

Traffic Impact Study for the School Property Rezoning Project



Prepared for the City of Willits

Submitted by **W-Trans**

May 14, 2020





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Executive Summary

The property at 1277 Blosser Lane in the City of Willits that is owned by the Willits School District is proposed to be rezoned from its current Heavy Industrial zoning to Residential Medium Density. To assess the potential impacts associated with the increased traffic that a residential development could generate compared to an industrial complex, an analysis was performed assuming a maximum of 165 multifamily units for the future potential development; there is not currently a specific development proposal at this time. Based on this assumed maximum development, the potential residential project that would generate the greatest number of trips with the proposed rezoning would generate an average of 1,208 trips per day, including 76 a.m. peak hour trips and 92 trips during the p.m. peak hour. This assumed project would be expected to generate a VMT of 14,363 miles per day.

During the five-year period studied, all the study intersections had lower collision rates than the statewide average for similar facilities, with the exception of SR 20/Blosser Lane. Though this intersection had an above-average collision rate, there were an insufficient number of crashes to establish any patterns or trends and the above-average crash rate is generally attributed to the low traffic volumes at this location. Based on existing volumes, the study intersections are all operating acceptably at LOS C or better during both studied peak periods. With the assumed maximum potential trips that would be generated by a project allowed with the proposed rezoning, the study intersections would continue to operate at the same Levels of Service. The future intersection of Walnut Street-Walnut Street Extension/Locust Street should be configured as a standard tee intersection with a stop control on the northbound Locust Street approach.

With 20-year horizon growth rates applied to existing volumes, the study intersections are expected to operate acceptably at LOS C or better overall. With potential traffic associated with the rezoning added to the street networks, the study intersections would be expected to continue operating acceptably at the same Levels of Service, experiencing minor increases in delay.

Existing transit and bicycle facilities are adequate for anticipated demand, though it is noted that while there are plans to install bicycle lanes along Walnut Street, the existing road width is insufficient to accommodate these facilities. There are gaps in sidewalks and connecting pedestrian facilities along both Walnut Street and Locust Street near the subject parcel.



Introduction

This report presents an analysis of the potential traffic impacts that would be associated with rezoning the property at 1277 Blosser Lane in the City of Willits from Heavy Industrial (HI) to Residential Medium Density (R2) zoning and subsequent development of that land use. The property is currently owned by the Willits Unified School District. The traffic study was completed in accordance with the criteria established by the City of Willits and is consistent with standard traffic engineering techniques.

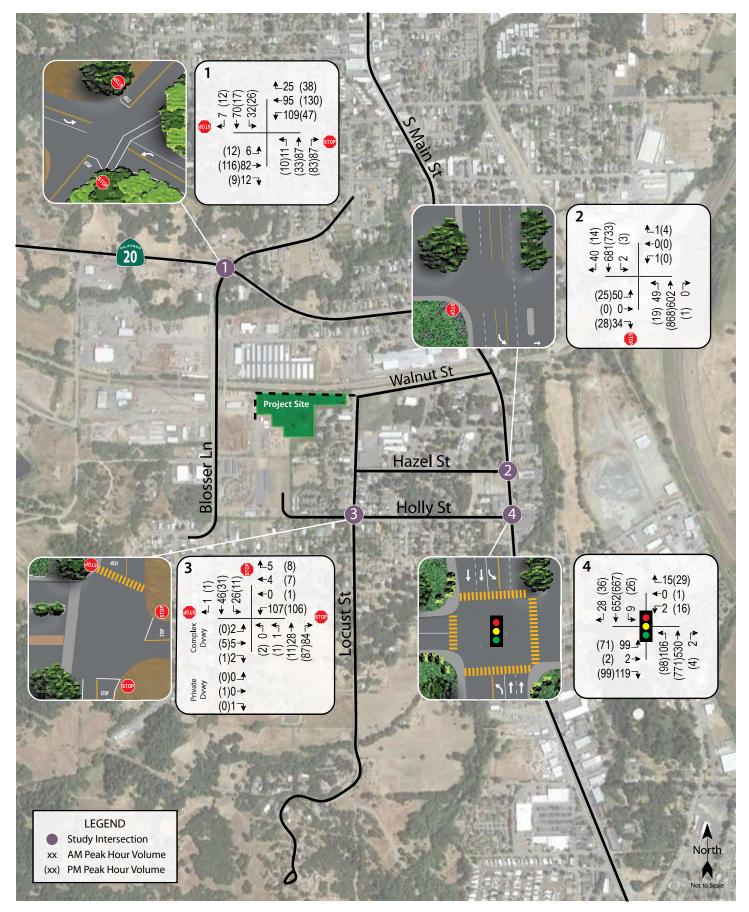
Prelude

The purpose of a traffic impact study is to provide City staff and policy makers with data they can use to make an informed decision regarding the potential traffic impacts of a proposed project, or in this case a theoretical project that could occur upon rezoning, and any associated improvements that would be required to mitigate these impacts to an acceptable level as defined by the City's General Plan or other policies. Vehicular traffic impacts are typically evaluated by determining the number of new trips that the proposed use would be expected to generate, distributing these trips to the surrounding street system based on existing travel patterns or anticipated travel patterns specific to the proposed project, then analyzing the impact the new traffic would be expected to have on critical intersections or roadway segments. Impacts relative to access for pedestrians, bicyclists, and to transit are also addressed.

Project Profile

There is currently no specific development proposal for the project site. However, as the proposed rezoning would result in an increase in the parcel's potential trip generation, this study provides an evaluation the potential impacts that would be expected if the Willits School District's 5.68-acre property were to be developed under R2 zoning rather than the existing HI zoning. The project site is located at 1277 Blosser Lane, as shown in Figure 1.





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Traffic Impact Study for the School Property Rezoning Project Figure 1 – Study Area, Lane Configurations and Existing Traffic Volumes



Transportation Setting

Operational Analysis

Study Area and Periods

The study area consists of the following intersections:

- 1. State Route (SR) 20/Blosser Lane
- 2. South Main Street/Hazel Street
- 3. Holly Street/Locust Street
- 4. South Main Street/Holly Street

Operating conditions during the a.m. and p.m. peak periods were evaluated to capture the highest potential impacts for the proposed change in land use as well as the highest volumes on the local transportation network. The morning peak hour occurs between 7:00 and 9:00 a.m. and reflects conditions during the home to work or school commute, while the p.m. peak hour occurs between 4:00 and 6:00 p.m. and typically reflects the highest level of congestion during the homeward bound commute.

The intersection of South Main Street/Walnut Street was considered in the evaluation on a more qualitative basis. The intersection is currently limited to right turns on the Walnut Street approach, so traffic from the subject property would likely travel to Main Street to the south via the signalized intersection at Holly Street. The future intersection of Walnut Street-Walnut Street Extension/Locust Street was also addressed based on its alignment and anticipated design.

Study Intersections

State Route 20 (SR 20)/Blosser Lane is a four-legged two-way stop-controlled intersection. Stop controls are located on the northbound and southbound Blosser Lane approaches. There is a crosswalk on the east leg that is 100 feet long and angled in the middle. There are 35 mile per hour (mph) radar feedback signs at the intersection for eastbound traffic on SR 20.

South Main Street/Hazel Street is a tee intersection with stop controls on the terminating eastbound approach. There are sidewalks along both sides of South Main Street as well as along the north side of Hazel Street. A driveway to a motel connects to the intersection on the east side and was treated as the fourth leg of the intersection.

Holly Street/Locust Street is all-way stop-controlled and has five legs. The two eastbound approaches are private driveways, one from a single-family residence and the other for the Glenn Oaks Apartments. There is a crosswalk on the north leg, connecting to continuous sidewalks along both sides of Locust Street north of the intersection, as well as the north side of Holly Street. The entrance to the Blosser Lane Trail is between the two private driveways on the east leg.

South Main Street/Holly Street is a signalized four-legged intersection with protected left-turn phasing on the northbound and southbound South Main Street approaches. High-visibility crosswalks with associated pedestrian signal phasing are present at all four legs.

The locations of the study intersections and the existing lane configurations and controls are shown in Figure 1.



Collision History

The collision history for the study area was reviewed to determine any trends or patterns that may indicate a safety issue. Collision rates were calculated based on records available from the California Highway Patrol as published in their Statewide Integrated Traffic Records System (SWITRS) reports. The most current five-year period available is September 1, 2014 through August 31, 2019.

As presented in Table 1, the calculated collision rates for the study intersections were compared to average collision rates for similar facilities statewide, as indicated in *2016 Collision Data on California State Highways*, California Department of Transportation (Caltrans). Based on the most recent five-year period, all of the intersections with the exception of SR 20/Blosser Lane had lower collisions rates than the statewide average for similar facilities. The collision rate calculations are provided in Appendix A.

Table 1 – Collision Rates at the Study Intersections											
Study Intersection		Number of Collisions (2014-2019)	Calculated Collision Rate (c/mve)	Statewide Average Collision Rate (c/mve)							
1. SF	R 20/Blosser Ln	3	0.31	0.13							
2. SI	Main St/Hazel St	0	0.00	0.13							
3. Ho	olly St/Locust St	0	0.00	0.19							
4. SI	Main St/Holly St	1	0.03	0.24							

Note: c/mve = collisions per million vehicles entering; **bold** text = collision rate higher than statewide average

Though the collision rate for the intersection of SR 20/Blosser Lane exceeds the statewide average, with only three crashes, there is insufficient data to determine any type of trend. The above-average rate is generally attributable to the low volumes of traffic at the intersections, resulting in a high collision rate for even a single collision. Of the three collisions, one was a rear-end, one broadside, and one head-on. Due to the lack of a trend with the collisions, no specific safety concerns were identified relative to the intersection.

Alternative Modes

Pedestrian Facilities

Pedestrian facilities include sidewalks, crosswalks, pedestrian signal phases, curb ramps, curb extensions, and various streetscape amenities such as lighting, benches, etc. In general, sidewalks, crosswalks, and curb ramps are discontinuous or non-existent within the project vicinity with the exception of section of Blosser Lane near the Blosser Lane Elementary School frontage and a portion of the west side of Locust Street in the study area. Existing gaps and obstacles along the connecting roadways impact convenient and continuous access for pedestrians and present safety concerns in those locations. For example, sidewalk is missing for about 700 feet along the south side of Walnut Street between Locust Street and Magnolia Street, limiting pedestrian access from the project site to the downtown.

The intersection of SR 20/Blosser Lane was not evaluated in terms of pedestrian safety and need for enhancements. As noted, the existing uncontrolled crosswalk on the east leg is 100 feet in length with a bend in the middle. There are no pedestrian warning signs or markings at the crosswalk. Since the crossing is located on SR 20, it is recommended that the City of Willits request that Caltrans conduct a pedestrian safety assessment for this crosswalk.



Bicycle Facilities

The Highway Design Manual, Caltrans, 2017, classifies bikeways into four categories:

- **Class I Multi-Use Path** a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flows of motorized traffic minimized.
- **Class II Bike Lane** a striped and signed lane for one-way bike travel on a street or highway.
- **Class III Bike Route** signing only for shared use with motor vehicles within the same travel lane on a street or highway.
- **Class IV Bikeway** also known as a separated bikeway, a Class IV Bikeway is for the exclusive use of bicycles and includes a separation between the bikeway and the motor vehicle traffic lane. The separation may include, but is not limited to, grade separation, flexible posts, inflexible physical barriers, or on-street parking.

Within the project vicinity, the Blosser Lane Trail connects between Blosser Lane and Locust Street, running eastwest just south of the project site. According to the *City of Willits Bicycle and Pedestrian Specific Plan*, 2009, bicycle lanes are proposed along SR 20, Walnut Street, Blosser Lane and Locust Street. Bicyclists ride in the roadway and/or on sidewalks along all other streets within the project study area. Table 2 summarizes the existing and planned bicycle facilities in the project vicinity.

Table 2 – Bicycle Facility Summary										
Status Facility			Begin Point	End Point						
Existing										
Blosser Ln Trail	I	0.25	Blosser Ln	Locust St						
SR 20	III	0.47	Blosser Ln	Main St						
Planned										
Blosser Ln	П	0.24	SR 20	Walnut St Ext						
Walnut St Ext	П	0.26	Blosser Ln	Locust St						
Walnut St	П	0.25	Main St	Locust St						
Locust St	П	0.22	Walnut St	Holly St						
Locust St*	П	0.39	Holly St	Maguire Ln Trail						
SR 20	П	0.67	Main St	City Limits West						

Notes: * All or portions of these bikeways are located within the County of Mendocino

Source: City of Willits Bicycle and Pedestrian Specific Plan, City of Willits Community Development Department, 2009

Transit Facilities

Mendocino Transit Authority (MTA) provides regional route bus service within the City of Willits and between Mendocino County and the City of Santa Rosa. Within a quarter mile walking distance of the project site, which is considered an acceptable distance for most pedestrians, there are four bus stops served by the MTA. When data for this study was accessed, services were reduced or canceled due to the COVID-19 pandemic, and it unknown when normal operation will resume.

MTA Route 1 provides local service between the Integrated Service Center and the New Howard Hospital, with stops throughout the City of Willits.



Route 20 provides regional service between the Cities of Willits and Ukiah, with stops at the Mendocino College and the Ukiah Community Clinic.

Route 65 provides regional service between the Santa Rosa Coddingtown Mall Transit Hub and City of Fort Bragg downtown, with stops in Windsor, Hopland, Ukiah, and Willits. The route provides service Monday through Saturday, with approximately two- to three-hour headways between 6:30 a.m. and 7:48 p.m. A single bus runs on Sundays, operating between 6:30 a.m. and 10:35 a.m. southbound and between 1:25 p.m. and 5:52 p.m. northbound.

Two bicycles can be carried on most MTA buses. Bike rack space is on a first come, first served basis. Additional bicycles are allowed on MTA buses at the discretion of the driver.

Dial-a-ride, also known as paratransit, or door-to-door service, is available for those who are unable to independently use the transit system due to a physical or mental disability. MTA Paratransit is designed to serve the needs of individuals with disabilities within the City of Willits and the greater Mendocino County area.



Intersection Level of Service Methodologies

Level of Service (LOS) is used to rank traffic operation on various types of facilities based on traffic volumes and roadway capacity using a series of letter designations ranging from A to F. Generally, Level of Service A represents free flow conditions and Level of Service F represents forced flow or breakdown conditions. A unit of measure that indicates a level of delay generally accompanies the LOS designation.

The study intersections were analyzed using methodologies published in the *Highway Capacity Manual* (HCM), 6th Edition, Transportation Research Board, 2018. This source contains methodologies for various types of intersection control, all of which are related to a measurement of delay in average number of seconds per vehicle.

The Levels of Service for the intersections with side street stop controls, or those which are unsignalized and have one or two approaches stop controlled, were analyzed using the "Two-Way Stop-Controlled" intersection capacity method from the HCM. This methodology determines a level of service for each minor turning movement by estimating the level of average delay in seconds per vehicle. Results are presented for individual movements together with the weighted overall average delay for the intersection.

The study intersections with stop signs on all approaches were analyzed using the "All-Way Stop-Controlled" Intersection methodology from the HCM. This methodology evaluates delay for each approach based on turning movements, opposing and conflicting traffic volumes, and the number of lanes. Average vehicle delay is computed for the intersection as a whole and is then related to a Level of Service.

The study intersections that are currently controlled by a traffic signal, or may be in the future, were evaluated using the signalized methodology from the HCM. This methodology is based on factors including traffic volumes, green time for each movement, phasing, whether the signals are coordinated or not, truck traffic, and pedestrian activity. Average stopped delay per vehicle in seconds is used as the basis for evaluation in this LOS methodology. For purposes of this study, delays were calculated using optimized signal timing.

The ranges of delay associated with the various levels of service are indicated in Table 3.



Table	e 3 – Intersection Level of Service C	riteria	
LOS	Two-Way Stop-Controlled	All-Way Stop-Controlled	Signalized
A	Delay of 0 to 10 seconds. Gaps in traffic are readily available for drivers exiting the minor street.	Delay of 0 to 10 seconds. Upon stopping, drivers are immediately able to proceed.	Delay of 0 to 10 seconds. Most vehicles arrive during the green phase, so do not stop at all.
В	Delay of 10 to 15 seconds. Gaps in traffic are somewhat less readily available than with LOS A, but no queuing occurs on the minor street.	Delay of 10 to 15 seconds. Drivers may wait for one or two vehicles to clear the intersection before proceeding from a stop.	Delay of 10 to 20 seconds. More vehicles stop than with LOS A, but many drivers still do not have to stop.
С	Delay of 15 to 25 seconds. Acceptable gaps in traffic are less frequent, and drivers may approach while another vehicle is already waiting to exit the side street.	Delay of 15 to 25 seconds. Drivers will enter a queue of one or two vehicles on the same approach, and wait for vehicle to clear from one or more approaches prior to entering the intersection.	Delay of 20 to 35 seconds. The number of vehicles stopping is significant, although many still pass through without stopping.
D	Delay of 25 to 35 seconds. There are fewer acceptable gaps in traffic, and drivers may enter a queue of one or two vehicles on the side street.	Delay of 25 to 35 seconds. Queues of more than two vehicles are encountered on one or more approaches.	Delay of 35 to 55 seconds. The influence of congestion is noticeable, and most vehicles have to stop.
E	Delay of 35 to 50 seconds. Few acceptable gaps in traffic are available, and longer queues may form on the side street.	Delay of 35 to 50 seconds. Longer queues are encountered on more than one approach to the intersection.	Delay of 55 to 80 seconds. Most, if not all, vehicles must stop and drivers consider the delay excessive.
F	Delay of more than 50 seconds. Drivers may wait for long periods before there is an acceptable gap in traffic for exiting the side streets, creating long queues.	Delay of more than 50 seconds. Drivers enter long queues on all approaches.	Delay of more than 80 seconds. Vehicles may wait through more than one cycle to clear the intersection.

Reference: Highway Capacity Manual, Transportation Research Board, 2018

Traffic Operation Standards

According to the City's *General Plan Revision* from 1992, in General Plan Policy 2.210 sets standard of LOS D or better for local streets. For the individual movements at two-way stop-controlled intersections, LOS D operation was assumed to be the minimum acceptable level.

Since the study intersection SR 20/Blosser Lane is along a state route, the Caltrans standard of significance was applied. Caltrans indicates that they endeavor to maintain operation at the transition from LOS C to LOS D.

On sections of certain arterial streets, it is typical to have all of the side streets operating at LOS E or F with long traffic delays, even where side street volumes are very low. In fact, it may be operationally, physically, and/or financially infeasible to provide mitigation which would allow Level of Service D conditions or better from all side streets during peak hours. The most typical mitigation measure used to improve operation for the side street is a traffic signal, and it is both operationally and financially undesirable to provide a traffic signal at every intersection along most street segments.



Existing Conditions

The Existing Conditions scenario provides an evaluation of current operation based on existing traffic volumes during the a.m. and p.m. peak periods. This condition does not include project-generated traffic volumes. Volume data was collected when local schools were in session.

Intersection Levels of Service

Under existing conditions, all the study intersections are operating acceptably at LOS B or better overall and at LOS D or better on minor approaches during both studied peak periods. The existing traffic volumes are shown in Figure 1. A summary of the intersection level of service calculations is contained in Table 4, and copies of the Level of Service calculations are provided in Appendix B.

Ta	Table 4 – Existing Peak Hour Intersection Levels of Service										
Stu	Study Intersection		Peak	PM F	Peak						
	Approach	Delay	LOS	Delay	LOS						
1.	SR 20/Blosser Ln	11.4	В	4.9	А						
	Northbound (Blosser Ln) Approach	18.5	С	11.3	В						
	Southbound (Blosser Ln) Approach	25.3	D	13.5	В						
2.	S Main St/Hazel St	1.3	А	0.6	А						
	Eastbound (Hazel St) Approach	17.0	С	14.3	В						
	Westbound (Driveway) Approach	13.7	В	11.7	В						
3.	Holly St/Locust St	8.4	А	7.8	А						
4.	S Main St/Holly St	12.3	В	10.6	В						

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*

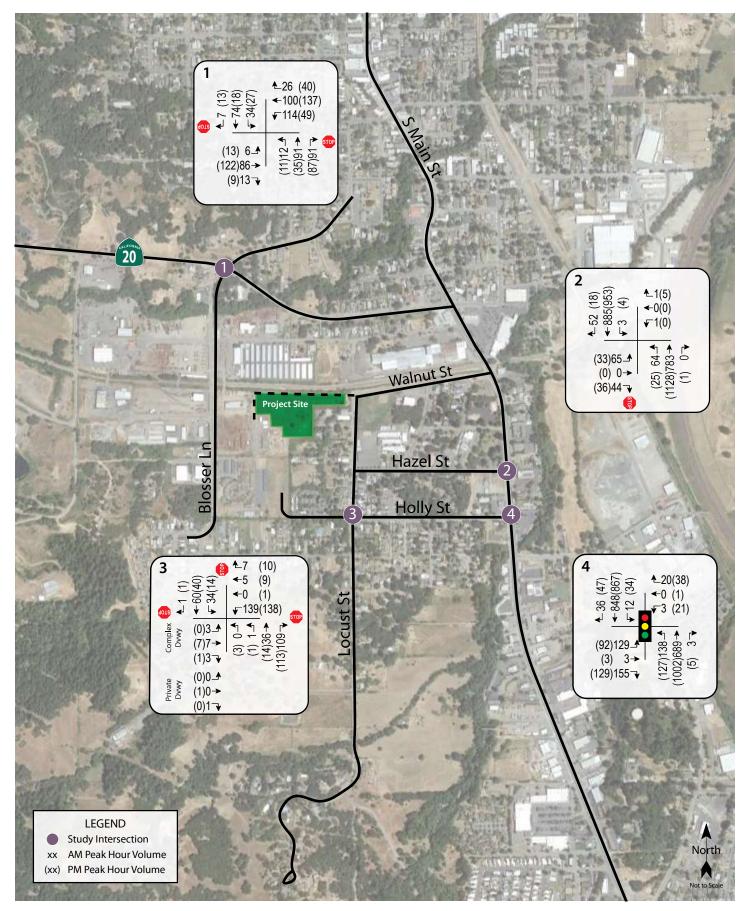
Baseline Conditions

Based on information provided by the City, there are currently no approved development projects expected to generate additional traffic in the study area. Baseline, or "Existing plus Approved Projects" conditions were therefore not evaluated.

Future Conditions

Caltrans segment growth factors were used to estimate future volumes. A horizon year of 2040 and growth factor of 1.05 along SR 20 was applied to SR 20/Blosser Lane and the factor of 1.30 for Main Street was used for the other study intersections. Under the anticipated Future volumes, the study intersections are expected to continue operating acceptably at LOS C or better overall and LOS D or better on stop-controlled approaches. Future volumes are shown in Figure 2 and operating conditions are summarized in Table 5.





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Traffic Impact Study for the School Property Rezoning Project Figure 2 – Future Traffic Volumes



Tal	ole 5 – Future Peak Hour Intersection Levels of Servic	9				
Stı	ıdy Intersection	AM F	Peak	PM Peak		
	Approach	Delay	LOS	Delay	LOS	
1.	SR 20/Blosser Ln	12.5	В	5.0	А	
	Northbound (Blosser Ln) Approach	20.1	С	11.6	В	
	Southbound (Blosser Ln) Approach	29.1	D	13.9	В	
2.	S Main St/Hazel St	1.9	А	0.75	А	
	Eastbound (Hazel St) Approach	26.2	D	18.4	С	
	Westbound (Driveway) Approach	17.0	С	13.2	В	
3.	Holly St/Locust St	9.1	А	8.2	А	
4.	S Main St/Holly St	15.3	В	12.8	В	

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*

Rezoning Description

It is understood that Willits Unified School District is proposing a change in the zoning of the parcel that is the focus of this study from HI to R2 to allow for a mix of residential types. While there is currently no specific development proposal, the School District will be seeking a buyer for the property and the change in zoning would provide more options for a potential buyer. While the R2 zoning allows for different kinds of residential land uses, multi-family apartments were used for the purpose of the study since this land use would result in more units than single family residential and would also result in a higher volume of vehicle trips generated. To be conservative, no reductions to account for residential driveways or parking areas were applied. The maximum density allowed for the multi-family zoning of one unit per 1,500 square feet was used for the analysis. Based on this assumption and the project site size of 5.68 acres, 165 multi-family apartment units were assumed. Access to the potential development was assumed to be located on the west leg of the Walnut Street/Locust Street intersection.

Trip Generation

The anticipated vehicle trip generation for a potential project with the proposed rezoning was estimated using standard rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual*, 10th Edition, 2017. The land use Multifamily Housing (Low-Rise) (Land Use 220) was applied. The expected trip generation potential for a potential project with this zoning designation is indicated in Table 6. Based on application of these assumptions, development of the site under the proposed zoning would be expected to generate an average of 1,208 trips per day, including 76 a.m. peak hour trips and 92 trips during the p.m. peak hour. It is noted that a single-family residential project with up to 91 units would generate a similar volume of vehicle traffic during the more critical p.m. peak hour, although only 82 single-family units would be possible with the R2 zoning.

