Appendices

3550 East Main Street Starbucks
Initial Study - Mitigated Negative Declaration

Appendix A

Air Quality and Greenhouse Gas Calculations

3550 East Main Street Starbucks Project

South Central Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	44.00	Space	0.40	17,600.00	0
Fast Food Restaurant with Drive Thru	3.03	1000sqft	0.12	3,027.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.9	**Precipitation Freq (Days)**	37
Climate Zone	8			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	507	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

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Project Characteristics - Based on SCE's specific energy intensity factor

Land Use - Based on site plan/traffic study

Demolition - Based on planning package 9/23/19 and Google Earth approximations

Grading - Based on Planning Package 9/23/19

Architectural Coating - Based on VCAPCD Rule 74.2

Vehicle Trips - Based on Traffic Study 1/28/19

Area Coating - Based on VCAPCD Rule 74.2

Energy Use - 30% reduction on Title 24 Electricity Energy Intensity according to Title 24, 2019.
8.71*0.7 = 6.10
75% reduction on Lighting Energy Intensity according to Title 24,2016 Building Energy Efficiency Standards.
7.66*0.25 = 1.92

Water And Wastewater - Based on CalGreen
919,707.15 * 0.8 = 735765.72

Solid Waste - AB 341
34.9*2*0.25 = 17.45

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Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblArchitecturalCoating	EF_Parking	250.00	150.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Parking	250	150
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblEnergyUse	LightingElect	7.66	1.92
tblEnergyUse	T24E	8.71	6.10
tblGrading	MaterialImported	0.00	72.00
tblLandUse	LandUseSquareFeet	3,030.00	3,027.00
tblLandUse	LotAcreage	0.07	0.12
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	702.44	507
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblSolidWaste	SolidWasteGenerationRate	34.90	17.45
tblVehicleTrips	WD_TR	496.12	820.38
tblWater	IndoorWaterUseRate	919,707.15	735,765.72

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.0722	0.5383	0.4612	7.7000e-004	8.0300e-003	0.0305	0.0385	2.1800e-003	0.0282	0.0304	0.0000	68.1053	68.1053	0.0187	0.0000	68.5725
Maximum	**0.0722**	**0.5383**	**0.4612**	**7.7000e-004**	**8.0300e-003**	**0.0305**	**0.0385**	**2.1800e-003**	**0.0282**	**0.0304**	**0.0000**	**68.1053**	**68.1053**	**0.0187**	**0.0000**	**68.5725**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.0722	0.5383	0.4612	7.7000e-004	8.0300e-003	0.0305	0.0385	2.1800e-003	0.0282	0.0304	0.0000	68.1052	68.1052	0.0187	0.0000	68.5724
Maximum	**0.0722**	**0.5383**	**0.4612**	**7.7000e-004**	**8.0300e-003**	**0.0305**	**0.0385**	**2.1800e-003**	**0.0282**	**0.0304**	**0.0000**	**68.1052**	**68.1052**	**0.0187**	**0.0000**	**68.5724**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2020	3-31-2020	0.3241	0.3241
2	4-1-2020	6-30-2020	0.2819	0.2819
		Highest	0.3241	0.3241

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0164	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.4000e-004	8.4000e-004	0.0000	0.0000	9.0000e-004
Energy	4.2300e-003	0.0385	0.0323	2.3000e-004		2.9200e-003	2.9200e-003		2.9200e-003	2.9200e-003	0.0000	62.8871	62.8871	8.0000e-004	7.7000e-004	63.1360
Mobile	0.5505	1.7566	4.4953	9.9400e-003	0.8198	0.0104	0.8302	0.2196	9.7200e-003	0.2293	0.0000	912.1355	912.1355	0.0513	0.0000	913.4173
Waste						0.0000	0.0000		0.0000	0.0000	3.5422	0.0000	3.5422	0.2093	0.0000	8.7756
Water						0.0000	0.0000		0.0000	0.0000	0.2334	0.9628	1.1962	0.0240	5.7000e-004	1.9643
Total	**0.5711**	**1.7951**	**4.5281**	**0.0102**	**0.8198**	**0.0133**	**0.8331**	**0.2196**	**0.0126**	**0.2323**	**3.7756**	**975.9863**	**979.7619**	**0.2854**	**1.3400e-003**	**987.2942**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0164	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.4000e-004	8.4000e-004	0.0000	0.0000	9.0000e-004
Energy	4.2300e-003	0.0385	0.0323	2.3000e-004		2.9200e-003	2.9200e-003		2.9200e-003	2.9200e-003	0.0000	62.8871	62.8871	8.0000e-004	7.7000e-004	63.1360
Mobile	0.5505	1.7566	4.4953	9.9400e-003	0.8198	0.0104	0.8302	0.2196	9.7200e-003	0.2293	0.0000	912.1355	912.1355	0.0513	0.0000	913.4173
Waste						0.0000	0.0000		0.0000	0.0000	3.5422	0.0000	3.5422	0.2093	0.0000	8.7756
Water						0.0000	0.0000		0.0000	0.0000	0.2334	0.9628	1.1962	0.0240	5.7000e-004	1.9643
Total	**0.5711**	**1.7951**	**4.5281**	**0.0102**	**0.8198**	**0.0133**	**0.8331**	**0.2196**	**0.0126**	**0.2323**	**3.7756**	**975.9863**	**979.7619**	**0.2854**	**1.3400e-003**	**987.2942**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

3550 East Main Street Starbucks Project - South Central Coast Air Basin, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	1/14/2020	5	10	
2	Site Preparation	Site Preparation	1/15/2020	1/15/2020	5	1	
3	Grading	Grading	1/16/2020	1/17/2020	5	2	
4	Building Construction	Building Construction	1/18/2020	6/5/2020	5	100	
5	Paving	Paving	6/6/2020	6/12/2020	5	5	
6	Architectural Coating	Architectural Coating	6/13/2020	6/19/2020	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.4

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 4,541; Non-Residential Outdoor: 1,514; Striped Parking Area: 1,056 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	12.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	9.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	9.00	3.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.3100e-003	0.0000	1.3100e-003	2.0000e-004	0.0000	2.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3400e-003	0.0394	0.0381	6.0000e-005		2.3400e-003	2.3400e-003		2.2300e-003	2.2300e-003	0.0000	5.2038	5.2038	9.8000e-004	0.0000	5.2284
Total	**4.3400e-003**	**0.0394**	**0.0381**	**6.0000e-005**	**1.3100e-003**	**2.3400e-003**	**3.6500e-003**	**2.0000e-004**	**2.2300e-003**	**2.4300e-003**	**0.0000**	**5.2038**	**5.2038**	**9.8000e-004**	**0.0000**	**5.2284**

3.2 Demolition - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.0000e-005	1.7700e-003	4.2000e-004	0.0000	1.0000e-004	1.0000e-005	1.1000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.4569	0.4569	4.0000e-005	0.0000	0.4579
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	1.5000e-004	1.4100e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3382	0.3382	1.0000e-005	0.0000	0.3384
Total	**2.4000e-004**	**1.9200e-003**	**1.8300e-003**	**0.0000**	**5.0000e-004**	**1.0000e-005**	**5.1000e-004**	**1.4000e-004**	**1.0000e-005**	**1.5000e-004**	**0.0000**	**0.7950**	**0.7950**	**5.0000e-005**	**0.0000**	**0.7963**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.3100e-003	0.0000	1.3100e-003	2.0000e-004	0.0000	2.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3400e-003	0.0394	0.0381	6.0000e-005		2.3400e-003	2.3400e-003		2.2300e-003	2.2300e-003	0.0000	5.2038	5.2038	9.8000e-004	0.0000	5.2284
Total	**4.3400e-003**	**0.0394**	**0.0381**	**6.0000e-005**	**1.3100e-003**	**2.3400e-003**	**3.6500e-003**	**2.0000e-004**	**2.2300e-003**	**2.4300e-003**	**0.0000**	**5.2038**	**5.2038**	**9.8000e-004**	**0.0000**	**5.2284**

3.2 Demolition - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.0000e-005	1.7700e-003	4.2000e-004	0.0000	1.0000e-004	1.0000e-005	1.1000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.4569	0.4569	4.0000e-005	0.0000	0.4579
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	1.5000e-004	1.4100e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3382	0.3382	1.0000e-005	0.0000	0.3384
Total	**2.4000e-004**	**1.9200e-003**	**1.8300e-003**	**0.0000**	**5.0000e-004**	**1.0000e-005**	**5.1000e-004**	**1.4000e-004**	**1.0000e-005**	**1.5000e-004**	**0.0000**	**0.7950**	**0.7950**	**5.0000e-005**	**0.0000**	**0.7963**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4000e-004	4.2200e-003	2.0500e-003	0.0000		1.7000e-004	1.7000e-004		1.5000e-004	1.5000e-004	0.0000	0.4280	0.4280	1.4000e-004	0.0000	0.4314
Total	**3.4000e-004**	**4.2200e-003**	**2.0500e-003**	**0.0000**	**2.7000e-004**	**1.7000e-004**	**4.4000e-004**	**3.0000e-005**	**1.5000e-004**	**1.8000e-004**	**0.0000**	**0.4280**	**0.4280**	**1.4000e-004**	**0.0000**	**0.4314**

3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0169	0.0169	0.0000	0.0000	0.0169
Total	**1.0000e-005**	**1.0000e-005**	**7.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0169**	**0.0169**	**0.0000**	**0.0000**	**0.0169**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4000e-004	4.2200e-003	2.0500e-003	0.0000		1.7000e-004	1.7000e-004		1.5000e-004	1.5000e-004	0.0000	0.4280	0.4280	1.4000e-004	0.0000	0.4314
Total	**3.4000e-004**	**4.2200e-003**	**2.0500e-003**	**0.0000**	**2.7000e-004**	**1.7000e-004**	**4.4000e-004**	**3.0000e-005**	**1.5000e-004**	**1.8000e-004**	**0.0000**	**0.4280**	**0.4280**	**1.4000e-004**	**0.0000**	**0.4314**

3.3 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0169	0.0169	0.0000	0.0000	0.0169
Total	**1.0000e-005**	**1.0000e-005**	**7.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0169**	**0.0169**	**0.0000**	**0.0000**	**0.0169**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.6000e-004	0.0000	7.6000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.7000e-004	7.8700e-003	7.6200e-003	1.0000e-005		4.7000e-004	4.7000e-004		4.5000e-004	4.5000e-004	0.0000	1.0408	1.0408	2.0000e-004	0.0000	1.0457
Total	**8.7000e-004**	**7.8700e-003**	**7.6200e-003**	**1.0000e-005**	**7.6000e-004**	**4.7000e-004**	**1.2300e-003**	**4.1000e-004**	**4.5000e-004**	**8.6000e-004**	**0.0000**	**1.0408**	**1.0408**	**2.0000e-004**	**0.0000**	**1.0457**

3.4 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.0000e-005	1.3300e-003	3.2000e-004	0.0000	8.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.3427	0.3427	3.0000e-005	0.0000	0.3434
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	3.0000e-005	2.8000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0676	0.0676	0.0000	0.0000	0.0677
Total	**8.0000e-005**	**1.3600e-003**	**6.0000e-004**	**0.0000**	**1.6000e-004**	**1.0000e-005**	**1.6000e-004**	**4.0000e-005**	**1.0000e-005**	**5.0000e-005**	**0.0000**	**0.4103**	**0.4103**	**3.0000e-005**	**0.0000**	**0.4111**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.6000e-004	0.0000	7.6000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.7000e-004	7.8700e-003	7.6200e-003	1.0000e-005		4.7000e-004	4.7000e-004		4.5000e-004	4.5000e-004	0.0000	1.0408	1.0408	2.0000e-004	0.0000	1.0457
Total	**8.7000e-004**	**7.8700e-003**	**7.6200e-003**	**1.0000e-005**	**7.6000e-004**	**4.7000e-004**	**1.2300e-003**	**4.1000e-004**	**4.5000e-004**	**8.6000e-004**	**0.0000**	**1.0408**	**1.0408**	**2.0000e-004**	**0.0000**	**1.0457**

3.4 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.0000e-005	1.3300e-003	3.2000e-004	0.0000	8.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.3427	0.3427	3.0000e-005	0.0000	0.3434
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	3.0000e-005	2.8000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0676	0.0676	0.0000	0.0000	0.0677
Total	**8.0000e-005**	**1.3600e-003**	**6.0000e-004**	**0.0000**	**1.6000e-004**	**1.0000e-005**	**1.6000e-004**	**4.0000e-005**	**1.0000e-005**	**5.0000e-005**	**0.0000**	**0.4103**	**0.4103**	**3.0000e-005**	**0.0000**	**0.4111**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0431	0.4426	0.3694	5.7000e-004		0.0261	0.0261		0.0240	0.0240	0.0000	50.0302	50.0302	0.0162	0.0000	50.4348
Total	**0.0431**	**0.4426**	**0.3694**	**5.7000e-004**		**0.0261**	**0.0261**		**0.0240**	**0.0240**	**0.0000**	**50.0302**	**50.0302**	**0.0162**	**0.0000**	**50.4348**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.9000e-004	0.0172	5.1100e-003	4.0000e-005	1.0000e-003	1.0000e-004	1.1000e-003	2.9000e-004	1.0000e-004	3.9000e-004	0.0000	3.8122	3.8122	2.7000e-004	0.0000	3.8190
Worker	1.7200e-003	1.3200e-003	0.0127	3.0000e-005	3.6200e-003	2.0000e-005	3.6400e-003	9.6000e-004	2.0000e-005	9.8000e-004	0.0000	3.0434	3.0434	9.0000e-005	0.0000	3.0457
Total	**2.3100e-003**	**0.0185**	**0.0178**	**7.0000e-005**	**4.6200e-003**	**1.2000e-004**	**4.7400e-003**	**1.2500e-003**	**1.2000e-004**	**1.3700e-003**	**0.0000**	**6.8556**	**6.8556**	**3.6000e-004**	**0.0000**	**6.8647**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0431	0.4426	0.3694	5.7000e-004		0.0261	0.0261		0.0240	0.0240	0.0000	50.0302	50.0302	0.0162	0.0000	50.4347
Total	**0.0431**	**0.4426**	**0.3694**	**5.7000e-004**		**0.0261**	**0.0261**		**0.0240**	**0.0240**	**0.0000**	**50.0302**	**50.0302**	**0.0162**	**0.0000**	**50.4347**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.9000e-004	0.0172	5.1100e-003	4.0000e-005	1.0000e-003	1.0000e-004	1.1000e-003	2.9000e-004	1.0000e-004	3.9000e-004	0.0000	3.8122	3.8122	2.7000e-004	0.0000	3.8190
Worker	1.7200e-003	1.3200e-003	0.0127	3.0000e-005	3.6200e-003	2.0000e-005	3.6400e-003	9.6000e-004	2.0000e-005	9.8000e-004	0.0000	3.0434	3.0434	9.0000e-005	0.0000	3.0457
Total	**2.3100e-003**	**0.0185**	**0.0178**	**7.0000e-005**	**4.6200e-003**	**1.2000e-004**	**4.7400e-003**	**1.2500e-003**	**1.2000e-004**	**1.3700e-003**	**0.0000**	**6.8556**	**6.8556**	**3.6000e-004**	**0.0000**	**6.8647**

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.9300e-003	0.0181	0.0178	3.0000e-005		9.9000e-004	9.9000e-004		9.2000e-004	9.2000e-004	0.0000	2.3482	2.3482	6.8000e-004	0.0000	2.3653
Paving	5.2000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.4500e-003**	**0.0181**	**0.0178**	**3.0000e-005**		**9.9000e-004**	**9.9000e-004**		**9.2000e-004**	**9.2000e-004**	**0.0000**	**2.3482**	**2.3482**	**6.8000e-004**	**0.0000**	**2.3653**

3.6 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	1.3000e-004	1.2700e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3043	0.3043	1.0000e-005	0.0000	0.3046
Total	**1.7000e-004**	**1.3000e-004**	**1.2700e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3043**	**0.3043**	**1.0000e-005**	**0.0000**	**0.3046**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.9300e-003	0.0181	0.0178	3.0000e-005		9.9000e-004	9.9000e-004		9.2000e-004	9.2000e-004	0.0000	2.3482	2.3482	6.8000e-004	0.0000	2.3653
Paving	5.2000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.4500e-003**	**0.0181**	**0.0178**	**3.0000e-005**		**9.9000e-004**	**9.9000e-004**		**9.2000e-004**	**9.2000e-004**	**0.0000**	**2.3482**	**2.3482**	**6.8000e-004**	**0.0000**	**2.3653**

3.6 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	1.3000e-004	1.2700e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3043	0.3043	1.0000e-005	0.0000	0.3046
Total	**1.7000e-004**	**1.3000e-004**	**1.2700e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3043**	**0.3043**	**1.0000e-005**	**0.0000**	**0.3046**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0177					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.1000e-004	4.2100e-003	4.5800e-003	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	0.6383	0.6383	5.0000e-005	0.0000	0.6396
Total	**0.0183**	**4.2100e-003**	**4.5800e-003**	**1.0000e-005**		**2.8000e-004**	**2.8000e-004**		**2.8000e-004**	**2.8000e-004**	**0.0000**	**0.6383**	**0.6383**	**5.0000e-005**	**0.0000**	**0.6396**

3.7 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.4000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0338	0.0338	0.0000	0.0000	0.0338
Total	**2.0000e-005**	**1.0000e-005**	**1.4000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0338**	**0.0338**	**0.0000**	**0.0000**	**0.0338**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0177					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.1000e-004	4.2100e-003	4.5800e-003	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	0.6383	0.6383	5.0000e-005	0.0000	0.6396
Total	**0.0183**	**4.2100e-003**	**4.5800e-003**	**1.0000e-005**		**2.8000e-004**	**2.8000e-004**		**2.8000e-004**	**2.8000e-004**	**0.0000**	**0.6383**	**0.6383**	**5.0000e-005**	**0.0000**	**0.6396**

3.7 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.4000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0338	0.0338	0.0000	0.0000	0.0338
Total	**2.0000e-005**	**1.0000e-005**	**1.4000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0338**	**0.0338**	**0.0000**	**0.0000**	**0.0338**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5505	1.7566	4.4953	9.9400e-003	0.8198	0.0104	0.8302	0.2196	9.7200e-003	0.2293	0.0000	912.1355	912.1355	0.0513	0.0000	913.4173
Unmitigated	0.5505	1.7566	4.4953	9.9400e-003	0.8198	0.0104	0.8302	0.2196	9.7200e-003	0.2293	0.0000	912.1355	912.1355	0.0513	0.0000	913.4173

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant with Drive Thru	2,485.75	2,187.75	1644.44	2,170,430	2,170,430
Parking Lot	0.00	0.00	0.00		
Total	2,485.75	2,187.75	1,644.44	2,170,430	2,170,430

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Fast Food Restaurant with Drive	9.50	7.30	7.30	2.20	78.80	19.00	29	21	50
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant with Drive Thru	0.572969	0.036138	0.195519	0.119627	0.022592	0.006392	0.017387	0.018402	0.001875	0.001436	0.005105	0.001116	0.001442
Parking Lot	0.572969	0.036138	0.195519	0.119627	0.022592	0.006392	0.017387	0.018402	0.001875	0.001436	0.005105	0.001116	0.001442

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	20.9986	20.9986	0.0000	0.0000	20.9986
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	20.9986	20.9986	0.0000	0.0000	20.9986
NaturalGas Mitigated	4.2300e-003	0.0385	0.0323	2.3000e-004		2.9200e-003	2.9200e-003		2.9200e-003	2.9200e-003	0.0000	41.8885	41.8885	8.0000e-004	7.7000e-004	42.1375
NaturalGas Unmitigated	4.2300e-003	0.0385	0.0323	2.3000e-004		2.9200e-003	2.9200e-003		2.9200e-003	2.9200e-003	0.0000	41.8885	41.8885	8.0000e-004	7.7000e-004	42.1375

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Fast Food Restaurant with Drive Thru	784962	4.2300e-003	0.0385	0.0323	2.3000e-004		2.9200e-003	2.9200e-003		2.9200e-003	2.9200e-003	0.0000	41.8885	41.8885	8.0000e-004	7.7000e-004	42.1375
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**4.2300e-003**	**0.0385**	**0.0323**	**2.3000e-004**		**2.9200e-003**	**2.9200e-003**		**2.9200e-003**	**2.9200e-003**	**0.0000**	**41.8885**	**41.8885**	**8.0000e-004**	**7.7000e-004**	**42.1375**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Fast Food Restaurant with Drive Thru	784962	4.2300e-003	0.0385	0.0323	2.3000e-004		2.9200e-003	2.9200e-003		2.9200e-003	2.9200e-003	0.0000	41.8885	41.8885	8.0000e-004	7.7000e-004	42.1375
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**4.2300e-003**	**0.0385**	**0.0323**	**2.3000e-004**		**2.9200e-003**	**2.9200e-003**		**2.9200e-003**	**2.9200e-003**	**0.0000**	**41.8885**	**41.8885**	**8.0000e-004**	**7.7000e-004**	**42.1375**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Fast Food Restaurant with Drive Thru	85149.5	19.5820	0.0000	0.0000	19.5820
Parking Lot	6160	1.4166	0.0000	0.0000	1.4166
Total		**20.9986**	**0.0000**	**0.0000**	**20.9986**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Fast Food Restaurant with Drive Thru	85149.5	19.5820	0.0000	0.0000	19.5820
Parking Lot	6160	1.4166	0.0000	0.0000	1.4166
Total		**20.9986**	**0.0000**	**0.0000**	**20.9986**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0164	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.4000e-004	8.4000e-004	0.0000	0.0000	9.0000e-004
Unmitigated	0.0164	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.4000e-004	8.4000e-004	0.0000	0.0000	9.0000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.3500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0130					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.4000e-004	8.4000e-004	0.0000	0.0000	9.0000e-004
Total	**0.0164**	**0.0000**	**4.3000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**8.4000e-004**	**8.4000e-004**	**0.0000**	**0.0000**	**9.0000e-004**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.3500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0130					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.4000e-004	8.4000e-004	0.0000	0.0000	9.0000e-004
Total	**0.0164**	**0.0000**	**4.3000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**8.4000e-004**	**8.4000e-004**	**0.0000**	**0.0000**	**9.0000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.1962	0.0240	5.7000e-004	1.9643
Unmitigated	1.1962	0.0240	5.7000e-004	1.9643

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Fast Food Restaurant with Drive Thru	0.735766 / 0.0587047	1.1962	0.0240	5.7000e-004	1.9643
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**1.1962**	**0.0240**	**5.7000e-004**	**1.9643**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Fast Food Restaurant with Drive Thru	0.735766 / 0.0587047	1.1962	0.0240	5.7000e-004	1.9643
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**1.1962**	**0.0240**	**5.7000e-004**	**1.9643**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	3.5422	0.2093	0.0000	8.7756
Unmitigated	3.5422	0.2093	0.0000	8.7756

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant with Drive Thru	17.45	3.5422	0.2093	0.0000	8.7756
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**3.5422**	**0.2093**	**0.0000**	**8.7756**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant with Drive Thru	17.45	3.5422	0.2093	0.0000	8.7756
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**3.5422**	**0.2093**	**0.0000**	**8.7756**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

3550 East Main Street Starbucks Project

South Central Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	44.00	Space	0.40	17,600.00	0
Fast Food Restaurant with Drive Thru	3.03	1000sqft	0.12	3,027.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.9	**Precipitation Freq (Days)**	37
Climate Zone	8			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	507	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

3550 East Main Street Starbucks Project - South Central Coast Air Basin, Winter

Project Characteristics - Based on SCE's specific energy intensity factor

Land Use - Based on site plan/traffic study

Demolition - Based on planning package 9/23/19 and Google Earth approximations

Grading - Based on Planning Package 9/23/19

Architectural Coating - Based on VCAPCD Rule 74.2

Vehicle Trips - Based on Traffic Study 1/28/19

Area Coating - Based on VCAPCD Rule 74.2

Energy Use - 30% reduction on Title 24 Electricity Energy Intensity according to Title 24, 2019.
8.71*0.7 = 6.10
75% reduction on Lighting Energy Intensity according to Title 24,2016 Building Energy Efficiency Standards.
7.66*0.25 = 1.92

Water And Wastewater - Based on CalGreen
919,707.15 * 0.8 = 735765.72

Solid Waste - AB 341
34.9*2*0.25 = 17.45

3550 East Main Street Starbucks Project - South Central Coast Air Basin, Winter

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblArchitecturalCoating	EF_Parking	250.00	150.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Parking	250	150
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblEnergyUse	LightingElect	7.66	1.92
tblEnergyUse	T24E	8.71	6.10
tblGrading	MaterialImported	0.00	72.00
tblLandUse	LandUseSquareFeet	3,030.00	3,027.00
tblLandUse	LotAcreage	0.07	0.12
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	702.44	507
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblSolidWaste	SolidWasteGenerationRate	34.90	17.45
tblVehicleTrips	WD_TR	496.12	820.38
tblWater	IndoorWaterUseRate	919,707.15	735,765.72

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	7.3321	9.2188	8.2363	0.0161	0.9191	0.5250	1.3924	0.4579	0.4830	0.9094	0.0000	1,595.7623	1,595.7623	0.3649	0.0000	1,602.0516
Maximum	**7.3321**	**9.2188**	**8.2363**	**0.0161**	**0.9191**	**0.5250**	**1.3924**	**0.4579**	**0.4830**	**0.9094**	**0.0000**	**1,595.7623**	**1,595.7623**	**0.3649**	**0.0000**	**1,602.0516**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	7.3321	9.2188	8.2363	0.0161	0.9191	0.5250	1.3924	0.4579	0.4830	0.9094	0.0000	1,595.7623	1,595.7623	0.3649	0.0000	1,602.0516
Maximum	**7.3321**	**9.2188**	**8.2363**	**0.0161**	**0.9191**	**0.5250**	**1.3924**	**0.4579**	**0.4830**	**0.9094**	**0.0000**	**1,595.7623**	**1,595.7623**	**0.3649**	**0.0000**	**1,602.0516**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0898	4.0000e-005	4.8200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0103	0.0103	3.0000e-005		0.0110
Energy	0.0232	0.2108	0.1771	1.2700e-003		0.0160	0.0160		0.0160	0.0160		253.0094	253.0094	4.8500e-003	4.6400e-003	254.5129
Mobile	3.2938	10.3078	27.6987	0.0580	4.9269	0.0620	4.9889	1.3175	0.0580	1.3755		5,858.2113	5,858.2113	0.3422		5,866.7665
Total	**3.4068**	**10.5187**	**27.8806**	**0.0592**	**4.9269**	**0.0780**	**5.0049**	**1.3175**	**0.0740**	**1.3915**		**6,111.2310**	**6,111.2310**	**0.3471**	**4.6400e-003**	**6,121.2904**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0898	4.0000e-005	4.8200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0103	0.0103	3.0000e-005		0.0110
Energy	0.0232	0.2108	0.1771	1.2700e-003		0.0160	0.0160		0.0160	0.0160		253.0094	253.0094	4.8500e-003	4.6400e-003	254.5129
Mobile	3.2938	10.3078	27.6987	0.0580	4.9269	0.0620	4.9889	1.3175	0.0580	1.3755		5,858.2113	5,858.2113	0.3422		5,866.7665
Total	**3.4068**	**10.5187**	**27.8806**	**0.0592**	**4.9269**	**0.0780**	**5.0049**	**1.3175**	**0.0740**	**1.3915**		**6,111.2310**	**6,111.2310**	**0.3471**	**4.6400e-003**	**6,121.2904**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	1/14/2020	5	10	
2	Site Preparation	Site Preparation	1/15/2020	1/15/2020	5	1	
3	Grading	Grading	1/16/2020	1/17/2020	5	2	
4	Building Construction	Building Construction	1/18/2020	6/5/2020	5	100	
5	Paving	Paving	6/6/2020	6/12/2020	5	5	
6	Architectural Coating	Architectural Coating	6/13/2020	6/19/2020	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.4

