

ENVIRONMENT | PLANNING | DEVELOPMENT SOLUTIONS, INC.

Date: June 24, 2021
Prepared by: Alex J. Garber
To: Renee Escario
Site: Florence Avenue Townhomes Development, City of Santa Fe Springs
Subject: **Trip Generation and Level of Service Analysis**

This technical memorandum presents an analysis of the traffic impacts for the proposed Florence Avenue Townhomes Development at 11733 Florence Avenue in the City of Santa Fe Springs. The project proposes the construction of 63 townhome dwelling units. The project site is currently occupied by a church building that has not been used for several years. The project site plan is shown in Figure 1. All tables and figures are attached to this memo.

Project Trips

The trip generation analysis for the project was prepared using trip rates from the Institute of Transportation Engineers (ITE) *Trip Generation*, 10th Edition (2017). The trip generation for the project is based on the ITE rates for Multifamily Housing (Mid-Rise) land use. The analysis does not take credit for the existing church as it has been unoccupied for multiple years. Table 1 presents the PCE trip generation estimate for the project. As shown in Table 1, the proposed project is forecast to generate 343 daily trips, 23 AM peak hour and 28 PM peak hour trips.

The following trip distribution assumptions were applied to the project trip generation:

- 75% traveling to the west on Florence Avenue towards Interstate 5 and Interstate 605
 - 50% travel west on Florence Avenue
 - 25% travel north on Orr and Day Street
- 25% traveling to the east on Florence Avenue towards Pioneer Boulevard
 - 5% travel north on Pioneer Boulevard
 - 5% travel east along Florence Avenue
 - 15% travel south along Pioneer Boulevard

The project trip distribution and AM/PM assignments are attached.

Existing and Cumulative Traffic Volumes

Traffic counts were collected on Tuesday, April 20th, 2021 at Pioneer Boulevard and Florence Avenue and Thursday June 3rd, 2021. The east and west bound volumes from Pioneer Boulevard and Florence Avenue were used to determine the eastbound and westbound thru-traffic at the Project Driveway. The counts are attached. Future Opening Year traffic volumes were forecast by adding a 2 percent per year growth rate to the existing traffic count and by adding trips generated by other approved projects in the area. One project was identified from the City's current project list ([blobdload.aspx \(santafesprings.org\)](http://blobdload.aspx(santafesprings.org)) accessed 4/28/2021), 11401 Greenstone Avenue, a 137,000 sf tilt-up industrial building. The trip generation of the cumulative project is shown in Table 2. The Existing and Opening Year traffic volume development is attached.

Project Impact Analysis

The level of service (LOS) at the project driveway and Pioneer Boulevard/Florence Avenue was calculated using the Highway Capacity Manual 6th Edition methodology, consistent with the Los Angeles County Department of Public Works Traffic Impact Analysis Report Guidelines (that are utilized by the City of Santa Fe Springs). The guidelines set intersections that operate at LOS D or better is acceptable. The LOS of Project Driveway/Florence Avenue and Pioneer Boulevard/Florence Avenue was calculated for Existing and Opening Year Baseline and Plus Project conditions and is shown in Table 3.

As described previously, the project would generate 343 daily trips; that include 23 AM peak hour and 28 PM peak hour trips. Table 3 details that with the addition of these trips, Florence Avenue at the Project driveway and Pioneer Boulevard/Florence Avenue would operate at an acceptable LOS D or better in all plus project scenarios, which would not exceed the City's threshold. Orr and Day Street and Florence Avenue operates at an LOS E in Opening Year PM and Opening Year PM + P, however since the project increases the delay by less than 1 second, the change would not constitute an impact. In the PM peak hour for the Existing plus Project and opening year plus project scenarios, the delay for vehicles on site exiting the project would be LOS E. The delay would be less than one minute in both scenarios, the number of vehicles would not create any onsite queuing issues, and the public right of way would not be impacted. This is typical for Two Way Stop Controlled intersections along urban arterials, so the delay should be treated as acceptable.

In addition, queuing was analyzed at the project driveway to address any operational deficiencies. Table 4 shows the queue at the Project Driveway/Florence Avenue for east bound left turns, west bound right turns, and the south bound turns during peak hours. As shown in Table 4, the project does not cause any deficiencies in queuing. Therefore, the Project's impacts to traffic would be less than significant.

Based on this analysis, the following can be concluded:

- The project would generate 343 daily trips, including 23 AM peak hour and 28 PM peak hour trips.
- The intersection of Pioneer Boulevard/Florence Avenue and the public right of way for Florence Avenue at the Project Driveway would operate at an acceptable LOS in Existing and Opening Year plus Project Scenarios per the thresholds contained in the Los Angeles County Department of Public Works Traffic Impact Analysis Report Guidelines, as implemented by the City.
- The intersection of Orr and Day Street/Florence Avenue would operate at an LOS E in the Opening Year PM and Opening Year PM + P scenario, however since the increase in delay is less than one second, it would not be noticed by drivers.
- The onsite delay for trips leaving the project site would be less than one minute and not cause and queuing deficiencies.
- The project would not cause any queuing deficiencies at Pioneer Boulevard/Florence Avenue or on Florence Avenue at the project driveway. The queuing deficiencies at Orr and Day Street/Florence Avenue are not added to, so the project does not impact queuing at the intersection.
- Based on this analysis, the project would not create any significant traffic impacts in the existing plus project or opening year plus project conditions.

Figure 1: Project Site Plan

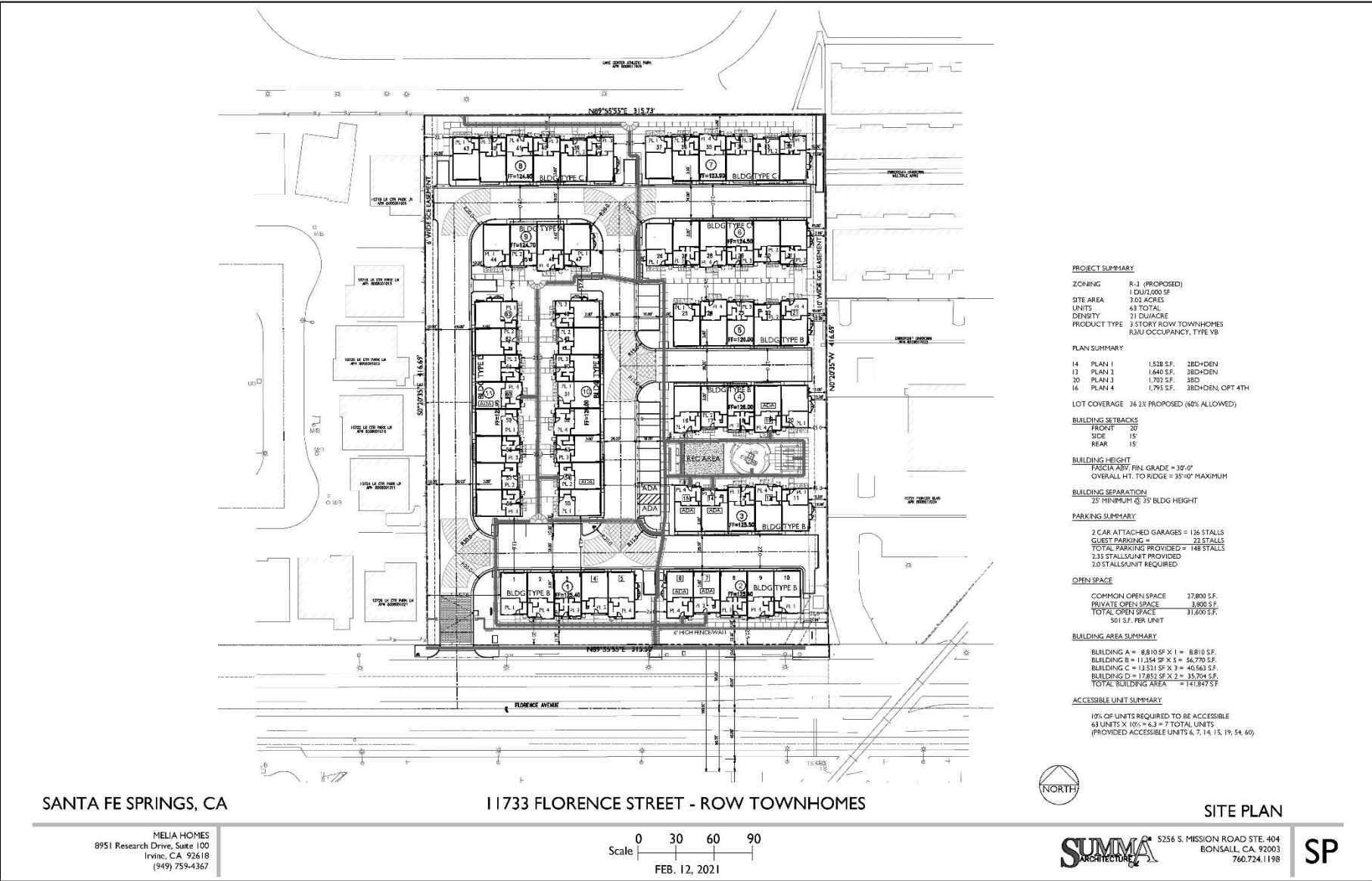


Table 1. Florence Avenue Project Trip Generation

Land Use		Units	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
<u>Trip Rates</u>									
Multifamily Housing (Mid-Rise) ¹		DU	5.440	0.094	0.266	0.360	0.268	0.172	0.440
<u>Project Trip Generation</u>									
Proposed Townhomes		63 DU	343	6	17	23	17	11	28
DU = Dwelling Units									
¹ Trip rates from the Institute of Transportation Engineers, <i>Trip Generation, 10th Edition</i> , 2017. Land Use Code 221 - Multifamily Housing (Mid-Rise).									

Table 2. Cumulative Project Trip Generation

			AM Peak Hour			PM Peak Hour		
Land Use	Units	Daily	In	Out	Total	In	Out	Total
<u>Trip Rates</u>								
Industrial Building ¹	TSF	4.96	0.62	0.08	0.70	0.08	0.55	0.63
<u>Total Vehicle Trip Generation</u>								
Greenstone Industrial Project	137 TSF	680	84	12	96	11	75	86
<u>Vehicle Mix²</u>		<u>Percent</u>						
Passenger Vehicles	67.80%	461	57	8	65	8	51	59
2-Axle Trucks	4.26%	29	4	0	4	0	3	4
3-Axle Trucks	4.26%	29	4	0	4	0	3	4
4+-Axle Trucks	23.66%	161	20	3	23	3	18	20
	100%	679	84	12	96	11	75	86
<u>PCE Trip Generation³</u>		<u>PCE Factor</u>						
Passenger Vehicles	1.0	461	57	8	65	8	51	59
2-Axle Trucks	1.5	43	5	1	6	1	5	6
3-Axle Trucks	2.0	58	7	1	8	1	6	7
4+-Axle Trucks	3.0	482	60	8	68	8	53	61
Total PCE Trip Generation		1044	130	18	147	17	115	133

TSF = Thousand Square Feet

PCE = Passenger Car Equivalent

¹ Trip rates from the Institute of Transportation Engineers, *Trip Generation, 10th Edition, 2017*. Land Use Code 110 - General Light Industrial.² Vehicle Mix from the Institute of Transportation Engineers, *High-Cube Warehouse Vehicle Trip Generation Analysis*, October 2016. Data Site Subset: All³ Passenger Car Equivalent (PCE) factors from San Bernardino County CMP, Appendix B - Guidelines for CMP Traffic Impact Analysis Reports in San Bernardino County, 2016

Table 3. Baseline and Plus Project Peak Hour Levels of Service

Intersection	AM Peak		PM Peak		AM Peak		PM Peak		Impact?
	Delay	LOS ¹	Delay	LOS ¹	Delay	LOS ¹	Delay	LOS ¹	
	Existing				Existing plus Project				
1. Project Driveway/Florence Ave ²	0.0	A	0.0	A	12.8	B	16.3	C	No
2. Pioneer Blvd/Florence Ave	25.5	C	28.3	C	25.5	C	28.3	C	No
3. Orr and Day St/Florence Ave	47.8	D	53.7	D	47.7	D	54.2	D	No
	Opening Year				Opening Year plus Project				
1. Project Driveway/Florence Ave ²	0.0	A	0.0	A	13.2	B	17.3	C	No
2. Pioneer Blvd/Florence Ave	27.5	C	30.2	C	27.5	C	30.3	D	No
3. Orr and Day St/Florence Ave	48.3	D	59.6	E	48.5	D	60.3	E	No

¹ Level of Service² Delay on Public Right of Way**Table 4. Baseline and Plus Project Peak Hour Queueing Impact**

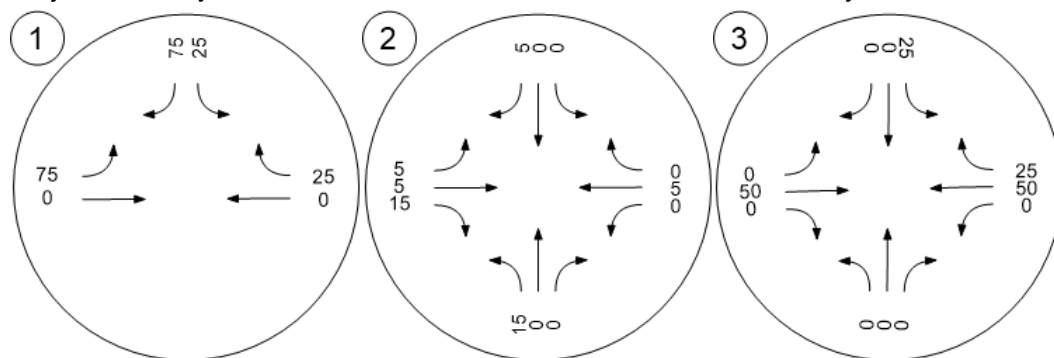
Intersection	AM Peak		PM Peak		Impact?
	Queue Length ¹	Storage Space	Queue Length ¹	Storage Space	
	Existing plus Project				
1. Project Driveway/Florence Ave EB Left	0.97	200 ft	3.29	200 ft	No
1. Project Driveway/Florence Ave SB Left/Right	4.74	60 ft	4.38 ft	60 ft	No
1. Project Driveway/Florence Ave WB Right	0.00 ft	240 ft	0.00 ft	240 ft	No
	Opening Year plus Project				
1. Project Driveway/Florence Ave EB Left	1.02	200 ft	3.57	200 ft	No
1. Project Driveway/Florence Ave SB Left/Right	5.03 ft	60 ft	4.81 ft	60 ft	No
1. Project Driveway/Florence Ave WB Right	0.00 ft	240 ft	0.00 ft	240 ft	No

¹ Length Measured in Feet

Traffic Volume - Future Total Volume



Project Driveway/Florence Av Pioneer Blvd/Florence Ave Orr and Day Rd/Florence Ave

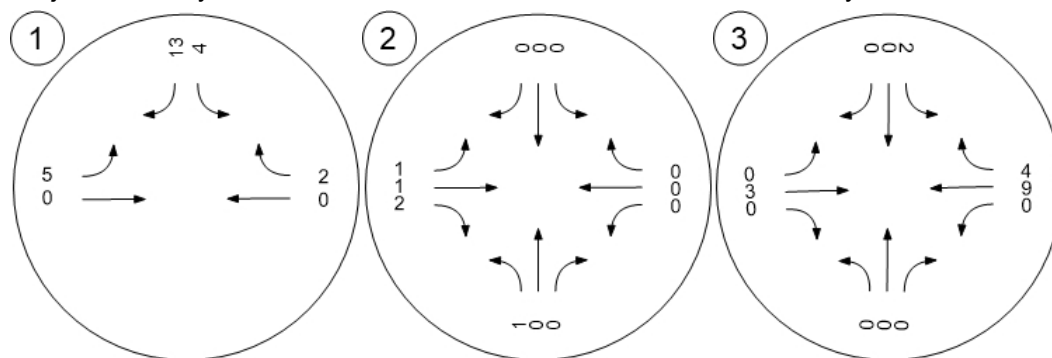


Version 2021 (SP 0-2)

Traffic Volume - Future Total Volume



Project Driveway/Florence Av Pioneer Blvd/Florence Ave Orr and Day Rd/Florence Ave