Table 6 – Trip Generation Summary											
Units	Da	nily	AM Peak Hour PM Peak Hou		PM Peak Hour						
	Rate	Trips	Rate	Trips	In	Out	Rate	Trips	In	Out	
165 du	7.32	1,208	0.46	76	17	59	0.56	92	58	34	
	Units	Units Da Rate	Units Daily Rate Trips	Units Daily A Rate Trips Rate	Units Daily AM Peak Rate Trips Rate Trips	Units Daily AM Peak Hour Rate Trips Rate Trips In	Units Daily AM Peak Hour Rate Trips Rate Trips In Out	UnitsDailyAM Peak HourFRateTripsRateTripsInOutRate	UnitsDailyAM Peak HourPM PeakRateTripsRateTripsInOutRateTrips	UnitsDailyAM Peak HourPM Peak HourRateTripsRateTripsInOutRateTripsIn	

Note: du = dwelling unit



Trip Distribution

The pattern used to allocate these potential trips to the street network was determined by reviewing employment patterns for residents of the City of Willits as indicated by the 2010 Census. The applied distribution assumptions and resulting trips are shown in Table 7.

Table 7 – Trip Distribution Assumptions											
Route	Percent	Daily Trips	AM Trips	PM Trips							
To/From North via S Main St	45%	544	34	41							
To/From South via S Main St	40%	483	30	37							
To/From West via SR 20	15%	181	11	14							
TOTAL	100%	1,208	75*	92							

Note: * Trips do not equal the calculated trip generation due to rounding

Vehicle Miles Traveled

Senate Bill (SB) 743 established a change in the metric to be applied to determining traffic impacts associated with development projects. Rather than the delay-based criteria associated with a Level of Service analysis, the increase in vehicle-miles-travelled (VMT) as a result of a project will be the basis for determining impacts once this new metric is fully vetted and standards of significance have been adopted by the City. While the City has not yet adopted a policy regarding vehicle miles traveled (VMT), the project's VMT was estimated for informational purposes only. Vehicle miles traveled associated with the and though there is no proposed project, the potential VMT of developing the site with residential uses was calculated by multiplying the estimated daily trips and the average home-to-work based trip distance for the Traffic Analysis Zone (TAZ) in which the parcel is located. For 1,208 daily trips and an average distance for the area of 11.89 miles traveled per daily trip as available from the Caltrans Statewide Travel Demand Model, the estimated VMT for a residential development at the site would be 14,363 vehicle miles traveled. These results are shown in Table 8.

Table 8 – VMT Summary										
Land Use Daily Trips		Average Trip Length	Calculated Daily VMT							
Residential	1,208	11.89 mi	14,363 mi							

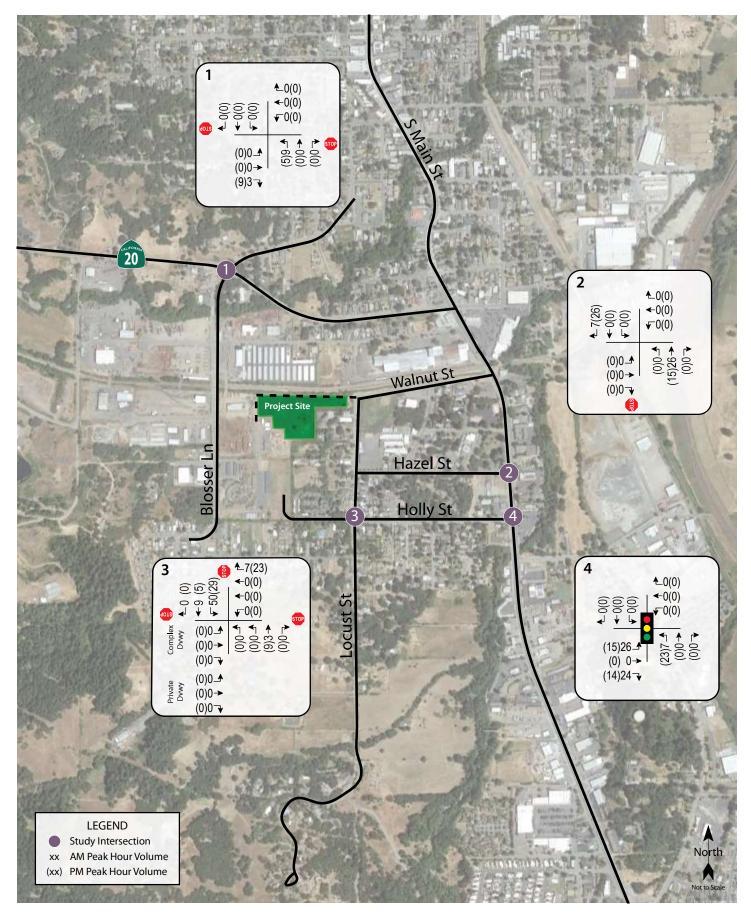
Since there is not a specific development proposal to be evaluated, this information is provided for information only.

Intersection Operation

Existing plus Rezoning Conditions

Upon the addition of trips that could be generated by a residential project to existing volumes, the study intersections are expected to operate at the same Levels of Service. Traffic volumes associated with the assumed residential development are shown in Figure 3. These results are summarized in Table 9.





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Traffic Impact Study for the School Property Rezoning Project Figure 3 – Rezoning Traffic Volumes



Stu	ıdy Intersection	E	Existing Conditions				Existing plus Project			
	Approach		Peak	PM F	Peak	AM	Peak	PM F	Peak	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	
1.	SR 20/Blosser Ln	11.4	В	4.9	А	11.9	В	4.9	А	
	Northbound (Blosser Ln) Approach	18.5	С	11.3	В	20.1	С	11.5	В	
	Southbound (Blosser Ln) Approach	25.3	D	13.5	В	25.5	D	13.6	В	
2.	S Main St/Hazel St	1.3	А	0.6	А	1.3	А	0.6	А	
	Eastbound (Hazel St) Approach	17.0	С	14.3	В	17.1	С	14.5	В	
	Westbound (Driveway) Approach	13.7	В	11.7	В	14.0	В	11.8	В	
3.	Holly St/Locust St	8.4	А	7.8	А	8.9	А	8.1	А	
4.	S Main St/Holly St	12.3	В	10.6	В	14.0	В	11.9	В	

Table 9 – Existing and Existing plus Project Peak Hour Intersection Levels of Service

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*

Finding – The study intersections are expected to continue operating acceptably at the same levels of service upon the addition of potential-project traffic.

Future plus Rezoning Conditions

Upon the addition of trips from the potential residential project to the anticipated Future volumes, the study intersections are expected to continue operating acceptably. The Future plus Project operating conditions are summarized in Table 10.

Tal	Table 10 – Future and Future plus Project Peak Hour Intersection Levels of Service												
Stu	Study Intersection Approach		uture C	ondition	5	F	uture p	lus Projec	t				
			Peak	PM F	Peak	AM Peak		PM F	Peak				
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS				
1.	SR 20/Blosser Ln	12.5	В	5.0	А	13.2	В	5.1	А				
	Northbound (Blosser Ln) Approach	20.1	С	11.6	В	22.1	С	11.9	В				
	Southbound (Blosser Ln) Approach	29.1	D	13.9	В	29.3	D	14.0	В				
2.	S Main St/Hazel St	1.9	А	0.75	А	1.9	А	0.7	А				
	Eastbound (Hazel St) Approach	26.2	D	18.4	С	26.5	D	18.8	С				
	Westbound (Driveway) Approach	17.0	С	13.2	В	17.4	С	13.3	В				
3.	Holly St/Locust St	9.1	А	8.2	А	9.8	А	8.5	А				
4.	S Main St/Holly St	15.3	В	12.8	В	17.3	В	14.1	В				

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*

Finding – The study intersections will continue operating acceptably with trips from a potential residential project added, at the same Levels of Service as for Future Conditions without the potential project.



Alternative Modes

Pedestrian Facilities

Given the proximity of the subject parcel to downtown and schools, it is reasonable to assume that some potential residents would want to walk, bicycle, and/or use transit to reach their destinations. There are two primary gaps in pedestrian facilities that would impact pedestrian access between a residential development and downtown and between the site and Blosser Lane Elementary School. Sidewalk is missing for approximately 700 feet along Walnut Street between Locust Street and Magnolia Street, limiting pedestrian access from the subject parcel to the downtown. Either sidewalks or all-weather pedestrian walkways are needed along the south side of Walnut Street between Locust Street and Magnolia Street to complete the pedestrian connection to South Main Street. Also, there is a gap of approximately 650 feet in the sidewalk on Locust Street between the site and Hazel Street. Sidewalks should be installed on the west side of Locust Street as part of the site development to close this gap and give pedestrians access to the Blosser Lane trail.

Finding – Pedestrian facilities are limited within the vicinity of the subject parcel. Sidewalks are needed along the south side of Walnut Street between the parcel access and Magnolia Street and on the west side of Locust Street between the parcel access and Hazel Street.

Bicycle Facilities

Existing bicycle facilities, including the Blosser Lane Trail, together with shared use of minor low-volume streets provide adequate access for bicyclists in the study area. According to the *City of Willits Bicycle and Pedestrian Specific Plan*, 2009, there are plans to stripe bicycle lanes on Walnut Street. Based on the existing street width and condition of Walnut Street, bicycle lanes would not be possible under current geometric conditions. The inclusion of bike lanes would be at the discretion of the City.

Finding – Bicycle facilities serving the project site are adequate and future inclusion of bike lanes on Walnut Street would enhance these conditions. The need for any site-specific amenities would need to be evaluated when there is a proposal for developing the site.

Transit

Typical transit routes are adequate to accommodate transit trips that would be generated by residential development on the subject parcel. Existing stops are within an acceptable walking distance of the site.

Finding – Transit facilities serving the parcel are adequate.



Access and Circulation

Site Access

The site would be accessible from an extension of Walnut Street as the west leg of the Walnut Street/Locust Street intersection. Walnut Street would be extended into the site, though it would not go through to Blosser Lane. There could also be a connection of the Walnut Street Extension to the school drop-off loop southwest of the subject parcel for emergency vehicle access only. This connection to the school drop-off loop could also serve pedestrian and bike access to the School.

Access Design

The intersection of Walnut Street-Walnut Street Extension/Locust Street should be designed as a tee-intersection with development of a project at the site. The intersection should be realigned and repaved to ensure a standard tee intersection alignment with Locust Street as the minor leg. It is recommended that the northbound Locust Street approach be stop-controlled.

Sight Distance

Sight distance at the intersection of Walnut Street-Walnut Street Extension/Locust Street was field measured. Based on a design speed of 25 mph, the minimum corner sight distance needed is 150 feet. There is an overgrown hedge on the south side of the Walnut Street Extension approach to the intersection that could limit sight distance. Existing sight lines from the Locust Street approach are more than adequate in both directions. The existing hedge would likely be removed to make way for any development.

Emergency Vehicle Access

As noted above, the Walnut Street Extension into the subject parcel would connect to the school drop-off loop southwest of the site for emergency vehicle access. Emergency response vehicles would be able to access the site via this connection and exit the site via Walnut Street-Walnut Street Extension/Locust Street. It is assumed that this entrance would be blocked to eliminate the potential for public use since it connects to the school's playground.



Conclusions

- Based on the assumed maximum development for the subject parcel of 165 multi-family units, development of a potential residential project that would be allowed with the proposed rezoning would generate 1,208 trips per day, including 76 a.m. peak hour trips and 92 trips during the p.m. peak hour.
- Based on the assumed trip generation for a residential development of up to 165 multi-family units, this findings in this analysis would also be valid for up to 92 single-family units or any combination of residential units with a total trip generation of 92 p.m. peak hour trips.
- Based on existing volumes the study intersections are operating acceptably at LOS C or better overall during both peak periods. Existing delays would experience a minimal increase with volumes from a potential residential development added, and the study intersections would be expected to continue operating at the same Levels of Service as without these added trips.
- With assumed future growth rates applied, the study intersections are expected to continue operating acceptably at LOS C or better overall. With traffic from the assumed residential developed added the study intersections would continue to operate acceptably with minor increases in delay but no changes to service levels.
- There are gaps in the sidewalk facilities on Walnut Street and Locust Street which would impact pedestrian access form the subject parcel to downtown and points south. Bicycle lanes are planned on Walnut Street, but the existing width is insufficient for the bike lanes. Existing transit facilities serving the project site are adequate.

Recommendation

• Walnut Street-Walnut Street Extension/Locust Street should be configured as a standard tee intersection with the northbound Locust Street approach stop-controlled.



Study Participants and References

Study Participants

Principal in Charge	Steve Weinberger, PE, PTOE
Assistant Planner	Julia Walker
Graphics	Alex Scrobonia
Editing/Formatting	Alex Scrobonia
Quality Control	Dalene J. Whitlock, PE, PTOE

References

2016 Collision Data on California State Highways, California Department of Transportation, 2018 Caltrans District 1 2014 Growth Factor Map, California Department of Transportation, 2014 City of Willits Bicycle and Pedestrian Specific Plan, City of Willits Community Development Department, 2009 Guidelines for Geometric Design of Very Low-Volume Local Roads (ADT \leq 400), American Association of State Highway and Transportation Officials, 2001 Highway Capacity Manual, 6th Edition, Transportation Research Board, 2018 Highway Design Manual, 6th Edition, California Department of Transportation, 2017 Mendocino Transit Authority, http://mendocinotransit.org/ Statewide Integrated Traffic Records System (SWITRS), California Highway Patrol, 2014-2019 Trip Generation Manual, 10th Edition, Institute of Transportation Engineers, 2017 Willits General Plan Revision: Vision 2020, City of Willits, 1992 Willits Municipal Code, Municipal Code Corporation, 2017

WIL051







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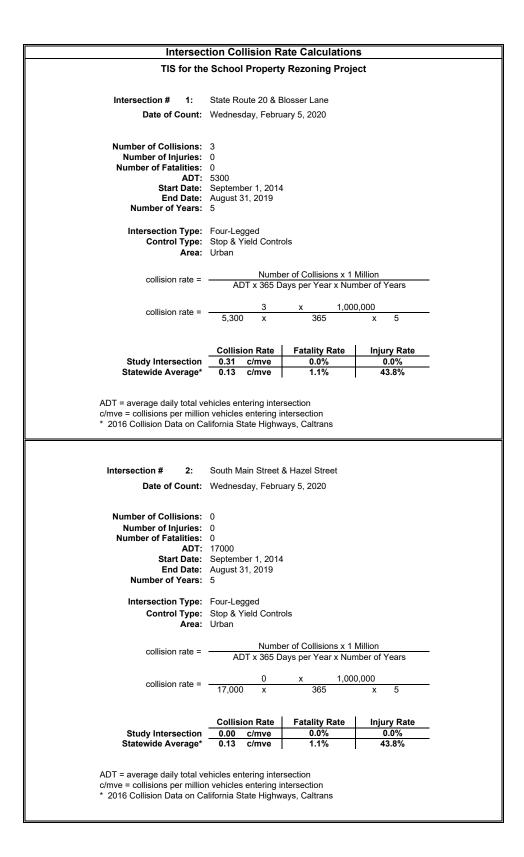
Appendix A

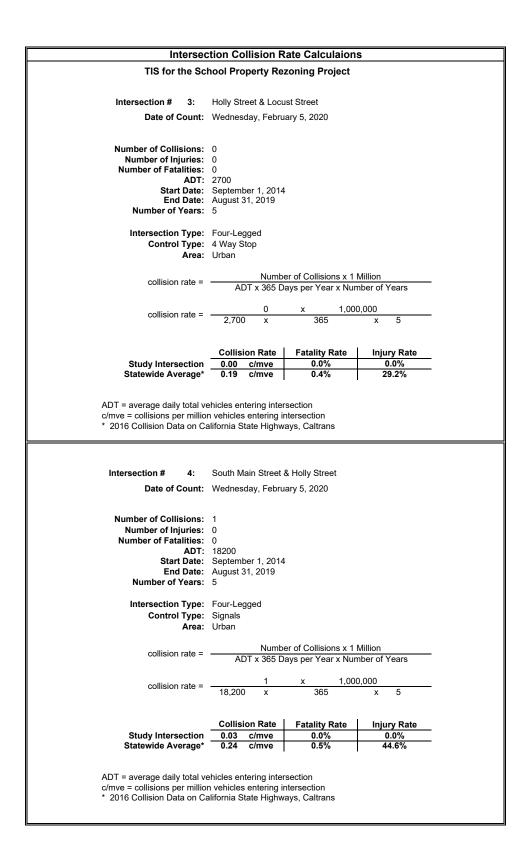
Collision Rate Calculations





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Appendix **B**

Intersection Level of Service Calculations





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Control Type:	Ĥ
Analysis Method:	£
Analysis Period:	

Intersection Level Of Service Report Intersection 1: SR 20/Blosser Ln Two-way stop ICM 6th Edition 15 minutes

Delay (sec / veh): Level Of Service: Volume to Capacity (v/c):

30.6 D 0.197

Intersection Setup

_			_	_	_	_	_	_
P		Right	12.00	0	100.00			
'estboun	÷	Thru	12.00	0	100.00	35.00	0.00	Yes
>		Left	12.00	-	96.00			
		Right	12.00	1	100.00			
astbound	÷	Thru	12.00	0	100.00	35.00	0.00	No
ш	•	Left	12.00	-	78.00			
5		Right	12.00	0	100.00			
uthbound	÷	Thru	12.00	0	100.00	25.00	0.00	No
S		Left	12.00	0	100.00			
		Right	12.00	0	100.00			
orthbound	÷	Thru		0	100.00	25.00	0.00	No
ž		Left	12.00	0	100.00			
Approach	Lane Configuration	Turning Movement	Lane Width [ft]	No. of Lanes in Pocket	Pocket Length [ft]	Speed [mph]	Grade [%]	Crosswalk
	Approach Northbound Southbound Eastbound Westbound	Northbound Southbound Eastbound	Northbound Southbound Eastbound Westbound Image: South Sou	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	Northbound Southbound Eastbound Meetbound Image: Southbound Image: Southbound Image: Southbound Image: Southbound Image: Southbound Image: South South Southbound Image: South So	Northbound Southbound Eastbound Meetbound Image: Second Second Section (Second Second Se	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$

Volumes												
Name	B	Blosser Ln	c	ā	Blosser Ln	c		SR 20			SR 20	
Base Volume Input [veh/h]	1	87	87	32	70	7	9	82	12	109	95	25
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000 1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	87	87	32	70	7	9	82	12	109	95	25
Peak Hour Factor	0.740	0.740 0.740	0.740	0.740	0.740	0.740	0.740	0.740	0.740 0.740 0.740 0.740	0.740	0.740 0.740	0.740
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	4	29	29	11	24	2	2	28	4	37	32	80
Total Analysis Volume [veh/h]	15	118	118	43	95	6	80	111	16	147	128	34
Pedestrian Volume [ped/h]		0			0			0			e	

Generated with PTV VISTRO Version 7.00-05

Intersection Settings

Priority Scheme	Stop		Stop	d		Free		Free	
Flared Lane	No		No						
Storage Area [veh]	0		0			0		0	
Two-Stage Gap Acceptance	N		No						
Number of Storage Spaces in Median	0		0			0		0	
Movement, Approach, & Intersection Results									
		0,0	0000	200	.00	000	4	0000	00

23.06 20.88 15.33 20.64 23.80 18.11 7.56 0.00 7.74 0.00 0.00 0.00 2.74 0.00 0.00 2.00 2.00 2.00 2.00 2.00 2.0
C C A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A
2.29 2.29 0.02 0.00 0.34 0.00 57.26 57.26 0.43 0.00 6.39 0.00 25.32 0.45 0.46 1.00 3.68 25.31 0.45 0.47 3.68 11.36 1 A 1
37.26 57.26 0.43 0.00 8.39 0.00 25.32 - 0.45 - 3.68 1 - - - - 11.36 - - - -
25.32 0.45 0.45 D A A 11.36 D D
C D A A A A D
11.36 D
D

TIS for the School Property Rezoning AM Existing Conditions

W-Trans

W-Trans 3/31/2020

TIS for the School Property Rezoning AM Existing Conditions

W-Trans

Two-way stop	HCM 6th Edition	15 minutes	
Control Type:	Analysis Method:	Analysis Period:	

Intersection Level Of Service Report Intersection 2: S Main St/Hazel St

Delay (sec / veh): Level Of Service: Volume to Capacity (v/c):

18.9 C 0.175

Intersection Setup

Hazel St Driveway	Eastbound Westbound	+	t Left Thru Right Left Thru Right	0 12.00 12.00 12.00 12.00 12.00 12.00	0 0 0 0	0 100.00 100.00 100.00 100.00 100.00 100.00	25.00 25.00	0.00 0.00	::
S Main St	Southbound	╡┕	Left Thru Right	12.00 12.00 12.00	1 0	200.00 100.00 100.00	35.00	0.00	4
S Main St	Northbound	╧	Left Thru Right	12.00 12.00 12.00 1	1 0	200.00 100.00 100.00 2	35.00	0.00	2
Name	Approach	Lane Configuration	Turning Movement	Lane Width [ft] 12	No. of Lanes in Pocket	Pocket Length [ft] 20	Speed [mph]	Grade [%]	Crosswalk

Volumes												
Name	S	S Main St		S	S Main St	÷	-	Hazel St			Driveway	
Base Volume Input [veh/h]	49	602	0	2	681	40	50	0	8	-	0	-
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000 1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000 1.000 1.000	1.000	1.000	1.000	1.000	1.000	1.000 1.000 1.000 1.000	1.000	1.000 1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	49	602	0	2	681	40	50	0	क्ष	-	0	-
Peak Hour Factor	0.870	0.870 0.870 0.870 0.870	0.870	0.870	0.870	0.870	0.870	0.870 0.870 0.870 0.870 0.870	0.870	0.870 0.870	0.870	0.870
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	14	173	0	-	196	11	14	0	9	0	0	0
Total Analysis Volume [veh/h]	56	692	0	2	783	46	57	0	39	-	0	-
Pedestrian Volume [ped/h]		0			0			4			2	

Generated with PTV VISTRO Version 7.00-05

Intersection Settings

Priority Scheme	Free	Free		Stop		Stop	
Flared Lane				No		No	
Storage Area [veh]	0	0		0		0	
Two-Stage Gap Acceptance				Yes		Yes	
Number of Storage Spaces in Median	0	0		5		2	
Movement, Approach, & Intersection Results							
V/C Movement V/C Ratio		0.00 0.01	0.18 0	200 000	000	000	000

	10.0	10.0	0.00	0.00 0.00	0.01	0.00	0.00 0.00 0.00 0.00 0.00	0.00	0.07	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	9.89	0.00	0.00	0.00 9.03 0.00	0.00	0.00	0.00 18.95	19.09	19.09 14.08 16.72	16.72	17.35	10.61
Movement LOS	A	A	\forall	A	٨	۷	c	0	в	С	0	в
95th-Percentile Queue Length [veh/In]	0.23	0.00	0.00	0.01	0.00	0.00 0.94	0.94	0.94	0.94	0.01	0.01	0.01
95th-Percentile Queue Length [ft/In]	5.69	0.00	0.00	0.17	0.00	0.00	0.17 0.00 0.00 23.40 23.40 23.40	23.40	23.40	0.36	0.36	0.36
d_A, Approach Delay [s/veh]		0.74			0.02			16.97			13.66	
Approach LOS		٨			۲			U			æ	
d_l, Intersection Delay [s/veh]						÷	.33					
Intersection LOS							0					

TIS for the School Property Rezoning AM Existing Conditions

W-Trans

W-Trans 3/31/2020



Analysis Period:
Analysis Method:
Control Type:

#section Level of Service Report intersection 3: Holly Sr/Locust St Delay (sec / veh): Level Of Service: Volume to Capacity (v/c):

8.4 A 0.213

Intersection Setup

Locust St Locust St Driveway	Northbound Southbound Eastbound	+	Left2 Left Thru Right Left Thru Right Right Left Thru Right Right Right	12.00 12.00 12.00 12.00 12.00 12.00 12.00 12.00 12.00 12.00 12.00 12.00 12.00		100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00	25.00 25.00 25.00	0.00 0.00 0.00	
Name	Approach	Lane Configuration	Turning Movement	Lane Width [ft]	No. of Lanes in Pocket	Pocket Length [ft]	Speed [mph]	Grade [%]	

Volumes												
Name		Locust St	st St			Locust St	st St			Driveway	eway	
Base Volume Input [veh/h]	0	-	28	84	26	46	0	-	2	5	0	2
Base Volume Adjustment Factor	1.000		1.000 1.000 1.000	1.000	1.000 1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000		1.000 1.000 1.000	1.000	1.000 1.000	1.000	1.000	1.000	1.000 1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	-	28	84	26	46	0	-	2	5	0	7
Peak Hour Factor	1.000	1.000 0.710 0.710 0.710	0.710		0.710 0.710	0.710	1.000	0.710	0.710	0.710 0.710 0.710	1.000	0.710
Other Adjustment Factor	1.000	1.000	1.000 1.000	1.000	1.000	1.000	1.000	1.000	1.000 1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	0	0	10	30	6	16	0	0	-	2	0	-
Total Analysis Volume [veh/h]	0	-	39	118	37	65	0	-	з	7	0	ю
Pedestrian Volume [ped/h]		9				11				-	16	

Generated with PTV VISTRO Version 7.00-05

Intersection Settings

	782	0.13		0.45	11.33	8.30	A	8.39	A
	890	0.18		0.64	16.08	7.92	A		
Lanes	Capacity per Entry Lane [veh/h]	Degree of Utilization, x	Movement, Approach, & Intersection Results	95th-Percentile Queue Length [veh]	95th-Percentile Queue Length [ft]	Approach Delay [s/veh]	Approach LOS	Intersection Delay [s/veh]	Intersection LOS