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 4,541; Non-Residential Outdoor: 1,514; Striped Parking Area: 1,056 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	12.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	9.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	9.00	3.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2616	0.0000	0.2616	0.0396	0.0000	0.0396			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.2616**	**0.4672**	**0.7288**	**0.0396**	**0.4457**	**0.4853**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

3.2 Demolition - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.6100e-003	0.3496	0.0876	9.1000e-004	0.0209	1.4900e-003	0.0224	5.7200e-003	1.4300e-003	7.1500e-003		99.8526	99.8526	8.6500e-003		100.0687
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0426	0.0302	0.2851	7.4000e-004	0.0822	5.5000e-004	0.0827	0.0218	5.1000e-004	0.0223		74.0799	74.0799	2.2500e-003		74.1360
Total	**0.0522**	**0.3798**	**0.3727**	**1.6500e-003**	**0.1030**	**2.0400e-003**	**0.1051**	**0.0275**	**1.9400e-003**	**0.0295**		**173.9325**	**173.9325**	**0.0109**		**174.2047**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2616	0.0000	0.2616	0.0396	0.0000	0.0396			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.2616**	**0.4672**	**0.7288**	**0.0396**	**0.4457**	**0.4853**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

3.2 Demolition - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.6100e-003	0.3496	0.0876	9.1000e-004	0.0209	1.4900e-003	0.0224	5.7200e-003	1.4300e-003	7.1500e-003		99.8526	99.8526	8.6500e-003		100.0687
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0426	0.0302	0.2851	7.4000e-004	0.0822	5.5000e-004	0.0827	0.0218	5.1000e-004	0.0223		74.0799	74.0799	2.2500e-003		74.1360
Total	**0.0522**	**0.3798**	**0.3727**	**1.6500e-003**	**0.1030**	**2.0400e-003**	**0.1051**	**0.0275**	**1.9400e-003**	**0.0295**		**173.9325**	**173.9325**	**0.0109**		**174.2047**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.6853	8.4307	4.0942	9.7400e-003		0.3353	0.3353		0.3085	0.3085		943.4872	943.4872	0.3051		951.1158
Total	**0.6853**	**8.4307**	**4.0942**	**9.7400e-003**	**0.5303**	**0.3353**	**0.8656**	**0.0573**	**0.3085**	**0.3658**		**943.4872**	**943.4872**	**0.3051**		**951.1158**

3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0213	0.0151	0.1425	3.7000e-004	0.0411	2.8000e-004	0.0414	0.0109	2.5000e-004	0.0112		37.0399	37.0399	1.1200e-003		37.0680
Total	**0.0213**	**0.0151**	**0.1425**	**3.7000e-004**	**0.0411**	**2.8000e-004**	**0.0414**	**0.0109**	**2.5000e-004**	**0.0112**		**37.0399**	**37.0399**	**1.1200e-003**		**37.0680**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.6853	8.4307	4.0942	9.7400e-003		0.3353	0.3353		0.3085	0.3085	0.0000	943.4872	943.4872	0.3051		951.1158
Total	**0.6853**	**8.4307**	**4.0942**	**9.7400e-003**	**0.5303**	**0.3353**	**0.8656**	**0.0573**	**0.3085**	**0.3658**	**0.0000**	**943.4872**	**943.4872**	**0.3051**		**951.1158**

3.3 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0213	0.0151	0.1425	3.7000e-004	0.0411	2.8000e-004	0.0414	0.0109	2.5000e-004	0.0112		37.0399	37.0399	1.1200e-003		37.0680
Total	**0.0213**	**0.0151**	**0.1425**	**3.7000e-004**	**0.0411**	**2.8000e-004**	**0.0414**	**0.0109**	**2.5000e-004**	**0.0112**		**37.0399**	**37.0399**	**1.1200e-003**		**37.0680**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7586	0.0000	0.7586	0.4147	0.0000	0.4147			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7586**	**0.4672**	**1.2258**	**0.4147**	**0.4457**	**0.8603**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

3.4 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0360	1.3110	0.3287	3.4200e-003	0.0784	5.6000e-003	0.0840	0.0215	5.3600e-003	0.0268		374.4473	374.4473	0.0324		375.2578
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0426	0.0302	0.2851	7.4000e-004	0.0822	5.5000e-004	0.0827	0.0218	5.1000e-004	0.0223		74.0799	74.0799	2.2500e-003		74.1360
Total	**0.0786**	**1.3412**	**0.6137**	**4.1600e-003**	**0.1605**	**6.1500e-003**	**0.1667**	**0.0432**	**5.8700e-003**	**0.0491**		**448.5271**	**448.5271**	**0.0347**		**449.3938**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7586	0.0000	0.7586	0.4147	0.0000	0.4147			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7586**	**0.4672**	**1.2258**	**0.4147**	**0.4457**	**0.8603**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

3.4 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0360	1.3110	0.3287	3.4200e-003	0.0784	5.6000e-003	0.0840	0.0215	5.3600e-003	0.0268		374.4473	374.4473	0.0324		375.2578
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0426	0.0302	0.2851	7.4000e-004	0.0822	5.5000e-004	0.0827	0.0218	5.1000e-004	0.0223		74.0799	74.0799	2.2500e-003		74.1360
Total	**0.0786**	**1.3412**	**0.6137**	**4.1600e-003**	**0.1605**	**6.1500e-003**	**0.1667**	**0.0432**	**5.8700e-003**	**0.0491**		**448.5271**	**448.5271**	**0.0347**		**449.3938**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806		1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**		**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0121	0.3393	0.1077	7.7000e-004	0.0203	2.0800e-003	0.0224	5.8300e-003	1.9900e-003	7.8300e-003		82.9146	82.9146	6.1900e-003		83.0692
Worker	0.0383	0.0272	0.2566	6.7000e-004	0.0739	5.0000e-004	0.0744	0.0196	4.6000e-004	0.0201		66.6719	66.6719	2.0200e-003		66.7224
Total	**0.0504**	**0.3665**	**0.3642**	**1.4400e-003**	**0.0942**	**2.5800e-003**	**0.0968**	**0.0254**	**2.4500e-003**	**0.0279**		**149.5865**	**149.5865**	**8.2100e-003**		**149.7916**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806	0.0000	1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**	**0.0000**	**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0121	0.3393	0.1077	7.7000e-004	0.0203	2.0800e-003	0.0224	5.8300e-003	1.9900e-003	7.8300e-003		82.9146	82.9146	6.1900e-003		83.0692
Worker	0.0383	0.0272	0.2566	6.7000e-004	0.0739	5.0000e-004	0.0744	0.0196	4.6000e-004	0.0201		66.6719	66.6719	2.0200e-003		66.7224
Total	**0.0504**	**0.3665**	**0.3642**	**1.4400e-003**	**0.0942**	**2.5800e-003**	**0.0968**	**0.0254**	**2.4500e-003**	**0.0279**		**149.5865**	**149.5865**	**8.2100e-003**		**149.7916**

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7716	7.2266	7.1128	0.0113		0.3950	0.3950		0.3669	0.3669		1,035.3926	1,035.3926	0.3016		1,042.9323
Paving	0.2096					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9812**	**7.2266**	**7.1128**	**0.0113**		**0.3950**	**0.3950**		**0.3669**	**0.3669**		**1,035.3926**	**1,035.3926**	**0.3016**		**1,042.9323**

3.6 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0767	0.0544	0.5131	1.3400e-003	0.1479	9.9000e-004	0.1489	0.0392	9.2000e-004	0.0401		133.3437	133.3437	4.0400e-003		133.4448
Total	**0.0767**	**0.0544**	**0.5131**	**1.3400e-003**	**0.1479**	**9.9000e-004**	**0.1489**	**0.0392**	**9.2000e-004**	**0.0401**		**133.3437**	**133.3437**	**4.0400e-003**		**133.4448**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7716	7.2266	7.1128	0.0113		0.3950	0.3950		0.3669	0.3669	0.0000	1,035.3926	1,035.3926	0.3016		1,042.9323
Paving	0.2096					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9812**	**7.2266**	**7.1128**	**0.0113**		**0.3950**	**0.3950**		**0.3669**	**0.3669**	**0.0000**	**1,035.3926**	**1,035.3926**	**0.3016**		**1,042.9323**

3.6 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0767	0.0544	0.5131	1.3400e-003	0.1479	9.9000e-004	0.1489	0.0392	9.2000e-004	0.0401		133.3437	133.3437	4.0400e-003		133.4448
Total	**0.0767**	**0.0544**	**0.5131**	**1.3400e-003**	**0.1479**	**9.9000e-004**	**0.1489**	**0.0392**	**9.2000e-004**	**0.0401**		**133.3437**	**133.3437**	**4.0400e-003**		**133.4448**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.0814					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**7.3235**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.7 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	8.5200e-003	6.0500e-003	0.0570	1.5000e-004	0.0164	1.1000e-004	0.0165	4.3600e-003	1.0000e-004	4.4600e-003		14.8160	14.8160	4.5000e-004		14.8272
Total	**8.5200e-003**	**6.0500e-003**	**0.0570**	**1.5000e-004**	**0.0164**	**1.1000e-004**	**0.0165**	**4.3600e-003**	**1.0000e-004**	**4.4600e-003**		**14.8160**	**14.8160**	**4.5000e-004**		**14.8272**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.0814					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**7.3235**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.7 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	8.5200e-003	6.0500e-003	0.0570	1.5000e-004	0.0164	1.1000e-004	0.0165	4.3600e-003	1.0000e-004	4.4600e-003		14.8160	14.8160	4.5000e-004		14.8272
Total	**8.5200e-003**	**6.0500e-003**	**0.0570**	**1.5000e-004**	**0.0164**	**1.1000e-004**	**0.0165**	**4.3600e-003**	**1.0000e-004**	**4.4600e-003**		**14.8160**	**14.8160**	**4.5000e-004**		**14.8272**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.2938	10.3078	27.6987	0.0580	4.9269	0.0620	4.9889	1.3175	0.0580	1.3755		5,858.2113	5,858.2113	0.3422		5,866.7665
Unmitigated	3.2938	10.3078	27.6987	0.0580	4.9269	0.0620	4.9889	1.3175	0.0580	1.3755		5,858.2113	5,858.2113	0.3422		5,866.7665

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant with Drive Thru	2,485.75	2,187.75	1644.44	2,170,430	2,170,430
Parking Lot	0.00	0.00	0.00		
Total	2,485.75	2,187.75	1,644.44	2,170,430	2,170,430

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Fast Food Restaurant with Drive	9.50	7.30	7.30	2.20	78.80	19.00	29	21	50
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant with Drive Thru	0.572969	0.036138	0.195519	0.119627	0.022592	0.006392	0.017387	0.018402	0.001875	0.001436	0.005105	0.001116	0.001442
Parking Lot	0.572969	0.036138	0.195519	0.119627	0.022592	0.006392	0.017387	0.018402	0.001875	0.001436	0.005105	0.001116	0.001442

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0232	0.2108	0.1771	1.2700e-003		0.0160	0.0160		0.0160	0.0160		253.0094	253.0094	4.8500e-003	4.6400e-003	254.5129
NaturalGas Unmitigated	0.0232	0.2108	0.1771	1.2700e-003		0.0160	0.0160		0.0160	0.0160		253.0094	253.0094	4.8500e-003	4.6400e-003	254.5129

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant with Drive Thru	2150.58	0.0232	0.2108	0.1771	1.2700e-003		0.0160	0.0160		0.0160	0.0160		253.0094	253.0094	4.8500e-003	4.6400e-003	254.5129
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0232**	**0.2108**	**0.1771**	**1.2700e-003**		**0.0160**	**0.0160**		**0.0160**	**0.0160**		**253.0094**	**253.0094**	**4.8500e-003**	**4.6400e-003**	**254.5129**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant with Drive Thru	2.15058	0.0232	0.2108	0.1771	1.2700e-003		0.0160	0.0160		0.0160	0.0160		253.0094	253.0094	4.8500e-003	4.6400e-003	254.5129
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0232**	**0.2108**	**0.1771**	**1.2700e-003**		**0.0160**	**0.0160**		**0.0160**	**0.0160**		**253.0094**	**253.0094**	**4.8500e-003**	**4.6400e-003**	**254.5129**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0898	4.0000e-005	4.8200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0103	0.0103	3.0000e-005		0.0110
Unmitigated	0.0898	4.0000e-005	4.8200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0103	0.0103	3.0000e-005		0.0110

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0184					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0710					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.5000e-004	4.0000e-005	4.8200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0103	0.0103	3.0000e-005		0.0110
Total	**0.0898**	**4.0000e-005**	**4.8200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0103**	**0.0103**	**3.0000e-005**		**0.0110**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0184					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0710					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.5000e-004	4.0000e-005	4.8200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0103	0.0103	3.0000e-005		0.0110
Total	**0.0898**	**4.0000e-005**	**4.8200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0103**	**0.0103**	**3.0000e-005**		**0.0110**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

3550 East Main Street Starbucks Project

South Central Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	44.00	Space	0.40	17,600.00	0
Fast Food Restaurant with Drive Thru	3.03	1000sqft	0.12	3,027.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.9	**Precipitation Freq (Days)**	37
Climate Zone	8			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	507	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

3550 East Main Street Starbucks Project - South Central Coast Air Basin, Summer

Project Characteristics - Based on SCE's specific energy intensity factor

Land Use - Based on site plan/traffic study

Demolition - Based on planning package 9/23/19 and Google Earth approximations

Grading - Based on Planning Package 9/23/19

Architectural Coating - Based on VCAPCD Rule 74.2

Vehicle Trips - Based on Traffic Study 1/28/19

Area Coating - Based on VCAPCD Rule 74.2

Energy Use - 30% reduction on Title 24 Electricity Energy Intensity according to Title 24, 2019.
8.71*0.7 = 6.10
75% reduction on Lighting Energy Intensity according to Title 24,2016 Building Energy Efficiency Standards.
7.66*0.25 = 1.92

Water And Wastewater - Based on CalGreen
919,707.15 * 0.8 = 735765.72

Solid Waste - AB 341
34.9*2*0.25 = 17.45

3550 East Main Street Starbucks Project - South Central Coast Air Basin, Summer

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblArchitecturalCoating	EF_Parking	250.00	150.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Parking	250	150
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblEnergyUse	LightingElect	7.66	1.92
tblEnergyUse	T24E	8.71	6.10
tblGrading	MaterialImported	0.00	72.00
tblLandUse	LandUseSquareFeet	3,030.00	3,027.00
tblLandUse	LotAcreage	0.07	0.12
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	702.44	507
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblSolidWaste	SolidWasteGenerationRate	34.90	17.45
tblVehicleTrips	WD_TR	496.12	820.38
tblWater	IndoorWaterUseRate	919,707.15	735,765.72

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	7.3310	9.2152	8.2202	0.0162	0.9191	0.5249	1.3923	0.4579	0.4830	0.9093	0.0000	1,604.6221	1,604.6221	0.3647	0.0000	1,610.8902
Maximum	**7.3310**	**9.2152**	**8.2202**	**0.0162**	**0.9191**	**0.5249**	**1.3923**	**0.4579**	**0.4830**	**0.9093**	**0.0000**	**1,604.6221**	**1,604.6221**	**0.3647**	**0.0000**	**1,610.8902**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	7.3310	9.2152	8.2202	0.0162	0.9191	0.5249	1.3923	0.4579	0.4830	0.9093	0.0000	1,604.6221	1,604.6221	0.3647	0.0000	1,610.8902
Maximum	**7.3310**	**9.2152**	**8.2202**	**0.0162**	**0.9191**	**0.5249**	**1.3923**	**0.4579**	**0.4830**	**0.9093**	**0.0000**	**1,604.6221**	**1,604.6221**	**0.3647**	**0.0000**	**1,610.8902**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0898	4.0000e-005	4.8200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0103	0.0103	3.0000e-005		0.0110
Energy	0.0232	0.2108	0.1771	1.2700e-003		0.0160	0.0160		0.0160	0.0160		253.0094	253.0094	4.8500e-003	4.6400e-003	254.5129
Mobile	3.4346	10.0620	25.0546	0.0602	4.9269	0.0606	4.9875	1.3175	0.0566	1.3741		6,093.1941	6,093.1941	0.3237		6,101.2863
Total	**3.5476**	**10.2729**	**25.2365**	**0.0615**	**4.9269**	**0.0766**	**5.0035**	**1.3175**	**0.0727**	**1.3902**		**6,346.2138**	**6,346.2138**	**0.3286**	**4.6400e-003**	**6,355.8102**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0898	4.0000e-005	4.8200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0103	0.0103	3.0000e-005		0.0110
Energy	0.0232	0.2108	0.1771	1.2700e-003		0.0160	0.0160		0.0160	0.0160		253.0094	253.0094	4.8500e-003	4.6400e-003	254.5129
Mobile	3.4346	10.0620	25.0546	0.0602	4.9269	0.0606	4.9875	1.3175	0.0566	1.3741		6,093.1941	6,093.1941	0.3237		6,101.2863
Total	**3.5476**	**10.2729**	**25.2365**	**0.0615**	**4.9269**	**0.0766**	**5.0035**	**1.3175**	**0.0727**	**1.3902**		**6,346.2138**	**6,346.2138**	**0.3286**	**4.6400e-003**	**6,355.8102**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	1/14/2020	5	10	
2	Site Preparation	Site Preparation	1/15/2020	1/15/2020	5	1	
3	Grading	Grading	1/16/2020	1/17/2020	5	2	
4	Building Construction	Building Construction	1/18/2020	6/5/2020	5	100	
5	Paving	Paving	6/6/2020	6/12/2020	5	5	
6	Architectural Coating	Architectural Coating	6/13/2020	6/19/2020	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.4

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 4,541; Non-Residential Outdoor: 1,514; Striped Parking Area: 1,056 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	12.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	9.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	9.00	3.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2616	0.0000	0.2616	0.0396	0.0000	0.0396			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.2616**	**0.4672**	**0.7288**	**0.0396**	**0.4457**	**0.4853**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

3.2 Demolition - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.3400e-003	0.3465	0.0827	9.2000e-004	0.0209	1.4600e-003	0.0224	5.7200e-003	1.3900e-003	7.1100e-003		101.3579	101.3579	8.4100e-003		101.5680
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0375	0.0262	0.2876	7.8000e-004	0.0822	5.5000e-004	0.0827	0.0218	5.1000e-004	0.0223		77.2948	77.2948	2.3000e-003		77.3524
Total	**0.0468**	**0.3727**	**0.3703**	**1.7000e-003**	**0.1030**	**2.0100e-003**	**0.1051**	**0.0275**	**1.9000e-003**	**0.0294**		**178.6527**	**178.6527**	**0.0107**		**178.9204**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2616	0.0000	0.2616	0.0396	0.0000	0.0396			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.2616**	**0.4672**	**0.7288**	**0.0396**	**0.4457**	**0.4853**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

3.2 Demolition - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.3400e-003	0.3465	0.0827	9.2000e-004	0.0209	1.4600e-003	0.0224	5.7200e-003	1.3900e-003	7.1100e-003		101.3579	101.3579	8.4100e-003		101.5680
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0375	0.0262	0.2876	7.8000e-004	0.0822	5.5000e-004	0.0827	0.0218	5.1000e-004	0.0223		77.2948	77.2948	2.3000e-003		77.3524
Total	**0.0468**	**0.3727**	**0.3703**	**1.7000e-003**	**0.1030**	**2.0100e-003**	**0.1051**	**0.0275**	**1.9000e-003**	**0.0294**		**178.6527**	**178.6527**	**0.0107**		**178.9204**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.6853	8.4307	4.0942	9.7400e-003		0.3353	0.3353		0.3085	0.3085		943.4872	943.4872	0.3051		951.1158
Total	**0.6853**	**8.4307**	**4.0942**	**9.7400e-003**	**0.5303**	**0.3353**	**0.8656**	**0.0573**	**0.3085**	**0.3658**		**943.4872**	**943.4872**	**0.3051**		**951.1158**

3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0187	0.0131	0.1438	3.9000e-004	0.0411	2.8000e-004	0.0414	0.0109	2.5000e-004	0.0112		38.6474	38.6474	1.1500e-003		38.6762
Total	**0.0187**	**0.0131**	**0.1438**	**3.9000e-004**	**0.0411**	**2.8000e-004**	**0.0414**	**0.0109**	**2.5000e-004**	**0.0112**		**38.6474**	**38.6474**	**1.1500e-003**		**38.6762**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.6853	8.4307	4.0942	9.7400e-003		0.3353	0.3353		0.3085	0.3085	0.0000	943.4872	943.4872	0.3051		951.1158
Total	**0.6853**	**8.4307**	**4.0942**	**9.7400e-003**	**0.5303**	**0.3353**	**0.8656**	**0.0573**	**0.3085**	**0.3658**	**0.0000**	**943.4872**	**943.4872**	**0.3051**		**951.1158**

3.3 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0187	0.0131	0.1438	3.9000e-004	0.0411	2.8000e-004	0.0414	0.0109	2.5000e-004	0.0112		38.6474	38.6474	1.1500e-003		38.6762
Total	**0.0187**	**0.0131**	**0.1438**	**3.9000e-004**	**0.0411**	**2.8000e-004**	**0.0414**	**0.0109**	**2.5000e-004**	**0.0112**		**38.6474**	**38.6474**	**1.1500e-003**		**38.6762**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7586	0.0000	0.7586	0.4147	0.0000	0.4147			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7586**	**0.4672**	**1.2258**	**0.4147**	**0.4457**	**0.8603**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

3.4 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0350	1.2993	0.3100	3.4700e-003	0.0784	5.4600e-003	0.0838	0.0215	5.2200e-003	0.0267		380.0920	380.0920	0.0315		380.8801
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0375	0.0262	0.2876	7.8000e-004	0.0822	5.5000e-004	0.0827	0.0218	5.1000e-004	0.0223		77.2948	77.2948	2.3000e-003		77.3524
Total	**0.0725**	**1.3255**	**0.5976**	**4.2500e-003**	**0.1605**	**6.0100e-003**	**0.1665**	**0.0432**	**5.7300e-003**	**0.0490**		**457.3869**	**457.3869**	**0.0338**		**458.2324**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7586	0.0000	0.7586	0.4147	0.0000	0.4147			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7586**	**0.4672**	**1.2258**	**0.4147**	**0.4457**	**0.8603**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

3.4 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0350	1.2993	0.3100	3.4700e-003	0.0784	5.4600e-003	0.0838	0.0215	5.2200e-003	0.0267		380.0920	380.0920	0.0315		380.8801
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0375	0.0262	0.2876	7.8000e-004	0.0822	5.5000e-004	0.0827	0.0218	5.1000e-004	0.0223		77.2948	77.2948	2.3000e-003		77.3524
Total	**0.0725**	**1.3255**	**0.5976**	**4.2500e-003**	**0.1605**	**6.0100e-003**	**0.1665**	**0.0432**	**5.7300e-003**	**0.0490**		**457.3869**	**457.3869**	**0.0338**		**458.2324**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806		1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**		**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0115	0.3393	0.0970	7.9000e-004	0.0203	2.0300e-003	0.0223	5.8300e-003	1.9400e-003	7.7800e-003		84.8649	84.8649	5.8600e-003		85.0114
Worker	0.0337	0.0236	0.2589	7.0000e-004	0.0739	5.0000e-004	0.0744	0.0196	4.6000e-004	0.0201		69.5653	69.5653	2.0700e-003		69.6171
Total	**0.0452**	**0.3628**	**0.3559**	**1.4900e-003**	**0.0942**	**2.5300e-003**	**0.0967**	**0.0254**	**2.4000e-003**	**0.0279**		**154.4302**	**154.4302**	**7.9300e-003**		**154.6285**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806	0.0000	1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**	**0.0000**	**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0115	0.3393	0.0970	7.9000e-004	0.0203	2.0300e-003	0.0223	5.8300e-003	1.9400e-003	7.7800e-003		84.8649	84.8649	5.8600e-003		85.0114
Worker	0.0337	0.0236	0.2589	7.0000e-004	0.0739	5.0000e-004	0.0744	0.0196	4.6000e-004	0.0201		69.5653	69.5653	2.0700e-003		69.6171
Total	**0.0452**	**0.3628**	**0.3559**	**1.4900e-003**	**0.0942**	**2.5300e-003**	**0.0967**	**0.0254**	**2.4000e-003**	**0.0279**		**154.4302**	**154.4302**	**7.9300e-003**		**154.6285**

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7716	7.2266	7.1128	0.0113		0.3950	0.3950		0.3669	0.3669		1,035.3926	1,035.3926	0.3016		1,042.9323
Paving	0.2096					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9812**	**7.2266**	**7.1128**	**0.0113**		**0.3950**	**0.3950**		**0.3669**	**0.3669**		**1,035.3926**	**1,035.3926**	**0.3016**		**1,042.9323**

3.6 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0675	0.0471	0.5177	1.4000e-003	0.1479	9.9000e-004	0.1489	0.0392	9.2000e-004	0.0401		139.1307	139.1307	4.1400e-003		139.2342
Total	**0.0675**	**0.0471**	**0.5177**	**1.4000e-003**	**0.1479**	**9.9000e-004**	**0.1489**	**0.0392**	**9.2000e-004**	**0.0401**		**139.1307**	**139.1307**	**4.1400e-003**		**139.2342**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7716	7.2266	7.1128	0.0113		0.3950	0.3950		0.3669	0.3669	0.0000	1,035.3926	1,035.3926	0.3016		1,042.9323
Paving	0.2096					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9812**	**7.2266**	**7.1128**	**0.0113**		**0.3950**	**0.3950**		**0.3669**	**0.3669**	**0.0000**	**1,035.3926**	**1,035.3926**	**0.3016**		**1,042.9323**

