PA-12	SF	19.5	3.8%	4.6 DU/AC	90 DUs	
	PA-13	SF	21.6	4.2%	3.9 DU/AC	85 DUs	
	PA-14	SCHOOL	12.7	2.5%	NA	NA	
	PA-16	MF	15.8	3.1%	14.2 DU/AC	225 DUs	
	PA-17	MIXED USE / Mf	9.8	1.9%	20.4 DU/AC	200 DUs	
	PA-18	MIXED USE / Mf	25.3	5.0%	15.8 DU/AC	400 DUs	
	PA-19	BUSINESS/LIGHT INDUSTRIAL	11.4	2.2%	N/A	N/A	
	PA-20	EXISTING HOME	2.2	0.4%	N/A	N/A	Use is limited to Single Family Detached with agriculture, which will allow for as buildings such as well, barns, sheds, corrals, etc. This area will remain on well and septic unit a time when it can be served by the water and sanitation district. Access to PA-20 will remain unchanged from its current status.
	PA-22	Water Treatment	1.5	0.3%	N/A	N/A	
4. Total Map Acreage (Total figures above)			511.0	100.0%			
5. ROW inside of property			23.6				
6. Total Property Acreage			534.6				

PINE CANYON LAND USE - table 2

A. Land Use Item	B. Gross Land Area in Acres	C. Land Use Formula	D. Proposed Maximum Number of Units	E. Phasing, Details and Comments
9. Total SFD planning areas	222.7	0.015 Acres/Unit 0.030 Acres/Unit	800	12.00 Local Park Acreage Required 24.00 Regional Park Acreage Required
10. Total MF in MF and MU planning areas	86.6	0.015 Acres/Unit 0.030 Acres/Unit	825	12.39 Local Park Acreage Required 24.75 Regional Park Acreage Required
11. Total residential	309.3		1,625	
12. Total Mixed Use planning areas	35.1			
13. Total Business/Light Industrial planning areas	11.4			
14. Total Resort/SFD Small	21.4			
15. Total School	12.7			
16. Total non-residential	80.6			2.42 Park Land Acreage Required
17. Total Local Parks	Proposed = 22.9			Required Local Park Dedication = 24.4 acres Proposed = 22.9
18. Total Regional Preserve	Proposed = 60.4			Per Discussions with Douglas County Open Space Department a Regional Park is not desired in this location
19. Total other open space including trail corridors, greenbelts, buffer areas, detention, plantings	Proposed = 90.6			Provided Open Space = 90.6
20. Total Open Space	173.9			

PINE CANYON

PLANNED DEVELOPMENT PLAN - 3-25-2021

- TRANSITION TO ADJACENT DEVELOPMENT: Pine Canyon will match or exceed the lot size within 300' of any existing adjacent Single Family Dwelling Unit along the southern property boundary.
- Streets and access points are conceptual in nature.



T R A F F I C I M P A C T S T U D Y

Pine Canyon

Castle Rock, Colorado

Prepared for
JRW Family Limited Partnership LLLP
One Tabor Center, Suite 3000
1200 Seventeenth Street
Denver, CO 80202

Prepared by
Jeffery R. Planck, P.E.
Kimley-Horn and Associates, Inc.
6200 South Syracuse Way
Suite 300
Greenwood Village, Colorado 80111
(303) 228-2300



October 2026

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

already within the internal street network. These shared trips reduce the number of total external trips.

Pine Canyon is expected to generate approximately 21,326 daily weekday driveway trips, with 2,409 of these trips occurring during the morning peak hour and 2,182 trips occurring during the afternoon peak hour. Accounting for internal capture associated with the school, expected net new trips to the surrounding street network results in approximately 20,474 weekday daily trips, of which 2,135 trips and 2,122 trips are anticipated during the weekday morning and afternoon peak hours, respectively. Calculations were based on the procedure and information provided in the *ITE Trip Generation Manual, 12th Edition – Volume 1: User's Guide and Handbook*, 2025.

Table 1 summarizes the estimated trip generation for the site. The trip generation worksheets are included in **Appendix D**.

Table 1 – Pine Canyon Traffic Generation

Land Use and Size	Weekday Vehicle Trips						
	Daily	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Zone 1							
Industrial Park (ITE 130) – 100,000 Square Feet	1,012	108	32	140	36	94	130
Multifamily Mid-Rise Housing (ITE 221) – 775 Dwelling Units	3,458	73	245	318	180	102	282
Office Park (ITE 750) – 500,000 Square Feet	5,536	458	57	515	91	514	605
Park-and-Ride Lot with Bus (ITE 090) – 350 Parking Spots	578	130	37	167	45	128	173
Zone 2							
Single-Family Detached Housing (ITE 210) – 800 Dwelling Units	6,721	146	396	542	404	248	652
Multifamily Mid-Rise Housing (ITE 221) – 225 Dwelling Units	1,004	20	67	87	54	30	84
Hotel (ITE 310) – 225 Rooms	1,314	48	44	92	69	67	136
Elementary School (ITE 520) – 750 Students	1,703	296	252	548	55	65	120
Total Project Trips	21,326	1,279	1,130	2,409	934	1,248	2,182
Internal Capture Trips	852	148	126	274	28	32	60
Total Project Trips after Internal Capture	20,474	1,131	1,004	2,135	906	1,216	2,122

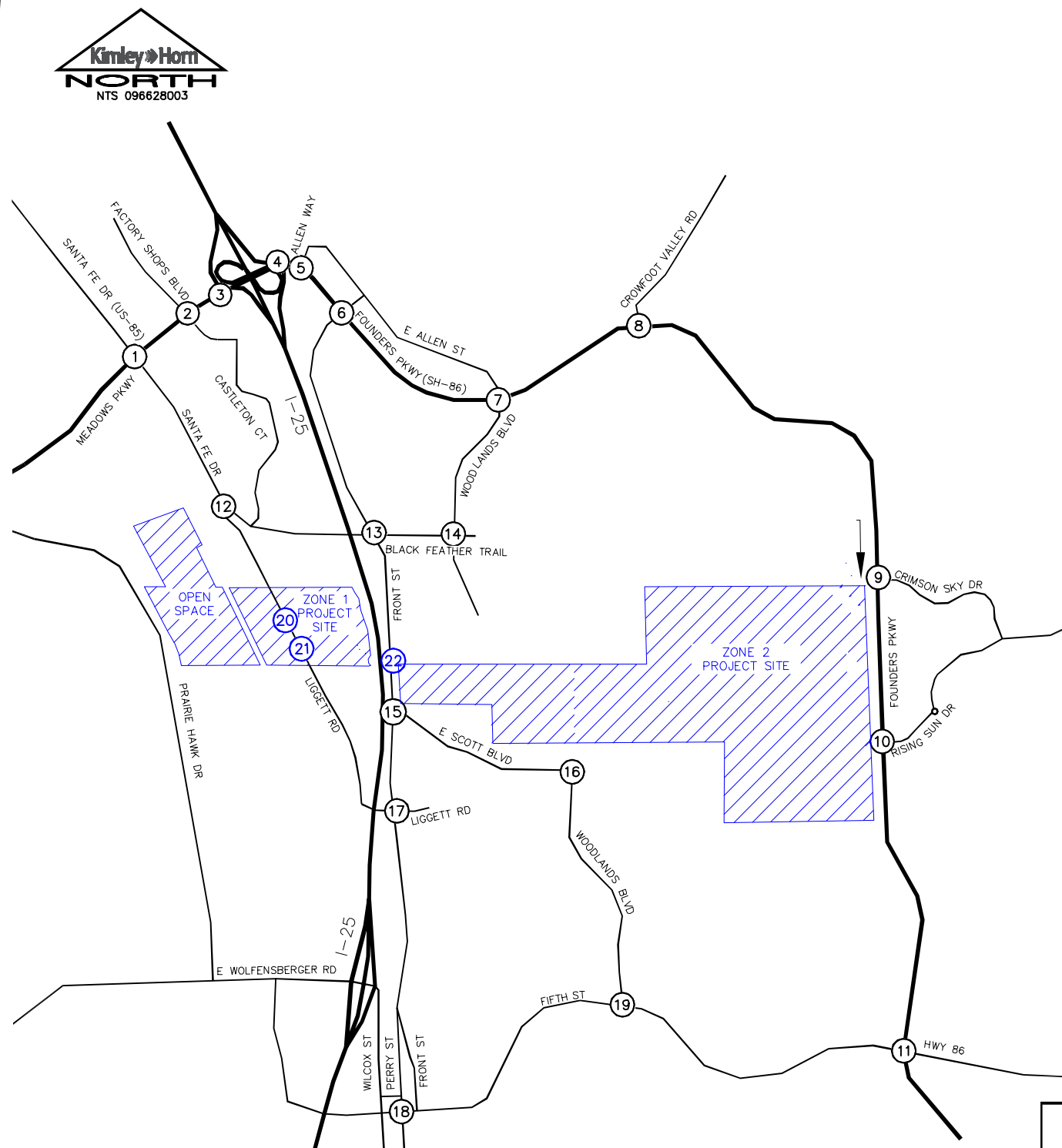
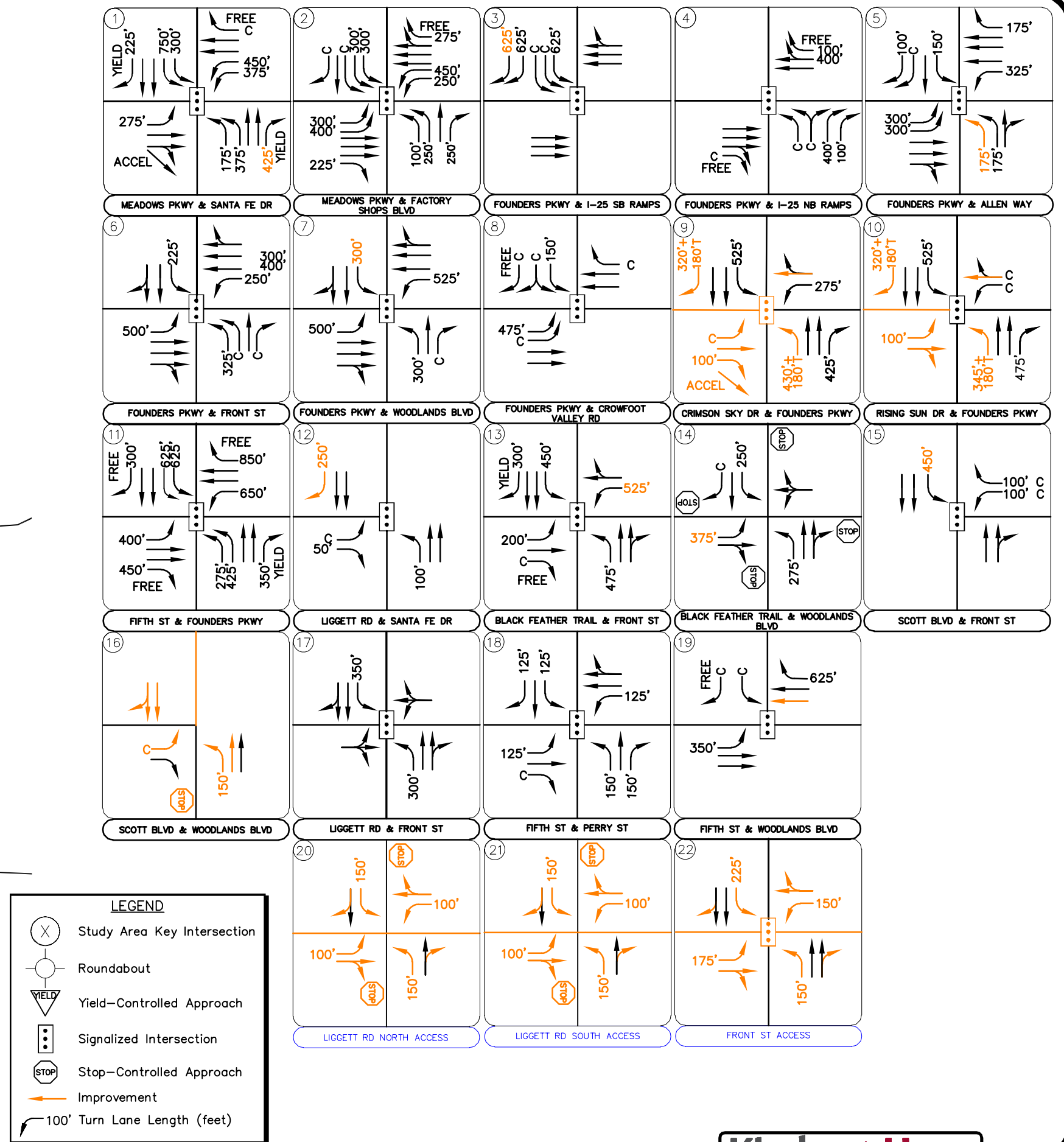


FIGURE 13
Pine Canyon
Castle Rock, Colorado
2035 Recommended Geometry and Control



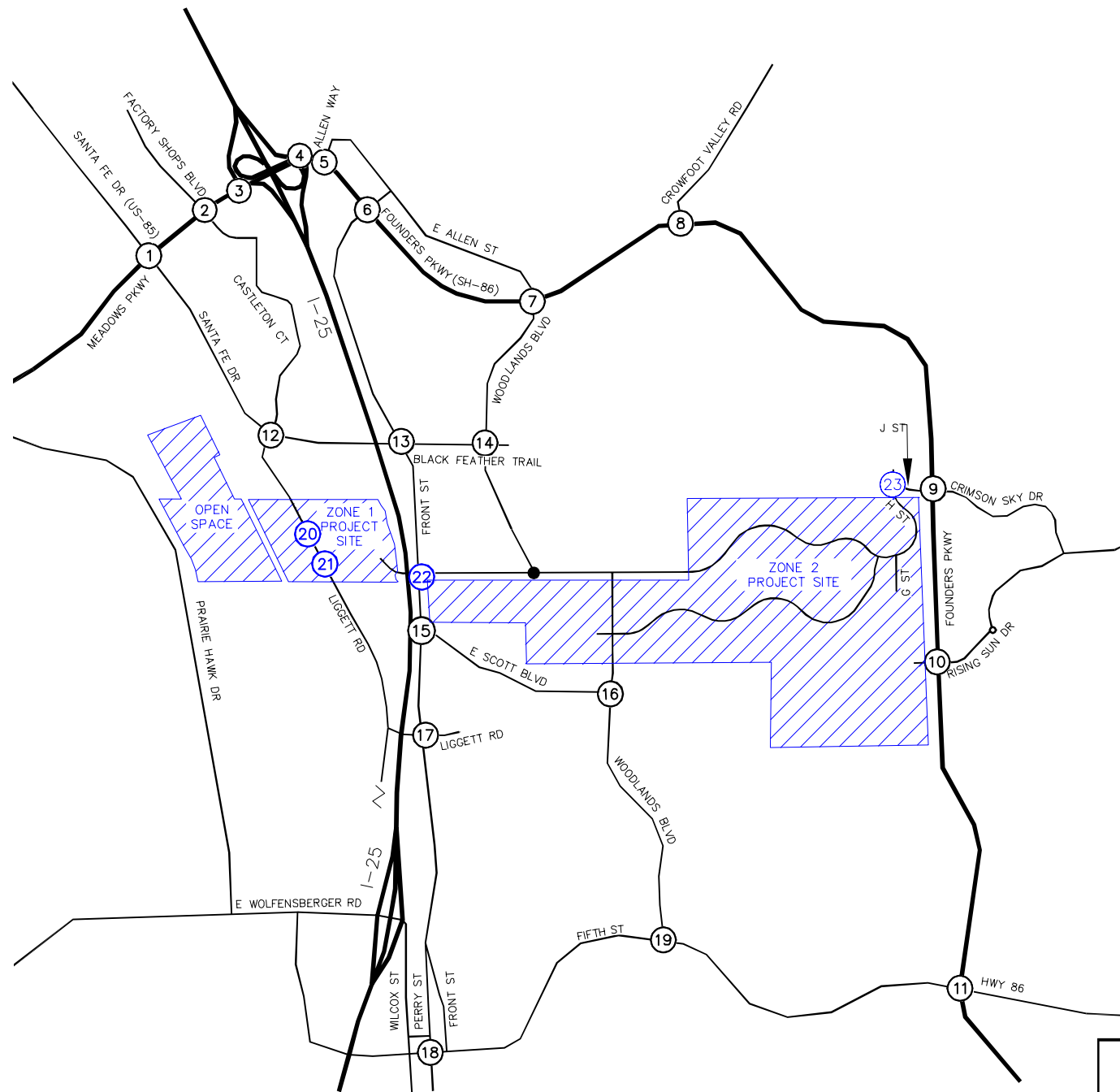
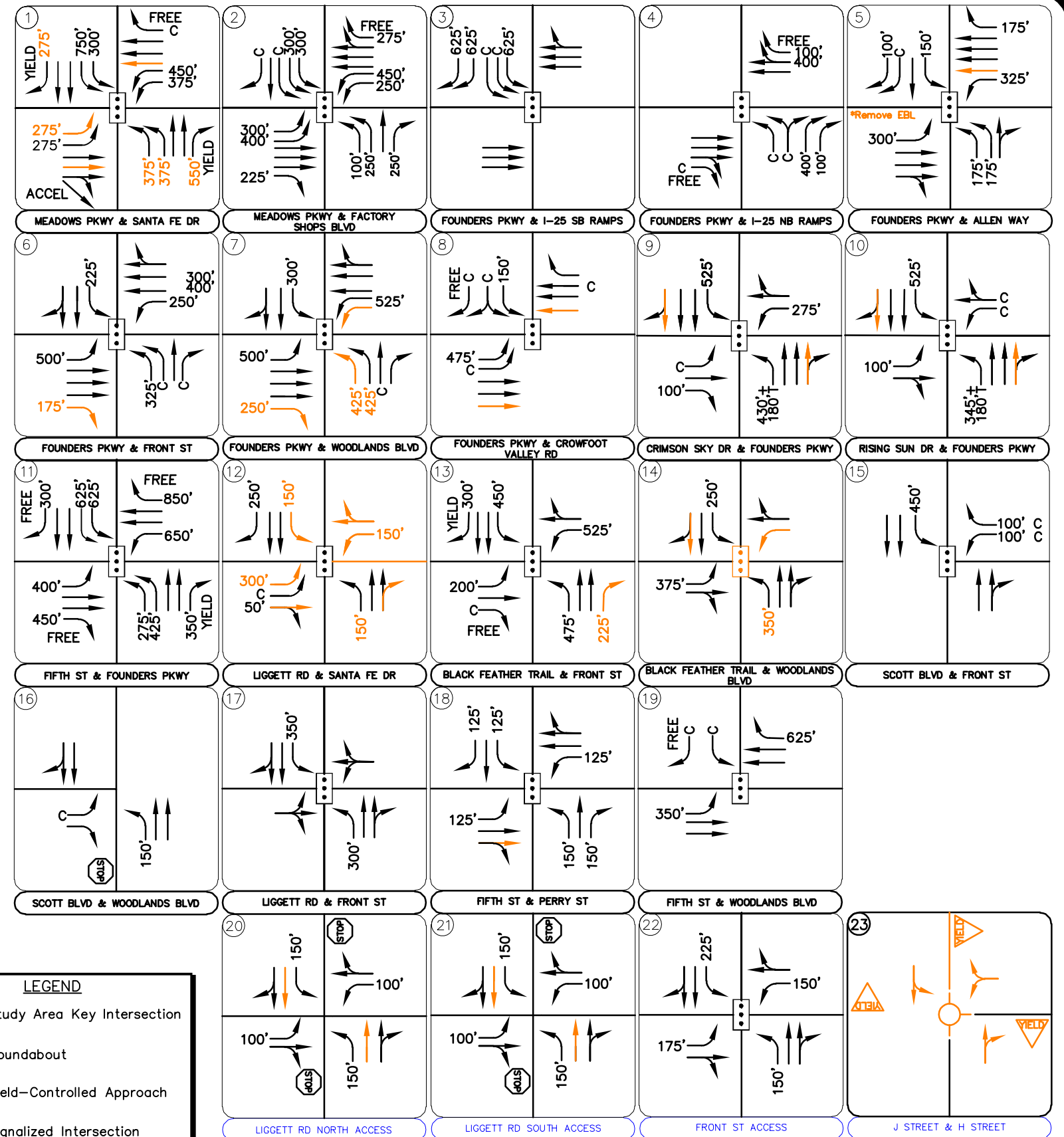
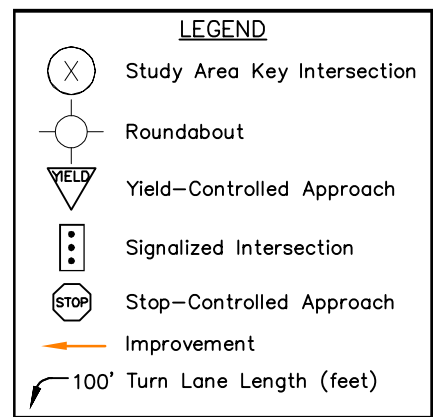


FIGURE 14
Pine Canyon
Castle Rock, Colorado
2050 Recommended Geometry and Control

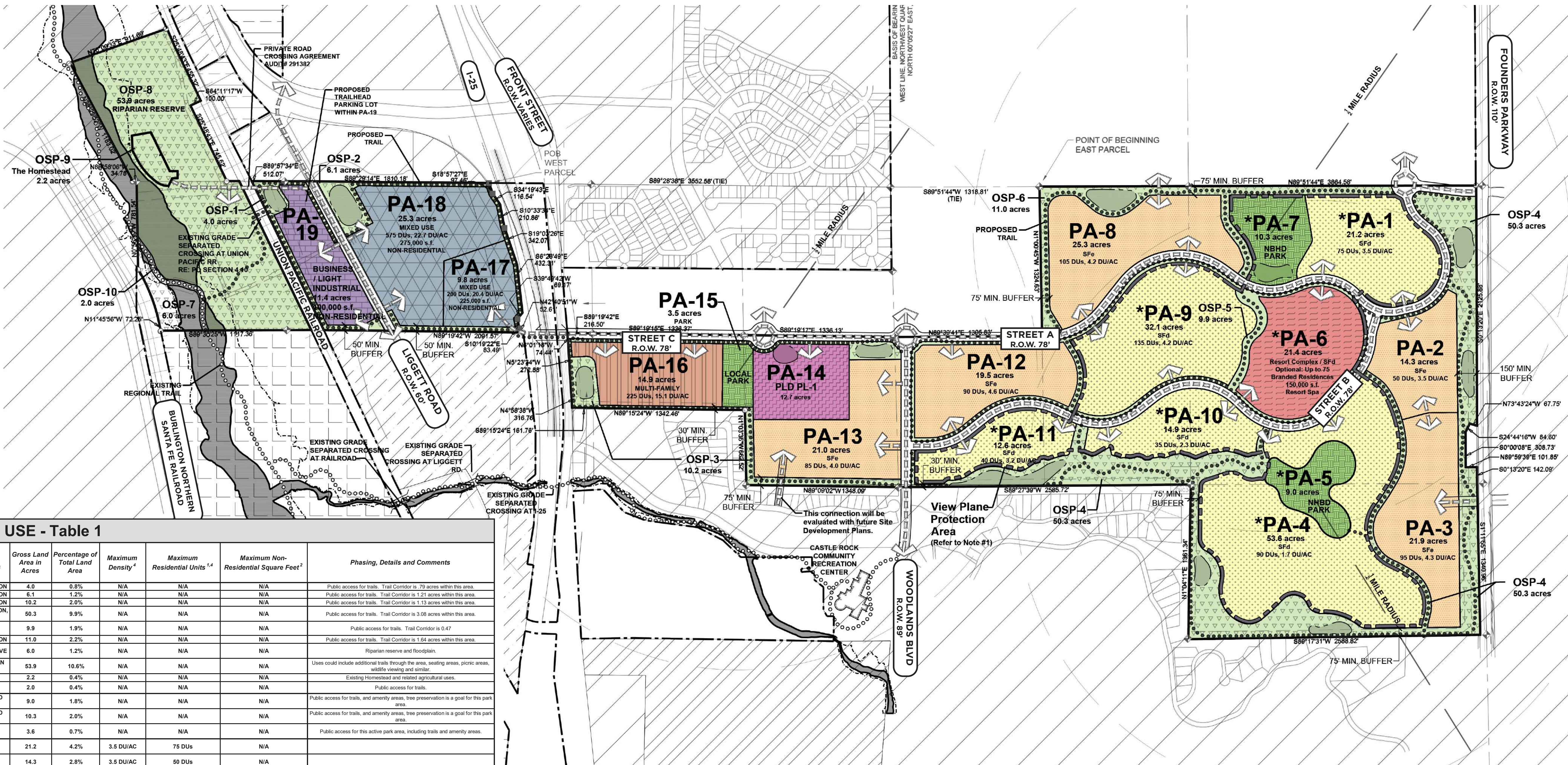


FOR CORE USE

PINE CANYON PLANNED DEVELOPMENT PLAN AND ZONING REGULATIONS

LOCATED IN PARTS OF SECTION 34, 35 & 36, T7S, R67W OF THE 6TH P.M.,
AND PART OF SECTION 1, T8S, R67W OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

LAND USE PLAN OVERVIEW



PINE CANYON LAND USE - Table 1

Land Use Item	Planning Area Map Number	Permitted Principal Uses	Gross Land Area in Acres	Percentage of Total Land Area	Maximum Density ¹	Maximum Residential Units ^{1,4}	Maximum Non-Residential Square Feet ²	Phasing, Details and Comments
Open Space Areas	OSP-1	TRAILS, DETENTION	4.0	0.8%	N/A	N/A	N/A	Public access for trails. Trail Corridor is .70 acres within this area.
	OSP-2	TRAILS, DETENTION	6.1	1.2%	N/A	N/A	N/A	Public access for trails. Trail Corridor is 1.21 acres within this area.
	OSP-3	TRAILS, DETENTION	10.2	2.0%	N/A	N/A	N/A	Public access for trails. Trail Corridor is 1.13 acres within this area.
	OSP-4	TRAILS, DETENTION, BUFFER	50.3	9.9%	N/A	N/A	N/A	Public access for trails. Trail Corridor is 3.08 acres within this area.
	OSP-5	TRAILS	9.9	1.9%	N/A	N/A	N/A	Public access for trails. Trail Corridor is 0.47
	OSP-6	TRAILS, DETENTION	11.0	2.2%	N/A	N/A	N/A	Public access for trails. Trail Corridor is 1.84 acres within this area.
	OSP-7	RIPARIAN RESERVE	6.0	1.2%	N/A	N/A	N/A	Riparian reserve and floodplain.
	OSP-8	TRAILS, RIPARIAN RESERVE	53.9	10.6%	N/A	N/A	N/A	Uses could include additional trails through the area, seating areas, picnic areas, wildlife viewing and similar.
	OSP-9	AGRICULTURE	2.2	0.4%	N/A	N/A	N/A	Existing Homestead and related agricultural uses.
	OSP-10	TRAILS	2.0	0.4%	N/A	N/A	N/A	Public access for trails.
Park Areas	PA-5	NEIGHBORHOOD PARKS	9.0	1.8%	N/A	N/A	N/A	Public access for trails, and amenity areas, tree preservation is a goal for this park area.
	PA-7	NEIGHBORHOOD PARKS	10.3	2.0%	N/A	N/A	N/A	Public access for trails, and amenity areas, tree preservation is a goal for this park area.
	PA-15	LOCAL PARK	3.6	0.7%	N/A	N/A	N/A	Public access for this active park area, including trails and amenity areas.
Development Areas	PA-1	SFd	21.2	4.2%	3.5 DU/AC	75 DUs	N/A	
	PA-2	SFe	14.3	2.8%	3.5 DU/AC	50 DUs	N/A	
	PA-3	SFe	21.9	4.3%	4.3 DU/AC	95 DUs	N/A	
	PA-4	SFd	53.6	10.5%	1.7 DU/AC	90 DUs	N/A	
	PA-6	RESORT COMPLEX / SFd	21.4	4.2%	N/A	UP TO 75 DUs	150,000 SF	The two-hundred and twenty-five room hotel and full service spa facility will function as an anchor for the Pine Canyon community. In lieu of Hotel Rooms, up to 75 Branded Residences may be built conforming to the SFe standards, or SFd standards if no Resort Complex is built; however, the maximum number of dwellings, or non-residential square footage permitted in the PD shall not be exceeded. ^{1,2} The square footage of the Hotel/Resort has been analyzed in the traffic report and water studies based on the two-hundred and twenty-five room hotel and full service spa facility because if developed as Branded Residences the use would be of a lesser impact.
	PA-8	SFe	25.3	5.0%	4.2 DU/AC	105 DUs	N/A	
	PA-9	SFd	32.1	6.3%	4.2 DU/AC	135 DUs	N/A	
	PA-10	SFd	14.9	2.9%	2.3 DU/AC	35 DUs	N/A	
	PA-11	SFd	12.6	2.5%	3.2 DU/AC	40 DUs	N/A	
	PA-12	SFe	19.5	3.8%	4.6 DU/AC	90 DUs	N/A	
	PA-13	SFe	21.0	4.1%	4.0 DU/AC	85 DUs	N/A	
	PA-14	PLD PL-1	12.7	2.5%	N/A	N/A	N/A ³	
	PA-16	Mfa	14.9	2.9%	15.1 DU/AC	225 DUs	N/A	
	PA-17	MIXED USE / Mfa	9.8	1.9%	N/A	UP TO 200 DUs	225,000 SF	Anticipated to include up to approximately 500,000 square feet of Office, Retail or Commercial Use Square Footage between PA-17 & PA-18; however, the maximum non-residential square footage permitted in the PD shall not be exceeded. ²
	PA-18	MIXED USE / Mfa	25.3	5.0%	N/A	UP TO 575 DUs	275,000 SF	Anticipated to include up to approximately 100,000 square feet of Business/Light Industrial Square Footage; however, the maximum non-residential square footage permitted in the PD shall not be exceeded. ² A trailhead parking area shall be included within PA-18.
	PA-19	BUSINESS/LIGHT INDUSTRIAL	11.4	2.2%	N/A		100,000 SF	
Total Map Acreage (Total figures above)			510.4	100.0%		MAXIMUM TOTAL RESIDENTIAL UNITS ¹	MAXIMUM TOTAL NON-RESIDENTIAL SF ²	Notes: 1) The total # of residential units for the entire PD shall be limited to 1,800 units. The existing dwellings in OSP-9 shall not count toward the total unit count in the PD. 2) The total square feet of non-residential uses shall be limited to 600,000 square feet. Maximum square footage in the PD shall be measured in gross floor area as defined in the Town of Castle Rock Zoning Resolution as amended. 3) PLD square footage is not considered as part of the maximum non-residential square footage allowed in the PD. 4) Refer to General Provisions #6 for Density Transfers between Planning Areas.
ROW inside of property			23.1					
Total Property Acreage			533.5			1800 DUs	600,000 SF	

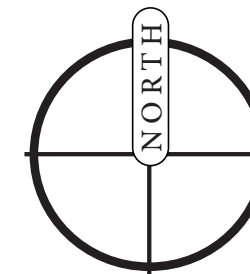
LEGEND

	SFe		BUSINESS/ LIGHT INDUSTRIAL		VIEW PLANE PROTECTION ¹		EXISTING TRAIL CORRIDOR
	SFd		MIXED USE		100-YR FLOODPLAIN WITH AE FLOOD ZONE		PROPOSED TRAIL CORRIDOR
	RESORT COMPLEX/ SFd		PLD		PLANNED DEVELOPMENT BOUNDARY		ROADWAY
	MULTI-FAMILY		PARKS		GRADE SEPARATED CROSSING		
	HOMESTEAD/AG		OPEN SPACE				

NOTES:

1. PLANNING AREAS WITH AN ASTERISK LIE WITHIN THE VIEW PLANE PROTECTION AREA. THE VIEW PLANE PROTECTION AREA DEVELOPMENT STANDARDS INCLUDE NO OVER-LOT GRADING (REFER TO DEVELOPMENT STANDARDS, SECTION GENERAL PROVISIONS #8).
2. TRANSITION TO ADJACENT DEVELOPMENT: PINE CANYON SHALL MATCH OR EXCEED THE LOT SIZE WITHIN 300' POB OF ANY EXISTING ADJACENT SINGLE FAMILY DWELLING PROPERTY LINE ALONG THE SOUTHERN PROPERTY BOUNDARY.
3. STREETS AND ACCESS POINTS ARE CONCEPTUAL IN NATURE.
4. OWNER SHALL DEDICATE PUBLIC RIGHTS-OF-WAY (ROW) TO THE TOWN OF CASTLE ROCK AT NO COST TO THE TOWN OF CASTLE ROCK FOR PUBLIC ROADWAYS SHOWN ON THE PD AND PUBLIC ROADWAYS DEVELOPED IN SUBSEQUENT SUBMITTALS.