0.05 1.28 7.71 A

777 0.02



W-Trans

TIS for the School Property Rezoning AM Existing Conditions

W-Trans 3/31/2020

Intersection Setup

Name		Holly St	/ St			S	SF Driveway	ay	
Approach		Westbound	puno			Nor	Northeastbound	pund	
Lane Configuration		Ŧ	t				×		
Turning Movement	Left2	Left	Thru	Right	Left2	Left		Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	_	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0		0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00		100.00	100.00
Speed [mph]		25.	25.00				25.00		
Grade [%]		00.00	0				0.00		
Crosswalk		Ye	Yes				Yes		
Volumes									
Name			Holly St	/ St			SF Dri	SF Driveway	
		1						ļ	

vay	1	1.0000 1.0000	2.00 2.00	1.0000 1.0000	0	0 0	0 0	0 0	0	0 0	1	0.7100 0.7100	1.0000 1.0000	0 0	0		
SF Driveway	0	1.0000	2.00	1.0000	0	0	0	0	0	0	0	0.7100 0	1.0000	0	0	0	
	0	1.0000	2.00	1.0000	0	0	0	0	0	0	0	0.7100	1.0000	0	0		
	ß	1.0000	2.00	1.0000	0	0	0	0	0	0	5	0.7100	1.0000	2	7		
v St	4	1.0000	2.00	1.0000	0	0	0	0	0	0	4	0.7100	1.0000	1	9		
Holly St	0	1.0000	2.00	1.0000	0	0	0	0	0	0	0	1.0000	1.0000	0	0	-	
	107	1.0000	2.00	1.0000	0	0	0	0	0	0	107	0.7100	1.0000	38	151		
Name	Base Volume Input [veh/h]	Base Volume Adjustment Factor	Heavy Vehicles Percentage [%]	Growth Factor	In-Process Volume [veh/h]	Site-Generated Trips [veh/h]	Diverted Trips [veh/h]	Pass-by Trips [veh/h]	Existing Site Adjustment Volume [veh/h]	Other Volume [veh/h]	Total Hourly Volume [veh/h]	Peak Hour Factor	Other Adjustment Factor	Total 15-Minute Volume [veh/h]	Total Analysis Volume [veh/h]	Pedestrian Volume [ped/h]	

Generated with PTV VISTRO Version 7.00-05

Intersection Settings		
Lanes		
Capacity per Entry Lane [veh/h]	768	871
Degree of Utilization, x	0.21	0.00
Movement, Approach, & Intersection Results		
95th-Percentile Queue Length [veh]	0.81	0.00
95th-Percentile Queue Length [ft]	20.14	60.0
Approach Delay [s/veh]	8.95	7.14
Approach LOS	A	A
Intersection Delay [s/veh]	8.39	61
Intersection LOS	<	

W-Trans

W-Trans 3/31/2020



VIST	
ΡΤ٧	
Generated with	Version 7.00-05

RO

Control Type:	0,
Analysis Method:	Ę
Analysis Period:	-

Intersection Level Of Service Report Intersection 4: S Main St/Holly St Signalized CM 6th Edition 15 minutes

Delay (sec / veh): Level Of Service: Volume to Capacity (v/c):

12.3 B 0.401

70 Time of Day Pattern Isolated

Signal Coordination Group Cycle Length [s] Coordination Type Actuation Type

Located in CBD

Intersection Settings

Version 7.00-05

Generated with PTV VISTRO

Offset Reference Permissive Mode

Offset [s]

Control Type Lost time [s]

Phasing & Timing

٩

Fully actuated 0.0

LeadGreen SingleBand 0.00

Intersection Setup

$ \begin{array}{ $	Name	S	Main St		S	Main St			Holly St		-	Driveway	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Approach	ž	orthboun	q	Sc	uthboun	þ	ш	astbound	_	\$	/estbound	, a
	Lane Configuration	•	<u>+</u>		•	÷			÷			÷	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
135.00 100.00 100.00 85.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00<	No. of Lanes in Pocket	٢	0	0	+	0	0	0	0	0	0	0	0
35.00 35.00 25.00 0.01 0.00 0.00 0.00 Yes Yes Yes Yes	Pocket Length [ft]	135.00	100.00	100.00	85.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
0.00 0.00 0.00 0.00 Yes Yes </td <td>Speed [mph]</td> <td></td> <td>35.00</td> <td></td> <td></td> <td>35.00</td> <td></td> <td></td> <td>25.00</td> <td></td> <td></td> <td>25.00</td> <td></td>	Speed [mph]		35.00			35.00			25.00			25.00	
Yes	Grade [%]		0.00			0.00			0.00			0.00	
Yes Yes Yes	Curb Present		Yes			Yes			Yes			Yes	
	Crosswalk		Yes			Yes			Yes			Yes	

		_					2		_		3	
Volumes												
Name	0 0	S Main St		S	S Main St		T	Holly St			Driveway	
Base Volume Input [veh/h]	106	530	2	6	652	28	66	2	119	2	0	15
Base Volume Adjustment Factor	1.000	1.000 1.000	1.000	1.000	1.000 1.000 1.000	1.000	1.000	1.000 1.000	1.000	1.000 1.000 1.000 1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000 1.000 1.000	1.000	1.000	1.000 1.000 1.000		1.000	1.000	1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	2	0	0	51	0	0	10
Total Hourly Volume [veh/h]	106	530	2	6	652	26	66	2	88	7	0	2
Peak Hour Factor	0.880	0.880 0.880 0.880 0.880 0.880 0.880	0.880	0.880	0.880	0.880	0.880	0.880	0.880	0.880 0.880 0.880 0.880 0.880 0.880	0.880	0.880
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	30	151	1	3	185	7	28	1	19	1	0	1
Total Analysis Volume [veh/h]	120	602	2	10	741	30	113	2	22	2	0	9
Presence of On-Street Parking	Ŷ		No	N		Ŷ	Ŷ		Ŷ	Ŷ		٥N
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]		-			ю			ю			0	
v_di, Inbound Pedestrian Volume crossing major street [ped/h]		3			0			-			3	
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]		0			2			e			4	
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]		4			3			2			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			-			0			0	

TIS for the School Property Rezoning AM Existing Conditions

W-Trans

W-Trans 3/31/2020

Control Type	Protect	Permis	Protect Permis Permis Protect Permis	Protect	Permis	Permis	Permis	Permis	Permis	Permis Permis Permis Permis Permis Permis	Permis	Permis
Signal Group	٢	9	0	2	2	0	0	80	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead			Lead								1
Minimum Green [s]	5	5	0	2	2	0	0	2	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	22	33	0	6	20	0	0	28	0	0	28	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	2	0	0	5	0
Pedestrian Clearance [s]	0	19	0	0	1	0	0	19	0	0	19	0
Rest In Walk		No			٥N			No			No	
 Start-Up Lost Time [s] 	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
12, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		٩	Ŷ			N			No	
Maximum Recall	No	No		No	٩N			No			No	
Pedestrian Recall	No	No		No	٥N			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Exclusive Pedestrian Phase												
Pedestrian Signal Group							0					
Pedestrian Walk [s]							0					

0	0	
Pedestrian Walk [s]	Pedestrian Clearance [s]	



Lane Group Calculations

Lane Group	_	U	c	_	с	С	c	υ
C, Cycle Length [s]	70	70	70	02	70	70	70	20
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
11_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00
12, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	9	46	46	-	41	41	11	11
g / C, Green / Cycle	0.09	0.66	0.66	0.01	0.58	0.58	0.16	0.16
(v / s)_i Volume / Saturation Flow Rate	0.07	0.16	0.16	0.01	0.21	0.21	0.13	0.00
s, saturation flow rate [veh/h]	1781	1870	1868	1781	1870	1840	1531	1688
c, Capacity [veh/h]	157	1229	1227	24	1089	1072	324	331
d1, Uniform Delay [s]	31.23	4.91	4.91	34.28	7.71	7.72	28.19	24.95
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.48	0.48	0.48	11.05	0.91	0.93	1.74	0.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Group Results								

X, volume / capacity	0.76	0.25	0.25	0.42	0.36	0.36	0.59	0.02	
d, Delay for Lane Group [s/veh]	38.71	5.39	5.39	45.33	8.62	8.65	29.92	24.98	
Lane Group LOS	٥	4	A	۵	٨	۲	υ	υ	
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	N	
50th-Percentile Queue Length [veh/In]	2.21	1.44	1.44	0.24	2.72	2.69	3.16	0.11	
50th-Percentile Queue Length [ft/In]	55.23	35.93	35.90	5.89	67.99	67.27	79.04	2.83	
95th-Percentile Queue Length [veh/In]	3.98	2.59	2.58	0.42	4.90	4.84	5.69	0.20	
95th-Percentile Queue Length [ft/In]	99.42	64.68	64.62	10.60	10.60 122.39 121.08	121.08	142.28	5.09	

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Version 7.00-05

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	38.71	5.39	5.39	45.33	8.63	8.65	29.92	29.92	29.92	24.98	24.98	24.98
Movement LOS	۵	۷	۷	٥	A	۷	υ	υ	υ	υ	υ	с
d_A, Approach Delay [s/veh]		10.91			9.10			29.92			24.98	
Approach LOS		œ			A			U			U	
d_I, Intersection Delay [s/veh]						12.	12.29					
Intersection LOS						ш	8					
Intersection V/C						0.401	01					
g_Walk,mi, Effective Walk Time [s]		9.0			9.0			9.0			9.0	
M_corner, Corner Circulation Area [ft3/ped]		0.00			0.00			0.00			0.00	
M_CW, Crosswalk Circulation Area [ft²/ped]		2491.82		.,	3131.24			1863.79			2766.53	
d_p, Pedestrian Delay [s]		26.58			26.58			26.58			26.58	
_p,int, Pedestrian LOS Score for Intersection		2.654			2.797			1.937			1.731	

2766.53 26.58 1.731 A A 2000 686 686 15.11 1.589

26.58 26.58 1.937 A 2000 686 686 15.11 1.961 A

3131.24 26.58 26.58 2.797 C C C 2000 457 20.84 2.206 B

2491.82 26.58 2.654 B B 22000 829 12.01 12.01 B B

Crosswalk LOS

s_b, Saturation Flow Rate of the bicycle lane ploycles/h) c_b, Capacity of the bicycle lane [bicycles/h] d_b, Bicycle Delay [s] l_b,int, Bicycle LOS Score for intersection Bicycle LOS

∢

Sequence Ring 1

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W-Trans

W-Trans 3/31/2020

TIS for the School Property Rezoning AM Existing Conditions

W-Trans

W-Trans 3/31/2020

Control Type:	Two
Analysis Method:	HCM
Analysis Period:	15

Intersection Level Of Service Report Intersection 1: SR 20/Blosser Ln vo-way stop M 6th Edition 15 minutes

Delay (sec / veh): Level Of Service: Volume to Capacity (v/c):

15.1 C 0.073

Intersection Setup

Volumes												
Name	8	Blosser Ln	c	ā	Blosser Ln	c		SR 20			SR 20	
Base Volume Input [veh/h]	10	33	83	26	17	12	12	116	6	47	130	38
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000 1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	33	83	26	17	12	12	116	6	47	130	38
Peak Hour Factor	0.910	0.910	0.910	0.910	0.910 0.910 0.910 0.910		0.910	0.910	0.910	0.910 0.910 0.910 0.910		0.910
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	e	6	23	7	2	e	e	32	2	13	36	10
Total Analysis Volume [veh/h]	1	36	91	29	19	13	13	127	10	52	143	42
Pedestrian Volume [ped/h]		0			0			0			2	

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Intersection Settings

			ľ									
Priority Scheme		Stop			Stop			Free			Free	
Flared Lane		No			No							
Storage Area [veh]		0			0			0			0	
Two-Stage Gap Acceptance		No			No							
Number of Storage Spaces in Median		0			0			0			0	
Movement, Approach, & Intersection Results												
V/C. Movement V/C Ratio	0.02	0.07	0.10	0.07	0.02 0.07 0.10 0.07 0.04 0.01 0.01 0.00 0.00 0.04 0.00 0.00	0.01	0.01	0.00	0.00	0.04	0.00	0.00

	_	_		_		_			1
0.00	0.00	¥	0.00	0.00					
0.00	0.00	٩	0.00	0.00	1.66	٨			
0.0	7.58	٨	0.11	2.79					
0.00	0.00	A	0.00	0.00					
0.00	0.00	A	0.00	0.00	0.66	٨			
0.01 0.00	7.62	A	0.03	0.71			11		
0.01	13.63 10.15 15.08 13.36 10.15 7.62 0.00	в	0.43	18.03 18.03 18.03 10.71 10.71 10.71 0.71 0.71 0.00 0.00			4.91	0	
0.04	13.36	В	0.43	10.71	13.49	в			
0.07	15.08	С	0.72 0.72 0.72 0.43 0.43 0.43	10.71					
0.10	10.15	в	0.72	18.03					
0.07	13.63	в	0.72	18.03	11.33	в			
0.02	13.59	в	0.72	18.03					
V/C, Movement V/C Ratio	d_M, Delay for Movement [s/veh]	Movement LOS	95th-Percentile Queue Length [veh/In]	95th-Percentile Queue Length [ft/ln]	d_A, Approach Delay [s/veh]	Approach LOS	d_I, Intersection Delay [s/veh]	Intersection LOS	

TIS for the School Property Rezoning PM Existing Conditions

W-Trans

W-Trans 3/31/2020

VISTRO	
PTV	
Generated with	Version 7.00-05

Control Type:	Two-way stop
Analysis Method:	HCM 6th Editio
Analysis Period:	15 minutes

Intersection Level Of Service Report Intersection 2: S Main St/Hazel St <u>,</u> Б

Delay (sec / veh): Level Of Service: Volume to Capacity (v/c):

16.7 C 0.076

Intersection Setup

Namo												
Nallic	ŝ	S Main St		0)	S Main St			Hazel St		_	Driveway	
Approach	Nor	Northbound	77	Š	Southbound	P	ш	Eastbound		5	Westbound	P
Lane Configuration	F	4 L		•	+ -			÷			÷	
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft] 12	12.00 1	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	-	0	0	Ļ	0	0	0	0	0	0	0	0
Pocket Length [ft] 20	200.00	00.00	100.00	200.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		35.00			35.00			25.00			25.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		٩			Ŷ			Yes			Yes	

Volumes												
Name	S	S Main St		S	S Main St	÷	-	Hazel St			Driveway	
Base Volume Input [veh/h]	19	868	-	e	733	14	25	0	28	0	0	4
Base Volume Adjustment Factor	1.000		1.000 1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000		1.000 1.000 1.000	1.000	1.000	1.000	1.000 1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	868	-	e	733	14	25	0	28	0	0	4
Peak Hour Factor	0.970	0.970	0.970 0.970 0.970		0.970	0.970	0.970 0.970 0.970 0.970	0.970	0.970		0.970 0.970 0.970	0.970
Other Adjustment Factor	1.000	1.000	1.000 1.000 1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	5	224	0	-	189	4	9	0	7	0	0	-
Total Analysis Volume [veh/h]	20	895	-	e	756	14	26	0	29	0	0	4
Pedestrian Volume [ped/h]		0			0			4			11	

Generated with PTV VISTRO Version 7.00-05

Stop 5 Yes Stop Yes 0 Free Free Phonty Scheme Flared Lane Storage Area [veh] Two-Stage Gap Acceptance Number of Storage Spaces in Median Intersection Settings

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.01	0.00	0.00	0.01	0.00 0.08	0.08	0.00	0.05	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	9.42	0.00	0.00	9.90	0.00	0.00	16.68	18.11	12.07	18.59	17.12	11.68
Movement LOS	۷	A	A	A	A	A	ပ	0	в	С	O	в
95th-Percentile Queue Length [veh/In]	0.07	0.00 0.00		0.01	0.00	0.00	0.42	0.42 0.42	0.42	0.02	0.02	0.02
95th-Percentile Queue Length [ft/In]	1.84	0.00 0.00	0.00	0.31	0.00 0.00	0.00	10.51	10.51	10.51	0.56	0.56	0.56
d_A, Approach Delay [s/veh]		0.21			0.04			14.25			11.68	
Approach LOS		A			۲			æ			œ	
d_I, Intersection Delay [s/veh]						0.0	0.60					
Intersection LOS							0					

TIS for the School Property Rezoning PM Existing Conditions

W-Trans

W-Trans 3/31/2020



Control Type:	All-way stop
Analysis Method:	HCM 6th Edition
Analysis Period:	15 minutes

Intersection Level Of Service Report Intersection 3: Holly St/Locust St

7.8 A 0.164

Delay (sec / veh): Level Of Service: Volume to Capacity (v/c):

Intersection Setup

Name		Locust St	stSt			Locu	Locust St			Drive	Driveway	
Approach		Northbound	puno			Southbound	punoc			Eastbound	puno	
Lane Configuration		÷	•			÷	t			÷	t	
Turning Movement	Left2	Left	Thru	Right	Left	Thru	Right	Right	Left	Thru	Right	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		25.00	00			25.	25.00			25.00	00	
Grade [%]		00.00	8			0.0	0.00			0.0	0.00	
Crosswalk		Yes	s			¥	Yes			¥	Yes	

0
•

	-	1.000	2.00	1.000	0	0	0	0	0	0	-	0.910	.000 1.000	0	-	
way	0	1.000	2.00	1.000	0	0	0	0	0	0	0	1.000	1.000	0	0	
Driveway	2	1.000	2.00	1.000	0	0	0	0	0	0	2	0.910	1.000	-	2	
	0	1.000	2.00	1.000	0	0	0	0	0	0	0	0.910 0.910	1.000 1.000	0	0	
	-	1.000	2.00	1.000	0	0	0	0	0	0	-	0.910	1.000	0	-	
st St	0	1.000	2.00	1.000	0	0	0	0	0	0	0	1.000	1.000	0	0	
Locust St	31	1.000	2.00	1.000	0	0	0	0	0	0	31	0.910	1.000	6	34	1
	7	1.000	2.00	1.000	0	0	0	0	0	0	7	0.910	1.000 1.000	e	12	
	87	1.000	2.00	1.000	0	0	0	0	0	0	87	0.910	1.000	24	96	
st St	1	1.000	2.00	1.000	0	0	0	0	0	0	#	0.910	1.000	e	12	
Locust St	-	1.000	2.00	1.000	0	0	0	0	0	0	-	0.910	1.000 1.000	0	-	
	2	1.000	2.00	1.000	0	0	0	0	0	0	2	0.910 0.910 0.910 0.910 0.910 0.910	1.000	-	2	
Name	Base Volume Input [veh/h]	Base Volume Adjustment Factor	Heavy Vehicles Percentage [%]	Growth Factor	In-Process Volume [veh/h]	Site-Generated Trips [veh/h]	Diverted Trips [veh/h]	Pass-by Trips [veh/h]	Existing Site Adjustment Volume [veh/h]	Other Volume [veh/h]	Total Hourly Volume [veh/h]	Peak Hour Factor	Other Adjustment Factor	Total 15-Minute Volume [veh/h]	Total Analysis Volume [veh/h]	Dedectrian Volume [hed/h]

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Intersection Settings

Lanes			
Capacity per Entry Lane [velvh]	948	817	834
Degree of Utilization, x	0.12	0.06	0.01
Movement, Approach, & Intersection Results			
95th-Percentile Queue Length [veh]	0.40	0.18	0.02
95th-Percentile Queue Length [ft]	9.91	4.57	0.54
Approach Delay [s/veh]	7.30	7.68	7.35
Approach LOS	A	A	۲
Intersection Delay [s/veh]		7.79	
Intersection LOS		А	

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Intersection Setup

Name		Holl	Holly St			SF	SF Driveway		
Approach		Westt	Westbound			Nort	Northeastbound		
Lane Configuration		Ŧ	.t.				×		
Turning Movement	Left2	Left	Thru	Right	Left2	Left	Thru	_	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	_	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0		0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	0	100.00
Speed [mph]		25.	25.00				25.00		
Grade [%]		00.00	0				0.00		
Crosswalk		Ye	Yes				Yes		
Volumes									
Name			Holly St	/ St			SF Driveway	ay	
		2			,		-		[

1.0000 1.0000 2.00 2.00 1.0000 1.0000 0.9100 0.9100 0.9100 0.9100 0.9100 0.9100 0.9100 0.9100 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 . -1.0000 2.00 1.0000 1.0000 2.00 1.0000 0 1.0000 2.00 1.0000 0 ~ œ б 1.0000 2.00 1.0000 0 œ ~ 1.0000 2.00 1.0000 0 --~ 1.0000 2.00 1.0000 1.0000 0 0 116 Existing Site Adjustment Volume [veh/h] Other Volume [veh/h] Base Volume Input (veh/h) Base Volume Adjustment Factor Heavy Vehicles Percentage (%) Growth Factor In-Process Volume (veh/h) Sile-Generated Trips (veh/h) Diverted Trips (veh/h) Pass-by Trips (veh/h) Total 15-Minute Volume [veh/h] Total Analysis Volume [veh/h] Pedestrian Volume [ped/h] Total Hourly Volume [veh/h] Other Adjustment Factor Peak Hour Factor

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Version 7.00-05

Intersection Settings

Lanes		
Capacity per Entry Lane [veh/h]	817	814
Degree of Utilization, x	0.16	0.00
Movement, Approach, & Intersection Results		
95th-Percentile Queue Length [veh]	0.58	0.00
95th-Percentile Queue Length [ft]	14.61	0.09
Approach Delay [s/veh]	8.27	7.43
Approach LOS	۷	¥
Intersection Delay [s/veh]	.7	7.79
Intersection LOS		

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PTV	
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Control Type:	Signalized						Delay	Delay (sec / veh):	eh):		
Analysis Method:	HCM 6th Edition	_					Level	Level Of Service:	ice:		
Analysis Period:	15 minutes						Volume to Capacity (v/c):	o Capaci	ty (v/c):		
Intersection Setup											
Name	Ø		S Main St			S Main St			Holly St		
Approach	Ich	Ż	Northbound	7	0	Southbound	p	ш	Eastbound		
Lane Configuration	juration	•	÷			÷			÷		
Turning Movement	vement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	-
Lane Width [ft]	th [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00 12.00	12.00	12.00	1 ₩
No. of Lanes in Pocket	in Pocket	-	0	0	-	0	0	0	0	0	
Pocket Length [ft]	igth [ft]	135.00	135.00 100.00 100.00	100.00	85.00	100.00	100.00 100.00	100.00	100.00 100.00 100.00	-	2
Speed [mph]	[hdn		35.00			35.00			25.00		
Grade [%]	[%]		0.00			0.00			0.00		
Curb Present	sent		Yes			Yes			Yes		

Permis Permis Permis

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Protect Permis Permis Protect

Time of Day Pattern Isolated

70

Signal Coordination Group

10.6 B 0.343

Intersection Level Of Service Report Intersection 4: S Main St/Holly St

Located in CBD

Intersection Settings

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Cycle Length [s] Coordination Type

Actuation Type

Offset Reference

Offset [s]

Driveway Westbound

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Permissive Mode

Lost time [s] Control Type Signal Group Lead / Lag

Phasing & Timing

12.00 Right 0

12.00 Left Thru

12.00 0 25.00

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Fully actuated LeadGreen SingleBand 0.00

0.0

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3.0

3.0 1.0 3.0

3.0

3.0 1.0 33

5 30 3.0 1.0 22 3.0 3.0

1.0 6 3.0

30

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ŝ 30 1.0 3.0 ß

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Minimum Green [s] Maximum Green [s]

Amber [s] All red [s]

Auxiliary Signal Groups

Lead 30 3.0

Lead

1.0 28 3.0

28

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30

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5 19 No No No

19 No No No

11 No 2.0 No 11 No

2.0 2:0 No Ŷ ĝ

N No 2.0 No 19 5

2.0

Walk [s] Pedestrian Clearance [s] Rest In Walk

Split [s] Vehicle Extension [s]

fuduil poodo	00.00			3	0.0			00.02		_	1	0.00	
Grade [%]	0.00			00.00	0			0.00			0	0.00	
Curb Present	Yes			¥	Yes			Yes			~	Yes	
Crosswalk	Yes			¥	Yes			Yes			~	Yes	
Volumes													
Name		S	S Main St		S	S Main St		-	Holly St		ā	Driveway	
Base Volume Input [veh/h]		98	771	4	26	667	36	71	2	66	16	1	29
Base Volume Adjustment Factor		1.000	1.000	1.000 1.000		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]		2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000	1.000
In-Process Volume [veh/h]		0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]		0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]		0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]		0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]		0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]		0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]		0	0	0	0	0	5	0	0	36	0	0	17
Total Hourly Volume [veh/h]		98	771	4	26	667	31	71	2	63	16	-	12
Peak Hour Factor		0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960 0.960 0.960 0.960 0.960 0.960 0.960 0.960 0.960 0.960 0.960 0.960	0.960	0.960
Other Adjustment Factor		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000	000.
Total 15-Minute Volume [veh/h]		26	201	-	7	174	80	18	+	16	4	0	e
Total Analysis Volume [vetvh]		102	803	4	27	695	32	74	2	99	17	1	13
Presence of On-Street Parking		٥N		No	No		No	No		ø	No		No
On-Street Parking Maneuver Rate [/h]		0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]		0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	'eet [ped/h]		1			3			2			1	
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	et [ped/h]		2			-			-			3	
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	eet [ped/h]		2			4			-			-	
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	et [ped/h]		٢			1			4			2	
v_ab, Corner Pedestrian Volume [ped/h]			0			0			0			0	
Bicycle Volume [bicycles/h]			-			-			0			0	