3.6 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0675	0.0471	0.5177	1.4000e-003	0.1479	9.9000e-004	0.1489	0.0392	9.2000e-004	0.0401		139.1307	139.1307	4.1400e-003		139.2342
Total	**0.0675**	**0.0471**	**0.5177**	**1.4000e-003**	**0.1479**	**9.9000e-004**	**0.1489**	**0.0392**	**9.2000e-004**	**0.0401**		**139.1307**	**139.1307**	**4.1400e-003**		**139.2342**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.0814					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**7.3235**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.7 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	7.4900e-003	5.2400e-003	0.0575	1.6000e-004	0.0164	1.1000e-004	0.0165	4.3600e-003	1.0000e-004	4.4600e-003		15.4590	15.4590	4.6000e-004		15.4705
Total	**7.4900e-003**	**5.2400e-003**	**0.0575**	**1.6000e-004**	**0.0164**	**1.1000e-004**	**0.0165**	**4.3600e-003**	**1.0000e-004**	**4.4600e-003**		**15.4590**	**15.4590**	**4.6000e-004**		**15.4705**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.0814					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**7.3235**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.7 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	7.4900e-003	5.2400e-003	0.0575	1.6000e-004	0.0164	1.1000e-004	0.0165	4.3600e-003	1.0000e-004	4.4600e-003		15.4590	15.4590	4.6000e-004		15.4705
Total	**7.4900e-003**	**5.2400e-003**	**0.0575**	**1.6000e-004**	**0.0164**	**1.1000e-004**	**0.0165**	**4.3600e-003**	**1.0000e-004**	**4.4600e-003**		**15.4590**	**15.4590**	**4.6000e-004**		**15.4705**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.4346	10.0620	25.0546	0.0602	4.9269	0.0606	4.9875	1.3175	0.0566	1.3741		6,093.1941	6,093.1941	0.3237		6,101.2863
Unmitigated	3.4346	10.0620	25.0546	0.0602	4.9269	0.0606	4.9875	1.3175	0.0566	1.3741		6,093.1941	6,093.1941	0.3237		6,101.2863

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant with Drive Thru	2,485.75	2,187.75	1644.44	2,170,430	2,170,430
Parking Lot	0.00	0.00	0.00		
Total	2,485.75	2,187.75	1,644.44	2,170,430	2,170,430

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Fast Food Restaurant with Drive	9.50	7.30	7.30	2.20	78.80	19.00	29	21	50
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant with Drive Thru	0.572969	0.036138	0.195519	0.119627	0.022592	0.006392	0.017387	0.018402	0.001875	0.001436	0.005105	0.001116	0.001442
Parking Lot	0.572969	0.036138	0.195519	0.119627	0.022592	0.006392	0.017387	0.018402	0.001875	0.001436	0.005105	0.001116	0.001442

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0232	0.2108	0.1771	1.2700e-003		0.0160	0.0160		0.0160	0.0160		253.0094	253.0094	4.8500e-003	4.6400e-003	254.5129
NaturalGas Unmitigated	0.0232	0.2108	0.1771	1.2700e-003		0.0160	0.0160		0.0160	0.0160		253.0094	253.0094	4.8500e-003	4.6400e-003	254.5129

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant with Drive Thru	2150.58	0.0232	0.2108	0.1771	1.2700e-003		0.0160	0.0160		0.0160	0.0160		253.0094	253.0094	4.8500e-003	4.6400e-003	254.5129
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0232**	**0.2108**	**0.1771**	**1.2700e-003**		**0.0160**	**0.0160**		**0.0160**	**0.0160**		**253.0094**	**253.0094**	**4.8500e-003**	**4.6400e-003**	**254.5129**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant with Drive Thru	2.15058	0.0232	0.2108	0.1771	1.2700e-003		0.0160	0.0160		0.0160	0.0160		253.0094	253.0094	4.8500e-003	4.6400e-003	254.5129
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0232**	**0.2108**	**0.1771**	**1.2700e-003**		**0.0160**	**0.0160**		**0.0160**	**0.0160**		**253.0094**	**253.0094**	**4.8500e-003**	**4.6400e-003**	**254.5129**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0898	4.0000e-005	4.8200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0103	0.0103	3.0000e-005		0.0110
Unmitigated	0.0898	4.0000e-005	4.8200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0103	0.0103	3.0000e-005		0.0110

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0184					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0710					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.5000e-004	4.0000e-005	4.8200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0103	0.0103	3.0000e-005		0.0110
Total	**0.0898**	**4.0000e-005**	**4.8200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0103**	**0.0103**	**3.0000e-005**		**0.0110**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0184					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0710					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.5000e-004	4.0000e-005	4.8200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0103	0.0103	3.0000e-005		0.0110
Total	**0.0898**	**4.0000e-005**	**4.8200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0103**	**0.0103**	**3.0000e-005**		**0.0110**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

N2O Operational GHG Emission Mobile Calculations

Project Code & Title: 18-06073, Starby's MND

Vehicle Population Breakdown*	
1052590	Gasoline vehicles
31521	Diesel vehicles
97.1%	Gasoline vehicle %
2.9%	Diesel vehicle %

VMT per Vehicle Type		
2170430	Project VMT (CalEEMod output)	
2107325	Gasoline vehicle VMT	
63105	Diesel vehicle VMT	

Gasoline Vehicles	
97.1%	Gasoline vehicle %
1.7566	Tons per year mobile NOX emissions (annual output in CalEEMod)
1.71	Gasoline vehicle tons per year NOX emissions
4.16%	Percentage to convert NOX emissions to N2O **
0.0709	Tons per year N2O emissions for gasoline vehicles
0.0644	Metric tons per year N2O emissions for gasoline vehicles

Diesel Vehicles	
0.3316	grams N2O per gallon of fuel for diesel vehicles**
22.28	Diesel average miles per gallon*
0.01488	grams per mile N2O for diesel vehicles
939.0	grams per year N2O for diesel vehicles
0.0009390	Metric tons per year N2O emissions for diesel vehicles

CO2E Emissions from N2O	
0.0653	Metric tons per year from gasoline + diesel vehicles
298	GWP of N2O***
19.5	**CO2E emissions per year from N2O emissions from gasoline + diesel vehicles**

Sources
***Vehicle population source:**
EMFAC2014 (v1.0.7) Emissions Inventory
Region Type: Air Basin
Region: South Central Coast
Calendar Year: 2020
Season: Annual
Vehicle Classification: EMFAC2011 Categories
****Methodology source:**
EMFAC2011 Frequently Asked Questions
https://www.arb.ca.gov/msei/emfac2011-faq.htm
*****GWP source:**
Intergovernmental Panel on Climate Change (IPCC). 2007.
AR4 Climate Change 2007: The Physical Science Basis.
Contrbution of Working Group I to the Fourth Assessment Report of the
Intergovernmental Panel on Climate Change.

Appendix B

Traffic Impact Analysis

3550 EAST MAIN STREET
STARBUCKS
TRAFFIC IMPACT ANALYSIS

City of Ventura

January 28, 2019

Prepared by

Brandon Alvarado, EIT
Giancarlo Ganddini, PE, PTP

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18-0075

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EXECUTIVE SUMMARY

The purpose of this Traffic Impact Analysis is to provide an assessment of traffic operations resulting from development of the proposed 3550 East Main Street Starbucks project and to identify measures necessary to mitigate potentially significant traffic impacts. This report analyzes traffic impacts for the anticipated project opening year in Year 2019.

Although this is a technical report, every effort has been made to write the report clearly and concisely. To assist the reader with technical terms related to transportation engineering, a glossary is provided in Appendix A.

PROJECT DESCRIPTION

The 1.0 acre project site is located at 3550 East Main Street in the City of Ventura. The proposed project involves construction of a Starbucks with 3,027 square feet of gross floor area, along with the demolition of the existing 2,125 square foot Arby's restaurant. The project will utilize one of the two existing right-in/right-out only driveways at East Main Street and one existing full access driveway on Mills Road. The proposed project is anticipated to be constructed and fully operational by Year 2019.

Three access alternatives have been analyzed in addition to the existing access options available at the site:

- Alternative 1 - Prohibit vehicular egress via the access easement to East Main Street and require all vehicles exiting from the proposed project site to exit via Mills Road.
- Alternative 2 - Prohibit vehicular ingress via the access easement from East Main Street and require all vehicles to enter the project site from Mills Road while allowing egress to East Main Street through the access easement or through Mills Road.
- Alternative 3 - Close the access easement to and from East Main Street completely, forcing all inbound and outbound traffic via Mills Road.

EXISTING OPERATIONS

The study intersections currently operate within acceptable Levels of Service (D or better for signalized intersections, E or better for unsignalized and freeway ramp intersections) during the peak hours for Existing traffic conditions (see Table 2).

PROJECT TRIPS

The proposed project is forecast to generate approximately 2,285 daily vehicle trips, including 137 vehicle trips during the AM peak hour and 66 vehicle trips during the PM peak hour. The existing Arby's generates approximately 923 daily vehicle trips, including 94 vehicle trips during the AM peak hour and 32 vehicle trips during the PM peak hour. In total, the proposed project is forecast to generate 1,362 net new daily vehicle trips, including 94 net new trips during the AM peak hour and 32 net new trips during the PM peak hour (see Table 3).

FORECAST OPERATIONS

Existing Plus Project Traffic Conditions: The study intersections are projected to operate within acceptable Levels of Service (D or better for signalized intersections, E or better for unsignalized and freeway ramp intersections) during the peak hours for Existing Plus Project traffic conditions (see Table 5).

Based on the established thresholds of significance, the proposed project is forecast to result in no significant traffic impacts at the study intersections for Existing Plus Project traffic conditions (see Table 6).

Existing Plus Project Alternative 1 Traffic Conditions: The study intersections are projected to operate within acceptable Levels of Service (D or better for signalized intersections, E or better for unsignalized and freeway ramp intersections) during the peak hours for Existing Plus Project Alternative 1 traffic conditions (see Table 7).

Based on the established thresholds of significance, the proposed project is forecast to result in no significant traffic impacts at the study intersections for Existing Plus Project Alternative 1 traffic conditions (see Table 8).

Existing Plus Project Alternative 2 Traffic Conditions: The study intersections are projected to operate within acceptable Levels of Service (D or better for signalized intersections, E or better for unsignalized and freeway ramp intersections) during the peak hours for Existing Plus Project Alternative 2 traffic conditions (see Table 9).

Based on the established thresholds of significance, the proposed project is forecast to result in no significant traffic impacts at the study intersections for Existing Plus Project Alternative 2 traffic conditions (see Table 10).

Existing Plus Project Alternative 3 Traffic Conditions: The study intersections are projected to operate within acceptable Levels of Service (D or better for signalized intersections, E or better for unsignalized and freeway ramp intersections) during the peak hours for Existing Plus Project Alternative 3 traffic conditions (see Table 11).

Based on the established thresholds of significance, the proposed project is forecast to result in no significant traffic impacts at the study intersections for Existing Plus Project Alternative 3 traffic conditions (see Table 12).

Opening Year (2019) Without Project Traffic Conditions: The study intersections are projected to operate within acceptable Levels of Service (D or better for signalized intersections, E or better for unsignalized and freeway ramp intersections) during the peak hours for Opening Year (2019) Without Project traffic conditions (see Table 13).

Opening Year (2019) With Project Traffic Conditions: The study intersections are projected to operate within acceptable Levels of Service (D or better for signalized intersections, E or better for unsignalized and freeway ramp intersections) during the peak hours for Opening Year (2019) With Project traffic conditions (see Table 14).

The proposed project is forecast to result in no significant traffic impacts at the study intersections for Opening Year (2019) With Project traffic conditions (see Table 15).

Opening Year (2019) With Project Alternative 1 traffic conditions: The study intersections are projected to operate within acceptable Levels of Service (D or better for signalized intersections, E or better for unsignalized and freeway ramp intersections) during the peak hours for Opening Year (2019) With Project Alternative 1 traffic conditions (see Table 16).

The proposed project is forecast to result in no significant traffic impacts at the study intersections for Opening Year (2019) With Project Alternative 1 traffic conditions (see Table 17).

Opening Year (2019) With Project Alternative 2 Traffic Conditions: The study intersections are projected to operate within acceptable Levels of Service (D or better for signalized intersections, E or better for unsignalized and freeway ramp intersections) during the peak hours for Opening Year (2019) With Project Alternative 2 traffic conditions (see Table 18).

The proposed project is forecast to result in no significant traffic impacts at the study intersections for Opening Year (2019) With Project Alternative 2 traffic conditions (see Table 19).

Opening Year (2019) With Project Alternative 3 Traffic Conditions: The study intersections are projected to operate within acceptable Levels of Service (D or better for signalized intersections, E or better for unsignalized and freeway ramp intersections) during the peak hours for Opening Year (2019) With Project Alternative 3 traffic conditions (see Table 20).

The proposed project is forecast to result in no significant traffic impacts at the study intersections for Opening Year (2019) With Project Alternative 3 traffic conditions (see Table 21).

A traffic signal is not projected to be warranted at any of the unsignalized study intersections based upon the California Manual on Uniform Traffic Control Devices (2014).

ACCESS ALTERNATIVE RECOMMENDATION

In examining the intersection of Mills Road and East Main Street, the existing configuration has the lowest V/C of all four alternatives and is tied for the lowest total project volume with Alternative 2. Where the existing configuration and Alternative 2 differ the most is the westbound left turn movements. The existing configuration allows for vehicles to make a U-turn at the intersection to access the site from East Main Street, but Alternative 2's inbound restriction forces vehicles to make a normal left turn to utilize the access on Mills Road. Additionally. Alternative 2 diverts eastbound through movements to eastbound right turn movements, which utilize a dedicated right turn lane. Although the V/C is lowest in the existing configuration, all alternatives will perform at an acceptable LOS of B or C. The two project access points are equally viable across all four alternatives, with East Main Street naturally being a right-in-right-out access and Mills Road having low through volumes at the access point. Overall, the existing configuration is favorable in terms of ease of movement since it does not restrict any movements and has the lowest V/C (see Table 22 and Table 23).

MITIGATION MEASURES

No off-site mitigation measure improvements were identified since the proposed project is forecast to result in no significant traffic impacts at the study intersections for the scenarios analyzed.

1. INTRODUCTION

This section describes the purpose of this traffic impact analysis, project location, proposed development, and study area. Figure 1 shows the project location map and Figure 2 illustrates the project site plan.

PURPOSE AND OBJECTIVES

The purpose of this traffic impact analysis is to provide an assessment of traffic operations resulting from development of the proposed 3550 East Main Street Starbucks project and to identify measures necessary to mitigate potentially significant traffic impacts. This report analyzes traffic impacts for the anticipated project opening year in 2019.

Although this is a technical traffic impact analysis, every effort has been made to write the report clearly and concisely. To assist the reader with those terms unique to transportation engineering, a glossary of terms is provided in Appendix A.

PROJECT DESCRIPTION

The 1.0 acre project site is located at 3550 East Main Street in the City of Ventura. The proposed project involves construction of a Starbucks with 3,027 square feet of gross floor area. The project will utilize one of the two existing right-in/right-out only driveways at East Main Street and one existing full access driveway on Mills Road. The proposed project is anticipated to be constructed and fully operational by Year 2019.

Three access alternatives have been analyzed in addition to the existing access options available at the site:

- Alternative 1 - Prohibit vehicular egress via the access easement to East Main Street and require all vehicles exiting from the proposed project site to exit via Mills Road.
- Alternative 2 - Prohibit vehicular ingress via the access easement from East Main Street and require all vehicles to enter the project site from Mills Road while allowing egress to Main Street through the access easement or through Mills Road.
- Alternative 3 - Close the access easement to and from East Main Street completely, forcing all inbound and outbound traffic via Mills Road.

STUDY AREA

Based on discussion with City staff, the study area consists of the following study intersections within the City of Ventura and California Department of Transportation jurisdiction:

Study Intersections			Jurisdiction
1	Mills Road	Dean Drive	City of Ventura
2	Mills Road	East Main Street	City of Ventura
3	Mills Road	Project Driveway	City of Ventura
4	Mobil/Arby's/Project Driveway	East Main Street	City of Ventura
5	US-101/SR-126 Freeway Ramps	East Main Street	City of Ventura/Caltrans
6	Arundell Avenue	East Main Street	City of Ventura
7	SR-126 Freeway EB Ramps	East Main Street	City of Ventura/Caltrans

ANALYSIS SCENARIOS

The following scenarios are analyzed during typical weekday AM and PM peak hour conditions:

- Existing Traffic Conditions
- Existing Plus Project Traffic Conditions
- Existing Plus Project Alternative 1 Traffic Conditions
- Existing Plus Project Alternative 2 Traffic Conditions
- Existing Plus Project Alternative 3 Traffic Conditions
- Opening Year (2019) Without Project Traffic Conditions
- Opening Year (2019) With Project Traffic Conditions
- Opening Year (2019) With Project Alternative 1 Traffic Conditions
- Opening Year (2019) With Project Alternative 2 Traffic Conditions
- Opening Year (2019) With Project Alternative 3 Traffic Conditions

The City of Ventura requires development projects generating 100 or more new peak hour trips to analyze Year 2025. Table 1 shows the proposed project trip generation compared to the existing Arby's. As shown in Table 1, the proposed project will generate 94 additional AM peak hour trips and 32 additional PM peak hour trips. As such, Year 2025 has not been analyzed in this report.

Table 1
Year 2025 Exemption Calculation

Trip Generation Rates					
Land Use	Source[1]	Unit[2]	AM Peak Hour Total	PM Peak Hour Total	Daily
Fast-Food Restaurant (With Drive-Thru)	ITE 934	TSF	40.19	32.67	470.95
Coffee/Donut Shop with Drive-Through	ITE 937	TSF	88.99	43.38	820.38

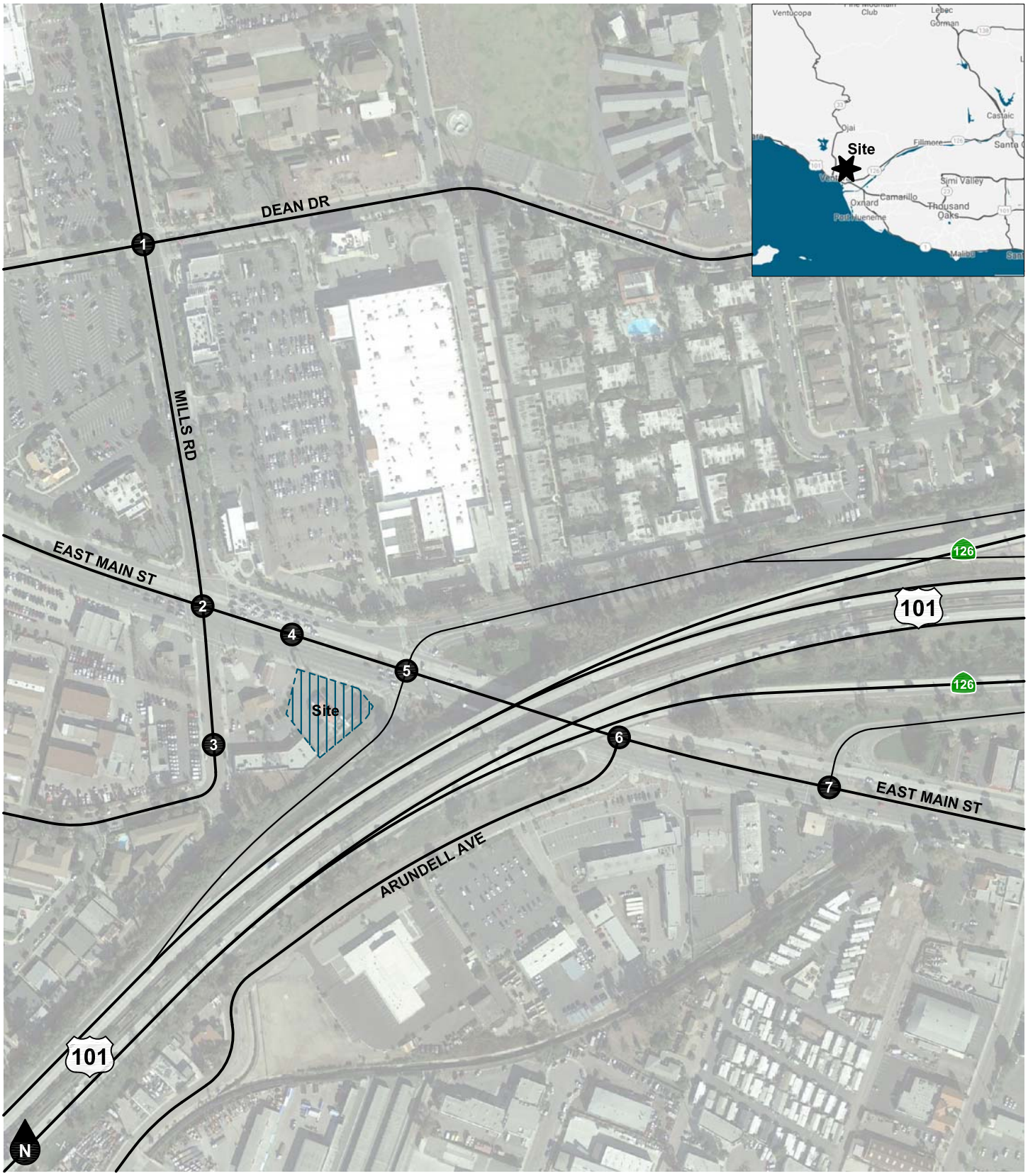
Trips Generated					
Land Use	Quantity	Unit[2]	AM Peak Hour Total	PM Peak Hour Total	Daily
Starbucks	3.027	TSF	269	132	2,483
Pass-By[3] Fast-Food Restaurant W/Drive-Thru (49% AM, 50% PM)			-132	-66	-198
		Subtotal	137	66	2,285
Existing Arby's	2.125	TSF	86	69	1,001
Pass-By[3] Fast-Food Restaurant W/Drive-Thru (49% AM, 50% PM)			-43	-35	-78
		Subtotal	43	34	923
TOTAL NET NEW TRIPS (STARBUCKS - EXISTING ARBY'S)			**94**	**32**	**1,362**

Notes:

(1) ITE = Institute of Transportation Engineers, Trip Generation Manual, 10th Edition, 2017; ### = Land Use Code

(2) TSF = Thousand Square Feet

(3) Source: ITE Trip Generation Handbook, 3rd Edition, 2017.



Legend

(#) Study Intersection

Figure 1
Project Location Map

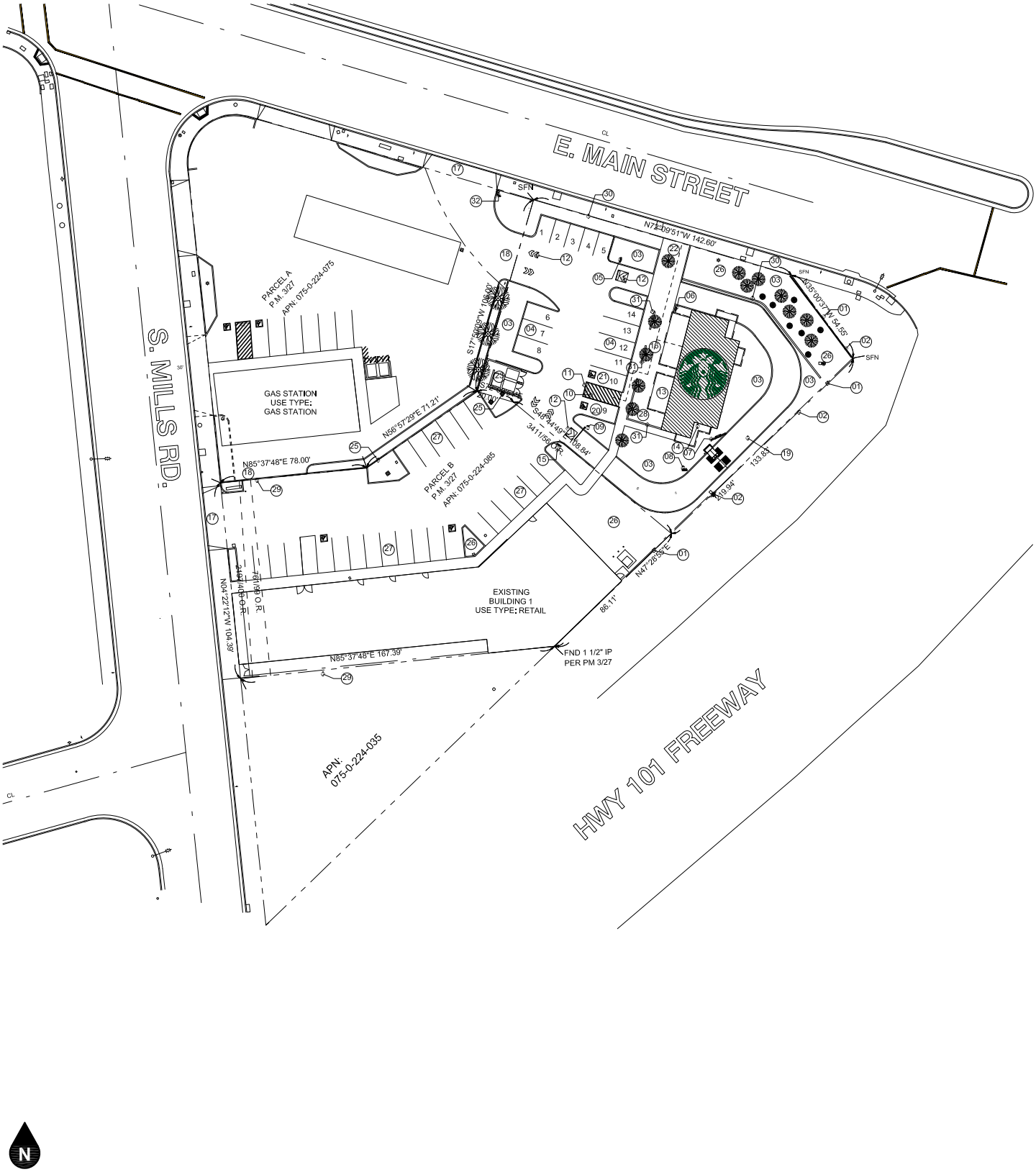


Figure 2
Site Plan

2. METHODOLOGY

This section discusses the analysis methodologies used to assess transportation facility performance as adopted by the respective jurisdictional agencies.

INTERSECTION CAPACITY UTILIZATION METHODOLOGY

Analysis of signalized intersections within the City of Ventura is based on the Intersection Capacity Utilization (ICU) methodology. The ICU methodology compares the traffic volume using the intersection to the capacity of the intersection. The resulting volume-to-capacity ratio represents that portion of the hour required to provide sufficient capacity to accommodate all intersection traffic if all approaches operate at capacity.

The volume-to-capacity (V/C) ratio is then correlated to a performance measure known as Level of Service based on the following thresholds:

Level of Service	Volume/Capacity Ratio
A	≤ 0.60
B	0.61 to 0.70
C	0.71 to 0.80
D	0.81 to 0.90
E	0.91 to 1.00
F	> 1.000

Source: City of Ventura General Plan Environmental Impact Report (2005).

Level of Service is used to qualitatively describe the performance of a roadway facility, ranging from Level of Service A (free-flow conditions) to Level of Service F (extreme congestion and system failure). ICU analysis was performed using the Vistro (Version 6.00-00) software.

Based on the City of Ventura General Plan Environmental Impact Report (2005), the ICU analysis utilizes 1,600 vehicles per hour per lane and no total clearance adjustment.