0' 250' 1,000'
500'
SCALE: 1" = 500'-0"



PREPARED FOR:



JRW Family Limited
Liability Limited Partnership
1200 17th St, Suite 3000,
Denver, CO - 80202
303.587.0102

ENGINEERING:



3473 S Broadway,
Englewood, CO 80113
303.703.4444

LAND PLANNING:



PCS Group, Inc.
200 Kalamath Street,
Denver, CO - 80233
720.259.8246

REVISIONS:

NO.	DATE	REVISION DESCRIPTION
1		
2		
3		
4		
5		
6		

SHEET INFO:

PINE CANYON LAND USE PLAN OVERVIEW

DRAWN BY:

CGR

DESIGNED BY:

JP

SUBMITTED ON:

2026-08-10

1
OF 1

Trip Generation Worksheet

Pine Canyon PA 2 & 3 Daily Trip Generation Calculations

TRIP GENERATION CHARACTERISTICS						DIRECTIONAL DISTRIBUTION		NEW EXTERNAL VEHICLE TRIPS		
	Land Use + Code	Source	Scale	ITE Unit	Equation/Rate	Entering %	Exiting %	Net New In	Out	Total
1	(210) Single-Family Detached Housing	ITE 12th Ed	135	DU	$T = 8.07(X) + 265.45$	50%	50%	678	678	1,356

Pine Canyon PA 2 & 3 AM Peak Hour Trip Generation Calculations

TRIP GENERATION CHARACTERISTICS						DIRECTIONAL DISTRIBUTION		NEW EXTERNAL VEHICLE TRIPS		
	Land Use + Code	Source	Scale	ITE Unit	Equation/Rate	Entering %	Exiting %	Net New In	Out	Total
1	(210) Single-Family Detached Housing	ITE 12th Ed	135	DU	$T = 0.67(X) + 5.59$	27%	73%	26	70	96

Pine Canyon PA 2 & 3 PM Peak Hour Trip Generation Calculations

TRIP GENERATION CHARACTERISTICS						DIRECTIONAL DISTRIBUTION		NEW EXTERNAL VEHICLE TRIPS		
	Land Use + Code	Source	Scale	ITE Unit	Equation/Rate	Entering %	Exiting %	Net New In	Out	Total
1	(210) Single-Family Detached Housing	ITE 12th Ed	135	DU	$\ln(T) = 0.92 \ln(X) + 0.33$	62%	38%	79	48	127

Zone 1 Daily Trip Generation Calculations

TRIP GENERATION CHARACTERISTICS						DIRECTIONAL DISTRIBUTION		BASELINE TRIP		EXTERNAL VEHICLE TRIPS		
	Land Use + Code	Source	Scale	ITE Unit	Equation/Rate	Entering %	Exiting %	In	Out	In	Out	Total
1	(130) Industrial Park	0	100	KSF	T = 2.04(X) + 808.48	50%	50%	506	506	506	506	1,012
2	(221) Multifamily Housing (Mid-Rise)	Source	775	DU	T = 4.46(X)	50%	50%	1,729	1,728	1,729	1,728	3,457
3	(750) Office Park	ITE 11th Ed	500	KSF	T = 11.07(X)	50%	0.5	2768	2767	2768	2767	5535
4	(090) Park-and-Ride Lot with Bus or Light Rail Service		350	PKSP	T = 1.65(X)	50%	50%	289	289	289	289	578
Total:								5,292	5,290	5,292	5,290	10,582

Zone 2 Daily Trip Generation Calculations

TRIP GENERATION CHARACTERISTICS						DIRECTIONAL DISTRIBUTION		BASELINE TRIP		EXTERNAL VEHICLE TRIPS		
	Land Use + Code	Source	Scale	ITE Unit	Equation/Rate	Entering %	Exiting %	In	Out	In	Out	Total
1	(210) Single-Family Detached Housing	ITE 12th Ed	800	DU	$T = 8.07(X) + 265.45$	50%	50%	3,361	3,360	3,361	3,360	6,721
2	(221) Multifamily Housing (Mid-Rise)	ITE 12th Ed	225	DU	$T = 4.46(X)$	50%	50%	502	502	502	502	1,004
3	(310) Hotel	ITE 12th Ed	225	ROOM	$T = 5.84(X)$	50%	50%	657	657	657	657	1,314
4	(520) Elementary School	ITE 12th Ed	750	STU	$T = 2.27(X)$	50%	50%	852	851	852	851	1,703
Total:								5,372	5,370	5,372	5,370	10,742

Zone 1 AM Peak Hour Trip Generation Calculations

TRIP GENERATION CHARACTERISTICS						DIRECTIONAL DISTRIBUTION		BASELINE TRIP		EXTERNAL VEHICLE TRIPS		
	Land Use + Code	Source	Scale	ITE Unit	Equation/Rate	Entering %	Exiting %	In	Out	In	Out	Total
1	(130) Industrial Park	ITE 12th Ed	100	KSF	$T = 0.14(X) + 125.84$	77%	23%	108	32	108	32	140
2	(221) Multifamily Housing (Mid-Rise)	ITE 12th Ed	775	DU	$T = 0.42(X) - 7.77$	23%	77%	73	245	73	245	318
3	(750) Office Park	ITE 12th Ed	500	KSF	$T = 1.03(X)$	89%	11%	458	57	458	57	515
4	(090) Park-and-Ride Lot with Bus or Light Rail Service	ITE 12th Ed	350	PKSP	$T = 0.99 \ln(X) - 0.69$	78%	22%	130	37	130	37	167
Total:								769	371	769	371	1,140

Zone 2 AM Peak Hour Trip Generation Calculations

TRIP GENERATION CHARACTERISTICS						DIRECTIONAL DISTRIBUTION		BASELINE TRIP		EXTERNAL VEHICLE TRIPS		
	Land Use + Code	Source	Scale	ITE Unit	Equation/Rate	Entering %	Exiting %	In	Out	In	Out	Total
1	(210) Single-Family Detached Housing	ITE 12th Ed	800	DU	$T = 0.67(X) + 5.59$	27%	73%	146	396	146	396	542
2	(221) Multifamily Housing (Mid-Rise)	ITE 12th Ed	225	DU	$T = 0.42(X) - 7.77$	23%	77%	20	67	20	67	87
3	(310) Hotel	ITE 12th Ed	225	ROOM	$T = 0.49(X) - 18.48$	52%	48%	48	44	48	44	92
4	(520) Elementary School	ITE 12th Ed	750	STU	$T = 0.73(X)$	54%	46%	296	252	296	252	548
Total:								510	759	510	759	1,269

Zone 1 PM Peak Hour Trip Generation Calculations

TRIP GENERATION CHARACTERISTICS						DIRECTIONAL DISTRIBUTION		BASELINE TRIP		EXTERNAL VEHICLE TRIPS		
	Land Use + Code	Source	Scale	ITE Unit	Equation/Rate	Entering %	Exiting %	In	Out	In	Out	Total
1	(130) Industrial Park	ITE 12th Ed	100	KSF	$T = 0.16(X) + 114.29$	28%	72%	36	94	36	94	130
2	(221) Multifamily Housing (Mid-Rise)	ITE 12th Ed	775	DU	$T = 0.36(X) + 3.07$	64%	36%	180	102	180	102	282
3	(750) Office Park	ITE 12th Ed	500	KSF	$T = 1.21(X)$	15%	85%	91	514	91	514	605
4	(090) Park-and-Ride Lot with Bus or Light Rail Service	ITE 12th Ed	350	PKSP	$T = 0.38(X) + 40.38$	26%	74%	45	128	45	128	173
Total:								352	838	352	838	1,190

Zone 2 PM Peak Hour Trip Generation Calculations

TRIP GENERATION CHARACTERISTICS						DIRECTIONAL DISTRIBUTION		BASELINE TRIP		EXTERNAL VEHICLE TRIPS		
	Land Use + Code	Source	Scale	ITE Unit	Equation/Rate	Entering %	Exiting %	In	Out	In	Out	Total
1	(210) Single-Family Detached Housing	ITE 12th Ed	800	DU	$T = 0.92(X) + 0.22$	62%	38%	404	248	404	248	652
2	(221) Multifamily Housing (Mid-Rise)	ITE 12th Ed	225	DU	$T = 0.36(X) + 3.07$	64%	36%	54	30	54	30	84
3	(310) Hotel	ITE 12th Ed	225	ROOM	$T = 0.85(X) - 55.22$	51%	49%	69	67	69	67	136
4	(520) Elementary School	ITE 12th Ed	750	STU	$T = 0.16(X)$	46%	54%	55	65	55	65	120
Total:								582	410	582	410	992

Output Summary

ITE LUC	Land Use	Size	Unit	Daily			AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total	In	Out	Total
Zone 1												
130	Industrial Park	100	KSF	506	506	1,012	108	32	140	36	94	130
221	Multifamily Housing (Mid-Rise)	775	DU	1,729	1,729	3,458	73	245	318	180	102	282
750	Office Park	500	KSF	2,768	2,768	5,536	458	57	515	91	514	605
090	Park-and-Ride Lot with Bus or Light Rail Service	350	PKSP	289	289	578	130	37	167	45	128	173
Zone 1 Baseline Trips				5,292	5,292	10,584	769	371	1,140	352	838	1,190
Zone 2												
210	Single-Family Detached Housing	800	DU	3,361	3,360	6,721	146	396	542	404	248	652
221	Multifamily Housing (Mid-Rise)	225	DU	502	502	1,004	20	67	87	54	30	84
310	Hotel	225	ROOM	657	657	1,314	48	44	92	69	67	136
520	Elementary School	750	STU	852	851	1,703	296	252	548	55	65	120
Zone 2 Baseline Trips				5,372	5,370	10,742	510	759	1,269	582	410	992
Internal Trips				426	426	852	148	126	274	28	32	60
Zone 2 New External Vehicular Trips				4,946	4,944	9,890	362	633	995	554	378	932
Total Site Generated Trips				10,664	10,662	21,326	1,279	1,130	2,409	934	1,248	2,182
Total Site Generated Trips After Internal Capture				10,238	10,236	20,474	1,131	1,004	2,135	906	1,216	2,122

Level of Service (LOS) Sheets

									
Lane Group	EBL	WBL	WBT	NBT	NBR	SBL	SBT	SBR	Ø5
Lane Configurations									
Traffic Volume (vph)	35	4	0	1577	4	52	450	13	
Future Volume (vph)	35	4	0	1577	4	52	450	13	
Turn Type	Perm	Perm	NA	NA	Perm	pm+pt	NA	Perm	
Protected Phases			8	2		1	6		5
Permitted Phases	4	8			2	6		6	
Detector Phase	4	8	8	2	2	1	6	6	
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5
Total Split (s)	46.4	46.4	46.4	43.6	43.6	9.5	43.6	43.6	9.5
Total Split (%)	46.6%	46.6%	46.6%	43.8%	43.8%	9.5%	43.8%	43.8%	10%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lead/Lag				Lag	Lag	Lead	Lag	Lag	Lead
Lead-Lag Optimize?				Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	C-Max	C-Max	None	C-Max	C-Max	None

Intersection Summary

Cycle Length: 99.5
 Actuated Cycle Length: 99.5
 Offset: 90 (90%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated

Splits and Phases: 9: Founders Pkwy & J Street/Crimson Sky Dr

#9 	#9 	#9 
Ø1	Ø2 (R)	Ø4
9.5 s	43.6 s	46.4 s
#9 	#9 	#9 
Ø5	Ø6 (R)	Ø8
9.5 s	43.6 s	46.4 s

HCM 7th Signalized Intersection Summary
9: Founders Pkwy & J Street/Crimson Sky Dr

2030 Total AM
09/24/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	0	0	4	0	258	0	1577	4	52	450	13
Future Volume (veh/h)	35	0	0	4	0	258	0	1577	4	52	450	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1856	1856	1856
Adj Flow Rate, veh/h	38	0	0	4	0	284	0	1733	4	57	495	14
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	3	3	3
Cap, veh/h	132	419		390	0	355	609	2136	953	203	2418	1079
Arrive On Green	0.22	0.00	0.00	0.22	0.00	0.22	0.00	0.60	0.60	0.04	0.69	0.69
Sat Flow, veh/h	1095	1870	1585	1418	0	1585	1781	3554	1585	1767	3526	1572
Grp Volume(v), veh/h	38	0	0	4	0	284	0	1733	4	57	495	14
Grp Sat Flow(s),veh/h/ln	1095	1870	1585	1418	0	1585	1781	1777	1585	1767	1763	1572
Q Serve(g_s), s	3.4	0.0	0.0	0.2	0.0	16.9	0.0	38.0	0.1	1.1	5.1	0.3
Cycle Q Clear(g_c), s	20.3	0.0	0.0	0.2	0.0	16.9	0.0	38.0	0.1	1.1	5.1	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	132	419		390	0	355	609	2136	953	203	2418	1079
V/C Ratio(X)	0.29	0.00		0.01	0.00	0.80	0.00	0.81	0.00	0.28	0.20	0.01
Avail Cap(c_a), veh/h	345	784		666	0	664	696	2136	953	222	2418	1079
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.3	0.0	0.0	30.2	0.0	36.7	0.0	15.5	8.0	16.0	5.7	5.0
Incr Delay (d2), s/veh	1.2	0.0	0.0	0.0	0.0	4.2	0.0	3.5	0.0	0.7	0.2	0.0
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	1.0	0.0	0.0	0.1	0.0	6.9	0.0	14.9	0.0	0.6	1.7	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	47.5	0.0	0.0	30.2	0.0	40.8	0.0	19.0	8.0	16.7	5.9	5.0
LnGrp LOS	D			C		D		B		B	A	A
Approach Vol, veh/h	38			288			1737			566		
Approach Delay, s/veh	47.5			40.7			19.0			7.0		
Approach LOS	D			D			B			A		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.5	64.6		26.9	0.0	73.1		26.9				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	39.1		41.9	5.0	39.1		41.9				
Max Q Clear Time (g_c+I1), s	3.1	40.0		22.3	0.0	7.1		18.9				
Green Ext Time (p_c), s	0.0	0.0		0.1	0.0	3.7		1.9				

Intersection Summary

HCM 7th Control Delay, s/veh 19.2
HCM 7th LOS B

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

									
Lane Group	EBL	WBL	WBT	NBT	NBR	SBL	SBT	SBR	Ø5
Lane Configurations									
Traffic Volume (vph)	24	5	0	1005	14	222	1267	40	
Future Volume (vph)	24	5	0	1005	14	222	1267	40	
Turn Type	Perm	Perm	NA	NA	Perm	pm+pt	NA	Perm	
Protected Phases			8	2		1	6		5
Permitted Phases	4	8			2	6		6	
Detector Phase	4	8	8	2	2	1	6	6	
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5
Total Split (s)	46.4	46.4	46.4	43.6	43.6	9.5	43.6	43.6	9.5
Total Split (%)	46.6%	46.6%	46.6%	43.8%	43.8%	9.5%	43.8%	43.8%	10%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lead/Lag				Lag	Lag	Lead	Lag	Lag	Lead
Lead-Lag Optimize?				Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	C-Max	C-Max	None	C-Max	C-Max	None

Intersection Summary

Cycle Length: 99.5
 Actuated Cycle Length: 99.5
 Offset: 90 (90%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 65
 Control Type: Actuated-Coordinated

Splits and Phases: 9: Founders Pkwy & J Street/Crimson Sky Dr

#9 	#9 	#9 
Ø1	Ø2 (R)	Ø4
9.5 s	43.6 s	46.4 s
#9 	#9 	#9 
Ø5	Ø6 (R)	Ø8
9.5 s	43.6 s	46.4 s

HCM 7th Signalized Intersection Summary
9: Founders Pkwy & J Street/Crimson Sky Dr

2030 Total PM
09/24/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	0	0	5	0	136	0	1005	14	222	1267	40
Future Volume (veh/h)	24	0	0	5	0	136	0	1005	14	222	1267	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1841	1841	1841	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	0	0	5	0	145	0	1069	15	236	1348	43
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	4	4	4	2	2	2	2	2	2
Cap, veh/h	122	242		252	0	202	325	2437	1087	448	2775	1238
Arrive On Green	0.13	0.00	0.00	0.13	0.00	0.13	0.00	0.69	0.69	0.05	0.78	0.78
Sat Flow, veh/h	1243	1870	1585	1395	0	1560	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	26	0	0	5	0	145	0	1069	15	236	1348	43
Grp Sat Flow(s),veh/h/ln	1243	1870	1585	1395	0	1560	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.1	0.0	0.0	0.3	0.0	8.9	0.0	13.5	0.3	3.7	13.4	0.6
Cycle Q Clear(g_c), s	11.0	0.0	0.0	0.3	0.0	8.9	0.0	13.5	0.3	3.7	13.4	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	122	242		252	0	202	325	2437	1087	448	2775	1238
V/C Ratio(X)	0.21	0.00		0.02	0.00	0.72	0.00	0.44	0.01	0.53	0.49	0.03
Avail Cap(c_a), veh/h	482	784		657	0	654	412	2437	1087	448	2775	1238
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.1	0.0	0.0	38.0	0.0	41.8	0.0	7.1	5.0	5.6	3.9	2.5
Incr Delay (d2), s/veh	0.9	0.0	0.0	0.0	0.0	4.8	0.0	0.6	0.0	1.2	0.6	0.1
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	0.7	0.0	0.0	0.1	0.0	3.7	0.0	4.7	0.1	1.2	3.7	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	47.9	0.0	0.0	38.1	0.0	46.6	0.0	7.6	5.0	6.8	4.5	2.5
LnGrp LOS	D			D		D		A	A	A	A	A
Approach Vol, veh/h	26			150			1084			1627		
Approach Delay, s/veh	47.9			46.3			7.6			4.8		
Approach LOS	D			D			A			A		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.5	73.1		17.4	0.0	82.6		17.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	39.1		41.9	5.0	39.1		41.9				
Max Q Clear Time (g_c+I1), s	5.7	15.5		13.0	0.0	15.4		10.9				
Green Ext Time (p_c), s	0.0	8.6		0.0	0.0	11.6		0.9				

Intersection Summary

HCM 7th Control Delay, s/veh 8.4
HCM 7th LOS A

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

										
Lane Group	EBL	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	82	51	5	0	29	1699	4	53	486	47
Future Volume (vph)	82	51	5	0	29	1699	4	53	486	47
Turn Type	Perm	Free	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases				8	5	2		1	6	
Permitted Phases	4	Free	8		2		2	6		6
Detector Phase	4		8	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5		22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	46.4		46.4	46.4	9.5	43.6	43.6	9.5	43.6	43.6
Total Split (%)	46.6%		46.6%	46.6%	9.5%	43.8%	43.8%	9.5%	43.8%	43.8%
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None		None	None	None	C-Max	C-Max	None	C-Max	C-Max

Intersection Summary

Cycle Length: 99.5
 Actuated Cycle Length: 99.5
 Offset: 90 (90%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated

Splits and Phases: 9: Founders Pkwy & J Street/Crimson Sky Dr

#9 	#9 	#9
Ø1	Ø2 (R)	Ø4
9.5 s	43.6 s	46.4 s
#9 	#9 	#9
Ø5	Ø6 (R)	Ø8
9.5 s	43.6 s	46.4 s

HCM 7th Signalized Intersection Summary
9: Founders Pkwy & J Street/Crimson Sky Dr

2035 Total AM
09/24/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	0	51	5	0	265	29	1699	4	53	486	47
Future Volume (veh/h)	82	0	51	5	0	265	29	1699	4	53	486	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1856	1856	1856
Adj Flow Rate, veh/h	90	0	0	5	0	291	32	1867	4	58	534	52
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	3	3	3
Cap, veh/h	184	501		452	0	425	531	1980	883	159	2001	893
Arrive On Green	0.27	0.00	0.00	0.27	0.00	0.27	0.03	0.56	0.56	0.04	0.57	0.57
Sat Flow, veh/h	1088	1870	1585	1418	0	1585	1781	3554	1585	1767	3526	1572
Grp Volume(v), veh/h	90	0	0	5	0	291	32	1867	4	58	534	52
Grp Sat Flow(s),veh/h/ln	1088	1870	1585	1418	0	1585	1781	1777	1585	1767	1763	1572
Q Serve(g_s), s	8.1	0.0	0.0	0.3	0.0	16.5	0.8	49.0	0.1	1.4	7.7	1.5
Cycle Q Clear(g_c), s	24.5	0.0	0.0	0.3	0.0	16.5	0.8	49.0	0.1	1.4	7.7	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	184	501		452	0	425	531	1980	883	159	2001	893
V/C Ratio(X)	0.49	0.00		0.01	0.00	0.69	0.06	0.94	0.00	0.36	0.27	0.06
Avail Cap(c_a), veh/h	349	784		666	0	664	568	1980	883	177	2001	893
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.8	0.0	0.0	26.9	0.0	32.8	8.9	20.7	9.8	23.0	11.0	9.7
Incr Delay (d2), s/veh	2.0	0.0	0.0	0.0	0.0	2.0	0.0	10.6	0.0	1.4	0.3	0.1
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	2.3	0.0	0.0	0.1	0.0	6.5	0.3	21.4	0.0	0.8	3.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	45.8	0.0	0.0	26.9	0.0	34.8	9.0	31.3	9.8	24.4	11.3	9.8
LnGrp LOS	D			C		C	A	C		C	B	A
Approach Vol, veh/h	90			296			1903			644		
Approach Delay, s/veh	45.8			34.7			30.9			12.4		
Approach LOS	D			C			C			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.5	60.2		31.3	7.4	61.3		31.3				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	39.1		41.9	5.0	39.1		41.9				
Max Q Clear Time (g_c+l1), s	3.4	51.0		26.5	2.8	9.7		18.5				
Green Ext Time (p_c), s	0.0	0.0		0.2	0.0	4.1		2.0				

Intersection Summary

HCM 7th Control Delay, s/veh 27.7
HCM 7th LOS C

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

										
Lane Group	EBL	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	49	30	6	0	44	1082	15	228	1360	72
Future Volume (vph)	49	30	6	0	44	1082	15	228	1360	72
Turn Type	Perm	Free	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases				8	5	2		1	6	
Permitted Phases	4	Free	8		2		2	6		6
Detector Phase	4		8	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5		22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	46.4		46.4	46.4	9.5	43.6	43.6	9.5	43.6	43.6
Total Split (%)	46.6%		46.6%	46.6%	9.5%	43.8%	43.8%	9.5%	43.8%	43.8%
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None		None	None	None	C-Max	C-Max	None	C-Max	C-Max

Intersection Summary

Cycle Length: 99.5
 Actuated Cycle Length: 99.5
 Offset: 90 (90%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 65
 Control Type: Actuated-Coordinated

Splits and Phases: 9: Founders Pkwy & J Street/Crimson Sky Dr

#9 	#9 	#9
Ø1	Ø2 (R)	Ø4
9.5 s	43.6 s	46.4 s
#9 	#9 	#9
Ø5	Ø6 (R)	Ø8
9.5 s	43.6 s	46.4 s

HCM 7th Signalized Intersection Summary
9: Founders Pkwy & J Street/Crimson Sky Dr

2035 Total PM
09/24/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	0	30	6	0	139	44	1082	15	228	1360	72
Future Volume (veh/h)	49	0	30	6	0	139	44	1082	15	228	1360	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1841	1841	1841	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	52	0	0	6	0	148	47	1151	16	243	1447	77
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	4	4	4	2	2	2	2	2	2
Cap, veh/h	149	282		282	0	235	293	2360	1053	403	2408	1074
Arrive On Green	0.15	0.00	0.00	0.15	0.00	0.15	0.04	0.66	0.66	0.05	0.68	0.68
Sat Flow, veh/h	1240	1870	1585	1395	0	1560	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	52	0	0	6	0	148	47	1151	16	243	1447	77
Grp Sat Flow(s),veh/h/ln	1240	1870	1585	1395	0	1560	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	4.1	0.0	0.0	0.4	0.0	8.9	0.8	16.1	0.3	4.5	22.1	1.6
Cycle Q Clear(g_c), s	13.0	0.0	0.0	0.4	0.0	8.9	0.8	16.1	0.3	4.5	22.1	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	149	282		282	0	235	293	2360	1053	403	2408	1074
V/C Ratio(X)	0.35	0.00		0.02	0.00	0.63	0.16	0.49	0.02	0.60	0.60	0.07
Avail Cap(c_a), veh/h	481	784		657	0	654	317	2360	1053	403	2408	1074
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.9	0.0	0.0	36.2	0.0	39.8	7.1	8.3	5.7	7.3	8.8	5.5
Incr Delay (d2), s/veh	1.4	0.0	0.0	0.0	0.0	2.8	0.3	0.7	0.0	2.5	1.1	0.1
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	1.3	0.0	0.0	0.1	0.0	3.6	0.3	5.7	0.1	1.7	7.8	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	47.3	0.0	0.0	36.2	0.0	42.6	7.4	9.1	5.7	9.9	9.9	5.6
LnGrp LOS	D			D		D	A	A	A	A	A	A
Approach Vol, veh/h	52			154			1214			1767		
Approach Delay, s/veh	47.3			42.3			9.0			9.7		
Approach LOS	D			D			A			A		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.5	70.9		19.6	8.1	72.3		19.6				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	39.1		41.9	5.0	39.1		41.9				
Max Q Clear Time (g_c+I1), s	6.5	18.1		15.0	2.8	24.1		10.9				
Green Ext Time (p_c), s	0.0	8.9		0.1	0.0	9.4		1.0				

Intersection Summary

HCM 7th Control Delay, s/veh 11.6
HCM 7th LOS B

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

									
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	145	5	90	15	5	55	2150	60	630
Future Volume (vph)	145	5	90	15	5	55	2150	60	630
Turn Type	Perm	NA	Free	Perm	NA	pm+pt	NA	pm+pt	NA
Protected Phases		4			8	5	2	1	6
Permitted Phases	4		Free	8		2		6	
Detector Phase	4	4		8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	30.0	30.0		30.0	30.0	10.0	50.0	10.0	50.0
Total Split (%)	33.3%	33.3%		33.3%	33.3%	11.1%	55.6%	11.1%	55.6%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	None	C-Max	None	C-Max

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

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

Natural Cycle: 80

Control Type: Actuated-Coordinated

Splits and Phases: 9: Founders Pkwy & J Street/Crimson Sky Dr

#9 	#9 	#9 
Ø1	Ø2 (R)	Ø4
10 s	50 s	30 s
#9 	#9 	#9 
Ø5	Ø6 (R)	Ø8
10 s	50 s	30 s

HCM 7th Signalized Intersection Summary
9: Founders Pkwy & J Street/Crimson Sky Dr

2050 Total AM
09/24/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	145	5	90	15	5	285	55	2150	5	60	630	85
Future Volume (veh/h)	145	5	90	15	5	285	55	2150	5	60	630	85
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1856	1856	1856
Adj Flow Rate, veh/h	159	5	0	16	5	313	60	2363	5	66	692	93
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	3	3	3
Cap, veh/h	190	530		477	7	443	458	2745	6	179	2367	315
Arrive On Green	0.28	0.28	0.00	0.28	0.28	0.28	0.04	0.52	0.52	0.04	0.52	0.52
Sat Flow, veh/h	1062	1870	1585	1411	25	1564	1781	5261	11	1767	4522	602
Grp Volume(v), veh/h	159	5	0	16	0	318	60	1529	839	66	515	270
Grp Sat Flow(s),veh/h/ln	1062	1870	1585	1411	0	1589	1781	1702	1868	1767	1689	1747
Q Serve(g_s), s	9.4	0.2	0.0	0.7	0.0	16.1	1.4	35.1	35.1	1.5	7.7	7.8
Cycle Q Clear(g_c), s	25.5	0.2	0.0	0.9	0.0	16.1	1.4	35.1	35.1	1.5	7.7	7.8
Prop In Lane	1.00		1.00	1.00		0.98	1.00		0.01	1.00		0.34
Lane Grp Cap(c), veh/h	190	530		477	0	450	458	1776	975	179	1768	915
V/C Ratio(X)	0.84	0.01		0.03	0.00	0.71	0.13	0.86	0.86	0.37	0.29	0.30
Avail Cap(c_a), veh/h	190	530		477	0	450	490	1776	975	208	1768	915
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.7	23.2	0.0	23.5	0.0	28.9	9.2	18.7	18.7	19.3	12.1	12.1
Incr Delay (d2), s/veh	26.2	0.0	0.0	0.0	0.0	5.0	0.1	5.7	9.9	1.3	0.4	0.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	0.1	0.0	0.2	0.0	6.6	0.5	14.0	16.5	0.7	2.8	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	68.0	23.2	0.0	23.5	0.0	33.9	9.3	24.4	28.6	20.5	12.5	12.9
LnGrp LOS	E	C		C		C	A	C	C	C	B	B
Approach Vol, veh/h	164			334			2428			851		
Approach Delay, s/veh	66.6			33.4			25.5			13.2		
Approach LOS	E			C			C			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.5	51.5		30.0	8.4	51.6		30.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.5	45.5		25.5	5.5	45.5		25.5				
Max Q Clear Time (g_c+I1), s	3.5	37.1		27.5	3.4	9.8		18.1				
Green Ext Time (p_c), s	0.0	7.6		0.0	0.0	6.0		1.2				

Intersection Summary

HCM 7th Control Delay, s/veh	25.2
HCM 7th LOS	C

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

									
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	130	5	80	20	5	110	1390	250	1735
Future Volume (vph)	130	5	80	20	5	110	1390	250	1735
Turn Type	Perm	NA	Free	Perm	NA	pm+pt	NA	pm+pt	NA
Protected Phases		4			8	5	2	1	6
Permitted Phases	4		Free	8		2		6	
Detector Phase	4	4		8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	22.8	22.8		22.8	22.8	16.0	49.0	18.2	51.2
Total Split (%)	25.3%	25.3%		25.3%	25.3%	17.8%	54.4%	20.2%	56.9%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	None	C-Max	None	C-Max

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

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

Natural Cycle: 65

Control Type: Actuated-Coordinated

Splits and Phases: 9: Founders Pkwy & J Street/Crimson Sky Dr

#9  Ø1	#9  Ø2 (R)	#9  Ø4
18.2 s	49 s	22.8 s
#9  Ø5	#9  Ø6 (R)	#9  Ø8
16 s	51.2 s	22.8 s

HCM 7th Signalized Intersection Summary
9: Founders Pkwy & J Street/Crimson Sky Dr