1.00 1.00 1.00 1.00

1.00 1.00

1.00 1.00

1.00 1.00 1.00

1.00

I, Upstream Filtering Factor

Exclusive Pedestrian Phase

Detector Length [ft]

Detector Location [ft]

Pedestrian Recall Maximum Recall

Pedestrian Signal Group Pedestrian Clearance [s]

Pedestrian Walk [s]

0 0 0

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No No 2.0 ĝ

12, Clearance Lost Time [s]

Minimum Recall

11, Start-Up Lost Time [s]

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Lane Group L	C, Cycle Length [s] 70	L, Total Lost Time per Cycle [s] 4.00	11_p, Permitted Start-Up Lost Time [s] 0.00	12, Clearance Lost Time [s] 2.00	g_i, Effective Green Time [s] 5	g / C, Green / Cycle 0.08	(v / s)_i Volume / Saturation Flow Rate 0.06	s, saturation flow rate [veh/h] 1781	c, Capacity [veh/h] 135	d1, Uniform Delay [s] 31.75	k, delay calibration 0.11	I, Upstream Filtering Factor 1.00	d2, Incremental Delay [s] 8.39	d3, Initial Queue Delay [s] 0.00	Rp, platoon ratio 1.00	PF, progression factor 1.00
υ	20	4.00	0.00	2.00	48	0.68	0.22	1870	1273	4.55	0.50	1.00	0.66	0.00	1.00	1.00
υ	70	4.00	0.00	2.00	48	0.68	0.22	1866	1270	4.56	0.50	1.00	0.66	0.00	1.00	1.00
_	02	4.00	0.00	2.00	2	0.03	0.02	1781	25	33.46	0.11	1.00	7.15	0.00	1.00	1.00
υ	70	4.00	0.00	2.00	45	0.64	0.20	1870	1188	5.80	0.50	1.00	0.67	00.0	1.00	1.00
υ	70	4.00	0.00	2.00	45	0.64	0.20	1836	1167	5.80	0.50	1.00	0.69	0.00	1.00	1.00
υ	70	4.00	2.00	2.00	8	0.12	0.09	1585	265	29.73	0.11	1.00	1.68	0.00	1.00	1.00

d Delay for Lene Group fe/ush1 40.46 E	70.0	0.32	06.0	0.31	0.31	0.54	0.12
10.10	5.21	5.21	40.61	6.47	6.49	31.41	27.95
Lane Group LOS D	<	٨	٥	4	A	υ	υ
Critical Lane Group	No	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln] 1.92 1	1.82	1.81	0.54	2.03	2.00	2.38	0.47
50th-Percentile Queue Length [ft/ln] 48.09 48	45.38	45.31	13.46	50.63	50.04	59.46	11.82
95th-Percentile Queue Length [veh/ln] 3.46 3	3.27	3.26	0.97	3.65	3.60	4.28	0.85
95th-Percentile Queue Length [ft/In] 86.57 8	81.68	81.57	24.24	81.68 81.57 24.24 91.14 90.07	90.07	107.03	21.27

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Version 7.00-05

Movement, Approach, & Intersection Results

C 70 2.00 2.00

40.15 5.21 5.21	5.2	-	40.61	6.48	6.49	31.41	31.41	31.41	27.95	27.95	27.95
DA		۷	٥	۷	۷	υ	υ	С	υ	υ	υ
9.13				7.70			31.41			27.95	
۷				۷			U			υ	
					10.59	59					
					8						
					0.343	43					
9.0				9.0			9.0			9.0	
00.00				0.00			0.00			0.00	
3303.90	0			2463.19			1854.21			3680.93	
26.58				26.58			26.58			26.58	
2.705				2.780			1.884			1.761	
ß				υ			۷			۷	
2000				2000			2000			2000	
829				457			686			686	
12.01				20.84			15.11			15.11	
2.310				2.186			1.853			1.639	
ш				ш			۷			۷	

Sequence Ring 1

s_b, Saturation Flow Rate of the bicycle lane picycles/h) c_b, Capacity of the bicycle lane [bicycles/h] d_b, Bicycle Delay [s] l_b,int, Bicycle LOS Score for intersection Bicycle LOS

8 0.12 0.02 0.02 265 265 27.75 0.11 1.00 0.19 0.19 0.19 0.100 1.00

Ring 1	-	2	4	,			,				,	,	,	
Ring 2	5	9	8	,	,			,				,	,	,
Ring 3		•		•	,	,	,	,	,			,	,	,
Ring 4		•	•	•							,	,	,	
SG: 1 22s			S	SG: 2 20≤				S	SG: 4 28s					
			SG	SG: 102 16s	in.				SG: 104 24s	4s				
SG: 5 9s	SG:	SG: 8 33≊						S S	SG: 8 28s					
														2
	SG:	SG: 106 24s						S	SG: 108 24s	4s				
								Į						2

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Control Type:	f
Analysis Method:	오
Analysis Period:	

Intersection Level Of Service Report Intersection 1: SR 20/Blosser Ln Fwo-way stop CM 6th Edition 15 minutes

Delay (sec / veh): Level Of Service: Volume to Capacity (v/c):

35.2 E 0.231

Intersection Setup

Name	6	Blosser Ln	Ę	-	Blosser Ln	_		SR 20			SR 20	
Approach	ž	Northbound	p	Ň	Southbound	p	ш	Eastbound		5	Westbound	
Lane Configuration		÷			÷			- F			÷	
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	78.00	100.00	100.00	96.00	100.00	100.00
Speed [mph]		25.00			25.00			35.00			35.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		°N N			٩			٩			Yes	

100 26 0.7400 0.7400 1.0000 1.0000 1.0000 1.0000 1.0500 1.0500 SR 20 109 95 2.00 135 8 0 0 0 0 0 0 11 87 87 32 70 7 6 82 12 100 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.000 0.7400 0.7400 0.7400 0.7400 0.7400 0.7400 0.7400 1.0000 1.0000 1.0000 154 114 39 0 0 0 0 c 0 13 4 18 0 0 C 0 0 0 SR 20 116 0 0 88 29 0 0 0 0 1.0000 œ 0 0 0 c c 0 1.0000 0 0 0 0 0 2 თ Blosser Ln 1.0000 1.0000 100 74 25 0 0 0 0 0 0 46 0 0 0 8 1 0 0 0 0.7400 1.0000 123 0 0 c 0 0 91 31 0 Blosser Ln 123 0.7400 0.7400 1.0000 1.0000 0 0 91 31 0 c 0 0 16 00 0 0 12 4 0 Pass-tay Trips (ve/th) Existing Sile Adjustment Volume (ve/th) Other Volume (ve/th) Total Hourty Volume (ve/th) Base Volume Adjustment Factor Heavy Vehicles Percentage [%] Total 15-Minute Volume [veh/h] Total Analysis Volume [veh/h] In-Process Volume [veh/h] Site-Generated Trips [veh/h] Base Volume Input [veh/h] Other Adjustment Factor Diverted Trips [veh/h] Peak Hour Factor Growth Factor Name Volumes

2.00

0

0 c 0 0 0

6 35

Pedestrian Volume [ped/h]

25

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Version 7.00-05

Intersection Settings

Priority Scheme	Stop	Stop	_	Free	Free	
Flared Lane	No	N				
Storage Area [veh]	0	0		0	0	
Two-Stage Gap Acceptance	No	N				
Number of Storage Spaces in Median	0	0		0	0	
Movement, Approach, & Intersection Results						

	_	_	_	_	_	_	_	_
0.00	0.00	۲	0.00	0.00				
0.00	0.00	٨	0.00	0.00	3.70	۲		
0.11	7.78	٨	0.36	8.89				
0.00	0.00	٨	0.00	0.00				
0.00	0.00	٨	0.00	0.00	0.43	۲		
0.01	7.57	A	0.02	0.43			12.50	
0.01	21.15	с	2.78	69.41			12.	ш
0.28	27.02	۵	2.78	69.41	29.11	0		
0.23	35.20	ш	2.78	69.41				
0.13	16.72	υ	3.05	76.16				
0.34	22.75	с	3.05	76.16 76.16 76.16	20.12	U		
0.06	25.94	۵	3.05	76.16				
V/C, Movement V/C Ratio	d_M, Delay for Movement [s/veh]	Movement LOS	95th-Percentile Queue Length [veh/In]	95th-Percentile Queue Length [ft/ln]	d_A, Approach Delay [s/veh]	Approach LOS	d_l, Intersection Delay [s/veh]	Intersection LOS

TIS for the School Property Rezoning AM Future Conditions

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TIS for the School Property Rezoning AM Future Conditions



	-		
Control Type:	Analysis Method	Analysis Period:	

Intersection Level Of Service Report Intersection 2: S Main St/Hazel St Two-way stop HCM 6th Edition 15 minutes

Delay (sec / veh): Level Of Service: Volume to Capacity (v/c):

29.5 D 0.324

Intersection Setup

estbound	÷	Thru	12.00	0	100.00	25.00	0.00	Yes	
Ň		Left	12.00	0	100.00				
		Right	12.00	0	100.00				
astbound	÷	Thru	12.00	0	100.00	25.00	0.00	Yes	
ш		Left	12.00	0	100.00				
Ð		Right	12.00	0	100.00				
outhbour	÷	Thru	12.00	0	100.00	35.00	0.00	No	
<i>i</i>	Ť	Left	12.00	-	200.00				
Ð		Right	12.00	0	100.00				
orthboun	÷	Thru	12.00	0	100.00	35.00	0.00	No	
z	Ť	Left	12.00	-	200.00				
Approach	Lane Configuration	Turning Movement	Lane Width [ft]	No. of Lanes in Pocket	Pocket Length [ft]	Speed [mph]	Grade [%]	Crosswalk	
	Approach Northbound Southbound Eastbound Westbound	Northbound Southbound Eastbound 11 11 11	Nontrbound Southbound Eastbound 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1<	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$

Right 12.00 0

0.8700 0.8700 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 1.000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000</ 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Driveway 0.8700 0.8700 0.8700 0.8700 0.8700 1.0000 1.0000 1.0000 1.0000 1.0000 . c 50 0 34 C Hazel St c 2 681 40 0.8700 0.8700 0.8700 S Main St 1.0000 1.0000 e 0.8700 1.0000 49 602 0 c S Main St 783 0.8700 0.8700 1.0000 1.0000 c 0 0 0 6 Pass-tay Trips (ve/th) Existing Sile Adjustment Volume (ve/th) Other Volume (ve/th) Total Hourty Volume (ve/th) Heavy Vehicles Percentage [%] Base Volume Adjustment Factor Total 15-Minute Volume [veh/h] In-Process Volume [veh/h] Site-Generated Trips [veh/h] Base Volume Input [veh/h] Other Adjustment Factor Diverted Trips [veh/h] Peak Hour Factor Growth Factor Name Volumes

0 0

e

Total Analysis Volume [veh/h]

Pedestrian Volume [ped/h]

c

VISTRO	
PTV	
Generated with	Vision 7 00 0E

Intersection Settings Version 7.00-05

Priority Scheme	Free	Free	Stop		Stop	Γ
Flared Lane			No		No	
Storage Area [veh]	0	0	0		0	
Two-Stage Gap Acceptance			Yes		Yes	
Number of Storage Spaces in Median	0	0	5		5	
Movement, Approach, & Intersection Results						

V/C, Movement V/C Ratio	0.12	0.01	0.00	0.00	0.01	0.00	0.32	0.00	0.11	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	11.38	0.00	0.00	9.83	0.00	0.00	29.51	29.28	21.41	22.34	23.33	11.58
Movement LOS	ш	A	\triangleleft	A	٨	٨	۵		с	υ	0	۵
95th-Percentile Queue Length [veh/In]	0.39	0.00	0.00	0.01	0.00	0.00	2.06	2.06	2.06	0.02	0.02	0.02
95th-Percentile Queue Length [ft/In]	9.78	0.00	0.00	0.30	0.00	0.00		51.47 51.47	51.47	0.50	0.50	0.50
d_A, Approach Delay [s/veh]		0.86			0.03			26.23			16.96	
Approach LOS		A			٨			۵			U	
d_I, Intersection Delay [s/veh]						-	.93					
Intersection LOS							~					

TIS for the School Property Rezoning AM Future Conditions

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TIS for the School Property Rezoning AM Future Conditions



All-way stop	HCM 6th Edition	15 minutes	
Control Type:	Analysis Method:	Analysis Period:	

Intersection Level Of Service Report Intersection 3: Holly StUcoust S Delay (sec / veh): Level Of Service: Volume to Capacity (v/c):

9.1 A 0.290

Intersection Setup

Driveway	Eastbound	÷	Left Thru Right Right	12.00 12.00 12.00 12.00	0 0 0	100.00 100.00 100.00 100.00	25.00	0.00	Yes
			Right	12.00	0	100.00			
Locust St	Southbound	±.	Right	12.00	0	100.00	25.00	0.00	Yes
Loci	South	÷	Thru	12.00	0	100.00	25	ö	×
			Left	12.00	0	100.00			
			Right	12.00	0	100.00			
Locust St	Northbound	_L	Thru	12.00	0	100.00	25.00	0.00	Yes
Locu	North	÷	Left	12.00	0	100.00	25	0	,×
			Left2	12.00	0	100.00			
Name	Approach	Lane Configuration	Turning Movement	Lane Width [ft]	No. of Lanes in Pocket	Pocket Length [ft]	Speed [mph]	Grade [%]	Crosswalk

Volumes												
Name		Locust St	stSt			Locust St	st St			Driveway	way	
Base Volume Input [veh/h]	0	-	28	84	26	46	0	-	2	5	0	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.3000	1.3000	1.3000	1.3000 1.3000		1.3000	1.0000	1.3000	1.3000	1.3000	1.0000	1.3000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	-	36	109	34	60	0	-	3	7	0	e
Peak Hour Factor	1.0000	0.7100		0.7100 0.7100 0.7100	0.7100	0.7100	1.0000	0.7100	0.7100	0.7100	1.0000	0.7100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000 1.0000 1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	13	38	12	21	0	0	-	2	0	-
Total Analysis Volume [veh/h]	0	-	51	154	48	85	0	-	4	10	0	4
Pedestrian Volume [ped/h]			9			-	_			1	16	

Generated with PTV VISTRO Version 7.00-05

Intersection Settings	Lanes

Capacity per Entry Lane [veh/h]

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Intersection Setup

Name		Holly St	/ St			SF Dri	SF Driveway	
Approach		Westbound	puno			Northea	Northeastbound	
Lane Configuration		÷	t			~	~	
Turning Movement	Left2	Left	Thru	Right	Left2	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		25.	25.00			25.	25.00	
Grade [%]		00.00	0			0.0	0.00	
Crosswalk		Yes	ş			¥	Yes	
Volumes								

Volumes								
Name		Hol	Holly St			SF Dri	SF Driveway	
Base Volume Input [veh/h]	107	0	4	5	0	0	0	-
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	139	0	5	7	0	0	0	-
Peak Hour Factor	0.7100	1.0000	0.7100	0.7100	0.7100	0.7100	0.7100	0.7100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	49	0	2	2	0	0	0	0
Total Analysis Volume [veh/h]	196	0	7	10	0	0	0	1
Pedestrian Volume [ped/h]		-				0	0	

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Lanes		
Capacity per Entry Lane [veh/h]	735	811
Degree of Utilization, x	0.29	0.00
Movement, Approach, & Intersection Results		
95th-Percentile Queue Length [veh]	1.20	0.00
95th-Percentile Queue Length [ft]	30.04	0.09
Approach Delay [s/veh]	9.88	7.44
Approach LOS	٨	×
Intersection Delay [s/veh]	6	9.13
Intersection LOS		

VIST	
PTV	
Generated with	Version 7.00-05

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≥l	ΞI			<u> </u>	<u> </u>						l ≳					-									_				<u> </u>				
Driveway	Westbound	÷	Thru	12.00	0	100.00	25.00	0.00	Yes	Yes	Driveway	0	1.0000	2.00	1.3000	0	0	0	0	0	0	0	0	0.8800	1.0000	0	0		0	0	0	e	
	3		Left	12.00	0	100.00						2	1.0000	2.00	1.3000	0	0	0	0	0	0	0	3	0.8800	1.0000	1	3	Ŷ	0	0			
			Right	12.00	0	100.00						119	1.0000	2.00	1.3000	0	0	0	0	0	0	51	104	0.8800 0.8800 0.8800 0.8800 0.8800	1.0000 1.0000 1.0000 1.0000 1.0000	30	118	Ŷ	0	0			
Holly St	Eastbound	÷	Thru	12.00	0	100.00	25.00	0.00	Yes	Yes	Holly St	2	1.0000	2.00	1.3000	0	0	0	0	0	0	0	3	0.8800	1.0000	1	3		0	0	~	-	
	ш		Left	12.00	0	100.00						66	1.0000	2.00	1.3000	0	0	0	0	0	0	0	129	0.8800	1.0000	37	147	Ŷ	0	0			
	q		Right	12.00	0	100.00						28	1.0000	2.00	1.3000	0	0	0	0	0	0	2	34			10	39	°N	0	0			
S Main St	Southbound	÷	Thru	12.00	0	100.00	35.00	0.00	Yes	Yes	S Main St	652	1.0000	2.00	1.3000	0	0	0	0	0	0	0	848	0.8800 0.8800 0.8800 0.8800 0.8800 0.8800	1.0000 1.0000 1.0000 1.0000	241	964		0	0	6	c	,
0	Х	•	Left	12.00	-	85.00					0	6	1.0000	2.00	1.3000	0	0	0	0	0	0	0	12	0.8800	1.0000	3	14	Ŷ	0	0			
			Right	12.00	0	100.00						2	1.0000	2.00	1.3000	0	0	0	0	0	0	0	е	0.8800	1.0000	1	3	Ŷ	0	0			
S Main St	Northbound	╧	Thru	12.00	0	100.00	35.00	0.00	Yes	Yes	S Main St	530	1.0000	2.00	1.3000	0	0	0	0	0	0	0	689	0.8800	1.0000 1.0000	196	783		0	0	-	ę	
0	ž	•	Left	12.00	-	135.00					0	106	1.0000	2.00	1.3000	0	0	0	0	0	0	0	138	0.8800	1.0000	39	157	Ŷ	0	0	0	_	
Name	Approach	Lane Configuration	Turning Movement	Lane Width [ft]	No. of Lanes in Pocket	Pocket Length [ft]	Speed [mph]	Grade [%]	Curb Present	Crosswalk	Name	Base Volume Input [veh/h]	Base Volume Adjustment Factor	Heavy Vehicles Percentage [%]	Growth Factor	In-Process Volume [veh/h]	Site-Generated Trips [veh/h]	Diverted Trips [veh/h]	Pass-by Trips [veh/h]	Existing Site Adjustment Volume [veh/h]	Other Volume [veh/h]	Right-Turn on Red Volume [veh/h]	Total Hourly Volume [veh/h]	Peak Hour Factor	Other Adjustment Factor	Total 15-Minute Volume [veh/h]	Total Analysis Volume [veh/h]	Presence of On-Street Parking	On-Street Parking Maneuver Rate [/h]	Local Bus Stopping Rate [/h]	v_do, Outbound Pedestrian Volume crossing major stree	v di, Inbound Pedestrian Volume crossing major street	

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Protect Permis Permis Protect Permis Permis Permis Permis

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Time of Day Pattern Isolated

20

Signal Coordination Group

15.3 B 0.535

Delay (sec / veh): Level Of Service: Volume to Capacity (v/c):

Signalized HCM 6th Edition 15 minutes

Control Type: Analysis Method: Analysis Period:

Intersection Level Of Service Report Intersection 4: S Main St/Holly St

Located in CBD

Intersection Settings

Version 7.00-05

Generated with PTV VISTRO

Cycle Length [s] Coordination Type

Actuation Type

Offset Reference

Offset [s]

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Permissive Mode

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Fully actuated LeadGreen SingleBand 0.00

0.0

4

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3.0

3.0

3.0 1.0

1.0

30 3.0

30 1.0 3.0 ß

33

Split [s] Vehicle Extension [s]

1.0 3.0

6 3.0

30 1.0 28 3.0

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ß 5 30 3.0

Minimum Green [s] Maximum Green [s]

Amber [s] All red [s]

Auxiliary Signal Groups

Signal Group Lead / Lag

Control Type Lost time [s]

Phasing & Timing

Right 12.00

0

Lead

Lead

30 1.0 3.0

ß

5 19 No 2.0

19 No 2.0

11 No No No No

2.0 2:0 No Ŷ ĝ

No No 2:0 No 19 5

2.0 No No 2.0 ĝ

12, Clearance Lost Time [s]

Minimum Recall

Maximum Recall Pedestrian Recall

Pedestrian Clearance [s] Rest In Walk 11, Start-Up Lost Time [s]

Walk [s]

15 1.0000 2.00 1.3000 0

0 0 0 0 0

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No No

2.0 No

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1.00 1.00 1.00 1.00

I, Upstream Filtering Factor

Exclusive Pedestrian Phase

Detector Location [ft]

Detector Length [ft]

10 10 0.8800 1.0000

Pedestrian Clearance [s] Pedestrian Signal Group

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0

0 0 0

0 12

e 0

4 0 0

v_cli, Inbound Pedestrian Volume crossing minor street v_ab, Corner Pedestrian Volume (ped/h) Bicycle Volume (bicycles/h)

0

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Pedestrian Walk [s]

0 0 0

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Lane Group Calculations

Lane Group	_	υ	ပ	_	υ	υ	υ	υ
C, Cycle Length [s]	70	70	70	22	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
11_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00
12, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	42	42	-	36	36	15	15
g / C, Green / Cycle	0.11	09.0	0.60	0.02	0.51	0.51	0.21	0.21
(v / s)_i Volume / Saturation Flow Rate	0.09	0.21	0.21	0.01	0.27	0.27	0.18	0.01
s, saturation flow rate [veh/h]	1781	1870	1867	1781	1870	1840	1525	1658
c, Capacity [veh/h]	201	1126	1125	32	949	934	397	408
d1, Uniform Delay [s]	30.25	7.01	7.01	34.06	11.64	11.65	26.41	22.14
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.52	0.85	0.86	9.20	2.13	2.18	2.00	0.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Group Results								

0.03	22.17	υ	No	0.18	4.60	0.33	8.28
0.67	28.41	v	Yes	4.35	108.84	7.78	194.39
0.53	13.83	в	Yes	4.97	124.22	8.62	215.61
0.53	13.77	в	No	5.02	125.56 1	8.70	126.05 115.16 115.03 13.83 217.45 215.61
0.44	43.25	۵	No	0.31	7.68	0.55	13.83
0.35	7.87	٨	No	2.56	63.90	4.60	115.03
0.35	7.87	A	No	2.56	63.98	4.61	115.16
0.78	36.77	0	Yes	2.80	70.03	5.04	126.05
X, volume / capacity	d, Delay for Lane Group [s/veh]	Lane Group LOS	Critical Lane Group	50th-Percentile Queue Length [veh/In]	50th-Percentile Queue Length [ft/ln]	95th-Percentile Queue Length [veh/In]	95th-Percentile Queue Length [ft/In]

Generated with PTV VISTRO Version 7.00-05

Movement, Approach, & Intersection Results

		_				_		_	_	_		_	_	_	_		_	
22.17	U																	
22.17	С	22.17	U					9.0	0.00	2762.95	26.58	1.736	A	2000	686	15.11	1.599	A
22.17	υ																	
28.41	υ																	
28.41	U	28.41	U					9.0	0.00	1822.85	26.58	1.986	٨	2000	686	15.11	2.086	m
28.41	ပ			15.31	8	0.535												
13.83	В			15.		0.5												
13.80	в	14.20	в					9.0	0.00	2945.16	26.58	2.949	U	2000	457	20.84	2.400	m
43.25	۵																	
7.87	A																	
7.87	A	12.68	в					9.0	0.00	2341.51	26.58	2.766	υ	2000	829	12.01	2.338	m
36.77	۵													-				
d_M, Delay for Movement [s/veh]	Movement LOS	d_A, Approach Delay [s/veh]	Approach LOS	d_I, Intersection Delay [s/veh]	Intersection LOS	Intersection V/C	Other Modes	g_Walk,mi, Effective Walk Time [s]	M_corner, Corner Circulation Area [ft²/ped]	M_CW, Crosswalk Circulation Area [ft²/ped]	d_p, Pedestrian Delay [s]	I_p,int, Pedestrian LOS Score for Intersection	Crosswalk LOS	s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	c_b, Capacity of the bicycle lane [bicycles/h]	d_b, Bicycle Delay [s]	I_b,int, Bicycle LOS Score for Intersection	Bicycle LOS

Sequence Ring 1

	_	_	<u> </u>	1				
•	•	•	•					
		,						
		,						
		,						
		,				4s		4s
	•		•		SG: 4 28s	SG: 104 24s	SG: 8 28s	SG: 108 24s
		,					S S	
			•					
		,				S		
			•		SG: 2 20s	SG: 102 16s		
4	œ	,			SG	SG		
	•		•					
2	9	•	•				SG: 6 33s	SG: 106 24s
-	5						SG	SG.
Ring 1	Ring 2	Ring 3	Ring 4		SG: 1 22s		SG: 5 9s	

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TIS for the School Property Rezoning AM Future Conditions