INTERSECTION DELAY METHODOLOGY

The technique used to assess the performance of unsignalized intersections and intersections within the California Department of Transportation jurisdiction is known as the intersection delay methodology based on the procedures contained in the Highway Capacity Manual. The methodology compares the traffic volume using the intersection to the capacity of the intersection to calculate the delay associated with the traffic control at the intersection. The intersection delay is then correlated to a performance measure known as Level of Service based on the following thresholds:

Level of Service	Intersection Control Delay (Seconds / Vehicle)	
	Signalized Intersection	Unsignalized Intersection
A	≤ 10.0	≤ 10.0
B	> 10.0 to ≤ 20.0	> 10.0 to ≤ 15.0
C	> 20.0 to ≤ 35.0	> 15.0 to ≤ 25.0
D	> 35.0 to ≤ 55.0	> 25.0 to ≤ 35.0
E	> 55.0 to ≤ 80.0	> 35.0 to ≤ 50.0
F	> 80.0	> 50.0

Source: Transportation Research Board, Highway Capacity Manual (6th Edition).

Level of Service is used to qualitatively describe the performance of a roadway facility, ranging from Level of Service A (free-flow conditions) to Level of Service F (extreme congestion and system failure). Intersection delay analysis was performed using the Vistro (Version 6.00-00) software. Due to the intersection's proximity to the upstream traffic signal on Mills Road at East Main Street, the Project Driveway at East Main Street has been analyzed using HCS (Version 6.80) software for baseline and project alternative 2 scenarios. These scenarios allow northbound rights out of the project driveway. HCS software allows for the input of a "proportion of time blocked" factor, which represents how often the upstream traffic signal creates gaps in traffic for the stop controlled intersection.

A base saturation flow rate of 1,900 vehicles per hour of green was used with default adjustments as recommended in the Highway Capacity Manual. Measured peak hour factors were used for the delay calculations.

PERFORMANCE STANDARDS

City of Ventura. Level of Service D has been established as the minimum acceptable Level of Service for signalized intersections. Level of Service E has been established as the minimum acceptable Level of Service for freeway ramp intersections.

THRESHOLDS OF SIGNIFICANCE

For signalized study intersections within the City of Ventura jurisdiction, a project traffic impact is considered significant if:

- The addition of project generated trips is forecast to cause a signalized intersection to deteriorate from acceptable Level of Service (D or better) to unacceptable Level of Service (E or F); or,

- The addition of project generated trips is forecast to cause an increase in volume-to-capacity of 0.01 or greater when the signalized intersection is operating at unacceptable Level of Service (E or F) in the baseline condition.

For this traffic impact analysis, a project impact at an unsignalized intersection is considered significant if the addition of project-generated trips is forecast to cause or worsen Level of Service F and installation of a traffic signal is warranted.

The application of traffic control devices is governed by Federal standards adopted by the State of California in the California Manual on Uniform Traffic Control Devices ("California MUTCD", 2014). Part 4C – Traffic Control Signal Needs Studies of the California MUTCD contains a series of warrants, or criteria, which serve to determine whether installation of a traffic signal is justified at a particular location. The California MUTCD states that a traffic control signal should not be installed unless one or more warrants are satisfied. Application of the traffic signal warrants should be based on engineering judgement and satisfaction of one or more traffic signal warrants shall not in itself require the installation of a traffic signal. The potential need for installation of a traffic signal at unsignalized intersections was evaluated based on the California Manual on Uniform Traffic Control Devices ("California MUTCD", November 2014), peak hour volume warrant (Warrant 3).

If a project is forecast to cause a significant traffic impact, feasible mitigation measures that will reduce the impact to a less than significant level are identified. Mitigation measures can be in many forms, including the addition of lanes, traffic control modification, or demand management measures. If no feasible mitigation measures can be identified for a significantly impacted facility, the impact will remain significant and unavoidable and a statement of overriding considerations is required.

3. EXISTING CONDITIONS

EXISTING ROADWAY SYSTEM

Figure 3 identifies the lane geometry and intersection traffic controls for Existing conditions based on a field survey of the study area. Regional access to the project area is provided by the US-101 Freeway at the project site and the SR-126 Freeway approximately 0.2 miles to the east. The north-south roadway of Mills Road and the east-west roadway of East Main Street provide local circulation.

Mills Road is a 2 lane undivided to 4 lane divided roadway within the study area. Mills Road is classified as a Secondary Arterial (90 foot right-of-way) in the City of Ventura General Plan. Sidewalks are provided on both sides of the roadway within the study area.

East Main Street is a 6 lane divided to 7 lane divided roadway within the study area. East Main Street is classified as a Primary Arterial (108 foot right-of-way) in the City of Ventura General Plan. High volume bicycle routes are currently provided on both sides of the road within the study area. Sidewalks are generally provided on both sides of the roadway except on the north side between the US-101 Freeway off-ramp and the SR-126 Freeway off-ramp.

PEDESTRIAN FACILITIES

Existing pedestrian facilities in the project vicinity are shown on Figure 4. As shown on Figure 4, pedestrian sidewalks are currently provided along the roadways adjacent to the project site.

BICYCLE ROUTES

There is currently a high volume bicycle path on East Main Street adjacent to the northern project site boundary. The City of Ventura Bicycle Master Plan is depicted on Figure 5.

TRANSIT FACILITIES

Figure 6 shows the existing transit routes available in the project vicinity. As shown on Figure 6, Gold Coast Transit Route 11 runs along both Mills Road and East Main Street, with a bus stop 1/3-mile walking distance north of the project site on the west side of Mills Road, a bus stop adjacent to the project site on the south side of East Main Street, and a stop within 1/3-mile walking distance east of the project site on the north side of East Main Street.

GENERAL PLAN CONTEXT

Figure 7 shows the City of Ventura General Plan roadway classification map. This figure shows the nature and extent of arterial and collector highways that are needed to adequately serve the ultimate development depicted by the Land Use Element of the General Plan. The City of Ventura standard roadway cross-sections are illustrated on Figure 8.

EXISTING TRAFFIC VOLUMES

Existing peak hour traffic conditions are based upon AM peak period and PM peak period intersection turning movement counts obtained in the City of Ventura during typical weekday conditions. The AM peak period was counted between 7:00 AM and 9:00 AM and the PM peak period was counted between 4:00 PM and 6:00 PM. The actual peak hour within the peak period is the four consecutive 15 minute periods with the highest total volume when all movements are added together. Thus, the weekday PM peak hour at one intersection may be 4:45 PM to 5:45 PM if those four consecutive 15 minute periods have the highest combined volume. Intersection turning movement count worksheets are provided in Appendix B.

Figure 9 and Figure 10 show the Existing AM peak hour and PM peak hour intersection turning movement volumes, respectively.

EXISTING ICU/DELAY AND LEVEL OF SERVICE

The ICU/delay and Levels of Service for Existing traffic conditions have been calculated and are shown in Table 2. Existing intersection Level of Service worksheets are provided in Appendix C.

As shown in Table 2, the study intersections currently operate within acceptable Levels of Service (D or better for signalized intersections, E or better for unsignalized and freeway ramp intersections) during the peak hours for Existing traffic conditions.

Table 2
Existing ICU/Delay and Levels of Service

ID	Study Intersection	Traffic Control[1]	AM Peak Hour V/C[2] or [Delay][3]	AM Peak Hour LOS[4]	PM Peak Hour V/C[2] or [Delay][3]	PM Peak Hour LOS[4]
1.	Mills Road at Dean Drive	TS	0.556	A	0.564	A
2.	Mills Road at East Main Street	TS	0.669	B	0.617	B
3.	Mills Road at Project Driveway	CSS	[11.5]	B	[11.8]	B
4.	Project Driveway at East Main Street	CSS	[10.7]	B	[11.9]	B
5.	US-101/SR-126 Freeway Ramps at East Main Street	TS	0.819	D	0.901	E
6.	Arundell Avenue at East Main Street	CSS	[49.0]	E	[76.5]	F
7.	SR-126 Eastbound On-Ramp at East Main Street	TS	0.359	A	0.460	A

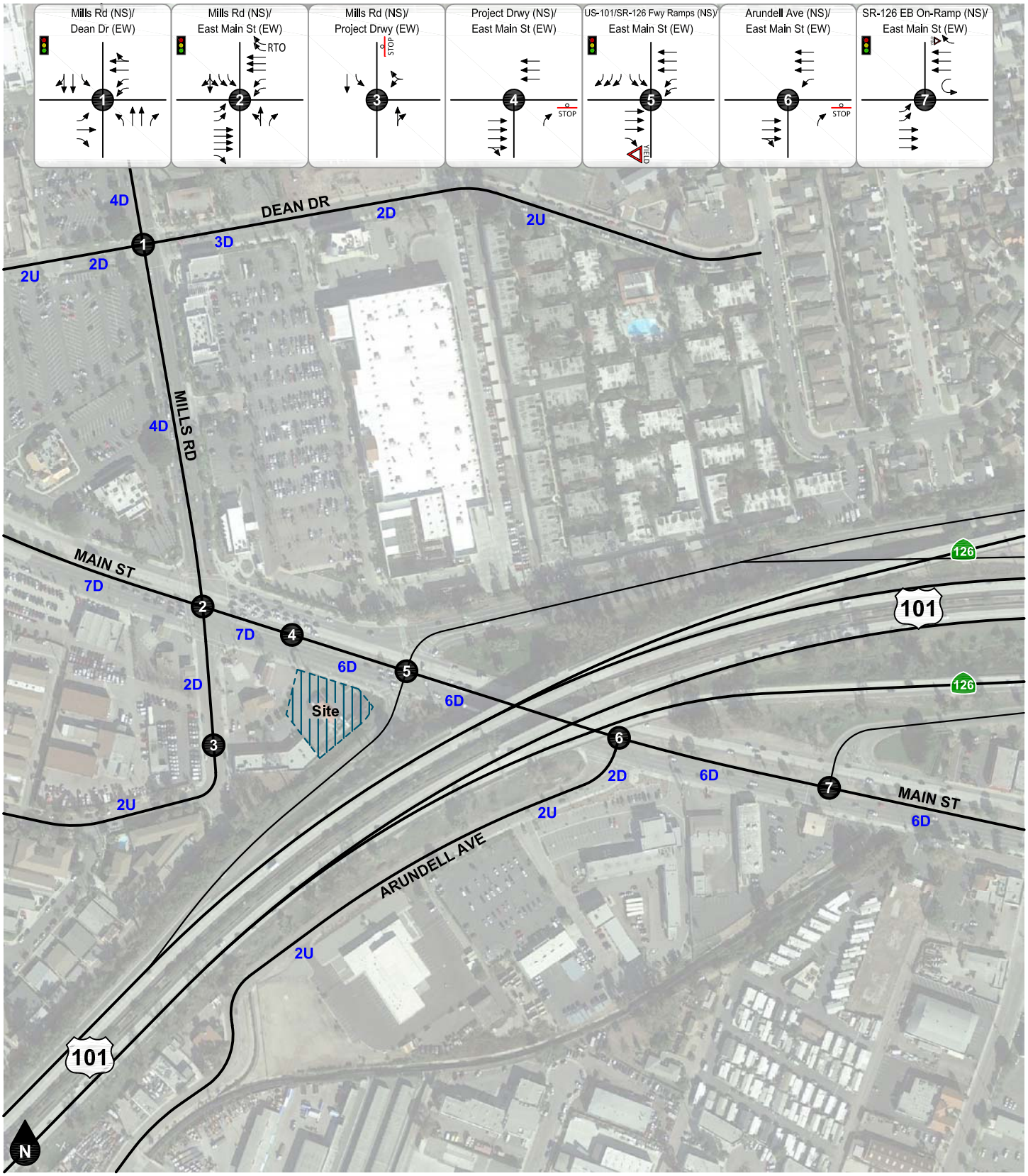
Notes:

(1) TS = Traffic Signal; CSS = Cross Street Stop

(2) V/C = Volume/Capacity

(3) Delay is shown in [seconds/vehicle]. Delay is reported for unsignalized study intersections and all study intersections within California Department of Transportation jurisdiction. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, Level of Service is based on average delay of the worst individual lane (or movements sharing a lane).

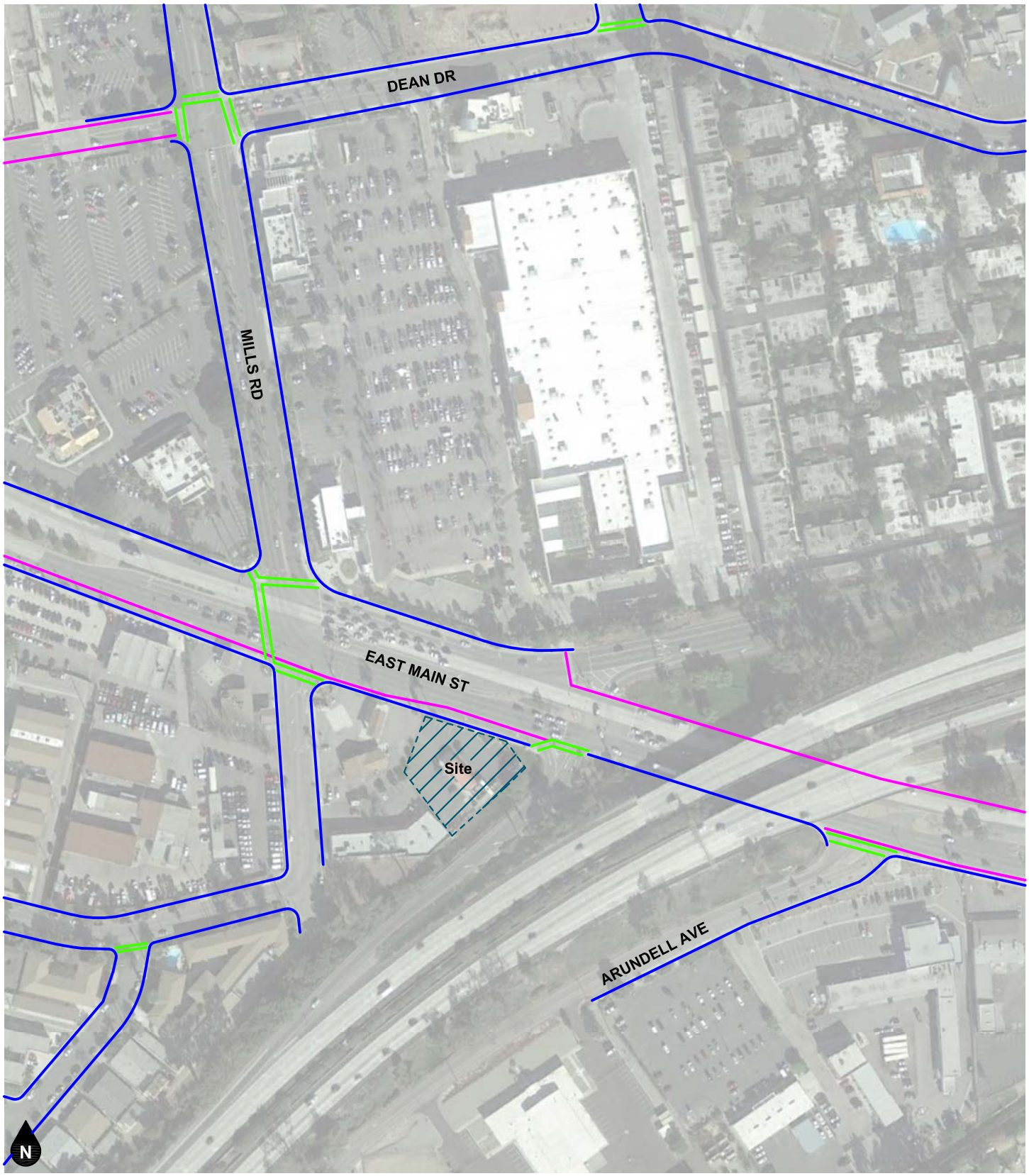
(4) LOS = Level of Service



Legend

- Traffic Signal
- Stop Sign
- #D #-Lane Divided Roadway
- #U #-Lane Undivided Roadway
- Existing Lane
- RTO Right Turn Overlap
- Yield Sign

Figure 3
Existing Lane Geometry and Intersection Traffic Controls



Legend
- Sidewalk
- Cross Walk
- Class 2 Bike Lane

Figure 4
Existing Pedestrian Facilities

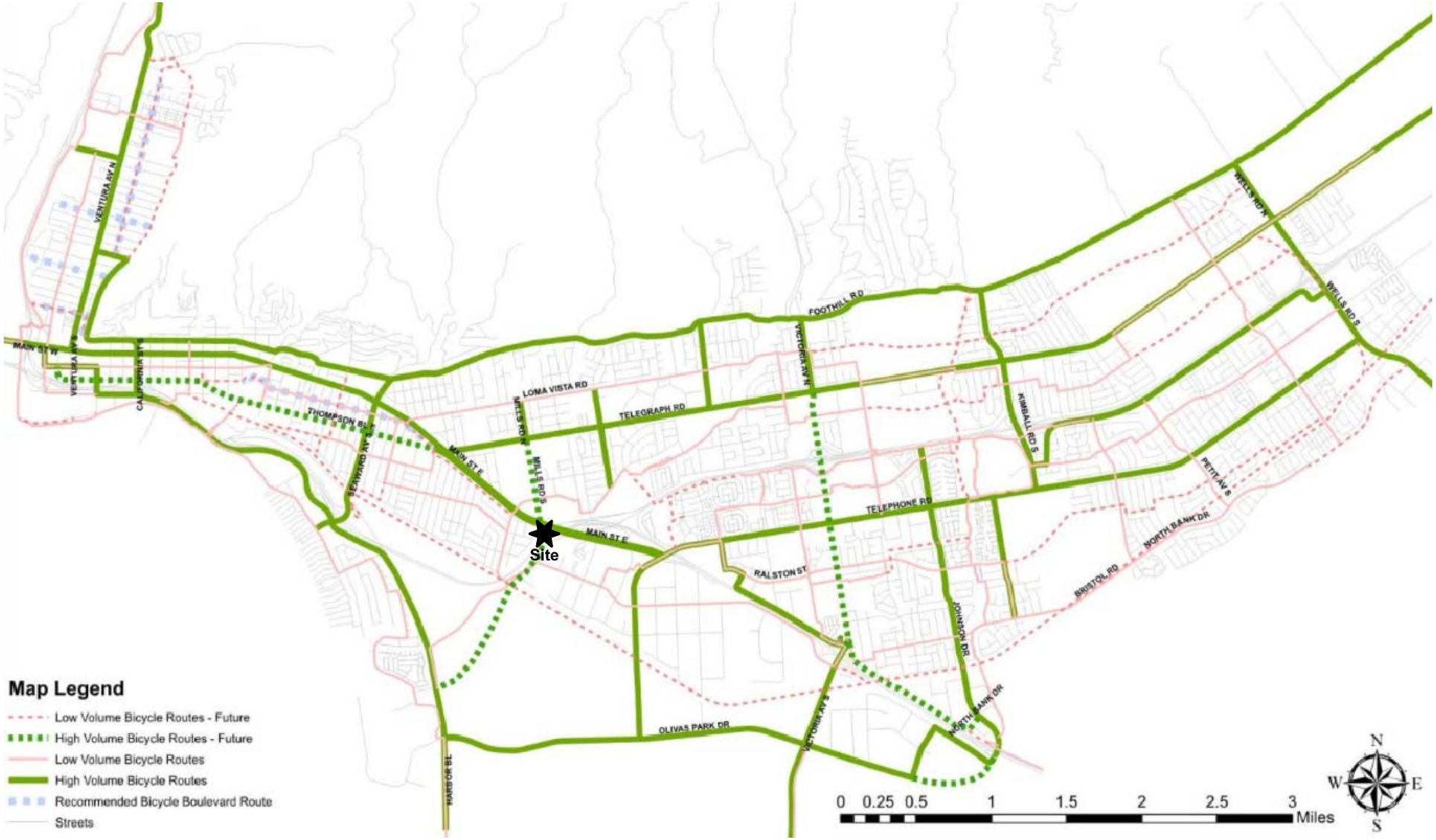


Figure 5
City of Ventura Transit Routes

Source: City of Ventura



Legend

Routes
- SCAT
- VISTA
- SCAT & VISTA
- RAIL

Other
- City Limits
- Planning Boundary

Source: City of Ventura

Figure 6
City of Ventura Transit Routes

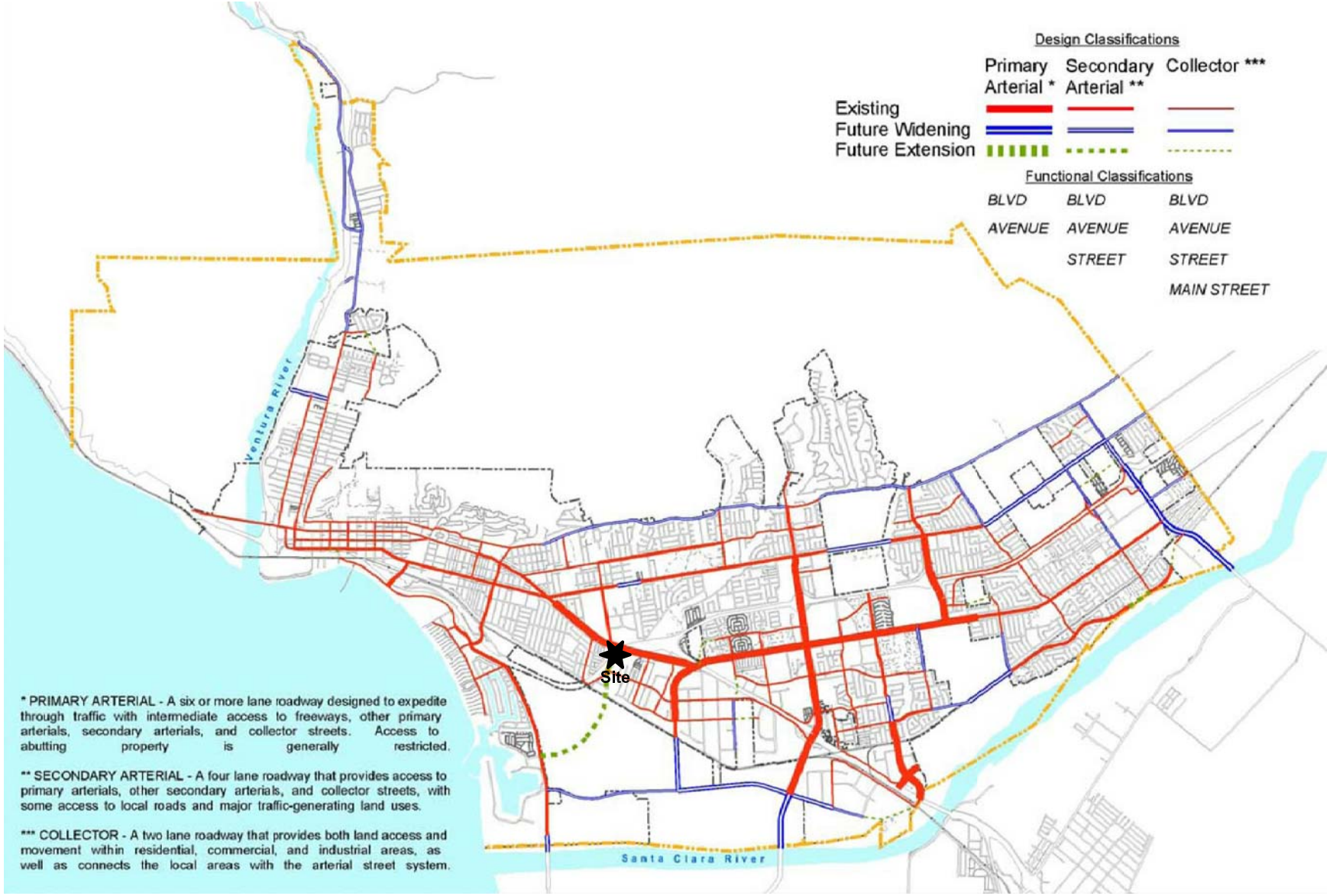
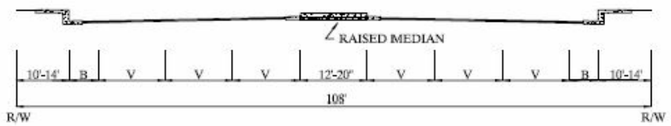


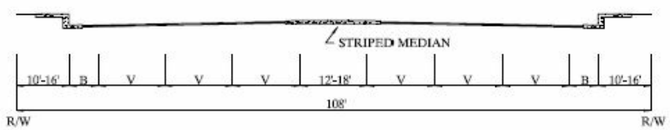
Figure 7
City of Ventura General Plan Roadway Classifications

Source: City of Ventura

DESIGN CLASSIFICATION: PRIMARY ARTERIAL

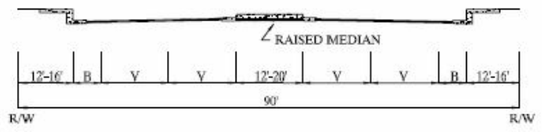


FUNCTIONAL CLASSIFICATION 6LB : 6-LANE BOULEVARD



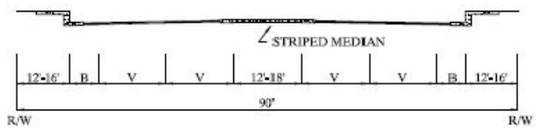
FUNCTIONAL CLASSIFICATION 6LA : 6-LANE ARTERIAL

DESIGN CLASSIFICATION: SECONDARY ARTERIAL

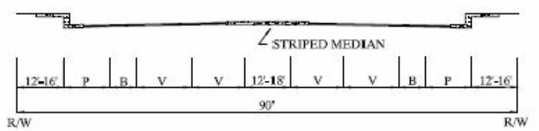


FUNCTIONAL CLASSIFICATION 4LB : 4-LANE BOULEVARD

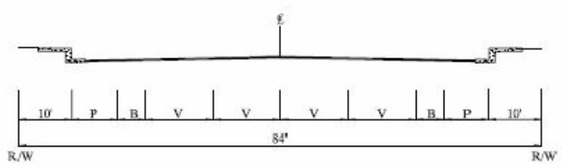
DESIGN CLASSIFICATION: SECONDARY ARTERIAL



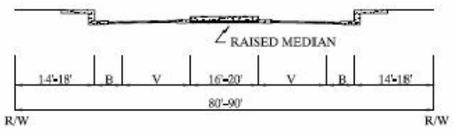
FUNCTIONAL CLASSIFICATION 4LA : 4-LANE ARTERIAL (WITHOUT PARKING)



FUNCTIONAL CLASSIFICATION 4LA : 4-LANE ARTERIAL (WITH PARKING)