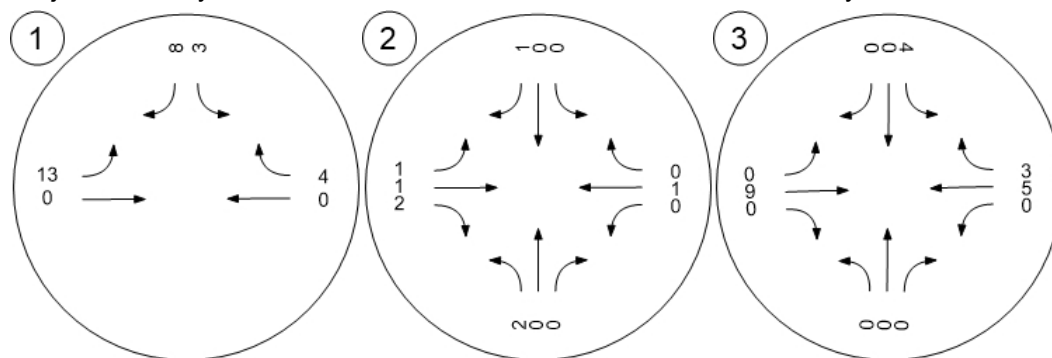


Version 2021 (SP 0-2)

Traffic Volume - Future Total Volume



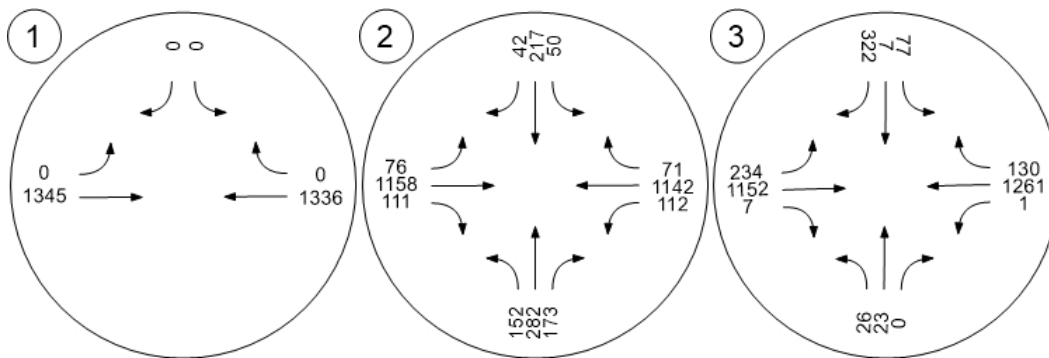
Project Driveway/Florence Av Pioneer Blvd/Florence Ave Orr and Day Rd/Florence Ave



Traffic Volume - Future Total Volume



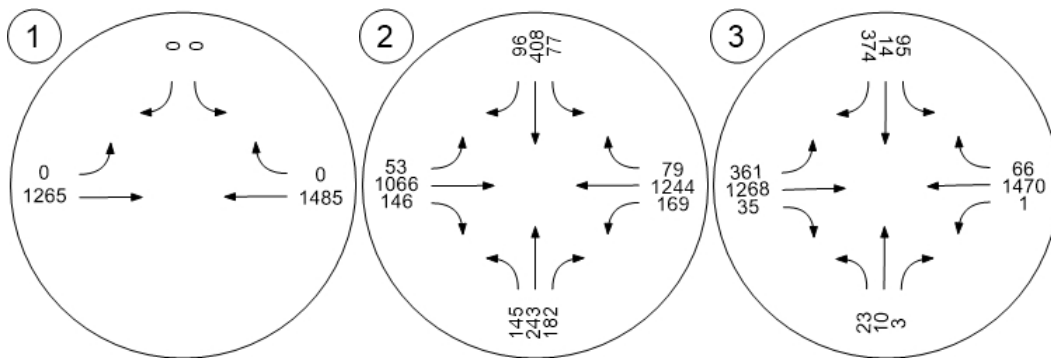
Project Driveway/Florence Av Pioneer Blvd/Florence Ave Orr and Day Rd/Florence Ave



Traffic Volume - Future Total Volume



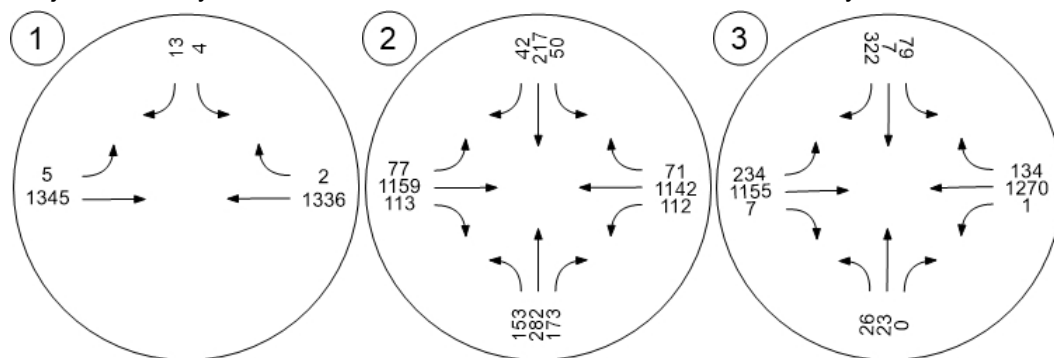
Project Driveway/Florence Av Pioneer Blvd/Florence Ave Orr and Day Rd/Florence Ave



Traffic Volume - Future Total Volume



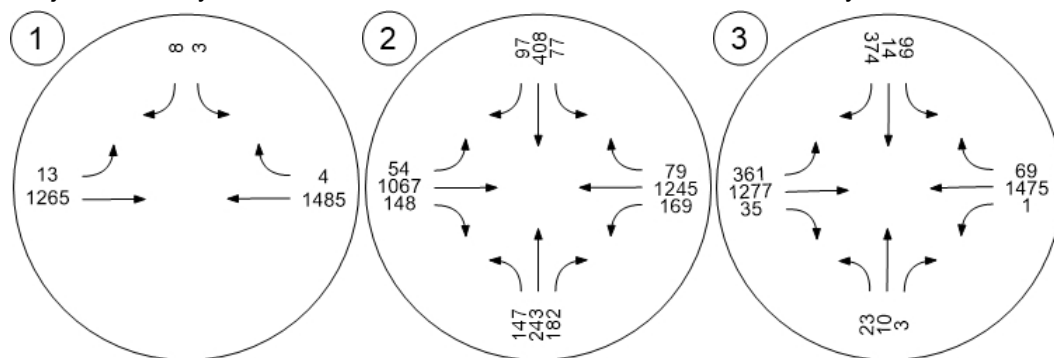
Project Driveway/Florence Av Pioneer Blvd/Florence Ave Orr and Day Rd/Florence Ave



Traffic Volume - Future Total Volume



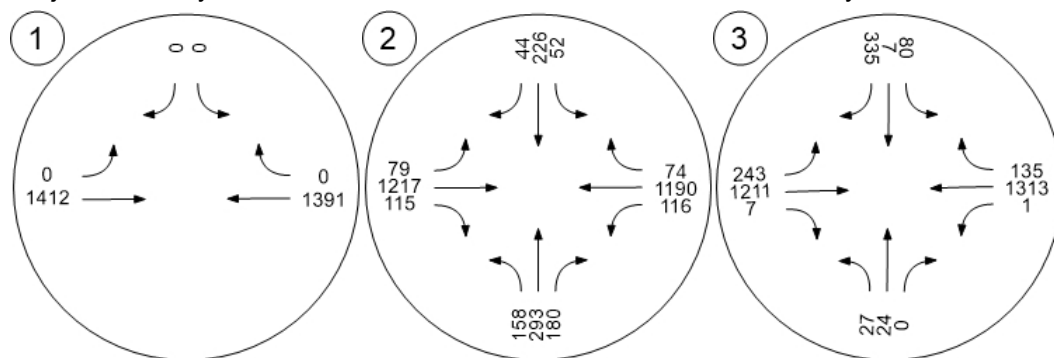
Project Driveway/Florence Av Pioneer Blvd/Florence Ave Orr and Day Rd/Florence Ave



Traffic Volume - Future Total Volume



Project Driveway/Florence Av Pioneer Blvd/Florence Ave Orr and Day Rd/Florence Ave

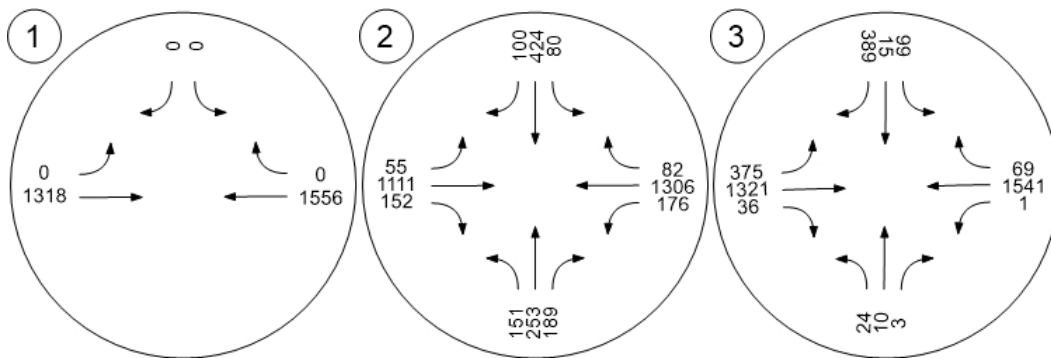


Version 2021 (SP 0-2)

Traffic Volume - Future Total Volume



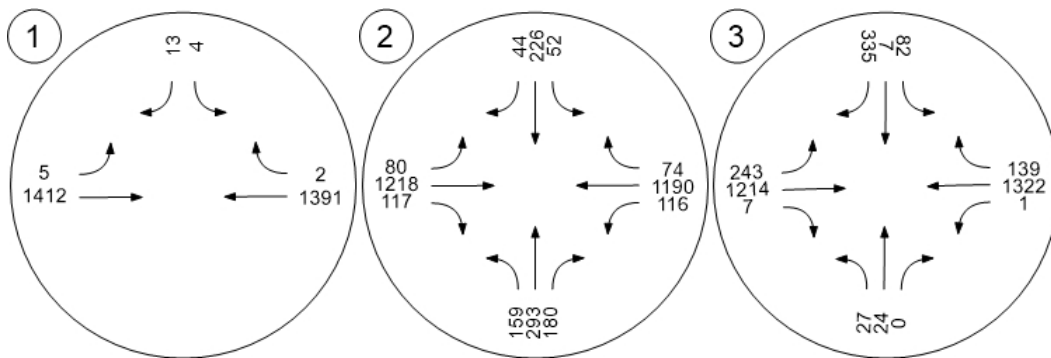
Project Driveway/Florence Av Pioneer Blvd/Florence Ave Orr and Day Rd/Florence Ave



Traffic Volume - Future Total Volume



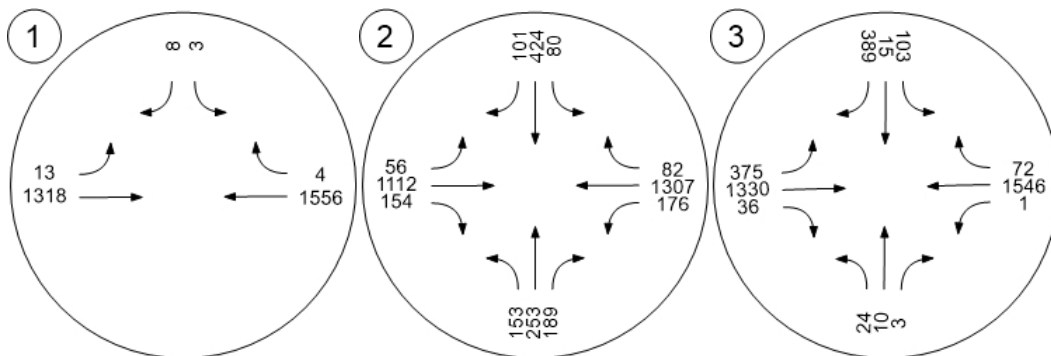
Project Driveway/Florence Av Pioneer Blvd/Florence Ave Orr and Day Rd/Florence Ave



Traffic Volume - Future Total Volume



Project Driveway/Florence Av Pioneer Blvd/Florence Ave Orr and Day Rd/Florence Ave



Traffic Counts

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY		LOCATION: NORTH & SOUTH: EAST & WEST:		Santa Fe Springs Pioneer Florence		PROJECT #: LOCATION #: CONTROL:		SC 1 SIGNAL			
PCE Adjusted	NOTES:								AM PM MD OTHER OTHER	▲ N ◀ W S ▼	E ▶
	Class	1	2	3	4	5	6				
	Factor	1	1.5	2	3	2	2				

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Pioneer			Pioneer			Florence			Florence			
LANES:	NL 2	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 1	WL 1	WT 2	WR 0	TOTAL

AM	7:00 AM	28	42	31	7	30	4	15	311	11	23	297	12	808
	7:15 AM	32	55	29	13	46	6	19	300	28	30	319	12	887
	7:30 AM	35	50	44	14	54	16	16	284	18	25	280	17	852
	7:45 AM	38	114	63	13	71	7	23	309	42	33	248	15	973
	8:00 AM	47	65	38	10	46	14	18	266	23	25	296	28	873
	8:15 AM	49	82	30	13	47	11	14	274	21	24	260	14	838
	8:30 AM	23	48	32	10	43	4	19	275	18	25	251	14	759
	8:45 AM	36	41	33	13	34	12	9	251	18	12	241	16	715
	VOLUMES	287	494	299	92	370	73	131	2,269	178	195	2,191	126	6,703
	APPROACH %	27%	46%	28%	17%	69%	14%	5%	88%	7%	8%	87%	5%	
	APP/DEPART	1,080	/	751	534	/	743	2,578	/	2,660	2,511	/	2,550	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	152	282	173	50	217	42	76	1,158	111	112	1,142	71	3,584
	APPROACH %	25%	46%	29%	16%	70%	14%	6%	86%	8%	8%	86%	5%	
	PEAK HR FACTOR	0.709			0.851			0.901			0.920			0.921
	APP/DEPART	607	/	429	308	/	439	1,344	/	1,381	1,325	/	1,336	0
PM	04:00 PM	37	63	46	16	99	29	12	274	36	44	276	18	948
	4:15 PM	31	64	46	12	80	20	13	266	35	37	297	16	915
	4:30 PM	52	62	59	21	111	25	13	290	33	45	398	20	1,127
	4:45 PM	39	54	38	17	98	27	18	274	40	34	267	22	926
	5:00 PM	23	63	40	27	120	24	9	237	38	55	282	21	938
	5:15 PM	37	60	52	9	84	21	12	269	44	32	256	24	897
	5:30 PM	31	47	51	13	91	20	13	242	30	34	244	10	825
	5:45 PM	18	49	46	21	76	39	9	281	46	42	236	16	878
	VOLUMES	267	460	377	135	757	204	98	2,132	301	320	2,256	147	7,451
	APPROACH %	24%	42%	34%	12%	69%	19%	4%	84%	12%	12%	83%	5%	
	APP/DEPART	1,103	/	705	1,095	/	1,378	2,531	/	2,643	2,722	/	2,726	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	145	243	182	77	408	96	53	1,066	146	169	1,244	79	3,904
	APPROACH %	25%	43%	32%	13%	70%	16%	4%	84%	12%	11%	83%	5%	
	PEAK HR FACTOR	0.825			0.850			0.942			0.806			0.866
	APP/DEPART	569	/	374	580	/	722	1,264	/	1,325	1,492	/	1,484	0

INTERSECTION TURNING MOVEMENT COUNTS

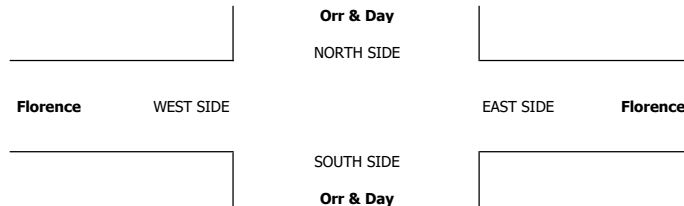
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 6/3/21 THURSDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Orr & Day Florence	PROJECT #: LOCATION #: CONTROL:	SC2937 1 SIGNAL
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PCE Adjusted	NOTES:								AM PM MD OTHER OTHER	▲ N ◀ W S ▶ E ▼	
	Class	1	2	3	4	5	6				
	Factor	1	1.5	2	3	2	2				

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Orr & Day			Orr & Day			Florence			Florence								
LANES:	NL 1.5	NT 1	NR 0.5	SL 1.5	ST 0.5	SR 2	EL 2	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL	NB	SB	EB	WB	TTL