W-Trans

W-Trans 4/9/2020

Control Type:	Two
Analysis Method:	HCM
Analysis Period:	15

Intersection Level Of Service Report Intersection 1: SR 20/Blosser Ln vo-way stop M 6th Edition 5 minutes

Delay (sec / veh): Level Of Service: Volume to Capacity (v/c):

15.7 C 0.079

Intersection Setup

_		_	_	_	_	_	_	<u> </u>
Ð		Right	12.00	0	100.00			
estboun	÷	Thru	12.00	0	100.00	35.00	0.00	Yes
\$		Left	12.00	-	96.00			
		Right	12.00	1	100.00			
astbound	÷	Thru	12.00	0	100.00	35.00	0.00	٩
ш	•	Left	12.00	-	78.00			
77		Right	12.00	0	100.00			
uthbound	÷	Thru	12.00	0	100.00	25.00	0.00	٩
S		Left	12.00	0	100.00			
77		Right	12.00	0	100.00			
orthboun	÷	Thru	12.00	0	100.00	25.00	0.00	٥N
ž		Left	12.00	0	100.00			
Approach	Lane Configuration	Turning Movement	Lane Width [ft]	No. of Lanes in Pocket	Pocket Length [ft]	Speed [mph]	Grade [%]	Crosswalk
	Aproach Northbound Southbound Eastbound Westbound	Northbound Southbound Eastbound	Northbound Southbound Eastbound Westbound Image: South Sou	$\begin{tabular}{ c c c c c c c c c c c } \hline \hline Morthbound & \hline Mort$	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	Northbound Southbound Eastbound Mestbound Image: Southbound Image: Southbound Image: Southbound Image: Southbound Image: Southbound Image: South Image: Sou	Northbound Southbound Eastbound Meetbound Left Thru Right Left Thru Right Thru Thru	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$

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SR 20	47 130 38	1.0000 1.0000 1.0000	2.00 2.00 2.00	1.0500 1.0500 1.0500	0	0	0 0	0 0	0	0	49 137 40	0.9100 0.9100 0.9100	1.0000 1.0000 1.0000	13 38 11	54 151 44
SR 20	116 9	1.0000 1.0000	2.00 2.00	1.0500 1.0500	0	0	0	0 0	0	0	122 9	0.9100 0.9100 0.9100 0.9100	1.0000 1.0000 1.0000	34 2	34 10
ß	12 1	1.0000 1.0	2.00 2	1.0500	0	0	0	0	0	0	13 1		1.0000	4	14
Ln	12	0 1.0000	2.00	1.0500 1.0500	0	0	0	0	0	0	13	0.9100 0.9100 0.9100	1.0000 1.0000 1.0000	4	14
Blosser Ln	17	0 1.0000	2.00		0	0	0	0	•	0	18	0.9100	0 1.0000	2 C	20
	26	0 1.0000	2.00	0 1.0500	0	0	0	0	0	0	27			2	8
5	83	0 1.0000	2.00	0 1.0500	0	0	0	0	0	0	87	0.9100 0.9100 0.9100	1.0000 1.0000	24	96
Blosser Ln	33	0 1.0000	2.00	0 1.0500	0	0	0	0	0	0	35	0 0.910		10	38
	10	1.0000	2.00	1.0500	0	0	0	0	0	0	=	0.910	1.0000	e	12
Name	Base Volume Input [veh/h]	Base Volume Adjustment Factor	Heavy Vehicles Percentage [%]	Growth Factor	In-Process Volume [veh/h]	Site-Generated Trips [veh/h]	Diverted Trips [veh/h]	Pass-by Trips [veh/h]	Existing Site Adjustment Volume [veh/h]	Other Volume [veh/h]	Total Hourly Volume [veh/h]	Peak Hour Factor	Other Adjustment Factor	Total 15-Minute Volume [veh/h]	Total Analysis Volume [veh/h]

Generated with PTV VISTRO Version 7.00-05

Intersection Settings

Priority Scheme	S	Stop		Stop	Free	e		Free	
Flared Lane		No		No					
Storage Area [veh]		0		0	0			0	
Two-Stage Gap Acceptance		No		No					
Number of Storage Spaces in Median		0		0	0			0	
Movement, Approach, & Intersection Results									
City Account Off		00	000		 00	0000	100	0000	0000

	0.00		8	0					1
0	0.0	×	0.00	0.00					
0.00	00.00	۷	00.0	00.00	1.65	۷			
5.5	7.60	٨	0.12	2.92					
	0.00	٨	0.00	0.00					
0.00	0.00	A	0.00	0.00	0.68	A			
5	7.64	A	0.03	0.77			5.03		
20.0	10.36	в	0.47	11.80			5.0	0	
5	13.74	в	0.47	11.80	13.93	œ			
0.00	15.72	с	0.47	11.80					
5	10.35	в	0.80	19.89					
0,00	14.03	в	0.80	19.89	11.61	в			
0.00	14.06	в	0.80	19.89					
	d_M, Delay for Movement [s/veh]	Movement LOS	95th-Percentile Queue Length [veh/ln]	95th-Percentile Queue Length [ft/ln]	d_A, Approach Delay [s/veh]	Approach LOS	d_I, Intersection Delay [s/veh]	Intersection LOS	

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VISTRO	
PTV	
Generated with	Version 7.00-05

Control Type:	Two
Analysis Method:	HCN
Analysis Period:	1

Intersection Level Of Service Report Intersection 2: S Main St/Hazel St vo-way stop M 6th Edition 5 minutes

Delay (sec / veh): Level Of Service: Volume to Capacity (v/c):

22.3 C 0.137

Intersection Setup

	σ					-				
Driveway	Westbound	÷	Thru	12.00	0	100.00	25.00	0.00	Yes	
	5		Left	12.00	0	100.00				
			Right	12.00	0	100.00				
Hazel St	Eastbound	÷	Thru	12.00	0	100.00	25.00	0.00	Yes	
	1		Left	12.00	0	100.00				
	p		Right	12.00	0	100.00				
S Main St	Southbound	는	Thru	12.00	0	100.00	35.00	0.00	٩	
0	ы М	ľ	Left	12.00	-	200.00				
			Right	12.00	0	100.00				
S Main St	Northbound	ᅱᄂ	Thru	12.00	0	100.00	35.00	0.00	٩	
	ž	ľ	Left	12.00	-	200.00				
Name	Approach	Lane Configuration	Turning Movement	Lane Width [ft]	No. of Lanes in Pocket	Pocket Length [ft]	Speed [mph]	Grade [%]	Crosswalk	

Right 12.00 0

100.00

0.9700 0.9700 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 1.000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000</ 1.0000 1.0000 Driveway 0 0 0 0 0 0 0 0 0 0 0 0.9700 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0 0 0 0 0 c 0 c 0 0.9700 0.9700 25 0 28 36 ი 37 0 0 C 0 0 0 Hazel St 0 0 0 0 0 0 0 0 0 0.9700 0.9700 0.9700 0 34 0 0 0 33 ი c 0 0 3 733 14 18 19 0 0 0 0 0 ß S Main St 0.9700 0.9700 1.0000 1.0000 953 246 982 0 0 0 0 0 0 0 0 0 4 4 0 0 0 0.9700 1.0000 ~ 0 0 c 0 0 0 c S Main St 19 868 0 1128 0.9700 0.9700 1.0000 1.0000 1163 291 0 0 c 0 0 26 00 0 0 25 9 0 Pass-tay Trips (ve/th) Existing Sile Adjustment Volume (ve/th) Other Volume (ve/th) Total Hourty Volume (ve/th) Heavy Vehicles Percentage [%] Base Volume Adjustment Factor Total 15-Minute Volume [veh/h] Total Analysis Volume [veh/h] In-Process Volume [veh/h] Site-Generated Trips [veh/h] Base Volume Input [veh/h] Other Adjustment Factor Diverted Trips [veh/h] Peak Hour Factor Growth Factor Name Volumes

0

0 c 0 0 ŝ

4

0

7

Pedestrian Volume [ped/h]

VISTRO	
PTV	
Generated with	Voreion 7 00 05

Intersection Settings Version 7.00-05

Priority Scheme		Free		-	Free	Stop			Stop	
Flared Lane						No			No	
Storage Area [veh]		0			0	0			0	
Two-Stage Gap Acceptance						Yes			Yes	
Number of Storage Spaces in Median		0			0	5			5	
Movement, Approach, & Intersection Results										
	.00	100	0000	.00		 0000	1000	0000	0000	2

Intersection
øð
Movement, Approach,

0.00 22.35 24.33 14.85 A C C B 0.00 0.78 0.78 0.78
A 0.71 0.71
0.0
0.02
0.00

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Analysis Period:
Analysis Method:
Control Type:

Intersection Level Of Service Report Intersection 3: Holly St/Locust St F

Delay (sec / veh): Level Of Service: Volume to Capacity (v/c):

8.2 A 0.218

Intersection Setup

$ \ \ \ \ \ \ \ \ \ \ \ \ \ $		_		_	_	_	_	_		
$\begin to the term of te$				Right	12.00	0	100.00			
$\begin to the form $	way	puno	ŧ	Right	12.00	0		00	0	s
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	Drive	Eastb	Ŧ	Thru	12.00	0	100.00	25.	0.0	¥
$\begin to the formation of the formati$				Left	12.00	0	100.00			
$\begin{tabular}{ c c c c c } \hline $$ Locust St $$ Locust St $$ Locust St $$ $$ $$ $$ $$ $$ $$ $$ $$ $$ $$ $$ $$$				Right	12.00	0	100.00			
Locuet St. Locuet St. Anthound Anthound Left2 Left Thru Right Left 12.00 12.00 12.00 12.00 12.00 12.00 12.00 10.00 0 0 0 0 0 0 0 100.00 10.00 100.00 100.00 100.00 100.00 1 25.00	st St	puno	+	Right	12.00	0	100.00	00	0	s
Locuest St Anthbound Left2 Left Left2 Left T2:00 12:00 12:00 100:00 100:00 100:00 100:00 100:00 100:00 100:00 100:00 100:00 100:00 100:00 100:00 100:00 100:00 100:00	Locu	Southt	+	Thru	12.00	0	100.00	25.	0.0	Ye
Locust St Anorthound Lent2 Lent 12.00 12.00 12.01 12.00 100.00 0 100.00 0 100.00 0 100.00 0				Left	12.00	0	100.00			
Lecus Northio Northio Lenz Lenz Lenz 12.00 12.00 0 0 0 0 0 0 0 0 0 0 0 0				Right	12.00	0	100.00			
Left2 1 Left2 1 12.00 1 10.00 10 10.01 10.00 10 10.01 10.00 10 10.01 10.00 10 10.00 10 10.00 10 10.00 10 10.00 10 10.00 10 10.00 10 10.00 10 10.00 10 10.00 10 10.00 10 10.00 10 10.00 10 10.00 10 10.00 10 10.00 10 10.00 10 10.00 10 10.00 10 10.00 10 10.00 10 10.00 10 10.00 10 10.00 10 10.00 10 10.00 10 10.00 10 10.00 10 10.00 10 10.00 10 10.00 10 10.00 10 10.00 10 10.00 10 10 10 10 10 10 10 10 10 10 10 10 1	stSt	puno	+	Thru	12.00	0	100.00	00	8	s
11	Locu	Northb	+	Left	12.00	0	100.00	25.	0.0	Ye
Name Approach Lane Configuration Turning Movement Lane Width [t] No. of Lanes in Pocket No. of Lanes in Pocket No. of Lanes in Pocket Pocket Lengi IP Pocket Stade [%] Grade [%] Crosswalk				Left2	12.00	0	100.00			
	Name	Approach	Lane Configuration	Turning Movement	Lane Width [ft]	No. of Lanes in Pocket	Pocket Length [ft]	Speed [mph]	Grade [%]	Crosswalk

Volumes												
Name		Locu	Locust St			Locust St	st St			Driveway	way	
Base Volume Input [veh/h]	2	-	1	87	7	31	0	-	0	2	0	-
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.0000	1.3000	1.3000	1.3000	1.0000	1.3000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	e	-	14	113	14	40	0	-	0	7	0	-
Peak Hour Factor	0.9100	0.9100		0.9100 0.9100 0.9100 0.9100	0.9100	0.9100	1.0000	0.9100 0.9100	0.9100	0.9100	1.0000	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	-	0	4	31	4	11	0	0	0	2	0	0
Total Analysis Volume [veh/h]	3	-	15	124	15	44	0	-	0	8	0	-
Pedestrian Volume [ped/h]			0							0		

Generated with PTV VISTRO Version 7.00-05

Intersection Settings

Ì				
	Lanes			
	Capacity per Entry Lane [veh/h]	917	789	262
-	Degree of Utilization, x	0.16	0.08	0.01
	Movement, Approach, & Intersection Results			
	95th-Percentile Queue Length [veh]	0.55	0.25	0.03
	95th-Percentile Queue Length [ft]	13.78	6.15	0.86
	Approach Delay [s/veh]	7.65	7.94	7.56
	Approach LOS	A	A	A
	Intersection Delay [s/veh]		8.20	
	Intersection LOS		۷	

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Intersection Setup

Name		Hol	Holly St			SF Dri	SF Driveway	
Approach		Westt	Westbound			Northea	Northeastbound	
Lane Configuration		Ŧ	.t.			Ĩ	~	
Turning Movement	Left2	Left	Thru	Right	Left2	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		25.	25.00			25	25.00	
Grade [%]		0.0	0.00			.0	0.00	
Crosswalk		¥	Yes			7	Yes	
Volumes								

Volumes								
Name		Holl	Holly St			SF Dri	SF Driveway	
Base Volume Input [veh/h]	106	-	7	80	0	0	٢	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	138	-	6	10	0	0	1	0
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	38	0	2	ю	0	0	0	0
Total Analysis Volume [veh/h]	152	٢	10	11	0	0	٢	0
Pedestrian Volume [ped/h]		.,	3				3	

Generated with PTV VISTRO Version 7.00-05

Lanes		
Capacity per Entry Lane [veh/h]	797	785
Degree of Utilization, x	0.22	0.00
Movement, Approach, & Intersection Results		
95th-Percentile Queue Length [veh]	0.83	0.00
95th-Percentile Queue Length [ft]	20.73	0.10
Approach Delay [s/veh]	8.78	7.59
Approach LOS	A	¥
Intersection Delay [s/veh]	8	8.20
Intersection LOS		A

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VISTRO	
with PTV	0-05
Generated	Version 7.0

Generated with PTV VISTRO

Intersection Settings Version 7.00-05

12.8 B 0.455

Delay (sec / veh): Level Of Service: Volume to Capacity (v/c):

Signalized HCM 6th Edition 15 minutes

Control Type: Analysis Method: Analysis Period:

Intersection Level Of Service Report Intersection 4: S Main St/Holly St

Name	0)	S Main St			S Main St			Holly St			Driveway	
Approach	ž	Northbound	q	Ň	Southbound	p	ш	Eastbound	77	*	Westbound	σ
Lane Configuration	Ť	+ -			÷			÷			÷	
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	-	0	0	-	0	0	0	0	0	0	0	0
Pocket Length [ft]	135.00	100.00	100.00	85.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		35.00			35.00			25.00			25.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present		Yes			Yes			Yes			Yes	
Crosswalk		Yes			Yes			Yes			Yes	
Name		S Main St			S Main St			Holly St			Driveway	
Base Volume Input [veh/h]	98	771	4	26	667	36	71	2	66	16	-	29
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	2	0	0	36	0	0	17
Total Hourly Volume [veh/h]	127	1002	5	格	867	42	92	3	93	21	-	21
Peak Hour Factor	0.9600	0.9600	0.9600		0.9600 0.9600	0.9600	0.9600	0.9600	0.9600 0.9600	0.9600	0.9600	0.9600
Other Adjustment Factor	1.0000	1.0000	1.0000		1.0000 1.0000	1.0000	1.0000		1.0000 1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	33	261	-	6	226	7	24	-	24	5	0	5
Total Analysis Volume [veh/h]	132	1044	5	35	903	44	96	3	67	22	-	22
Presence of On-Street Parking	٩N		No	N		Ŷ	Ŷ		Ŷ	No		Ŷ
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v do. Outbound Pedestrian Volume crossing major stree		-										

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0 0

Pedestrian Clearance [s]

e -0 12 0

~ -400

-4 - 0 -

N 2 0

 v_di, Inbound Pedestrian Volume crossing major street

 v_co, Outbound Pedestrian Volume crossing minor street

 v_di, Inbound Pedestrian Volume crossing minor street

 v_di, Inbound Pedestrian Volume (ped/h)

 Bioycle Volume (picycles/h)

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						0						Dedering Classes [5]
					0							Pedestrian Walk [s]
					0							Pedestrian Signal Group
												Exclusive Pedestrian Phase
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	I, Upstream Filtering Factor
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Detector Length [ft]
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Detector Location [ft]
	٩			No			No	٩		No	Ň	Pedestrian Recall
	No			No			No	٩		No	٥N	Maximum Recall
	No			No			No	No		No	No	Minimum Recall
0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0	0.0	2.0	2.0	12, Clearance Lost Time [s]
0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0	0.0	2.0	2.0	11, Start-Up Lost Time [s]
	No			No			No			No		Rest In Walk
0	19	0	0	19	0	0	11	0	0	19	0	Pedestrian Clearance [s]
0	5	0	0	5	0	0	5	0	0	5	0	Walk [s]
0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0	0.0	3.0	3.0	Vehicle Extension [s]
0	28	0	0	28	0	0	20	6	0	33	22	Split [s]
0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	1.0	0.0	1.0	1.0	All red [s]
0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0	0.0	3.0	3.0	Amber [s]
0	30	0	0	30	0	0	30	30	0	30	30	Maximum Green [s]
0	2	0	0	5	0	0	5	2	0	5	ъ	Minimum Green [s]
								Lead			Lead	Lead / Lag
												Auxiliary Signal Groups
0	4	0	0	8	0	0	2	5	0	9	-	Signal Group
Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Protect	Permis	Permis	Protect	Control Type
												Phasing & Timing
					0.00	0.0						Lost time [s]
					SingleBand	Single						Permissive Mode
					LeadGreen	Lead						Offset Reference
					0.0	0						Offset [s]
					Fully actuated	Fully a						Actuation Type
				olated	attern Iso	Time of Day Pattern Isolated	Time					Coordination Type
					70	2						Cycle Length [s]
												Signal Coordination Group
					No	z						Located in CBD

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Lane Group Calculations

Lane Group	_	υ	υ	_	υ	υ	υ	υ
C, Cycle Length [s]	70	70	70	70	70	70	70	20
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
11_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00
12, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	45	45	3	40	40	11	11
g / C, Green / Cycle	0.10	0.64	0.64	0.04	0.58	0.58	0.15	0.15
(v / s)_i Volume / Saturation Flow Rate	0.07	0.28	0.28	0.02	0.26	0.26	0.12	0.03
s, saturation flow rate [veh/h]	1781	1870	1866	1781	1870	1834	1573	1498
c, Capacity [veh/h]	172	1191	1189	6	1079	1058	321	310
d1, Uniform Delay [s]	30.89	6.42	6.42	33.20	8.42	8.43	28.28	25.65
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.07	1.18	1.19	6.95	1.32	1.35	1.87	0.21
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Group Results								

_	_	_	_	_	_		
25.87	v	No	0.66	16.39	1.18	29.50	
30.16	c	Yes	3.24	80.97	5.83	145.75	
9.78	A	Yes	3.61	90.36	6.51	162.64	
9.74	A	No	3.66	91.56	6.59	164.81	
40.14	۵	No	0.68	17.07	1.23	30.73	
7.61	A	No	3.25	81.31	5.85	146.36	
7.60	A	No	3.26	81.41	5.86	146.54	
37.96	٥	Yes	2.40	60.02	4.32	108.03	
d, Delay for Lane Group [s/veh]	Lane Group LOS	Critical Lane Group	50th-Percentile Queue Length [veh/In]	50th-Percentile Queue Length [ft/In]	95th-Percentile Queue Length [veh/In]	95th-Percentile Queue Length [ft/ln]	
	37.96 7.60 7.61 40.14 9.74 9.78 30.16	37.96 7.61 40.14 9.74 9.78 30.16 D A A D A A C	37.36 7.60 7.81 40.14 9.74 9.78 30.16 D A A D A A C C Yes No No No Yo Yes Yes Yes	37.96 7.60 7.61 40.14 9.74 9.78 30.16 D A A D A A C Yes No No No No Yes Yes 240 3.26 0.68 3.66 3.61 3.24	3796 760 761 4014 974 978 30.16 D A A D A A C C 1D A N N N N V0 V6 240 326 325 086 366 324 324 6002 8141 81.31 17.07 91.66 80.97 80.97	3796 760 7.61 40.14 9.74 978 30.16 D A A D A A C C Yes No No No No Yes Yes Yes Yes No No No Yes Yes Yes 60.2 326 326 326 326 324 324 60.2 60.3 1.20 60.38 80.97 80.97 4.32 4.32 5.66 5.85 1.25 6.59 6.51 5.83 90.97	37:96 7.60 7.61 40.14 9.74 978 30.16 D A A D A A C 20.1 Yes No No No No Yes Yes Yes Yes No No No Yes Yes Yes 60.24 3.26 0.88 9.66 9.36 9.936 9.937 60.24 19.13 17.07 91.56 9.36 8.937 145.75 108.03 146.54 146.36 30.73 164.81 145.76 145.75

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Movement, Approach, & Intersection Results d_M, Delay for Movement [s/veh]

 37.96
 7.60
 7.61
 40.14
 9.76
 9.78
 30.16
 30.16
 25.87
 25.87
 25.87

	25.87	U					9.0	0.00	3676.15	26.58	1.771	A
									36		÷	
	30.16	υ					9.0	0.00	1799.63	26.58	1.923	A
			12.78	8	0.455							
			12		0.				10			
	10.85	в					9.0	0.00	2352.25	26.58	2.925	υ
	0							0	60.	89	63	
	11.00	В					9.0	0.00	3132.09	26.58	2.829	U
											_	
	d_A, Approach Delay [s/veh]	Approach LOS	d_I, Intersection Delay [s/veh]	Intersection LOS	Intersection V/C	Other Modes	g_Walk,mi, Effective Walk Time [s]	M_corner, Corner Circulation Area [ft²/ped]	M_CW, Crosswalk Circulation Area [ft²/ped]	d_p, Pedestrian Delay [s]	I_p,int, Pedestrian LOS Score for Intersection	Crosswalk LOS
_				L			_	<u> </u>	_		_	_

2000 686 15.11 1.662

2000 686 15.11 1.942

2000 457 20.84 2.374 B

2000 829 12.01 2.534 B

c_b. Capacity of the bicycle lane (bicycles/h] d_b, Bicycle Delay [s] 1_b,int, Bicycle LOS Score for Intersection Bicycle LOS

s_b, Saturation Flow Rate of the bicycle lane [bicycles/

∢

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Sequence Ring 1

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SG: 2 20≤
SG: 102 16s

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Control Type:	F
Analysis Method:	Ĭ
Analysis Period:	

Intersection Level Of Service Report Intersection 1: SR 20/Blosser Ln Two-way stop HCM 6th Edition 15 minutes

Delay (sec / veh): Level Of Service: Volume to Capacity (v/c):

30.8 D 0.198

Intersection Setup

Name	-	Blosser Ln	_	ш	Blosser Ln	_		SR 20			SR 20	
Approach	ž	Northbound	p	ŭ	Southbound	p	ш	Eastbound	-	5	Westbound	5
Lane Configuration		÷			÷			ц Г			÷	
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	-	0	-	-	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	78.00	100.00	100.00	96.00	100.00	100.00
Speed [mph]		25.00			25.00			35.00			35.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		٩			No			No			Yes	

Volumes

Name	8	Blosser Ln	_	-	Blosser Ln	_		SR 20			SR 20	
Base Volume Input [veh/h]	1	87	87	32	70	7	9	82	12	109	95	25
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	6	0	0	0	0	0	0	0	e	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	87	87	32	70	7	9	82	15	109	95	25
Peak Hour Factor	0.7400	0.7400 0.7400	0.7400	0.7400 0.7400 0.7400 0.7400 0.7400 0.7400 0.7400 0.7400	0.7400	0.7400	0.7400	0.7400	0.7400	0.7400	0.7400	0.7400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000 1.0000	1.0000	1.0000		1.0000 1.0000 1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	29	29	1	24	2	2	28	5	37	32	80
Total Analysis Volume [veh/h]	27	118	118	43	95	6	8	111	20	147	128	34
Pedestrian Volume [ped/h]		0			0			0			e	

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Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0
Movement, Approach, & Intersection Results				

	-	A	00.00	00.00					
0.00	0.00	A	0.00	0.00	3.69	A			
2	7.75	A	0.34	8.42					
0.00	0.00	A	0.00	0.00					
0.00	0.00	۷	0.00	0.00	0.43	٨			
0.0	7.56	A	0.02	0.43			11.92	_	
	18.22	υ	2.31	57.66			11.		
0.4.0	23.77	υ	2.31	57.66	25.49	۵			
0.4.0	25.02 22.33 16.68 30.82 23.77	۵	2.31	76.23 76.23 76.23 57.66 57.66					
0.10	16.68	с	3.05	76.23					
10.0	22.33	с	3.05	76.23	20.07	с			
0.03	25.02	۵	3.05	76.23					
	d_M, Delay for Movement [s/veh]	Movement LOS	95th-Percentile Queue Length [veh/In]	95th-Percentile Queue Length [ft/ln]	d_A, Approach Delay [s/veh]	Approach LOS	d_l, Intersection Delay [s/veh]	Intersection LOS	