2050 Total PM
09/24/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	5	80	20	5	150	110	1390	20	250	1735	170
Future Volume (veh/h)	130	5	80	20	5	150	110	1390	20	250	1735	170
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1841	1841	1841	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	138	5	0	21	5	160	117	1479	21	266	1846	181
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	4	4	4	2	2	2	2	2	2
Cap, veh/h	214	380		359	10	309	243	2901	41	370	2810	274
Arrive On Green	0.20	0.20	0.00	0.20	0.20	0.20	0.05	0.56	0.56	0.09	0.59	0.59
Sat Flow, veh/h	1221	1870	1585	1389	47	1520	1781	5188	74	1781	4730	462
Grp Volume(v), veh/h	138	5	0	21	0	165	117	971	529	266	1326	701
Grp Sat Flow(s),veh/h/ln	1221	1870	1585	1389	0	1567	1781	1702	1857	1781	1702	1787
Q Serve(g_s), s	9.9	0.2	0.0	1.1	0.0	8.4	2.5	15.8	15.8	5.5	23.3	23.6
Cycle Q Clear(g_c), s	18.3	0.2	0.0	1.3	0.0	8.4	2.5	15.8	15.8	5.5	23.3	23.6
Prop In Lane	1.00		1.00	1.00		0.97	1.00		0.04	1.00		0.26
Lane Grp Cap(c), veh/h	214	380		359	0	319	243	1903	1038	370	2022	1062
V/C Ratio(X)	0.65	0.01		0.06	0.00	0.52	0.48	0.51	0.51	0.72	0.66	0.66
Avail Cap(c_a), veh/h	214	380		359	0	319	377	1903	1038	485	2022	1062
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.2	28.6	0.0	29.2	0.0	31.9	12.5	12.2	12.2	12.1	12.1	12.2
Incr Delay (d2), s/veh	6.5	0.0	0.0	0.1	0.0	1.5	1.5	1.0	1.8	3.5	1.7	3.2
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	0.1	0.0	0.4	0.0	3.3	0.9	5.8	6.5	2.2	8.4	9.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	46.8	28.7	0.0	29.2	0.0	33.4	14.0	13.2	14.0	15.6	13.8	15.4
LnGrp LOS	D	C		C		C	B	B	B	B	B	B
Approach Vol, veh/h	143			186			1617			2293		
Approach Delay, s/veh	46.1			32.9			13.5			14.5		
Approach LOS	D			C			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.4	54.8		22.8	9.2	58.0		22.8				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	13.7	44.5		18.3	11.5	46.7		18.3				
Max Q Clear Time (g_c+I1), s	7.5	17.8		20.3	4.5	25.6		10.4				
Green Ext Time (p_c), s	0.4	12.5		0.0	0.1	15.2		0.6				

Intersection Summary

HCM 7th Control Delay, s/veh	16.0
HCM 7th LOS	B

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Timings
10: Founders Pkwy & Rising Sun Dr Access/Rising Sun Dr

2030 Total AM
09/24/2026

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	16	0	86	0	7	1397	41	52	389	6
Future Volume (vph)	16	0	86	0	7	1397	41	52	389	6
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4		8		2			6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	4	4	8	8	2	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	60.5	60.5	60.5	60.5	59.5	59.5	59.5	59.5	59.5	59.5
Total Split (%)	50.4%	50.4%	50.4%	50.4%	49.6%	49.6%	49.6%	49.6%	49.6%	49.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated

Splits and Phases: 10: Founders Pkwy & Rising Sun Dr Access/Rising Sun Dr

#10 	#10 
Ø2 (R)	Ø4
59.5 s	60.5 s
#10 	#10 
Ø6 (R)	Ø8
59.5 s	60.5 s

HCM 7th Signalized Intersection Summary
 10: Founders Pkwy & Rising Sun Dr Access/Rising Sun Dr

2030 Total AM
 09/24/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	0	19	86	0	157	7	1397	41	52	389	6
Future Volume (veh/h)	16	0	19	86	0	157	7	1397	41	52	389	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1856	1856	1856
Adj Flow Rate, veh/h	18	0	21	95	0	173	8	1535	45	57	427	7
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	3	3	3
Cap, veh/h	99	0	219	236	0	219	783	2796	1247	261	2774	1237
Arrive On Green	0.14	0.00	0.14	0.14	0.00	0.14	0.79	0.79	0.79	0.79	0.79	0.79
Sat Flow, veh/h	1212	0	1585	1391	0	1585	954	3554	1585	321	3526	1572
Grp Volume(v), veh/h	18	0	21	95	0	173	8	1535	45	57	427	7
Grp Sat Flow(s),veh/h/ln	1212	0	1585	1391	0	1585	954	1777	1585	321	1763	1572
Q Serve(g_s), s	1.8	0.0	1.4	7.7	0.0	12.7	0.2	19.4	0.7	9.7	3.5	0.1
Cycle Q Clear(g_c), s	14.4	0.0	1.4	9.1	0.0	12.7	3.8	19.4	0.7	29.1	3.5	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	99	0	219	236	0	219	783	2796	1247	261	2774	1237
V/C Ratio(X)	0.18	0.00	0.10	0.40	0.00	0.79	0.01	0.55	0.04	0.22	0.15	0.01
Avail Cap(c_a), veh/h	498	0	740	693	0	740	783	2796	1247	261	2774	1237
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.0	0.0	45.2	49.1	0.0	50.0	3.6	4.8	2.8	10.3	3.1	2.7
Incr Delay (d2), s/veh	0.9	0.0	0.2	1.1	0.0	6.3	0.0	0.8	0.1	1.9	0.1	0.0
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	0.6	0.0	0.6	2.7	0.0	5.4	0.0	6.0	0.2	0.8	1.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	57.9	0.0	45.4	50.2	0.0	56.3	3.6	5.6	2.9	12.2	3.2	2.7
LnGrp LOS	E		D	D		E	A	A	A	B	A	A
Approach Vol, veh/h	39			268			1588			491		
Approach Delay, s/veh	51.1			54.2			5.5			4.3		
Approach LOS	D			D			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	98.9			21.1			98.9			21.1		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green Setting (Gmax), s	55.0			56.0			55.0			56.0		
Max Q Clear Time (g_c+I1), s	21.4			16.4			31.1			14.7		
Green Ext Time (p_c), s	16.4			0.2			4.3			1.5		
Intersection Summary												
HCM 7th Control Delay, s/veh	11.4											
HCM 7th LOS	B											

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	11	0	81	0	21	862	80	105	1143	18
Future Volume (vph)	11	0	81	0	21	862	80	105	1143	18
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4		8		2			6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	4	4	8	8	2	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	60.5	60.5	60.5	60.5	59.5	59.5	59.5	59.5	59.5	59.5
Total Split (%)	50.4%	50.4%	50.4%	50.4%	49.6%	49.6%	49.6%	49.6%	49.6%	49.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 55
 Control Type: Actuated-Coordinated

Splits and Phases: 10: Founders Pkwy & Rising Sun Dr Access/Rising Sun Dr

#10 	#10 
Ø2 (R)	Ø4
59.5 s	60.5 s
#10 	#10 
Ø6 (R)	Ø8
59.5 s	60.5 s

HCM 7th Signalized Intersection Summary
 10: Founders Pkwy & Rising Sun Dr Access/Rising Sun Dr

2030 Total PM
 09/24/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	0	13	81	0	141	21	862	80	105	1143	18
Future Volume (veh/h)	11	0	13	81	0	141	21	862	80	105	1143	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	12	0	14	86	0	150	22	917	85	112	1216	19
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	94	0	189	216	0	189	378	2864	1277	475	2864	1277
Arrive On Green	0.12	0.00	0.12	0.12	0.00	0.12	0.81	0.81	0.81	0.81	0.81	0.81
Sat Flow, veh/h	1237	0	1585	1400	0	1585	451	3554	1585	562	3554	1585
Grp Volume(v), veh/h	12	0	14	86	0	150	22	917	85	112	1216	19
Grp Sat Flow(s),veh/h/ln	1237	0	1585	1400	0	1585	451	1777	1585	562	1777	1585
Q Serve(g_s), s	1.1	0.0	0.9	7.0	0.0	11.0	1.8	8.1	1.3	7.8	12.1	0.3
Cycle Q Clear(g_c), s	12.2	0.0	0.9	7.9	0.0	11.0	13.9	8.1	1.3	15.9	12.1	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	94	0	189	216	0	189	378	2864	1277	475	2864	1277
V/C Ratio(X)	0.13	0.00	0.07	0.40	0.00	0.79	0.06	0.32	0.07	0.24	0.42	0.01
Avail Cap(c_a), veh/h	524	0	740	702	0	740	378	2864	1277	475	2864	1277
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.3	0.0	47.0	50.5	0.0	51.4	5.5	3.0	2.4	5.1	3.4	2.3
Incr Delay (d2), s/veh	0.6	0.0	0.2	1.2	0.0	7.3	0.3	0.3	0.1	1.2	0.5	0.0
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	0.4	0.0	0.4	2.5	0.0	4.8	0.2	2.3	0.4	1.0	3.5	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	58.0	0.0	47.1	51.7	0.0	58.8	5.8	3.3	2.5	6.3	3.9	2.3
LnGrp LOS	E		D	D		E	A	A	A	A	A	A
Approach Vol, veh/h	26			236			1024			1347		
Approach Delay, s/veh	52.1			56.2			3.3			4.1		
Approach LOS	D			E			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	101.2			18.8			101.2			18.8		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green Setting (Gmax), s	55.0			56.0			55.0			56.0		
Max Q Clear Time (g_c+l1), s	15.9			14.2			17.9			13.0		
Green Ext Time (p_c), s	8.9			0.1			14.0			1.3		
Intersection Summary												
HCM 7th Control Delay, s/veh	8.9											
HCM 7th LOS	A											

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	13	0	88	0	7	1558	42	53	482	7
Future Volume (vph)	13	0	88	0	7	1558	42	53	482	7
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4		8		2			6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	4	4	8	8	2	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	60.5	60.5	60.5	60.5	59.5	59.5	59.5	59.5	59.5	59.5
Total Split (%)	50.4%	50.4%	50.4%	50.4%	49.6%	49.6%	49.6%	49.6%	49.6%	49.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

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

Natural Cycle: 60

Control Type: Actuated-Coordinated

Splits and Phases: 10: Founders Pkwy & Rising Sun Dr Access/Rising Sun Dr

#10 	#10 
Ø2 (R)	Ø4
59.5 s	60.5 s
#10 	#10 
Ø6 (R)	Ø8
59.5 s	60.5 s

HCM 7th Signalized Intersection Summary
 10: Founders Pkwy & Rising Sun Dr Access/Rising Sun Dr

2035 Total AM
 09/24/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	0	13	88	0	161	7	1558	42	53	482	7
Future Volume (veh/h)	13	0	13	88	0	161	7	1558	42	53	482	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1856	1856	1856
Adj Flow Rate, veh/h	14	0	14	97	0	177	8	1712	46	58	530	8
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	3	3	3
Cap, veh/h	95	0	218	242	0	218	710	2799	1248	220	2776	1238
Arrive On Green	0.14	0.00	0.14	0.14	0.00	0.14	0.79	0.79	0.79	0.79	0.79	0.79
Sat Flow, veh/h	1207	0	1585	1400	0	1585	867	3554	1585	271	3526	1572
Grp Volume(v), veh/h	14	0	14	97	0	177	8	1712	46	58	530	8
Grp Sat Flow(s),veh/h/ln	1207	0	1585	1400	0	1585	867	1777	1585	271	1763	1572
Q Serve(g_s), s	1.4	0.0	0.9	7.8	0.0	13.0	0.3	23.7	0.8	13.4	4.5	0.1
Cycle Q Clear(g_c), s	14.4	0.0	0.9	8.7	0.0	13.0	4.8	23.7	0.8	37.1	4.5	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	95	0	218	242	0	218	710	2799	1248	220	2776	1238
V/C Ratio(X)	0.15	0.00	0.06	0.40	0.00	0.81	0.01	0.61	0.04	0.26	0.19	0.01
Avail Cap(c_a), veh/h	493	0	740	702	0	740	710	2799	1248	220	2776	1238
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.2	0.0	45.0	48.8	0.0	50.2	3.8	5.2	2.8	12.8	3.2	2.7
Incr Delay (d2), s/veh	0.7	0.0	0.1	1.1	0.0	7.1	0.0	1.0	0.1	2.9	0.2	0.0
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	0.4	0.0	0.4	2.8	0.0	5.6	0.0	7.3	0.2	1.0	1.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	57.9	0.0	45.2	49.9	0.0	57.4	3.8	6.2	2.8	15.8	3.3	2.7
LnGrp LOS	E		D	D		E	A	A	A	B	A	A
Approach Vol, veh/h	28			274			1766			596		
Approach Delay, s/veh	51.5			54.7			6.1			4.5		
Approach LOS	D			D			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	99.0			21.0			99.0			21.0		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green Setting (Gmax), s	55.0			56.0			55.0			56.0		
Max Q Clear Time (g_c+I1), s	25.7			16.4			39.1			15.0		
Green Ext Time (p_c), s	17.6			0.1			4.6			1.5		
Intersection Summary												
HCM 7th Control Delay, s/veh	11.3											
HCM 7th LOS	B											

Timings

2035 Total PM

10: Founders Pkwy & Rising Sun Dr Access/Rising Sun Dr

09/24/2026

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	8	0	83	0	11	989	82	108	1277	11
Future Volume (vph)	8	0	83	0	11	989	82	108	1277	11
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4		8		2			6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	4	4	8	8	2	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	60.5	60.5	60.5	60.5	59.5	59.5	59.5	59.5	59.5	59.5
Total Split (%)	50.4%	50.4%	50.4%	50.4%	49.6%	49.6%	49.6%	49.6%	49.6%	49.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

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

Natural Cycle: 60

Control Type: Actuated-Coordinated

Splits and Phases: 10: Founders Pkwy & Rising Sun Dr Access/Rising Sun Dr

#10 	#10 
Ø2 (R)	Ø4
59.5 s	60.5 s
#10 	#10 
Ø6 (R)	Ø8
59.5 s	60.5 s

HCM 7th Signalized Intersection Summary
10: Founders Pkwy & Rising Sun Dr Access/Rising Sun Dr

2035 Total PM
09/24/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	0	8	83	0	144	11	989	82	108	1277	11
Future Volume (veh/h)	8	0	8	83	0	144	11	989	82	108	1277	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	9	0	9	88	0	153	12	1052	87	115	1359	12
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	94	0	192	223	0	192	330	2856	1274	416	2856	1274
Arrive On Green	0.12	0.00	0.12	0.12	0.00	0.12	0.80	0.80	0.80	0.80	0.80	0.80
Sat Flow, veh/h	1234	0	1585	1406	0	1585	396	3554	1585	494	3554	1585
Grp Volume(v), veh/h	9	0	9	88	0	153	12	1052	87	115	1359	12
Grp Sat Flow(s),veh/h/ln	1234	0	1585	1406	0	1585	396	1777	1585	494	1777	1585
Q Serve(g_s), s	0.9	0.0	0.6	7.1	0.0	11.3	1.2	9.9	1.4	10.2	14.6	0.2
Cycle Q Clear(g_c), s	12.1	0.0	0.6	7.7	0.0	11.3	15.8	9.9	1.4	20.1	14.6	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	94	0	192	223	0	192	330	2856	1274	416	2856	1274
V/C Ratio(X)	0.10	0.00	0.05	0.39	0.00	0.80	0.04	0.37	0.07	0.28	0.48	0.01
Avail Cap(c_a), veh/h	520	0	740	709	0	740	330	2856	1274	416	2856	1274
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.2	0.0	46.6	50.0	0.0	51.3	6.2	3.3	2.4	6.1	3.7	2.3
Incr Delay (d2), s/veh	0.4	0.0	0.1	1.1	0.0	7.3	0.2	0.4	0.1	1.6	0.6	0.0
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	0.3	0.0	0.2	2.6	0.0	4.9	0.1	2.9	0.4	1.2	4.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	57.6	0.0	46.7	51.1	0.0	58.6	6.5	3.6	2.5	7.7	4.3	2.3
LnGrp LOS	E		D	D		E	A	A	A	A	A	A
Approach Vol, veh/h	18			241			1151			1486		
Approach Delay, s/veh	52.2			55.9			3.6			4.6		
Approach LOS	D			E			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	101.0			19.0			101.0			19.0		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green Setting (Gmax), s	55.0			56.0			55.0			56.0		
Max Q Clear Time (g_c+I1), s	17.8			14.1			22.1			13.3		
Green Ext Time (p_c), s	10.4			0.1			15.7			1.3		
Intersection Summary												
HCM 7th Control Delay, s/veh	8.7											
HCM 7th LOS	A											

Timings
10: Founders Pkwy & Rising Sun Dr Access/Rising Sun Dr

2050 Total AM
09/24/2026

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	15	1	95	1	10	2020	60	670
Future Volume (vph)	15	1	95	1	10	2020	60	670
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	60.5	60.5	60.5	60.5	59.5	59.5	59.5	59.5
Total Split (%)	50.4%	50.4%	50.4%	50.4%	49.6%	49.6%	49.6%	49.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 10: Founders Pkwy & Rising Sun Dr Access/Rising Sun Dr

#10 	#10 
Ø2 (R)	Ø4
59.5 s	60.5 s
#10 	#10 
Ø6 (R)	Ø8
59.5 s	60.5 s

HCM 7th Signalized Intersection Summary
 10: Founders Pkwy & Rising Sun Dr Access/Rising Sun Dr

2050 Total AM
 09/24/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	1	15	95	1	175	10	2020	45	60	670	10
Future Volume (veh/h)	15	1	15	95	1	175	10	2020	45	60	670	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1856	1856	1856
Adj Flow Rate, veh/h	16	1	16	104	1	192	11	2220	49	66	736	11
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	3	3	3
Cap, veh/h	97	14	224	255	1	235	588	3991	88	159	3991	60
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.78	0.78	0.78	0.78	0.78	0.78
Sat Flow, veh/h	1190	94	1505	1396	8	1578	714	5141	113	164	5142	77
Grp Volume(v), veh/h	16	0	17	104	0	193	11	1468	801	66	483	264
Grp Sat Flow(s),veh/h/ln	1190	0	1599	1396	0	1586	714	1702	1850	164	1689	1842
Q Serve(g_s), s	1.6	0.0	1.1	8.3	0.0	14.1	0.5	20.4	20.5	31.9	4.5	4.5
Cycle Q Clear(g_c), s	15.7	0.0	1.1	9.4	0.0	14.1	5.0	20.4	20.5	52.4	4.5	4.5
Prop In Lane	1.00		0.94	1.00		0.99	1.00		0.06	1.00		0.04
Lane Grp Cap(c), veh/h	97	0	238	255	0	236	588	2642	1436	159	2621	1430
V/C Ratio(X)	0.17	0.00	0.07	0.41	0.00	0.82	0.02	0.56	0.56	0.41	0.18	0.18
Avail Cap(c_a), veh/h	475	0	746	699	0	740	588	2642	1436	159	2621	1430
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.1	0.0	43.9	48.0	0.0	49.5	4.2	5.3	5.3	15.6	3.5	3.5
Incr Delay (d2), s/veh	0.8	0.0	0.1	1.0	0.0	6.8	0.1	0.8	1.6	7.8	0.2	0.3
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	0.5	0.0	0.4	3.0	0.0	6.1	0.1	6.2	7.1	1.5	1.3	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	57.9	0.0	44.1	49.0	0.0	56.3	4.2	6.1	6.9	23.4	3.7	3.8
LnGrp LOS	E		D	D		E	A	A	A	C	A	A
Approach Vol, veh/h	33			297			2280			813		
Approach Delay, s/veh	50.8			53.8			6.4			5.3		
Approach LOS	D			D			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	97.6			22.4			97.6			22.4		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green Setting (Gmax), s	55.0			56.0			55.0			56.0		
Max Q Clear Time (g_c+l1), s	22.5			17.7			54.4			16.1		
Green Ext Time (p_c), s	23.3			0.1			0.4			1.6		
Intersection Summary												
HCM 7th Control Delay, s/veh	10.7											
HCM 7th LOS	B											

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	10	1	90	1	15	1350	120	1705
Future Volume (vph)	10	1	90	1	15	1350	120	1705
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	60.5	60.5	60.5	60.5	59.5	59.5	59.5	59.5
Total Split (%)	50.4%	50.4%	50.4%	50.4%	49.6%	49.6%	49.6%	49.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

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

Natural Cycle: 80

Control Type: Actuated-Coordinated

Splits and Phases: 10: Founders Pkwy & Rising Sun Dr Access/Rising Sun Dr

#10 	#10 
Ø2 (R)	Ø4
59.5 s	60.5 s
#10 	#10 
Ø6 (R)	Ø8
59.5 s	60.5 s

HCM 7th Signalized Intersection Summary
 10: Founders Pkwy & Rising Sun Dr Access/Rising Sun Dr

2050 Total PM
 09/24/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	1	10	90	1	160	15	1350	90	120	1705	15
Future Volume (veh/h)	10	1	10	90	1	160	15	1350	90	120	1705	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	11	1	11	96	1	170	16	1436	96	128	1814	16
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	95	18	196	238	1	210	233	3870	259	299	4133	36
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.79	0.79	0.79	0.79	0.79	0.79
Sat Flow, veh/h	1214	134	1472	1402	9	1577	254	4889	327	339	5220	46
Grp Volume(v), veh/h	11	0	12	96	0	171	16	1000	532	128	1183	647
Grp Sat Flow(s),veh/h/ln	1214	0	1605	1402	0	1586	254	1702	1812	339	1702	1862
Q Serve(g_s), s	1.1	0.0	0.8	7.7	0.0	12.6	2.6	10.4	10.4	21.4	13.3	13.3
Cycle Q Clear(g_c), s	13.6	0.0	0.8	8.5	0.0	12.6	15.9	10.4	10.4	31.8	13.3	13.3
Prop In Lane	1.00		0.92	1.00		0.99	1.00		0.18	1.00		0.02
Lane Grp Cap(c), veh/h	95	0	214	238	0	212	233	2695	1434	299	2695	1474
V/C Ratio(X)	0.12	0.00	0.06	0.40	0.00	0.81	0.07	0.37	0.37	0.43	0.44	0.44
Avail Cap(c_a), veh/h	499	0	749	705	0	740	233	2695	1434	299	2695	1474
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.1	0.0	45.4	49.1	0.0	50.5	6.5	3.7	3.7	8.4	4.0	4.0
Incr Delay (d2), s/veh	0.5	0.0	0.1	1.1	0.0	7.2	0.6	0.4	0.7	4.4	0.5	1.0
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	0.3	0.0	0.3	2.8	0.0	5.4	0.2	3.0	3.4	1.8	3.9	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	57.7	0.0	45.5	50.2	0.0	57.7	7.1	4.1	4.4	12.8	4.5	4.9
LnGrp LOS	E		D	D		E	A	A	A	B	A	A
Approach Vol, veh/h	23			267			1548			1958		
Approach Delay, s/veh	51.3			55.0			4.2			5.2		
Approach LOS	D			D			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	99.5			20.5			99.5			20.5		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green Setting (Gmax), s	55.0			56.0			55.0			56.0		
Max Q Clear Time (g_c+I1), s	17.9			15.6			33.8			14.6		
Green Ext Time (p_c), s	15.6			0.1			15.6			1.4		
Intersection Summary												
HCM 7th Control Delay, s/veh	8.6											
HCM 7th LOS	A											

Intersection

Int Delay, s/veh 8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	0	13	0	0	35
Future Vol, veh/h	0	0	13	0	0	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	14	0	0	38

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1 0 29 1
Stage 1	-	-	- 1 -
Stage 2	-	-	- 28 -
Critical Hdwy	-	-	4.12 - 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	-	-	2.218 - 3.518 3.318
Pot Cap-1 Maneuver	-	-	1622 - 985 1083
Stage 1	-	-	- 1022 -
Stage 2	-	-	- 994 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1622 - 977 1083
Mov Cap-2 Maneuver	-	-	- 977 -
Stage 1	-	-	- 1013 -
Stage 2	-	-	- 994 -

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	7.24	8.44
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1083	-	-	1622	-
HCM Lane V/C Ratio	0.035	-	-	0.009	-
HCM Ctrl Dly (s/v)	8.4	-	-	7.2	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection

Int Delay, s/veh 7.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	0	40	0	0	24
Future Vol, veh/h	0	0	40	0	0	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	43	0	0	26

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

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	7.28	8.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1083	-	-	1622	-
HCM Lane V/C Ratio	0.024	-	-	0.027	-
HCM Ctrl Dly (s/v)	8.4	-	-	7.3	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Intersection

Int Delay, s/veh 1.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	124	3	8	76	7	22
Future Vol, veh/h	124	3	8	76	7	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	135	3	9	83	8	24

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	138
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1446
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1446
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.71	9.31
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	866	-	-	1446	-
HCM Lane V/C Ratio	0.036	-	-	0.006	-
HCM Ctrl Dly (s/v)	9.3	-	-	7.5	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection

Int Delay, s/veh 1.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	72	8	25	103	5	15
Future Vol, veh/h	72	8	25	103	5	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	78	9	27	112	5	16

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	87
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1509
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1509
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	1.45	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	899	-	-	1509	-
HCM Lane V/C Ratio	0.024	-	-	0.018	-
HCM Ctrl Dly (s/v)	9.1	-	-	7.4	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Intersection

Int Delay, s/veh 1.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	129	3	8	81	7	22
Future Vol, veh/h	129	3	8	81	7	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	140	3	9	88	8	24

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	143
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1439
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1439
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.68	9.35
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	858	-	-	1439	-
HCM Lane V/C Ratio	0.037	-	-	0.006	-
HCM Ctrl Dly (s/v)	9.4	-	-	7.5	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection

Int Delay, s/veh 1.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	77	8	25	108	5	15
Future Vol, veh/h	77	8	25	108	5	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	84	9	27	117	5	16

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	92
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1502
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1502
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	1.4	9.14
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	891	-	-	1502	-
HCM Lane V/C Ratio	0.024	-	-	0.018	-
HCM Ctrl Dly (s/v)	9.1	-	-	7.4	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Timings
1: Santa Fe Drive & Meadows Parkway

2030 Total AM
09/30/2026

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	248	1218	67	1085	349	267	206	81	200	272	222
Future Volume (vph)	248	1218	67	1085	349	267	206	81	200	272	222
Turn Type	Prot	NA	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	1	6		3	8		7	4	
Permitted Phases					Free			8			4
Detector Phase	5	2	1	6		3	8	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	15.0	5.0	15.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	38.8	10.0	38.8		10.0	45.0	45.0	10.0	44.0	44.0
Total Split (s)	43.0	64.0	24.0	45.0		29.0	33.0	33.0	29.0	33.0	33.0
Total Split (%)	28.7%	42.7%	16.0%	30.0%		19.3%	22.0%	22.0%	19.3%	22.0%	22.0%
Yellow Time (s)	3.0	4.8	3.0	4.8		3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.8	5.0	6.8		5.0	6.0	6.0	5.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max		None	None	None	None	None	None

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 145

Control Type: Actuated-Coordinated

Splits and Phases: 1: Santa Fe Drive & Meadows Parkway

#1  Ø1	#1  Ø2 (R)	#1  Ø3	#1  Ø4
24 s	64 s	29 s	33 s
#1  Ø5	#1  Ø6 (R)	#1  Ø7	#1  Ø8
43 s	45 s	29 s	33 s

HCM 7th Signalized Intersection Capacity Analysis
1: Santa Fe Drive & Meadows Parkway

2030 Total AM
09/30/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	248	1218	270	67	1085	349	267	206	81	200	272	222
Future Volume (veh/h)	248	1218	270	67	1085	349	267	206	81	200	272	222
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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			
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1811	1811	1811	1767	1767	1767
Adj Flow Rate, veh/h	270	1324	0	73	1179	0	290	224	0	217	296	0
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	6	6	6	9	9	9
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	297	2142		115	1668		345	446		269	366	
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
Prop Arrive On Green	0.17	0.60	0.00	0.07	0.94	0.00	0.10	0.13	0.00	0.08	0.11	0.00
Unsig. Movement Delay						0.00						
Ln Grp Delay, s/veh	77.6	20.2	0.0	74.0	4.9	0.0	73.1	61.6	0.0	73.3	69.6	0.0
Ln Grp LOS	E	C		E	A	A	E	E		E	E	
Approach Vol, veh/h	1594				1631				514			
Approach Delay, s/veh	29.9				6.8				68.1			
Approach LOS	C				A				E			
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Case No	2.0	4.0	2.0	3.0	2.0	3.0	2.0	3.0				
Phs Duration (G+Y+Rc), s	10.0	97.2	20.5	22.4	30.0	77.2	17.4	25.5				
Change Period (Y+Rc), s	5.0	6.8	5.0	6.0	5.0	6.8	5.0	6.0				
Max Green (Gmax), s	19.0	57.2	24.0	27.0	38.0	38.2	24.0	27.0				
Max Allow Headway (MAH), s	3.8	5.2	3.8	5.3	3.8	5.2	3.8	5.3				
Max Q Clear (g_c+I1), s	5.1	37.4	14.8	14.9	24.3	11.1	11.8	11.1				
Green Ext Time (g_e), s	0.1	10.1	0.7	1.4	0.7	10.2	0.6	1.2				
Prob of Phs Call (p_c)	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Prob of Max Out (p_x)	0.00	0.00	0.02	0.06	0.00	0.00	0.00	0.01				
Left-Turn Movement Data												
Assigned Mvmt	1	3		5		7						
Mvmt Sat Flow, veh/h	3456	3346		1781		3264						
Through Movement Data												
Assigned Mvmt	2		4		6		8					
Mvmt Sat Flow, veh/h	3647		3357		3554		3441					
Right-Turn Movement Data												
Assigned Mvmt	12		14		16		18					
Mvmt Sat Flow, veh/h	0		1497		1585		1535					
Left Lane Group Data												
Assigned Mvmt	1	0	3	0	5	0	7	0				

HCM 7th Signalized Intersection Capacity Analysis
1: Santa Fe Drive & Meadows Parkway

2030 Total AM
09/30/2026

Lane Assignment	L (Prot)		L (Prot)		L (Prot)		L (Prot)	
Lanes in Grp	2	0	2	0	1	0	2	0
Grp Vol (v), veh/h	73	0	290	0	270	0	217	0
Grp Sat Flow (s), veh/h/ln	1728	0	1673	0	1781	0	1632	0
Q Serve Time (g_s), s	3.1	0.0	12.8	0.0	22.3	0.0	9.8	0.0
Cycle Q Clear Time (g_c), s	3.1	0.0	12.8	0.0	22.3	0.0	9.8	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	115	0	345	0	297	0	269	0
V/C Ratio (X)	0.64	0.00	0.84	0.00	0.91	0.00	0.81	0.00
Avail Cap (c_a), veh/h	438	0	535	0	451	0	522	0
Upstream Filter (I)	0.84	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	69.1	0.0	66.1	0.0	61.4	0.0	67.6	0.0
Incr Delay (d2), s/veh	4.9	0.0	7.1	0.0	16.2	0.0	5.7	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	74.0	0.0	73.1	0.0	77.6	0.0	73.3	0.0
1st-Term Q (Q1), veh/ln	1.3	0.0	5.5	0.0	10.1	0.0	4.1	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.3	0.0	1.3	0.0	0.2	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	1.4	0.0	5.8	0.0	11.5	0.0	4.3	0.0
%ile Storage Ratio (RQ%)	0.08	0.00	0.41	0.00	1.06	0.00	0.15	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T		T		T		T	
Lanes in Grp	0	2	0	2	0	2	0	2
Grp Vol (v), veh/h	0	1324	0	296	0	1179	0	224
Grp Sat Flow (s), veh/h/ln	0	1777	0	1678	0	1777	0	1721
Q Serve Time (g_s), s	0.0	35.4	0.0	12.9	0.0	9.1	0.0	9.1
Cycle Q Clear Time (g_c), s	0.0	35.4	0.0	12.9	0.0	9.1	0.0	9.1
Lane Grp Cap (c), veh/h	0	2142	0	366	0	1668	0	446
V/C Ratio (X)	0.00	0.62	0.00	0.81	0.00	0.71	0.00	0.50
Avail Cap (c_a), veh/h	0	2142	0	604	0	1668	0	619
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.84	0.00	1.00
Uniform Delay (d1), s/veh	0.0	18.9	0.0	65.3	0.0	2.7	0.0	60.8
Incr Delay (d2), s/veh	0.0	1.3	0.0	4.3	0.0	2.2	0.0	0.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	20.2	0.0	69.6	0.0	4.9	0.0	61.6
1st-Term Q (Q1), veh/ln	0.0	14.4	0.0	5.6	0.0	1.4	0.0	4.0

HCM 7th Signalized Intersection Capacity Analysis
1: Santa Fe Drive & Meadows Parkway

2030 Total AM
09/30/2026

2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.2	0.0	0.5	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	14.8	0.0	5.8	0.0	1.9	0.0	4.1
%ile Storage Ratio (RQ%)	0.00	0.67	0.00	0.22	0.00	0.05	0.00	0.10
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment				R		R		R
Lanes in Grp	0	0	0	1	0	1	0	1
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1497	0	1585	0	1535
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	0	0	163	0	744	0	199
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	269	0	744	0	276
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	30.7
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
Unsignalized Delay for [WBR] is included in calculations of the approach delay and intersection delay.
Unsignalized Delay for [NBR, EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Timings
1: Santa Fe Drive & Meadows Parkway