AM	7:00 AM	12	0	0	5	0	61	27	264	0	0	305	20	693				0
	7:15 AM	9	0	0	17	0	62	39	277	1	0	350	21	775				0
	7:30 AM	11	8	0	16	0	84	46	294	3	0	359	21	841				0
	7:45 AM	6	6	0	16	1	62	67	315	2	1	268	36	778				0
	8:00 AM	3	3	0	28	2	96	74	268	0	0	312	36	821				0
	8:15 AM	6	6	0	17	4	81	48	276	2	0	323	38	799				0
	8:30 AM	5	5	0	21	4	63	44	276	1	1	316	22	757				0
	8:45 AM	3	3	0	12	0	55	33	293	0	0	327	15	739				0
	VOLUMES	55	31	0	131	11	562	377	2,261	9	2	2,558	207	6,201	0	0	0	0
	APPROACH %	64%	36%	0%	19%	1%	80%	14%	85%	0%	0%	92%	7%					
PM	APPROACH %	86	/	614	704	/	22	2,646	/	2,392	2,766	/	3,175	0				
	BEGIN PEAK HR	7:30 AM																
	VOLUMES	26	23	0	77	7	322	234	1,152	7	1	1,261	130	3,238				
	APPROACH %	54%	46%	0%	19%	2%	79%	17%	83%	1%	0%	91%	9%					
	PEAK HR FACTOR	0.638			0.807			0.908			0.917			0.963				
	APP/DEPART	49	/	387	405	/	15	1,393	/	1,229	1,392	/	1,608	0				
	4:00 PM	3	3	0	17	5	91	64	324	12	2	338	27	884				0
	4:15 PM	7	1	1	24	3	84	77	327	9	0	324	19	875				0
	4:30 PM	2	1	0	28	0	103	78	298	5	0	409	17	941				0
	4:45 PM	6	5	2	26	4	92	87	343	11	0	356	15	946				0
PM	5:00 PM	9	2	0	21	5	76	84	273	5	0	351	19	845				0
	5:15 PM	6	2	1	20	5	104	113	354	14	1	355	15	988				0
	5:30 PM	7	4	1	23	3	75	103	335	5	0	327	25	907				0
	5:45 PM	7	3	1	28	6	98	84	315	11	0	320	21	892				0
	VOLUMES	46	21	6	187	31	721	688	2,567	72	3	2,779	157	7,276	0	0	0	0
	APPROACH %	63%	29%	8%	20%	3%	77%	21%	77%	2%	0%	95%	5%					
	APPROACH %	73	/	866	938	/	106	3,327	/	2,759	2,938	/	3,545	0				
	BEGIN PEAK HR	4:30 PM																
	VOLUMES	23	10	3	95	14	374	361	1,268	35	1	1,470	66	3,719				
	APPROACH %	63%	28%	8%	20%	3%	77%	22%	76%	2%	0%	96%	4%					
	PEAK HR FACTOR	0.683			0.924			0.866			0.902			0.941				
	APP/DEPART	36	/	437	483	/	50	1,664	/	1,366	1,537	/	1,866	0				



LOS Sheets

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Florence Avenue Townhomes

Vistro File: C:\...\Florence Ave Vistro.vistro
Report File: C:\...\Existing AM.pdf

Scenario 1 Existing AM
6/24/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Project Driveway/Florence Ave	Two-way stop	HCM 6th Edition	EB Thru	0.015	0.0	A
2	Pioneer Blvd/Florence Ave	Signalized	HCM 6th Edition	NB Right	0.662	25.5	C
3	Orr and Day Rd/Florence Ave	Signalized	HCM 6th Edition	WB Left	0.563	47.8	D

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report

Intersection 1: Project Driveway/Florence Ave

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.015

Intersection Setup

Name	Southbound		Eastbound		Westbound	
Approach						
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	8.00
No. of Lanes in Entry Pocket	0	0	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	200.00	100.00	100.00	245.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	0	1345	1336	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	1345	1336	0
Peak Hour Factor	0.9500	0.9500	0.9010	0.9010	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	373	363	0
Total Analysis Volume [veh/h]	0	0	0	1493	1452	0
Pedestrian Volume [ped/h]	3		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	250	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	24.58	14.76	12.66	0.00	0.00	0.00
Movement LOS	C	B	B	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	19.67		0.00		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 2: Pioneer Blvd/Florence Ave

Control Type:	Signalized	Delay (sec / veh):	25.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.662

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			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	8.00	12.00	12.00	8.00
No. of Lanes in Entry Pocket	2	0	1	1	0	0	1	0	0	1	0	1
Entry Pocket Length [ft]	160.00	100.00	100.00	145.00	100.00	100.00	125.00	100.00	100.00	250.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	152	282	173	50	217	42	76	1158	111	112	1142	71
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	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	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	152	282	173	50	217	42	76	1158	111	112	1142	71
Peak Hour Factor	0.7090	0.7090	0.7090	0.8510	0.8510	0.8510	0.9010	0.9010	0.9010	0.9200	0.9200	0.9200
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]	54	99	61	15	64	12	21	321	31	30	310	19
Total Analysis Volume [veh/h]	214	398	244	59	255	49	84	1285	123	122	1241	77
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	2			4			5			1		
v_di, Inbound Pedestrian Volume crossing in	1			5			4			2		
v_co, Outbound Pedestrian Volume crossing	0			1			1			1		
v_ci, Inbound Pedestrian Volume crossing mi	1			1			0			1		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	2			0			0			3		

Version 2021 (SP 0-2)

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	9	43	0	9	43	0	9	29	0	9	29	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	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	19	0	0	20	0	0	20	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		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
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	30	22	22	30	21	21	52	44	44	52	44	44
g / C, Green / Cycle	0.33	0.24	0.24	0.33	0.23	0.23	0.58	0.48	0.48	0.58	0.49	0.49
(v / s)_i Volume / Saturation Flow Rate	0.10	0.20	0.20	0.07	0.09	0.09	0.15	0.39	0.09	0.22	0.38	0.06
s, saturation flow rate [veh/h]	2206	1710	1473	901	1710	1609	560	3256	1394	556	3256	1375
c, Capacity [veh/h]	731	414	357	275	393	370	308	1570	672	303	1587	670
d1, Uniform Delay [s]	21.98	32.34	32.47	22.79	29.39	29.46	14.33	19.95	13.25	16.44	19.13	12.53
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.20	0.50	0.50
l, 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
d2, Incremental Delay [s]	0.22	4.23	5.33	0.39	0.64	0.71	2.17	4.88	0.60	1.60	3.92	0.35
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	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	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	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.29	0.83	0.84	0.21	0.39	0.40	0.27	0.82	0.18	0.40	0.78	0.11
d, Delay for Lane Group [s/veh]	22.20	36.57	37.80	23.18	30.03	30.17	16.50	24.83	13.84	18.04	23.05	12.88
Lane Group LOS	C	D	D	C	C	C	B	C	B	B	C	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.62	7.37	6.58	0.88	2.86	2.77	0.86	11.72	1.47	1.13	10.81	0.87
50th-Percentile Queue Length [ft/ln]	40.40	184.13	164.47	21.99	71.41	69.30	21.44	293.09	36.66	28.36	270.24	21.83
95th-Percentile Queue Length [veh/ln]	2.91	11.82	10.79	1.58	5.14	4.99	1.54	17.34	2.64	2.04	16.20	1.57
95th-Percentile Queue Length [ft/ln]	72.71	295.41	269.63	39.58	128.54	124.75	38.59	433.48	65.99	51.04	405.04	39.30

Movement, Approach, & Intersection Results

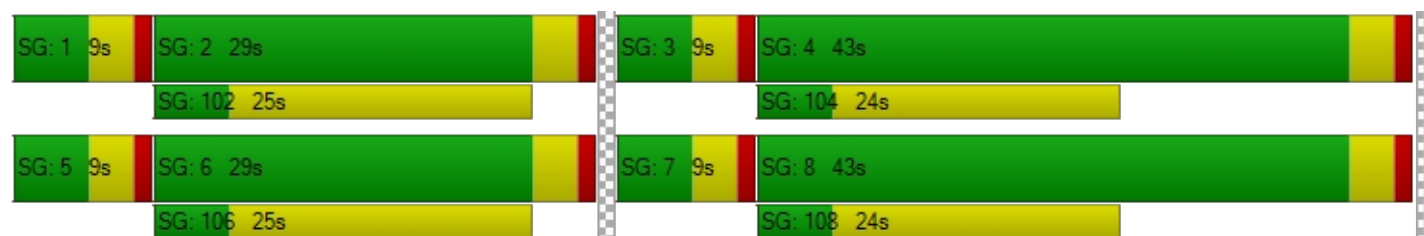
d_M, Delay for Movement [s/veh]	22.20	36.74	37.80	23.18	30.08	30.17	16.50	24.83	13.84	18.04	23.05	12.88
Movement LOS	C	D	D	C	C	C	B	C	B	B	C	B
d_A, Approach Delay [s/veh]	33.41			28.97			23.46			22.08		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	25.52											
Intersection LOS	C											
Intersection V/C	0.662											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	36.47			36.47			36.47			36.47		
I_p,int, Pedestrian LOS Score for Intersection	2.762			2.665			3.018			2.969		
Crosswalk LOS	C			B			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	866			866			555			555		
d_b, Bicycle Delay [s]	14.48			14.47			23.49			23.53		
I_b,int, Bicycle LOS Score for Intersection	2.266			1.859			2.791			2.748		
Bicycle LOS	B			A			C			B		

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Orr and Day Rd/Florence Ave

Control Type:	Signalized	Delay (sec / veh):	47.8
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.563

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			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 Entry Pocket	1	0	0	1	0	1	2	0	0	1	0	0
Entry Pocket Length [ft]	215.00	100.00	100.00	120.00	100.00	120.00	350.00	100.00	100.00	200.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1000.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	26	23	0	77	7	322	234	1152	7	1	1261	130
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	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	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	26	23	0	77	7	322	234	1152	7	1	1261	130
Peak Hour Factor	0.6380	0.6380	0.6380	0.8070	0.8070	0.8070	0.9080	0.9080	0.9080	0.9170	0.9170	0.9170
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]	10	9	0	24	2	100	64	317	2	0	344	35
Total Analysis Volume [veh/h]	41	36	0	95	9	399	258	1269	8	1	1375	142
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	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2021 (SP 0-2)

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	140
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	5	10	0	5	10	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	33	0	0	36	0	29	61	0	10	42	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	24	0	0	27	0	0	14	0	0	21	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	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
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	140	140	140	140	140	140	140	140	140	140	140	140
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	32	32	32	32	32	32	14	60	60	0	46	46
g / C, Green / Cycle	0.23	0.23	0.23	0.23	0.23	0.23	0.10	0.43	0.43	0.00	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate	0.02	0.02	0.02	0.03	0.03	0.16	0.08	0.26	0.26	0.00	0.31	0.31
s, saturation flow rate [veh/h]	1629	1664	1556	1629	1642	2573	3163	3256	1705	1629	3256	1629
c, Capacity [veh/h]	371	379	355	371	374	586	311	1394	730	3	1079	540
d1, Uniform Delay [s]	42.41	42.40	42.38	43.09	43.09	49.38	61.95	30.84	30.84	69.79	45.38	45.38
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.16	0.50	0.11	0.11	0.38
l, 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
d2, Incremental Delay [s]	0.37	0.36	0.37	0.78	0.78	6.26	5.65	0.61	3.65	59.05	4.60	21.50
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	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	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	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.07	0.07	0.07	0.14	0.14	0.68	0.83	0.60	0.60	0.35	0.94	0.94
d, Delay for Lane Group [s/veh]	42.78	42.75	42.75	43.88	43.87	55.64	67.60	31.45	34.48	128.84	49.98	66.88
Lane Group LOS	D	D	D	D	D	E	E	C	C	F	D	E
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.77	0.77	0.70	1.53	1.54	6.92	4.76	11.03	12.16	0.08	17.62	20.17
50th-Percentile Queue Length [ft/ln]	19.15	19.18	17.58	38.32	38.62	173.01	119.10	275.72	304.08	2.09	440.56	504.35
95th-Percentile Queue Length [veh/ln]	1.38	1.38	1.27	2.76	2.78	11.23	8.34	16.48	17.88	0.15	24.51	27.54
95th-Percentile Queue Length [ft/ln]	34.46	34.53	31.65	68.98	69.52	280.87	208.59	411.88	447.07	3.76	612.67	688.50

Movement, Approach, & Intersection Results

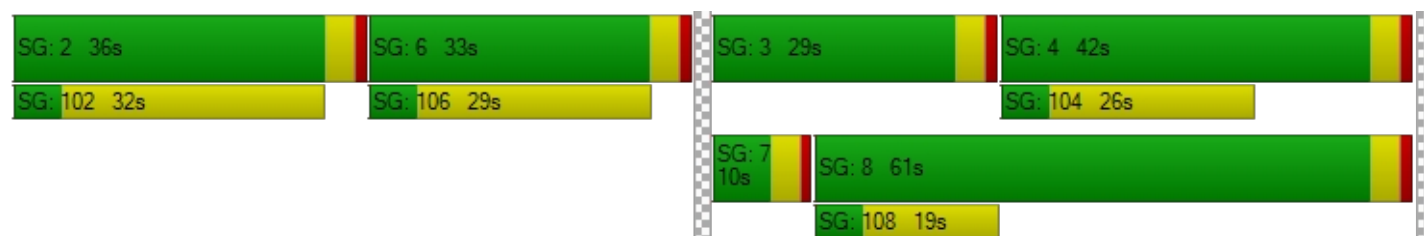
d_M, Delay for Movement [s/veh]	42.77	42.75	42.75	43.88	43.87	55.64	67.60	32.48	34.48	128.84	54.45	66.88
Movement LOS	D	D	D	D	D	E	E	C	C	F	D	E
d_A, Approach Delay [s/veh]	42.76			53.21			38.39			55.66		
Approach LOS	D			D			D			E		
d_I, Intersection Delay [s/veh]	47.75											
Intersection LOS	D											
Intersection V/C	0.563											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	61.29	61.29	61.29	61.29
I_p,int, Pedestrian LOS Score for Intersection	2.177	2.628	3.156	3.018
Crosswalk LOS	B	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	414	457	814	543
d_b, Bicycle Delay [s]	44.00	41.66	24.60	37.16
I_b,int, Bicycle LOS Score for Intersection	1.623	2.390	2.404	2.395
Bicycle LOS	A	B	B	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Florence Avenue Townhomes

Vistro File: C:\...\Florence Ave Vistro.vistro

Scenario 1 Existing AM

Report File: C:\...\Existing AM.pdf

6/24/2021

Turning Movement Volume: Summary

ID	Intersection Name	Southbound		Eastbound		Westbound		Total Volume
		Left	Right	Left	Thru	Thru	Right	
1	Project Driveway/Florence Ave	0	0	0	1345	1336	0	2681

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
2	Pioneer Blvd/Florence Ave	152	282	173	50	217	42	76	1158	111	112	1142	71	3586

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3	Orr and Day Rd/Florence Ave	26	23	0	77	7	322	234	1152	7	1	1261	130	3240

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Florence Avenue Townhomes

Vistro File: C:\...\Florence Ave Vistro.vistro

Scenario 2 Existing PM

Report File: C:\...\Existing PM.pdf

6/24/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Project Driveway/Florence Ave	Two-way stop	HCM 6th Edition	WB Thru	0.018	0.0	A
2	Pioneer Blvd/Florence Ave	Signalized	HCM 6th Edition	SB Right	0.712	28.3	C
3	Orr and Day Rd/Florence Ave	Signalized	HCM 6th Edition	WB Left	0.646	53.7	D

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report

Intersection 1: Project Driveway/Florence Ave

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.018

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	8.00
No. of Lanes in Entry Pocket	0	0	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	200.00	100.00	100.00	245.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	0	1265	1485	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	1265	1485	0
Peak Hour Factor	0.9500	0.9500	0.9420	0.9420	0.8060	0.8060
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	336	461	0
Total Analysis Volume [veh/h]	0	0	0	1343	1842	0
Pedestrian Volume [ped/h]	2		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	250	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.01	0.02	0.00
d_M, Delay for Movement [s/veh]	36.81	18.09	15.80	0.00	0.00	0.00
Movement LOS	E	C	C	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	27.45		0.00		0.00	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 2: Pioneer Blvd/Florence Ave

Control Type:	Signalized	Delay (sec / veh):	28.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.712