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Control Type:	Ϋ́
Analysis Method:	Ę
Analysis Period:	-

Intersection Level Of Service Report Intersection 2: S Main St/Hazel St wo-way stop CM 6th Edition 15 minutes

Delay (sec / veh): Level Of Service: Volume to Capacity (v/c):

19.1 C 0.177

Intersection Setup

	0								
Driveway	Westbound	÷	Thru	12.00	0	100.00	25.00	0.00	Yes
	\$		Left	12.00	0	100.00			
			Right	12.00	0	100.00			
Hazel St	Eastbound	÷	Thru	12.00	0	100.00	25.00	0.00	Yes
	ш		Left	12.00	0	100.00			
	þ		Right	12.00	0	100.00			
S Main St	Southbound	4 -	Thru	12.00	0	100.00	35.00	0.00	٩
	Š	Ť	Left	12.00	1	00.00 200.00			
	q		Right	12.00	0	100.00			
S Main St	Northbound	4-	Thru	12.00	0	100.00	35.00	0.00	No
	Ż	•	Left	12.00	-	200.00			
Name	Approach	Lane Configuration	Turning Movement	Lane Width [ft]	No. of Lanes in Pocket	Pocket Length [ft]	Speed [mph]	Grade [%]	Crosswalk

Right 12.00 0

0.8700 0.8700 2.00 1.0000 1.0000 1.0000 1.0000 Driveway 2.00 0 0 0 0 0 0 0 0 0 0 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 200 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 0.8700 0.8700 0.8700 1.0000 1.0000 1.0000 *-*0 0 c 0 0 50 0 34 10 34 39 0 0 c 0 0 0 Hazel St 0 0 0 0 0 0 0 c 0 0.8700 1.0000 1.0000 14 0 0 0 50 57 c 0 0 2 681 40 0.8700 0.8700 0.8700 14 54 0 0 0 0 47 S Main St 1.0000 1.0000 783 681 196 0 0 0 0 0 0 0 0 2 c 0 0 0 \sim 0.8700 1.0000 49 602 0 0 0 0 0 0 0 c 0 0 S Main St 628 0.8700 0.8700 1.0000 1.0000 180 722 26 0 c 0 0 0 0 0 49 4 56 00 0 Pass-tay Trips (ve/th) Existing Sile Adjustment Volume (ve/th) Other Volume (ve/th) Total Hourty Volume (ve/th) Heavy Vehicles Percentage [%] Base Volume Adjustment Factor Total 15-Minute Volume [veh/h] Total Analysis Volume [veh/h] In-Process Volume [veh/h] Site-Generated Trips [veh/h] Base Volume Input [veh/h] Other Adjustment Factor Diverted Trips [veh/h] Peak Hour Factor Growth Factor Name Volumes

0

0

Pedestrian Volume [ped/h]

0 0 c 0 0

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Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			Yes	Yes
Number of Storage Spaces in Median	0	0	5	5
Movement, Approach, & Intersection Results				

Intersection
øð
nt, Approach,
Movemei

V/C, Movement V/C Ratio	0.07	0.01	0.00	0.00	0.01	0.00	0.18	0.00	0.07	0.0	0.00	0.00
d_M, Delay for Movement [s/veh]	9.92	0.00	0.00	9.13	0.00	0.00	19.08	19.39	14.16	14.16 17.20 17.60	17.60	10.74
Movement LOS	۷	٨	\forall	A	A	٨	ပ	0	В	ပ	C	m
95th-Percentile Queue Length [veh/In]	0.23	0.00	0.00	0.01	0.00	0.00	0.94	0.94	0.94	0.01	0.01	0.01
95th-Percentile Queue Length [ft/In]	5.73	0.00	0.00	0.17 0.00	0.00	0.00 23.61		23.61	23.61	0.37	0.37	0.37
d_A, Approach Delay [s/veh]		0.71			0.02			17.08			13.97	
Approach LOS		٨			A			U			в	
d_I, Intersection Delay [s/veh]						1	1.31					
Intersection LOS							~					

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All-way stop	HCM 6th Edition	15 minutes
Control Type:	Analysis Method:	Analysis Period:

Intersection Level Of Service Report Intersection 3: Holly StUcoust S Delay (sec / veh): Level Of Service: Volume to Capacity (v/c):

8.9 A 0.242

Intersection Setup

		_	_	_	_	_		_
		Right	12.00	0	100.00			
puno	+	Right	12.00	0	100.00	00	0	Yes
Eastb	+	Thru	12.00	0	100.00	25.	0.0	Ye
		Left	12.00	0	100.00			
		Right	12.00	0	100.00			
puno	•	Right	12.00	0	100.00	00		s
Southb	+	Thru	12.00	0	100.00	25.(0.0	Yes
		Left	12.00	0	100.00			
		Right	12.00	0	100.00			
puno		Thru	12.00	0	100.00	00	0	s
Northb	+	Left	12.00	0	100.00	25.	0.0	Yes
		Left2	12.00	0	100.00			
Approach	Lane Configuration	Turning Movement	Lane Width [ft]	No. of Lanes in Pocket	Pocket Length [ft]	Speed [mph]	Grade [%]	Crosswalk
	Approach Northbound Southbound Eastbound	Northbound Southbound	Northbound Southbound Eastbound Image: Second Sec	Northbound Southbound Eastbound Left2 Left Thru Rght Left Tru Rght Rght Rght Left Tru Rght Left Tru Rght Left Tru Rght Rght <td< td=""><td>Northbound Southbound Eastbound Left2 Left Thu Rght Left Thu 12.00 12.00 12.00 12.00 12.00 12.00 12.00 12.00 0 0 0 0 0 0 0 0 0 0 0</td><td>$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$</td><td>$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$</td><td></td></td<>	Northbound Southbound Eastbound Left2 Left Thu Rght Left Thu 12.00 12.00 12.00 12.00 12.00 12.00 12.00 12.00 0 0 0 0 0 0 0 0 0 0 0	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	

Volumes												
Name		Locust St	stSt			Locust St	st St			Driveway	way	
Base Volume Input [veh/h]	0	-	28	84	26	46	0	-	2	5	0	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	.0000 1.0000 1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	e	0	50	6	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	-	31	84	76	55	0	-	2	5	0	2
Peak Hour Factor	1.0000	0.7100	0.7100	0.7100	0.7100	0.7100	1.0000	0.7100	0.7100	0.7100	1.0000	0.7100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	1	30	27	19	0	0	-	2	0	-
Total Analysis Volume [veh/h]	0	+	44	118	107	77	0	1	3	7	0	е
Pedestrian Volume [ped/h]		9				11				÷	16	

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Intersection Settings			
Lanes			
Capacity per Entry Lane [veh/h]	857	765	736
Degree of Utilization, x	0.19	0.24	0.02
Movement, Approach, & Intersection Results			
95th-Percentile Queue Length [veh]	0.70	0.95	0.05
95th-Percentile Queue Length [ft]	17.50	23.63	1.35
Approach Delay [s/veh]	8.19	9.21	7.98
Approach LOS	A	A	A
Intersection Delay [s/veh]		8.91	
Intersection LOS		۷	

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Intersection Setup

Name		Holl	Holly St			SF Dri	SF Driveway	
Approach		Westt	Westbound			Northea	Northeastbound	
Lane Configuration		Ŧ	.t.			~	~	
Turning Movement	Left2	Left	Thru	Right	Left2	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		25.	25.00			25.	25.00	
Grade [%]		0.0	0.00			0.0	0.00	
Crosswalk		¥	Yes			¥	Yes	
Volumes								

Volumes								
Name		Hol	Holly St			SF Driveway	veway	
Base Volume Input [veh/h]	107	0	4	5	0	0	0	-
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	7	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	107	0	4	12	0	0	0	٢
Peak Hour Factor	0.7100	1.0000	0.7100	0.7100	0.7100	0.7100	0.7100	0.7100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [velvh]	38	0	1	4	0	0	0	0
Total Analysis Volume [veh/h]	151	0	9	17	0	0	0	٢
Pedestrian Volume [ped/h]		-	_			0		

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Lanes		
Capacity per Entry Lane [veh/h]	740	821
Degree of Utilization, x	0.24	0.00
Movement, Approach, & Intersection Results		
95th-Percentile Queue Length [veh]	0.91	0.00
95th-Percentile Queue Length [ft]	22.77	0.09
Approach Delay [s/veh]	9.35	7.39
Approach LOS	٨	×
Intersection Delay [s/veh]	œ	8.91
Intersection LOS		A



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Name		S Main St	_	0,	S Main St			Holly St			Driveway	
Approach	z	Northbound	p	ŭ	Southbound	p	ш	Eastbound		\$	Westbound	5
Lane Configuration		÷		Ť	÷			÷			÷	
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	-	0	0	-	0	0	0	0	0	0	0	0
Pocket Length [ft]	135.00	100.00	100.00	85.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		35.00			35.00			25.00			25.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present		Yes			Yes			Yes			Yes	
Crosswalk		Yes			Yes			Yes			Yes	
Volumes												
Name		S Main St		.,	S Main St			Holly St			Driveway	
Base Volume Input [veh/h]	106	530	2	6	652	28	66	2	119	2	0	15
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000		1.0000 1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000 1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	2	0	0	0	0	0	26	0	24	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	2	0	0	51	0	0	10
Total Hourly Volume [veh/h]	113	530	2	6	652	26	125	2	92	2	0	5
Peak Hour Factor	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800 0.8800 0.8800 0.8800 0.8800 0.8800 0.8800 0.8800 0.8800 0.8800 0.8800 0.8800	0.8800	0.8800	0.8800	0.8800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000	1.0000	1.0000	1.0000
Total 4E Minuto Valuma (uab/b)	ç	101	,	,	105	r	6	,	6			



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Located in CBD						z	No					
Signal Coordination Group												
Cycle Length [s]							70					
Coordination Type					Time	Time of Day Pattern Isolated	attern Is	olated				
Actuation Type						Fully a	Fully actuated					
Offset [s]						0	0.0					
Offset Reference						Lead	LeadGreen					
Permissive Mode						Single	SingleBand					
Lost time [s]						0	0.00					
Phasing & Timing												
Control Type	Protect	Permis	Protect Permis Permis Protect Permis	Protect	Permis	Permis	Permis	Permis	Permis	Permis Permis Permis Permis Permis Permis	Permis	Permis
Signal Group	-	9	0	5	2	0	0	∞	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead			Lead								
Minimum Green [s]	2	5	0	5	5	0	0	2	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	22	33	0	6	20	0	0	28	0	0	28	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	2	0	0	2	0	0	2	0	0	5	0
Pedestrian Clearance [s]	0	19	0	0	1	0	0	19	0	0	19	0
Rest In Walk		Ŷ			No			Ŷ			٩	
 Start-Up Lost Time [s] 	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
12, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	٩		No	٩			Ŷ			٩	
Maximum Recall	No	٩		No	N			Ŷ			٩	
Pedestrian Recall	N	Ŷ		No	N			Ŷ			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I. Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

14.0 B 0.444

Delay (sec / veh): Level Of Service: Volume to Capacity (v/c):

Signalized HCM 6th Edition 15 minutes

Control Type: Analysis Method: Analysis Period:

Intersection Level Of Service Report Intersection 4: S Main St/Holly St

0	0	0	
Pedestrian Signal Group	Pedestrian Walk [s]	Pedestrian Clearance [s]	

9 Ŷ 0

0 0

2 . 142 36 Ŷ 30 No ~

185 10 741

e

151 602

Total 15-Minute Volume [veh/h] Presence of On-Street Parking Local Bus Stopping Rate [/h]

Total Analysis Volume [veh/h] Other Adjustment Factor

32 128 No

Ŷ

۶ 2 -

Ŷ 2 105 No 26

c с С C

0

0

0

On-Street Parking Maneuver Rate [/h]

0

e

v_do. Outbound Pedestrian Volume crossing major street v_di. hnoound Pedestrian Volume crossing major street v_di. hnoound Pedestrian Volume crossing minor street v_di. hnoound Pedestrian Volume crossing minor street v_di. hnoound Pedestrian Volume drossing minor street v_ab. corner Pedestrian Volume (ped/h) Bicycle Volume (picycles/h)

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Lane Group Calculations

Lane Group	_	υ	υ	_	υ	υ	υ	U
C, Cycle Length [s]	70	70	70	02	70	70	70	20
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
11_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00
12, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	43	43	-	38	38	14	14
g / C, Green / Cycle	0.09	0.62	0.62	0.01	0.54	0.54	0.20	0.20
(v / s)_i Volume / Saturation Flow Rate	0.07	0.16	0.16	0.01	0.21	0.21	0.16	0.00
s, saturation flow rate [veh/h]	1781	1870	1868	1781	1870	1840	1523	1652
c, Capacity [veh/h]	167	1157	1155	24	1007	991	380	389
d1, Uniform Delay [s]	31.00	6.08	6.08	34.28	9.42	9.42	26.83	22.72
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.19	0.55	0.55	11.05	1.12	1.14	1.92	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	00.0	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Group Results								

22.74	о	No	0.11	2.67	0.19	4.80	
28.75	c	Yes	4.06	101.42	7.30	182.55	
10.56	æ	Yes	3.14	78.51	5.65	141.32	
10.53	в	No	3.17	79.36	5.71	142.85	
45.33	۵	No	0.24	5.89	0.42	10.60	
6.63	۲	No	1.72	42.98	3.09	77.36	
6.63	A	No	1.72		3.10	77.43	
38.20	٥	Yes	2.34	58.42	4.21	105.16	
d, Delay for Lane Group [s/veh]	Lane Group LOS	Critical Lane Group	50th-Percentile Queue Length [veh/In]	50th-Percentile Queue Length [ft/In]	95th-Percentile Queue Length [veh/In]	95th-Percentile Queue Length [ft/In]	
	38.20 6.63 45.33 10.53 10.56 28.75	38.20 6.63 6.63 45.33 10.56 28.75 D A A D B B C	38.20 6.63 6.63 45.33 10.53 10.56 28.75 D A A D B B C C Yes No No No Yes Yes Yes Yes	38.20 6.63 6.63 45.33 10.56 28.75 D A A D B B C Yes No No No No Yes Yes 234 1.72 0.24 3.17 3.17 3.14 4.06	38.20 6.63 45.33 10.56 10.56 28.75 D A A D B B C 10 N NO NO NO NO NO 234 11.2 17.0 317 317 344 4.06 584.2 43.08 568 78.36 78.51 101.42	38.20 6.63 6.63 45.33 10.56 10.56 28.75 D A A D B B C C Yes No No No No Yes Yes Yes 54.4 T/2 1/2 0.4 310 Yes Yes 54.4 1/2 1/2 1/2 1/2 1/2 1/2 54.4 1/2 1/2 1/2 1/2 1/2 1/2 54.4 3.10 3.09 0.42 5/1 665 7.30	38.20 6.83 6.63 45.33 10.56 10.56 28.75 D A A D B B C C Ves No No No No No Yes Yes Ves No No No No Yes Yes 52.34 1.72 1.24 3.17 3.14 3.16 Yes 53.43 3.03 3.04 3.17 3.18 10.14.26 10.14.26 4.21 3.09 0.42 5.71 5.66 7.30 10.40 105.16 77.36 10.50 142.86 10.14.22 10.26 10.26

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Movement, Approach, & Intersection Results

	_	_	_	_	_			_	_	_	_	_	_	_	_	_	_	_
22.74	ပ																	
22.74	ပ	22.74	U					9.0	0.00	2766.53	26.58	1.731	A	2000	686	15.11	1.589	٨
22.74	υ																	
28.75	с																	
28.75	υ	28.75	U					9.0	0.00	1863.79	26.58	1.963	A	2000	686	15.11	2.055	æ
28.75	υ			05	8	4												
10.56	m			14.02	ш	0.444												
10.55	œ	10.99	œ					9.0	0.00	2992.88	26.58	2.845	U	2000	457	20.84	2.206	æ
45.33	٥																	
6.63	٨																	
6.63	٨	12.15	œ					9.0	0.00	2391.61	26.58	2.663	œ	2000	829	12.01	2.164	æ
38.20	۵													_				
d_M, Delay for Movement [s/veh]	Movement LOS	d_A, Approach Delay [s/veh]	Approach LOS	d_I, Intersection Delay [s/veh]	Intersection LOS	Intersection V/C	Other Modes	g_Walk,mi, Effective Walk Time [s]	M_corner, Corner Circulation Area [ft2/ped]	M_CW, Crosswalk Circulation Area [ft²/ped]	d_p, Pedestrian Delay [s]	L_p, int, Pedestrian LOS Score for Intersection	Crosswalk LOS	s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	c_b, Capacity of the bicycle lane [bicycles/h]	d_b, Bicycle Delay [s]	I_b,int, Bicycle LOS Score for Intersection	Bicycle LOS

Sequence Ring 1

-														
Ring 1	.	7		4	,	,	,	,	,	,	·			,
Ring 2	5	9	,	8	,				ı		ı	,		,
Ring 3		,	,	•										,
Ring 4		,	,		,				ı		ı	,		ı
SG: 1 22s				SG	SG: 2 20s			S	SG: 4 28s					
				SG	SG: 102 16s	10			SG: 104 24s	4s				
SG: 5 9s	SG	SG: 6 33s							SG: 8 28s					
	SG	SG: 106 24s							SG: 108 24s	4s				

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Intersection Level Of Service Report Intersection 1: SR 20/Blosser Ln Two-way stop HCM 6th Edition 15 minutes

Delay (sec / veh): Level Of Service: Volume to Capacity (v/c):

15.2 C 0.073

Intersection Setup

Name		Blosser Ln	_		Blosser Ln	_		SR 20			SR 20	
Approach	Ž	Northbound	p	ŭ	Southbound	p		Eastbound	_	5	Westbound	م
Lane Configuration		÷			÷			L F			÷	
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	-	0	-	-	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	78.00	100.00	100.00	96.00	100.00	100.00
Speed [mph]		25.00			25.00			35.00			35.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		٩			°N			No			Yes	

		Blosser Ln	~		Blosser Ln			SR 20			SR 20	
Base Volume Input [veh/h]	10	33	83	26	17	12	12	116	6	47	130	38
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	2	0	0	0	0	0	0	0	6	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	15	33	83	26	17	12	12	116	18	47	130	38
	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	6	23	7	5	3	3	32	2	13	36	10
Total Analysis Volume [veh/h]	16	36	91	29	19	13	13	127	20	52	143	42
		0			0			0			2	

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Intersection Settings

Priority Scheme		Stop			Stop			Free			Free	
Flared Lane		No			٩							
Storage Area [veh]		0			0			0			0	
Two-Stage Gap Acceptance		No			No							
Number of Storage Spaces in Median		0			0			0			0	
Movement, Approach, & Intersection Results												
V/C. Movement V/C Ratio	003 007 010 007 004 001 001 000 004 000	0.07	0.10	0.07	0.04	0.01	0.01	0.00	0.00	0.04	0.00	0.00

V/C, Movement V/C Ratio	0.03	0.07	0.10	0.07	0.04	0.01	0.01	0.00	0.00	0.04	0.00	0.00
d_M, Delay for Movement [s/veh]	13.70	13.73	10.25	15.17	13.47	10.17	7.62	0.00	0.00	7.60	0.00	0.00
Movement LOS	m	æ	œ	ပ	æ	в	٨	A	A	٨	۷	۷
95th-Percentile Queue Length [veh/In]	0.77	0.77	0.77	0.43	0.43	0.43	0.03	0.00	0.00	0.11	0.00	0.00
95th-Percentile Queue Length [ft/ln]	19.21	19.21	19.21	10.81	10.81	10.81	0.71	0.00	0.00	2.82	0.00	0.00
d_A, Approach Delay [s/veh]		11.51			13.58			0.62			1.67	
Approach LOS		ш			ш			A			۲	
d_l, Intersection Delay [s/veh]						4.9	4.94					
Intersection LOS							0					

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Control Type:	Τw
Analysis Method:	ЧĊ
Analysis Period:	~

Intersection Level Of Service Report Intersection 2: S Main St/Hazel St wo-way stop CM 6th Edition 15 minutes

Delay (sec / veh): Level Of Service: Volume to Capacity (v/c):

16.9 C 0.078

Intersection Setup

			Right	12.00	0	00.00			
Driveway	Westbound	+	Thru F	12.00 1	0	00.00 10	25.00	0.00	Yes
ō	We		Left	12.00	0	100.00			
			Right	12.00	0	100.00			
Hazel St	Eastbound	÷	Thru	12.00	0	100.00	25.00	0.00	Yes
-	ш		Left	12.00	0	100.00			
	5		Right	12.00	0	100.00			
S Main St	Southbound	+ -	Thru	12.00	0	100.00	35.00	0.00	No
S	S	•	Left	12.00	٢	200.00			
	77		Right	12.00	0	100.00			
S Main St	Northbound	- -	Thru	12.00	0	100.00	35.00	0.00	No
0)	ž	Ť	Left	12.00	-	200.00			
Name	Approach	Lane Configuration	Turning Movement	Lane Width [ft]	No. of Lanes in Pocket	Pocket Length [ft]	Speed [mph]	Grade [%]	Crosswalk

Volumes

Name		S Main St		0,	S Main St			Hazel St			Driveway	
Base Volume Input [veh/h]	19	868	-	e	733	14	25	0	28	0	0	4
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	15	0	0	0	26	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	883	-	e	733	40	25	0	28	0	0	4
Peak Hour Factor	0.9700	0.9700 0.9700	0.9700 0.9700 0.9700 0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700 0.9700 0.9700	0.9700	0.9700
Other Adjustment Factor	1.0000	1.0000 1.0000	1.0000 1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000 1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	228	0	-	189	10	9	0	7	0	0	-
Total Analysis Volume [veh/h]	20	910	-	з	756	41	26	0	29	0	0	4
Pedestrian Volume [ped/h]		0			0			4			7	

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Intersection Settings

Priority Scheme	Free	Free		Stop		Stop	
Flared Lane				No		٩	
Storage Area [veh]	0	0		0		0	
Two-Stage Gap Acceptance				Yes		Yes	
Number of Storage Spaces in Median	0	0		5		2	
Movement, Approach, & Intersection Results							
		 	000	000	 0000	000	

	Intersection
	۰ð
	Approach,
	Movement,

V/C, Movement V/C Ratio	0.02	0.01	0.00	0.00	0.01	0.00	0.08	00:0	0.05	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	9.53	0.00	0.00	96.6	0.00	0.00	16.92	18.36	12.24	18.88	17.40	11.75
Movement LOS	۷	A	A	A	A	٨	С	0	В	0	0	в
95th-Percentile Queue Length [veh/In]	0.08	0.00	0.00	0.01	0.00	0.00	0.43	0.43	0.43	0.02	0.02	0.02
95th-Percentile Queue Length [ft/In]	1.89	0.00	0.00	0.31	0.00	0.00	10.74	10.74	10.74	0.56	0.56	0.56
d_A, Approach Delay [s/veh]		0.20			0.04			14.45			11.75	
Approach LOS		A			A			в			в	
d_I, Intersection Delay [s/veh]						0	0.59					
Intersection LOS												

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Control Type:	All-way stol
Analysis Method:	HCM 6th Edit
Analysis Period:	15 minutes

Intersection Level Of Service Report Intersection 3: Holly St/Locust St op lition ss

Intersection Setup

Driveway	Eastbound	+	Right Right	12.00 12.00	0	100.00 100.00	25.00	00.00	/ac
Driv	East	.1	Thru	12.00	0	100.00	26	0	ſ
			Left	12.00	0	100.00			
			Right	12.00	0	100.00			
Locust St	Southbound	+	Right	12.00	0	100.00	25.00	0.00	Yes
Loci	South	Ŧ	Thru	12.00	0	100.00	26	0	
			Left	12.00	0	100.00			
			Right	12.00	0	100.00			
Locust St	Northbound	÷	Thru	12.00	0	100.00	25.00	0.00	Yes
Loci	North	Ŧ	Left	12.00	0	100.00	25	0	>
			Left2	12.00	0	100.00			
Name	Approach	Lane Configuration	Turning Movement	Lane Width [ft]	No. of Lanes in Pocket	Pocket Length [ft]	Speed [mph]	Grade [%]	Crosswalk

way	0	1.0000 1.0000	2.00 2.00	1.0000 1.0000	0	0	0	0	0	0	1	1.0000 0.9100	1.0000 1.0000	0	•	
Driveway	5	1.0000	2.00	1.0000	0	0	0	0	0	0	2	0.9100	1.0000	٢	2	0
	0	1.0000	2.00	1.0000	0	0	0	0	0	0	0	0.9100 0.9100	1.0000 1.0000 1.0000	0	0	
	-	1.0000 1.0000	2.00	1.0000	0	0	0	0	0	0	-	0.9100	1.0000	0	-	
Locust St	0	1.0000	2.00	1.0000	0	0	0	0	0	0	0	1.0000	1.0000	0	0	
Locu	31	1.0000	2.00	1.0000	0	2	0	0	0	0	36	0.9100	1.0000	10	40	-
	1	1.0000	2.00	1.0000	0	29	0	0	0	0	40	0.9100	1.0000 1.0000 1.0000 1.0000 1.0000	1	44	
	87	.0000 1.0000 1.0000 1.0000 1.0000	2.00	1.0000	0	0	0	0	0	0	87	0.9100 0.9100 0.9100 0.9100	1.0000	24	96	
Locust St	11	1.0000	2.00	1.0000	0	6	0	0	0	0	20	0.9100	1.0000	5	22	0
Locu	-	1.0000	2.00	1.0000	0	0	0	0	0	0	-	0.9100	1.0000	0	-	
	2	1.0000	2.00	1.0000	0	0	0	0	0	0	2	0.9100	1.0000	-	2	
Name	Base Volume Input [veh/h]	Base Volume Adjustment Factor	Heavy Vehicles Percentage [%]	Growth Factor	In-Process Volume [veh/h]	Site-Generated Trips [veh/h]	Diverted Trips [veh/h]	Pass-by Trips [veh/h]	Existing Site Adjustment Volume [veh/h]	Other Volume [veh/h]	Total Hourly Volume [veh/h]	Peak Hour Factor	Other Adjustment Factor	Total 15-Minute Volume [veh/h]	Total Analysis Volume [veh/h]	Pedestrian Volume [ped/h]