2030 Total PM
09/30/2026

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	319	1019	90	1294	273	294	347	119	324	380	297
Future Volume (vph)	319	1019	90	1294	273	294	347	119	324	380	297
Turn Type	Prot	NA	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	1	6		3	8		7	4	
Permitted Phases					Free			8			4
Detector Phase	5	2	1	6		3	8	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	15.0	5.0	15.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	38.8	10.0	38.8		10.0	45.0	45.0	10.0	44.0	44.0
Total Split (s)	29.0	68.0	26.0	65.0		27.0	21.0	21.0	35.0	29.0	29.0
Total Split (%)	19.3%	45.3%	17.3%	43.3%		18.0%	14.0%	14.0%	23.3%	19.3%	19.3%
Yellow Time (s)	3.0	4.8	3.0	4.8		3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.8	5.0	6.8		5.0	6.0	6.0	5.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max		None	None	None	None	None	None

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 27 (18%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 145

Control Type: Actuated-Coordinated

Splits and Phases: 1: Santa Fe Drive & Meadows Parkway

#1  Ø1 26 s	#1  Ø2 (R) 68 s	#1  Ø3 27 s	#1  Ø4 29 s
#1  Ø5 29 s	#1  Ø6 (R) 65 s	#1  Ø7 35 s	#1  Ø8 21 s

HCM 7th Signalized Intersection Capacity Analysis
1: Santa Fe Drive & Meadows Parkway

2030 Total PM
09/30/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	319	1019	231	90	1294	273	294	347	119	324	380	297
Future Volume (veh/h)	319	1019	231	90	1294	273	294	347	119	324	380	297
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1856	1856	1856
Adj Flow Rate, veh/h	326	1040	0	92	1320	0	300	354	0	331	388	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	3	3	3
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	285	2052		137	1625		355	413		393	452	
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
Prop Arrive On Green	0.16	0.58	0.00	0.08	0.91	0.00	0.10	0.12	0.00	0.11	0.13	0.00
Unsig. Movement Delay						0.00						
Ln Grp Delay, s/veh	160.9	19.8	0.0	72.2	7.6	0.0	75.0	81.1	0.0	70.1	75.5	0.0
Ln Grp LOS	F	B		E	A	A	E	F		E	E	
Approach Vol, veh/h	1366		1691			654			719			
Approach Delay, s/veh	53.5		9.9			78.3			73.0			
Approach LOS	D		A			E			E			
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Case No	2.0	4.0	2.0	3.0	2.0	3.0	2.0	3.0				
Phs Duration (G+Y+Rc), s	11.0	93.4	20.4	25.2	29.0	75.4	22.2	23.5				
Change Period (Y+Rc), s	5.0	6.8	5.0	6.0	5.0	6.8	5.0	6.0				
Max Green (Gmax), s	21.0	61.2	22.0	23.0	24.0	58.2	30.0	15.0				
Max Allow Headway (MAH), s	3.8	5.2	3.8	5.2	3.8	5.2	3.8	5.2				
Max Q Clear (g_c+I1), s	5.9	28.2	14.8	18.2	26.0	20.6	16.2	16.7				
Green Ext Time (g_e), s	0.2	9.2	0.6	1.0	0.0	13.5	1.0	0.0				
Prob of Phs Call (p_c)	0.98	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Prob of Max Out (p_x)	0.00	0.00	0.10	1.00	1.00	0.00	0.00	1.00				
Left-Turn Movement Data												
Assigned Mvmt	1		3		5		7					
Mvmt Sat Flow, veh/h	3456		3456		1781		3428					
Through Movement Data												
Assigned Mvmt		2			4		6		8			
Mvmt Sat Flow, veh/h		3647			3526		3554		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			0		1572		1585		1585			
Left Lane Group Data												
Assigned Mvmt	1	0	3	0	5	0	7	0				

HCM 7th Signalized Intersection Capacity Analysis
1: Santa Fe Drive & Meadows Parkway

2030 Total PM
09/30/2026

Lane Assignment	L (Prot)		L (Prot)		L (Prot)		L (Prot)	
Lanes in Grp	2	0	2	0	1	0	2	0
Grp Vol (v), veh/h	92	0	300	0	326	0	331	0
Grp Sat Flow (s), veh/h/ln	1728	0	1728	0	1781	0	1714	0
Q Serve Time (g_s), s	3.9	0.0	12.8	0.0	24.0	0.0	14.2	0.0
Cycle Q Clear Time (g_c), s	3.9	0.0	12.8	0.0	24.0	0.0	14.2	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	137	0	355	0	285	0	393	0
V/C Ratio (X)	0.67	0.00	0.85	0.00	1.14	0.00	0.84	0.00
Avail Cap (c_a), veh/h	484	0	507	0	285	0	686	0
Upstream Filter (I)	0.72	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	68.1	0.0	66.1	0.0	63.0	0.0	65.1	0.0
Incr Delay (d2), s/veh	4.1	0.0	8.8	0.0	97.9	0.0	5.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	72.2	0.0	75.0	0.0	160.9	0.0	70.1	0.0
1st-Term Q (Q1), veh/ln	1.7	0.0	5.7	0.0	10.9	0.0	6.2	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.4	0.0	7.8	0.0	0.3	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	1.8	0.0	6.1	0.0	18.6	0.0	6.5	0.0
%ile Storage Ratio (RQ%)	0.10	0.00	0.41	0.00	1.72	0.00	0.22	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	10.2	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T		T		T		T	
Lanes in Grp	0	2	0	2	0	2	0	2
Grp Vol (v), veh/h	0	1040	0	388	0	1320	0	354
Grp Sat Flow (s), veh/h/ln	0	1777	0	1763	0	1777	0	1777
Q Serve Time (g_s), s	0.0	26.2	0.0	16.2	0.0	18.6	0.0	14.7
Cycle Q Clear Time (g_c), s	0.0	26.2	0.0	16.2	0.0	18.6	0.0	14.7
Lane Grp Cap (c), veh/h	0	2052	0	452	0	1625	0	413
V/C Ratio (X)	0.00	0.51	0.00	0.86	0.00	0.81	0.00	0.86
Avail Cap (c_a), veh/h	0	2052	0	541	0	1625	0	413
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.72	0.00	1.00
Uniform Delay (d1), s/veh	0.0	18.9	0.0	64.1	0.0	4.3	0.0	65.0
Incr Delay (d2), s/veh	0.0	0.9	0.0	11.5	0.0	3.3	0.0	16.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	19.8	0.0	75.5	0.0	7.6	0.0	81.1
1st-Term Q (Q1), veh/ln	0.0	10.8	0.0	7.3	0.0	2.2	0.0	6.7

HCM 7th Signalized Intersection Capacity Analysis
1: Santa Fe Drive & Meadows Parkway

2030 Total PM
09/30/2026

2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.7	0.0	0.8	0.0	0.9
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	11.1	0.0	8.0	0.0	2.9	0.0	7.6
%ile Storage Ratio (RQ%)	0.00	0.50	0.00	0.29	0.00	0.07	0.00	0.19
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment				R		R		R
Lanes in Grp	0	0	0	1	0	1	0	1
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1572	0	1585	0	1585
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	0	0	201	0	725	0	184
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	241	0	725	0	184
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	43.7
HCM 7th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
Unsignalized Delay for [WBR] is included in calculations of the approach delay and intersection delay.
Unsignalized Delay for [NBR, EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Timings
2: Factory Boulevard /Factory Boulevard & Meadows Parkway

2030 Total AM
09/30/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	133	1287	79	249	1354	255	20	21	130	194	36	127
Future Volume (vph)	133	1287	79	249	1354	255	20	21	130	194	36	127
Turn Type	Prot	NA	Perm	Prot	NA	Free	Split	NA	Perm	Split	NA	Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases			2			Free			8			4
Detector Phase	5	2	2	1	6		8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	5.0	20.0	20.0	5.0	20.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	12.0	39.0	39.0	12.0	42.0		11.0	11.0	11.0	58.0	58.0	58.0
Total Split (s)	21.0	50.0	50.0	26.0	55.0		48.0	48.0	48.0	26.0	26.0	26.0
Total Split (%)	14.0%	33.3%	33.3%	17.3%	36.7%		32.0%	32.0%	32.0%	17.3%	17.3%	17.3%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes							
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None	None	None	None	None

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 125

Control Type: Actuated-Coordinated

Splits and Phases: 2: Factory Boulevard /Factory Boulevard & Meadows Parkway

#2 	#2 	#2 	#2 
Ø1	Ø2 (R)	Ø4	Ø8
26 s	50 s	26 s	48 s
#2 	#2 		
Ø5	Ø6 (R)		
21 s	55 s		

HCM 7th Signalized Intersection Capacity Analysis
2: Factory Boulevard /Factory Boulevard & Meadows Parkway

2030 Total AM
09/30/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	133	1287	79	249	1354	255	20	21	130	194	36	127
Future Volume (veh/h)	133	1287	79	249	1354	255	20	21	130	194	36	127
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1841	1841	1841	1870	1870	1870	1737	1737	1737	1870	1870	1870
Adj Flow Rate, veh/h	149	1446	89	280	1521	0	22	24	146	218	40	76
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	2	2	2	11	11	11	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	194	2776	862	329	3298		370	200	169	335	125	106
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.11	1.00	1.00	0.18	1.00	0.00	0.12	0.12	0.12	0.07	0.07	0.07
Unsig. Movement Delay												
Ln Grp Delay, s/veh	68.5	0.3	0.1	68.9	0.4	0.0	59.2	59.8	77.2	70.4	68.2	77.4
Ln Grp LOS	E	A	A	E	A		E	E	E	E	E	E
Approach Vol, veh/h	1684			1801			192			334		
Approach Delay, s/veh	6.4			11.0			72.9			71.8		
Approach LOS	A			B			E			E		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	8	4	5	6						
Case No	2.0	3.0	9.0	9.0	2.0	3.0						
Phs Duration (G+Y+Rc), s	20.9	89.9	23.3	16.0	15.6	95.2						
Change Period (Y+Rc), s	7.0	7.0	6.0	6.0	7.0	7.0						
Max Green (Gmax), s	19.0	43.0	42.0	20.0	14.0	48.0						
Max Allow Headway (MAH), s	3.8	5.2	4.2	4.0	3.8	5.2						
Max Q Clear (g_c+I1), s	13.4	2.0	16.6	9.1	8.4	2.0						
Green Ext Time (g_e), s	0.5	15.7	0.7	1.0	0.2	16.9						
Prob of Phs Call (p_c)	1.00	1.00	1.00	1.00	1.00	1.00						
Prob of Max Out (p_x)	0.28	0.00	0.00	0.02	0.17	0.00						
Left-Turn Movement Data												
Assigned Mvmt	1		3	7	5							
Mvmt Sat Flow, veh/h	3563		3209	5023	3401							
Through Movement Data												
Assigned Mvmt		2	8	4		6						
Mvmt Sat Flow, veh/h		5025	1737	1870		5611						
Right-Turn Movement Data												
Assigned Mvmt		12	18	14		16						
Mvmt Sat Flow, veh/h		1560	1472	1585		1585						
Left Lane Group Data												
Assigned Mvmt	1	0	3	7	5	0	0	0				

HCM 7th Signalized Intersection Capacity Analysis
2: Factory Boulevard /Factory Boulevard & Meadows Parkway

2030 Total AM
09/30/2026

Lane Assignment	L (Prot)		L		L L (Prot)			
Lanes in Grp	2	0	2	3	2	0	0	0
Grp Vol (v), veh/h	280	0	22	218	149	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	1605	1674	1700	0	0	0
Q Serve Time (g_s), s	11.4	0.0	0.9	6.4	6.4	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	11.4	0.0	0.9	6.4	6.4	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	1605	1674	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	329	0	370	335	194	0	0	0
V/C Ratio (X)	0.85	0.00	0.06	0.65	0.77	0.00	0.00	0.00
Avail Cap (c_a), veh/h	451	0	899	670	317	0	0	0
Upstream Filter (I)	0.79	0.00	1.00	1.00	0.47	0.00	0.00	0.00
Uniform Delay (d1), s/veh	60.1	0.0	59.1	68.3	65.5	0.0	0.0	0.0
Incr Delay (d2), s/veh	8.8	0.0	0.1	2.1	3.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	68.9	0.0	59.2	70.4	68.5	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	4.7	0.0	0.4	2.7	2.7	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.4	0.0	0.0	0.1	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	5.1	0.0	0.4	2.8	2.7	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.29	0.00	0.04	0.24	0.18	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	8	4	0	6	0	0
Lane Assignment	T		T		T		T	
Lanes in Grp	0	3	1	1	0	3	0	0
Grp Vol (v), veh/h	0	1446	24	40	0	1521	0	0
Grp Sat Flow (s), veh/h/ln	0	1675	1737	1870	0	1870	0	0
Q Serve Time (g_s), s	0.0	0.0	1.9	3.1	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	1.9	3.1	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	2776	200	125	0	3298	0	0
V/C Ratio (X)	0.00	0.52	0.12	0.32	0.00	0.46	0.00	0.00
Avail Cap (c_a), veh/h	0	2776	486	249	0	3298	0	0
Upstream Filter (I)	0.00	0.47	1.00	1.00	0.00	0.79	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	59.5	66.8	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.3	1.5	0.0	0.4	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.3	59.8	68.2	0.0	0.4	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.8	1.5	0.0	0.0	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis
2: Factory Boulevard /Factory Boulevard & Meadows Parkway

2030 Total AM
09/30/2026

2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.8	1.5	0.0	0.1	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.03	0.05	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	18	14	0	16	0	0
Lane Assignment		R	R	R		R		
Lanes in Grp	0	1	1	1	0	1	0	0
Grp Vol (v), veh/h	0	89	146	76	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1560	1472	1585	0	1585	0	0
Q Serve Time (g_s), s	0.0	0.0	14.6	7.1	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	14.6	7.1	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	862	169	106	0	932	0	0
V/C Ratio (X)	0.00	0.10	0.86	0.72	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	862	412	211	0	932	0	0
Upstream Filter (I)	0.00	0.47	1.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	65.2	68.6	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	12.0	8.8	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.1	77.2	77.4	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	5.5	2.9	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.6	0.3	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	6.1	3.1	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.66	0.11	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	17.1
HCM 7th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Timings
2: Factory Boulevard /Factory Boulevard & Meadows Parkway

2030 Total PM
09/30/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	188	1168	106	219	1287	479	89	64	300	682	100	281
Future Volume (vph)	188	1168	106	219	1287	479	89	64	300	682	100	281
Turn Type	Prot	NA	Perm	Prot	NA	Free	Split	NA	Perm	Split	NA	Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases			2			Free			8			4
Detector Phase	5	2	2	1	6		8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	5.0	20.0	20.0	5.0	20.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	12.0	39.0	39.0	12.0	42.0		11.0	11.0	11.0	58.0	58.0	58.0
Total Split (s)	29.0	48.0	48.0	30.0	49.0		35.0	35.0	35.0	37.0	37.0	37.0
Total Split (%)	19.3%	32.0%	32.0%	20.0%	32.7%		23.3%	23.3%	23.3%	24.7%	24.7%	24.7%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes							
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None	None	None	None	None

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 145

Control Type: Actuated-Coordinated

Splits and Phases: 2: Factory Boulevard /Factory Boulevard & Meadows Parkway

#2 	#2 	#2 	#2 
Ø1	Ø2 (R)	Ø4	Ø8
30 s	48 s	37 s	35 s
#2 	#2 		
Ø5	Ø6 (R)		
29 s	49 s		

HCM 7th Signalized Intersection Capacity Analysis
2: Factory Boulevard /Factory Boulevard & Meadows Parkway

2030 Total PM
09/30/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	1168	106	219	1287	479	89	64	300	682	100	281
Future Volume (veh/h)	188	1168	106	219	1287	479	89	64	300	682	100	281
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	198	1229	112	231	1414	0	94	67	145	718	105	127
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	249	2385	741	287	2670		378	205	173	852	317	269
HCM Platoon Ratio	2.00	2.00	2.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.14	0.93	0.93	0.11	0.63	0.00	0.11	0.11	0.11	0.17	0.17	0.17
Unsig. Movement Delay												
Ln Grp Delay, s/veh	67.0	3.3	2.9	70.0	18.9	0.0	61.5	62.6	75.6	65.8	55.4	57.5
Ln Grp LOS	E	A	A	E	B		E	E	E	E	E	E
Approach Vol, veh/h	1539			1645			306			950		
Approach Delay, s/veh	11.5			26.0			68.4			63.5		
Approach LOS	B			C			E			E		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	8	4	5	6						
Case No	2.0	3.0	9.0	9.0	2.0	3.0						
Phs Duration (G+Y+Rc), s	19.1	77.1	22.4	31.4	17.8	78.4						
Change Period (Y+Rc), s	7.0	7.0	6.0	6.0	7.0	7.0						
Max Green (Gmax), s	23.0	41.0	29.0	31.0	22.0	42.0						
Max Allow Headway (MAH), s	3.8	5.1	4.2	4.0	3.8	5.2						
Max Q Clear (g_c+I1), s	11.5	6.6	15.5	22.8	10.3	22.9						
Green Ext Time (g_e), s	0.6	11.9	1.0	2.7	0.5	10.2						
Prob of Phs Call (p_c)	1.00	1.00	1.00	1.00	1.00	1.00						
Prob of Max Out (p_x)	0.00	0.00	0.01	0.36	0.00	0.00						
Left-Turn Movement Data												
Assigned Mvmt	1		3	7	5							
Mvmt Sat Flow, veh/h	3563		3456	5023	3456							
Through Movement Data												
Assigned Mvmt		2	8	4		6						
Mvmt Sat Flow, veh/h		5106	1870	1870		5611						
Right-Turn Movement Data												
Assigned Mvmt		12	18	14		16						
Mvmt Sat Flow, veh/h		1585	1585	1585		1585						
Left Lane Group Data												
Assigned Mvmt	1	0	3	7	5	0	0	0				

HCM 7th Signalized Intersection Capacity Analysis
2: Factory Boulevard /Factory Boulevard & Meadows Parkway

2030 Total PM
09/30/2026

Lane Assignment	L (Prot)		L		L L (Prot)			
Lanes in Grp	2	0	2	3	2	0	0	0
Grp Vol (v), veh/h	231	0	94	718	198	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	1728	1674	1728	0	0	0
Q Serve Time (g_s), s	9.5	0.0	3.7	20.8	8.3	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	9.5	0.0	3.7	20.8	8.3	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	1728	1674	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	287	0	378	852	249	0	0	0
V/C Ratio (X)	0.81	0.00	0.25	0.84	0.80	0.00	0.00	0.00
Avail Cap (c_a), veh/h	546	0	668	1038	507	0	0	0
Upstream Filter (I)	0.78	0.00	1.00	1.00	0.65	0.00	0.00	0.00
Uniform Delay (d1), s/veh	65.8	0.0	61.2	60.3	63.2	0.0	0.0	0.0
Incr Delay (d2), s/veh	4.2	0.0	0.3	5.4	3.8	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	70.0	0.0	61.5	65.8	67.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	4.2	0.0	1.7	8.9	3.5	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.2	0.0	0.0	0.4	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	4.4	0.0	1.7	9.3	3.6	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.25	0.00	0.17	0.79	0.23	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	8	4	0	6	0	0
Lane Assignment	T		T		T		T	
Lanes in Grp	0	3	1	1	0	3	0	0
Grp Vol (v), veh/h	0	1229	67	105	0	1414	0	0
Grp Sat Flow (s), veh/h/ln	0	1702	1870	1870	0	1870	0	0
Q Serve Time (g_s), s	0.0	4.6	5.0	7.4	0.0	20.9	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	4.6	5.0	7.4	0.0	20.9	0.0	0.0
Lane Grp Cap (c), veh/h	0	2385	205	317	0	2670	0	0
V/C Ratio (X)	0.00	0.52	0.33	0.33	0.00	0.53	0.00	0.00
Avail Cap (c_a), veh/h	0	2385	362	387	0	2670	0	0
Upstream Filter (I)	0.00	0.65	1.00	1.00	0.00	0.78	0.00	0.00
Uniform Delay (d1), s/veh	0.0	2.8	61.7	54.8	0.0	18.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.5	0.9	0.6	0.0	0.6	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	3.3	62.6	55.4	0.0	18.9	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.0	2.4	3.5	0.0	8.1	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis
2: Factory Boulevard /Factory Boulevard & Meadows Parkway

2030 Total PM
09/30/2026

2nd-Term Q (Q2), veh/ln	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.1	2.4	3.6	0.0	8.3	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.03	0.09	0.12	0.00	0.34	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	18	14	0	16	0	0
Lane Assignment		R	R	R		R		
Lanes in Grp	0	1	1	1	0	1	0	0
Grp Vol (v), veh/h	0	112	145	127	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	1585	1585	0	1585	0	0
Q Serve Time (g_s), s	0.0	0.8	13.5	10.8	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.8	13.5	10.8	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	741	173	269	0	754	0	0
V/C Ratio (X)	0.00	0.15	0.84	0.47	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	741	306	328	0	754	0	0
Upstream Filter (I)	0.00	0.65	1.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	2.6	65.5	56.2	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	10.1	1.3	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	2.9	75.6	57.5	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.3	5.5	4.4	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.5	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.3	5.9	4.5	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.04	0.60	0.15	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

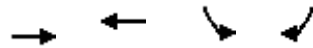
HCM 7th Control Delay, s/veh	31.9
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Timings
3: Meadows Parkway & SB I-25 Ramps

2030 Total AM
09/30/2026

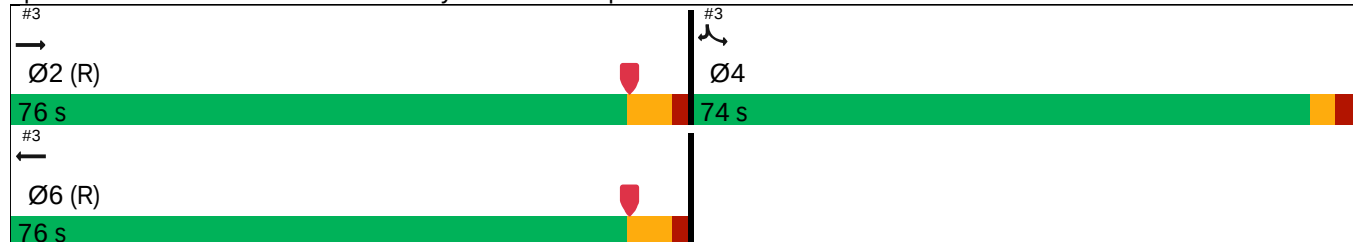


Lane Group	EBT	WBT	SBL	SBR
Lane Configurations	↑↑↑	↑↑↑	↑↑↑	↑↑
Traffic Volume (vph)	1394	1340	546	518
Future Volume (vph)	1394	1340	546	518
Turn Type	NA	NA	Prot	Prot
Protected Phases	2	6	4	4
Permitted Phases				
Detector Phase	2	6	4	4
Switch Phase				
Minimum Initial (s)	20.0	20.0	5.0	5.0
Minimum Split (s)	26.8	29.8	11.8	11.8
Total Split (s)	76.0	76.0	74.0	74.0
Total Split (%)	50.7%	50.7%	49.3%	49.3%
Yellow Time (s)	4.8	4.8	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	5.0	5.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 50
Control Type: Actuated-Coordinated

Splits and Phases: 3: Meadows Parkway & SB I-25 Ramps



HCM 7th Signalized Intersection Capacity Analysis
3: Meadows Parkway & SB I-25 Ramps

2030 Total AM
09/30/2026

									
Movement	EBL	EBT	WBT	WBR	SBL	SBR			
Lane Configurations		↑↑↑	↑↑↑		↗↗↗	↗↗			
Traffic Volume (veh/h)	0	1394	1340	128	546	518			
Future Volume (veh/h)	0	1394	1340	128	546	518			
Number	5	2	6	16	7	14			
Initial Q, veh	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj (A_pbT)	1.00			1.00	1.00	1.00			
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No	No		No				
Lanes Open During Work Zone									
Adj Sat Flow, veh/h/ln	0	1826	1870	1870	1841	1841			
Adj Flow Rate, veh/h	0	1566	1506	144	613	582			
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89			
Percent Heavy Veh, %	0	5	2	2	4	4			
Opposing Right Turn Influence	No				Yes				
Cap, veh/h	0	3337	3173	303	1246	692			
HCM Platoon Ratio	1.00	2.00	2.00	2.00	1.00	1.00			
Prop Arrive On Green	0.00	1.00	1.00	1.00	0.25	0.25			
Unsig. Movement Delay									
Ln Grp Delay, s/veh	0.0	0.4	0.6	1.1	48.2	56.1			
Ln Grp LOS		A	A	A	D	E			
Approach Vol, veh/h		1566	1650		1195				
Approach Delay, s/veh		0.4	0.8		52.1				
Approach LOS		A	A		D				
Timer:		1	2	3	4	5	6	7	8
Assigned Phs			2		4		6		
Case No			8.0		9.0		8.0		
Phs Duration (G+Y+Rc), s			107.2		42.8		107.2		
Change Period (Y+Rc), s			6.8		5.0		6.8		
Max Green (Gmax), s			69.2		69.0		69.2		
Max Allow Headway (MAH), s			5.3		3.9		5.3		
Max Q Clear (g_c+I1), s			2.0		32.2		2.0		
Green Ext Time (g_e), s			19.5		5.6		20.0		
Prob of Phs Call (p_c)			1.00		1.00		1.00		
Prob of Max Out (p_x)			0.00		0.00		0.00		
Left-Turn Movement Data									
Assigned Mvmt			5		7		1		
Mvmt Sat Flow, veh/h			0		4944		0		
Through Movement Data									
Assigned Mvmt			2		4		6		
Mvmt Sat Flow, veh/h			5313		0		4908		
Right-Turn Movement Data									
Assigned Mvmt			12		14		16		
Mvmt Sat Flow, veh/h			0		2745		453		
Left Lane Group Data									
Assigned Mvmt		0	5	0	7	0	1	0	0

HCM 7th Signalized Intersection Capacity Analysis
3: Meadows Parkway & SB I-25 Ramps

2030 Total AM
09/30/2026

Lane Assignment	L							
Lanes in Grp	0	0	0	3	0	0	0	0
Grp Vol (v), veh/h	0	0	0	613	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1648	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	15.9	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	15.9	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1648	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	100.4	0.0	0.0	0.0	100.4	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	1246	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	2274	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	47.9	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	48.2	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	6.6	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	6.6	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment	T				T			
Lanes in Grp	0	3	0	0	0	2	0	0
Grp Vol (v), veh/h	0	1566	0	0	0	1081	0	0
Grp Sat Flow (s), veh/h/ln	0	1662	0	0	0	1702	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	3337	0	0	0	2279	0	0
V/C Ratio (X)	0.00	0.47	0.00	0.00	0.00	0.47	0.00	0.00
Avail Cap (c_a), veh/h	0	3337	0	0	0	2279	0	0
Upstream Filter (I)	0.00	0.84	0.00	0.00	0.00	0.84	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.0	0.0	0.0	0.6	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.4	0.0	0.0	0.0	0.6	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis
3: Meadows Parkway & SB I-25 Ramps

2030 Total AM
09/30/2026

2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

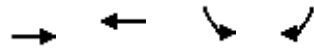
Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment				R		T+R		
Lanes in Grp	0	0	0	2	0	1	0	0
Grp Vol (v), veh/h	0	0	0	582	0	569	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1373	0	1789	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	30.2	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	30.2	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	1.00	0.00	0.25	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	692	0	1197	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.84	0.00	0.47	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	1263	0	1197	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.84	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	53.3	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	2.9	0.0	1.1	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	56.1	0.0	1.1	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	10.5	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.3	0.0	0.4	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	10.7	0.0	0.4	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.44	0.00	0.01	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	14.5
HCM 7th LOS	B

Timings
3: Meadows Parkway & SB I-25 Ramps

2030 Total PM
09/30/2026



Lane Group	EBT	WBT	SBL	SBR
Lane Configurations	↑↑↑	↑↑↑	↑↑↑	↑↑
Traffic Volume (vph)	1704	1387	1019	598
Future Volume (vph)	1704	1387	1019	598
Turn Type	NA	NA	Prot	Prot
Protected Phases	2	6	4	4
Permitted Phases				
Detector Phase	2	6	4	4
Switch Phase				
Minimum Initial (s)	20.0	20.0	5.0	5.0
Minimum Split (s)	26.8	29.8	11.8	11.8
Total Split (s)	87.0	87.0	63.0	63.0
Total Split (%)	58.0%	58.0%	42.0%	42.0%
Yellow Time (s)	4.8	4.8	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	5.0	5.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 50
Control Type: Actuated-Coordinated

Splits and Phases: 3: Meadows Parkway & SB I-25 Ramps



HCM 7th Signalized Intersection Capacity Analysis
3: Meadows Parkway & SB I-25 Ramps

2030 Total PM
09/30/2026

									
Movement	EBL	EBT	WBT	WBR	SBL	SBR			
Lane Configurations		↑↑↑	↑↑↑		↘↘↘	↗↗			
Traffic Volume (veh/h)	0	1704	1387	172	1019	598			
Future Volume (veh/h)	0	1704	1387	172	1019	598			
Number	5	2	6	16	7	14			
Initial Q, veh	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj (A_pbT)	1.00			1.00	1.00	1.00			
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No	No		No				
Lanes Open During Work Zone									
Adj Sat Flow, veh/h/ln	0	1870	1856	1856	1870	1870			
Adj Flow Rate, veh/h	0	1813	1476	183	1084	636			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	0	2	3	3	2	2			
Opposing Right Turn Influence	No				Yes				
Cap, veh/h	0	3271	2924	362	1410	783			
HCM Platoon Ratio	1.00	2.00	2.00	2.00	1.00	1.00			
Prop Arrive On Green	0.00	1.00	1.00	1.00	0.28	0.28			
Unsig. Movement Delay									
Ln Grp Delay, s/veh	0.0	0.5	0.7	1.4	50.8	53.7			
Ln Grp LOS		A	A	A	D	D			
Approach Vol, veh/h		1813	1659		1720				
Approach Delay, s/veh		0.5	0.9		51.8				
Approach LOS		A	A		D				
Timer:		1	2	3	4	5	6	7	8
Assigned Phs			2		4		6		
Case No			8.0		9.0		8.0		
Phs Duration (G+Y+Rc), s			102.9		47.1		102.9		
Change Period (Y+Rc), s			6.8		5.0		6.8		
Max Green (Gmax), s			80.2		58.0		80.2		
Max Allow Headway (MAH), s			5.2		3.9		5.3		
Max Q Clear (g_c+I1), s			2.0		33.9		2.0		
Green Ext Time (g_e), s			26.6		8.3		20.8		
Prob of Phs Call (p_c)			1.00		1.00		1.00		
Prob of Max Out (p_x)			0.00		0.11		0.00		
Left-Turn Movement Data									
Assigned Mvmt			5		7		1		
Mvmt Sat Flow, veh/h			0		5023		0		
Through Movement Data									
Assigned Mvmt			2		4		6		
Mvmt Sat Flow, veh/h			5443		0		4732		
Right-Turn Movement Data									
Assigned Mvmt			12		14		16		
Mvmt Sat Flow, veh/h			0		2790		566		
Left Lane Group Data									
Assigned Mvmt		0	5	0	7	0	1	0	0

HCM 7th Signalized Intersection Capacity Analysis
3: Meadows Parkway & SB I-25 Ramps