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			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	8.00	12.00	12.00	8.00
No. of Lanes in Entry Pocket	2	0	1	1	0	0	1	0	0	1	0	1
Entry Pocket Length [ft]	160.00	100.00	100.00	145.00	100.00	100.00	125.00	100.00	100.00	250.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	145	243	182	77	408	96	53	1066	146	169	1244	79
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	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	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	145	243	182	77	408	96	53	1066	146	169	1244	79
Peak Hour Factor	0.8250	0.8250	0.8250	0.8500	0.8500	0.8500	0.9420	0.9420	0.9420	0.8060	0.8060	0.8060
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]	44	74	55	23	120	28	14	283	39	52	386	25
Total Analysis Volume [veh/h]	176	295	221	91	480	113	56	1132	155	210	1543	98
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	2			3			3			1		
v_di, Inbound Pedestrian Volume crossing in	1			3			3			2		
v_co, Outbound Pedestrian Volume crossing	1			3			0			4		
v_ci, Inbound Pedestrian Volume crossing mi	0			4			1			3		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	1			0			1			1		

Version 2021 (SP 0-2)

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	9	63	0	9	63	0	9	29	0	9	29	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	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	19	0	0	20	0	0	20	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		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
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	32	23	23	32	23	23	70	61	61	70	62	62
g / C, Green / Cycle	0.29	0.21	0.21	0.29	0.21	0.21	0.64	0.55	0.55	0.64	0.56	0.56
(v / s)_i Volume / Saturation Flow Rate	0.10	0.16	0.17	0.09	0.18	0.18	0.13	0.35	0.11	0.37	0.47	0.07
s, saturation flow rate [veh/h]	1839	1710	1447	990	1710	1593	424	3256	1377	574	3256	1373
c, Capacity [veh/h]	406	357	302	258	357	333	239	1801	762	346	1828	771
d1, Uniform Delay [s]	31.13	41.09	41.31	30.78	41.96	42.05	18.84	16.84	12.36	14.76	20.13	11.39
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
l, 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
d2, Incremental Delay [s]	0.73	3.58	4.73	0.82	5.93	6.70	2.29	1.67	0.60	7.68	4.98	0.34
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	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	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	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.43	0.77	0.79	0.35	0.86	0.86	0.23	0.63	0.20	0.61	0.84	0.13
d, Delay for Lane Group [s/veh]	31.86	44.66	46.05	31.60	47.88	48.74	21.13	18.51	12.96	22.44	25.12	11.73
Lane Group LOS	C	D	D	C	D	D	C	B	B	C	C	B
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.79	7.36	6.53	1.87	8.52	8.09	0.63	9.74	2.00	2.72	16.65	1.18
50th-Percentile Queue Length [ft/ln]	44.82	184.11	163.30	46.76	212.92	202.29	15.73	243.45	50.01	68.06	416.29	29.47
95th-Percentile Queue Length [veh/ln]	3.23	11.81	10.72	3.37	13.30	12.76	1.13	14.86	3.60	4.90	23.34	2.12
95th-Percentile Queue Length [ft/ln]	80.67	295.37	268.09	84.17	332.57	318.91	28.31	371.40	90.01	122.50	583.59	53.04

Movement, Approach, & Intersection Results

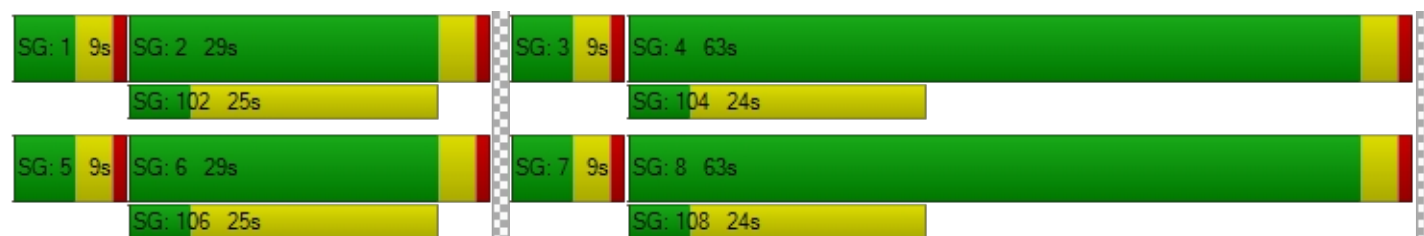
d_M, Delay for Movement [s/veh]	31.86	44.75	46.05	31.60	48.20	48.74	21.13	18.51	12.96	22.44	25.12	11.73
Movement LOS	C	D	D	C	D	D	C	B	B	C	C	B
d_A, Approach Delay [s/veh]	41.89			46.08			17.98			24.11		
Approach LOS	D			D			B			C		
d_I, Intersection Delay [s/veh]	28.29											
Intersection LOS	C											
Intersection V/C	0.712											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	46.39			46.39			46.39			46.39		
I_p,int, Pedestrian LOS Score for Intersection	2.885			2.694			3.037			3.029		
Crosswalk LOS	C			B			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	1072			1072			454			454		
d_b, Bicycle Delay [s]	11.85			11.84			32.88			32.88		
I_b,int, Bicycle LOS Score for Intersection	2.131			2.124			2.668			3.087		
Bicycle LOS	B			B			B			C		

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Orr and Day Rd/Florence Ave

Control Type:	Signalized	Delay (sec / veh):	53.7
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.646

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			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 Entry Pocket	1	0	0	1	0	1	2	0	0	1	0	0
Entry Pocket Length [ft]	215.00	100.00	100.00	120.00	100.00	120.00	350.00	100.00	100.00	200.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1000.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	23	10	3	95	14	374	361	1268	35	1	1470	66
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	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	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	23	10	3	95	14	374	361	1268	35	1	1470	66
Peak Hour Factor	0.6830	0.6830	0.6830	0.9240	0.9240	0.9240	0.8660	0.8660	0.8660	0.9020	0.9020	0.9020
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]	8	4	1	26	4	101	104	366	10	0	407	18
Total Analysis Volume [veh/h]	34	15	4	103	15	405	417	1464	40	1	1630	73
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	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2021 (SP 0-2)

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	150
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	5	10	0	5	10	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	33	0	0	36	0	24	49	0	32	57	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	24	0	0	27	0	0	14	0	0	21	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	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
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	150	150	150	150	150	150	150	150	150	150	150	150
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	31	31	31	31	31	31	20	73	73	0	53	53
g / C, Green / Cycle	0.20	0.20	0.20	0.20	0.20	0.20	0.13	0.48	0.48	0.00	0.35	0.35
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.01	0.04	0.04	0.16	0.13	0.30	0.30	0.00	0.35	0.35
s, saturation flow rate [veh/h]	1629	1639	1493	1629	1648	2573	3163	3256	1687	1629	3256	1673
c, Capacity [veh/h]	332	334	304	332	336	524	422	1577	817	2	1147	589
d1, Uniform Delay [s]	48.08	48.08	48.08	49.32	49.32	56.43	64.88	28.66	28.68	74.82	48.06	48.07
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.27	0.50	0.11	0.11	0.46
l, 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
d2, Incremental Delay [s]	0.31	0.31	0.34	1.16	1.15	10.57	17.85	1.05	3.65	89.00	8.58	31.01
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	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	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	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.05	0.05	0.05	0.18	0.18	0.77	0.99	0.63	0.63	0.42	0.98	0.98
d, Delay for Lane Group [s/veh]	48.40	48.39	48.42	50.48	50.47	66.99	82.73	29.72	32.33	163.83	56.64	79.08
Lane Group LOS	D	D	D	D	D	E	F	C	C	F	E	E
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.59	0.59	0.54	1.95	1.97	8.05	9.03	13.45	14.56	0.10	22.06	26.36
50th-Percentile Queue Length [ft/ln]	14.67	14.67	13.42	48.76	49.32	201.29	225.63	336.32	363.91	2.44	551.45	658.92
95th-Percentile Queue Length [veh/ln]	1.06	1.06	0.97	3.51	3.55	12.71	13.95	19.47	20.81	0.18	29.76	34.78
95th-Percentile Queue Length [ft/ln]	26.41	26.41	24.15	87.76	88.77	317.63	348.80	486.70	520.34	4.38	744.00	869.41

Movement, Approach, & Intersection Results

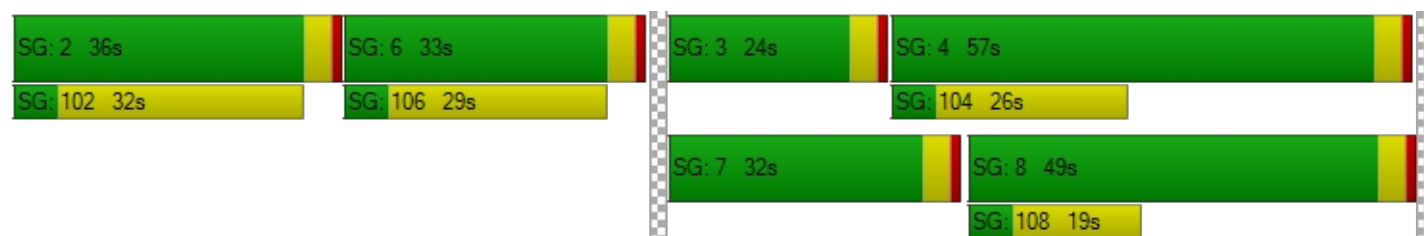
d_M, Delay for Movement [s/veh]	48.39	48.41	48.42	50.48	50.47	66.99	82.73	30.56	32.33	163.83	63.59	79.08
Movement LOS	D	D	D	D	D	E	F	C	C	F	E	E
d_A, Approach Delay [s/veh]	48.40			63.27			41.92			64.32		
Approach LOS	D			E			D			E		
d_I, Intersection Delay [s/veh]	53.75											
Intersection LOS	D											
Intersection V/C	0.646											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	66.27	66.27	66.27	66.27
I_p,int, Pedestrian LOS Score for Intersection	2.183	2.645	3.237	3.076
Crosswalk LOS	B	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	387	427	600	707
d_b, Bicycle Delay [s]	48.80	46.41	36.75	31.36
I_b,int, Bicycle LOS Score for Intersection	1.603	2.423	2.616	2.497
Bicycle LOS	A	B	B	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Florence Avenue Townhomes

Vistro File: C:\...\Florence Ave Vistro.vistro

Scenario 2 Existing PM

Report File: C:\...\Existing PM.pdf

6/24/2021

Turning Movement Volume: Summary

ID	Intersection Name	Southbound		Eastbound		Westbound		Total Volume
		Left	Right	Left	Thru	Thru	Right	
1	Project Driveway/Florence Ave	0	0	0	1265	1485	0	2750

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
2	Pioneer Blvd/Florence Ave	145	243	182	77	408	96	53	1066	146	169	1244	79	3908

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3	Orr and Day Rd/Florence Ave	23	10	3	95	14	374	361	1268	35	1	1470	66	3720

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Florence Avenue Townhomes

Vistro File: C:\...\Florence Ave Vistro.vistro

Scenario 3 Existing AM + P

Report File: C:\...\Existing AM + P.pdf

6/24/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Project Driveway/Florence Ave	Two-way stop	HCM 6th Edition	SB Left	0.022	25.3	D
2	Pioneer Blvd/Florence Ave	Signalized	HCM 6th Edition	NB Right	0.662	25.5	C
3	Orr and Day Rd/Florence Ave	Signalized	HCM 6th Edition	WB Left	0.566	47.7	D

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report

Intersection 1: Project Driveway/Florence Ave

Control Type:	Two-way stop	Delay (sec / veh):	25.3
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.022

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	8.00
No. of Lanes in Entry Pocket	0	0	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	200.00	100.00	100.00	245.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	0	1345	1336	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	13	5	0	0	2
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	13	5	1345	1336	2
Peak Hour Factor	0.9500	0.9500	0.9010	0.9010	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	3	1	373	363	1
Total Analysis Volume [veh/h]	4	14	6	1493	1452	2
Pedestrian Volume [ped/h]	3		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	250	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.04	0.01	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	25.34	15.52	12.78	0.00	0.00	0.00
Movement LOS	D	C	B	A	A	A
95th-Percentile Queue Length [veh/ln]	0.19	0.19	0.04	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	4.74	4.74	0.97	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	17.70		0.05		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.13					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 2: Pioneer Blvd/Florence Ave

Control Type:	Signalized	Delay (sec / veh):	25.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.662

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			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	8.00	12.00	12.00	8.00
No. of Lanes in Entry Pocket	2	0	1	1	0	0	1	0	0	1	0	1
Entry Pocket Length [ft]	160.00	100.00	100.00	145.00	100.00	100.00	125.00	100.00	100.00	250.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	152	282	173	50	217	42	76	1158	111	112	1142	71
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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]	1	0	0	0	0	0	1	1	2	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	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	153	282	173	50	217	42	77	1159	113	112	1142	71
Peak Hour Factor	0.7090	0.7090	0.7090	0.8510	0.8510	0.8510	0.9010	0.9010	0.9010	0.9200	0.9200	0.9200
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]	54	99	61	15	64	12	21	322	31	30	310	19
Total Analysis Volume [veh/h]	216	398	244	59	255	49	85	1286	125	122	1241	77
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	2			4			5			1		
v_di, Inbound Pedestrian Volume crossing in	1			5			4			2		
v_co, Outbound Pedestrian Volume crossing	0			1			1			1		
v_ci, Inbound Pedestrian Volume crossing mi	1			1			0			1		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	2			0			0			3		

Version 2021 (SP 0-2)

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	9	43	0	9	43	0	9	29	0	9	29	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	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	19	0	0	20	0	0	20	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		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
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	30	22	22	30	21	21	52	44	44	52	44	44
g / C, Green / Cycle	0.33	0.24	0.24	0.33	0.23	0.23	0.58	0.48	0.48	0.58	0.49	0.49
(v / s)_i Volume / Saturation Flow Rate	0.10	0.20	0.20	0.07	0.09	0.09	0.15	0.39	0.09	0.22	0.38	0.06
s, saturation flow rate [veh/h]	2206	1710	1473	901	1710	1609	560	3256	1394	556	3256	1375
c, Capacity [veh/h]	731	414	357	275	393	370	308	1570	672	302	1586	670
d1, Uniform Delay [s]	21.99	32.33	32.47	22.79	29.38	29.46	14.36	19.97	13.27	16.47	19.15	12.54
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.20	0.50	0.50
l, 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
d2, Incremental Delay [s]	0.22	4.23	5.32	0.39	0.64	0.71	2.21	4.90	0.61	1.61	3.93	0.35
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	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	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	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.30	0.83	0.84	0.21	0.39	0.40	0.28	0.82	0.19	0.40	0.78	0.11
d, Delay for Lane Group [s/veh]	22.22	36.56	37.79	23.17	30.02	30.17	16.57	24.87	13.88	18.07	23.08	12.89
Lane Group LOS	C	D	D	C	C	C	B	C	B	B	C	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.63	7.36	6.58	0.88	2.86	2.77	0.87	11.74	1.49	1.13	10.82	0.87
50th-Percentile Queue Length [ft/ln]	40.80	184.12	164.43	21.99	71.41	69.30	21.73	293.59	37.33	28.37	270.41	21.84
95th-Percentile Queue Length [veh/ln]	2.94	11.82	10.78	1.58	5.14	4.99	1.56	17.36	2.69	2.04	16.21	1.57
95th-Percentile Queue Length [ft/ln]	73.44	295.38	269.58	39.57	128.53	124.74	39.11	434.09	67.19	51.07	405.25	39.32

Movement, Approach, & Intersection Results

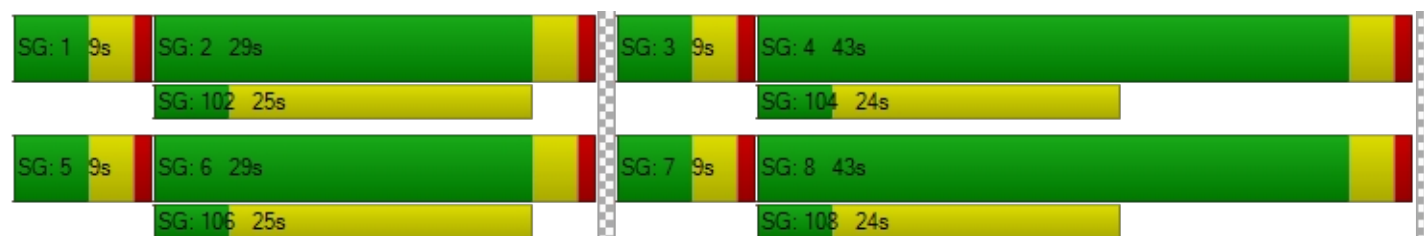
d_M, Delay for Movement [s/veh]	22.22	36.73	37.79	23.17	30.08	30.17	16.57	24.87	13.88	18.07	23.08	12.89
Movement LOS	C	D	D	C	C	C	B	C	B	B	C	B
d_A, Approach Delay [s/veh]	33.38			28.97			23.48			22.11		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	25.53											
Intersection LOS	C											
Intersection V/C	0.662											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	36.47			36.47			36.47			36.47		
I_p,int, Pedestrian LOS Score for Intersection	2.763			2.666			3.020			2.969		
Crosswalk LOS	C			B			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	866			866			555			555		
d_b, Bicycle Delay [s]	14.48			14.47			23.49			23.53		
I_b,int, Bicycle LOS Score for Intersection	2.267			1.859			2.794			2.748		
Bicycle LOS	B			A			C			B		