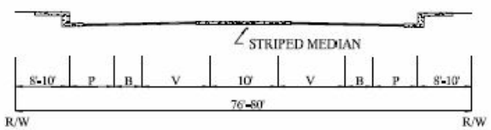


FUNCTIONAL CLASSIFICATION 4LS : 4-LANE STREET

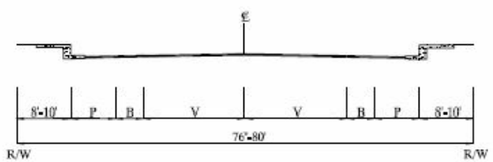


FUNCTIONAL CLASSIFICATION 2LB : 2-LANE BOULEVARD

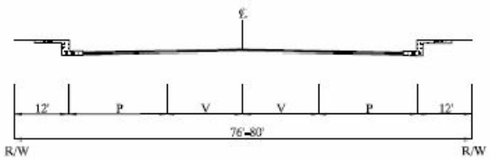
DESIGN CLASSIFICATION: COLLECTOR



FUNCTIONAL CLASSIFICATION UC : URBAN COLLECTOR



FUNCTIONAL CLASSIFICATION RS : RESIDENTIAL COLLECTOR



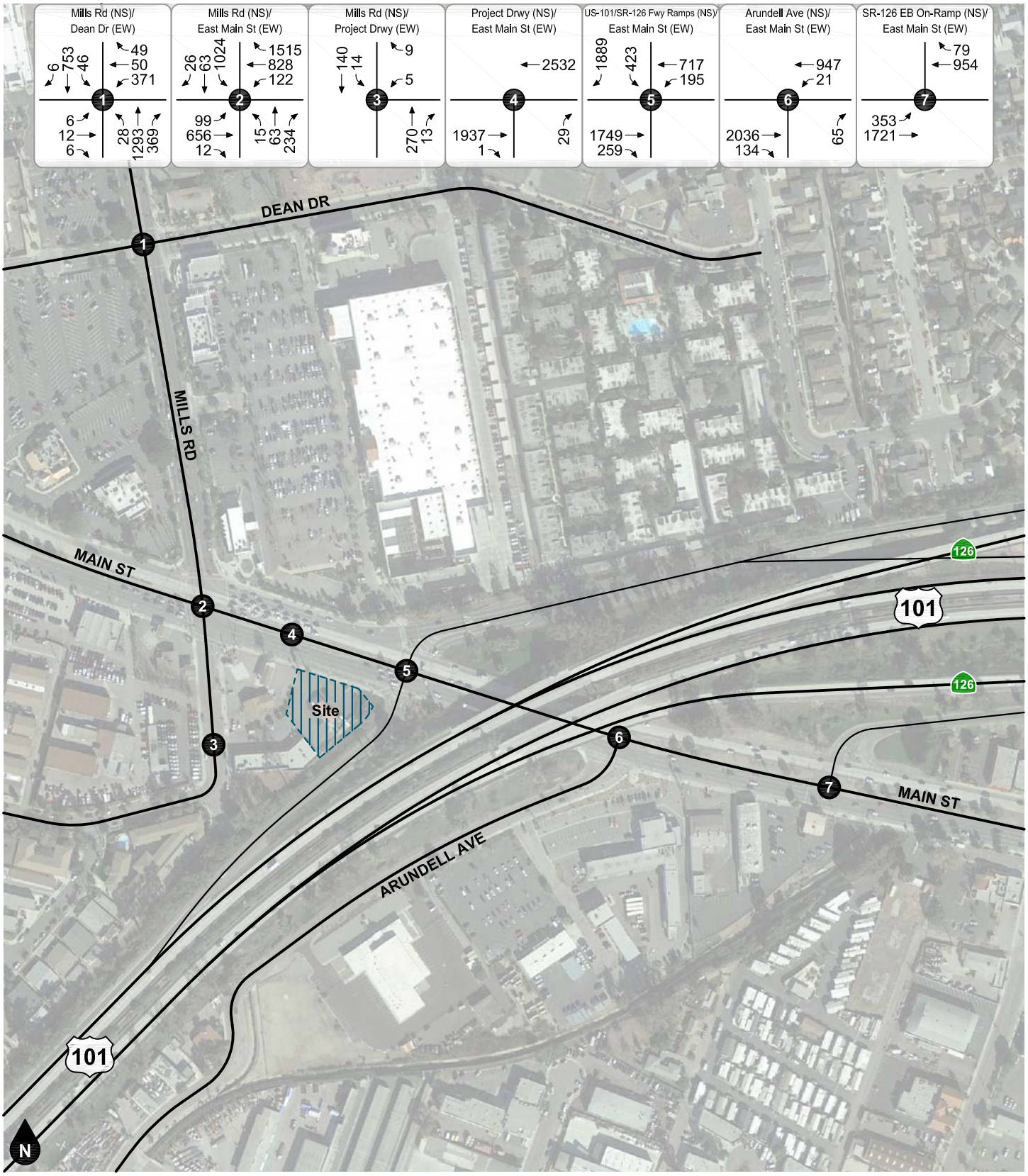
FUNCTIONAL CLASSIFICATION SC : SPECIAL COLLECTOR (ANGLE PARKING)

Legend

V = Vehicle Lane (11' minimum)
P = Parking Lane (8')
B = Bike Lane (5')

Source: City of Ventura

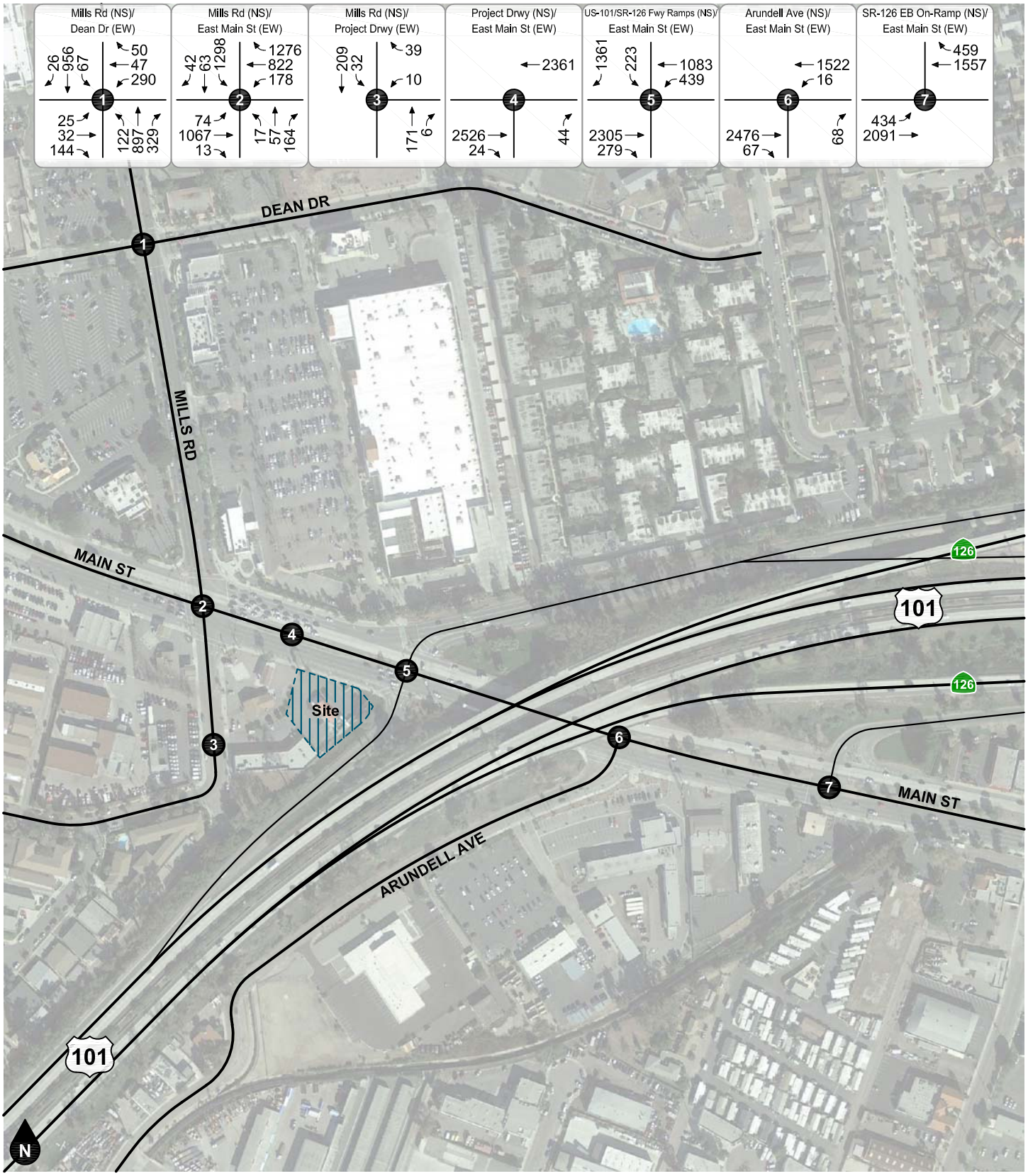
Figure 8
City of Ventura General Plan Roadway Cross-Sections



Legend

(#) Study Intersection

Figure 9
Existing AM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

Figure 10
Existing PM Peak Hour Intersection Turning Movement Volumes

4. PROJECT TRIP FORECASTS

This section describes how project trip generation, trip distribution, and trip assignment forecasts were developed. The forecast project volumes are illustrated on figures contained in this section.

PROJECT DESCRIPTION

The 1.0 acre project site is proposed to construct a Starbucks with 3,027 square feet of gross floor area and demolish the existing 2,125 square foot Arby's restaurant. The project will utilize one of the two existing right-in/right-out only driveways at East Main Street and one existing full access driveway on Mills Road. The proposed project is anticipated to be constructed and fully operational by Year 2019.

The following describes the proposed land use from a traffic engineering viewpoint:

Coffee Shop with Drive-Through: Typically, coffee shops with drive-throughs experience heaviest traffic during the AM peak hour, with about half as many trips during the PM peak hour. This use has a 49% pass-by rate in the AM peak hour and a 50% pass-by rate in the PM peak hour.

PROJECT TRIP GENERATION

Table 3 shows the project trip generation based upon trip generation rates obtained from the Institute of Transportation Engineers, Trip Generation Manual, 10th Edition, 2017. The project trip generation forecast is determined by multiplying the trip generation rates by the land use quantity. Trip generation rates for the coffee/donut shop with drive-through land use (Land Use Code 937) were used, which the Institute of Transportation Engineers describes as the following:

> "This land use includes single-tenant coffee and donut restaurants with drive-through windows. Freshly brewed coffee and a variety of coffee-related accessories are the primary retail products sold at these sites. They may also sell other refreshment items, such as donuts, bagels, muffins, cakes, sandwiches, wraps, salads, and other hot and cold beverages. Some sites may also sell newspapers, music, CDs, and books. The coffee and donut shops contained in this land use typically hold long store hours (more than 15 hours) with an early AM opening. Also, limited indoor seating is generally provided for patrons; however, table service is not provided."

As shown in Table 3, the proposed project is forecast to generate approximately 2,285 daily vehicle trips, including 137 vehicle trips during the AM peak hour and 66 vehicle trips during the PM peak hour. The existing Arby's generates approximately 923 daily vehicle trips, including 94 vehicle trips during the AM peak hour and 32 vehicle trips during the PM peak hour. In total, the proposed project is forecast to generate 1,362 net new daily vehicle trips, including 94 net new trips during the AM peak hour and 32 net new trips during the PM peak hour.

OTHER FACTORS AFFECTING TRIP GENERATION

It should be noted that for the coffee/donut shop land use, a portion of the trips would come from pass-by trips, trips that are currently on the roadway system. The Institute of Transportation Engineers Trip Generation Handbook (3rd Edition, 2017) documents an average pass-by rate of 49% for the AM peak hour and 50% for the PM peak hour for the proposed land use.

PROJECT TRIP DISTRIBUTION AND ASSIGNMENT

Figure 11 and Figure 12 show the forecast outbound and inbound directional distribution patterns for the project generated trips, respectively. The project trip distribution patterns are based on review of existing volume data, surrounding land uses, and the local and regional roadway facilities in the project vicinity.

AM and PM peak hour intersection turning movement volumes expected from the project are depicted on Figure 13 and Figure 14, respectively.

Three access alternatives have been analyzed in addition to the existing access options available at the site:

- Alternative 1 - Prohibit vehicular egress via the access easement to East Main Street and require all vehicles exiting from the proposed project site to exit via Mills Road.
- Alternative 2 - Prohibit vehicular ingress via the access easement from East Main Street and require all vehicles to enter the project site from Mills Road while allowing egress to Main Street through the access easement or through Mills Road.
- Alternative 3 - Close the access easement to and from East Main Street completely, forcing all inbound and outbound traffic via Mills Road.

Figure 15 and Figure 16 show the forecast directional distribution patterns for project alternative 1 generated trips. AM and PM peak hour intersection turning movement volumes expected from project alternative 1 are depicted on Figure 17 and Figure 18, respectively.

Figure 19 and Figure 20 show the forecast directional distribution patterns for project alternative 2 generated trips. AM and PM peak hour intersection turning movement volumes expected from project alternative 2 are depicted on Figure 21 and Figure 22, respectively.

Figure 23 and Figure 24 show the forecast directional distribution patterns for project alternative 3 generated trips. AM and PM peak hour intersection turning movement volumes expected from project alternative 3 are depicted on Figure 25 and Figure 26, respectively.

Table 3
Project Trip Generation

Trip Generation Rates									
			AM Peak Hour			PM Peak Hour			
Land Use	Source[1]	Unit[2]	% In	% Out	Total	% In	% Out	Total	Daily
Fast-Food Restaurant (W/ Drive-Thru)	ITE 934	TSF	51%	49%	40.19	52%	48%	32.67	470.95
Coffee/Donut Shop with Drive-Through	ITE 937	TSF	51%	49%	88.99	50%	50%	43.38	820.38

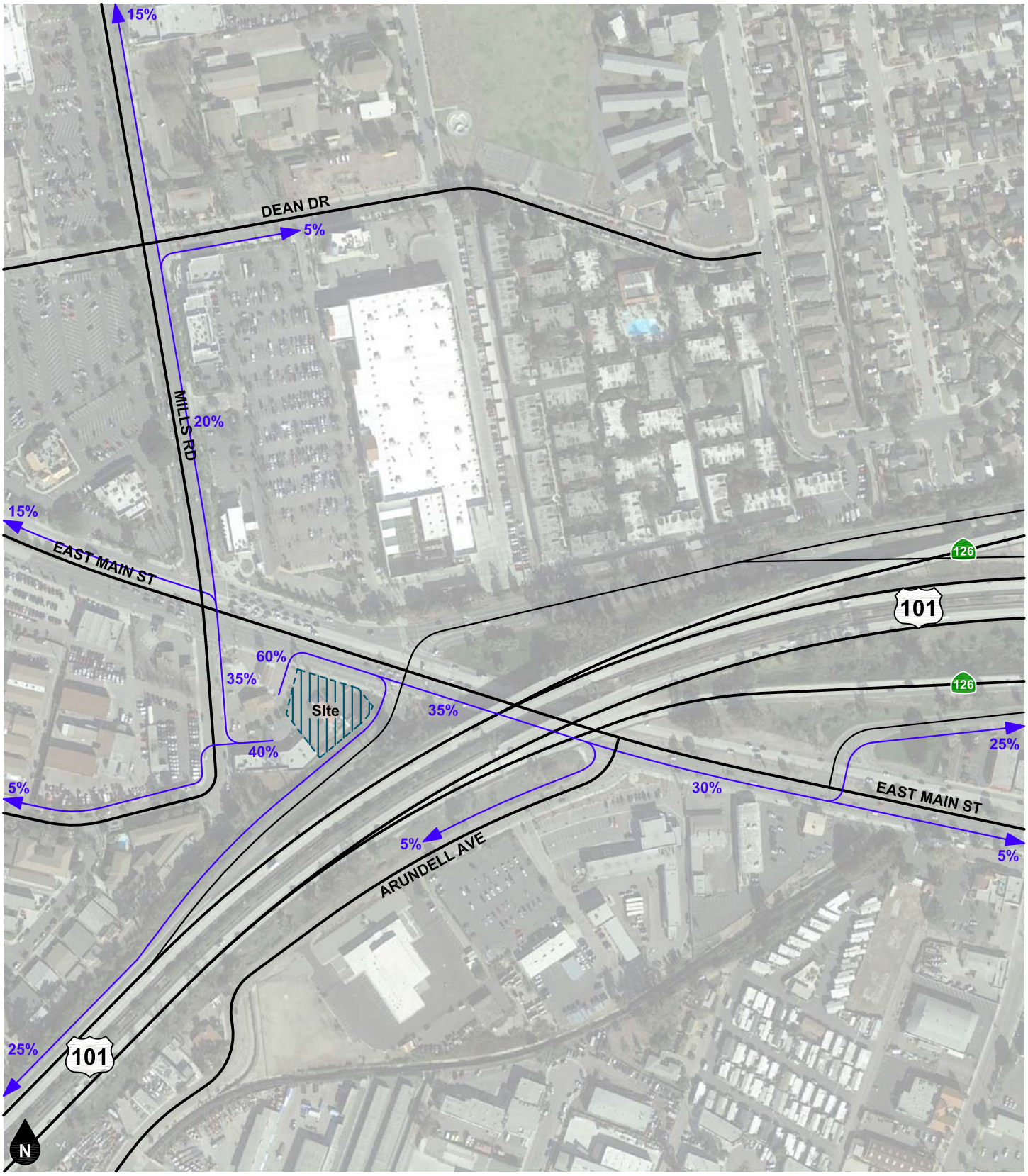
Trips Generated									
			AM Peak Hour			PM Peak Hour			
Land Use	Quantity	Unit[2]	In	Out	Total	In	Out	Total	Daily
Starbucks	3.027	TSF	137	132	269	66	66	132	2,483
Pass-By[3]									
Fast-Food Restaurant W/Drive-Thru (49% AM, 50% PM)			-67	-65	-132	-33	-33	-66	-198
Subtotal:			70	67	137	33	33	66	2,285
Existing Arby's	2.125	TSF	44	42	86	36	33	69	1,001
Pass-By[3]									
Fast-Food Restaurant W/Drive-Thru (49% AM, 50% PM)			-22	-21	-43	-18	-17	-35	-78
Subtotal:			22	21	43	18	16	34	923
TOTAL NET NEW TRIPS (STARBUCKS - EXISTING ARBY'S):			**48**	**46**	**94**	**15**	**17**	**32**	**1,362**

Notes:

(1) ITE = Institute of Transportation Engineers, Trip Generation Manual, 10th Edition, 2017; ### = Land Use Code

(2) TSF = Thousand Square Feet

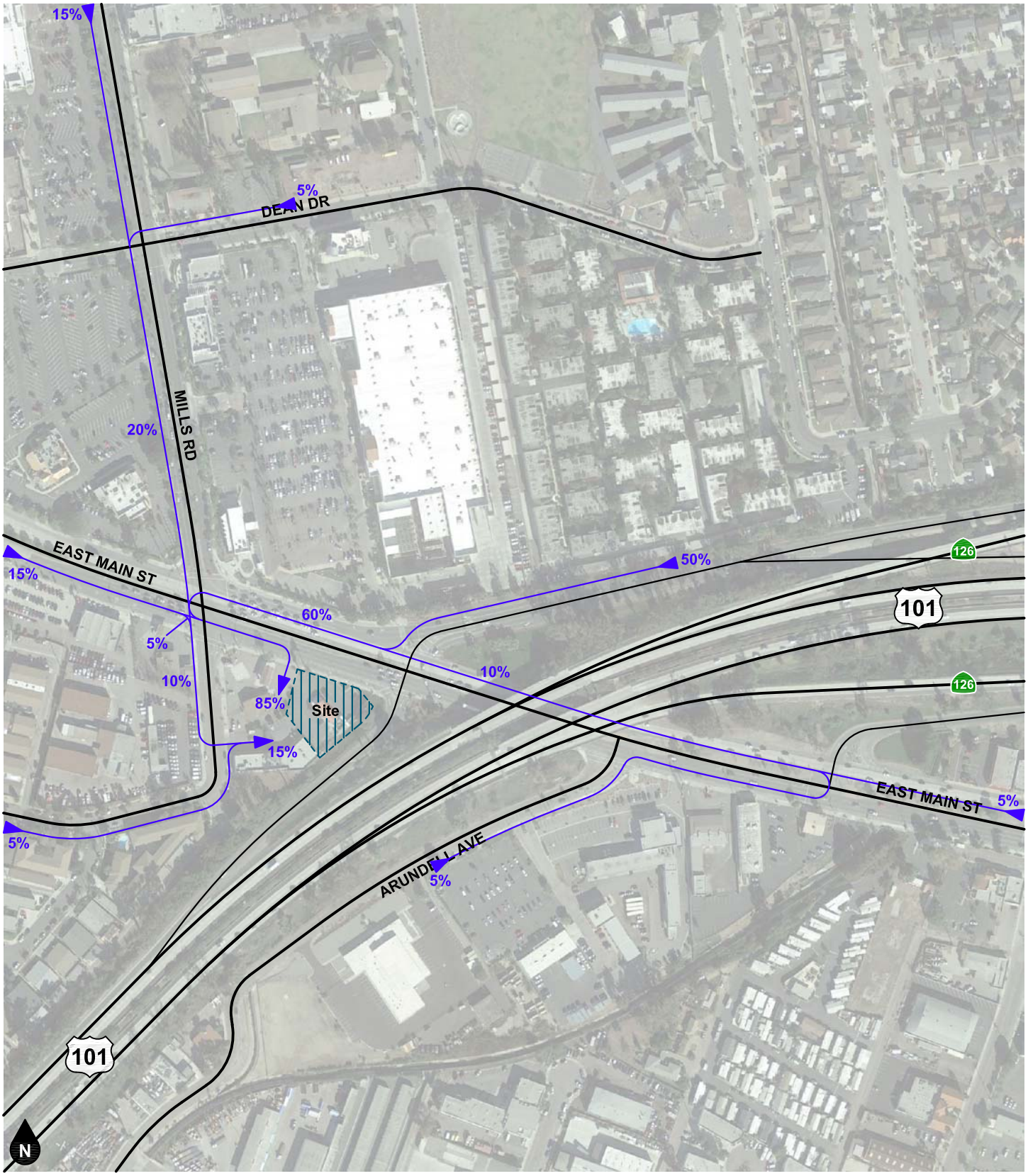
(3) Source: ITE Trip Generation Handbook, 3rd Edition, 2017.



Legend

10% Percent From Project

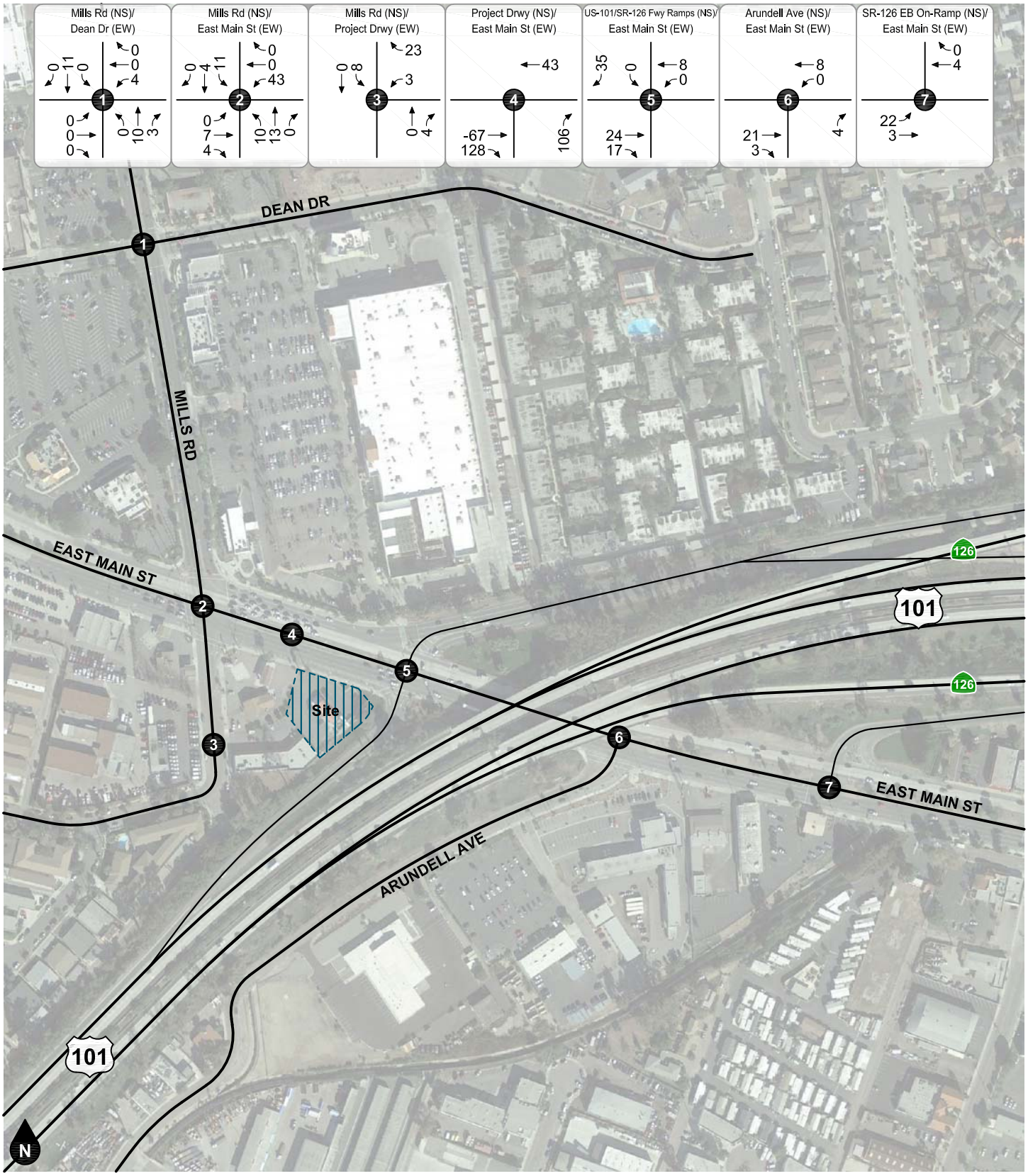
Figure 11
Project Outbound Trip Distribution