2030 Total PM
09/30/2026

Lane Assignment	L							
Lanes in Grp	0	0	0	3	0	0	0	0
Grp Vol (v), veh/h	0	0	0	1084	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1674	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	29.7	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	29.7	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1674	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	96.1	0.0	0.0	0.0	96.1	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	1410	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.77	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	1942	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	49.5	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	50.8	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	12.5	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	12.6	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.51	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment	T				T			
Lanes in Grp	0	3	0	0	0	2	0	0
Grp Vol (v), veh/h	0	1813	0	0	0	1092	0	0
Grp Sat Flow (s), veh/h/ln	0	1702	0	0	0	1689	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	3271	0	0	0	2163	0	0
V/C Ratio (X)	0.00	0.55	0.00	0.00	0.00	0.50	0.00	0.00
Avail Cap (c_a), veh/h	0	3271	0	0	0	2163	0	0
Upstream Filter (I)	0.00	0.71	0.00	0.00	0.00	0.84	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.5	0.0	0.0	0.0	0.7	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.5	0.0	0.0	0.0	0.7	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis
3: Meadows Parkway & SB I-25 Ramps

2030 Total PM
09/30/2026

2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment				R		T+R		
Lanes in Grp	0	0	0	2	0	1	0	0
Grp Vol (v), veh/h	0	0	0	636	0	567	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1395	0	1754	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	31.9	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	31.9	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	1.00	0.00	0.32	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	783	0	1123	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.81	0.00	0.51	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	1079	0	1123	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.84	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	50.3	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	3.4	0.0	1.4	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	53.7	0.0	1.4	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	11.1	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.4	0.0	0.4	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	11.5	0.0	0.4	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.47	0.00	0.01	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	17.6
HCM 7th LOS	B

	→	↘	←	↙	↗
Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑↑	↘↘↘	↗↗
Traffic Volume (vph)	1188	753	1186	282	278
Future Volume (vph)	1188	753	1186	282	278
Turn Type	NA	Perm	NA	Prot	Prot
Protected Phases	2		6	4	4
Permitted Phases		2			
Detector Phase	2	2	6	4	4
Switch Phase					
Minimum Initial (s)	20.0	20.0	20.0	5.0	5.0
Minimum Split (s)	26.8	26.8	26.8	10.0	10.0
Total Split (s)	102.0	102.0	102.0	48.0	48.0
Total Split (%)	68.0%	68.0%	68.0%	32.0%	32.0%
Yellow Time (s)	4.8	4.8	4.8	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	6.8	5.0	5.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Max	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 40

Control Type: Actuated-Coordinated

Splits and Phases: 4: NB I-25 Ramps & Meadows Parkway/Founders Parkway

#4 → Ø2 (R)		#4 ↘ Ø4
102 s		48 s
#4 ← Ø6 (R)		
102 s		

HCM 7th Signalized Intersection Capacity Analysis
4: NB I-25 Ramps & Meadows Parkway/Founders Parkway

2030 Total AM
09/30/2026

									
Movement	EBT	EBR	WBL	WBT	NBL	NBR			
Lane Configurations									
Traffic Volume (veh/h)	1188	753	0	1186	282	278			
Future Volume (veh/h)	1188	753	0	1186	282	278			
Number	2	12	1	6	7	14			
Initial Q, veh	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj (A_pbT)		1.00	1.00		1.00	1.00			
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No	No				
Lanes Open During Work Zone									
Adj Sat Flow, veh/h/ln	1841	1841	0	1870	1811	1811			
Adj Flow Rate, veh/h	1164	921	0	1303	310	304			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91			
Percent Heavy Veh, %	4	4	0	2	6	6			
Opposing Right Turn Influence			No		Yes				
Cap, veh/h	2929	2482	0	2828	433	386			
HCM Platoon Ratio	2.00	2.00	1.00	2.00	1.00	1.00			
Prop Arrive On Green	1.00	1.00	0.00	1.00	0.13	0.13			
Unsig. Movement Delay									
Ln Grp Delay, s/veh	0.4	0.4	0.0	0.3	65.2	67.3			
Ln Grp LOS	A	A		A	E	E			
Approach Vol, veh/h	2085			1303	614				
Approach Delay, s/veh	0.4			0.3	66.2				
Approach LOS	A			A	E				
Timer:		1	2	3	4	5	6	7	8
Assigned Phs			2		4		6		
Case No			7.0		9.0		8.0		
Phs Duration (G+Y+Rc), s			126.2		23.8		126.2		
Change Period (Y+Rc), s			6.8		5.0		6.8		
Max Green (Gmax), s			95.2		43.0		95.2		
Max Allow Headway (MAH), s			4.7		3.9		5.2		
Max Q Clear (g_c+I1), s			2.0		16.4		2.0		
Green Ext Time (g_e), s			24.5		2.4		15.2		
Prob of Phs Call (p_c)			1.00		1.00		1.00		
Prob of Max Out (p_x)			0.00		0.00		0.00		
Left-Turn Movement Data									
Assigned Mvmt			5		7		1		
Mvmt Sat Flow, veh/h			0		3450		0		
Through Movement Data									
Assigned Mvmt			2		4		6		
Mvmt Sat Flow, veh/h			3681		0		3741		
Right-Turn Movement Data									
Assigned Mvmt			12		14		16		
Mvmt Sat Flow, veh/h			3120		3070		0		
Left Lane Group Data									
Assigned Mvmt		0	5	0	7	0	1	0	0

HCM 7th Signalized Intersection Capacity Analysis
4: NB I-25 Ramps & Meadows Parkway/Founders Parkway

2030 Total AM
09/30/2026

Lane Assignment	L							
Lanes in Grp	0	0	0	2	0	0	0	0
Grp Vol (v), veh/h	0	0	0	310	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1725	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	12.9	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	12.9	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1725	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	119.4	0.0	0.0	0.0	119.4	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	433	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	989	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	63.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	65.2	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	5.7	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment	T				T			
Lanes in Grp	0	2	0	0	0	2	0	0
Grp Vol (v), veh/h	0	1164	0	0	0	1303	0	0
Grp Sat Flow (s), veh/h/ln	0	1841	0	0	0	1777	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	2929	0	0	0	2828	0	0
V/C Ratio (X)	0.00	0.40	0.00	0.00	0.00	0.46	0.00	0.00
Avail Cap (c_a), veh/h	0	2929	0	0	0	2828	0	0
Upstream Filter (I)	0.00	0.87	0.00	0.00	0.00	0.49	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.0	0.0	0.0	0.3	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.4	0.0	0.0	0.0	0.3	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis
4: NB I-25 Ramps & Meadows Parkway/Founders Parkway

2030 Total AM
09/30/2026

2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment	R		R					
Lanes in Grp	0	2	0	2	0	0	0	0
Grp Vol (v), veh/h	0	921	0	304	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1560	0	1535	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	14.4	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	14.4	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	2482	0	386	0	0	0	0
V/C Ratio (X)	0.00	0.37	0.00	0.79	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	2482	0	880	0	0	0	0
Upstream Filter (I)	0.00	0.87	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	63.6	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.0	3.6	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.4	0.0	67.3	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	5.7	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.2	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	5.9	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	10.4
HCM 7th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Timings

2030 Total PM

4: NB I-25 Ramps & Meadows Parkway/Founders Parkway

09/30/2026

	→	↘	←	↙	↗
Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑↑	↘↘↘	↗↗
Traffic Volume (vph)	2222	500	1236	323	359
Future Volume (vph)	2222	500	1236	323	359
Turn Type	NA	Perm	NA	Prot	Prot
Protected Phases	2		6	4	4
Permitted Phases		2			
Detector Phase	2	2	6	4	4
Switch Phase					
Minimum Initial (s)	20.0	20.0	20.0	5.0	5.0
Minimum Split (s)	26.8	26.8	26.8	10.0	10.0
Total Split (s)	91.0	91.0	91.0	59.0	59.0
Total Split (%)	60.7%	60.7%	60.7%	39.3%	39.3%
Yellow Time (s)	4.8	4.8	4.8	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	6.8	5.0	5.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Max	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Splits and Phases: 4: NB I-25 Ramps & Meadows Parkway/Founders Parkway



HCM 7th Signalized Intersection Capacity Analysis
4: NB I-25 Ramps & Meadows Parkway/Founders Parkway

2030 Total PM
09/30/2026

										
Movement	EBT	EBR	WBL	WBT	NBL	NBR				
Lane Configurations										
Traffic Volume (veh/h)	2222	500	0	1236	323	359				
Future Volume (veh/h)	2222	500	0	1236	323	359				
Number	2	12	1	6	7	14				
Initial Q, veh	0	0	0	0	0	0				
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00				
Ped-Bike Adj (A_pbT)		1.00	1.00		1.00	1.00				
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00				
Work Zone On Approach	No			No	No					
Lanes Open During Work Zone										
Adj Sat Flow, veh/h/ln	1870	1870	0	1870	1870	1870				
Adj Flow Rate, veh/h	2291	515	0	1274	350	351				
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				
Percent Heavy Veh, %	2	2	0	2	2	2				
Opposing Right Turn Influence			No		Yes					
Cap, veh/h	4387	1239	0	2778	497	442				
HCM Platoon Ratio	2.00	2.00	1.00	2.00	1.00	1.00				
Prop Arrive On Green	1.00	1.00	0.00	1.00	0.14	0.14				
Unsig. Movement Delay										
Ln Grp Delay, s/veh	0.3	0.8	0.0	0.4	63.4	65.7				
Ln Grp LOS	A	A		A	E	E				
Approach Vol, veh/h	2806			1274	701					
Approach Delay, s/veh	0.4			0.4	64.6					
Approach LOS	A			A	E					
Timer:		1	2	3	4	5	6	7	8	
Assigned Phs			2		4		6			
Case No			7.0		9.0		8.0			
Phs Duration (G+Y+Rc), s			124.1		25.9		124.1			
Change Period (Y+Rc), s			6.8		5.0		6.8			
Max Green (Gmax), s			84.2		54.0		84.2			
Max Allow Headway (MAH), s			5.0		3.9		5.2			
Max Q Clear (g_c+I1), s			2.0		18.1		2.0			
Green Ext Time (g_e), s			52.0		2.9		14.5			
Prob of Phs Call (p_c)			1.00		1.00		1.00			
Prob of Max Out (p_x)			0.00		0.00		0.00			
Left-Turn Movement Data										
Assigned Mvmt			5		7		1			
Mvmt Sat Flow, veh/h			0		3563		0			
Through Movement Data										
Assigned Mvmt			2		4		6			
Mvmt Sat Flow, veh/h			5611		0		3741			
Right-Turn Movement Data										
Assigned Mvmt			12		14		16			
Mvmt Sat Flow, veh/h			1585		3170		0			
Left Lane Group Data										
Assigned Mvmt		0	5	0	7	0	1	0	0	

HCM 7th Signalized Intersection Capacity Analysis
4: NB I-25 Ramps & Meadows Parkway/Founders Parkway

2030 Total PM
09/30/2026

Lane Assignment	L							
Lanes in Grp	0	0	0	2	0	0	0	0
Grp Vol (v), veh/h	0	0	0	350	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1781	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	14.1	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	14.1	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1781	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	117.3	0.0	0.0	0.0	117.3	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	497	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.70	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	1283	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	61.6	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	63.4	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	6.4	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	6.5	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment	T				T			
Lanes in Grp	0	3	0	0	0	2	0	0
Grp Vol (v), veh/h	0	2291	0	0	0	1274	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	1777	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	4387	0	0	0	2778	0	0
V/C Ratio (X)	0.00	0.52	0.00	0.00	0.00	0.46	0.00	0.00
Avail Cap (c_a), veh/h	0	4387	0	0	0	2778	0	0
Upstream Filter (I)	0.00	0.73	0.00	0.00	0.00	0.72	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.0	0.0	0.4	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.3	0.0	0.0	0.0	0.4	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis
4: NB I-25 Ramps & Meadows Parkway/Founders Parkway

2030 Total PM
09/30/2026

2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment	R		R					
Lanes in Grp	0	1	0	2	0	0	0	0
Grp Vol (v), veh/h	0	515	0	351	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	16.1	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	16.1	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	1239	0	442	0	0	0	0
V/C Ratio (X)	0.00	0.42	0.00	0.79	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1239	0	1141	0	0	0	0
Upstream Filter (I)	0.00	0.73	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	62.4	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.8	0.0	3.3	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.8	0.0	65.7	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	6.5	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.2	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.3	0.0	6.7	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.52	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	9.8
HCM 7th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Timings
5: Allen Way & Founders Parkway

2030 Total AM
09/30/2026

										
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations	 	  		  						 
Traffic Volume (vph)	241	1120	28	2466	79	90	13	45	14	260
Future Volume (vph)	241	1120	28	2466	79	90	13	45	14	260
Turn Type	Prot	NA	Prot	NA	Perm	pm+pt	NA	pm+pt	NA	pt+ov
Protected Phases	5	2	1	6		3	8	7	4	4 5
Permitted Phases					6	8		4		
Detector Phase	5	2	1	6	6	3	8	7	4	4 5
Switch Phase										
Minimum Initial (s)	5.0	20.0	5.0	20.0	20.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	10.0	30.0	10.0	40.0	40.0	10.0	46.0	10.0	47.0	
Total Split (s)	19.0	111.0	11.0	103.0	103.0	14.0	14.0	14.0	14.0	
Total Split (%)	12.7%	74.0%	7.3%	68.7%	68.7%	9.3%	9.3%	9.3%	9.3%	
Yellow Time (s)	3.0	4.0	3.0	4.0	4.0	3.0	4.0	3.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	6.0	5.0	6.0	6.0	5.0	6.0	5.0	6.0	
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	C-Max	None	C-Max	C-Max	None	None	None	None	

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 150

Control Type: Actuated-Coordinated

Splits and Phases: 5: Allen Way & Founders Parkway

#5  Ø1	#5  Ø2 (R)	#5  Ø3	#5  Ø4
11 s	111 s	14 s	14 s
#5  Ø5	#5  Ø6 (R)	#5  Ø7	#5  Ø8
19 s	103 s	14 s	14 s

HCM 7th Signalized Intersection Capacity Analysis
5: Allen Way & Founders Parkway

2030 Total AM
09/30/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	241	1120	105	28	2466	79	90	13	44	45	14	260
Future Volume (veh/h)	241	1120	105	28	2466	79	90	13	44	45	14	260
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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			
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1811	1811	1811	1870	1870	1870	1870	1870	1870	1841	1841	1841
Adj Flow Rate, veh/h	271	1258	118	31	2771	89	101	15	33	51	16	292
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	6	6	6	2	2	2	2	2	2	4	4	4
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	309	3292	309	43	3307	1027	203	40	89	178	98	400
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
Prop Arrive On Green	0.18	1.00	1.00	0.02	0.65	0.65	0.06	0.08	0.08	0.04	0.05	0.05
Unsig. Movement Delay												
Ln Grp Delay, s/veh	81.4	0.4	0.8	92.7	23.1	10.0	63.8	0.0	67.5	65.0	68.6	67.9
Ln Grp LOS	F	A	A	F	C	B	E		E	E	E	E
Approach Vol, veh/h	1647			2891			149			359		
Approach Delay, s/veh	13.9			23.4			65.0			67.5		
Approach LOS	B			C			E			E		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Case No	2.0	4.0	1.1	3.0	2.0	3.0	1.1	4.0				
Phs Duration (G+Y+Rc), s	8.6	113.4	14.0	14.0	18.8	103.2	10.4	17.6				
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0				
Max Green (Gmax), s	6.0	105.0	9.0	8.0	14.0	97.0	9.0	8.0				
Max Allow Headway (MAH), s	3.8	5.3	3.8	4.1	3.8	5.2	3.8	5.5				
Max Q Clear (g_c+I1), s	4.6	2.0	10.0	10.0	13.8	64.7	6.1	6.1				
Green Ext Time (g_e), s	0.0	14.8	0.0	0.0	0.0	28.6	0.0	0.0				
Prob of Phs Call (p_c)	0.73	1.00	0.99	1.00	1.00	1.00	0.88	1.00				
Prob of Max Out (p_x)	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00				
Left-Turn Movement Data												
Assigned Mvmt	1	3		5		7						
Mvmt Sat Flow, veh/h	1781	1781		3346		1753						
Through Movement Data												
Assigned Mvmt	2		4		6		8					
Mvmt Sat Flow, veh/h	4598		1841		5106		520					
Right-Turn Movement Data												
Assigned Mvmt	12		14		16		18					
Mvmt Sat Flow, veh/h	431		2745		1585		1144					
Left Lane Group Data												
Assigned Mvmt	1	0	3	0	5	0	7	0				

HCM 7th Signalized Intersection Capacity Analysis
5: Allen Way & Founders Parkway

2030 Total AM
09/30/2026

Lane Assignment	L (Prot)		L (Pr/Pm)		L (Prot)		L (Pr/Pm)	
Lanes in Grp	1	0	1	0	2	0	1	0
Grp Vol (v), veh/h	31	0	101	0	271	0	51	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1673	0	1753	0
Q Serve Time (g_s), s	2.6	0.0	8.0	0.0	11.8	0.0	4.1	0.0
Cycle Q Clear Time (g_c), s	2.6	0.0	8.0	0.0	11.8	0.0	4.1	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	1071	0	0	0	1336	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	8.6	0.0	0.0	0.0	8.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	6.8	0.0	0.0	0.0	7.5	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	43	0	203	0	309	0	178	0
V/C Ratio (X)	0.72	0.00	0.50	0.00	0.88	0.00	0.29	0.00
Avail Cap (c_a), veh/h	71	0	203	0	312	0	220	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.88	0.00	1.00	0.00
Uniform Delay (d1), s/veh	72.7	0.0	61.9	0.0	60.3	0.0	64.1	0.0
Incr Delay (d2), s/veh	20.0	0.0	1.9	0.0	21.1	0.0	0.9	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	92.7	0.0	63.8	0.0	81.4	0.0	65.0	0.0
1st-Term Q (Q1), veh/ln	1.2	0.0	3.6	0.0	4.6	0.0	1.8	0.0
2nd-Term Q (Q2), veh/ln	0.2	0.0	0.1	0.0	0.9	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	1.4	0.0	3.7	0.0	5.5	0.0	1.9	0.0
%ile Storage Ratio (RQ%)	0.11	0.00	1.26	0.00	0.48	0.00	0.32	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T		T		T			
Lanes in Grp	0	2	0	1	0	3	0	0
Grp Vol (v), veh/h	0	902	0	16	0	2771	0	0
Grp Sat Flow (s), veh/h/ln	0	1648	0	1841	0	1702	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	1.2	0.0	62.7	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	1.2	0.0	62.7	0.0	0.0
Lane Grp Cap (c), veh/h	0	2359	0	98	0	3307	0	0
V/C Ratio (X)	0.00	0.38	0.00	0.16	0.00	0.84	0.00	0.00
Avail Cap (c_a), veh/h	0	2359	0	98	0	3307	0	0
Upstream Filter (I)	0.00	0.88	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	67.8	0.0	20.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.0	0.8	0.0	2.7	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.4	0.0	68.6	0.0	23.1	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.6	0.0	23.8	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis
5: Allen Way & Founders Parkway

2030 Total AM
09/30/2026

2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.8	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	0.6	0.0	24.7	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.04	0.00	1.40	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R		R		R		T+R	
Lanes in Grp	0	1	0	2	0	1	0	1
Grp Vol (v), veh/h	0	474	0	292	0	89	0	48
Grp Sat Flow (s), veh/h/ln	0	1733	0	1373	0	1585	0	1664
Q Serve Time (g_s), s	0.0	0.0	0.0	8.0	0.0	3.1	0.0	4.1
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	8.0	0.0	3.1	0.0	4.1
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	1372.7	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	13.8	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.25	0.00	1.00	0.00	1.00	0.00	0.69
Lane Grp Cap (c), veh/h	0	1241	0	400	0	1027	0	129
V/C Ratio (X)	0.00	0.38	0.00	0.73	0.00	0.09	0.00	0.37
Avail Cap (c_a), veh/h	0	1241	0	400	0	1027	0	129
Upstream Filter (I)	0.00	0.88	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	61.3	0.0	9.9	0.0	65.7
Incr Delay (d2), s/veh	0.0	0.8	0.0	6.7	0.0	0.2	0.0	1.8
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.8	0.0	67.9	0.0	10.0	0.0	67.5
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	5.3	0.0	1.1	0.0	1.8
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.4	0.0	0.0	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.3	0.0	5.7	0.0	1.2	0.0	1.8
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.54	0.00	0.17	0.00	0.18
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	24.7
HCM 7th LOS	C

Notes

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

Timings
5: Allen Way & Founders Parkway

2030 Total PM
09/30/2026

										
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations	 	  		  						 
Traffic Volume (vph)	394	1968	59	1694	123	145	33	94	23	417
Future Volume (vph)	394	1968	59	1694	123	145	33	94	23	417
Turn Type	Prot	NA	Prot	NA	Perm	pm+pt	NA	pm+pt	NA	pt+ov
Protected Phases	5	2	1	6		3	8	7	4	4 5
Permitted Phases					6	8		4		
Detector Phase	5	2	1	6	6	3	8	7	4	4 5
Switch Phase										
Minimum Initial (s)	5.0	20.0	5.0	20.0	20.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	10.0	30.0	10.0	40.0	40.0	10.0	46.0	10.0	47.0	
Total Split (s)	36.0	96.0	17.0	77.0	77.0	21.0	23.0	14.0	16.0	
Total Split (%)	24.0%	64.0%	11.3%	51.3%	51.3%	14.0%	15.3%	9.3%	10.7%	
Yellow Time (s)	3.0	4.0	3.0	4.0	4.0	3.0	4.0	3.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	6.0	5.0	6.0	6.0	5.0	6.0	5.0	6.0	
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	C-Max	None	C-Max	C-Max	None	None	None	None	

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 130

Control Type: Actuated-Coordinated

Splits and Phases: 5: Allen Way & Founders Parkway

#5  Ø1	#5  Ø2 (R)	#5  Ø3	#5  Ø4
17 s	96 s	21 s	16 s
#5  Ø5	#5  Ø6 (R)	#5  Ø7	#5  Ø8
36 s	77 s	14 s	23 s

HCM 7th Signalized Intersection Capacity Analysis
5: Allen Way & Founders Parkway

2030 Total PM
09/30/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	394	1968	219	59	1694	123	145	33	64	94	23	417
Future Volume (veh/h)	394	1968	219	59	1694	123	145	33	64	94	23	417
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	415	2072	231	62	1783	129	153	35	43	99	24	439
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	471	3037	334	79	2853	886	262	75	92	228	125	566
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
Prop Arrive On Green	0.27	1.00	1.00	0.04	0.56	0.56	0.09	0.10	0.10	0.06	0.07	0.07
Unsig. Movement Delay												
Ln Grp Delay, s/veh	59.6	1.2	2.4	86.3	23.5	16.2	59.1	0.0	65.9	61.9	66.9	63.2
Ln Grp LOS	E	A	A	F	C	B	E		E	E	E	E
Approach Vol, veh/h	2718			1974			231			562		
Approach Delay, s/veh	10.5			25.0			61.4			63.1		
Approach LOS	B			C			E			E		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Case No	2.0	4.0	1.1	3.0	2.0	3.0	1.1	4.0				
Phs Duration (G+Y+Rc), s	11.7	103.6	18.8	16.0	25.4	89.8	14.0	20.8				
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0				
Max Green (Gmax), s	12.0	90.0	16.0	10.0	31.0	71.0	9.0	17.0				
Max Allow Headway (MAH), s	3.8	5.3	3.8	4.1	3.8	5.2	3.8	5.4				
Max Q Clear (g_c+I1), s	7.2	2.0	13.7	12.0	19.2	37.5	9.7	8.5				
Green Ext Time (g_e), s	0.0	42.9	0.1	0.0	1.2	19.2	0.0	0.2				
Prob of Phs Call (p_c)	0.92	1.00	1.00	1.00	1.00	1.00	0.98	1.00				
Prob of Max Out (p_x)	0.28	0.00	1.00	1.00	0.01	0.00	1.00	0.10				
Left-Turn Movement Data												
Assigned Mvmt	1		3		5		7					
Mvmt Sat Flow, veh/h	1781		1781		3456		1781					
Through Movement Data												
Assigned Mvmt		2		4		6		8				
Mvmt Sat Flow, veh/h		4668		1870		5106		764				
Right-Turn Movement Data												
Assigned Mvmt		12		14		16		18				
Mvmt Sat Flow, veh/h		514		2790		1585		938				
Left Lane Group Data												
Assigned Mvmt	1	0	3	0	5	0	7	0				

HCM 7th Signalized Intersection Capacity Analysis
5: Allen Way & Founders Parkway

2030 Total PM
09/30/2026

Lane Assignment	L (Prot)		L (Pr/Pm)		L (Prot)		L (Pr/Pm)	
Lanes in Grp	1	0	1	0	2	0	1	0
Grp Vol (v), veh/h	62	0	153	0	415	0	99	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1728	0	1781	0
Q Serve Time (g_s), s	5.2	0.0	11.7	0.0	17.2	0.0	7.7	0.0
Cycle Q Clear Time (g_c), s	5.2	0.0	11.7	0.0	17.2	0.0	7.7	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	929	0	0	0	1321	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	11.8	0.0	0.0	0.0	10.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	8.2	0.0	0.0	0.0	8.3	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.7	0.0	0.0	0.0	0.1	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	79	0	262	0	471	0	228	0
V/C Ratio (X)	0.78	0.00	0.58	0.00	0.88	0.00	0.43	0.00
Avail Cap (c_a), veh/h	143	0	289	0	714	0	228	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.71	0.00	1.00	0.00
Uniform Delay (d1), s/veh	71.0	0.0	56.6	0.0	53.4	0.0	60.6	0.0
Incr Delay (d2), s/veh	15.4	0.0	2.5	0.0	6.2	0.0	1.3	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	86.3	0.0	59.1	0.0	59.6	0.0	61.9	0.0
1st-Term Q (Q1), veh/ln	2.4	0.0	5.3	0.0	6.7	0.0	3.5	0.0
2nd-Term Q (Q2), veh/ln	0.3	0.0	0.2	0.0	0.4	0.0	0.1	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	2.7	0.0	5.5	0.0	7.1	0.0	3.6	0.0
%ile Storage Ratio (RQ%)	0.21	0.00	1.86	0.00	0.60	0.00	0.61	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T		T		T			
Lanes in Grp	0	2	0	1	0	3	0	0
Grp Vol (v), veh/h	0	1504	0	24	0	1783	0	0
Grp Sat Flow (s), veh/h/ln	0	1702	0	1870	0	1702	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	1.8	0.0	35.5	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	1.8	0.0	35.5	0.0	0.0
Lane Grp Cap (c), veh/h	0	2214	0	125	0	2853	0	0
V/C Ratio (X)	0.00	0.68	0.00	0.19	0.00	0.63	0.00	0.00
Avail Cap (c_a), veh/h	0	2214	0	125	0	2853	0	0
Upstream Filter (I)	0.00	0.71	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	66.2	0.0	22.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.2	0.0	0.7	0.0	1.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	1.2	0.0	66.9	0.0	23.5	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.9	0.0	14.2	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis
5: Allen Way & Founders Parkway

2030 Total PM
09/30/2026

2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.0	0.0	0.3	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.4	0.0	0.9	0.0	14.4	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.02	0.00	0.06	0.00	0.82	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R		R		R		T+R	
Lanes in Grp	0	1	0	2	0	1	0	1
Grp Vol (v), veh/h	0	799	0	439	0	129	0	78
Grp Sat Flow (s), veh/h/ln	0	1778	0	1395	0	1585	0	1702
Q Serve Time (g_s), s	0.0	0.0	0.0	10.0	0.0	5.9	0.0	6.5
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	10.0	0.0	5.9	0.0	6.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	1394.8	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	20.4	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.29	0.00	1.00	0.00	1.00	0.00	0.55
Lane Grp Cap (c), veh/h	0	1157	0	566	0	886	0	167
V/C Ratio (X)	0.00	0.69	0.00	0.78	0.00	0.15	0.00	0.47
Avail Cap (c_a), veh/h	0	1157	0	566	0	886	0	193
Upstream Filter (I)	0.00	0.71	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	56.5	0.0	15.9	0.0	63.9
Incr Delay (d2), s/veh	0.0	2.4	0.0	6.7	0.0	0.3	0.0	2.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	2.4	0.0	63.2	0.0	16.2	0.0	65.9
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	7.9	0.0	2.2	0.0	2.8
2nd-Term Q (Q2), veh/ln	0.0	0.8	0.0	0.5	0.0	0.1	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.8	0.0	8.4	0.0	2.3	0.0	2.9
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.78	0.00	0.33	0.00	0.29
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	23.2
HCM 7th LOS	C

Notes

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

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	30	1051	19	2294	214	41	34	5	24
Future Volume (vph)	30	1051	19	2294	214	41	34	5	24
Turn Type	Prot	NA	Prot	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	5	2	1	6	3	8		7	4
Permitted Phases					8		8	4	
Detector Phase	5	2	1	6	3	8	8	7	4
Switch Phase									
Minimum Initial (s)	3.0	10.0	3.0	10.0	3.0	5.0	5.0	3.0	5.0
Minimum Split (s)	8.0	48.0	8.0	39.0	8.0	44.0	44.0	8.0	44.0
Total Split (s)	12.0	90.0	12.0	90.0	31.0	31.0	31.0	17.0	17.0
Total Split (%)	8.0%	60.0%	8.0%	60.0%	20.7%	20.7%	20.7%	11.3%	11.3%
Yellow Time (s)	3.0	4.0	3.0	4.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	5.0	6.0	5.0	6.0	6.0	5.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 130

Control Type: Actuated-Coordinated

Splits and Phases: 6: Front Street & Founders Parkway

#6	#6	#6	#6
 Ø1	 Ø2 (R)	 Ø3	 Ø4
12 s	90 s	31 s	17 s
#6	#6	#6	#6
 Ø5	 Ø6 (R)	 Ø7	 Ø8
12 s	90 s	17 s	31 s

HCM 7th Signalized Intersection Capacity Analysis
6: Front Street & Founders Parkway

2030 Total AM
09/30/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	1051	128	19	2294	18	214	41	34	5	24	66
Future Volume (veh/h)	30	1051	128	19	2294	18	214	41	34	5	24	66
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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			
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1796	1796	1796	1870	1870	1870	1870	1870	1870	1856	1856	1856
Adj Flow Rate, veh/h	34	1194	145	22	2607	20	243	47	21	6	27	48
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	7	7	7	2	2	2	2	2	2	3	3	3
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	43	3150	382	27	3666	28	418	229	194	114	78	69
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.03	0.71	0.71	0.02	0.70	0.70	0.08	0.12	0.12	0.00	0.04	0.04
Unsig. Movement Delay												
Ln Grp Delay, s/veh	99.5	9.0	9.5	113.2	15.2	16.7	61.1	59.7	58.8	68.3	72.3	82.4
Ln Grp LOS	F	A	A	F	B	B	E	E	E	E	E	F
Approach Vol, veh/h	1373				2649		311				81	
Approach Delay, s/veh	11.4				16.5		60.7				78.0	
Approach LOS	B				B		E				E	
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Case No	2.0	4.0	1.1	4.0	2.0	4.0	1.1	3.0				
Phs Duration (G+Y+Rc), s	7.3	112.7	17.4	12.6	8.8	111.2	5.7	24.4				
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0				
Max Green (Gmax), s	7.0	84.0	26.0	11.0	7.0	84.0	12.0	25.0				
Max Allow Headway (MAH), s	3.8	5.3	3.8	5.5	3.8	5.2	3.8	4.9				
Max Q Clear (g_c+I1), s	3.8	18.0	11.8	6.5	5.0	46.7	2.5	5.4				
Green Ext Time (g_e), s	0.0	13.9	0.7	0.1	0.0	29.9	0.0	0.2				
Prob of Phs Call (p_c)	0.60	1.00	1.00	1.00	0.76	1.00	0.22	1.00				
Prob of Max Out (p_x)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00				
Left-Turn Movement Data												
Assigned Mvmt	1	3		5		7						
Mvmt Sat Flow, veh/h	1781	3456		1711		1767						
Through Movement Data												
Assigned Mvmt	2		4		6		8					
Mvmt Sat Flow, veh/h	4431		1763		5227		1870					
Right-Turn Movement Data												
Assigned Mvmt	12		14		16		18					
Mvmt Sat Flow, veh/h	538		1572		40		1585					
Left Lane Group Data												
Assigned Mvmt	1	0	3	0	5	0	7	0				