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Orr and Day Rd/Florence Ave

Control Type:	Signalized	Delay (sec / veh):	47.7
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.566

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			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 Entry Pocket	1	0	0	1	0	1	2	0	0	1	0	0
Entry Pocket Length [ft]	215.00	100.00	100.00	120.00	100.00	120.00	350.00	100.00	100.00	200.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1000.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	26	23	0	77	7	322	234	1152	7	1	1261	130
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	0	0	2	0	0	0	3	0	0	9	4
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	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	26	23	0	79	7	322	234	1155	7	1	1270	134
Peak Hour Factor	0.6380	0.6380	0.6380	0.8070	0.8070	0.8070	0.9080	0.9080	0.9080	0.9170	0.9170	0.9170
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]	10	9	0	24	2	100	64	318	2	0	346	37
Total Analysis Volume [veh/h]	41	36	0	98	9	399	258	1272	8	1	1385	146
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	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2021 (SP 0-2)

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	140
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	5	10	0	5	10	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	33	0	0	36	0	29	61	0	10	42	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	24	0	0	27	0	0	14	0	0	21	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	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
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	140	140	140	140	140	140	140	140	140	140	140	140
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	32	32	32	32	32	32	14	60	60	0	47	47
g / C, Green / Cycle	0.23	0.23	0.23	0.23	0.23	0.23	0.10	0.43	0.43	0.00	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate	0.02	0.02	0.02	0.03	0.03	0.16	0.08	0.26	0.26	0.00	0.31	0.31
s, saturation flow rate [veh/h]	1629	1664	1556	1629	1642	2573	3163	3256	1705	1629	3256	1628
c, Capacity [veh/h]	369	377	353	369	372	583	311	1403	735	3	1088	544
d1, Uniform Delay [s]	42.56	42.55	42.53	43.29	43.29	49.55	61.96	30.55	30.55	69.82	45.20	45.20
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.16	0.50	0.11	0.11	0.39
l, 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
d2, Incremental Delay [s]	0.37	0.36	0.38	0.82	0.81	6.41	5.67	0.61	3.59	76.41	4.64	21.82
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	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	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	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.07	0.07	0.07	0.14	0.14	0.68	0.83	0.60	0.60	0.39	0.94	0.94
d, Delay for Lane Group [s/veh]	42.93	42.91	42.91	44.11	44.10	55.96	67.63	31.16	34.14	146.23	49.84	67.03
Lane Group LOS	D	D	D	D	D	E	E	C	C	F	D	E
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.77	0.77	0.70	1.58	1.59	6.94	4.76	11.01	12.13	0.09	17.80	20.40
50th-Percentile Queue Length [ft/ln]	19.18	19.22	17.62	39.56	39.86	173.51	119.12	275.19	303.35	2.26	444.97	509.93
95th-Percentile Queue Length [veh/ln]	1.38	1.38	1.27	2.85	2.87	11.26	8.34	16.45	17.85	0.16	24.72	27.80
95th-Percentile Queue Length [ft/ln]	34.53	34.60	31.71	71.21	71.75	281.52	208.62	411.22	446.17	4.06	617.94	695.10

Movement, Approach, & Intersection Results

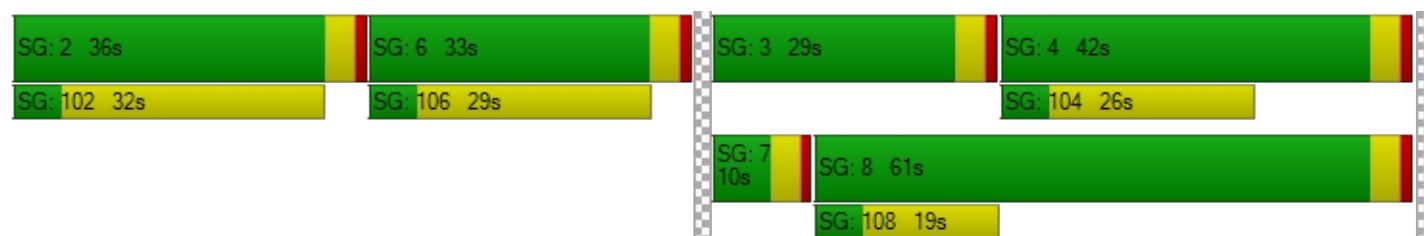
d_M, Delay for Movement [s/veh]	42.92	42.91	42.91	44.11	44.10	55.96	67.63	32.17	34.14	146.23	54.36	67.03
Movement LOS	D	D	D	D	D	E	E	C	C	F	D	E
d_A, Approach Delay [s/veh]	42.92			53.45			38.13			55.63		
Approach LOS	D			D			D			E		
d_I, Intersection Delay [s/veh]	47.69											
Intersection LOS	D											
Intersection V/C	0.566											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	61.29			61.29			61.29			61.29		
I_p,int, Pedestrian LOS Score for Intersection	2.177			2.629			3.158			3.020		
Crosswalk LOS	B			B			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	414			457			814			543		
d_b, Bicycle Delay [s]	44.00			41.66			24.60			37.16		
I_b,int, Bicycle LOS Score for Intersection	1.623			2.395			2.406			2.402		
Bicycle LOS	A			B			B			B		

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Florence Avenue Townhomes

Vistro File: C:\...\Florence Ave Vistro.vistro

Scenario 3 Existing AM + P

Report File: C:\...\Existing AM + P.pdf

6/24/2021

Turning Movement Volume: Summary

ID	Intersection Name	Southbound		Eastbound		Westbound		Total Volume
		Left	Right	Left	Thru	Thru	Right	
1	Project Driveway/Florence Ave	4	13	5	1345	1336	2	2705

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
2	Pioneer Blvd/Florence Ave	153	282	173	50	217	42	77	1159	113	112	1142	71	3591

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3	Orr and Day Rd/Florence Ave	26	23	0	79	7	322	234	1155	7	1	1270	134	3258

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Florence Avenue Townhomes

Vistro File: C:\...\Florence Ave Vistro.vistro

Scenario 4 Existing PM + P

Report File: C:\...\Existing PM + P.pdf

6/24/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Project Driveway/Florence Ave	Two-way stop	HCM 6th Edition	SB Left	0.027	37.9	E
2	Pioneer Blvd/Florence Ave	Signalized	HCM 6th Edition	SB Right	0.713	28.3	C
3	Orr and Day Rd/Florence Ave	Signalized	HCM 6th Edition	WB Left	0.648	54.2	D

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Project Driveway/Florence Ave

Control Type:	Two-way stop	Delay (sec / veh):	37.9
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.027

Intersection Setup

Name	Southbound		Eastbound		Westbound	
Approach						
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	8.00
No. of Lanes in Entry Pocket	0	0	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	200.00	100.00	100.00	245.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	0	1265	1485	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	3	8	13	0	0	4
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	8	13	1265	1485	4
Peak Hour Factor	0.9500	0.9500	0.9420	0.9420	0.8060	0.8060
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	2	3	336	461	1
Total Analysis Volume [veh/h]	3	8	14	1343	1842	5
Pedestrian Volume [ped/h]	2		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	250	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.03	0.04	0.01	0.02	0.00
d_M, Delay for Movement [s/veh]	37.87	19.15	16.32	0.00	0.00	0.00
Movement LOS	E	C	C	A	A	A
95th-Percentile Queue Length [veh/ln]	0.18	0.18	0.13	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	4.38	4.38	3.29	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	24.26		0.17		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.15					
Intersection LOS	E					

Intersection Level Of Service Report
Intersection 2: Pioneer Blvd/Florence Ave

Control Type:	Signalized	Delay (sec / veh):	28.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.713

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			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	8.00	12.00	12.00	8.00
No. of Lanes in Entry Pocket	2	0	1	1	0	0	1	0	0	1	0	1
Entry Pocket Length [ft]	160.00	100.00	100.00	145.00	100.00	100.00	125.00	100.00	100.00	250.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	145	243	182	77	408	96	53	1066	146	169	1244	79
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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]	2	0	0	0	0	1	1	1	2	0	1	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	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	147	243	182	77	408	97	54	1067	148	169	1245	79
Peak Hour Factor	0.8250	0.8250	0.8250	0.8500	0.8500	0.8500	0.9420	0.9420	0.9420	0.8060	0.8060	0.8060
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]	45	74	55	23	120	29	14	283	39	52	386	25
Total Analysis Volume [veh/h]	178	295	221	91	480	114	57	1133	157	210	1545	98
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	2			3			3			1		
v_di, Inbound Pedestrian Volume crossing in	1			3			3			2		
v_co, Outbound Pedestrian Volume crossing	1			3			0			4		
v_ci, Inbound Pedestrian Volume crossing mi	0			4			1			3		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	1			0			1			1		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	9	63	0	9	63	0	9	29	0	9	29	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	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	19	0	0	20	0	0	20	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		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
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	32	23	23	32	23	23	70	61	61	70	62	62
g / C, Green / Cycle	0.29	0.21	0.21	0.29	0.21	0.21	0.64	0.55	0.55	0.64	0.56	0.56
(v / s)_i Volume / Saturation Flow Rate	0.10	0.16	0.17	0.09	0.18	0.18	0.13	0.35	0.11	0.37	0.47	0.07
s, saturation flow rate [veh/h]	1838	1710	1447	990	1710	1592	424	3256	1377	573	3256	1373
c, Capacity [veh/h]	406	358	303	258	358	333	239	1800	762	346	1826	770
d1, Uniform Delay [s]	31.13	41.05	41.28	30.75	41.94	42.03	18.99	16.88	12.40	14.81	20.21	11.42
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
l, 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
d2, Incremental Delay [s]	0.74	3.55	4.69	0.82	5.93	6.70	2.35	1.68	0.61	7.72	5.06	0.34
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	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	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	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.44	0.77	0.79	0.35	0.86	0.86	0.24	0.63	0.21	0.61	0.85	0.13
d, Delay for Lane Group [s/veh]	31.88	44.60	45.97	31.57	47.87	48.73	21.34	18.56	13.01	22.53	25.27	11.76
Lane Group LOS	C	D	D	C	D	D	C	B	B	C	C	B
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.81	7.36	6.53	1.87	8.53	8.10	0.64	9.76	2.03	2.73	16.73	1.18
50th-Percentile Queue Length [ft/ln]	45.34	183.98	163.14	46.74	213.32	202.58	16.06	244.03	50.79	68.18	418.31	29.52
95th-Percentile Queue Length [veh/ln]	3.26	11.81	10.71	3.36	13.32	12.77	1.16	14.89	3.66	4.91	23.44	2.13
95th-Percentile Queue Length [ft/ln]	81.61	295.21	267.87	84.12	333.08	319.29	28.91	372.13	91.42	122.73	586.02	53.13

Movement, Approach, & Intersection Results

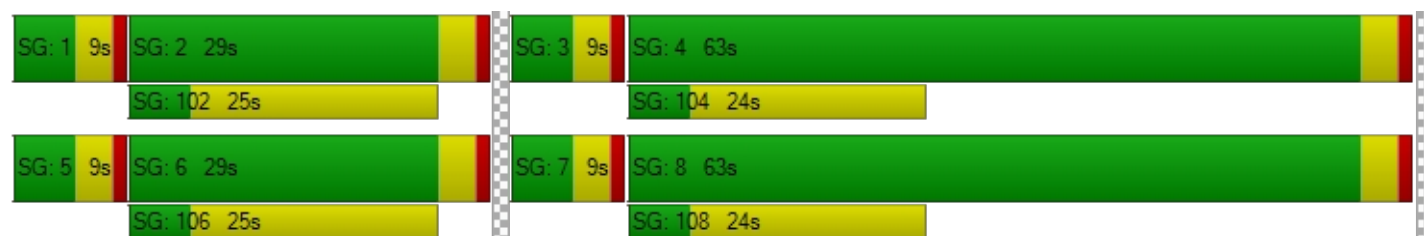
d_M, Delay for Movement [s/veh]	31.88	44.69	45.97	31.57	48.18	48.73	21.34	18.56	13.01	22.53	25.27	11.76
Movement LOS	C	D	D	C	D	D	C	B	B	C	C	B
d_A, Approach Delay [s/veh]	41.81			46.07			18.03			24.24		
Approach LOS	D			D			B			C		
d_I, Intersection Delay [s/veh]	28.34											
Intersection LOS	C											
Intersection V/C	0.713											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	46.39			46.39			46.39			46.39		
I_p,int, Pedestrian LOS Score for Intersection	2.885			2.696			3.039			3.029		
Crosswalk LOS	C			B			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	1072			1072			454			454		
d_b, Bicycle Delay [s]	11.85			11.84			32.88			32.88		
I_b,int, Bicycle LOS Score for Intersection	2.132			2.125			2.671			3.088		
Bicycle LOS	B			B			B			C		

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Orr and Day Rd/Florence Ave

Control Type:	Signalized	Delay (sec / veh):	54.2
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.648

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			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 Entry Pocket	1	0	0	1	0	1	2	0	0	1	0	0
Entry Pocket Length [ft]	215.00	100.00	100.00	120.00	100.00	120.00	350.00	100.00	100.00	200.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1000.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	23	10	3	95	14	374	361	1268	35	1	1470	66
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	0	0	4	0	0	0	9	0	0	5	3
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	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	23	10	3	99	14	374	361	1277	35	1	1475	69
Peak Hour Factor	0.6830	0.6830	0.6830	0.9240	0.9240	0.9240	0.8660	0.8660	0.8660	0.9020	0.9020	0.9020
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]	8	4	1	27	4	101	104	369	10	0	409	19
Total Analysis Volume [veh/h]	34	15	4	107	15	405	417	1475	40	1	1635	76
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	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	150
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	5	10	0	5	10	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	33	0	0	36	0	24	49	0	32	57	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	24	0	0	27	0	0	14	0	0	21	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	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
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	150	150	150	150	150	150	150	150	150	150	150	150
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	31	31	31	31	31	31	20	73	73	0	53	53
g / C, Green / Cycle	0.20	0.20	0.20	0.20	0.20	0.20	0.13	0.48	0.48	0.00	0.35	0.35
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.01	0.04	0.04	0.16	0.13	0.31	0.31	0.00	0.35	0.35
s, saturation flow rate [veh/h]	1629	1639	1493	1629	1648	2573	3163	3256	1687	1629	3256	1671
c, Capacity [veh/h]	332	334	304	332	336	524	422	1577	817	2	1147	589
d1, Uniform Delay [s]	48.08	48.08	48.08	49.38	49.38	56.43	64.88	28.75	28.77	74.82	48.18	48.20
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.28	0.50	0.11	0.11	0.46
l, 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
d2, Incremental Delay [s]	0.31	0.31	0.34	1.21	1.19	10.57	17.85	1.09	3.72	89.00	9.37	32.24
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	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	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	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.05	0.05	0.05	0.18	0.18	0.77	0.99	0.63	0.63	0.42	0.99	0.99
d, Delay for Lane Group [s/veh]	48.40	48.39	48.42	50.59	50.58	67.00	82.73	29.84	32.49	163.83	57.55	80.43
Lane Group LOS	D	D	D	D	D	E	F	C	C	F	E	F
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.59	0.59	0.54	2.02	2.04	8.05	9.03	13.60	14.72	0.10	22.34	26.70
50th-Percentile Queue Length [ft/ln]	14.67	14.67	13.42	50.50	51.06	201.29	225.63	339.98	367.96	2.44	558.50	667.49
95th-Percentile Queue Length [veh/ln]	1.06	1.06	0.97	3.64	3.68	12.71	13.95	19.65	21.01	0.18	30.09	35.17
95th-Percentile Queue Length [ft/ln]	26.41	26.41	24.16	90.90	91.91	317.63	348.80	491.17	525.26	4.38	752.28	879.34