Legend

10% Percent To Project

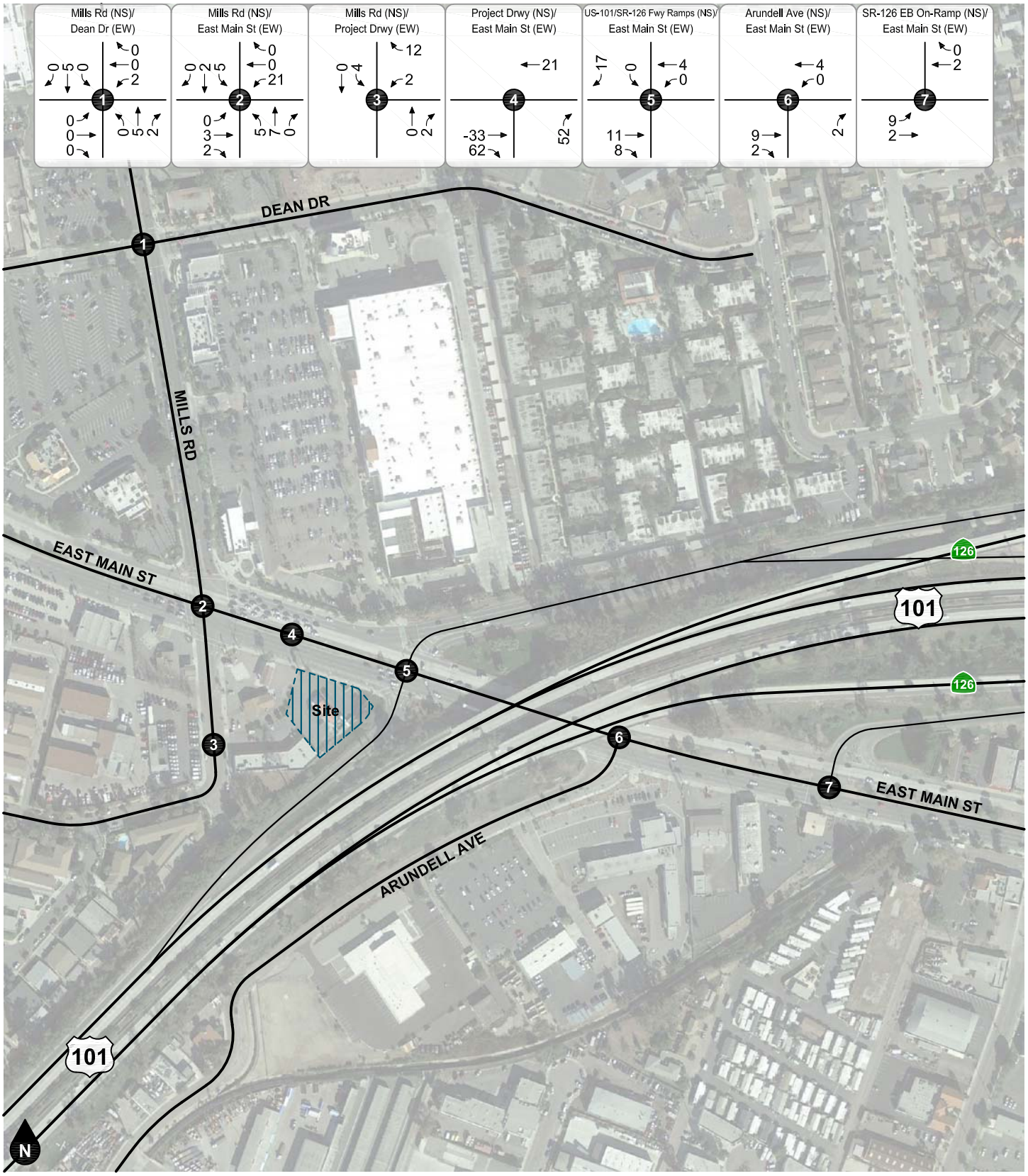
Figure 12
Project Inbound Trip Distribution



Legend

(#) Study Intersection

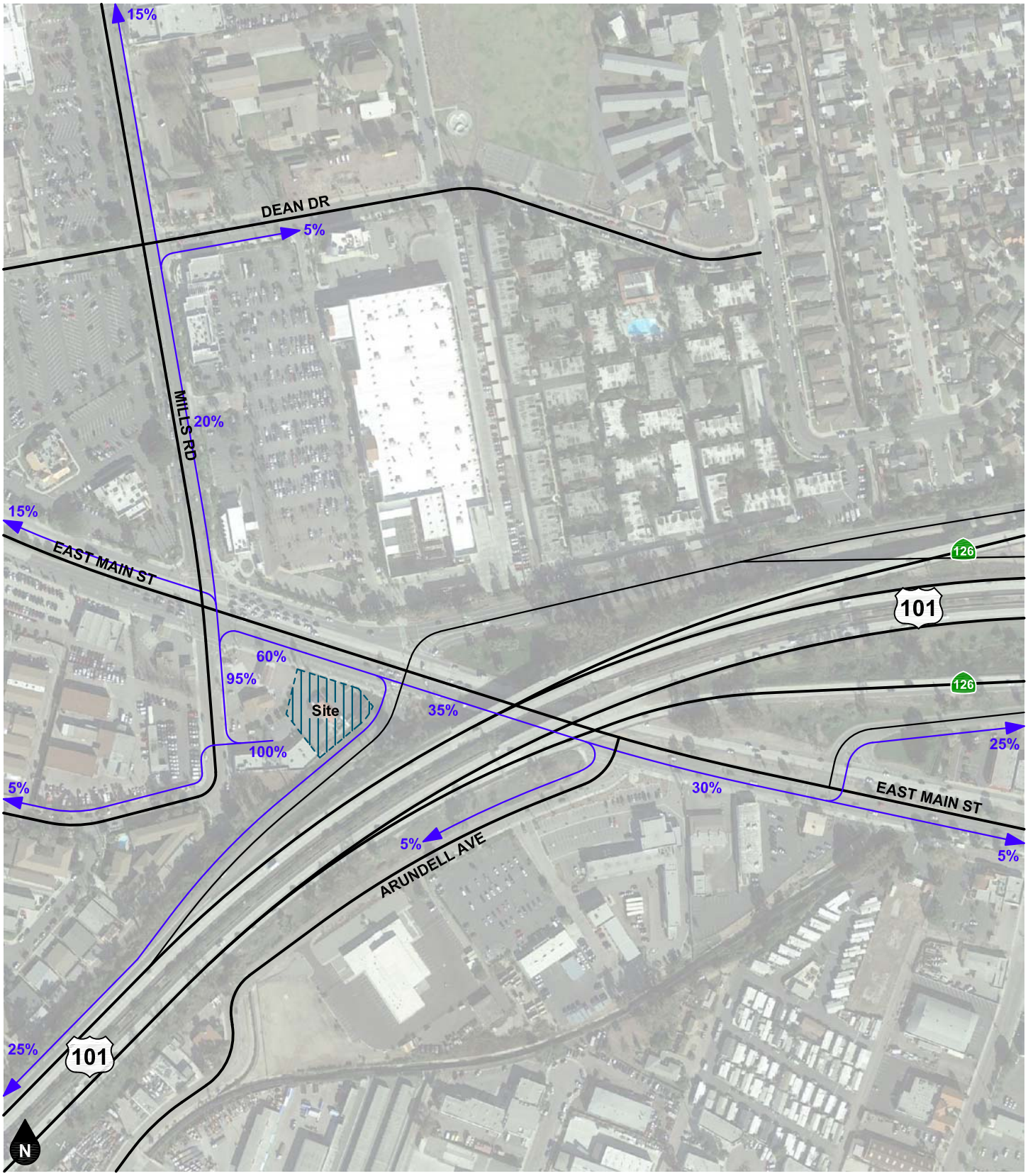
Figure 13
Project
AM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

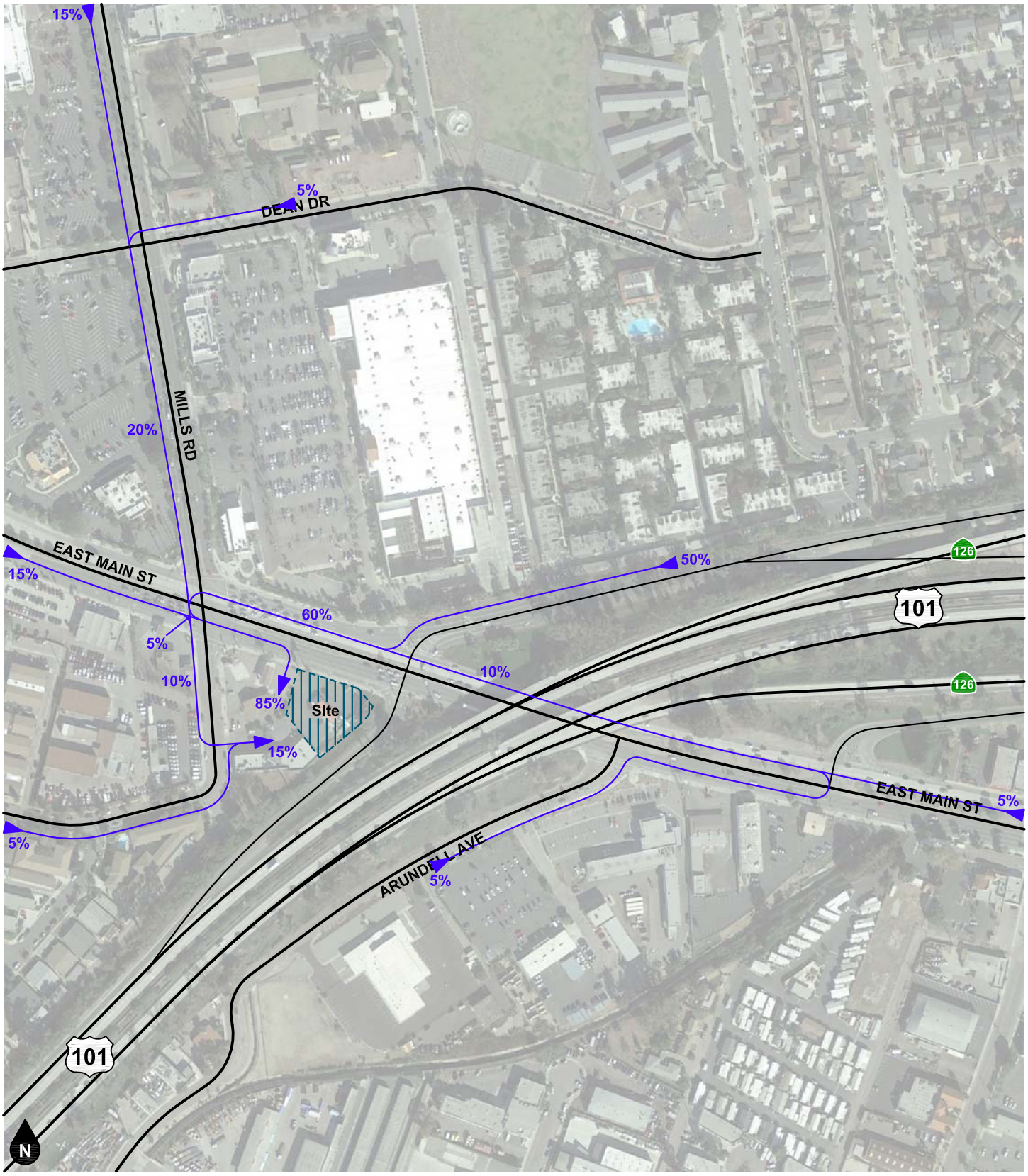
Figure 14
Project
PM Peak Hour Intersection Turning Movement Volumes



Legend

10% Percent From Project

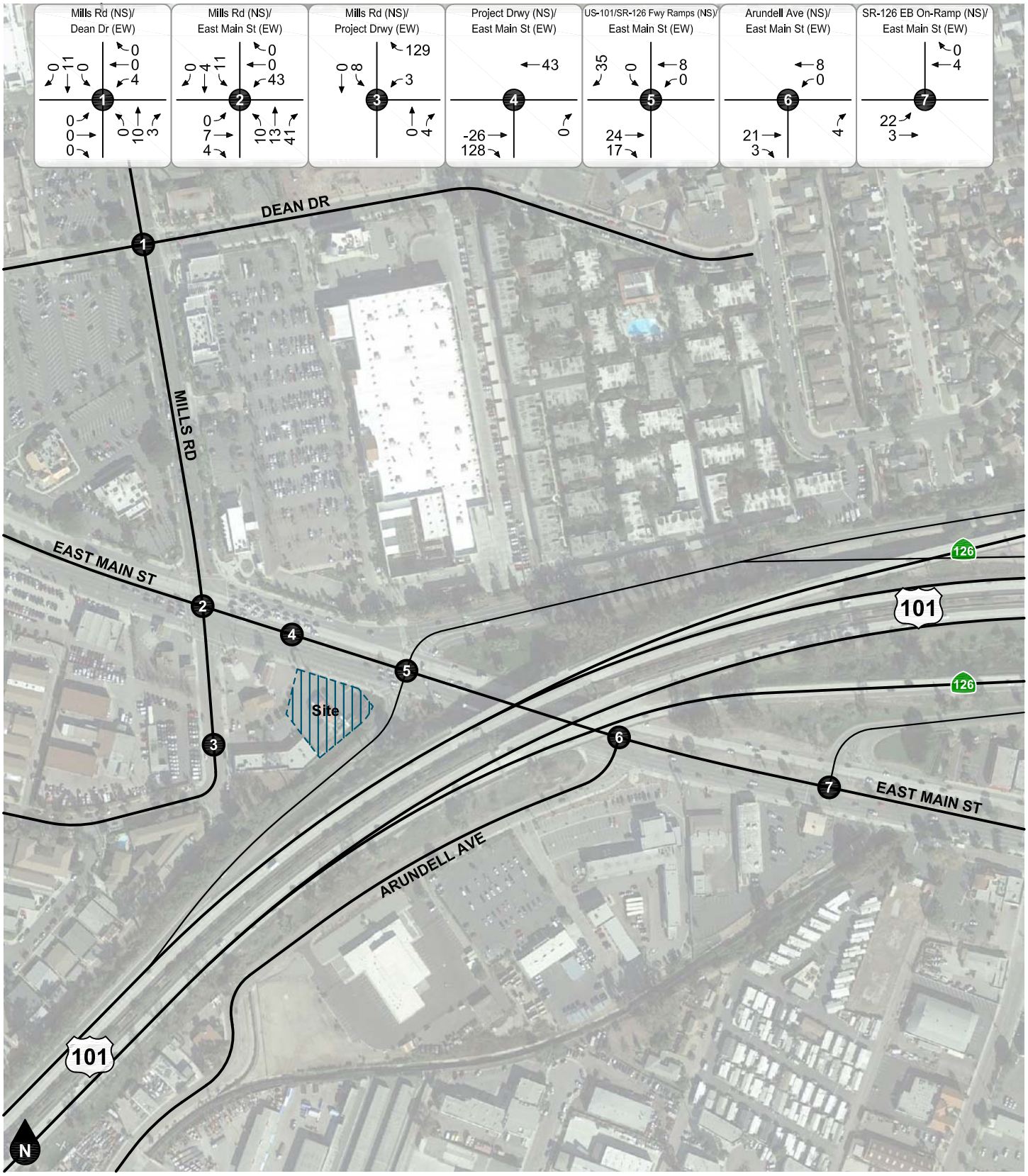
Figure 15
Project Alternative 1 Outbound Trip Distribution



Legend

10% Percent To Project

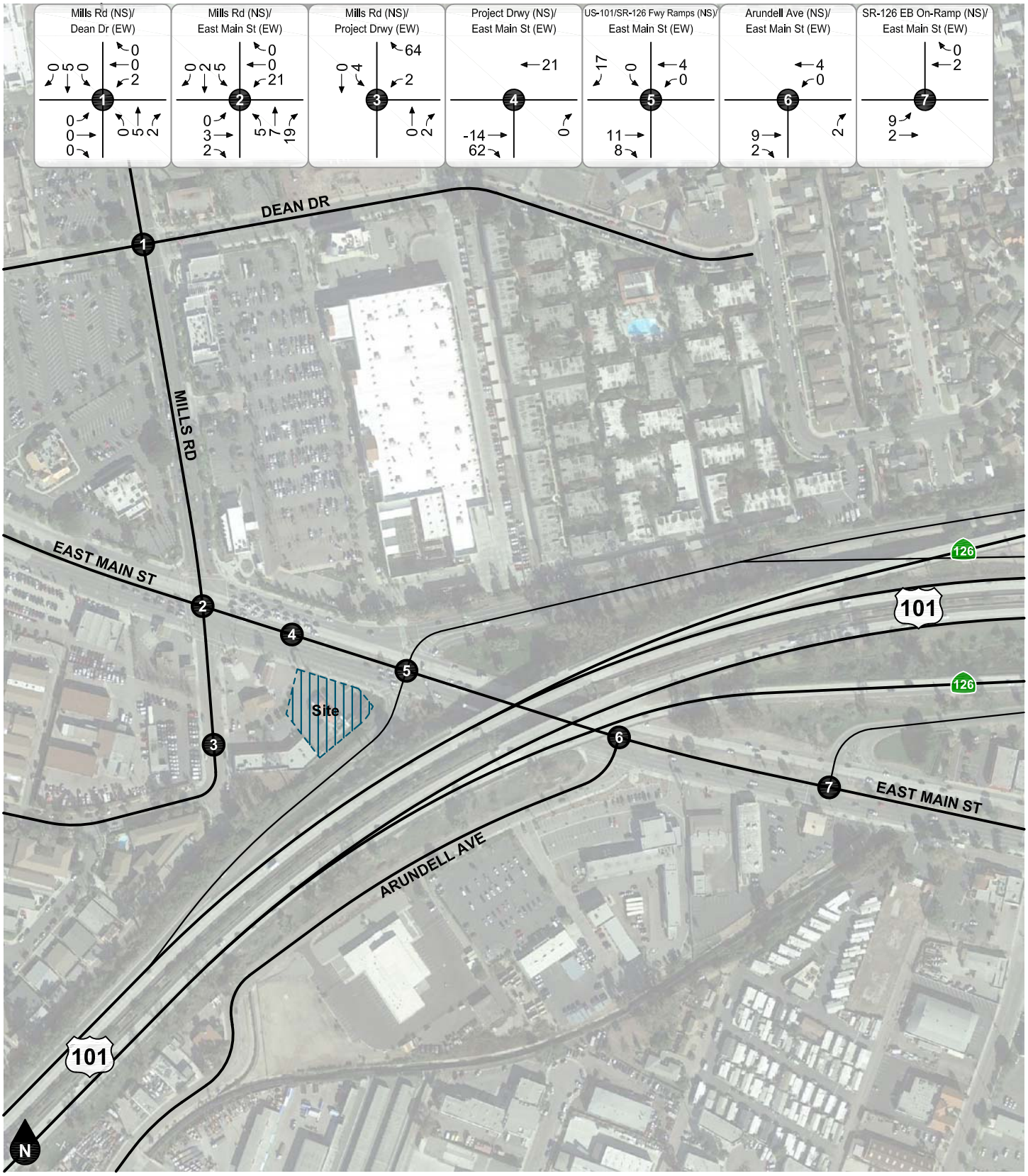
Figure 16
Project Alternative 1 Inbound Trip Distribution



Legend

(#) Study Intersection

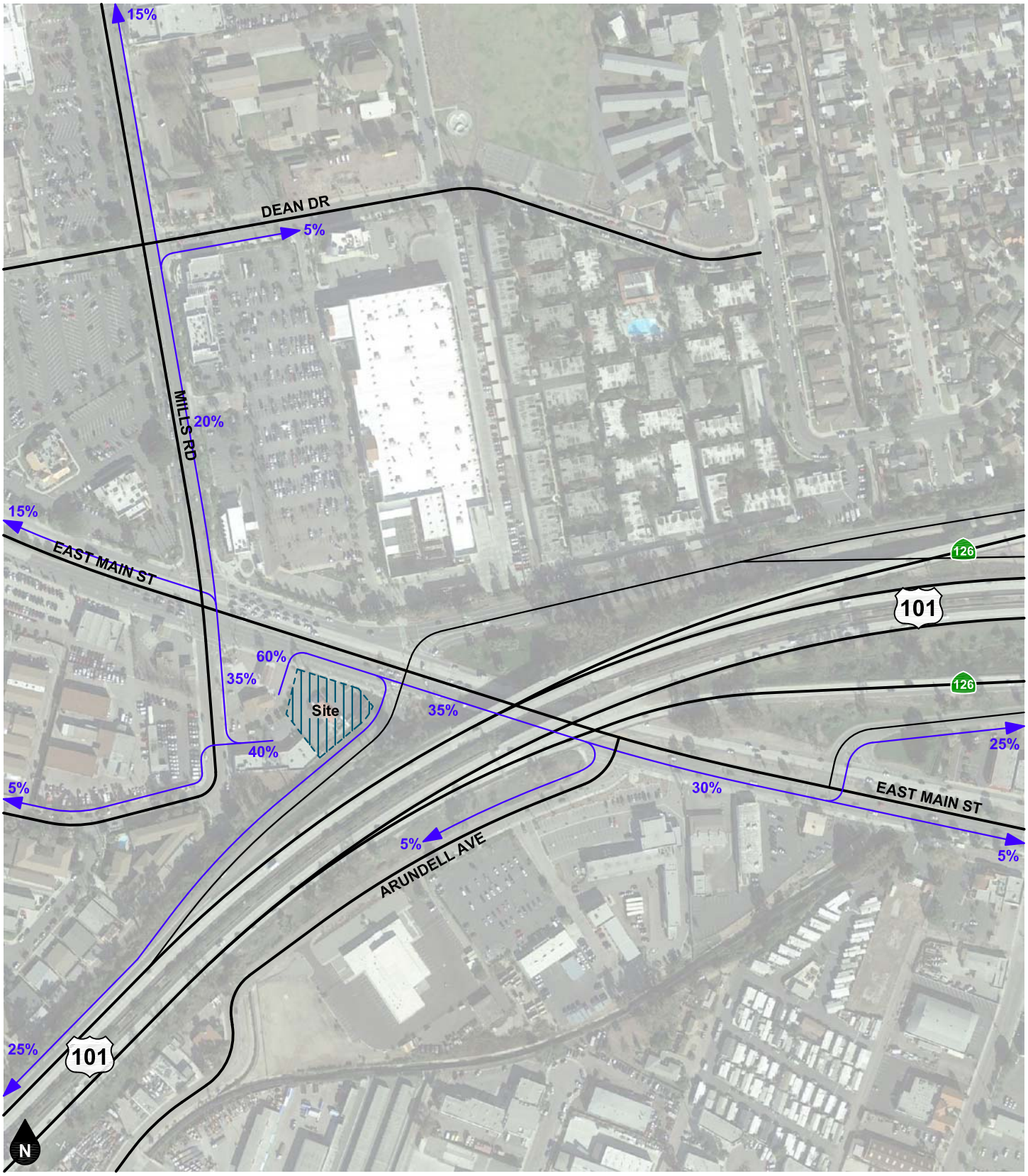
Figure 17
Project Alternative 1
AM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

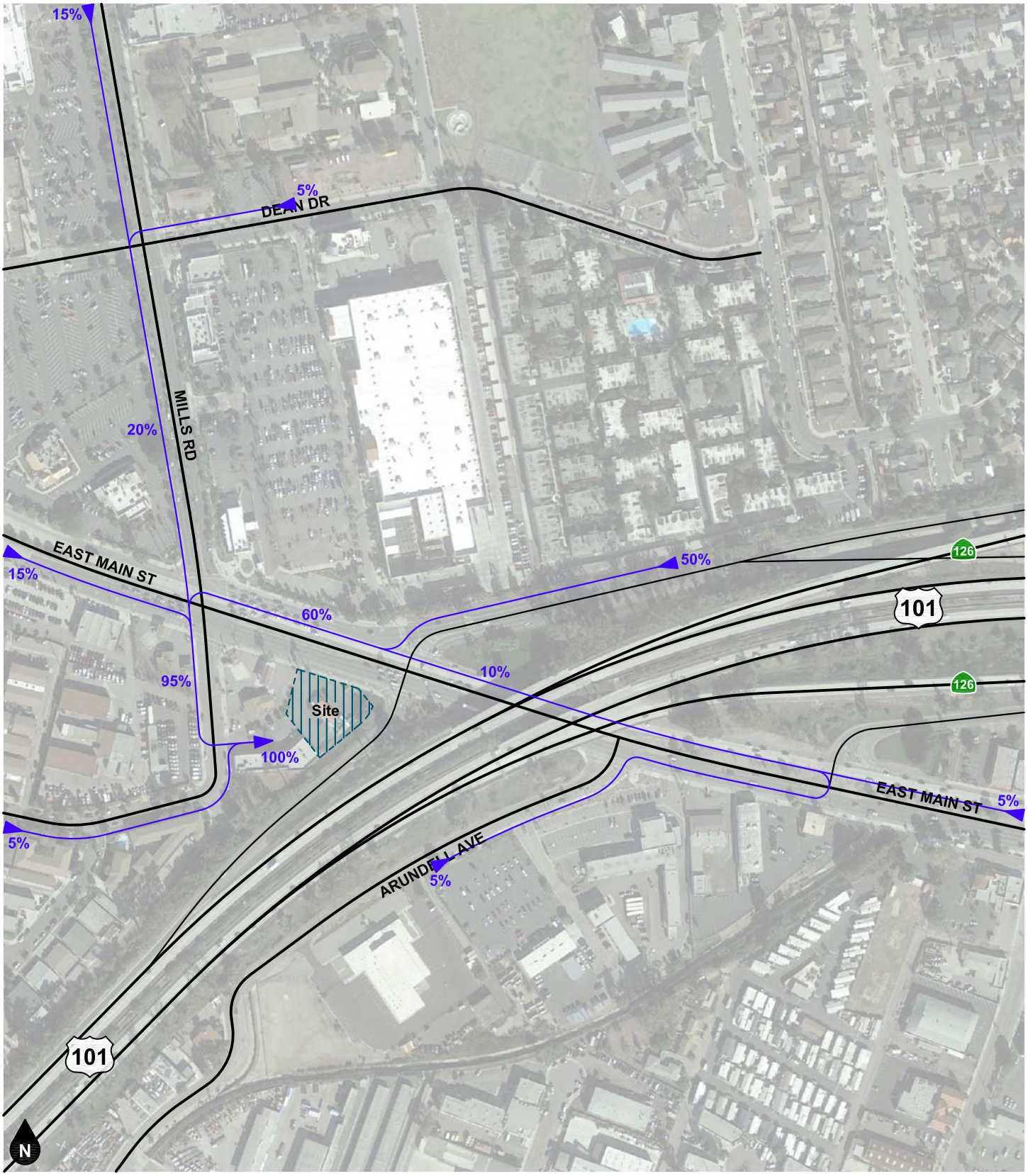
Figure 18
Project Alternative 1
PM Peak Hour Intersection Turning Movement Volumes