HCM 7th Signalized Intersection Capacity Analysis
6: Front Street & Founders Parkway

2030 Total AM
09/30/2026

Lane Assignment	L (Prot)		L (Pr/Pm)		L (Prot)		L (Pr/Pm)	
Lanes in Grp	1	0	2	0	1	0	1	0
Grp Vol (v), veh/h	22	0	243	0	34	0	6	0
Grp Sat Flow (s), veh/h/ln	1781	0	1728	0	1711	0	1767	0
Q Serve Time (g_s), s	1.8	0.0	9.8	0.0	3.0	0.0	0.5	0.0
Cycle Q Clear Time (g_c), s	1.8	0.0	9.8	0.0	3.0	0.0	0.5	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	1285	0	0	0	1322	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	8.6	0.0	0.0	0.0	6.6	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	2.1	0.0	0.0	0.0	6.6	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	27	0	418	0	43	0	114	0
V/C Ratio (X)	0.80	0.00	0.58	0.00	0.79	0.00	0.05	0.00
Avail Cap (c_a), veh/h	83	0	731	0	80	0	248	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	73.6	0.0	59.8	0.0	72.7	0.0	68.1	0.0
Incr Delay (d2), s/veh	39.6	0.0	1.3	0.0	26.8	0.0	0.2	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	113.2	0.0	61.1	0.0	99.5	0.0	68.3	0.0
1st-Term Q (Q1), veh/ln	0.8	0.0	4.3	0.0	1.3	0.0	0.2	0.0
2nd-Term Q (Q2), veh/ln	0.3	0.0	0.1	0.0	0.3	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	1.2	0.0	4.4	0.0	1.6	0.0	0.2	0.0
%ile Storage Ratio (RQ%)	0.12	0.00	0.34	0.00	0.09	0.00	0.03	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T		T		T		T	
Lanes in Grp	0	2	0	1	0	2	0	1
Grp Vol (v), veh/h	0	881	0	27	0	1696	0	47
Grp Sat Flow (s), veh/h/ln	0	1635	0	1763	0	1702	0	1870
Q Serve Time (g_s), s	0.0	16.0	0.0	2.2	0.0	44.5	0.0	3.4
Cycle Q Clear Time (g_c), s	0.0	16.0	0.0	2.2	0.0	44.5	0.0	3.4
Lane Grp Cap (c), veh/h	0	2324	0	78	0	2387	0	229
V/C Ratio (X)	0.00	0.38	0.00	0.35	0.00	0.71	0.00	0.21
Avail Cap (c_a), veh/h	0	2324	0	129	0	2387	0	312
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.6	0.0	69.6	0.0	13.3	0.0	59.2
Incr Delay (d2), s/veh	0.0	0.5	0.0	2.7	0.0	1.8	0.0	0.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	9.0	0.0	72.3	0.0	15.2	0.0	59.7
1st-Term Q (Q1), veh/ln	0.0	5.5	0.0	1.0	0.0	16.2	0.0	1.6

HCM 7th Signalized Intersection Capacity Analysis
6: Front Street & Founders Parkway

2030 Total AM
09/30/2026

2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.1	0.0	0.6	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	5.7	0.0	1.1	0.0	16.8	0.0	1.7
%ile Storage Ratio (RQ%)	0.00	0.25	0.00	0.06	0.00	0.78	0.00	0.09
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R		T+R		T+R		R	
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	458	0	48	0	931	0	21
Grp Sat Flow (s), veh/h/ln	0	1699	0	1572	0	1863	0	1585
Q Serve Time (g_s), s	0.0	16.0	0.0	4.5	0.0	44.7	0.0	1.8
Cycle Q Clear Time (g_c), s	0.0	16.0	0.0	4.5	0.0	44.7	0.0	1.8
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.32	0.00	1.00	0.00	0.02	0.00	1.00
Lane Grp Cap (c), veh/h	0	1208	0	69	0	1307	0	194
V/C Ratio (X)	0.00	0.38	0.00	0.69	0.00	0.71	0.00	0.11
Avail Cap (c_a), veh/h	0	1208	0	115	0	1307	0	264
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.6	0.0	70.7	0.0	13.4	0.0	58.5
Incr Delay (d2), s/veh	0.0	0.9	0.0	11.7	0.0	3.3	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	9.5	0.0	82.4	0.0	16.7	0.0	58.8
1st-Term Q (Q1), veh/ln	0.0	5.7	0.0	1.8	0.0	17.8	0.0	0.7
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.2	0.0	1.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	6.0	0.0	2.1	0.0	19.0	0.0	0.7
%ile Storage Ratio (RQ%)	0.00	0.27	0.00	0.11	0.00	0.89	0.00	0.04
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	19.2
HCM 7th LOS	B

Notes

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

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	59	1755	81	1536	280	84	141	31	69
Future Volume (vph)	59	1755	81	1536	280	84	141	31	69
Turn Type	Prot	NA	Prot	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	5	2	1	6	3	8		7	4
Permitted Phases					8		8	4	
Detector Phase	5	2	1	6	3	8	8	7	4
Switch Phase									
Minimum Initial (s)	3.0	10.0	3.0	10.0	3.0	5.0	5.0	3.0	5.0
Minimum Split (s)	8.0	48.0	8.0	39.0	8.0	44.0	44.0	8.0	44.0
Total Split (s)	19.0	81.0	20.0	82.0	26.0	37.0	37.0	12.0	23.0
Total Split (%)	12.7%	54.0%	13.3%	54.7%	17.3%	24.7%	24.7%	8.0%	15.3%
Yellow Time (s)	3.0	4.0	3.0	4.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	5.0	6.0	5.0	6.0	6.0	5.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 120

Control Type: Actuated-Coordinated

Splits and Phases: 6: Front Street & Founders Parkway

#6  Ø1	#6  Ø2 (R)	#6  Ø3	#6  Ø4
20 s	81 s	26 s	23 s
#6  Ø5	#6  Ø6 (R)	#6  Ø7	#6  Ø8
19 s	82 s	12 s	37 s

HCM 7th Signalized Intersection Capacity Analysis
6: Front Street & Founders Parkway

2030 Total PM
09/30/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	1755	313	81	1536	17	280	84	141	31	69	60
Future Volume (veh/h)	59	1755	313	81	1536	17	280	84	141	31	69	60
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1841	1841	1841
Adj Flow Rate, veh/h	63	1867	333	86	1634	18	298	89	133	33	73	42
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	4	4	4
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	80	2823	496	107	3441	38	468	232	197	147	112	60
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.05	0.65	0.65	0.06	0.66	0.66	0.10	0.12	0.12	0.02	0.05	0.05
Unsig. Movement Delay												
Ln Grp Delay, s/veh	86.0	17.9	19.8	82.9	13.3	13.9	59.5	61.5	66.9	66.3	77.3	80.5
Ln Grp LOS	F	B	B	F	B	B	E	E	E	E	E	F
Approach Vol, veh/h	2263			1738			520			148		
Approach Delay, s/veh	20.4			16.9			61.7			76.1		
Approach LOS	C			B			E			E		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Case No	2.0	4.0	1.1	4.0	2.0	4.0	1.1	3.0				
Phs Duration (G+Y+Rc), s	14.0	102.9	19.5	13.6	11.8	105.1	8.5	24.6				
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0				
Max Green (Gmax), s	15.0	75.0	21.0	17.0	14.0	76.0	7.0	31.0				
Max Allow Headway (MAH), s	3.8	5.3	3.8	5.4	3.8	5.2	3.8	4.5				
Max Q Clear (g_c+I1), s	9.2	42.7	13.9	7.3	7.3	25.3	4.7	14.0				
Green Ext Time (g_e), s	0.1	22.6	0.6	0.3	0.1	18.5	0.0	0.8				
Prob of Phs Call (p_c)	0.97	1.00	1.00	1.00	0.93	1.00	0.75	1.00				
Prob of Max Out (p_x)	0.10	0.00	0.10	0.06	0.03	0.00	1.00	0.00				
Left-Turn Movement Data												
Assigned Mvmt	1		3		5		7					
Mvmt Sat Flow, veh/h	1781		3456		1781		1753					
Through Movement Data												
Assigned Mvmt		2		4		6		8				
Mvmt Sat Flow, veh/h		4369		2201		5207		1870				
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			768		1176		57		1585			
Left Lane Group Data												
Assigned Mvmt	1	0	3	0	5	0	7	0				

HCM 7th Signalized Intersection Capacity Analysis
6: Front Street & Founders Parkway

2030 Total PM
09/30/2026

Lane Assignment	L (Prot)		L (Pr/Pm)		L (Prot)		L (Pr/Pm)	
Lanes in Grp	1	0	2	0	1	0	1	0
Grp Vol (v), veh/h	86	0	298	0	63	0	33	0
Grp Sat Flow (s), veh/h/ln	1781	0	1728	0	1781	0	1753	0
Q Serve Time (g_s), s	7.2	0.0	11.9	0.0	5.3	0.0	2.7	0.0
Cycle Q Clear Time (g_c), s	7.2	0.0	11.9	0.0	5.3	0.0	2.7	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	1239	0	0	0	1141	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	9.6	0.0	0.0	0.0	7.6	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	2.3	0.0	0.0	0.0	7.6	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	107	0	468	0	80	0	147	0
V/C Ratio (X)	0.81	0.00	0.64	0.00	0.78	0.00	0.23	0.00
Avail Cap (c_a), veh/h	178	0	618	0	166	0	188	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	69.7	0.0	58.0	0.0	70.9	0.0	65.5	0.0
Incr Delay (d2), s/veh	13.2	0.0	1.4	0.0	15.1	0.0	0.8	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	82.9	0.0	59.5	0.0	86.0	0.0	66.3	0.0
1st-Term Q (Q1), veh/ln	3.3	0.0	5.2	0.0	2.4	0.0	1.2	0.0
2nd-Term Q (Q2), veh/ln	0.4	0.0	0.1	0.0	0.3	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	3.7	0.0	5.3	0.0	2.7	0.0	1.2	0.0
%ile Storage Ratio (RQ%)	0.37	0.00	0.42	0.00	0.14	0.00	0.14	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T		T		T		T	
Lanes in Grp	0	2	0	1	0	2	0	1
Grp Vol (v), veh/h	0	1449	0	57	0	1068	0	89
Grp Sat Flow (s), veh/h/ln	0	1702	0	1749	0	1702	0	1870
Q Serve Time (g_s), s	0.0	39.3	0.0	4.8	0.0	23.3	0.0	6.6
Cycle Q Clear Time (g_c), s	0.0	39.3	0.0	4.8	0.0	23.3	0.0	6.6
Lane Grp Cap (c), veh/h	0	2200	0	89	0	2250	0	232
V/C Ratio (X)	0.00	0.66	0.00	0.64	0.00	0.47	0.00	0.38
Avail Cap (c_a), veh/h	0	2200	0	198	0	2250	0	387
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	16.3	0.0	69.9	0.0	12.6	0.0	60.4
Incr Delay (d2), s/veh	0.0	1.6	0.0	7.5	0.0	0.7	0.0	1.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	17.9	0.0	77.3	0.0	13.3	0.0	61.5
1st-Term Q (Q1), veh/ln	0.0	14.9	0.0	2.2	0.0	8.8	0.0	3.1

HCM 7th Signalized Intersection Capacity Analysis
6: Front Street & Founders Parkway

2030 Total PM
09/30/2026

2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	0.2	0.0	0.2	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	15.4	0.0	2.3	0.0	9.0	0.0	3.2
%ile Storage Ratio (RQ%)	0.00	0.66	0.00	0.12	0.00	0.42	0.00	0.17
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R		T+R		T+R		R	
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	751	0	58	0	584	0	133
Grp Sat Flow (s), veh/h/ln	0	1732	0	1629	0	1860	0	1585
Q Serve Time (g_s), s	0.0	40.7	0.0	5.3	0.0	23.3	0.0	12.0
Cycle Q Clear Time (g_c), s	0.0	40.7	0.0	5.3	0.0	23.3	0.0	12.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.44	0.00	0.72	0.00	0.03	0.00	1.00
Lane Grp Cap (c), veh/h	0	1119	0	83	0	1229	0	197
V/C Ratio (X)	0.00	0.67	0.00	0.70	0.00	0.47	0.00	0.68
Avail Cap (c_a), veh/h	0	1119	0	185	0	1229	0	328
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	16.6	0.0	70.1	0.0	12.6	0.0	62.8
Incr Delay (d2), s/veh	0.0	3.2	0.0	10.4	0.0	1.3	0.0	4.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	19.8	0.0	80.5	0.0	13.9	0.0	66.9
1st-Term Q (Q1), veh/ln	0.0	15.7	0.0	2.2	0.0	9.6	0.0	4.9
2nd-Term Q (Q2), veh/ln	0.0	1.0	0.0	0.2	0.0	0.4	0.0	0.2
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	16.7	0.0	2.4	0.0	10.0	0.0	5.1
%ile Storage Ratio (RQ%)	0.00	0.72	0.00	0.13	0.00	0.47	0.00	0.28
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	25.5
HCM 7th LOS	C

Notes

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

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	4	727	372	2303	102	13	139	30	37
Future Volume (vph)	4	727	372	2303	102	13	139	30	37
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	5	2	1	6	3	8		7	4
Permitted Phases	2		6		8		8	4	
Detector Phase	5	2	1	6	3	8	8	7	4
Switch Phase									
Minimum Initial (s)	4.0	20.0	4.0	20.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.0	39.9	9.5	37.6	9.0	44.0	44.0	9.0	45.0
Total Split (s)	9.0	46.7	49.3	87.0	9.0	45.0	45.0	9.0	45.0
Total Split (%)	6.0%	31.1%	32.9%	58.0%	6.0%	30.0%	30.0%	6.0%	30.0%
Yellow Time (s)	3.0	4.9	3.0	5.6	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.9	5.0	7.6	5.0	6.0	6.0	5.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow

Natural Cycle: 135

Control Type: Actuated-Coordinated

Splits and Phases: 7: Woodlands Boulevard/Allen Street & Founders Parkway

#7 	#7 	#7 	#7 
Ø1	Ø2 (R)	Ø3	Ø4
49.3 s	46.7 s	9 s	45 s
#7 	#7 	#7 	#7 
Ø5	Ø6 (R)	Ø7	Ø8
9 s	87 s	9 s	45 s

HCM 7th Signalized Intersection Capacity Analysis
7: Woodlands Boulevard/Allen Street & Founders Parkway

2030 Total AM
09/30/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	727	59	372	2303	63	102	13	139	30	37	4
Future Volume (veh/h)	4	727	59	372	2303	63	102	13	139	30	37	4
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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			
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1811	1811	1811	1870	1870	1870	1856	1856	1856	1811	1811	1811
Adj Flow Rate, veh/h	4	773	63	396	2450	67	109	14	78	32	39	4
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	6	6	6	2	2	2	3	3	3	6	6	6
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	153	3090	251	598	3706	101	166	119	101	166	202	20
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.03	0.66	0.66	0.09	0.73	0.73	0.03	0.06	0.06	0.03	0.06	0.06
Unsig. Movement Delay												
Ln Grp Delay, s/veh	10.2	10.5	10.7	7.8	12.3	13.5	76.6	66.6	80.9	63.7	67.3	67.4
Ln Grp LOS	B	B	B	A	B	B	E	E	F	E	E	E
Approach Vol, veh/h	840				2913				201		75	
Approach Delay, s/veh	10.6				12.0				77.6		65.8	
Approach LOS	B				B				E		E	
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Case No	1.1	4.0	1.1	4.0	1.1	4.0	1.1	3.0				
Phs Duration (G+Y+Rc), s	18.3	107.0	9.0	15.6	9.0	116.4	9.0	15.6				
Change Period (Y+Rc), s	5.0	* 7.6	5.0	6.0	5.0	7.6	5.0	6.0				
Max Green (Gmax), s	44.3	* 40	4.0	39.0	4.0	79.4	4.0	39.0				
Max Allow Headway (MAH), s	3.8	5.3	3.8	5.3	3.8	5.2	3.8	4.2				
Max Q Clear (g_c+I1), s	12.1	12.1	6.0	3.8	2.1	40.3	4.6	9.3				
Green Ext Time (g_e), s	1.3	6.2	0.0	0.2	0.0	29.8	0.0	0.3				
Prob of Phs Call (p_c)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Prob of Max Out (p_x)	0.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00				
Left-Turn Movement Data												
Assigned Mvmt	1	3		5		7						
Mvmt Sat Flow, veh/h	1781	1767		1725		1725						
Through Movement Data												
Assigned Mvmt	2		4		6		8					
Mvmt Sat Flow, veh/h	4661		3156		5110		1856					
Right-Turn Movement Data												
Assigned Mvmt	12		14		16		18					
Mvmt Sat Flow, veh/h	378		319		139		1572					
Left Lane Group Data												
Assigned Mvmt	1	0	3	0	5	0	7	0				

HCM 7th Signalized Intersection Capacity Analysis
7: Woodlands Boulevard/Allen Street & Founders Parkway

2030 Total AM
09/30/2026

Lane Assignment	L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)	
Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	396	0	109	0	4	0	32	0
Grp Sat Flow (s), veh/h/ln	1781	0	1767	0	1725	0	1725	0
Q Serve Time (g_s), s	10.1	0.0	4.0	0.0	0.1	0.0	2.6	0.0
Cycle Q Clear Time (g_c), s	10.1	0.0	4.0	0.0	0.1	0.0	2.6	0.0
Perm LT Sat Flow (s_l), veh/h/ln	657	0	1353	0	125	0	1263	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	101.4	0.0	9.6	0.0	99.4	0.0	9.6	0.0
Perm LT Serve Time (g_u), s	89.3	0.0	7.8	0.0	70.5	0.0	8.5	0.0
Perm LT Q Serve Time (g_ps), s	18.4	0.0	6.8	0.0	1.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	598	0	166	0	153	0	166	0
V/C Ratio (X)	0.66	0.00	0.66	0.00	0.03	0.00	0.19	0.00
Avail Cap (c_a), veh/h	965	0	166	0	153	0	166	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	6.5	0.0	67.5	0.0	10.1	0.0	63.2	0.0
Incr Delay (d2), s/veh	1.3	0.0	9.1	0.0	0.1	0.0	0.6	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	7.8	0.0	76.6	0.0	10.2	0.0	63.7	0.0
1st-Term Q (Q1), veh/ln	3.5	0.0	2.2	0.0	0.0	0.0	1.1	0.0
2nd-Term Q (Q2), veh/ln	0.2	0.0	0.4	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	3.7	0.0	2.6	0.0	0.0	0.0	1.2	0.0
%ile Storage Ratio (RQ%)	0.18	0.00	0.22	0.00	0.00	0.00	0.20	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T		T		T		T	
Lanes in Grp	0	2	0	1	0	2	0	1
Grp Vol (v), veh/h	0	546	0	21	0	1628	0	14
Grp Sat Flow (s), veh/h/ln	0	1648	0	1721	0	1702	0	1856
Q Serve Time (g_s), s	0.0	10.0	0.0	1.7	0.0	37.8	0.0	1.1
Cycle Q Clear Time (g_c), s	0.0	10.0	0.0	1.7	0.0	37.8	0.0	1.1
Lane Grp Cap (c), veh/h	0	2185	0	110	0	2469	0	119
V/C Ratio (X)	0.00	0.25	0.00	0.19	0.00	0.66	0.00	0.12
Avail Cap (c_a), veh/h	0	2185	0	447	0	2469	0	482
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	10.2	0.0	66.5	0.0	10.9	0.0	66.2
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.8	0.0	1.4	0.0	0.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	10.5	0.0	67.3	0.0	12.3	0.0	66.6
1st-Term Q (Q1), veh/ln	0.0	3.6	0.0	0.8	0.0	13.4	0.0	0.5

HCM 7th Signalized Intersection Capacity Analysis
7: Woodlands Boulevard/Allen Street & Founders Parkway

2030 Total AM
09/30/2026

2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.5	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.7	0.0	0.8	0.0	13.9	0.0	0.5
%ile Storage Ratio (RQ%)	0.00	0.13	0.00	0.03	0.00	0.35	0.00	0.02
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R		T+R		T+R		R	
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	290	0	22	0	889	0	78
Grp Sat Flow (s), veh/h/ln	0	1743	0	1754	0	1845	0	1572
Q Serve Time (g_s), s	0.0	10.1	0.0	1.8	0.0	38.3	0.0	7.3
Cycle Q Clear Time (g_c), s	0.0	10.1	0.0	1.8	0.0	38.3	0.0	7.3
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.22	0.00	0.18	0.00	0.08	0.00	1.00
Lane Grp Cap (c), veh/h	0	1156	0	112	0	1338	0	101
V/C Ratio (X)	0.00	0.25	0.00	0.20	0.00	0.66	0.00	0.77
Avail Cap (c_a), veh/h	0	1156	0	456	0	1338	0	409
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	10.2	0.0	66.5	0.0	10.9	0.0	69.1
Incr Delay (d2), s/veh	0.0	0.5	0.0	0.8	0.0	2.6	0.0	11.8
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	10.7	0.0	67.4	0.0	13.5	0.0	80.9
1st-Term Q (Q1), veh/ln	0.0	3.9	0.0	0.8	0.0	14.7	0.0	3.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	1.0	0.0	0.3
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.1	0.0	0.8	0.0	15.7	0.0	3.3
%ile Storage Ratio (RQ%)	0.00	0.14	0.00	0.04	0.00	0.39	0.00	0.16
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	16.0
HCM 7th LOS	B

Notes

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

* HCM 7th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Timings

2030 Total PM

7: Woodlands Boulevard/Allen Street & Founders Parkway

09/30/2026

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	11	1769	249	1374	88	34	330	198	36
Future Volume (vph)	11	1769	249	1374	88	34	330	198	36
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+ov	pm+pt	NA
Protected Phases	5	2	1	6	3	8	1	7	4
Permitted Phases	2		6		8		8	4	
Detector Phase	5	2	1	6	3	8	1	7	4
Switch Phase									
Minimum Initial (s)	4.0	20.0	4.0	20.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.0	39.9	9.5	37.6	9.0	44.0	9.5	9.0	45.0
Total Split (s)	9.0	73.0	28.0	92.0	29.6	26.0	28.0	23.0	19.4
Total Split (%)	6.0%	48.7%	18.7%	61.3%	19.7%	17.3%	18.7%	15.3%	12.9%
Yellow Time (s)	3.0	4.9	3.0	5.6	3.0	4.0	3.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.9	5.0	7.6	5.0	6.0	5.0	5.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow

Natural Cycle: 125

Control Type: Actuated-Coordinated

Splits and Phases: 7: Woodlands Boulevard/Allen Street & Founders Parkway

#7 	#7 	#7 	#7 
Ø1	Ø2 (R)	Ø3	Ø4
28 s	73 s	29.6 s	19.4 s
#7 	#7 	#7 	#7 
Ø5	Ø6 (R)	Ø7	Ø8
9 s	92 s	23 s	26 s

HCM 7th Signalized Intersection Capacity Analysis
7: Woodlands Boulevard/Allen Street & Founders Parkway

2030 Total PM
09/30/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	1769	100	249	1374	144	88	34	330	198	36	6
Future Volume (veh/h)	11	1769	100	249	1374	144	88	34	330	198	36	6
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	11	1824	103	257	1416	148	91	35	107	204	37	6
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
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	247	2759	156	283	2931	306	259	141	267	327	402	64
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.03	0.56	0.56	0.09	0.62	0.62	0.06	0.08	0.08	0.12	0.13	0.13
Unsig. Movement Delay												
Ln Grp Delay, s/veh	13.8	25.0	26.6	55.3	16.0	16.7	59.8	66.2	56.6	57.1	57.5	57.5
Ln Grp LOS	B	C	C	E	B	B	E	E	E	E	E	E
Approach Vol, veh/h	1938			1821			233			247		
Approach Delay, s/veh	25.5			21.7			59.3			57.2		
Approach LOS	C			C			E			E		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Case No	1.1	4.0	1.1	4.0	1.1	4.0	1.1	3.0				
Phs Duration (G+Y+Rc), s	18.9	91.3	14.1	25.6	9.0	101.2	22.5	17.3				
Change Period (Y+Rc), s	5.0	* 7.6	5.0	6.0	5.0	7.6	5.0	6.0				
Max Green (Gmax), s	23.0	* 66	24.6	13.4	4.0	84.4	18.0	20.0				
Max Allow Headway (MAH), s	3.8	5.3	3.8	5.3	3.8	5.3	3.8	4.3				
Max Q Clear (g_c+I1), s	13.4	40.9	9.0	3.6	2.4	26.3	17.4	11.0				
Green Ext Time (g_e), s	0.5	16.3	0.2	0.1	0.0	17.6	0.0	0.3				
Prob of Phs Call (p_c)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Prob of Max Out (p_x)	0.02	0.00	0.00	0.01	1.00	0.00	1.00	0.03				
Left-Turn Movement Data												
Assigned Mvmt	1		3		5		7					
Mvmt Sat Flow, veh/h	1781		1781		1781		1781					
Through Movement Data												
Assigned Mvmt		2		4		6		8				
Mvmt Sat Flow, veh/h		4946		3074		4695		1870				
Right-Turn Movement Data												
Assigned Mvmt		12		14		16		18				
Mvmt Sat Flow, veh/h		279		486		491		1585				
Left Lane Group Data												
Assigned Mvmt	1	0	3	0	5	0	7	0				

HCM 7th Signalized Intersection Capacity Analysis
7: Woodlands Boulevard/Allen Street & Founders Parkway

2030 Total PM
09/30/2026

Lane Assignment	L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)	
Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	257	0	91	0	11	0	204	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	11.4	0.0	7.0	0.0	0.4	0.0	15.4	0.0
Cycle Q Clear Time (g_c), s	11.4	0.0	7.0	0.0	0.4	0.0	15.4	0.0
Perm LT Sat Flow (s_l), veh/h/ln	231	0	1364	0	329	0	1246	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	85.7	0.0	11.3	0.0	83.7	0.0	13.3	0.0
Perm LT Serve Time (g_u), s	44.8	0.0	11.3	0.0	69.3	0.0	8.7	0.0
Perm LT Q Serve Time (g_ps), s	44.8	0.0	0.0	0.0	0.5	0.0	0.9	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	283	0	259	0	247	0	327	0
V/C Ratio (X)	0.91	0.00	0.35	0.00	0.04	0.00	0.62	0.00
Avail Cap (c_a), veh/h	390	0	443	0	247	0	334	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	35.3	0.0	58.9	0.0	13.7	0.0	53.6	0.0
Incr Delay (d2), s/veh	20.0	0.0	0.8	0.0	0.1	0.0	3.5	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	55.3	0.0	59.8	0.0	13.8	0.0	57.1	0.0
1st-Term Q (Q1), veh/ln	9.7	0.0	3.2	0.0	0.2	0.0	7.0	0.0
2nd-Term Q (Q2), veh/ln	1.6	0.0	0.1	0.0	0.0	0.0	0.3	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	11.2	0.0	3.2	0.0	0.2	0.0	7.3	0.0
%ile Storage Ratio (RQ%)	0.54	0.00	0.27	0.00	0.01	0.00	1.23	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T		T		T		T	
Lanes in Grp	0	2	0	1	0	2	0	1
Grp Vol (v), veh/h	0	1254	0	21	0	1026	0	35
Grp Sat Flow (s), veh/h/ln	0	1702	0	1777	0	1702	0	1870
Q Serve Time (g_s), s	0.0	38.7	0.0	1.6	0.0	24.3	0.0	2.6
Cycle Q Clear Time (g_c), s	0.0	38.7	0.0	1.6	0.0	24.3	0.0	2.6
Lane Grp Cap (c), veh/h	0	1899	0	233	0	2125	0	141
V/C Ratio (X)	0.00	0.66	0.00	0.09	0.00	0.48	0.00	0.25
Avail Cap (c_a), veh/h	0	1899	0	233	0	2125	0	249
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	23.2	0.0	57.3	0.0	15.2	0.0	65.3
Incr Delay (d2), s/veh	0.0	1.8	0.0	0.2	0.0	0.8	0.0	0.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	25.0	0.0	57.5	0.0	16.0	0.0	66.2
1st-Term Q (Q1), veh/ln	0.0	15.4	0.0	0.7	0.0	9.4	0.0	1.3

HCM 7th Signalized Intersection Capacity Analysis
7: Woodlands Boulevard/Allen Street & Founders Parkway

2030 Total PM
09/30/2026

2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	0.0	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	15.9	0.0	0.7	0.0	9.6	0.0	1.3
%ile Storage Ratio (RQ%)	0.00	0.55	0.00	0.03	0.00	0.24	0.00	0.06
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R		T+R		T+R		R	
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	673	0	22	0	538	0	107
Grp Sat Flow (s), veh/h/ln	0	1820	0	1783	0	1782	0	1585
Q Serve Time (g_s), s	0.0	38.9	0.0	1.6	0.0	24.3	0.0	9.0
Cycle Q Clear Time (g_c), s	0.0	38.9	0.0	1.6	0.0	24.3	0.0	9.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1585.1
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.9
Prop RT Outside Lane (P_R)	0.00	0.15	0.00	0.27	0.00	0.28	0.00	1.00
Lane Grp Cap (c), veh/h	0	1016	0	233	0	1112	0	267
V/C Ratio (X)	0.00	0.66	0.00	0.09	0.00	0.48	0.00	0.40
Avail Cap (c_a), veh/h	0	1016	0	233	0	1112	0	359
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	23.2	0.0	57.4	0.0	15.2	0.0	55.6
Incr Delay (d2), s/veh	0.0	3.4	0.0	0.2	0.0	1.5	0.0	1.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	26.6	0.0	57.5	0.0	16.7	0.0	56.6
1st-Term Q (Q1), veh/ln	0.0	16.6	0.0	0.7	0.0	9.8	0.0	3.6
2nd-Term Q (Q2), veh/ln	0.0	1.0	0.0	0.0	0.0	0.5	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	17.5	0.0	0.8	0.0	10.3	0.0	3.7
%ile Storage Ratio (RQ%)	0.00	0.60	0.00	0.03	0.00	0.26	0.00	0.17
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	27.6
HCM 7th LOS	C

Notes

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

* HCM 7th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Timings
8: Founders Parkway & Crowfoot Valley Road

2030 Total AM
09/30/2026

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	476	420	1708	248	113	1030
Future Volume (vph)	476	420	1708	248	113	1030
Turn Type	Prot	NA	NA	pm+ov	Prot	Free
Protected Phases	5	2	6	4	4	
Permitted Phases				6		Free
Detector Phase	5	2	6	4	4	
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	5.0	5.0	
Minimum Split (s)	10.0	36.8	22.5	32.0	32.0	
Total Split (s)	38.0	113.0	75.0	37.0	37.0	
Total Split (%)	25.3%	75.3%	50.0%	24.7%	24.7%	
Yellow Time (s)	3.0	4.8	5.6	3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	6.8	7.6	5.0	5.0	
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	C-Max	C-Max	None	None	

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 130

Control Type: Actuated-Coordinated

Splits and Phases: 8: Founders Parkway & Crowfoot Valley Road



HCM 7th Signalized Intersection Capacity Analysis
8: Founders Parkway & Crowfoot Valley Road

2030 Total AM
09/30/2026

									
Movement	EBL	EBT	WBT	WBR	SBL	SBR			
Lane Configurations									
Traffic Volume (veh/h)	476	420	1708	248	113	1030			
Future Volume (veh/h)	476	420	1708	248	113	1030			
Number	5	2	6	16	7	14			
Initial Q, veh	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj (A_pbT)	1.00			1.00	1.00	1.00			
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No	No		No				
Lanes Open During Work Zone									
Adj Sat Flow, veh/h/ln	1826	1826	1870	1870	1870	1870			
Adj Flow Rate, veh/h	506	447	1817	264	120	0			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	5	5	2	2	2	2			
Opposing Right Turn Influence	Yes				Yes				
Cap, veh/h	570	2897	2249	1131	144				
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.17	0.83	0.63	0.63	0.08	0.00			
Unsig. Movement Delay						0.00			
Ln Grp Delay, s/veh	71.3	2.5	23.9	7.9	79.5	0.0			
Ln Grp LOS	E	A	C	A	E	A			
Approach Vol, veh/h		953	2081		1216				
Approach Delay, s/veh		39.0	21.9		7.8				
Approach LOS		D	C		A				
Timer:		1	2	3	4	5	6	7	8
Assigned Phs			2		4	5	6		
Case No			4.0		9.0	2.0	7.0		
Phs Duration (G+Y+Rc), s			132.8		17.2	30.3	102.5		
Change Period (Y+Rc), s			* 7.6		5.0	5.0	7.6		
Max Green (Gmax), s			* 1.1E+02		32.0	33.0	67.4		
Max Allow Headway (MAH), s			5.3		3.8	3.8	5.1		
Max Q Clear (g_c+I1), s			5.7		12.0	24.0	59.6		
Green Ext Time (g_e), s			3.4		0.3	1.3	6.7		
Prob of Phs Call (p_c)			1.00		0.99	1.00	1.00		
Prob of Max Out (p_x)			0.00		0.00	0.08	0.00		
Left-Turn Movement Data									
Assigned Mvmt					7	5	1		
Mvmt Sat Flow, veh/h					1781	3374	0		
Through Movement Data									
Assigned Mvmt			2		4		6		
Mvmt Sat Flow, veh/h			3561		0		3647		
Right-Turn Movement Data									
Assigned Mvmt			12		14		16		
Mvmt Sat Flow, veh/h			0		3170		1585		
Left Lane Group Data									
Assigned Mvmt		0	0	0	7	5	1	0	0

HCM 7th Signalized Intersection Capacity Analysis
8: Founders Parkway & Crowfoot Valley Road

2030 Total AM
09/30/2026

Lane Assignment				L	L (Prot)			
Lanes in Grp	0	0	0	1	2	0	0	0
Grp Vol (v), veh/h	0	0	0	120	506	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1781	1687	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	10.0	22.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	10.0	22.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1781	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	94.9	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	144	570	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.83	0.89	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	380	742	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	67.9	60.9	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	11.5	10.4	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	79.5	71.3	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	4.6	9.4	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.5	0.8	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	5.0	10.3	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.08	0.56	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment	T			T				
Lanes in Grp	0	2	0	0	0	2	0	0
Grp Vol (v), veh/h	0	447	0	0	0	1817	0	0
Grp Sat Flow (s), veh/h/ln	0	1735	0	0	0	1777	0	0
Q Serve Time (g_s), s	0.0	3.7	0.0	0.0	0.0	57.6	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	3.7	0.0	0.0	0.0	57.6	0.0	0.0
Lane Grp Cap (c), veh/h	0	2897	0	0	0	2249	0	0
V/C Ratio (X)	0.00	0.15	0.00	0.00	0.00	0.81	0.00	0.00
Avail Cap (c_a), veh/h	0	2897	0	0	0	2249	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	2.3	0.0	0.0	0.0	20.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.0	3.2	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	2.5	0.0	0.0	0.0	23.9	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.0	0.0	0.0	0.0	23.1	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis
8: Founders Parkway & Crowfoot Valley Road

2030 Total AM
09/30/2026

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.1	0.0	0.0	0.0	24.1	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.00	0.00	0.86	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment				R		R		
Lanes in Grp	0	0	0	2	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	264	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1585	0	1585	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	8.6	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	8.6	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	1585.1	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	12.2	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	257	0	1131	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.23	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	676	0	1131	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	7.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	7.9	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	3.9	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	4.1	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	21.7
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
* HCM 7th Edition computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [SBR] is included in calculations of the approach delay and intersection delay.