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Version 7.00-05

Intersection Settings

Lanes

8.1 A 0.195

Delay (sec / veh): Level Of Service: Volume to Capacity (v/c):

	805	0.01		0.02	0.56	7.50	A		
	793	0.11		0.36	8.97	8.09	A	8.07	А
	912	0.13		0.46	11.41	7.55	A		
Lanes	Capacity per Entry Lane [veh/h]	Degree of Utilization, x	Movement, Approach, & Intersection Results	95th-Percentile Queue Length [veh]	95th-Percentile Queue Length [ft]	Approach Delay [s/veh]	Approach LOS	Intersection Delay [s/veh]	Intersection LOS



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Intersection Setup

Name		Hol	Holly St			SF Dri	SF Driveway	
Approach		Westt	Westbound			Northea	Northeastbound	
Lane Configuration		Ŧ	.t.			Ĩ	~	
Turning Movement	Left2	Left	Thru	Right	Left2	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		25.	25.00			25	25.00	
Grade [%]		0.0	0.00			.0	0.00	
Crosswalk		¥	Yes			7	Yes	
Volumes								

Doco Volumo Inout Fuch (h)								
Victume Insuit fuch (h)		Holly St	y St			SF Dri	SF Driveway	
	106	+	7	8	0	0	٢	0
Base Volume Adjustment Factor 1	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor 1	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	23	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	106	+	7	31	0	0	٢	0
Peak Hour Factor 0	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor 1	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	29	0	2	6	0	0	0	0
Total Analysis Volume [veh/h]	116	1	8	34	0	0	٢	0
Pedestrian Volume [ped/h]								

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Lanes		
Capacity per Entry Lane [veh/h]	816	787
Degree of Utilization, x	0.19	0.00
Movement, Approach, & Intersection Results		
95th-Percentile Queue Length [veh]	0.72	0.00
95th-Percentile Queue Length [ft]	17.98	0.10
Approach Delay [s/veh]	8.47	7.58
Approach LOS	A	A
Intersection Delay [s/veh]	œ	8.07
Intersection LOS		A

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PTV	
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Name		S Main St	_	0,	S Main St	_		Holly St			Driveway	
Approach	Ž	Northbound	q	Ň	Southbound	p	ш	Eastbound		\$	Westbound	p
Lane Configuration	·	÷		•	4			÷			÷	
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	-	0	0	-	0	0	0	0	0	0	0	0
Pocket Length [ft]	135.00	100.00	100.00	85.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		35.00			35.00			25.00			25.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present		Yes			Yes			Yes			Yes	
Crosswalk		Yes			Yes			Yes			Yes	
Volumes												
Name		S Main St			S Main St			Holly St			Driveway	
Base Volume Input [veh/h]	98	771	4	26	667	36	71	2	66	16	-	29
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	23	0	0	0	0	0	15	0	14	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	2	0	0	36	0	0	17
Total Hourly Volume [veh/h]	121	771	4	26	667	31	86	2	77	16	-	12
Peak Hour Factor	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	32	201	-	7	174	∞	22	-	20	4	0	m
Total Analysis Volume [veh/h]	126	803	4	27	695	32	90	2	80	17	1	13
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	9	-			e			2			-	
v_di, Inbound Pedestrian Volume crossing major street]	2			-			-			з	
v_co, Outbound Pedestrian Volume crossing minor stree	e	2			4			-			-	
v_ci, Inbound Pedestrian Volume crossing minor street	_	-			-			4			2	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Discrete Medican References Ref.												

TIS for the School Property Rezoning PM Existing plus Project Conditions



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TIS for the School Property Rezoning PM Existing plus Project Conditions

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11.9 B 0.377

Delay (sec / veh): Level Of Service: Volume to Capacity (v/c):

Signalized HCM 6th Edition 15 minutes

Control Type: Analysis Method: Analysis Period:

Intersection Level Of Service Report Intersection 4: S Main St/Holly St

Located In CBD Signal Coordination Group Cycle Length [s] Cycle Length [s] Cycle Length [s] Corordination Type Actuation Type Offset [s] Offset [s] Permissive Mode						z	No					
Signal Coordination Group Cycle Length [s] Cycle Length [s] Coordination Type Actuation Type Offset Reference Premissive Mode												
Cycle Length [s] Coordination Type Actuation Type Offset [s] Offset Reference Permissive Mode												
Coordination Type Actuation Type Offset [3] Offset [3] Permissive Mode						2	20					
Actuation Type Offset [3] Offset Reference Permissive Mode					Time	Time of Day Pattern Isolated	attern Is	olated				
Offset [s] Offset Reference Permissive Mode						Fully a	Fully actuated					
Offiset Reference Permissive Mode						0	0.0					
Permissive Mode						Lead	LeadGreen					
						Single	SingleBand					
Lost time [s]						0.0	0.00					
Phasing & Timing												
Control Type Pro	tect Pe	rmis F	Protect Permis Permis Protect Permis	Protect	Permis	Permis	Permis Permis	Permis	Permis Permis	Permis	Permis	Permis
Signal Group	-	9	0	5	2	0	0	∞	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead			Lead								
Minimum Green [s]	5	2	0	5	5	0	0	5	0	0	2	0
Maximum Green [s] 3	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s] 3	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	22	33	0	6	20	0	0	28	0	0	28	0
Vehicle Extension [s] 3	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	2	0	0	2	0	0	2	0	0	2	0
Pedestrian Clearance [s]	0	19	0	0	11	0	0	19	0	0	19	0
Rest In Walk	-	٩			Ŷ			Ŷ			Ŷ	
11, Start-Up Lost Time [s] 2	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
12, Clearance Lost Time [s]	2.0 2	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	N N	٥N		N	Ŷ			Ŷ			٥N	
Maximum Recall	No No	٩		٩	Ŷ			٩			٩	
Pedestrian Recall	N N	No		Ŷ	Ŷ			Ŷ			Ŷ	
Detector Location [ft] 0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft] 0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor 1.	1.00 1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

I, Upstream Filtering Factor	1.00	1.00	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Exclusive Pedestrian Phase												
Pedestrian Signal Group												
Pedestrian Walk [s]						0						
Pedestrian Clearance [s]						0						



Lane Group L C C. Cycle Length [s] 70 70 L. Total Lost Time per Cycle [s] 4.00 4.00 [1_p, Permitted Start-Up Lost Time [s] 0.00 0.00 [1_p, Permitted Start-Up Lost Time [s] 0.00 0.00 [2_clearance Lost Time [s] 6 46 [0_v/s]_L Volume [s] 6 0.09 0.66 [v/s]_L Volume Saturation Flow Rate 0.07 0.20 0.20 [v/s]_J Volume Saturation Flow Rate 0.07 0.25 0.44 [v/s]_J Volume Saturation Flow Rate 0.07 187 187 [v/s]_J Volume Saturation Flow Rate 0.07 173 187 [v/s]_J Volume Saturation Flow Rate 0.07 13106 5.21 [v] Unform Delay [s] 3106 5.21 147 123 [v] Unform Delay [s] 3106 5.07 0.01 0.01 100 [v] Upstream Fittering Factor 1.01 1.00 1.00 1.00 1.00 [v] Upstream Fittering Lactor 1.00 0.00 0.00 </th

C 70 70 2.000 2.000 10 10 10 2.000 2.000 2.038 2.038 2.038 2.038 2.000 0.11 1.000 1.100 1.100

X, volume / capacity	0.77	0.33	0.33	0.50	0.33	0.33	0.58	0.11
d, Delay for Lane Group [s/veh]	38.32	5.92	5.92	40.61	7.88	7.91	30.65	26.54
Lane Group LOS	٥	A	A	۵	×	A	o	υ
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/In]	2.30	2.05	2.05	0.54	2.39	2.36	2.86	0.46
50th-Percentile Queue Length [ft/ln]	57.62	51.21	51.21 51.13	13.46	59.78	59.07	71.43	11.44
95th-Percentile Queue Length [veh/In]	4.15	3.69	3.68	0.97	4.30	4.25	5.14	0.82
95th-Percentile Queue Length [ft/In]	103.72	92.17	92.04	24.24	103.72 92.17 92.04 24.24 107.60 106.32	106.32	128.58	20.59

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Movement, Approach, & Intersection Results

_	_	_		_	_	_		_	_	_	_	_	_	_	_	_	_	_
26.54	ပ																	
26.54	U	26.54	U					9.0	0.00	3680.93	26.58	1.761	٨	2000	686	15.11	1.639	۷
26.54	c																	
30.65	с																	
30.65	υ	30.65	с					9.0	0.00	1854.21	26.58	1.906	A	2000	686	15.11	1.903	A
30.65	c			92		11												
7.91	A			11.92	В	0.377												
7.89	A	9.07	٨					9.0	0.00	2405.93	26.58	2.806	υ	2000	457	20.84	2.186	8
40.61	۵																	
5.92	A																	
5.92	A	10.29	в					9.0	0.00	3237.09	26.58	2.714	ш	2000	829	12.01	2.329	ш
38.32	۵													Ē				
d_M, Delay for Movement [s/veh]	Movement LOS	d_A, Approach Delay [s/veh]	Approach LOS	d_I, Intersection Delay [s/veh]	Intersection LOS	Intersection V/C	Other Modes	g_Walk,mi, Effective Walk Time [s]	M_corner, Corner Circulation Area [ft%/ped]	M_CW, Crosswalk Circulation Area [ft²/ped]	d_p, Pedestrian Delay [s]	I_p,int, Pedestrian LOS Score for Intersection	Crosswalk LOS	s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	c_b, Capacity of the bicycle lane [bicycles/h]	d_b, Bicycle Delay [s]	I_b,int, Bicycle LOS Score for Intersection	Bicycle LOS

Sequence

•		•	,	2			1			2
•										i
•										
•										
•										
•			ī			4s			4s	
	•				SG: 4 28s	SG: 104 24s		SG: 8 28s	SG: 108 24s	
•	•			2		 <u>8</u>			 š	Į
•										
•	•									
•						S				
			,		SG: 2 20s	SG: 102 16s				
4	œ	•			SG	SG				
•	•	•	,							
2	9	•	,					SG: 6 33≡	SG: 106 24s	
-	5	•	•					S	SG:	
Ring 1	Ring 2	Ring 3	Ring 4		SG: 1 22s			SG: 5 9=		

TIS for the School Property Rezoning PM Existing plus Project Conditions

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TIS for the School Property Rezoning PM Existing plus Project Conditions

W-Trans

W-Trans 4/9/2020

Control Type:	Two
Analysis Method:	HCM
Analysis Period:	15

Intersection Level Of Service Report Intersection 1: SR 20/Blosser Ln wo-way stop M 6th Edition 15 minutes

35.4 E 0.232

Delay (sec / veh): Level Of Service: Volume to Capacity (v/c):

Intersection Setup

SR 20 SR 20	Eastbound Westbound	·	ht Left Thru Right Left Thru Right	00 12.00 12.00 12.00 12.00 12.00 12.00	1 0 1 0	00 78.00 100.00 100.00 96.00 100.00 100.00	35.00 35.00	0.00	No Yes
Blosser Ln	Southbound	÷	Left Thru Right	12.00 12.00 12.00	0 0	100.00 100.00 100.00	25.00	0.00	No
Blosser Ln	Northbound	÷	Left Thru Right	12.00 12.00 12.00	0	100.00 100.00 100.00	25.00	00.0	No
Name	Approach	Lane Configuration	Turning Movement	Lane Width [ft]	No. of Lanes in Pocket	Pocket Length [ft]	Speed [mph]	Grade [%]	Crosswalk

Volumes												
Name	8	Blosser Ln	_		Blosser Ln	~		SR 20			SR 20	
Base Volume Input [veh/h]	11	87	87	32	70	7	9	82	12	109	95	25
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0500	1.0500	1.0500	1.0500	1.0500	1.0500	1.0500	1.0500	1.0500	1.0500	1.0500	1.0500
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	6	0	0	0	0	0	0	0	з	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	21	91	91	न्न	74	7	9	86	16	114	100	26
Peak Hour Factor	0.7400	0.7400 0.7400	0.7400	0.7400	0.7400	0.7400	0.7400	0.7400	0.7400	0.7400 0.7400 0.7400 0.7400 0.7400 0.7400 0.7400 0.7400 0.7400	0.7400	0.7400
Other Adjustment Factor	1.0000	1.0000 1.0000	1.0000		1.0000	1.0000 1.0000 1.0000	1.0000	1.0000	1.0000	1.0000 1.0000 1.0000 1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	31	31	1	25	2	2	29	5	39	स्र	6
Total Analysis Volume [veh/h]	28	123	123	46	100	6	8	116	22	154	135	35
Pedestrian Volume [ped/h]		0			0			0			e	

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Version 7.00-05

Free Free Stop ° ₽ No ON Priority Scheme Flared Lane Storage Area (veh) Two-Stage Gap Acceptance Number of Storage Spaces in Median Intersection Settings

Movement, Approach, & Intersection Results

d_M. Delay for Movement [s/veh] Z7.7t Z4.50 18.47 36.42 Z7.24 Z1.31 7.57 0.00 7.79 0.00 Movement LOS D C C C E D C A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A	V/C, Movement V/C Ratio	0.10	0.34	0.13	0.23	0.28	0.01	0.01	0.00	0.00	0.11	0.00	0.00
D C C E D C A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A	or Movement [s/veh]	27.71	24.50	18.47	35.42	27.24	21.31	7.57	0.00	0.00	7.79	0.00	0.00
3.53 3.53 3.53 2.80 2.80 2.80 0.02 0.00 0.00 0.36 88.27 88.27 88.27 69.92 69.92 0.43 0.00 0.00 8.92 22.12 23.32 29.32 1.33 0.01 0.00 8.92 21.12 22.13 23.32 1.33 0.01 1.00 9.92 12.13 23.13 1.33 0.01 1.01 1.01 1.01 12.13 3.33 1.33 1.33 1.33 1.34 1.34	/ement LOS	۵	ပ	U	ш	۵	U	٨	A	A	A	٨	٨
88.27 88.27 88.27 88.27 89.82 89.92 0.04 0.00 8.92 1 21.12 29.32 0.41 0.00 1.00 8.92 2 12.12 29.32 0.41 0.41 0.41 1.01 1 2 1 1 1 1.1 1.1 1.1	e Queue Length [veh/In]	3.53	3.53	3.53	2.80	2.80	2.80	0.02	0.00	0.00	0.36	0.00	0.00
22.12 29.32 0.41 C D A 1 1 13.20 E E 1 1	ile Queue Length [ft/In]	88.27	88.27	88.27	69.92	69.92	69.92	0.43	0.00	0.00	8.92	0.00	0.00
C D A 13.20 A 13.20 F	oach Delay [s/veh]		22.12			29.32			0.41			3.70	
	proach LOS		U			٥			A			۲	
	ection Delay [s/veh]						13	20					
	rsection LOS												

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Control Type:	ŕ
Analysis Method:	오
Analysis Period:	

Intersection Level Of Service Report Intersection 2: S Main St/Hazel St Fwo-way stop CM 6th Edition 15 minutes

Delay (sec / veh): Level Of Service: Volume to Capacity (v/c):

29.8 D 0.326

Intersection Setup

Name	S	S Main St	_		S Main St	_		Hazel St			Driveway	
Approach	Ň	Northbound	Ð	ŏ	Southbound	Ð	ш	Eastbound	5	5	Westbound	5
Lane Configuration	•	1 -			÷			÷			÷	
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	-	0	0	-	0	0	0	0	0	0	0	0
Pocket Length [ft]	200.00	100.00	100.00	200.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		35.00			35.00			25.00			25.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		٩			No			Yes			Yes	

0.8700 0.8700 1.3000 1.3000 1.0000 1.0000 Driveway 2.00 0 0 0 0 0 0 0 0 0 0 200 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 1.000 1.300 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000</ 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.8700 0.8700 0.8700 . 0 0 0 0 c 1.0000 1.0000 34 44 13 51 0 0 c 0 0 0 Hazel St 50 0 0 0 0 0 0 0 0 0 0 0.8700 1.0000 1.0000 0 0 0 65 19 75 c 0 0 0.8700 2 681 40 59 68 17 0 0 0 0 0 S Main St 1017 0.8700 0.8700 1.0000 1.0000 885 254 0 0 0 0 0 0 0 0 0 e 0 0 0 e 0.8700 1.0000 0 0 0 c 0 0 0 0 0 0 49 602 S Main St 809 0.8700 0.8700 1.0000 1.0000 930 232 26 0 0 0 0 0 74 18 000 0 0 0 6 Existing Site Adjustment Volume [veh/h] Other Volume [veh/h] Base Volume Adjustment Factor Total 15-Minute Volume [veh/h] Heavy Vehicles Percentage [%] Total Analysis Volume [veh/h] In-Process Volume [veh/h] Site-Generated Trips [veh/h] Base Volume Input [veh/h] Total Hourly Volume [veh/h] Other Adjustment Factor Pass-by Trips [veh/h] Diverted Trips [veh/h] Peak Hour Factor Growth Factor Name Volumes

2.00

0 0 c 0 0 0

0

Pedestrian Volume [ped/h]

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Intersection Settings Version 7.00-05

Stop No _ Kes ß Stop No , Yes ഹ Free Free Flared Lane Storage Area (veh) Two-Stage Gap Acceptance Number of Storage Spaces in Median sults Priority Scheme

Re
Intersection
ంర
ht, Approach,
Movemer

V/C, Movement V/C Ratio	0.12	0.01	0.00	0.00	0.01	0.00	0.33	0.00	0.11	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	11.43	0.00	0.00	96.6	0.00	0.00	29.78	29.83	21.62	23.08	23.68	11.73
Movement LOS	ю	A	\forall	A	A	٨	۵		U	С	0	8
95th-Percentile Queue Length [veh/In]	0.39	0.00	0.00	0.01	0.00	0.00	2.08	2.08	2.08	0.02	0.02	0.02
95th-Percentile Queue Length [ft/In]	9.85	0.00	0.00	0.31	0.00	0.00	52.00	52.00	52.00	0.52	0.52	0.52
d_A, Approach Delay [s/veh]		0.84			0.03			26.48			17.41	
Approach LOS		۲			۲			٥			U	
d_I, Intersection Delay [s/veh]						÷.	.91					
Intersection LOS												

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Control Type:	All-way stop
Analysis Method:	HCM 6th Edition
Analysis Period:	15 minutes

Intersection Level Of Service Report Intersection 3: Holly St/Locust St ~

Intersection Setup

Driveway	Eastbound Eastbound	÷	Right Right Left Thru Right Right	12.00 12.00 12.00 12.00 12.00 12.00	0 0 0	00.00 100.00 100.00 100.00 100.00 100.00	25.00	00.0	Yes
Locust St	s 12 1		00.00 100.00	25.00	00.00	Yes			
			Right	12.00 1	0	100.00			
Locust St	Northbound	÷	Thru	12.00	0	100.00	25.00	0.00	Yes
Loci	North	Ţ.	Left	12.00	0	100.00	26	0	7
			Left2	12.00	0	100.00			
Name	Approach	Lane Configuration	Turning Movement	Lane Width [ft]	No. of Lanes in Pocket	Pocket Length [ft]	Speed [mph]	Grade [%]	Crosswalk

1

		0		0								0	0			
	2	1.0000	2.00	1.3000	0	0	0	0	0	0	e	0.7100	1.0000	-	4	
Driveway	0	1.0000	2.00	1.0000	0	0	0	0	0	0	0	1.0000	1.0000	0	0	16
Drive	5	1.0000	2.00	1.3000	0	0	0	0	0	0	7	0.7100	1.0000	2	10	1
	2	1.0000	2.00	1.3000	0	0	0	0	0	0	з	0.7100	1.0000	-	4	
	۲	1.0000	2.00	1.3000	0	0	0	0	0	0	1	0.7100 0.7100	1.0000	0	1	
st St	0	1.0000	2.00	1.0000	0	0	0	0	0	0	0	1.0000	1.0000	0	0	_
Locust St	46	1.0000	2.00	1.3000	0	6	0	0	0	0	69	0.7100	1.0000	24	97	11
	26	1.0000	2.00	1.3000	0	50	0	0	0	0	84	0.7100	1.0000	30	118	
	84	1.0000	2.00	1.3000	0	0	0	0	0	0	109	0.7100	1.0000	38	154	
stSt	28	1.0000	2.00	1.3000	0	e	0	0	0	0	39	0.7100	1.0000	14	55	
Locust St	-	1.0000	2.00	1.3000	0	0	0	0	0	0	-	0.7100	1.0000	0	-	9
	0	1.0000	2.00	1.3000	0	0	0	0	0	0	0	1.0000	1.0000	0	0	
Name	Base Volume Input [veh/h]	Base Volume Adjustment Factor	Heavy Vehicles Percentage [%]	Growth Factor	In-Process Volume [veh/h]	Site-Generated Trips [veh/h]	Diverted Trips [veh/h]	Pass-by Trips [veh/h]	Existing Site Adjustment Volume [veh/h]	Other Volume [veh/h]	Total Hourly Volume [veh/h]	Peak Hour Factor	Other Adjustment Factor	Total 15-Minute Volume [veh/h]	Total Analysis Volume [veh/h]	Pedestrian Volume [ped/h]

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Intersection Settings

Lanes

9.8 A 0.316

Delay (sec / veh): Level Of Service: Volume to Capacity (v/c):

813 Capacity per Entry Lane [veh/h]

Capacity per Entry Lane [veh/h]	813	728	691
Degree of Utilization, x	0.26	0.30	0.03
Movement, Approach, & Intersection Results			
95th-Percentile Queue Length [veh]	1.03	1.24	0.08
95th-Percentile Queue Length [ft]	25.75	31.01	2.01
Approach Delay [s/veh]	8.96	10.01	8.35
Approach LOS	A	в	A
Intersection Delay [s/veh]		9.77	
Intersection LOS		A	

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Intersection Setup

Name		Hol	Holly St			SF Dri	SF Driveway	
Approach		Westbound	puno			Northea	Northeastbound	
Lane Configuration		╈	.t			~	~	
Turning Movement	Left2	Left	Thru	Right	Left2	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		25.	25.00			25.	25.00	
Grade [%]		0.0	0.00			0.0	0.00	
Crosswalk		¥	Yes			¥	Yes	
Volumes								

Volumes								
Name		Hol	Holly St			SF Dri	SF Driveway	
Base Volume Input [veh/h]	107	0	4	5	0	0	0	-
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	7	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	139	0	5	14	0	0	0	-
Peak Hour Factor	0.7100	1.0000	0.7100	0.7100	0.7100	0.7100	0.7100	0.7100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	49	0	2	5	0	0	0	0
Total Analysis Volume [veh/h]	196	0	7	20	0	0	0	٢
Pedestrian Volume [ped/h]		-				0		

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Lanes		
Capacity per Entry Lane [veh/h]	202	764
Degree of Utilization, x	0.32	0.00
Movement, Approach, & Intersection Results		
95th-Percentile Queue Length [veh]	1.35	0.00
95th-Percentile Queue Length [ft]	33.82	0.10
Approach Delay [s/veh]	10.42	7.72
Approach LOS	в	A
Intersection Delay [s/veh]	6	5.72
Intersection LOS		A

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Name		S Main St		0)	S Main St			Holly St			Driveway	
Approach	z	Northbound	p	, М	Southbound	P		Eastbound		>	Westbound	P
Lane Configuration		1 - -		Ť	- - -			÷			÷	
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	-	0	0	-	0	0	0	0	0	0	0	0
Pocket Length [ft]	135.00	100.00	100.00	85.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		35.00			35.00			25.00			25.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present		Yes			Yes			Yes			Yes	
Crosswalk		Yes			Yes			Yes			Yes	
Volumes												
Name		S Main St		0	S Main St			Holly St			Driveway	
Base Volume Input [veh/h]	106	530	2	6	652	28	66	2	119	7	•	15
Base Volume Adjustment Factor	1.0000	1.0000 1.0000	1.0000	1.0000 1.0000 1.0000	1.0000	1.0000	1.0000	1.0000	1.0000 1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	2	0	0	0	0	0	26	0	24	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	2	0	0	51	0	0	10
Total Hourly Volume [veh/h]	145	689	e	12	848	34	155	e	128	e	0	10
Peak Hour Factor	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800		0.8800 0.8800	0.8800	0.8800	0.8800
Other Adjustment Factor	1.0000	1.0000	1.0000 1.0000 1.0000	1.0000 1.0000 1.0000	1.0000	1.0000	1.0000	1.0000	1.0000 1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	41	196	-	e	241	10	44	-	36	-	0	m
Total Analysis Volume [veh/h]	165	783	3	14	964	39	176	3	145	3	0	11
Presence of On-Street Parking	Ŷ		٩	٩		°N N	Ñ		Ŷ	Ŷ		Ŷ
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
		,	,									