Legend

10% Percent From Project

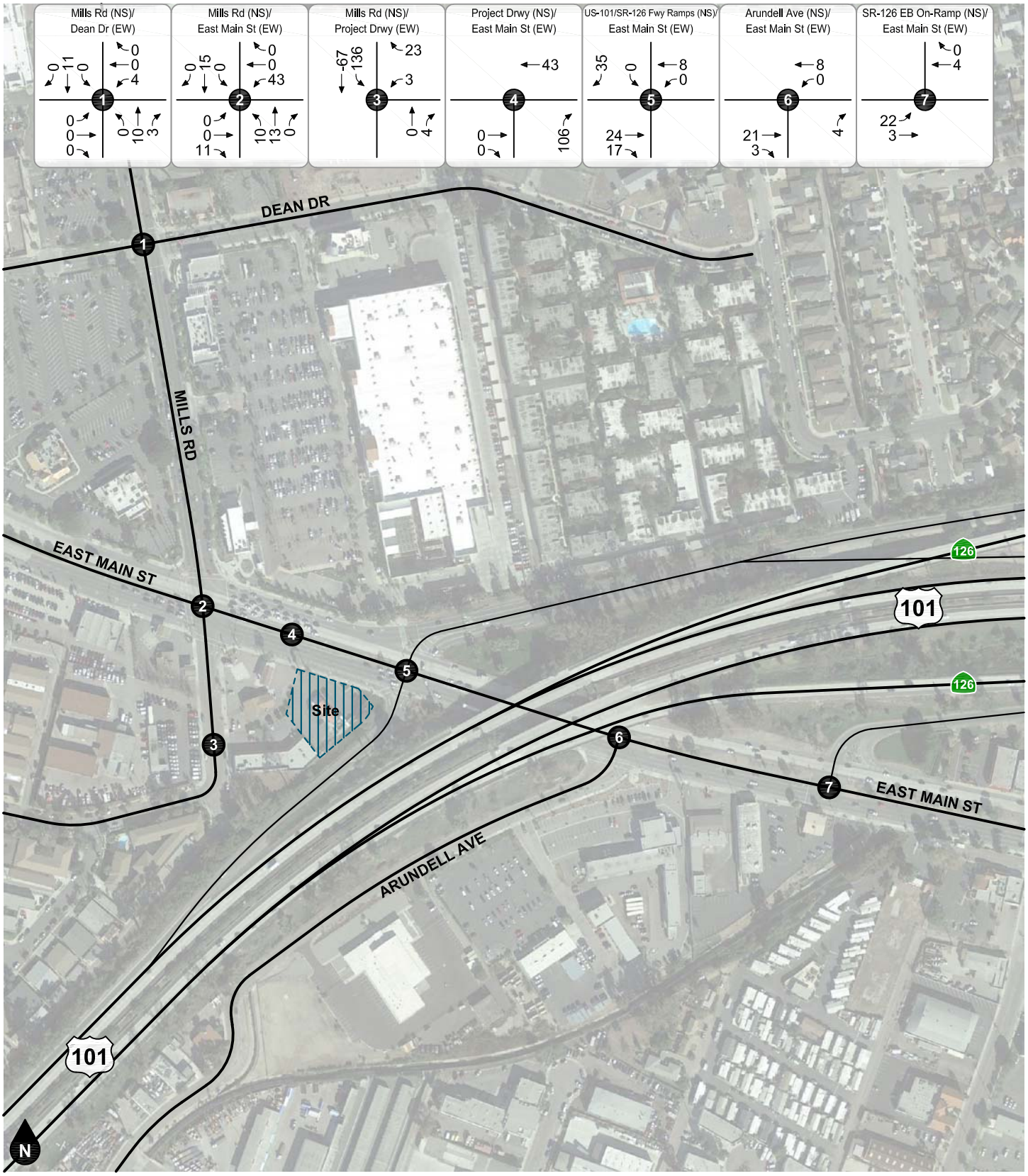
Figure 19
Project Alternative 2 Outbound Trip Distribution



Legend

10% Percent To Project

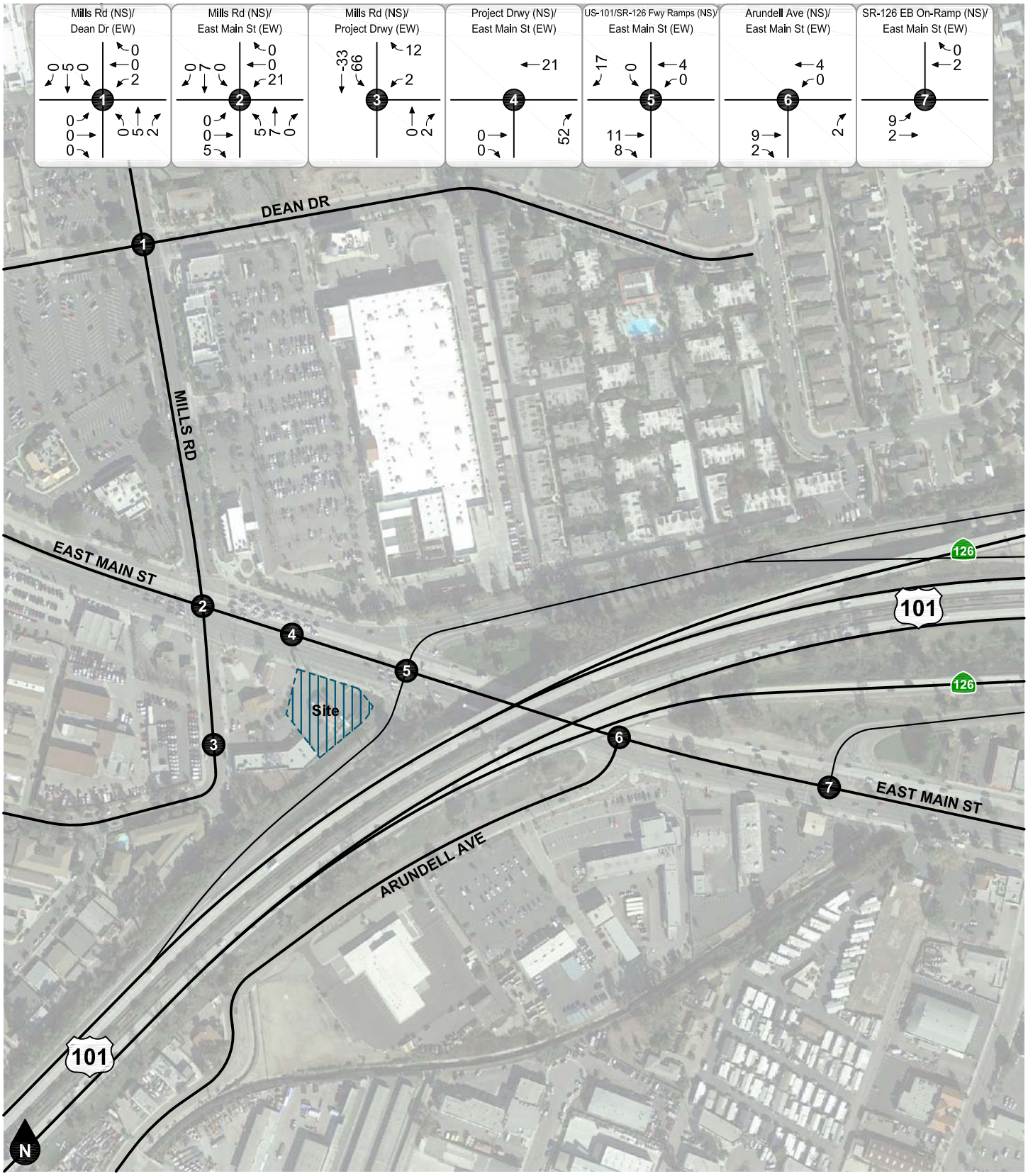
Figure 20
Project Alternative 2 Inbound Trip Distribution



Legend

(#) Study Intersection

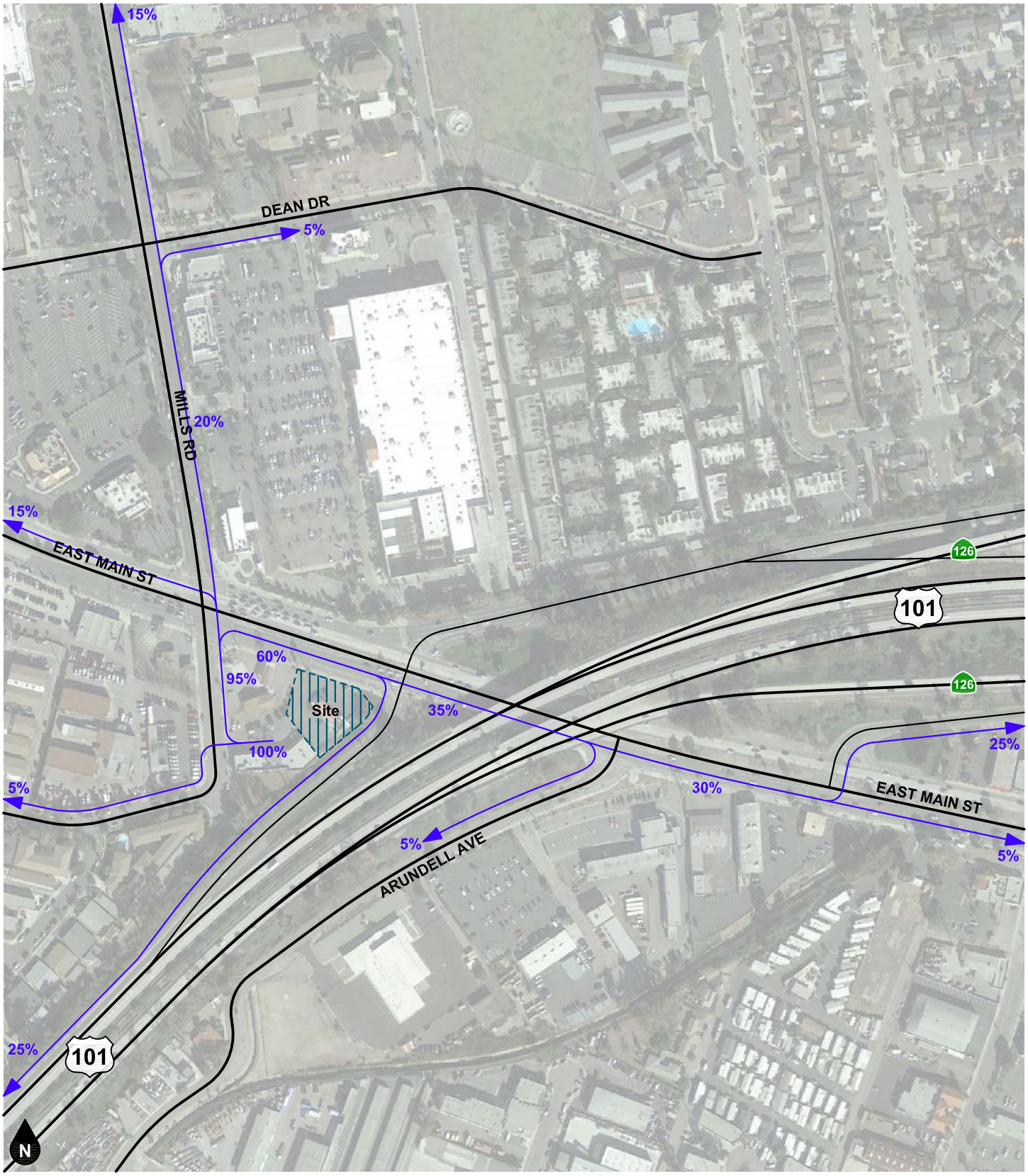
Figure 21
Project Alternative 2
AM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

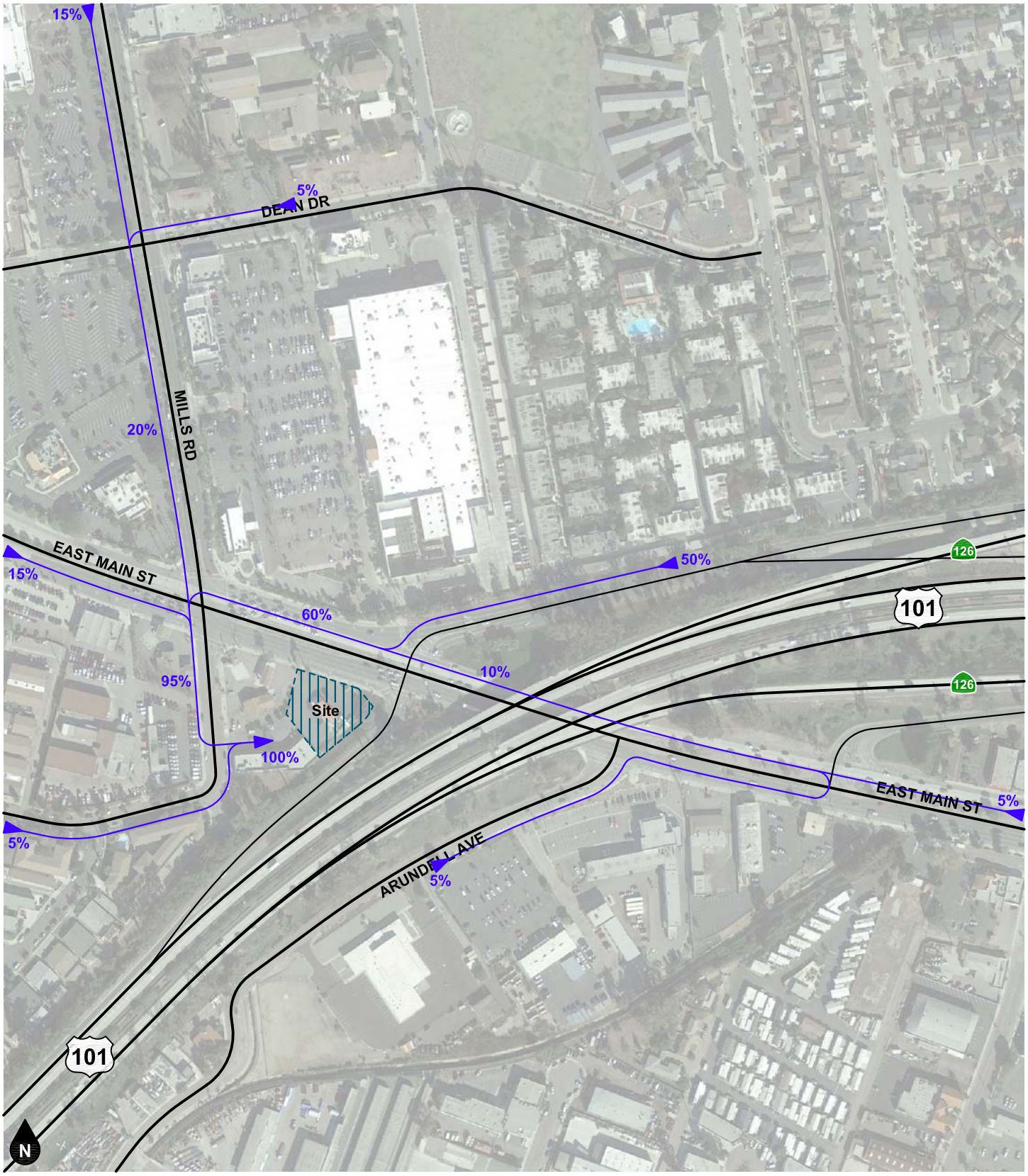
Figure 22
Project Alternative 2
PM Peak Hour Intersection Turning Movement Volumes



Legend

10% Percent From Project

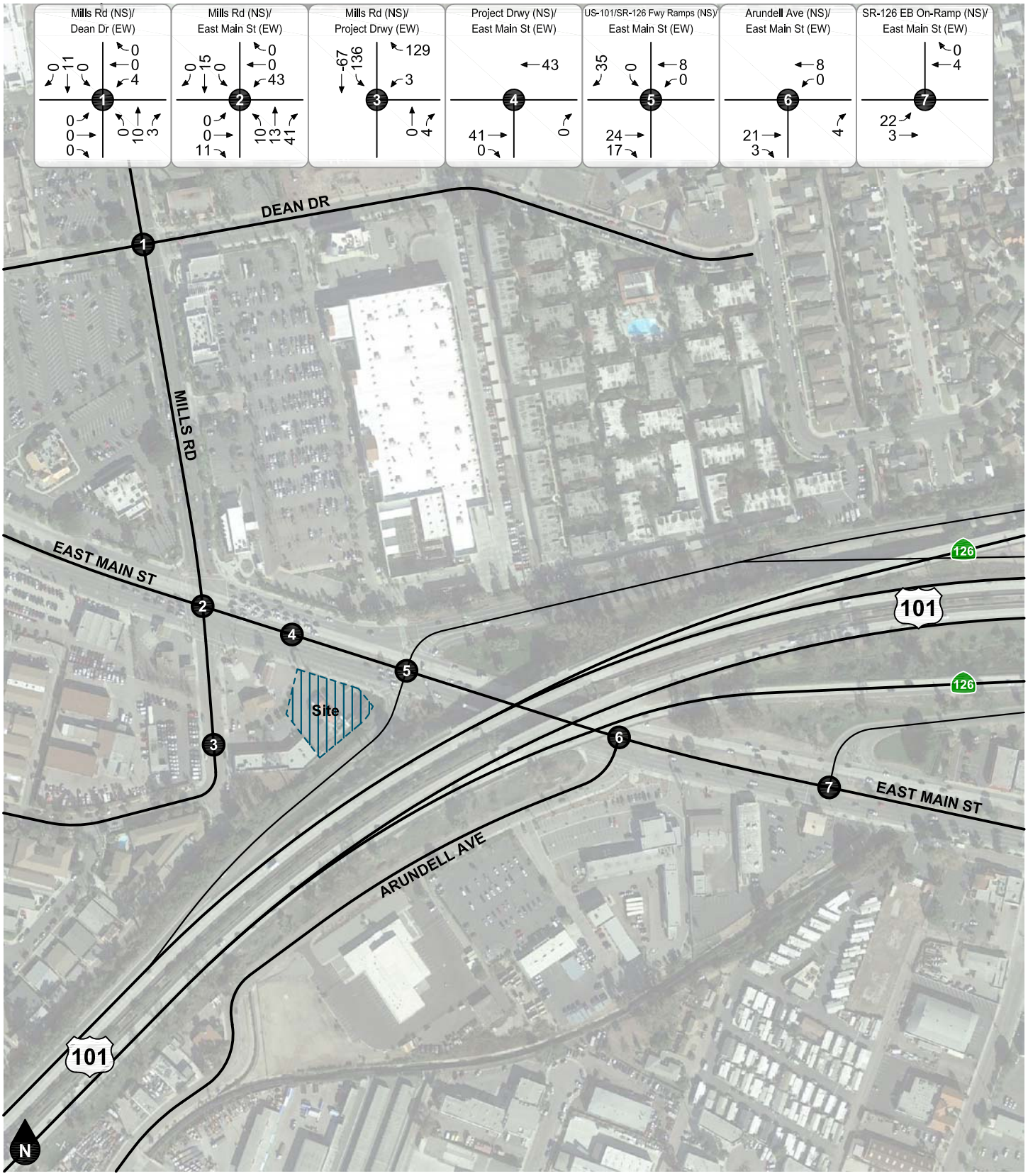
Figure 23
Project Alternative 3 Outbound Trip Distribution



Legend

10% Percent To Project

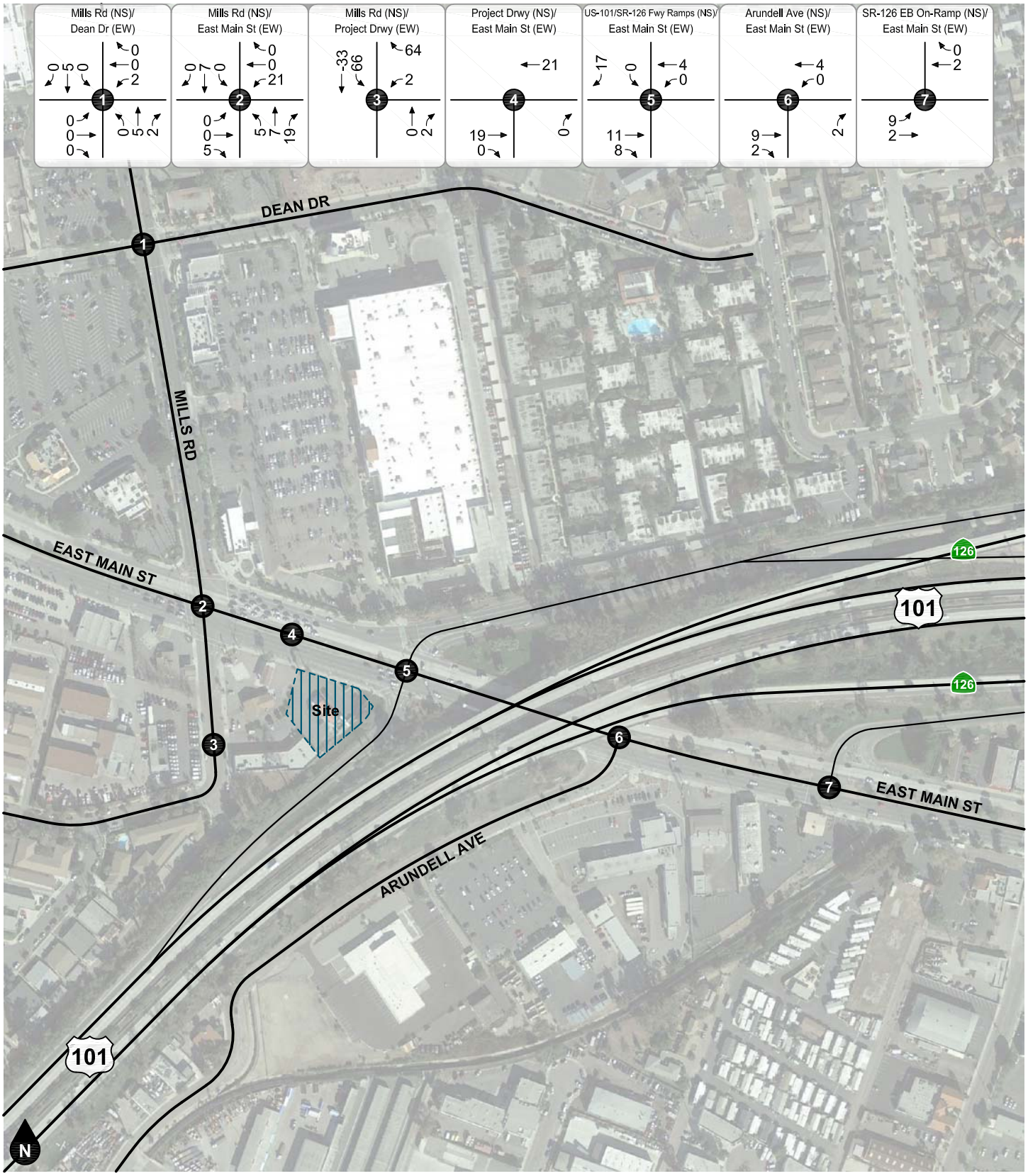
Figure 24
Project Alternative 3 Inbound Trip Distribution



Legend

(#) Study Intersection

Figure 25
Project Alternative 3
AM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

Figure 26
Project Alternative 3
PM Peak Hour Intersection Turning Movement Volumes

5. FUTURE VOLUME FORECASTS

This section describes how future volume forecasts for each analysis scenario were developed. Forecast study area volumes are illustrated on figures contained in this section.

CUMULATIVE TRIPS

Ambient Growth Rate

To account for ambient growth on roadways, Existing volumes were increased by a growth rate of 2 percent (2%) per year over one year for Opening Year (2019) conditions. This equates to a total growth factor of approximately 1.02 for Opening Year conditions. The ambient growth rate was conservatively applied to all movements at the study intersections.

Other Development

To account for trips generated by future development, trips generated by pending or approved other development projects in the City of Ventura were added to the study area. Table 4 shows the trip generation summary for other development. Figure 27 shows the other development location map. The previously discussed ambient growth is assumed to account for any additional trips generated by other development projects located outside the project vicinity and not specifically listed in this report.

Figure 28 and Figure 29 show the forecast AM and PM peak hour intersection turning movement volumes for trips generated by other developments, respectively.

ANALYSIS SCENARIO VOLUME FORECASTS

Existing Plus Project

Existing Plus Project volume forecasts were derived by adding the project generated trips to Existing volumes. Existing Plus Project AM and PM peak hour intersection turning movement volumes are shown on Figure 30 and Figure 31, respectively.

Existing Plus Project Alternative 1

Existing Plus Project Alternative 1 volume forecasts were derived by adding project alternative 1 generated trips to Existing volumes. Existing Plus Project Alternative 1 AM and PM peak hour intersection turning movement volumes are shown on Figure 32 and Figure 33, respectively.

Existing Plus Project Alternative 2

Existing Plus Project Alternative 2 volume forecasts were derived by adding project alternative 2 generated trips to Existing volumes. Existing Plus Project Alternative 2 AM and PM peak hour intersection turning movement volumes are shown on Figure 34 and Figure 35, respectively.

Existing Plus Project Alternative 3

Existing Plus Project Alternative 3 volume forecasts were derived by adding project alternative 3 generated trips to Existing volumes. Existing Plus Project Alternative 3 AM and PM peak hour intersection turning movement volumes are shown on Figure 36 and Figure 37, respectively.

Opening Year (2019) Without Project

To develop Opening Year (2019) Without Project volume forecasts, Existing volumes were combined with ambient growth and trips generated by other developments. Opening Year (2019) Without Project AM and PM peak hour intersection turning movement volumes are shown on Figure 38 and Figure 39, respectively.

Opening Year (2019) With Project

Opening Year (2019) With Project volume forecasts were developed by adding project generated trips to the Opening Year (2019) Without Project forecast. Opening Year (2019) With Project AM and PM peak hour intersection turning movement volumes are shown on Figure 40 and Figure 41, respectively.

Opening Year (2019) With Project Alternative 1

Opening Year (2019) With Project Alternative 1 volume forecasts were developed by adding project alternative 1 generated trips to the Opening Year (2019) Without Project forecast. Opening Year (2019) With Project Alternative 1 AM and PM peak hour intersection turning movement volumes are shown on Figure 42 and Figure 43, respectively.

Opening Year (2019) With Project Alternative 2

Opening Year (2019) With Project Alternative 2 volume forecasts were developed by adding project alternative 2 generated trips to the Opening Year (2019) Without Project forecast. Opening Year (2019) With Project Alternative 2 AM and PM peak hour intersection turning movement volumes are shown on Figure 44 and Figure 45, respectively.

Opening Year (2019) With Project Alternative 3

Opening Year (2019) With Project Alternative 3 volume forecasts were developed by adding project alternative 3 generated trips to the Opening Year (2019) Without Project forecast. Opening Year (2019) With Project Alternative 3 AM and PM peak hour intersection turning movement volumes are shown on Figure 46 and Figure 47, respectively.