Timings
8: Founders Parkway & Crowfoot Valley Road

2030 Total PM
09/30/2026

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	875	1422	1031	208	151	736
Future Volume (vph)	875	1422	1031	208	151	736
Turn Type	Prot	NA	NA	pm+ov	Prot	Free
Protected Phases	5	2	6	4	4	
Permitted Phases				6		Free
Detector Phase	5	2	6	4	4	
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	5.0	5.0	
Minimum Split (s)	10.0	36.8	22.5	32.0	32.0	
Total Split (s)	72.0	113.0	41.0	37.0	37.0	
Total Split (%)	48.0%	75.3%	27.3%	24.7%	24.7%	
Yellow Time (s)	3.0	4.8	5.6	3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	6.8	7.6	5.0	5.0	
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	C-Max	C-Max	None	None	

Intersection Summary

Cycle Length: 150

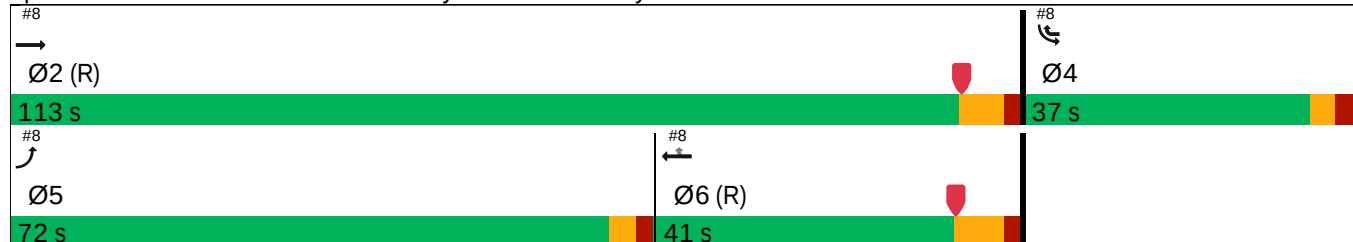
Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 100

Control Type: Actuated-Coordinated

Splits and Phases: 8: Founders Parkway & Crowfoot Valley Road



HCM 7th Signalized Intersection Capacity Analysis
8: Founders Parkway & Crowfoot Valley Road

2030 Total PM
09/30/2026

									
Movement	EBL	EBT	WBT	WBR	SBL	SBR			
Lane Configurations									
Traffic Volume (veh/h)	875	1422	1031	208	151	736			
Future Volume (veh/h)	875	1422	1031	208	151	736			
Number	5	2	6	16	7	14			
Initial Q, veh	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj (A_pbT)	1.00			1.00	1.00	1.00			
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No	No		No				
Lanes Open During Work Zone									
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1841	1841			
Adj Flow Rate, veh/h	921	1497	1085	219	159	0			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	2	2	4	4			
Opposing Right Turn Influence	Yes				Yes				
Cap, veh/h	1020	2882	1715	931	184				
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.30	0.81	0.48	0.48	0.10	0.00			
Unsig. Movement Delay						0.00			
Ln Grp Delay, s/veh	56.2	5.3	30.7	15.4	77.4	0.0			
Ln Grp LOS	E	A	C	B	E	A			
Approach Vol, veh/h		2418	1304		934				
Approach Delay, s/veh		24.7	28.1		13.2				
Approach LOS		C	C		B				
Timer:		1	2	3	4	5	6	7	8
Assigned Phs			2		4	5	6		
Case No			4.0		9.0	2.0	7.0		
Phs Duration (G+Y+Rc), s			129.3		20.7	49.3	80.0		
Change Period (Y+Rc), s			* 7.6		5.0	5.0	7.6		
Max Green (Gmax), s			* 1.1E+02		32.0	67.0	33.4		
Max Allow Headway (MAH), s			5.2		3.8	3.8	5.0		
Max Q Clear (g_c+I1), s			22.6		15.4	40.4	36.1		
Green Ext Time (g_e), s			19.9		0.4	3.9	0.0		
Prob of Phs Call (p_c)			1.00		1.00	1.00	1.00		
Prob of Max Out (p_x)			0.00		0.00	0.00	0.00		
Left-Turn Movement Data									
Assigned Mvmt					7	5	1		
Mvmt Sat Flow, veh/h					1753	3456	0		
Through Movement Data									
Assigned Mvmt			2		4		6		
Mvmt Sat Flow, veh/h			3647		0		3647		
Right-Turn Movement Data									
Assigned Mvmt			12		14		16		
Mvmt Sat Flow, veh/h			0		3120		1585		
Left Lane Group Data									
Assigned Mvmt		0	0	0	7	5	1	0	0

HCM 7th Signalized Intersection Capacity Analysis
8: Founders Parkway & Crowfoot Valley Road

2030 Total PM
09/30/2026

Lane Assignment				L	L (Prot)			
Lanes in Grp	0	0	0	1	2	0	0	0
Grp Vol (v), veh/h	0	0	0	159	921	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1753	1728	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	13.4	38.4	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	13.4	38.4	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1753	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	72.4	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	184	1020	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.86	0.90	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	374	1544	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	66.1	50.8	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	11.4	5.4	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	77.4	56.2	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	6.0	16.6	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.6	0.8	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	6.6	17.4	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.11	0.93	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment	T			T				
Lanes in Grp	0	2	0	0	0	2	0	0
Grp Vol (v), veh/h	0	1497	0	0	0	1085	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	1777	0	0
Q Serve Time (g_s), s	0.0	20.6	0.0	0.0	0.0	34.1	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	20.6	0.0	0.0	0.0	34.1	0.0	0.0
Lane Grp Cap (c), veh/h	0	2882	0	0	0	1715	0	0
V/C Ratio (X)	0.00	0.52	0.00	0.00	0.00	0.63	0.00	0.00
Avail Cap (c_a), veh/h	0	2882	0	0	0	1715	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	4.6	0.0	0.0	0.0	28.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.7	0.0	0.0	0.0	1.8	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	5.3	0.0	0.0	0.0	30.7	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	6.5	0.0	0.0	0.0	14.6	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis
8: Founders Parkway & Crowfoot Valley Road

2030 Total PM
09/30/2026

2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.4	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	6.7	0.0	0.0	0.0	15.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.24	0.00	0.00	0.00	0.53	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment				R		R		
Lanes in Grp	0	0	0	2	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	219	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1560	0	1585	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	9.9	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	9.9	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	1585.1	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	15.7	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	327	0	931	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	666	0	931	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	14.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	15.4	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	4.7	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	4.9	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.62	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	23.3
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
* HCM 7th Edition computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [SBR] is included in calculations of the approach delay and intersection delay.

									
Lane Group	EBL	WBL	WBT	NBT	NBR	SBL	SBT	SBR	Ø5
Lane Configurations									
Traffic Volume (vph)	35	4	0	1577	4	52	450	13	
Future Volume (vph)	35	4	0	1577	4	52	450	13	
Turn Type	Perm	Perm	NA	NA	Perm	pm+pt	NA	Perm	
Protected Phases			8	2		1	6		5
Permitted Phases	4	8			2	6		6	
Detector Phase	4	8	8	2	2	1	6	6	
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5
Total Split (s)	17.0	17.0	17.0	37.0	37.0	10.0	37.5	37.5	9.5
Total Split (%)	26.6%	26.6%	26.6%	57.8%	57.8%	15.6%	58.6%	58.6%	15%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lead/Lag				Lag	Lag	Lead	Lag	Lag	Lead
Lead-Lag Optimize?				Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	C-Max	C-Max	None	C-Max	C-Max	None

Intersection Summary

Cycle Length: 64

Actuated Cycle Length: 64

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

Natural Cycle: 80

Control Type: Actuated-Coordinated

Splits and Phases: 9: Founders Parkway & Street J/Crimson Sky Drive

#9 	#9 	#9 
Ø1	Ø2 (R)	Ø4
10 s	37 s	17 s
#9 	#9 	#9 
Ø5	Ø6 (R)	Ø8
9.5 s	37.5 s	17 s

HCM 7th Signalized Intersection Capacity Analysis
9: Founders Parkway & Street J/Crimson Sky Drive

2030 Total AM
09/30/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	0	0	4	0	258	0	1577	4	52	450	13
Future Volume (veh/h)	35	0	0	4	0	258	0	1577	4	52	450	13
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1856	1856	1870
Adj Flow Rate, veh/h	38	0	0	4	0	284	0	1733	4	57	495	14
Peak Hour Factor	0.92	0.92	0.92	0.91	0.92	0.91	0.92	0.91	0.91	0.91	0.91	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	3	3	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	134	365		389	0	310	600	1933	862	231	2341	1053
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.20	0.00	0.00	0.20	0.00	0.20	0.00	0.54	0.54	0.05	0.66	0.66
Unsig. Movement Delay												
Ln Grp Delay, s/veh	32.8	0.0	0.0	20.8	0.0	56.0	0.0	20.0	6.7	13.9	4.4	3.7
Ln Grp LOS	C			C		E		B	A	B	A	A
Approach Vol, veh/h	38			288			1737			566		
Approach Delay, s/veh	32.8			55.5			20.0			5.3		
Approach LOS	C			E			B			A		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Case No	1.1	3.0		5.0	1.1	3.0		6.0				
Phs Duration (G+Y+Rc), s	7.7	39.3		17.0	0.0	47.0		17.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green (Gmax), s	5.5	32.5		12.5	5.0	33.0		12.5				
Max Allow Headway (MAH), s	3.8	5.2		4.5	0.0	5.2		5.6				
Max Q Clear (g_c+I1), s	2.8	29.8		14.5	0.0	5.5		13.2				
Green Ext Time (g_e), s	0.0	2.4		0.0	0.0	3.6		0.0				
Prob of Phs Call (p_c)	0.64	1.00		1.00	0.00	1.00		1.00				
Prob of Max Out (p_x)	1.00	0.00		1.00	0.00	0.00		1.00				
Left-Turn Movement Data												
Assigned Mvmt	1			7	5			3				
Mvmt Sat Flow, veh/h	1767			1095	1781			1418				
Through Movement Data												
Assigned Mvmt		2		4		6		8				
Mvmt Sat Flow, veh/h		3554		1870		3526		0				
Right-Turn Movement Data												
Assigned Mvmt		12		14		16		18				
Mvmt Sat Flow, veh/h		1585		1585		1585		1585				
Left Lane Group Data												
Assigned Mvmt	1	0	0	7	5	0	0	3				

HCM 7th Signalized Intersection Capacity Analysis
9: Founders Parkway & Street J/Crimson Sky Drive

2030 Total AM
09/30/2026

Lane Assignment	L (Pr/Pm)			LL (Pr/Pm)				L
Lanes in Grp	1	0	0	1	1	0	0	1
Grp Vol (v), veh/h	57	0	0	38	0	0	0	4
Grp Sat Flow (s), veh/h/ln	1767	0	0	1095	1781	0	0	1418
Q Serve Time (g_s), s	0.8	0.0	0.0	1.3	0.0	0.0	0.0	0.1
Cycle Q Clear Time (g_c), s	0.8	0.0	0.0	12.5	0.0	0.0	0.0	0.1
Perm LT Sat Flow (s_l), veh/h/ln	276	0	0	1095	891	0	0	1418
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	36.8	0.0	0.0	12.5	34.8	0.0	0.0	12.5
Perm LT Serve Time (g_u), s	7.0	0.0	0.0	1.3	34.8	0.0	0.0	12.5
Perm LT Q Serve Time (g_ps), s	7.0	0.0	0.0	1.3	0.0	0.0	0.0	0.1
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	231	0	0	134	600	0	0	389
V/C Ratio (X)	0.25	0.00	0.00	0.28	0.00	0.00	0.00	0.01
Avail Cap (c_a), veh/h	295	0	0	134	736	0	0	389
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	13.4	0.0	0.0	31.6	0.0	0.0	0.0	20.8
Incr Delay (d2), s/veh	0.6	0.0	0.0	1.1	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	13.9	0.0	0.0	32.8	0.0	0.0	0.0	20.8
1st-Term Q (Q1), veh/ln	0.4	0.0	0.0	0.6	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.4	0.0	0.0	0.6	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.02	0.00	0.00	0.07	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T			T		T		
Lanes in Grp	0	2	0	1	0	2	0	0
Grp Vol (v), veh/h	0	1733	0	0	0	495	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	0	1763	0	0
Q Serve Time (g_s), s	0.0	27.8	0.0	0.0	0.0	3.5	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	27.8	0.0	0.0	0.0	3.5	0.0	0.0
Lane Grp Cap (c), veh/h	0	1933	0	365	0	2341	0	0
V/C Ratio (X)	0.00	0.90	0.00	0.00	0.00	0.21	0.00	0.00
Avail Cap (c_a), veh/h	0	1933	0	365	0	2341	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	13.0	0.0	0.0	0.0	4.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	7.0	0.0	0.0	0.0	0.2	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	20.0	0.0	0.0	0.0	4.4	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	8.8	0.0	0.0	0.0	0.9	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis
9: Founders Parkway & Street J/Crimson Sky Drive

2030 Total AM
09/30/2026

2nd-Term Q (Q2), veh/ln	0.0	1.9	0.0	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	10.7	0.0	0.0	0.0	1.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.57	0.00	0.00	0.00	0.04	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	4	0	0	0	14	0	284
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	0.1	0.0	0.0	0.0	0.2	0.0	11.2
Cycle Q Clear Time (g_c), s	0.0	0.1	0.0	0.0	0.0	0.2	0.0	11.2
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	862	0	310	0	1053	0	310
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.92
Avail Cap (c_a), veh/h	0	862	0	310	0	1053	0	310
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	6.7	0.0	0.0	0.0	3.6	0.0	25.2
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.8
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	6.7	0.0	0.0	0.0	3.7	0.0	56.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.6
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	20.9
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

									
Lane Group	EBL	WBL	WBT	NBT	NBR	SBL	SBT	SBR	Ø5
Lane Configurations									
Traffic Volume (vph)	24	5	0	1005	14	222	1267	40	
Future Volume (vph)	24	5	0	1005	14	222	1267	40	
Turn Type	Perm	Perm	NA	NA	Perm	pm+pt	NA	Perm	
Protected Phases			8	2		1	6		5
Permitted Phases	4	8			2	6		6	
Detector Phase	4	8	8	2	2	1	6	6	
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5
Total Split (s)	17.0	17.0	17.0	37.0	37.0	10.0	37.5	37.5	9.5
Total Split (%)	26.6%	26.6%	26.6%	57.8%	57.8%	15.6%	58.6%	58.6%	15%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lead/Lag				Lag	Lag	Lead	Lag	Lag	Lead
Lead-Lag Optimize?				Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	C-Max	C-Max	None	C-Max	C-Max	None

Intersection Summary

Cycle Length: 64

Actuated Cycle Length: 64

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

Natural Cycle: 65

Control Type: Actuated-Coordinated

Splits and Phases: 9: Founders Parkway & Street J/Crimson Sky Drive

#9  Ø1	#9  Ø2 (R)	#9  Ø4
10 s	37 s	17 s
#9  Ø5	#9  Ø6 (R)	#9  Ø8
9.5 s	37.5 s	17 s

HCM 7th Signalized Intersection Capacity Analysis
9: Founders Parkway & Street J/Crimson Sky Drive

2030 Total PM
09/30/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	0	0	5	0	136	0	1005	14	222	1267	40
Future Volume (veh/h)	24	0	0	5	0	136	0	1005	14	222	1267	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1841	1841	1841	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	0	0	5	0	145	0	1069	15	236	1348	43
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	4	4	4	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	169	251		300	0	210	332	2048	913	457	2577	1149
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.13	0.00	0.00	0.13	0.00	0.13	0.00	0.58	0.58	0.08	0.73	0.73
Unsig. Movement Delay												
Ln Grp Delay, s/veh	30.2	0.0	0.0	24.1	0.0	30.5	0.0	9.2	5.8	7.2	4.7	2.5
Ln Grp LOS	C			C		C		A	A	A	A	A
Approach Vol, veh/h	26			150			1084			1627		
Approach Delay, s/veh	30.2			30.3			9.1			5.0		
Approach LOS	C			C			A			A		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Case No	1.1	3.0		5.0	1.1	3.0		6.0				
Phs Duration (G+Y+Rc), s	9.5	41.4		13.1	0.0	50.9		13.1				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green (Gmax), s	5.5	32.5		12.5	5.0	33.0		12.5				
Max Allow Headway (MAH), s	3.8	5.2		4.1	0.0	5.2		5.5				
Max Q Clear (g_c+I1), s	5.1	13.7		9.0	0.0	12.8		7.7				
Green Ext Time (g_e), s	0.0	7.7		0.0	0.0	10.6		0.3				
Prob of Phs Call (p_c)	0.98	1.00		0.96	0.00	1.00		0.96				
Prob of Max Out (p_x)	1.00	0.00		1.00	0.00	0.00		1.00				
Left-Turn Movement Data												
Assigned Mvmt	1			7	5			3				
Mvmt Sat Flow, veh/h	1781			1243	1781			1395				
Through Movement Data												
Assigned Mvmt		2		4		6		8				
Mvmt Sat Flow, veh/h		3554		1870		3554		0				
Right-Turn Movement Data												
Assigned Mvmt		12		14		16		18				
Mvmt Sat Flow, veh/h		1585		1585		1585		1560				
Left Lane Group Data												
Assigned Mvmt	1	0	0	7	5	0	0	3				

HCM 7th Signalized Intersection Capacity Analysis
9: Founders Parkway & Street J/Crimson Sky Drive

2030 Total PM
09/30/2026

Lane Assignment	L (Pr/Pm)			LL (Pr/Pm)				L
Lanes in Grp	1	0	0	1	1	0	0	1
Grp Vol (v), veh/h	236	0	0	26	0	0	0	5
Grp Sat Flow (s), veh/h/ln	1781	0	0	1243	1781	0	0	1395
Q Serve Time (g_s), s	3.1	0.0	0.0	1.3	0.0	0.0	0.0	0.2
Cycle Q Clear Time (g_c), s	3.1	0.0	0.0	7.0	0.0	0.0	0.0	0.2
Perm LT Sat Flow (s_l), veh/h/ln	520	0	0	1243	389	0	0	1395
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	38.9	0.0	0.0	8.6	36.9	0.0	0.0	8.6
Perm LT Serve Time (g_u), s	25.2	0.0	0.0	2.9	35.6	0.0	0.0	8.6
Perm LT Q Serve Time (g_ps), s	11.3	0.0	0.0	1.3	0.0	0.0	0.0	0.2
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	457	0	0	169	332	0	0	300
V/C Ratio (X)	0.52	0.00	0.00	0.15	0.00	0.00	0.00	0.02
Avail Cap (c_a), veh/h	471	0	0	245	468	0	0	385
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	6.3	0.0	0.0	29.8	0.0	0.0	0.0	24.1
Incr Delay (d2), s/veh	0.9	0.0	0.0	0.4	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	7.2	0.0	0.0	30.2	0.0	0.0	0.0	24.1
1st-Term Q (Q1), veh/ln	0.7	0.0	0.0	0.4	0.0	0.0	0.0	0.1
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.8	0.0	0.0	0.4	0.0	0.0	0.0	0.1
%ile Storage Ratio (RQ%)	0.04	0.00	0.00	0.04	0.00	0.00	0.00	0.01
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T			T		T		
Lanes in Grp	0	2	0	1	0	2	0	0
Grp Vol (v), veh/h	0	1069	0	0	0	1348	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	0	1777	0	0
Q Serve Time (g_s), s	0.0	11.7	0.0	0.0	0.0	10.8	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	11.7	0.0	0.0	0.0	10.8	0.0	0.0
Lane Grp Cap (c), veh/h	0	2048	0	251	0	2577	0	0
V/C Ratio (X)	0.00	0.52	0.00	0.00	0.00	0.52	0.00	0.00
Avail Cap (c_a), veh/h	0	2048	0	365	0	2577	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	8.2	0.0	0.0	0.0	3.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.0	0.0	0.0	0.0	0.8	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	9.2	0.0	0.0	0.0	4.7	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	3.6	0.0	0.0	0.0	2.2	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis
9: Founders Parkway & Street J/Crimson Sky Drive

2030 Total PM
09/30/2026

2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.3	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.8	0.0	0.0	0.0	2.4	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.20	0.00	0.00	0.00	0.09	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	15	0	0	0	43	0	145
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1560
Q Serve Time (g_s), s	0.0	0.3	0.0	0.0	0.0	0.5	0.0	5.7
Cycle Q Clear Time (g_c), s	0.0	0.3	0.0	0.0	0.0	0.5	0.0	5.7
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	913	0	213	0	1149	0	210
V/C Ratio (X)	0.00	0.02	0.00	0.00	0.00	0.04	0.00	0.69
Avail Cap (c_a), veh/h	0	913	0	310	0	1149	0	305
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	5.8	0.0	0.0	0.0	2.5	0.0	26.4
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.1	0.0	4.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	5.8	0.0	0.0	0.0	2.5	0.0	30.5
1st-Term Q (Q1), veh/ln	0.0	0.1	0.0	0.0	0.0	0.1	0.0	2.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	0.0	0.0	0.1	0.0	2.2
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.14
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	8.1
HCM 7th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	16	0	86	0	7	1408	41	52	396	6
Future Volume (vph)	16	0	86	0	7	1408	41	52	396	6
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4		8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	4	4	8	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	4.0	4.0	5.0	4.0	4.0
Minimum Split (s)	22.5	22.5	10.0	10.0	9.5	31.0	31.0	9.5	10.0	10.0
Total Split (s)	22.5	22.5	22.5	22.5	9.5	74.5	74.5	11.0	76.0	76.0
Total Split (%)	20.8%	20.8%	20.8%	20.8%	8.8%	69.0%	69.0%	10.2%	70.4%	70.4%
Yellow Time (s)	3.5	3.5	3.0	3.0	3.5	4.0	4.0	3.5	4.0	4.0
All-Red Time (s)	1.0	1.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	5.0	5.0	4.5	6.0	6.0	4.5	6.0	6.0
Lead/Lag					Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max

Intersection Summary

Cycle Length: 108
 Actuated Cycle Length: 108
 Offset: 88.5 (82%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated

Splits and Phases: 10: Founders Parkway & Access/Rising Sun Drive

#10 	#10 	#10 
Ø1	Ø2 (R)	Ø4
11 s	74.5 s	22.5 s
#10 	#10 	#10 
Ø5	Ø6 (R)	Ø8
9.5 s	76 s	22.5 s

HCM 7th Signalized Intersection Capacity Analysis
10: Founders Parkway & Access/Rising Sun Drive

2030 Total AM
09/30/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	0	19	86	0	157	7	1408	41	52	396	6
Future Volume (veh/h)	16	0	19	86	0	157	7	1408	41	52	396	6
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1856	1856	1870
Adj Flow Rate, veh/h	17	0	21	95	0	173	8	1547	45	57	435	7
Peak Hour Factor	0.92	0.92	0.92	0.91	0.92	0.91	0.92	0.91	0.91	0.91	0.91	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	3	3	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	106	0	219	243	0	219	717	2418	1079	272	2498	1123
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.14	0.00	0.14	0.14	0.00	0.14	0.01	0.68	0.68	0.04	0.71	0.71
Unsig. Movement Delay												
Ln Grp Delay, s/veh	52.0	0.0	40.8	45.3	0.0	58.3	5.2	11.1	5.7	8.8	5.4	4.6
Ln Grp LOS	D		D	D		E	A	B	A	A	A	A
Approach Vol, veh/h	38			268			1600			499		
Approach Delay, s/veh	45.8			53.7			10.9			5.8		
Approach LOS	D			D			B			A		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Case No	1.1	3.0		6.0	1.1	3.0		6.0				
Phs Duration (G+Y+Rc), s	8.6	79.5		19.9	5.6	82.5		19.9				
Change Period (Y+Rc), s	4.5	6.0		* 5	4.5	6.0		5.0				
Max Green (Gmax), s	6.5	68.5		* 18	5.0	70.0		17.5				
Max Allow Headway (MAH), s	3.8	5.2		5.0	3.8	5.2		5.0				
Max Q Clear (g_c+I1), s	3.0	28.6		14.9	2.2	6.4		13.4				
Green Ext Time (g_e), s	0.0	17.8		0.0	0.0	3.3		0.5				
Prob of Phs Call (p_c)	0.82	1.00		1.00	0.21	1.00		1.00				
Prob of Max Out (p_x)	1.00	0.00		1.00	1.00	0.00		1.00				
Left-Turn Movement Data												
Assigned Mvmt	1			7	5			3				
Mvmt Sat Flow, veh/h	1767			1212	1781			1391				
Through Movement Data												
Assigned Mvmt		2		4		6		8				
Mvmt Sat Flow, veh/h		3554		0		3526		0				
Right-Turn Movement Data												
Assigned Mvmt		12		14		16		18				
Mvmt Sat Flow, veh/h		1585		1585		1585		1585				
Left Lane Group Data												
Assigned Mvmt	1	0	0	7	5	0	0	3				

HCM 7th Signalized Intersection Capacity Analysis
10: Founders Parkway & Access/Rising Sun Drive

2030 Total AM
09/30/2026

Lane Assignment	L (Pr/Pm)			LL (Pr/Pm)				L
Lanes in Grp	1	0	0	1	1	0	0	1
Grp Vol (v), veh/h	57	0	0	17	8	0	0	95
Grp Sat Flow (s), veh/h/ln	1767	0	0	1212	1781	0	0	1391
Q Serve Time (g_s), s	1.0	0.0	0.0	1.5	0.2	0.0	0.0	6.9
Cycle Q Clear Time (g_c), s	1.0	0.0	0.0	12.9	0.2	0.0	0.0	8.2
Perm LT Sat Flow (s_l), veh/h/ln	318	0	0	1212	947	0	0	1391
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	74.0	0.0	0.0	14.9	73.5	0.0	0.0	14.9
Perm LT Serve Time (g_u), s	46.9	0.0	0.0	3.5	72.1	0.0	0.0	13.7
Perm LT Q Serve Time (g_ps), s	5.9	0.0	0.0	1.5	0.0	0.0	0.0	6.9
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	272	0	0	106	717	0	0	243
V/C Ratio (X)	0.21	0.00	0.00	0.16	0.01	0.00	0.00	0.39
Avail Cap (c_a), veh/h	311	0	0	141	782	0	0	276
Upstream Filter (I)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	8.4	0.0	0.0	51.3	5.2	0.0	0.0	44.2
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.7	0.0	0.0	0.0	1.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	8.8	0.0	0.0	52.0	5.2	0.0	0.0	45.3
1st-Term Q (Q1), veh/ln	0.3	0.0	0.0	0.5	0.1	0.0	0.0	2.4
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.4	0.0	0.0	0.5	0.1	0.0	0.0	2.4
%ile Storage Ratio (RQ%)	0.02	0.00	0.00	0.08	0.00	0.00	0.00	0.13
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T			T				
Lanes in Grp	0	2	0	0	0	2	0	0
Grp Vol (v), veh/h	0	1547	0	0	0	435	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	1763	0	0
Q Serve Time (g_s), s	0.0	26.6	0.0	0.0	0.0	4.4	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	26.6	0.0	0.0	0.0	4.4	0.0	0.0
Lane Grp Cap (c), veh/h	0	2418	0	0	0	2498	0	0
V/C Ratio (X)	0.00	0.64	0.00	0.00	0.00	0.17	0.00	0.00
Avail Cap (c_a), veh/h	0	2418	0	0	0	2498	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	9.8	0.0	0.0	0.0	5.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.3	0.0	0.0	0.0	0.2	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.1	0.0	0.0	0.0	5.4	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	9.2	0.0	0.0	0.0	1.4	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis
10: Founders Parkway & Access/Rising Sun Drive

2030 Total AM
09/30/2026

2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	9.6	0.0	0.0	0.0	1.5	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.33	0.00	0.00	0.00	0.02	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	45	0	21	0	7	0	173
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	1.0	0.0	1.2	0.0	0.1	0.0	11.4
Cycle Q Clear Time (g_c), s	0.0	1.0	0.0	1.2	0.0	0.1	0.0	11.4
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	1079	0	219	0	1123	0	219
V/C Ratio (X)	0.00	0.04	0.00	0.10	0.00	0.01	0.00	0.79
Avail Cap (c_a), veh/h	0	1079	0	264	0	1123	0	257
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	5.7	0.0	40.7	0.0	4.6	0.0	45.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.2	0.0	0.0	0.0	13.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	5.7	0.0	40.8	0.0	4.6	0.0	58.3
1st-Term Q (Q1), veh/ln	0.0	0.3	0.0	0.5	0.0	0.0	0.0	4.5
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.3	0.0	0.5	0.0	0.0	0.0	5.3
%ile Storage Ratio (RQ%)	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.28
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	15.2
HCM 7th LOS	B

Notes

* HCM 7th Edition computational engine requires equal clearance times for the phases crossing the barrier.