Movement, Approach, & Intersection Results

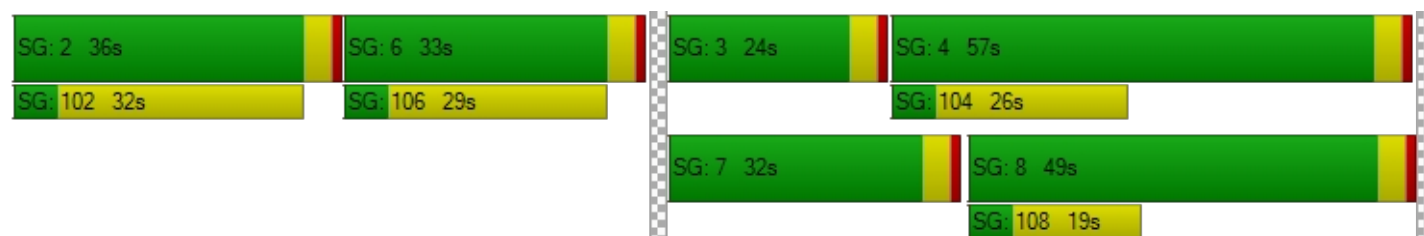
d_M, Delay for Movement [s/veh]	48.39	48.42	48.42	50.59	50.58	67.00	82.73	30.70	32.49	163.83	64.61	80.43
Movement LOS	D	D	D	D	D	E	F	C	C	F	E	F
d_A, Approach Delay [s/veh]	48.40			63.20			41.97			65.37		
Approach LOS	D			E			D			E		
d_I, Intersection Delay [s/veh]	54.18											
Intersection LOS	D											
Intersection V/C	0.648											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	66.27			66.27			66.27			66.27		
I_p,int, Pedestrian LOS Score for Intersection	2.183			2.647			3.239			3.079		
Crosswalk LOS	B			B			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	387			427			600			707		
d_b, Bicycle Delay [s]	48.80			46.41			36.75			31.36		
I_b,int, Bicycle LOS Score for Intersection	1.603			2.429			2.622			2.501		
Bicycle LOS	A			B			B			B		

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Florence Avenue Townhomes

Vistro File: C:\...\Florence Ave Vistro.vistro

Scenario 4 Existing PM + P

Report File: C:\...\Existing PM + P.pdf

6/24/2021

Turning Movement Volume: Summary

ID	Intersection Name	Southbound		Eastbound		Westbound		Total Volume
		Left	Right	Left	Thru	Thru	Right	
1	Project Driveway/Florence Ave	3	8	13	1265	1485	4	2778

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
2	Pioneer Blvd/Florence Ave	147	243	182	77	408	97	54	1067	148	169	1245	79	3916

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3	Orr and Day Rd/Florence Ave	23	10	3	99	14	374	361	1277	35	1	1475	69	3741

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Florence Avenue Townhomes

Vistro File: C:\...\Florence Ave Vistro.vistro

Scenario 5 OY AM

Report File: C:\...\OY AM.pdf

6/24/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Project Driveway/Florence Ave	Two-way stop	HCM 6th Edition	EB Thru	0.016	0.0	A
2	Pioneer Blvd/Florence Ave	Signalized	HCM 6th Edition	NB Right	0.692	27.5	C
3	Orr and Day Rd/Florence Ave	Signalized	HCM 6th Edition	WB Left	0.586	48.3	D

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Project Driveway/Florence Ave

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.016

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	8.00
No. of Lanes in Entry Pocket	0	0	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	200.00	100.00	100.00	245.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	0	1345	1336	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	13	2	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	1412	1391	0
Peak Hour Factor	0.9500	0.9500	0.9010	0.9010	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	392	378	0
Total Analysis Volume [veh/h]	0	0	0	1567	1512	0
Pedestrian Volume [ped/h]	3		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	250	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.02	0.02	0.00
d_M, Delay for Movement [s/veh]	26.09	15.21	13.08	0.00	0.00	0.00
Movement LOS	D	C	B	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	20.65		0.00		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 2: Pioneer Blvd/Florence Ave

Control Type:	Signalized	Delay (sec / veh):	27.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.692

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			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	8.00	12.00	12.00	8.00
No. of Lanes in Entry Pocket	2	0	1	1	0	0	1	0	0	1	0	1
Entry Pocket Length [ft]	160.00	100.00	100.00	145.00	100.00	100.00	125.00	100.00	100.00	250.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	152	282	173	50	217	42	76	1158	111	112	1142	71
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
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	13	0	0	2	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	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	158	293	180	52	226	44	79	1217	115	116	1190	74
Peak Hour Factor	0.7090	0.7090	0.7090	0.8510	0.8510	0.8510	0.9010	0.9010	0.9010	0.9200	0.9200	0.9200
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]	56	103	63	15	66	13	22	338	32	32	323	20
Total Analysis Volume [veh/h]	223	413	254	61	266	52	88	1351	128	126	1293	80
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	2			4			5			1		
v_di, Inbound Pedestrian Volume crossing in	1			5			4			2		
v_co, Outbound Pedestrian Volume crossing	0			1			1			1		
v_ci, Inbound Pedestrian Volume crossing mi	1			1			0			1		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	2			0			0			3		

Version 2021 (SP 0-2)

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	95
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	9	48	0	9	48	0	9	29	0	9	29	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	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	19	0	0	20	0	0	20	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		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
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	95	95	95	95	95	95	95	95	95	95	95	95
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	32	24	24	32	23	23	55	46	46	55	47	47
g / C, Green / Cycle	0.33	0.25	0.25	0.33	0.24	0.24	0.58	0.49	0.49	0.58	0.49	0.49
(v / s)_i Volume / Saturation Flow Rate	0.10	0.21	0.21	0.07	0.09	0.10	0.16	0.41	0.09	0.24	0.40	0.06
s, saturation flow rate [veh/h]	2170	1710	1473	882	1710	1608	538	3256	1394	531	3256	1375
c, Capacity [veh/h]	717	425	366	264	408	383	287	1583	678	279	1600	676
d1, Uniform Delay [s]	23.05	33.91	34.05	24.00	30.48	30.56	16.32	21.46	13.82	18.95	20.42	13.06
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.27	0.50	0.50
l, 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
d2, Incremental Delay [s]	0.24	4.42	5.55	0.44	0.63	0.69	2.76	6.05	0.62	2.84	4.51	0.36
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	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	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	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.31	0.84	0.85	0.23	0.40	0.41	0.31	0.85	0.19	0.45	0.81	0.12
d, Delay for Lane Group [s/veh]	23.29	38.33	39.60	24.44	31.11	31.26	19.08	27.51	14.44	21.79	24.93	13.42
Lane Group LOS	C	D	D	C	C	C	B	C	B	C	C	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.79	8.15	7.26	0.97	3.15	3.06	0.98	13.62	1.62	1.33	12.28	0.96
50th-Percentile Queue Length [ft/ln]	44.79	203.63	181.55	24.15	78.86	76.40	24.41	340.61	40.41	33.26	306.90	23.98
95th-Percentile Queue Length [veh/ln]	3.22	12.83	11.68	1.74	5.68	5.50	1.76	19.68	2.91	2.39	18.02	1.73
95th-Percentile Queue Length [ft/ln]	80.62	320.64	292.04	43.47	141.95	137.51	43.93	491.94	72.75	59.87	450.55	43.17

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	23.29	38.51	39.60	24.44	31.17	31.26	19.08	27.51	14.44	21.79	24.93	13.42
Movement LOS	C	D	D	C	C	C	B	C	B	C	C	B
d_A, Approach Delay [s/veh]	35.01			30.10			25.97			24.06		
Approach LOS	D			C			C			C		
d_I, Intersection Delay [s/veh]	27.52											
Intersection LOS	C											
Intersection V/C	0.692											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	38.97			38.97			38.97			38.97		
I_p,int, Pedestrian LOS Score for Intersection	2.777			2.677			3.049			2.995		
Crosswalk LOS	C			B			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	926			926			526			526		
d_b, Bicycle Delay [s]	13.73			13.72			25.83			25.87		
I_b,int, Bicycle LOS Score for Intersection	2.294			1.872			2.852			2.796		
Bicycle LOS	B			A			C			C		

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Orr and Day Rd/Florence Ave

Control Type:	Signalized	Delay (sec / veh):	48.3
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.586

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			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 Entry Pocket	1	0	0	1	0	1	2	0	0	1	0	0
Entry Pocket Length [ft]	215.00	100.00	100.00	120.00	100.00	120.00	350.00	100.00	100.00	200.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1000.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	26	23	0	77	7	322	234	1152	7	1	1261	130
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
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	13	0	0	2	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	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	24	0	80	7	335	243	1211	7	1	1313	135
Peak Hour Factor	0.6380	0.6380	0.6380	0.8070	0.8070	0.8070	0.9080	0.9080	0.9080	0.9170	0.9170	0.9170
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]	11	9	0	25	2	104	67	333	2	0	358	37
Total Analysis Volume [veh/h]	42	38	0	99	9	415	268	1334	8	1	1432	147
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	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2021 (SP 0-2)

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	140
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	5	10	0	5	10	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	33	0	0	36	0	18	61	0	10	53	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	24	0	0	27	0	0	14	0	0	21	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	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
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	140	140	140	140	140	140	140	140	140	140	140	140
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	31	31	31	31	31	31	14	61	61	0	48	48
g / C, Green / Cycle	0.22	0.22	0.22	0.22	0.22	0.22	0.10	0.44	0.44	0.00	0.34	0.34
(v / s)_i Volume / Saturation Flow Rate	0.02	0.02	0.02	0.03	0.03	0.16	0.08	0.27	0.27	0.00	0.32	0.32
s, saturation flow rate [veh/h]	1629	1666	1556	1629	1642	2573	3163	3256	1705	1629	3256	1630
c, Capacity [veh/h]	364	372	348	364	367	575	310	1424	746	3	1110	556
d1, Uniform Delay [s]	42.94	42.93	42.91	43.66	43.66	50.34	62.22	30.38	30.38	69.82	44.93	44.93
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.18	0.50	0.11	0.11	0.41
l, 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
d2, Incremental Delay [s]	0.40	0.39	0.40	0.86	0.85	7.67	7.16	0.73	3.83	76.41	5.22	23.91
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	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	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	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.08	0.07	0.07	0.15	0.15	0.72	0.86	0.62	0.62	0.39	0.95	0.95
d, Delay for Lane Group [s/veh]	43.34	43.31	43.31	44.52	44.51	58.00	69.38	31.11	34.21	146.23	50.15	68.85
Lane Group LOS	D	D	D	D	D	E	E	C	C	F	D	E
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.80	0.80	0.74	1.61	1.62	7.37	5.02	11.60	12.79	0.09	18.47	21.39
50th-Percentile Queue Length [ft/ln]	20.05	20.09	18.41	40.16	40.46	184.30	125.54	290.07	319.81	2.26	461.85	534.69
95th-Percentile Queue Length [veh/ln]	1.44	1.45	1.33	2.89	2.91	11.83	8.70	17.19	18.66	0.16	25.52	28.97
95th-Percentile Queue Length [ft/ln]	36.08	36.16	33.15	72.29	72.83	295.63	217.41	429.73	466.45	4.06	638.07	724.30

Movement, Approach, & Intersection Results

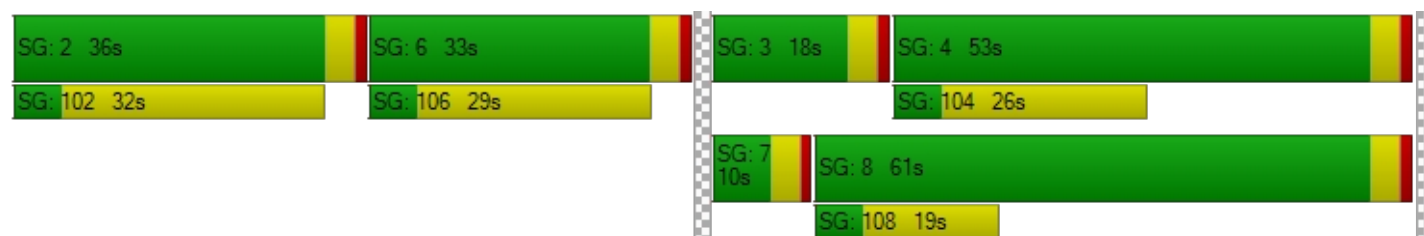
d_M, Delay for Movement [s/veh]	43.33	43.31	43.31	44.52	44.51	58.00	69.38	32.16	34.21	146.23	55.11	68.85
Movement LOS	D	D	D	D	D	E	E	C	C	F	E	E
d_A, Approach Delay [s/veh]	43.32			55.22			38.37			56.44		
Approach LOS	D			E			D			E		
d_I, Intersection Delay [s/veh]	48.33											
Intersection LOS	D											
Intersection V/C	0.586											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	61.29			61.29			61.29			61.29		
I_p,int, Pedestrian LOS Score for Intersection	2.177			2.634			3.174			3.036		
Crosswalk LOS	B			B			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	414			457			814			700		
d_b, Bicycle Delay [s]	44.00			41.66			24.60			29.57		
I_b,int, Bicycle LOS Score for Intersection	1.626			2.423			2.445			2.429		
Bicycle LOS	A			B			B			B		

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Florence Avenue Townhomes

Vistro File: C:\...\Florence Ave Vistro.vistro

Scenario 5 OY AM

Report File: C:\...\OY AM.pdf

6/24/2021

Turning Movement Volume: Summary

ID	Intersection Name	Southbound		Eastbound		Westbound		Total Volume
		Left	Right	Left	Thru	Thru	Right	
1	Project Driveway/Florence Ave	0	0	0	1412	1391	0	2803

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
2	Pioneer Blvd/Florence Ave	158	293	180	52	226	44	79	1217	115	116	1190	74	3744

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3	Orr and Day Rd/Florence Ave	27	24	0	80	7	335	243	1211	7	1	1313	135	3383

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Florence Avenue Townhomes

Vistro File: C:\...\Florence Ave Vistro.vistro

Scenario 6 OY PM

Report File: C:\...\OY PM.pdf

6/24/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Project Driveway/Florence Ave	Two-way stop	HCM 6th Edition	WB Thru	0.019	0.0	A
2	Pioneer Blvd/Florence Ave	Signalized	HCM 6th Edition	SB Right	0.745	30.2	C
3	Orr and Day Rd/Florence Ave	Signalized	HCM 6th Edition	WB Left	0.674	59.6	E

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Project Driveway/Florence Ave

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.019

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	8.00
No. of Lanes in Entry Pocket	0	0	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	200.00	100.00	100.00	245.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	0	1265	1485	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	2	12	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	1318	1556	0
Peak Hour Factor	0.9500	0.9500	0.9420	0.9420	0.8060	0.8060
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	350	483	0
Total Analysis Volume [veh/h]	0	0	0	1399	1931	0
Pedestrian Volume [ped/h]	2		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	250	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.01	0.02	0.00
d_M, Delay for Movement [s/veh]	40.60	19.00	16.69	0.00	0.00	0.00
Movement LOS	E	C	C	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	29.80		0.00		0.00	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 2: Pioneer Blvd/Florence Ave

Control Type:	Signalized	Delay (sec / veh):	30.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.745

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			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	8.00	12.00	12.00	8.00
No. of Lanes in Entry Pocket	2	0	1	1	0	0	1	0	0	1	0	1
Entry Pocket Length [ft]	160.00	100.00	100.00	145.00	100.00	100.00	125.00	100.00	100.00	250.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	145	243	182	77	408	96	53	1066	146	169	1244	79
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
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	2	0	0	12	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	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	151	253	189	80	424	100	55	1111	152	176	1306	82
Peak Hour Factor	0.8250	0.8250	0.8250	0.8500	0.8500	0.8500	0.9420	0.9420	0.9420	0.8060	0.8060	0.8060
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]	46	77	57	24	125	29	15	295	40	55	405	25
Total Analysis Volume [veh/h]	183	307	229	94	499	118	58	1179	161	218	1620	102
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	2			3			3			1		
v_di, Inbound Pedestrian Volume crossing in	1			3			3			2		
v_co, Outbound Pedestrian Volume crossing	1			3			0			4		
v_ci, Inbound Pedestrian Volume crossing mi	0			4			1			3		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	1			0			1			1		

Version 2021 (SP 0-2)