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Pedestrian Clearance [s]

0

0

0

0

Local Bus Stopping Rate [/h]

0

e 0 0

v_do. Outbound Pedestrian Volume crossing major street v_di. hnoound Pedestrian Volume crossing major street v_di. hnoound Pedestrian Volume crossing minor street v_di. hnoound Pedestrian Volume crossing minor street v_di. hnoound Pedestrian Volume drossing minor street v_ab. corner Pedestrian Volume (ped/h) Bicycle Volume (picycles/h)

0

c с с 0

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Version 7.00-05

17.3 B 0.577

Delay (sec / veh): Level Of Service: Volume to Capacity (v/c):

Signalized HCM 6th Edition 15 minutes

Control Type: Analysis Method: Analysis Period:

Intersection Level Of Service Report Intersection 4: S Main St/Holly St

Intersection Settings Located in CBD						Z	°Z					
Signal Coordination Group												
Cvcle Lendth [s]							20					
Coordination Type					Time	Time of Day Pattern Isolated	attern Iso	olated				
Actuation Type						Fully a	Fully actuated					
Offset [s]						0	0.0					
Offset Reference						Lead	LeadGreen					
Permissive Mode						Single	SingleBand					
Lost time [s]						0	0.00					
Phasing & Timing												
Control Type	Protect	Protect Permis	Permis	Permis Protect	Permis	Permis	Permis	Permis Permis Permis	Permis	Permis	Permis	Permis
Signal Group	-	9	0	5	2	0	0	80	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead			Lead								
Minimum Green [s]	5	5	0	2	5	0	0	2	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	22	33	0	6	20	0	0	28	0	0	28	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	2	0	0	5	0
Pedestrian Clearance [s]	0	19	0	0	11	0	0	19	0	0	19	0
Rest In Walk		No			No			No			No	
11, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
12, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	N	No		٩	No			N			No	
Maximum Recall	No	No		No	No			٩			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Exclusive Pedestrian Phase												
Pedestrian Signal Group							0					
Pedestrian Walk [s]							0					

Lane Group Calculations

Lane Group	_	υ	U	_	υ	υ	υ	U
C, Cycle Length [s]	20	70	70	02	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
11_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00
12, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	80	40	40	-	33	33	17	17
g / C, Green / Cycle	0.12	0.57	0.57	0.02	0.47	0.47	0.24	0.24
(v / s)_i Volume / Saturation Flow Rate	0.09	0.21	0.21	0.01	0.27	0.27	0.21	0.01
s, saturation flow rate [veh/h]	1781	1870	1867	1781	1870	1840	1518	1636
c, Capacity [veh/h]	211	1056	1054	æ	869	855	452	464
d1, Uniform Delay [s]	30.03	8.42	8.42	34.03	13.75	13.77	25.16	20.13
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.22	1.01	1.01	8.12	2.83	2.89	2.15	0.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Group Results								

X, volume / capacity	0.78	0.37	0.37	0.42	0.58	0.58	0.72	0.03
d, Delay for Lane Group [s/veh]	36.25	9.43	9.43	42.14	16.58	16.65	27.31	20.16
Lane Group LOS	۵	A	A	۵	ю	œ	v	υ
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	2.92	2.95	2.95	0.30	5.71	5.65	5.22	0.17
50th-Percentile Queue Length [ft/In]	73.03	73.72	73.63	7.53	142.80 141.30	141.30	130.40	4.34
95th-Percentile Queue Length [veh/ln]	5.26	5.31	5.30	0.54	9.63	9.55	8.96	0.31
95th-Percentile Queue Length [ft/In]	131.45	131.45 132.69 132.53 13.56 240.79 238.77	132.53	13.56	240.79	238.77	224.04	7.81

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Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	36.25	9.43	9.43	42.14	16.62	16.65	27.31	27.31	27.31	16.65 27.31 27.31 27.31 20.16 20.16 20.16	20.16	20.16
Movement LOS	۵	A	A	۵	в	в	С	U	U	υ	υ	U
d_A, Approach Delay [s/veh]		14.08			16.97			27.31			20.16	
Approach LOS		œ			œ			U			U	
d_I, Intersection Delay [s/veh]						17.	17.25					
Intersection LOS							8					
Intersection V/C						0.577	11					
Other Modes												
g_Walk,mi, Effective Walk Time [s]		9.0			9.0			9.0			9.0	
M_corner, Corner Circulation Area [ft²/ped]		0.00			0.00			0.00			0.00	
M CW, Crosswalk Circulation Area [ft2/ped]		2244.89			2806.80			1822.85			2762.95	

s_b, Staturation Flow Rate of the bicycle lane [bicycles/h] c_b, Capacity of the bicycle lane [bicycles/h] d_b, Bicycle Delay [s] ____b, Hicycle LOS Score for Intersection Bicycle LOS

26.58 1.736 A 2000 686 686 1.599

26.58 2.012 B B 686 686 686 22000 22000 B B

26.58 2.997 2.997 C C C 2.000 457 457 20.84 2.400 B

26.58 2.774 C C 2000 829 829 829 12.01 2.344 B

d_p, Pedestrian Delay [s] I_p,int, Pedestrian LOS Score for Intersection Crosswalk LOS

∢

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Sequence													
Ring 1	-	2		4	,	,							,
Ring 2	5	9	•	œ	•	,							,
Ring 3		,		•		,	,			,			,
Ring 4		•		•	•	•					•		
SG: 1 22s				S	SG: 2 20s			S	SG: 4 285				
				SG	SG: 102 16s	55			SG: 104 245	4s			
SG: 5 95	SG	SG: 8 33₅						sc	SG: 8 28s				
	SG	SG: 106 24s	10						SG: 108 24s	4s			

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Control Type:	Inalysis Method:	Analysis Period:
Contro	Analysis	Analysi

Intersection Level Of Service Report Intersection 1: SR 20/Blosser Ln Two-way stop HCM 6th Edition 15 minutes

Delay (sec / veh): Level Of Service: Volume to Capacity (v/c):

15.8 C 0.080

Intersection Setup

Name	-	Blosser Ln	_	-	Blosser Ln			SR 20			SR 20	
Approach	ž	Northbound	p	Ň	Southbound	p	ш	Eastbound		5	Westbound	
Lane Configuration		÷			÷			- - -			÷	
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	-	0	-	-	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	78.00	100.00	100.00	96.00	100.00	100.00
Speed [mph]		25.00			25.00			35.00			35.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		°N			°N			No			Yes	

Volumes												
Name	-	Blosser Ln	_	6	Blosser Ln	_		SR 20			SR 20	
Base Volume Input [veh/h]	10	33	83	26	17	12	12	116	6	47	130	38
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0500	1.0500	1.0500	1.0500	1.0500	1.0500	1.0500	1.0500	1.0500	1.0500	1.0500	1.0500
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	5	0	0	0	0	0	0	0	6	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	35	87	27	18	13	13	122	18	49	137	40
Peak Hour Factor	0.9100	0.9100	0.9100 0.9100 0.9100 0.9100 0.9100 0.9100	0.9100	0.9100	0.9100	0.9100	0.9100 0.9100 0.9100 0.9100 0.9100 0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000 1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	10	24	7	2	4	4	34	5	13	88	1
Total Analysis Volume [veh/h]	18	38	96	30	20	14	14	134	20	54	151	44
Pedestrian Volume [ped/h]		0			0			0			2	

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Stop Stop Priority Scheme Intersection Settings

Free

Free

Flared Lane		No			No							
Storage Area [veh]		0			0			0			0	
Two-Stage Gap Acceptance		No			No							
Number of Storage Spaces in Median		0			0			0			0	
Movement, Approach, & Intersection Results												
V/C, Movement V/C Ratio	0.04	0.08	0.11	0.08	0.04	0.04 0.08 0.11 0.08 0.04 0.02 0.01 0.00 0.00 0.04 0.00	0.01	0.00	0.00	0.04	0.00	0.00
d M. Delay for Movement [s/veh]	14.20	14.17	10.48	15.82	13.86	14.20 14.17 10.48 15.82 13.86 10.38 7.64 0.00 0.00 7.62 0.00	7.64	0.00	0.00	7.62	0.00	0.00

Intersection
۰ð
Approach,
Movement,

	×			<	5.08 C	22.0	2			2		Approach LUS d_l, Intersection Delay [s/veh] Intersection LOS
1.65 A				0.64 A			14.02 B			11.85 B		
	0.00 0.00	2.95	0.00	0.00	0.77	11.92	11.92	11.92	21.42 21.42 21.42 11.92 11.92 11.92	21.42	21.42	
0.00	0.00	0.12	0.00	0.00	0.03	0.48	0.48	0.48	0.86	0.86	0.86	-
۷	A	A	A	A	A	в	в	с	в	в	в	
0.00	0.00	7.62	0.00	0.00	7.64	10.38	13.86	15.82	14.20 14.17 10.48 15.82	14.17	20	14
0.00	0.00	0.04	0.00	0.00	0.01	0.02	0.04	0.08	0.11	0.08		0.04

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TIS for the School Property Rezoning PM Future plus Project Conditions



VISTRO	
PTV	
Generated with	Version 7.00-05

Control Type:	Two
Analysis Method:	HCN
Analysis Period:	1

Intersection Level Of Service Report Intersection 2: S Main St/Hazel St vo-way stop M 6th Edition 5 minutes

Delay (sec / veh): Level Of Service: Volume to Capacity (v/c):

22.7 C 0.140

Intersection Setup

2					-						
Vestboun	÷	Thru	12.00	0	100.00	25.00	0.00	Yes			
5		Left	12.00	0	100.00						
_		Right	12.00	0	100.00						
astbound	÷	Thru	12.00	0	100.00	25.00	0.00	Yes			
ш		Left	12.00	0	100.00						
q		Right	12.00	0	100.00						
outhboun	4	Thru	12.00	0	100.00	35.00	0.00	No			
Š	•	Left	12.00	-	200.00						
p		p		Right	12.00	0	100.00				
orthboun	4	Thru	12.00	0	100.00	35.00	0.00	No			
ž	•	Left	12.00	-	200.00						
Approach	Lane Configuration	Turning Movement	Lane Width [ft]	No. of Lanes in Pocket	Pocket Length [ft]	Speed [mph]	Grade [%]	Crosswalk			
	Approach Northbound Southbound Eastbound Westbound	Northbound Southbound Eastbound 11 11 11	Northbound Southbound Eastbound 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1<	Northbound Southbound Eastbound Eastbound 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	$ \begin{array}{ $	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$			

Right 12.00 0

100.00

2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 1.000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000 1.3000</ 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.9700 0.9700 25 0 28 36 0 0 c 0 0 0 Hazel St 0 0 0 0 0 0 0 0.9700 1.0000 1.0000 0 0 0 33 c 0 0 0.9700 3 733 14 26 44 0 0 0 0 0 S Main St 953 0.9700 0.9700 1.0000 1.0000 0 0 0 0 0 0 0 0 0 4 0 0 0 0.9700 1.0000 ~ 0 0 c 0 0 0 S Main St 19 868 1143 0.9700 0.9700 1.0000 1.0000 15 0 0 0 0 0 0 0 0 0 0 25 Pass-tay Trips (ve/th) Existing Sile Adjustment Volume (ve/th) Other Volume (ve/th) Total Hourty Volume (ve/th) Heavy Vehicles Percentage [%] Base Volume Adjustment Factor In-Process Volume [veh/h] Site-Generated Trips [veh/h] Base Volume Input [veh/h] Other Adjustment Factor Diverted Trips [veh/h] Peak Hour Factor Growth Factor Name Volumes

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Total 15-Minute Volume [veh/h] Total Analysis Volume [veh/h]

Pedestrian Volume [ped/h]

0

0

0 0

0 0 0

VISTRO	
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Generated with	

Intersection Settings Version 7.00-05

Priority Scheme		Free			Free			Stop			Stop	
Flared Lane								No			٩	
Storage Area [veh]		0			0			0			0	
Two-Stage Gap Acceptance								Yes			Yes	
Number of Storage Spaces in Median		0			0			2			2	
Movement, Approach, & Intersection Results												
V/C. Movement V/C Ratio	0.04	0.04 0.01 0.00 0.01 0.01 0.01 0.00 0.14 0.00 0.07 0.00 0.00 0.01	0.00	0.01	0.01	0.00	0.14	0.00	0.07	0.00	0.00	0.01

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~8
Movement, Approach,

	-		0.00			0.00	5	200		0.0	200	-
d_M, Delay for Movement [s/veh]	10.62	0.00	0.00	11.29	0.00	0.00	22.73 24.74	24.74	15.11	25.94	22.19	13.29
Movement LOS	æ	٨	٨	æ	٨	A	ပ	0	с		0	۵
95th-Percentile Queue Length [veh/In]	0.12	0.00	0.00 0.00 0.02		0.00	0.00	0.80	0.80	0.80	0.03	0.03	0.03
95th-Percentile Queue Length [ft/ln]	3.04	3.04 0.00 0.00	0.00	0.52	0.00	0.00	19.90	19.90	19.90	0.86	0.86	0.86
d_A, Approach Delay [s/veh]		0.23			0.04			18.76			13.29	
Approach LOS		٨			۷			U			ш	
d_I, Intersection Delay [s/veh]						.0	0.74					
Intersection LOS							0					

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TIS for the School Property Rezoning PM Future plus Project Conditions



All-way stop	HCM 6th Edition	15 minutes	
Control Type:	Analysis Method:	Analysis Period:	

Intersection Level Of Service Report Intersection 3: Holly St/Locust St Delay (sec / veh): Level Of Service: Volume to Capacity (v/c):

8.5 A 0.251

Intersection Setup

Locust St Driveway	Southbound Eastbound	+	Right Left Thru Right Right Left Thru Right Right	12.00 12.00 12.00 12.00 12.00 12.00 12.00 12.00 12.00	0 0 0 0 0 0	100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00	25.00 25.00	0.00 0.00	Yes Yes
Locust St	Northbound	÷	Left2 Left Thru	12.00 12.00 12.00	0 0	00.00 100.00 100.00 1	25.00	0.00	Yes
Name	Approach	Lane Configuration	Turning Movement Le	Lane Width [ft] 12	No. of Lanes in Pocket	Pocket Length [ft] 100	Speed [mph]	Grade [%]	Crosswalk

	-	1.0000	2.00	.3000	0	。	。	。		0	-	0.9100	1.0000	0	-	
	0	.0000 1.0	2.00 2	.0000 1.3	0	0	0	0	0	0	0	0000	0000 1.0	0	0	
Driveway	_		<u> </u>			_	_		┝		_	~				0
	5	1.0000	2.00	1.3000	0	0	0	0	0	0	7	0.9100	1.0000	2	80	
	0	1.0000	2.00	1.3000	0	0	0	0	0	0	0	0.9100	1.0000	0	0	
	-	1.0000	2.00	1.3000	0	0	0	0	0	0	-	0.9100	1.0000	0	1	
st St	0	1.0000	2.00	1.0000	0	0	0	0	0	0	0	1.0000	1.0000	0	0	
Locust St	31	1.0000	2.00	1.3000	0	5	0	0	0	0	45	0.9100	1.0000	12	49	-
	7	1.0000	2.00	1.3000	0	29	0	0	0	0	43	0.9100	1.0000	12	47	
	87		2.00	1.3000	0	0	0	0	0	0	113	0.9100	1.0000	31	124	
stSt	£	1.0000	2.00	1.3000	0	6	0	0	0	0	23		1.0000	9	25	
Locust St	-	1.0000 1.0000 1.0000	2.00	1.3000	0	0	0	0	0	0	-	0.9100 0.9100 0.9100	1.0000	0	1	0
	2	1.0000	2.00	1.3000	0	0	0	0	0	0	e	0.9100	1.0000	٢	в	
Name	Base Volume Input [veh/h]	Base Volume Adjustment Factor	Heavy Vehicles Percentage [%]	Growth Factor	In-Process Volume [veh/h]	Site-Generated Trips [veh/h]	Diverted Trips [veh/h]	Pass-by Trips [veh/h]	Existing Site Adjustment Volume [veh/h]	Other Volume [veh/h]	Total Hourly Volume [veh/h]	Peak Hour Factor	Other Adjustment Factor	Total 15-Minute Volume [veh/h]	Total Analysis Volume [veh/h]	Pedestrian Volume [ped/h]
									L							

Generated with PTV VISTRO Version 7.00-05

Settings	
tersection	ines

Intersection Settings			
Lanes			
Capacity per Entry Lane [veh/h]	885	767	770
Degree of Utilization, x	0.17	0.13	0.01
Movement, Approach, & Intersection Results			
95th-Percentile Queue Length [veh]	0.62	0.43	0.04
95th-Percentile Queue Length [ft]	15.59	10.80	0.89
Approach Delay [s/veh]	7.92	8.37	7.73
Approach LOS	Α	۷	A
Intersection Delay [s/veh]		8.51	
Intersection LOS		۲	

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Intersection Setup

Name		IIOH	Holly St			SF Dri	SF Driveway	
Approach		Westbound	puno			Northea	Northeastbound	
Lane Configuration		÷	t				~	
Turning Movement	Left2	Left	Thru	Right	Left2	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		25.	25.00			25	25.00	
Grade [%]		00.00	0			.0	0.00	
Crosswalk		Ye	Yes			7	Yes	
Volumes								

Name Base Volume Input fveh/hl								
Volume Input [veh/h]		Holly St	/ St			SF Dri	SF Driveway	
	106	-	7	8	0	0	٢	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	23	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	138	-	6	33	0	0	-	0
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	38	0	2	6	0	0	0	0
Total Analysis Volume [veh/h]	152	1	10	36	0	0	ł	0
Pedestrian Volume [ped/h]		e e e e e e e e e e e e e e e e e e e						

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Lanes		
Capacity per Entry Lane [veh/h]	792	758
Degree of Utilization, x	0.25	0.00
Movement, Approach, & Intersection Results		
95th-Percentile Queue Length [veh]	0.99	0.00
95th-Percentile Queue Length [ft]	24.86	0.10
Approach Delay [s/veh]	9.07	7.75
Approach LOS	A	×
Intersection Delay [s/veh]	×.	8.51
Intersection LOS		A

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Generated with	Version 7.00-05

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Intersection Setup												
Name		S Main St		0)	S Main St			Holly St			Driveway	_
Approach	z	Northbound	p	Ň	Southbound	P	ш	Eastbound	-	\$	Westbound	P
Lane Configuration	•	÷			+ -			÷			÷	
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	٢	0	0	-	0	0	0	0	0	0	0	0
Pocket Length [ft]	135.00	100.00	100.00	85.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		35.00			35.00			25.00			25.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present		Yes			Yes			Yes			Yes	
Crosswalk		Yes			Yes			Yes			Yes	
Volumes												
Name		S Main St		0,	S Main St			Holly St			Driveway	
Base Volume Input [veh/h]	98	771	4	26	667	36	71	2	66	16	-	29
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000 1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	23	0	0	0	0	0	15	0	14	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	5	0	0	36	0	0	17
Total Hourly Volume [veh/h]	150	1002	5	स्र	867	42	107	з	107	21	-	21
Peak Hour Factor	0.9600	0.9600	0.9600 0.9600 0.9600 0.9600 0.9600 0.9600 0.9600 0.9600 0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000 1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	39	261	-	6	226	7	28	-	28	5	0	5
Total Analysis Volume [veh/h]	156	1044	5	35	903	44	111	3	111	22	1	22
Presence of On-Street Parking	٥N		No	٥N		٩	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0

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14.1 B 0.488

Delay (sec / veh): Level Of Service: Volume to Capacity (v/c):

Signalized HCM 6th Edition 15 minutes

Control Type: Analysis Method: Analysis Period:

Intersection Level Of Service Report Intersection 4: S Main St/Holly St

Time of Day Pattern Isolated 70 Ŷ Signal Coordination Group Cycle Length [s] Coordination Type Located in CBD Intersection Settings

Actuation Type						Fully ad	Fully actuated					
Offset [s]						0.	0.0					
Offset Reference						Lead	LeadGreen					
Permissive Mode						Single	SingleBand					
Lost time [s]						0.0	0.00					
Phasing & Timing												
Control Type	Protect	Protect Permis Permis Protect Permis	Permis	Protect	Permis	Permis Permis	Permis	Permis		Permis Permis Permis	Permis	Permis
Signal Group	-	9	0	5	2	0	0	80	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead			Lead								1
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	22	33	0	6	20	0	0	28	0	0	28	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	19	0	0	11	0	0	19	0	0	19	0
Rest In Walk		Ŷ			No			N			Ŷ	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
12, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	N	Ŷ		٩	٩			٩			Ŷ	
Maximum Recall	N	٩		N	No			N			٩	
Pedestrian Recall	No	Ŷ		٥N	No			٩			Ŷ	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Exclusive Pedestrian Phase												
Pedestrian Signal Group							0					
Pedestrian Walk [s]						0	0					

I, Upstream Filtering Factor	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Exclusive Pedestrian Phase											
Pedestrian Signal Group						0					
Pedestrian Walk [s]						0	_				
Pedestrian Clearance [s]						0	_				

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 v_.do.
 Outbound Pedestrian Volume crossing major streef
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 v_.di.
 Inbound Pedestrian Volume crossing major streef
 v_.co.

 v_.co.
 Outbound Pedestrian Volume crossing minor streef
 v_.co.

 v_.di.
 Inbound Pedestrian Volume crossing minor streef
 v_.di.

 v_.di.
 Inbound Pedestrian Volume crossing minor streef
 v_.di.

 v_.di.
 Nourde Pedestrian Volume crossing minor streef
 Ployde volume crossing minor streef

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Lane Group Calculations

Lane Group	_	υ	υ	_	υ	υ	v	υ
C, Cycle Length [s]	70	70	70	02	70	70	70	20
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
11_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00
12, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	80	43	43	e	38	38	12	12
g / C, Green / Cycle	0.11	0.62	0.62	0.04	0.54	0.54	0.17	0.17
(v / s)_i Volume / Saturation Flow Rate	0.09	0.28	0.28	0.02	0.26	0.26	0.14	0.03
s, saturation flow rate [veh/h]	1781	1870	1866	1781	1870	1834	1561	1455
c, Capacity [veh/h]	200	1154	1152	29	1012	993	351	332
d1, Uniform Delay [s]	30.27	7.14	7.15	33.20	9.91	9.92	27.55	24.45
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.54	1.30	1.30	6.95	1.58	1.62	1.96	0.18
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	00.0	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Group Results								

X, volume / capacity	0.78	0.45	0.46	0.54	0.47	0.47	0.64	0.14
d, Delay for Lane Group [s/veh]	36.81	8.44	8.44	40.14	40.14 11.49 11.53	11.53	29.51	24.64
Lane Group LOS	٥	A	A	٥	8	в	v	υ
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/In]	2.79	3.56	3.56	0.68	4.16	4.10	3.70	0.64
50th-Percentile Queue Length [ft/ln]	69.63	89.10	. 89.00	17.07	17.07 103.93 102.57	102.57	92.38	15.90
95th-Percentile Queue Length [veh/In]	5.01	6.42	6.41	1.23	7.48	7.38	6.65	1.14
95th-Percentile Queue Length [ft/In]	125.33	125.33 160.39	160.19 30.73 187.08 184.62	30.73	187.08	184.62	166.29	28.62

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Version 7.00-05

Movement, Approach, & Intersection Results

_	_	_	_	_		_		_	_	_	_	_	_	_	_	_	_	_	
24.64	o																		
24.64	U	24.64	U					9.0	0.00	3676.15	26.58	1.771	٨	2000	686	15.11	1.662	<	
24.64	ပ																		
29.51	с																		
29.51	υ	29.51	U					9.0	0.00	1799.63	26.58	1.945	٨	2000	686	15.11	1.990	۲	
29.51	ပ			14.10	8	88													
11.53	æ	12.53		14.		0.488													
11.51	æ		в					9.0	0.00	2298.57	26.58	2.950	ပ	2000	457	20.84	2.374	m	
40.14	٥			8															
8.44	A																		
8.44	٨	12.11	ш					9.0	0.00	3065.28	26.58	2.838	U	2000	829	12.01	2.554	m	
36.81	۵													-					
d_M, Delay for Movement [s/veh]	Movement LOS	d_A, Approach Delay [s/veh]	Approach LOS	d_I, Intersection Delay [s/veh]	Intersection LOS	Intersection V/C	Other Modes	g_Walk,mi, Effective Walk Time [s]	M_corner, Corner Circulation Area [ft2/ped]	M_CW, Crosswalk Circulation Area [ft²/ped]	d_p, Pedestrian Delay [s]	I_p,int, Pedestrian LOS Score for Intersection	Crosswalk LOS	s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	c_b, Capacity of the bicycle lane [bicycles/h]	d_b, Bicycle Delay [s]	I_b,int, Bicycle LOS Score for Intersection	Bicycle LOS	

Sequence Ring 1

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4	8	•	,	9	SG				
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King 1	Ring 2	Ring 3	Ring 4	SG: 1 22e			SG: 5 9s		

TIS for the School Property Rezoning	PM Future plus Project Conditions
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TIS for the School Property Rezoning PM Future plus Project Conditions

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