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	11	0	81	0	21	867	80	105	1149	18
Future Volume (vph)	11	0	81	0	21	867	80	105	1149	18
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4		8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	4	4	8	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	4.0	4.0	5.0	4.0	4.0
Minimum Split (s)	22.5	22.5	10.0	10.0	9.5	31.0	31.0	9.5	10.0	10.0
Total Split (s)	22.5	22.5	22.5	22.5	9.5	74.5	74.5	11.0	76.0	76.0
Total Split (%)	20.8%	20.8%	20.8%	20.8%	8.8%	69.0%	69.0%	10.2%	70.4%	70.4%
Yellow Time (s)	3.5	3.5	3.0	3.0	3.5	4.0	4.0	3.5	4.0	4.0
All-Red Time (s)	1.0	1.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	5.0	5.0	4.5	6.0	6.0	4.5	6.0	6.0
Lead/Lag					Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max

Intersection Summary

Cycle Length: 108
 Actuated Cycle Length: 108
 Offset: 88.5 (82%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 65
 Control Type: Actuated-Coordinated

Splits and Phases: 10: Founders Parkway & Access/Rising Sun Drive

#10 	#10 	#10 
Ø1	Ø2 (R)	Ø4
11 s	74.5 s	22.5 s
#10 	#10 	#10 
Ø5	Ø6 (R)	Ø8
9.5 s	76 s	22.5 s

HCM 7th Signalized Intersection Capacity Analysis
10: Founders Parkway & Access/Rising Sun Drive

2030 Total PM
09/30/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	0	13	81	0	141	21	867	80	105	1149	18
Future Volume (veh/h)	11	0	13	81	0	141	21	867	80	105	1149	18
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	12	0	14	86	0	150	22	922	85	112	1222	19
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	101	0	190	224	0	190	359	2458	1096	473	2537	1132
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.12	0.00	0.12	0.12	0.00	0.12	0.02	0.69	0.69	0.04	0.71	0.71
Unsig. Movement Delay												
Ln Grp Delay, s/veh	52.0	0.0	42.3	46.4	0.0	57.1	5.5	7.4	5.6	5.0	7.4	4.5
Ln Grp LOS	D		D	D		E	A	A	A	A	A	A
Approach Vol, veh/h	26			236			1029			1353		
Approach Delay, s/veh	46.8			53.2			7.2			7.2		
Approach LOS	D			D			A			A		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Case No	1.1	3.0		6.0	1.1	3.0		6.0				
Phs Duration (G+Y+Rc), s	9.3	80.7		18.0	6.9	83.1		18.0				
Change Period (Y+Rc), s	4.5	6.0		* 5	4.5	6.0		5.0				
Max Green (Gmax), s	6.5	68.5		* 18	5.0	70.0		17.5				
Max Allow Headway (MAH), s	3.8	5.1		4.9	3.8	5.2		4.9				
Max Q Clear (g_c+I1), s	3.9	13.7		13.0	2.4	18.2		11.9				
Green Ext Time (g_e), s	0.1	8.8		0.0	0.0	13.0		0.5				
Prob of Phs Call (p_c)	0.97	1.00		1.00	0.48	1.00		1.00				
Prob of Max Out (p_x)	1.00	0.00		0.85	1.00	0.00		0.73				
Left-Turn Movement Data												
Assigned Mvmt	1			7	5			3				
Mvmt Sat Flow, veh/h	1781			1237	1781			1400				
Through Movement Data												
Assigned Mvmt		2		4		6		8				
Mvmt Sat Flow, veh/h		3554		0		3554		0				
Right-Turn Movement Data												
Assigned Mvmt		12		14		16		18				
Mvmt Sat Flow, veh/h		1585		1585		1585		1585				
Left Lane Group Data												
Assigned Mvmt	1	0	0	7	5	0	0	3				

HCM 7th Signalized Intersection Capacity Analysis
10: Founders Parkway & Access/Rising Sun Drive

2030 Total PM
09/30/2026

Lane Assignment	L (Pr/Pm)			LL (Pr/Pm)				L
Lanes in Grp	1	0	0	1	1	0	0	1
Grp Vol (v), veh/h	112	0	0	12	22	0	0	86
Grp Sat Flow (s), veh/h/ln	1781	0	0	1237	1781	0	0	1400
Q Serve Time (g_s), s	1.9	0.0	0.0	1.0	0.4	0.0	0.0	6.3
Cycle Q Clear Time (g_c), s	1.9	0.0	0.0	11.0	0.4	0.0	0.0	7.1
Perm LT Sat Flow (s_l), veh/h/ln	560	0	0	1237	448	0	0	1400
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	74.7	0.0	0.0	13.0	74.7	0.0	0.0	13.0
Perm LT Serve Time (g_u), s	63.0	0.0	0.0	3.0	60.9	0.0	0.0	12.1
Perm LT Q Serve Time (g_ps), s	2.9	0.0	0.0	1.0	0.7	0.0	0.0	6.3
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	473	0	0	101	359	0	0	224
V/C Ratio (X)	0.24	0.00	0.00	0.12	0.06	0.00	0.00	0.38
Avail Cap (c_a), veh/h	501	0	0	159	402	0	0	282
Upstream Filter (I)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	4.8	0.0	0.0	51.5	5.4	0.0	0.0	45.3
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.5	0.1	0.0	0.0	1.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	5.0	0.0	0.0	52.0	5.5	0.0	0.0	46.4
1st-Term Q (Q1), veh/ln	0.6	0.0	0.0	0.3	0.1	0.0	0.0	2.2
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.6	0.0	0.0	0.3	0.1	0.0	0.0	2.2
%ile Storage Ratio (RQ%)	0.03	0.00	0.00	0.06	0.01	0.00	0.00	0.12
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T			T				
Lanes in Grp	0	2	0	0	0	2	0	0
Grp Vol (v), veh/h	0	922	0	0	0	1222	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	1777	0	0
Q Serve Time (g_s), s	0.0	11.7	0.0	0.0	0.0	16.2	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	11.7	0.0	0.0	0.0	16.2	0.0	0.0
Lane Grp Cap (c), veh/h	0	2458	0	0	0	2537	0	0
V/C Ratio (X)	0.00	0.38	0.00	0.00	0.00	0.48	0.00	0.00
Avail Cap (c_a), veh/h	0	2458	0	0	0	2537	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	6.9	0.0	0.0	0.0	6.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.0	0.0	0.0	0.7	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	7.4	0.0	0.0	0.0	7.4	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	4.0	0.0	0.0	0.0	5.3	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis
10: Founders Parkway & Access/Rising Sun Drive

2030 Total PM
09/30/2026

2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.1	0.0	0.0	0.0	5.5	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.14	0.00	0.00	0.00	0.07	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	85	0	14	0	19	0	150
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	1.9	0.0	0.8	0.0	0.4	0.0	9.9
Cycle Q Clear Time (g_c), s	0.0	1.9	0.0	0.8	0.0	0.4	0.0	9.9
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	1096	0	190	0	1132	0	190
V/C Ratio (X)	0.00	0.08	0.00	0.07	0.00	0.02	0.00	0.79
Avail Cap (c_a), veh/h	0	1096	0	264	0	1132	0	257
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	5.4	0.0	42.2	0.0	4.5	0.0	46.2
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.2	0.0	0.0	0.0	11.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	5.6	0.0	42.3	0.0	4.5	0.0	57.1
1st-Term Q (Q1), veh/ln	0.0	0.6	0.0	0.3	0.0	0.1	0.0	3.9
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.6	0.0	0.3	0.0	0.1	0.0	4.5
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.01	0.00	0.01	0.00	0.24
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	11.7
HCM 7th LOS	B

Notes

* HCM 7th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Timings
11: Ridge Road/Founders Parkway & 5th Street

2030 Total AM
09/30/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	88	214	147	92	517	493	376	515	62	189	137	152
Future Volume (vph)	88	214	147	92	517	493	376	515	62	189	137	152
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Free	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		Free			2			6
Detector Phase	7	4	4	3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	24.0	24.0	10.0	24.0		10.0	24.0	24.0	10.0	24.0	24.0
Total Split (s)	13.0	54.0	54.0	10.0	51.0		29.0	37.0	37.0	19.0	27.0	27.0
Total Split (%)	10.8%	45.0%	45.0%	8.3%	42.5%		24.2%	30.8%	30.8%	15.8%	22.5%	22.5%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0	5.0	6.0		5.0	6.0	6.0	5.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Max	C-Max	None	C-Max	C-Max

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 30 (25%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 70

Control Type: Actuated-Coordinated

Splits and Phases: 11: Ridge Road/Founders Parkway & 5th Street

#11  Ø1	#11  Ø2 (R)	#11  Ø3	#11  Ø4
19 s	37 s	10 s	54 s
#11  Ø5	#11  Ø6 (R)	#11  Ø7	#11  Ø8
29 s	27 s	13 s	51 s

HCM 7th Signalized Intersection Capacity Analysis
11: Ridge Road/Founders Parkway & 5th Street

2030 Total AM
09/30/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 		 	 		 	 	
Traffic Volume (veh/h)	88	214	147	92	517	493	376	515	62	189	137	152
Future Volume (veh/h)	88	214	147	92	517	493	376	515	62	189	137	152
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1811	1811	1811	1856	1856	1856	1870	1870	1870	1856	1856	1856
Adj Flow Rate, veh/h	97	235	0	101	568	0	413	566	0	208	151	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	6	6	6	3	3	3	2	2	2	3	3	3
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	202	757		319	717		488	1693		269	1458	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.06	0.22	0.00	0.04	0.20	0.00	0.14	0.48	0.00	0.08	0.41	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	38.0	39.4	0.0	37.3	47.4	0.0	57.0	20.1	0.0	59.6	21.7	0.0
Ln Grp LOS	D	D		D	D		E	C		E	C	
Approach Vol, veh/h	332			669			979			359		
Approach Delay, s/veh	39.0			45.9			35.7			43.7		
Approach LOS	D			D			D			D		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Case No	2.0	3.0	1.1	3.0	2.0	3.0	1.1	3.0				
Phs Duration (G+Y+Rc), s	14.4	63.2	10.0	32.4	22.0	55.6	12.0	30.4				
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0				
Max Green (Gmax), s	14.0	31.0	5.0	48.0	24.0	21.0	8.0	45.0				
Max Allow Headway (MAH), s	3.8	5.2	3.8	5.3	3.8	5.2	3.8	5.2				
Max Q Clear (g_c+I1), s	9.1	13.9	7.0	8.9	16.0	5.1	7.3	20.4				
Green Ext Time (g_e), s	0.3	3.6	0.0	1.6	1.0	0.7	0.0	4.0				
Prob of Phs Call (p_c)	1.00	1.00	0.97	1.00	1.00	1.00	0.96	1.00				
Prob of Max Out (p_x)	0.41	0.00	1.00	0.00	0.10	0.00	1.00	0.01				
Left-Turn Movement Data												
Assigned Mvmt	1		3		5		7					
Mvmt Sat Flow, veh/h	3428		1767		3456		1725					
Through Movement Data												
Assigned Mvmt		2		4		6		8				
Mvmt Sat Flow, veh/h		3554		3441		3526		3526				
Right-Turn Movement Data												
Assigned Mvmt		12		14		16		18				
Mvmt Sat Flow, veh/h		1585		1535		1572		1572				
Left Lane Group Data												
Assigned Mvmt	1	0	3	0	5	0	7	0				

HCM 7th Signalized Intersection Capacity Analysis
11: Ridge Road/Founders Parkway & 5th Street

2030 Total AM
09/30/2026

Lane Assignment	L (Prot)		L (Pr/Pm)		L (Prot)		L (Pr/Pm)	
Lanes in Grp	2	0	1	0	2	0	1	0
Grp Vol (v), veh/h	208	0	101	0	413	0	97	0
Grp Sat Flow (s), veh/h/ln	1714	0	1767	0	1728	0	1725	0
Q Serve Time (g_s), s	7.1	0.0	5.0	0.0	14.0	0.0	5.3	0.0
Cycle Q Clear Time (g_c), s	7.1	0.0	5.0	0.0	14.0	0.0	5.3	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	1136	0	0	0	817	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	24.4	0.0	0.0	0.0	24.4	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	19.5	0.0	0.0	0.0	6.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	1.3	0.0	0.0	0.0	2.5	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	269	0	319	0	488	0	202	0
V/C Ratio (X)	0.77	0.00	0.32	0.00	0.85	0.00	0.48	0.00
Avail Cap (c_a), veh/h	400	0	319	0	691	0	216	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	54.2	0.0	36.8	0.0	50.2	0.0	36.2	0.0
Incr Delay (d2), s/veh	5.4	0.0	0.6	0.0	6.8	0.0	1.8	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	59.6	0.0	37.3	0.0	57.0	0.0	38.0	0.0
1st-Term Q (Q1), veh/ln	3.1	0.0	2.4	0.0	6.0	0.0	2.2	0.0
2nd-Term Q (Q2), veh/ln	0.2	0.0	0.1	0.0	0.5	0.0	0.1	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	3.3	0.0	2.4	0.0	6.5	0.0	2.3	0.0
%ile Storage Ratio (RQ%)	0.13	0.00	0.10	0.00	0.39	0.00	0.15	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T		T		T		T	
Lanes in Grp	0	2	0	2	0	2	0	2
Grp Vol (v), veh/h	0	566	0	235	0	151	0	568
Grp Sat Flow (s), veh/h/ln	0	1777	0	1721	0	1763	0	1763
Q Serve Time (g_s), s	0.0	11.9	0.0	6.9	0.0	3.1	0.0	18.4
Cycle Q Clear Time (g_c), s	0.0	11.9	0.0	6.9	0.0	3.1	0.0	18.4
Lane Grp Cap (c), veh/h	0	1693	0	757	0	1458	0	717
V/C Ratio (X)	0.00	0.33	0.00	0.31	0.00	0.10	0.00	0.79
Avail Cap (c_a), veh/h	0	1693	0	1376	0	1458	0	1322
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	19.6	0.0	39.2	0.0	21.6	0.0	45.4
Incr Delay (d2), s/veh	0.0	0.5	0.0	0.2	0.0	0.1	0.0	2.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	20.1	0.0	39.4	0.0	21.7	0.0	47.4
1st-Term Q (Q1), veh/ln	0.0	4.9	0.0	2.9	0.0	1.3	0.0	8.0

HCM 7th Signalized Intersection Capacity Analysis
11: Ridge Road/Founders Parkway & 5th Street

2030 Total AM
09/30/2026

2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	5.0	0.0	2.9	0.0	1.3	0.0	8.2
%ile Storage Ratio (RQ%)	0.00	0.19	0.00	0.09	0.00	0.05	0.00	0.19
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1535	0	1572	0	1572
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	755	0	338	0	650	0	320
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	755	0	614	0	650	0	590
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	40.3
HCM 7th LOS	D

Notes

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Timings
11: Ridge Road/Founders Parkway & 5th Street

2030 Total PM
09/30/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 		 	 		 	 	
Traffic Volume (vph)	158	387	281	185	284	338	163	378	88	434	461	101
Future Volume (vph)	158	387	281	185	284	338	163	378	88	434	461	101
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Free	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		Free			2			6
Detector Phase	7	4	4	3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	24.0	24.0	10.0	24.0		10.0	24.0	24.0	10.0	24.0	24.0
Total Split (s)	19.0	35.0	35.0	21.0	37.0		19.0	32.0	32.0	32.0	45.0	45.0
Total Split (%)	15.8%	29.2%	29.2%	17.5%	30.8%		15.8%	26.7%	26.7%	26.7%	37.5%	37.5%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0	5.0	6.0		5.0	6.0	6.0	5.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Max	C-Max	None	C-Max	C-Max

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 30 (25%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 70

Control Type: Actuated-Coordinated

Splits and Phases: 11: Ridge Road/Founders Parkway & 5th Street

#11  Ø1	#11  Ø2 (R)	#11  Ø3	#11  Ø4
32 s	32 s	21 s	35 s
#11  Ø5	#11  Ø6 (R)	#11  Ø7	#11  Ø8
19 s	45 s	19 s	37 s

HCM 7th Signalized Intersection Capacity Analysis
11: Ridge Road/Founders Parkway & 5th Street

2030 Total PM
09/30/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 		 	 		 	 	
Traffic Volume (veh/h)	158	387	281	185	284	338	163	378	88	434	461	101
Future Volume (veh/h)	158	387	281	185	284	338	163	378	88	434	461	101
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	165	403	0	193	296	0	170	394	0	452	480	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes				Yes				Yes			
Cap, veh/h	317	513		288	562		231	1456		532	1766	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.09	0.14	0.00	0.11	0.16	0.00	0.07	0.41	0.00	0.15	0.50	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	39.9	52.2	0.0	42.7	47.2	0.0	59.5	24.0	0.0	55.4	17.9	0.0
Ln Grp LOS	D	D		D	D		E	C		E	B	
Approach Vol, veh/h	568		489				564			932		
Approach Delay, s/veh	48.6		45.4				34.7			36.1		
Approach LOS	D		D				C			D		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Case No	2.0	3.0	1.1	3.0	2.0	3.0	1.1	3.0				
Phs Duration (G+Y+Rc), s	23.5	55.2	18.0	23.3	13.0	65.6	16.4	25.0				
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0				
Max Green (Gmax), s	27.0	26.0	16.0	29.0	14.0	39.0	14.0	31.0				
Max Allow Headway (MAH), s	3.8	5.2	3.8	5.2	3.8	5.2	3.8	5.2				
Max Q Clear (g_c+I1), s	17.3	10.8	12.9	15.1	7.8	11.4	11.3	11.2				
Green Ext Time (g_e), s	1.2	2.2	0.2	2.2	0.3	3.4	0.1	1.8				
Prob of Phs Call (p_c)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Prob of Max Out (p_x)	0.05	0.00	1.00	0.06	0.11	0.00	1.00	0.00				
Left-Turn Movement Data												
Assigned Mvmt	1	3		5			7					
Mvmt Sat Flow, veh/h	3456	1781		3456			1781					
Through Movement Data												
Assigned Mvmt	2		4			6			8			
Mvmt Sat Flow, veh/h	3554		3554			3554			3554			
Right-Turn Movement Data												
Assigned Mvmt	12		14			16			18			
Mvmt Sat Flow, veh/h	1585		1585			1585			1585			
Left Lane Group Data												
Assigned Mvmt	1	0	3	0	5	0	7	0				

HCM 7th Signalized Intersection Capacity Analysis
11: Ridge Road/Founders Parkway & 5th Street

2030 Total PM
09/30/2026

Lane Assignment	L (Prot)		L (Pr/Pm)		L (Prot)		L (Pr/Pm)	
Lanes in Grp	2	0	1	0	2	0	1	0
Grp Vol (v), veh/h	452	0	193	0	170	0	165	0
Grp Sat Flow (s), veh/h/ln	1728	0	1781	0	1728	0	1781	0
Q Serve Time (g_s), s	15.3	0.0	10.9	0.0	5.8	0.0	9.3	0.0
Cycle Q Clear Time (g_c), s	15.3	0.0	10.9	0.0	5.8	0.0	9.3	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	982	0	0	0	1083	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	17.3	0.0	0.0	0.0	17.3	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	4.2	0.0	0.0	0.0	9.8	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	3.2	0.0	0.0	0.0	1.4	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	532	0	288	0	231	0	317	0
V/C Ratio (X)	0.85	0.00	0.67	0.00	0.74	0.00	0.52	0.00
Avail Cap (c_a), veh/h	778	0	332	0	403	0	356	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	49.4	0.0	38.5	0.0	54.9	0.0	38.6	0.0
Incr Delay (d2), s/veh	6.0	0.0	4.3	0.0	4.5	0.0	1.3	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	55.4	0.0	42.7	0.0	59.5	0.0	39.9	0.0
1st-Term Q (Q1), veh/ln	6.6	0.0	4.8	0.0	2.5	0.0	4.1	0.0
2nd-Term Q (Q2), veh/ln	0.4	0.0	0.3	0.0	0.1	0.0	0.1	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	7.0	0.0	5.1	0.0	2.7	0.0	4.2	0.0
%ile Storage Ratio (RQ%)	0.29	0.00	0.20	0.00	0.16	0.00	0.27	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T		T		T		T	
Lanes in Grp	0	2	0	2	0	2	0	2
Grp Vol (v), veh/h	0	394	0	403	0	480	0	296
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	8.8	0.0	13.1	0.0	9.4	0.0	9.2
Cycle Q Clear Time (g_c), s	0.0	8.8	0.0	13.1	0.0	9.4	0.0	9.2
Lane Grp Cap (c), veh/h	0	1456	0	513	0	1766	0	562
V/C Ratio (X)	0.00	0.27	0.00	0.79	0.00	0.27	0.00	0.53
Avail Cap (c_a), veh/h	0	1456	0	859	0	1766	0	918
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	23.5	0.0	49.5	0.0	17.6	0.0	46.4
Incr Delay (d2), s/veh	0.0	0.5	0.0	2.7	0.0	0.4	0.0	0.8
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	24.0	0.0	52.2	0.0	17.9	0.0	47.2
1st-Term Q (Q1), veh/ln	0.0	3.7	0.0	5.8	0.0	3.9	0.0	4.1

HCM 7th Signalized Intersection Capacity Analysis
11: Ridge Road/Founders Parkway & 5th Street

2030 Total PM
09/30/2026

2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.2	0.0	0.1	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.8	0.0	6.0	0.0	3.9	0.0	4.1
%ile Storage Ratio (RQ%)	0.00	0.15	0.00	0.17	0.00	0.14	0.00	0.09
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	649	0	229	0	788	0	251
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	649	0	383	0	788	0	409
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	40.4
HCM 7th LOS	D

Notes

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection Queues

Queues

2030 Total AM

9: Founders Pkwy & J Street/Crimson Sky Dr

09/24/2026

								
Lane Group	EBL	WBL	WBT	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	38	4	284	1733	4	57	495	14
v/c Ratio	0.51	0.02	0.78	0.75	0.00	0.29	0.19	0.01
Control Delay (s/veh)	58.7	30.0	35.7	17.0	0.0	8.5	4.7	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	58.7	30.0	35.7	17.0	0.0	8.5	4.7	0.0
Queue Length 50th (ft)	23	2	99	380	0	8	41	0
Queue Length 95th (ft)	53	11	173	#707	0	26	84	0
Internal Link Dist (ft)			391	460			703	
Turn Bay Length (ft)	150	275			425	525		300
Base Capacity (vph)	191	593	739	2316	1058	195	2610	1184
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.01	0.38	0.75	0.00	0.29	0.19	0.01

Intersection Summary

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

Queue shown is maximum after two cycles.

								
Lane Group	EBL	WBL	WBT	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	26	5	145	1069	15	236	1348	43
v/c Ratio	0.35	0.05	0.56	0.53	0.02	0.40	0.46	0.03
Control Delay (s/veh)	55.2	41.2	15.6	14.5	0.0	4.4	3.1	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	55.2	41.2	15.6	14.5	0.0	4.4	3.1	0.3
Queue Length 50th (ft)	16	3	0	194	0	20	84	0
Queue Length 95th (ft)	42	14	56	278	0	52	150	3
Internal Link Dist (ft)			391	469			703	
Turn Bay Length (ft)	150	275			425	525		300
Base Capacity (vph)	392	582	739	2008	927	590	2935	1324
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.01	0.20	0.53	0.02	0.40	0.46	0.03
Intersection Summary								

										
Lane Group	EBL	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	90	56	5	291	32	1867	4	58	534	52
v/c Ratio	1.20	0.04	0.02	0.78	0.05	0.81	0.00	0.31	0.23	0.05
Control Delay (s/veh)	206.3	0.0	29.6	36.0	5.3	19.7	0.0	11.1	8.4	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	206.3	0.0	29.6	36.0	5.3	19.7	0.0	11.1	8.4	2.2
Queue Length 50th (ft)	~71	0	3	104	5	450	0	9	71	0
Queue Length 95th (ft)	#145	0	12	178	17	#813	0	33	130	14
Internal Link Dist (ft)				391		460			703	
Turn Bay Length (ft)	150	150	275		370		425	525		300
Base Capacity (vph)	185	1583	593	738	644	2295	1050	188	2360	1077
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.04	0.01	0.39	0.05	0.81	0.00	0.31	0.23	0.05

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Queues

2035 Total PM

9: Founders Pkwy & J Street/Crimson Sky Dr

09/24/2026

										
Lane Group	EBL	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	52	32	6	148	47	1151	16	243	1447	77
v/c Ratio	0.68	0.02	0.04	0.53	0.16	0.61	0.02	0.43	0.55	0.06
Control Delay (s/veh)	82.6	0.0	38.8	15.0	5.7	17.7	0.1	7.8	7.7	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	82.6	0.0	38.8	15.0	5.7	17.7	0.1	7.8	7.7	1.6
Queue Length 50th (ft)	33	0	4	4	4	236	0	25	210	0
Queue Length 95th (ft)	72	0	16	60	13	334	0	97	325	15
Internal Link Dist (ft)				391		469			703	
Turn Bay Length (ft)	150	150	275		370		425	525		300
Base Capacity (vph)	330	1583	582	736	289	1887	875	569	2640	1200
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.02	0.01	0.20	0.16	0.61	0.02	0.43	0.55	0.06
Intersection Summary										

Queues

2050 Total AM

9: Founders Pkwy & J Street/Crimson Sky Dr

09/24/2026

									
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	159	5	99	16	318	60	2368	66	785
v/c Ratio	0.99	0.01	0.06	0.04	0.63	0.14	0.85	0.35	0.29
Control Delay (s/veh)	103.3	23.4	0.1	23.9	23.8	7.7	22.6	12.4	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	103.3	23.4	0.1	23.9	23.8	7.7	22.6	12.4	11.6
Queue Length 50th (ft)	88	2	0	7	97	13	441	14	88
Queue Length 95th (ft)	#211	10	0	22	187	28	#531	30	115
Internal Link Dist (ft)	1524			391			260		
Turn Bay Length (ft)	150		150	275		370		525	
Base Capacity (vph)	175	527	1583	398	534	428	2788	190	2730
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.01	0.06	0.04	0.60	0.14	0.85	0.35	0.29

Intersection Summary

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

Queue shown is maximum after two cycles.

Queues

2050 Total PM

9: Founders Pkwy & J Street/Crimson Sky Dr

09/24/2026

									
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	138	5	85	21	165	117	1500	266	2027
v/c Ratio	0.81	0.02	0.05	0.09	0.41	0.49	0.54	0.75	0.66
Control Delay (s/veh)	69.3	29.0	0.1	30.5	9.0	18.7	15.2	28.9	14.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	69.3	29.0	0.1	30.5	9.0	18.7	15.2	28.9	14.2
Queue Length 50th (ft)	75	2	0	10	2	18	214	73	280
Queue Length 95th (ft)	#163	12	0	31	55	66	263	#184	384
Internal Link Dist (ft)	1683			391			190		
Turn Bay Length (ft)	150		150	275		370		525	
Base Capacity (vph)	199	378	1583	280	445	309	2754	383	3076
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.01	0.05	0.08	0.37	0.38	0.54	0.69	0.66

Intersection Summary

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

Queue shown is maximum after two cycles.

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	18	21	95	173	8	1535	45	57	427	7
v/c Ratio	0.16	0.04	0.46	0.70	0.01	0.56	0.04	0.29	0.16	0.01
Control Delay (s/veh)	44.7	0.2	52.5	58.8	4.4	6.9	1.4	9.8	4.0	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	44.7	0.2	52.5	58.8	4.4	6.9	1.4	9.8	4.0	1.3
Queue Length 50th (ft)	13	0	69	121	1	210	0	11	37	0
Queue Length 95th (ft)	33	0	117	186	6	343	10	41	69	3
Internal Link Dist (ft)		420		453		711			2120	
Turn Bay Length (ft)	150				300		475	525		300
Base Capacity (vph)	363	912	646	746	727	2746	1238	194	2720	1219
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.02	0.15	0.23	0.01	0.56	0.04	0.29	0.16	0.01
Intersection Summary										

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	12	14	86	150	22	917	85	112	1216	19
v/c Ratio	0.15	0.07	0.58	0.63	0.07	0.32	0.06	0.25	0.42	0.01
Control Delay (s/veh)	50.5	5.9	65.0	37.0	3.4	3.3	0.8	4.6	3.9	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	50.5	5.9	65.0	37.0	3.4	3.3	0.8	4.6	3.9	1.3
Queue Length 50th (ft)	9	0	65	55	3	73	0	16	109	0
Queue Length 95th (ft)	28	9	116	121	10	123	11	43	181	5
Internal Link Dist (ft)		420		453		711			2111	
Turn Bay Length (ft)	150				300		475	525		300
Base Capacity (vph)	341	754	650	779	324	2892	1309	456	2892	1297
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.02	0.13	0.19	0.07	0.32	0.06	0.25	0.42	0.01
Intersection Summary										

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	14	14	97	177	8	1712	46	58	530	8
v/c Ratio	0.12	0.03	0.46	0.71	0.01	0.63	0.04	0.39	0.20	0.01
Control Delay (s/veh)	43.2	0.2	52.1	58.7	4.4	7.9	1.5	15.0	4.3	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	43.2	0.2	52.1	58.7	4.4	7.9	1.5	15.0	4.3	1.6
Queue Length 50th (ft)	10	0	71	124	1	260	0	13	49	0
Queue Length 95th (ft)	28	0	118	189	6	426	11	57	87	3
Internal Link Dist (ft)		420		453		711			2120	
Turn Bay Length (ft)	150				300		475	525		300
Base Capacity (vph)	357	867	650	746	652	2737	1234	150	2711	1215
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.02	0.15	0.24	0.01	0.63	0.04	0.39	0.20	0.01
Intersection Summary										

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	9	9	88	153	12	1052	87	115	1359	12
v/c Ratio	0.11	0.05	0.55	0.68	0.04	0.37	0.07	0.30	0.47	0.01
Control Delay (s/veh)	47.0	8.4	61.8	48.4	3.6	3.9	0.8	5.9	4.6	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	47.0	8.4	61.8	48.4	3.6	3.9	0.8	5.9	4.6	1.5
Queue Length 50th (ft)	6	0	67	79	1	92	0	18	135	0
Queue Length 95th (ft)	22	9	116	143	7	162	12	53	235	4
Internal Link Dist (ft)		420		453		711			2111	
Turn Bay Length (ft)	150				300		475	525		300
Base Capacity (vph)	348	748	653	765	268	2868	1299	388	2868	1285
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.01	0.13	0.20	0.04	0.37	0.07	0.30	0.47	0.01
Intersection Summary										

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	16	17	104	193	11	2269	66	747
v/c Ratio	0.13	0.06	0.44	0.72	0.02	0.59	0.88	0.20
Control Delay (s/veh)	41.3	17.1	49.1	60.9	5.3	7.9	97.2	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	41.3	17.1	49.1	60.9	5.3	7.9	97.2	4.8
Queue Length 50th (ft)	11	1	74	145	2	247	32	53
Queue Length 95th (ft)	30	20	122	210	9	377	#95	88
Internal Link Dist (ft)		420		453		500		2320
Turn Bay Length (ft)	150				300		525	
Base Capacity (vph)	351	755	648	740	496	3829	75	3796
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.02	0.16	0.26	0.02	0.59	0.88	0.20

Intersection Summary

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

Queue shown is maximum after two cycles.

Queues

2050 Total PM

10: Founders Pkwy & Rising Sun Dr Access/Rising Sun Dr

09/24/2026

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	11	12	96	171	16	1532	128	1830
v/c Ratio	0.10	0.05	0.47	0.70	0.11	0.39	0.62	0.46
Control Delay (s/veh)	42.8	32.7	53.0	58.5	6.5	5.0	23.6	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	42.8	32.7	53.0	58.5	6.5	5.0	23.6	5.5
Queue Length 50th (ft)	8	6	70	118	3	116	36	152
Queue Length 95th (ft)	24	23	118	183	13	184	#182	238
Internal Link Dist (ft)		420		453		530		2390
Turn Bay Length (ft)	150				300		525	
Base Capacity (vph)	364	751	651	747	144	3924	208	3953
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.02	0.15	0.23	0.11	0.39	0.62	0.46

Intersection Summary

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

Queue shown is maximum after two cycles.