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	105
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	9	58	0	9	58	0	9	29	0	9	29	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	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	19	0	0	20	0	0	20	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		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
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	105	105	105	105	105	105	105	105	105	105	105	105
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	32	23	23	32	23	23	65	56	56	65	57	57
g / C, Green / Cycle	0.30	0.22	0.22	0.30	0.22	0.22	0.62	0.53	0.53	0.62	0.54	0.54
(v / s)_i Volume / Saturation Flow Rate	0.10	0.17	0.17	0.10	0.19	0.19	0.14	0.36	0.12	0.39	0.50	0.07
s, saturation flow rate [veh/h]	1815	1710	1448	979	1710	1593	413	3256	1377	565	3256	1373
c, Capacity [veh/h]	425	372	315	270	372	347	222	1735	734	329	1763	743
d1, Uniform Delay [s]	28.92	38.64	38.84	28.53	39.51	39.58	22.15	17.97	12.96	16.90	21.98	11.92
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
l, 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
d2, Incremental Delay [s]	0.69	3.39	4.43	0.77	5.63	6.32	2.84	2.17	0.69	10.10	9.21	0.38
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	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	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	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.43	0.77	0.79	0.35	0.85	0.86	0.26	0.68	0.22	0.66	0.92	0.14
d, Delay for Lane Group [s/veh]	29.61	42.02	43.27	29.30	45.14	45.91	24.99	20.14	13.65	27.00	31.19	12.30
Lane Group LOS	C	D	D	C	D	D	C	C	B	C	C	B
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.73	7.23	6.39	1.80	8.38	7.95	0.67	10.42	2.09	2.99	19.12	1.23
50th-Percentile Queue Length [ft/ln]	43.36	180.66	159.82	44.93	209.55	198.73	16.71	260.54	52.25	74.65	477.94	30.76
95th-Percentile Queue Length [veh/ln]	3.12	11.64	10.54	3.23	13.13	12.57	1.20	15.72	3.76	5.37	26.29	2.21
95th-Percentile Queue Length [ft/ln]	78.04	290.88	263.49	80.87	328.25	314.32	30.08	392.90	94.04	134.37	657.21	55.37

Movement, Approach, & Intersection Results

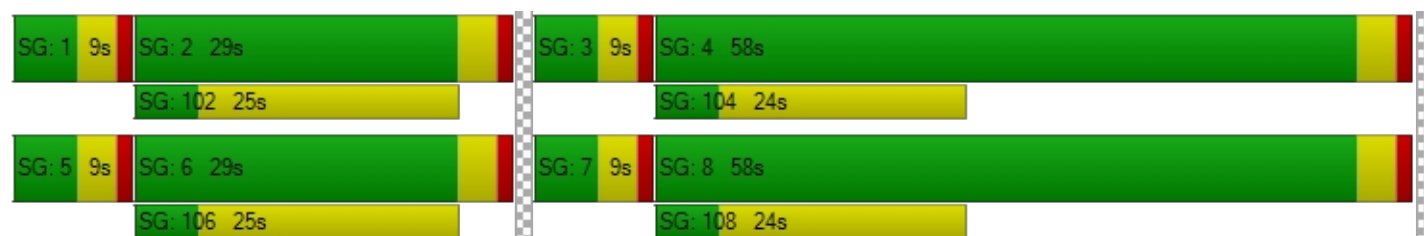
d_M, Delay for Movement [s/veh]	29.61	42.11	43.27	29.30	45.42	45.91	24.99	20.14	13.65	27.00	31.19	12.30
Movement LOS	C	D	D	C	D	D	C	C	B	C	C	B
d_A, Approach Delay [s/veh]	39.30			43.37			19.59			29.73		
Approach LOS	D			D			B			C		
d_I, Intersection Delay [s/veh]	30.23											
Intersection LOS	C											
Intersection V/C	0.745											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	43.92			43.92			43.92			43.92		
I_p,int, Pedestrian LOS Score for Intersection	2.893			2.700			3.063			3.053		
Crosswalk LOS	C			B			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	1028			1028			476			476		
d_b, Bicycle Delay [s]	12.41			12.41			30.52			30.52		
I_b,int, Bicycle LOS Score for Intersection	2.153			2.146			2.713			3.160		
Bicycle LOS	B			B			B			C		

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Orr and Day Rd/Florence Ave

Control Type:	Signalized	Delay (sec / veh):	59.6
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.674

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			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 Entry Pocket	1	0	0	1	0	1	2	0	0	1	0	0
Entry Pocket Length [ft]	215.00	100.00	100.00	120.00	100.00	120.00	350.00	100.00	100.00	200.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1000.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	23	10	3	95	14	374	361	1268	35	1	1470	66
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
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	2	0	0	12	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	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	24	10	3	99	15	389	375	1321	36	1	1541	69
Peak Hour Factor	0.6830	0.6830	0.6830	0.9240	0.9240	0.9240	0.8660	0.8660	0.8660	0.9020	0.9020	0.9020
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]	9	4	1	27	4	105	108	381	10	0	427	19
Total Analysis Volume [veh/h]	35	15	4	107	16	421	433	1525	42	1	1708	76
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	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	150
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	5	10	0	5	10	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	33	0	0	36	0	23	48	0	33	58	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	24	0	0	27	0	0	14	0	0	21	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	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
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	150	150	150	150	150	150	150	150	150	150	150	150
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	31	31	31	31	31	31	19	73	73	0	54	54
g / C, Green / Cycle	0.20	0.20	0.20	0.20	0.20	0.20	0.13	0.48	0.48	0.00	0.36	0.36
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.01	0.04	0.04	0.16	0.14	0.32	0.32	0.00	0.36	0.36
s, saturation flow rate [veh/h]	1629	1637	1494	1629	1649	2573	3163	3256	1687	1629	3256	1673
c, Capacity [veh/h]	332	334	304	332	336	524	401	1577	817	2	1169	601
d1, Uniform Delay [s]	48.09	48.09	48.09	49.40	49.40	56.84	65.49	29.20	29.23	74.82	48.07	48.07
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.30	0.50	0.11	0.11	0.48
l, 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
d2, Incremental Delay [s]	0.32	0.32	0.35	1.22	1.20	12.28	46.40	1.28	4.09	89.00	14.18	38.09
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	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	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	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.06	0.06	0.06	0.18	0.18	0.80	1.08	0.65	0.66	0.42	1.01	1.01
d, Delay for Lane Group [s/veh]	48.41	48.40	48.43	50.62	50.60	69.13	111.89	30.48	33.31	163.83	62.25	86.16
Lane Group LOS	D	D	D	D	D	E	F	C	C	F	F	F
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.60	0.60	0.55	2.04	2.06	8.52	10.27	14.31	15.50	0.10	24.00	28.66
50th-Percentile Queue Length [ft/ln]	14.95	14.95	13.68	50.92	51.51	213.01	256.73	357.77	387.60	2.44	600.10	716.44
95th-Percentile Queue Length [veh/ln]	1.08	1.08	0.98	3.67	3.71	13.31	16.05	20.51	21.96	0.18	32.22	37.68
95th-Percentile Queue Length [ft/ln]	26.91	26.92	24.62	91.65	92.72	332.69	401.17	512.87	549.04	4.38	805.48	942.03

Movement, Approach, & Intersection Results

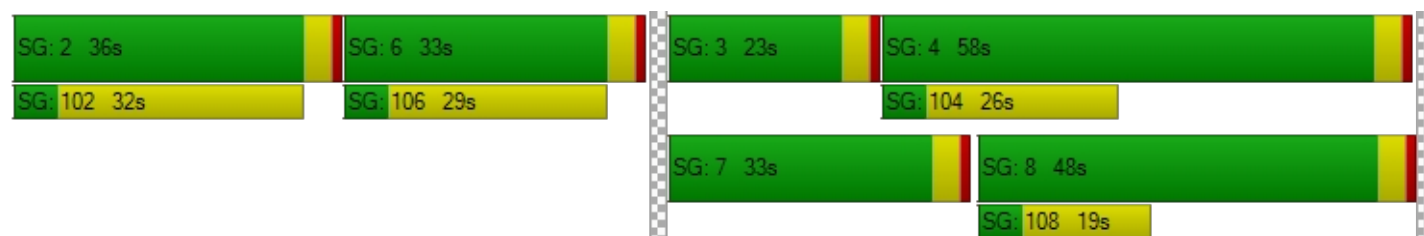
d_M, Delay for Movement [s/veh]	48.41	48.43	48.43	50.62	50.60	69.13	111.89	31.40	33.31	163.83	69.67	86.16
Movement LOS	D	D	D	D	D	E	F	C	C	F	E	F
d_A, Approach Delay [s/veh]	48.42			64.94			48.86			70.42		
Approach LOS	D			E			D			E		
d_I, Intersection Delay [s/veh]	59.63											
Intersection LOS	E											
Intersection V/C	0.674											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	66.27			66.27			66.27			66.27		
I_p,int, Pedestrian LOS Score for Intersection	2.184			2.652			3.258			3.096		
Crosswalk LOS	B			B			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	387			427			587			720		
d_b, Bicycle Delay [s]	48.80			46.41			37.45			30.72		
I_b,int, Bicycle LOS Score for Intersection	1.604			2.457			2.660			2.541		
Bicycle LOS	A			B			B			B		

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Florence Avenue Townhomes

Vistro File: C:\...\Florence Ave Vistro.vistro

Scenario 6 OY PM

Report File: C:\...\OY PM.pdf

6/24/2021

Turning Movement Volume: Summary

ID	Intersection Name	Southbound		Eastbound		Westbound		Total Volume
		Left	Right	Left	Thru	Thru	Right	
1	Project Driveway/Florence Ave	0	0	0	1318	1556	0	2874

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
2	Pioneer Blvd/Florence Ave	151	253	189	80	424	100	55	1111	152	176	1306	82	4079

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3	Orr and Day Rd/Florence Ave	24	10	3	99	15	389	375	1321	36	1	1541	69	3883

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Florence Avenue Townhomes

Vistro File: C:\...\Florence Ave Vistro.vistro

Scenario 7 OY AM + P

Report File: C:\...\OY AM + P.pdf

6/24/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Project Driveway/Florence Ave	Two-way stop	HCM 6th Edition	SB Left	0.023	26.9	D
2	Pioneer Blvd/Florence Ave	Signalized	HCM 6th Edition	NB Right	0.692	27.5	C
3	Orr and Day Rd/Florence Ave	Signalized	HCM 6th Edition	WB Left	0.589	48.5	D

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Project Driveway/Florence Ave

Control Type:	Two-way stop	Delay (sec / veh):	26.9
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.023

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	8.00
No. of Lanes in Entry Pocket	0	0	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	200.00	100.00	100.00	245.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	0	1345	1336	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	13	5	13	2	2
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	13	5	1412	1391	2
Peak Hour Factor	0.9500	0.9500	0.9010	0.9010	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	3	1	392	378	1
Total Analysis Volume [veh/h]	4	14	6	1567	1512	2
Pedestrian Volume [ped/h]	3		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	250	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.04	0.01	0.02	0.02	0.00
d_M, Delay for Movement [s/veh]	26.94	16.06	13.20	0.00	0.00	0.00
Movement LOS	D	C	B	A	A	A
95th-Percentile Queue Length [veh/ln]	0.20	0.20	0.04	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	5.03	5.03	1.02	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	18.48		0.05		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.13					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 2: Pioneer Blvd/Florence Ave

Control Type:	Signalized	Delay (sec / veh):	27.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.692

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			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	8.00	12.00	12.00	8.00
No. of Lanes in Entry Pocket	2	0	1	1	0	0	1	0	0	1	0	1
Entry Pocket Length [ft]	160.00	100.00	100.00	145.00	100.00	100.00	125.00	100.00	100.00	250.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	152	282	173	50	217	42	76	1158	111	112	1142	71
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	0	0	0	0	0	1	14	2	0	2	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	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	159	293	180	52	226	44	80	1218	117	116	1190	74
Peak Hour Factor	0.7090	0.7090	0.7090	0.8510	0.8510	0.8510	0.9010	0.9010	0.9010	0.9200	0.9200	0.9200
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]	56	103	63	15	66	13	22	338	32	32	323	20
Total Analysis Volume [veh/h]	224	413	254	61	266	52	89	1352	130	126	1293	80
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	2			4			5			1		
v_di, Inbound Pedestrian Volume crossing in	1			5			4			2		
v_co, Outbound Pedestrian Volume crossing	0			1			1			1		
v_ci, Inbound Pedestrian Volume crossing mi	1			1			0			1		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	2			0			0			3		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	95
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	9	48	0	9	48	0	9	29	0	9	29	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	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	19	0	0	20	0	0	20	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		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
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	95	95	95	95	95	95	95	95	95	95	95	95
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	32	24	24	32	23	23	55	46	46	55	47	47
g / C, Green / Cycle	0.33	0.25	0.25	0.33	0.24	0.24	0.58	0.49	0.49	0.58	0.49	0.49
(v / s)_i Volume / Saturation Flow Rate	0.10	0.21	0.21	0.07	0.09	0.10	0.17	0.42	0.09	0.24	0.40	0.06
s, saturation flow rate [veh/h]	2170	1710	1473	882	1710	1608	539	3256	1394	530	3256	1375
c, Capacity [veh/h]	717	425	366	264	408	383	287	1583	678	279	1599	675
d1, Uniform Delay [s]	23.05	33.91	34.05	24.00	30.48	30.56	16.36	21.47	13.85	18.97	20.44	13.07
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.27	0.50	0.50
l, 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
d2, Incremental Delay [s]	0.25	4.41	5.54	0.44	0.63	0.69	2.80	6.08	0.63	2.85	4.52	0.36
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	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	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	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.31	0.84	0.85	0.23	0.40	0.41	0.31	0.85	0.19	0.45	0.81	0.12
d, Delay for Lane Group [s/veh]	23.30	38.32	39.59	24.44	31.11	31.26	19.16	27.56	14.47	21.82	24.96	13.43
Lane Group LOS	C	D	D	C	C	C	B	C	B	C	C	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.80	8.14	7.26	0.97	3.15	3.06	0.99	13.65	1.64	1.33	12.28	0.96
50th-Percentile Queue Length [ft/ln]	45.00	203.61	181.53	24.15	78.86	76.39	24.72	341.17	41.12	33.28	307.05	23.99
95th-Percentile Queue Length [veh/ln]	3.24	12.82	11.68	1.74	5.68	5.50	1.78	19.71	2.96	2.40	18.03	1.73
95th-Percentile Queue Length [ft/ln]	81.01	320.62	292.01	43.47	141.95	137.51	44.50	492.63	74.01	59.90	450.74	43.19

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	23.30	38.50	39.59	24.44	31.17	31.26	19.16	27.56	14.47	21.82	24.96	13.43
Movement LOS	C	D	D	C	C	C	B	C	B	C	C	B
d_A, Approach Delay [s/veh]	34.99			30.10			26.00			24.08		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	27.54											
Intersection LOS	C											
Intersection V/C	0.692											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	38.97			38.97			38.97			38.97		
I_p,int, Pedestrian LOS Score for Intersection	2.778			2.678			3.050			2.995		
Crosswalk LOS	C			B			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	926			926			526			526		
d_b, Bicycle Delay [s]	13.73			13.72			25.83			25.87		
I_b,int, Bicycle LOS Score for Intersection	2.295			1.872			2.856			2.796		
Bicycle LOS	B			A			C			C		

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Orr and Day Rd/Florence Ave

Control Type:	Signalized	Delay (sec / veh):	48.5
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.589

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			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 Entry Pocket	1	0	0	1	0	1	2	0	0	1	0	0
Entry Pocket Length [ft]	215.00	100.00	100.00	120.00	100.00	120.00	350.00	100.00	100.00	200.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1000.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	26	23	0	77	7	322	234	1152	7	1	1261	130
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
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	2	0	0	0	16	0	0	11	4
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	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	24	0	82	7	335	243	1214	7	1	1322	139
Peak Hour Factor	0.6380	0.6380	0.6380	0.8070	0.8070	0.8070	0.9080	0.9080	0.9080	0.9170	0.9170	0.9170
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]	11	9	0	25	2	104	67	334	2	0	360	38
Total Analysis Volume [veh/h]	42	38	0	102	9	415	268	1337	8	1	1442	152
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	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2021 (SP 0-2)

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	140
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	5	10	0	5	10	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	33	0	0	36	0	18	61	0	10	53	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	24	0	0	27	0	0	14	0	0	21	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	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
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	140	140	140	140	140	140	140	140	140	140	140	140
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	31	31	31	31	31	31	14	62	62	0	48	48
g / C, Green / Cycle	0.22	0.22	0.22	0.22	0.22	0.22	0.10	0.44	0.44	0.00	0.34	0.34
(v / s)_i Volume / Saturation Flow Rate	0.02	0.02	0.02	0.03	0.03	0.16	0.08	0.27	0.27	0.00	0.33	0.33
s, saturation flow rate [veh/h]	1629	1666	1556	1629	1641	2573	3163	3256	1705	1629	3256	1628
c, Capacity [veh/h]	362	370	346	362	365	572	310	1430	749	3	1116	558
d1, Uniform Delay [s]	43.05	43.03	43.02	43.81	43.81	50.46	62.22	30.19	30.19	69.82	44.87	44.88
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.18	0.50	0.11	0.11	0.41
l, 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
d2, Incremental Delay [s]	0.41	0.39	0.41	0.89	0.89	7.81	7.16	0.73	3.79	76.41	5.50	24.79
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	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	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	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.08	0.07	0.07	0.15	0.15	0.73	0.86	0.62	0.62	0.39	0.95	0.95
d, Delay for Lane Group [s/veh]	43.45	43.42	43.42	44.70	44.70	58.27	69.38	30.92	33.98	146.23	50.37	69.67
Lane Group LOS	D	D	D	D	D	E	E	C	C	F	D	E
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.80	0.80	0.74	1.66	1.67	7.39	5.02	11.59	12.77	0.09	18.72	21.72
50th-Percentile Queue Length [ft/ln]	20.08	20.12	18.44	41.40	41.70	184.77	125.54	289.75	319.37	2.26	467.94	542.96
95th-Percentile Queue Length [veh/ln]	1.45	1.45	1.33	2.98	3.00	11.85	8.70	17.17	18.64	0.16	25.81	29.36
95th-Percentile Queue Length [ft/ln]	36.14	36.22	33.20	74.51	75.06	296.23	217.41	429.34	465.91	4.06	645.32	734.03

Movement, Approach, & Intersection Results

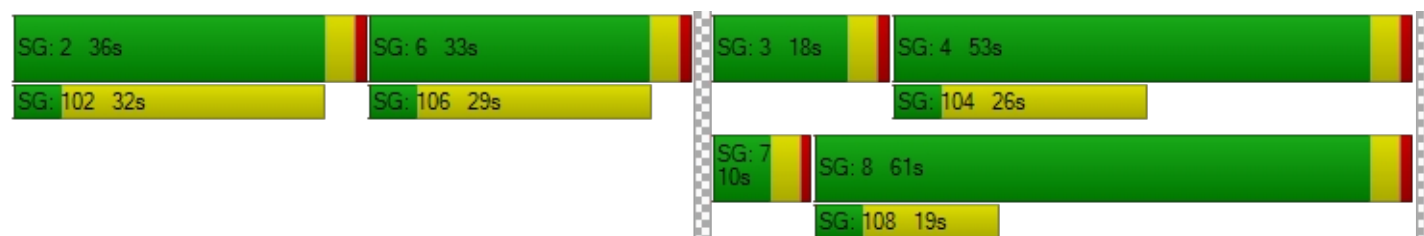
d_M, Delay for Movement [s/veh]	43.44	43.42	43.42	44.70	44.70	58.27	69.38	31.96	33.98	146.23	55.45	69.67
Movement LOS	D	D	D	D	D	E	E	C	C	F	E	E
d_A, Approach Delay [s/veh]	43.43			55.41			38.19			56.86		
Approach LOS	D			E			D			E		
d_I, Intersection Delay [s/veh]	48.48											
Intersection LOS	D											
Intersection V/C	0.589											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	61.29			61.29			61.29			61.29		
I_p,int, Pedestrian LOS Score for Intersection	2.177			2.635			3.176			3.039		
Crosswalk LOS	B			B			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	414			457			814			700		
d_b, Bicycle Delay [s]	44.00			41.66			24.60			29.57		
I_b,int, Bicycle LOS Score for Intersection	1.626			2.428			2.447			2.437		
Bicycle LOS	A			B			B			B		

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Florence Avenue Townhomes

Vistro File: C:\...\Florence Ave Vistro.vistro

Scenario 7 OY AM + P

Report File: C:\...\OY AM + P.pdf

6/24/2021

Turning Movement Volume: Summary

ID	Intersection Name	Southbound		Eastbound		Westbound		Total Volume
		Left	Right	Left	Thru	Thru	Right	
1	Project Driveway/Florence Ave	4	13	5	1412	1391	2	2827

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
2	Pioneer Blvd/Florence Ave	159	293	180	52	226	44	80	1218	117	116	1190	74	3749

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3	Orr and Day Rd/Florence Ave	27	24	0	82	7	335	243	1214	7	1	1322	139	3401

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Florence Avenue Townhomes

Vistro File: C:\...\Florence Ave Vistro.vistro

Scenario 8 OY PM + P

Report File: C:\...\OY PM + P.pdf

6/24/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Project Driveway/Florence Ave	Two-way stop	HCM 6th Edition	SB Left	0.030	41.9	E
2	Pioneer Blvd/Florence Ave	Signalized	HCM 6th Edition	SB Right	0.747	30.3	C
3	Orr and Day Rd/Florence Ave	Signalized	HCM 6th Edition	WB Left	0.676	60.3	E

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Project Driveway/Florence Ave

Control Type:	Two-way stop	Delay (sec / veh):	41.9
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.030

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	8.00
No. of Lanes in Entry Pocket	0	0	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	200.00	100.00	100.00	245.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	0	1265	1485	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	3	8	13	2	12	4
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	8	13	1318	1556	4
Peak Hour Factor	0.9500	0.9500	0.9420	0.9420	0.8060	0.8060
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	2	3	350	483	1
Total Analysis Volume [veh/h]	3	8	14	1399	1931	5
Pedestrian Volume [ped/h]	2		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	250	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.03	0.05	0.01	0.02	0.00
d_M, Delay for Movement [s/veh]	41.88	20.29	17.30	0.00	0.00	0.00
Movement LOS	E	C	C	A	A	A
95th-Percentile Queue Length [veh/ln]	0.19	0.19	0.14	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	4.81	4.81	3.57	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	26.18		0.17		0.00	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	0.16					
Intersection LOS	E					

Intersection Level Of Service Report
Intersection 2: Pioneer Blvd/Florence Ave

Control Type:	Signalized	Delay (sec / veh):	30.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.747

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			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	8.00	12.00	12.00	8.00
No. of Lanes in Entry Pocket	2	0	1	1	0	0	1	0	0	1	0	1
Entry Pocket Length [ft]	160.00	100.00	100.00	145.00	100.00	100.00	125.00	100.00	100.00	250.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	145	243	182	77	408	96	53	1066	146	169	1244	79
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
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	1	1	3	2	0	13	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	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	153	253	189	80	424	101	56	1112	154	176	1307	82
Peak Hour Factor	0.8250	0.8250	0.8250	0.8500	0.8500	0.8500	0.9420	0.9420	0.9420	0.8060	0.8060	0.8060
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]	46	77	57	24	125	30	15	295	41	55	405	25
Total Analysis Volume [veh/h]	185	307	229	94	499	119	59	1180	163	218	1622	102
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	2			3			3			1		
v_di, Inbound Pedestrian Volume crossing in	1			3			3			2		
v_co, Outbound Pedestrian Volume crossing	1			3			0			4		
v_ci, Inbound Pedestrian Volume crossing mi	0			4			1			3		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	1			0			1			1		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	105
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	9	58	0	9	58	0	9	29	0	9	29	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	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	19	0	0	20	0	0	20	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		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
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	105	105	105	105	105	105	105	105	105	105	105	105
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	32	23	23	32	23	23	65	56	56	65	57	57
g / C, Green / Cycle	0.30	0.22	0.22	0.30	0.22	0.22	0.62	0.53	0.53	0.62	0.54	0.54
(v / s)_i Volume / Saturation Flow Rate	0.10	0.17	0.17	0.10	0.19	0.19	0.14	0.36	0.12	0.39	0.50	0.07
s, saturation flow rate [veh/h]	1814	1710	1448	979	1710	1592	413	3256	1377	565	3256	1373
c, Capacity [veh/h]	425	373	316	270	373	347	222	1734	734	328	1761	743
d1, Uniform Delay [s]	28.93	38.60	38.81	28.51	39.49	39.57	22.28	18.00	13.00	16.96	22.06	11.95
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
l, 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
d2, Incremental Delay [s]	0.70	3.36	4.39	0.77	5.64	6.33	2.92	2.18	0.70	10.16	9.40	0.39
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	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	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	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.44	0.77	0.79	0.35	0.85	0.86	0.27	0.68	0.22	0.66	0.92	0.14
d, Delay for Lane Group [s/veh]	29.63	41.97	43.20	29.27	45.13	45.90	25.20	20.18	13.70	27.12	31.47	12.33
Lane Group LOS	C	D	D	C	D	D	C	C	B	C	C	B
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.75	7.22	6.39	1.80	8.40	7.96	0.68	10.45	2.12	2.99	19.23	1.23
50th-Percentile Queue Length [ft/ln]	43.85	180.54	159.67	44.90	209.92	199.00	17.05	261.16	53.04	74.81	480.77	30.81
95th-Percentile Queue Length [veh/ln]	3.16	11.63	10.53	3.23	13.15	12.59	1.23	15.75	3.82	5.39	26.42	2.22
95th-Percentile Queue Length [ft/ln]	78.92	290.72	263.28	80.83	328.73	314.67	30.70	393.68	95.46	134.65	660.57	55.46

Movement, Approach, & Intersection Results

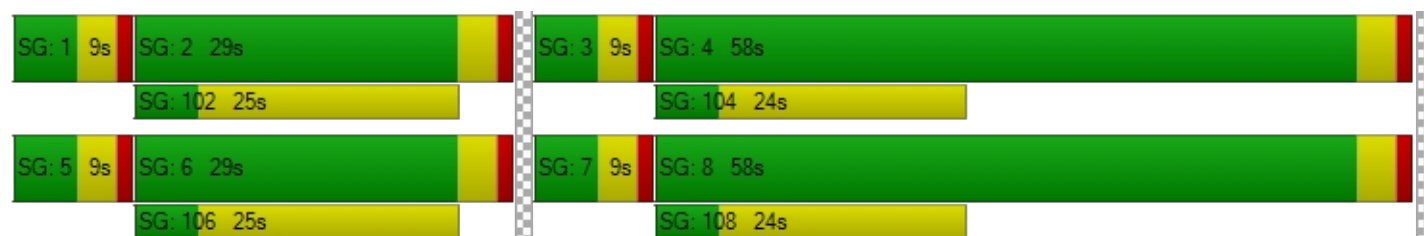
d_M, Delay for Movement [s/veh]	29.63	42.05	43.20	29.27	45.41	45.90	25.20	20.18	13.70	27.12	31.47	12.33
Movement LOS	C	D	D	C	D	D	C	C	B	C	C	B
d_A, Approach Delay [s/veh]	39.23			43.36			19.64			29.97		
Approach LOS	D			D			B			C		
d_I, Intersection Delay [s/veh]	30.33											
Intersection LOS	C											
Intersection V/C	0.747											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	43.92			43.92			43.92			43.92		
I_p,int, Pedestrian LOS Score for Intersection	2.893			2.701			3.065			3.053		
Crosswalk LOS	C			B			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	1028			1028			476			476		
d_b, Bicycle Delay [s]	12.41			12.41			30.52			30.52		
I_b,int, Bicycle LOS Score for Intersection	2.154			2.147			2.716			3.162		
Bicycle LOS	B			B			B			C		

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Orr and Day Rd/Florence Ave

Control Type:	Signalized	Delay (sec / veh):	60.3
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.676

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			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 Entry Pocket	1	0	0	1	0	1	2	0	0	1	0	0
Entry Pocket Length [ft]	215.00	100.00	100.00	120.00	100.00	120.00	350.00	100.00	100.00	200.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1000.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	23	10	3	95	14	374	361	1268	35	1	1470	66
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
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	4	0	0	0	11	0	0	17	3
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	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	24	10	3	103	15	389	375	1330	36	1	1546	72
Peak Hour Factor	0.6830	0.6830	0.6830	0.9240	0.9240	0.9240	0.8660	0.8660	0.8660	0.9020	0.9020	0.9020
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]	9	4	1	28	4	105	108	384	10	0	428	20
Total Analysis Volume [veh/h]	35	15	4	111	16	421	433	1536	42	1	1714	80
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	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	150
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	5	10	0	5	10	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	33	0	0	36	0	23	48	0	33	58	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	24	0	0	27	0	0	14	0	0	21	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	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
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	150	150	150	150	150	150	150	150	150	150	150	150
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	31	31	31	31	31	31	19	73	73	0	54	54
g / C, Green / Cycle	0.20	0.20	0.20	0.20	0.20	0.20	0.13	0.48	0.48	0.00	0.36	0.36
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.01	0.04	0.04	0.16	0.14	0.32	0.32	0.00	0.36	0.36
s, saturation flow rate [veh/h]	1629	1637	1494	1629	1648	2573	3163	3256	1687	1629	3256	1671
c, Capacity [veh/h]	332	334	304	332	336	524	401	1577	817	2	1169	600
d1, Uniform Delay [s]	48.09	48.09	48.09	49.46	49.46	56.84	65.49	29.29	29.32	74.82	48.07	48.07
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.30	0.50	0.11	0.11	0.48
l, 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
d2, Incremental Delay [s]	0.32	0.32	0.35	1.27	1.25	12.29	46.40	1.32	4.17	89.00	15.80	39.85
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	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	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	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.06	0.06	0.06	0.19	0.19	0.80	1.08	0.66	0.66	0.42	1.01	1.01
d, Delay for Lane Group [s/veh]	48.41	48.41	48.43	50.73	50.71	69.13	111.89	30.61	33.49	163.83	63.87	87.92
Lane Group LOS	D	D	D	D	D	E	F	C	C	F	F	F
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.60	0.60	0.55	2.11	2.13	8.52	10.27	14.46	15.67	0.10	24.27	28.92
50th-Percentile Queue Length [ft/ln]	14.95	14.95	13.68	52.67	53.26	213.02	256.73	361.59	391.85	2.44	606.73	723.07
95th-Percentile Queue Length [veh/ln]	1.08	1.08	0.98	3.79	3.83	13.31	16.05	20.70	22.17	0.18	32.67	38.15
95th-Percentile Queue Length [ft/ln]	26.91	26.92	24.62	94.81	95.87	332.70	401.17	517.52	554.18	4.38	816.65	953.86

Movement, Approach, & Intersection Results

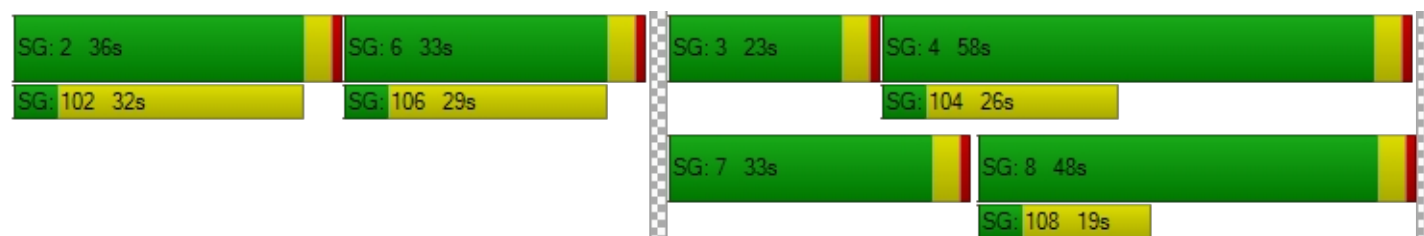
d_M, Delay for Movement [s/veh]	48.41	48.43	48.43	50.73	50.71	69.13	111.89	31.54	33.49	163.83	71.29	87.92
Movement LOS	D	D	D	D	D	E	F	C	C	F	E	F
d_A, Approach Delay [s/veh]	48.42			64.86			48.88			72.09		
Approach LOS	D			E			D			E		
d_I, Intersection Delay [s/veh]	60.31											
Intersection LOS	E											
Intersection V/C	0.676											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	66.27			66.27			66.27			66.27		
I_p,int, Pedestrian LOS Score for Intersection	2.184			2.653			3.260			3.099		
Crosswalk LOS	B			B			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	387			427			587			720		
d_b, Bicycle Delay [s]	48.80			46.41			37.45			30.72		
I_b,int, Bicycle LOS Score for Intersection	1.604			2.464			2.666			2.547		
Bicycle LOS	A			B			B			B		

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Florence Avenue Townhomes

Vistro File: C:\...\Florence Ave Vistro.vistro

Scenario 8 OY PM + P

Report File: C:\...\OY PM + P.pdf

6/24/2021

Turning Movement Volume: Summary

ID	Intersection Name	Southbound		Eastbound		Westbound		Total Volume
		Left	Right	Left	Thru	Thru	Right	
1	Project Driveway/Florence Ave	3	8	13	1318	1556	4	2902

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
2	Pioneer Blvd/Florence Ave	153	253	189	80	424	101	56	1112	154	176	1307	82	4087

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3	Orr and Day Rd/Florence Ave	24	10	3	103	15	389	375	1330	36	1	1546	72	3904