Table 4
Other Development Trip Generation

ID	Name	Land Use	Quantity	Units[1]	Source[2]	AM Peak Hour			PM Peak Hour			Daily
						In	Out	Total	In	Out	Total	
1	PROJ-03864	Office	6.400	TSF	ITE 710	6	1	7	1	6	7	62
2	PROJ-04469	Shopping Center	3.000	TSF	ITE 820	2	1	3	5	6	11	113
		- Pass-By (34% PM, 10% AM/Daily)			[a]	0	0	0	-2	-2	-4	-11
		Subtotal				2	1	3	3	4	7	102
3	PROJ-10066	Shopping Center	13.337	TSF	ITE 820	8	5	13	24	26	50	503
		- Pass-By (34% PM, 10% AM/Daily)			[a]	-1	-1	-2	-8	-9	-17	-50
		Subtotal				7	4	11	16	17	33	453
4	PROJ-10172	Medical Office	11.208	TSF	ITE 720	24	7	31	11	28	39	390
5	PROJ-00723	Multifamily Housing (Low-Rise)	250	DU	ITE 220	26	89	115	88	52	140	1,830
Total Other Development Trips Generated						**65**	**102**	**167**	**119**	**107**	**226**	**2,837**

Notes:

(1) TSF = Thousand Square Feet; DU = Dwelling Units

(2) ITE = Institute of Transportation Engineers, Trip Generation Manual, 10th Edition, 2017; ### = Land Use Code

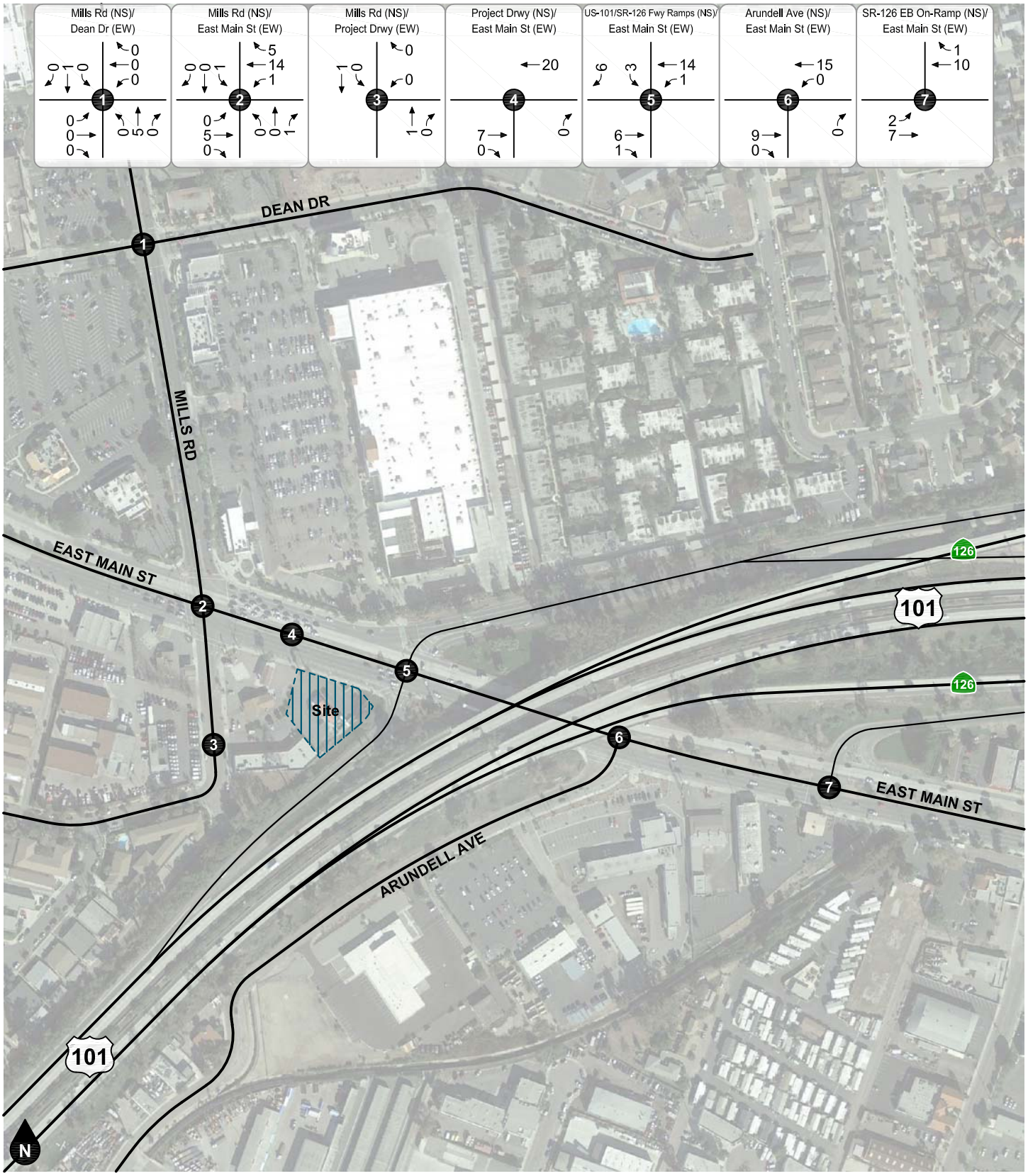
[a] = Institute of Transportation Engineers, Trip Generation Handbook, 3rd Edition, 2017.



Legend

1	03864
2	04469
3	10066
4	10172
5	00723

Figure 27
Other Development Location Map



Legend

(#) Study Intersection

Figure 28
Other Development
AM Peak Hour Intersection Turning Movement Volumes

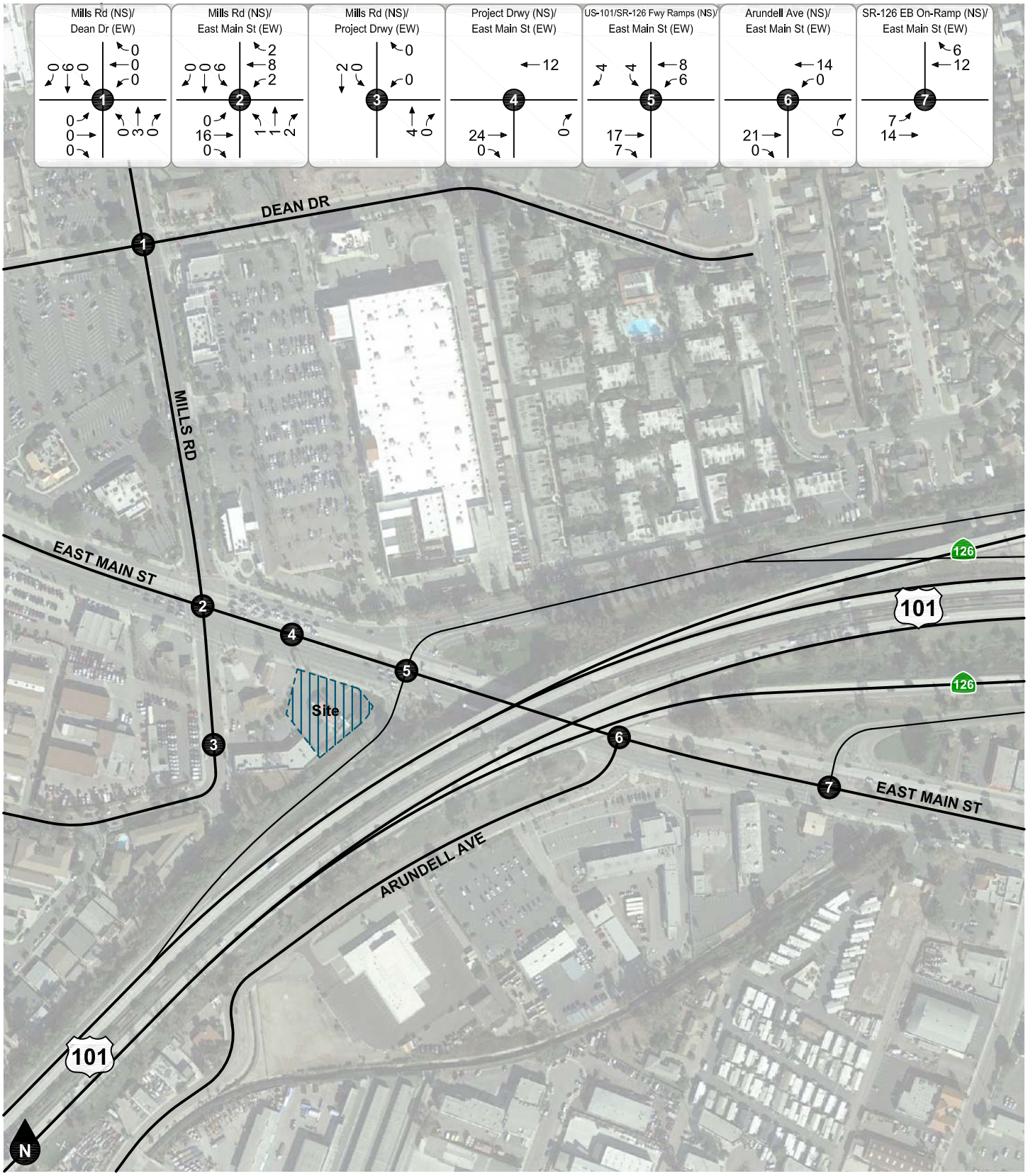
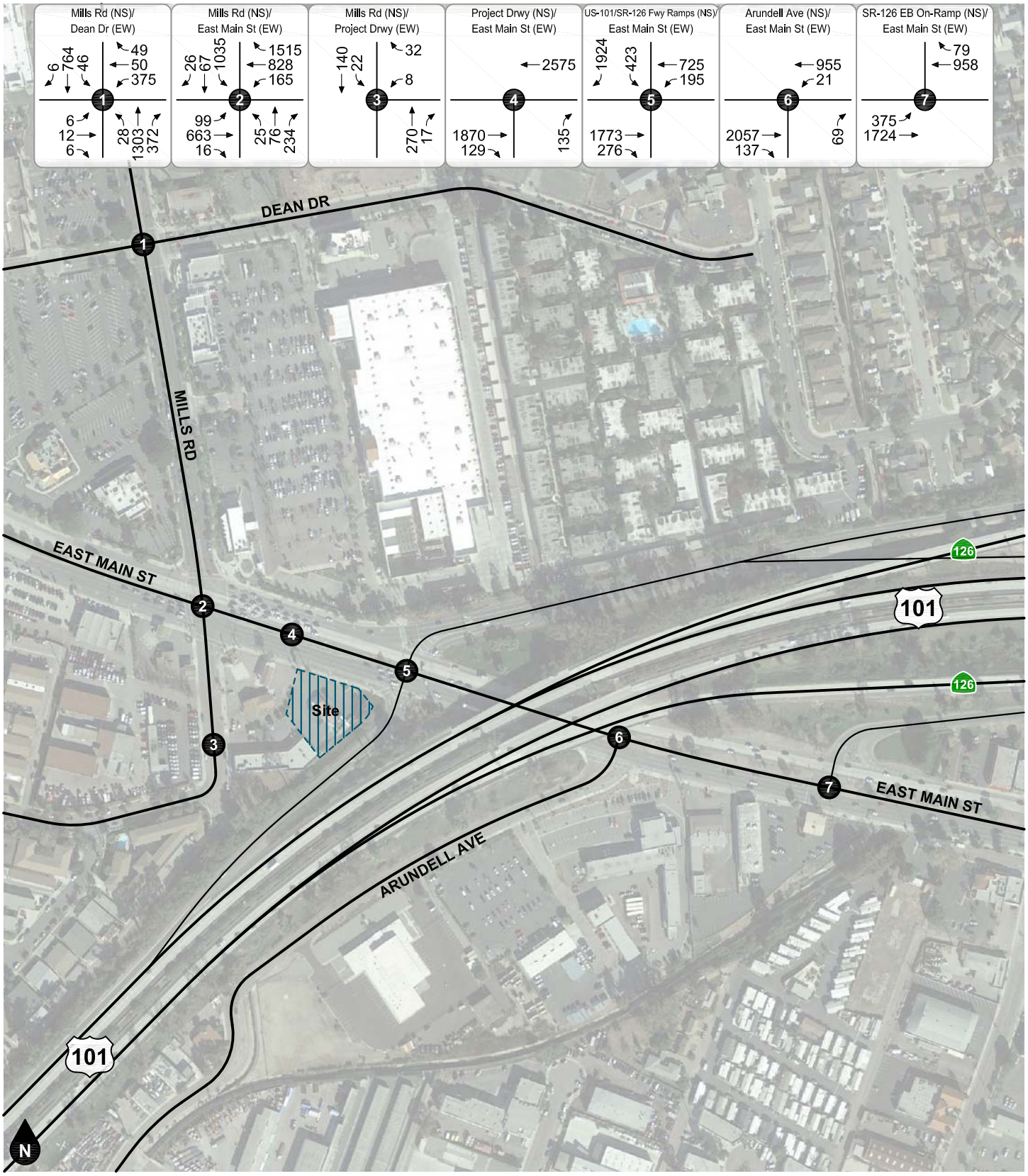


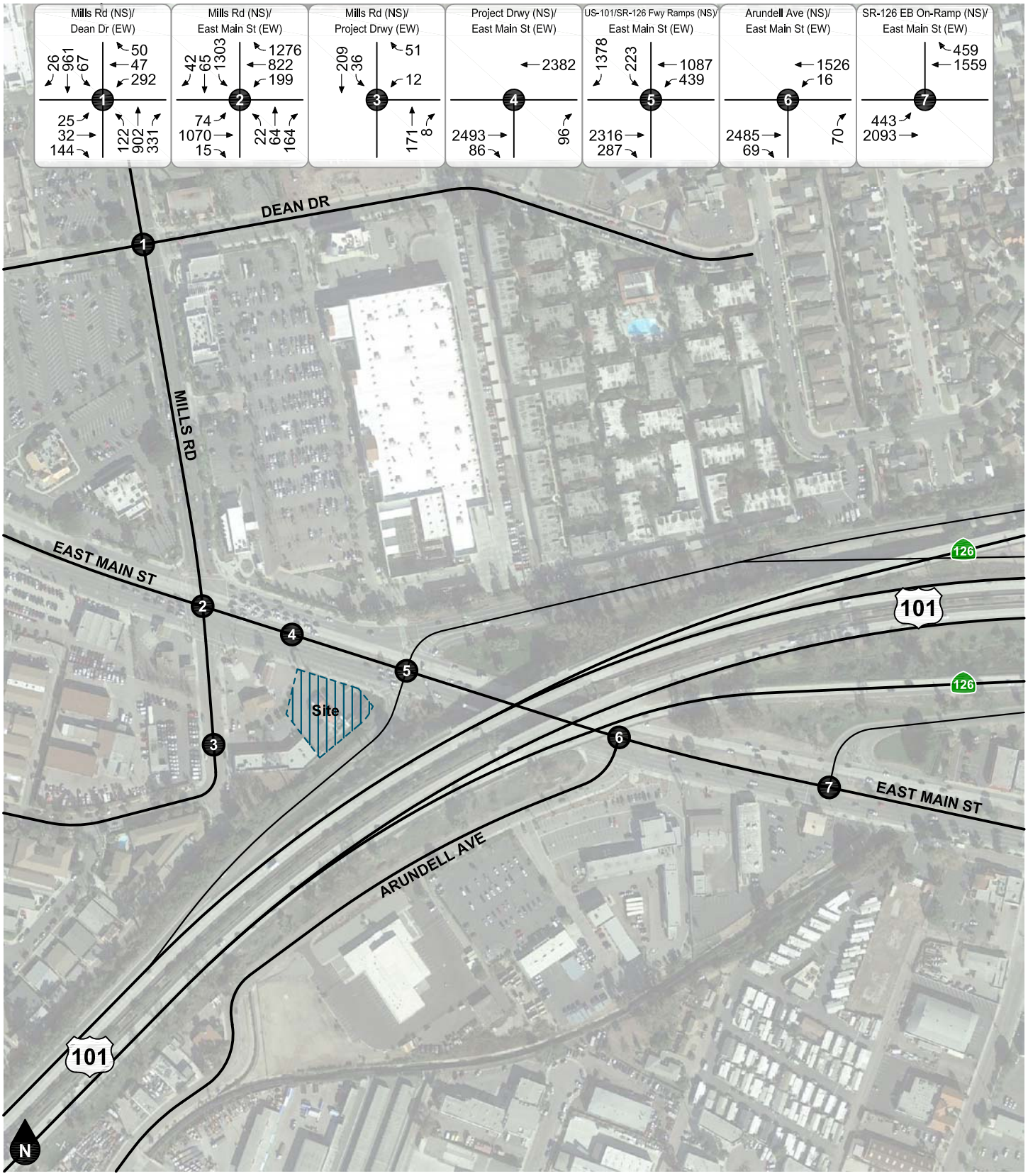
Figure 29
Other Development
PM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

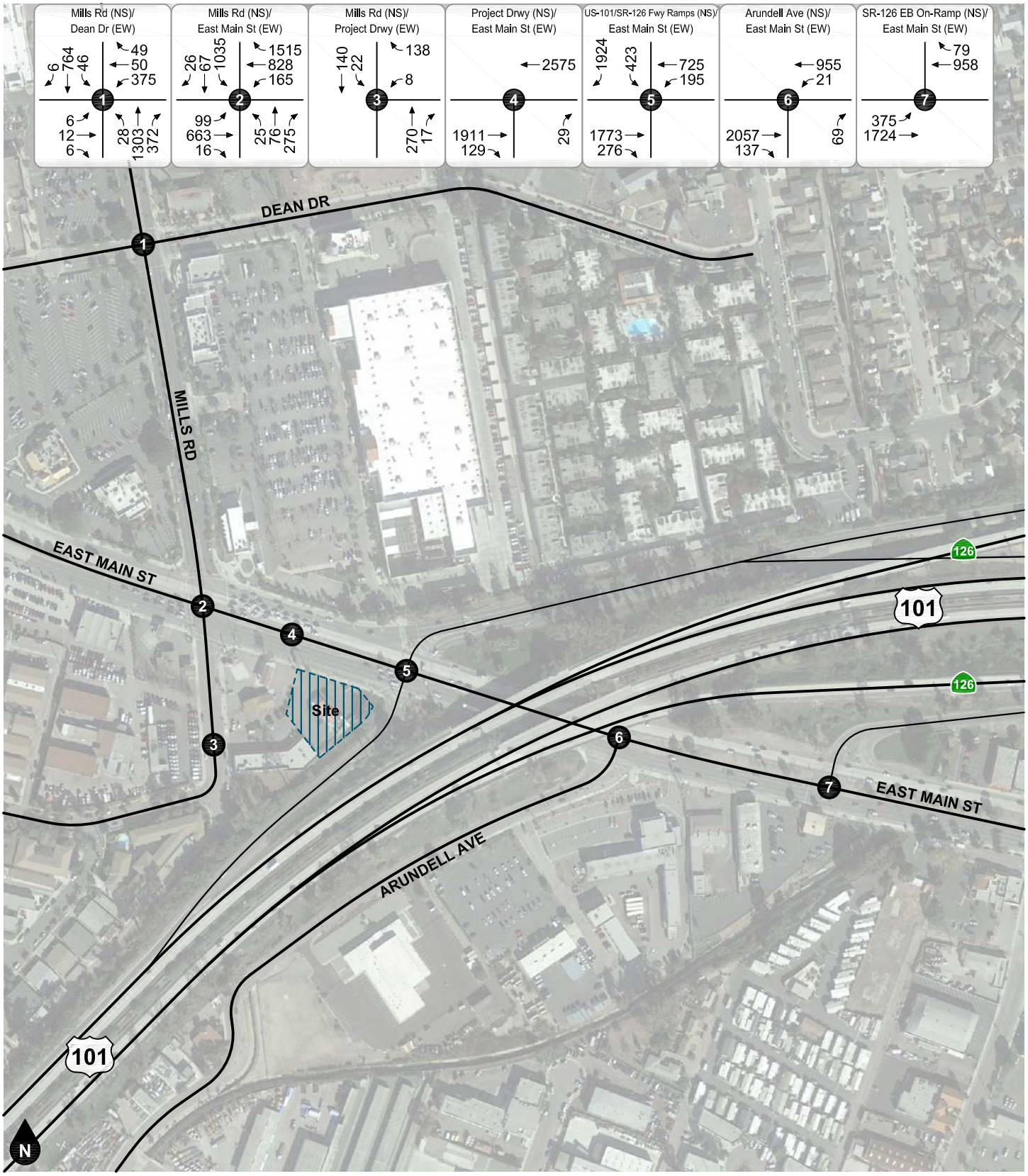
Figure 30
Existing Plus Project
AM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

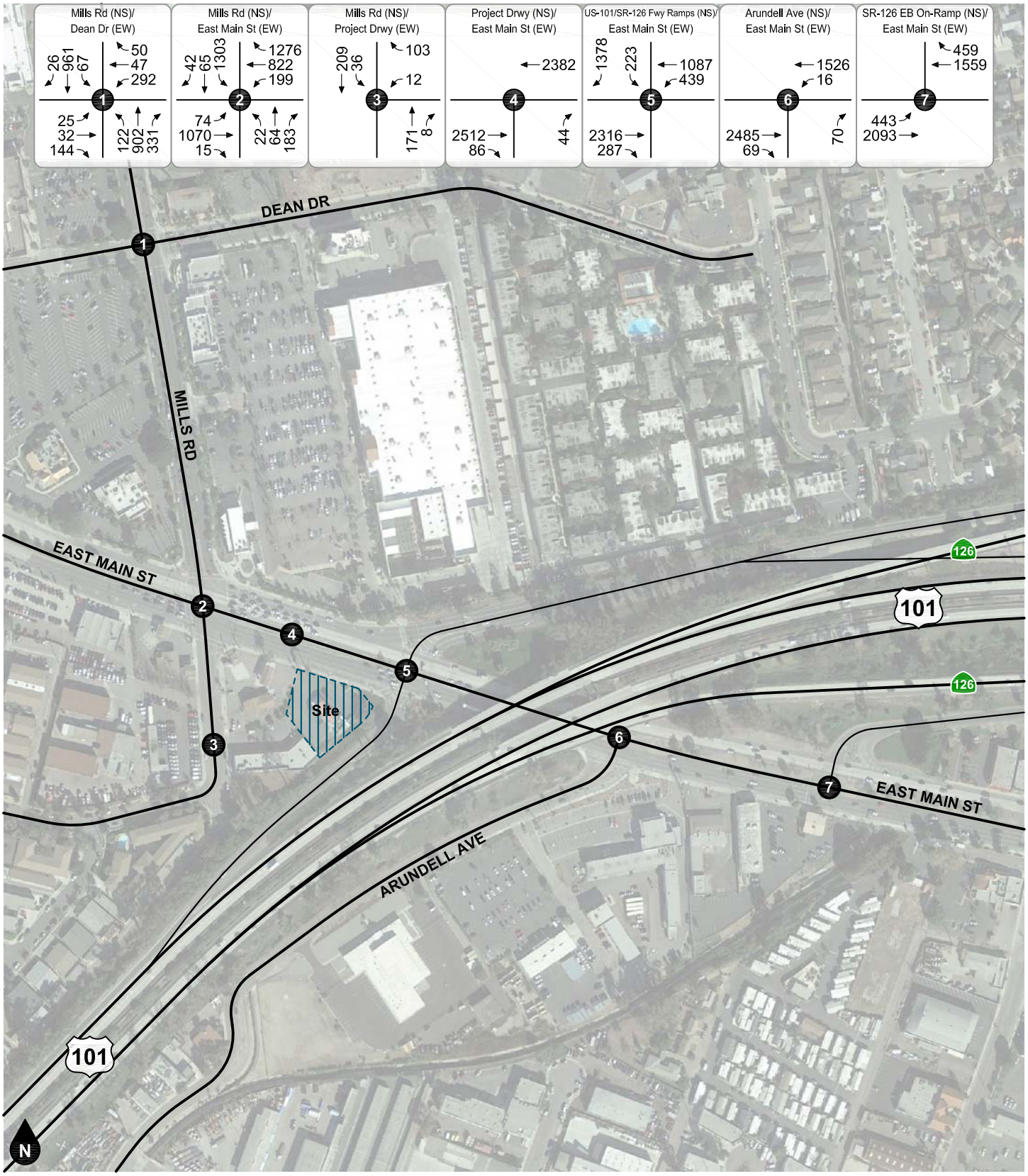
Figure 31
Existing Plus Project
PM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

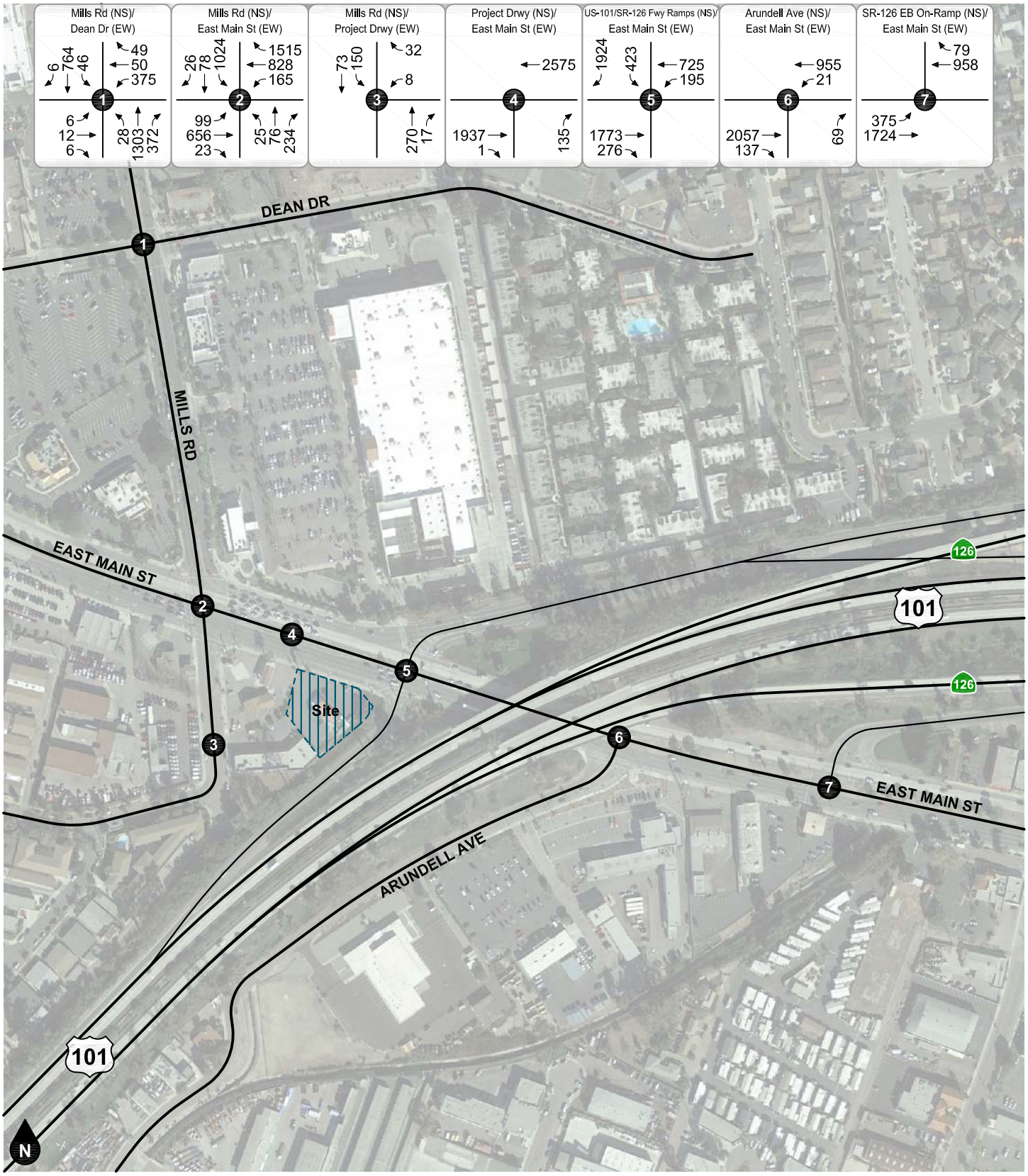
Figure 32
Existing Plus Project Alternative 1
AM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

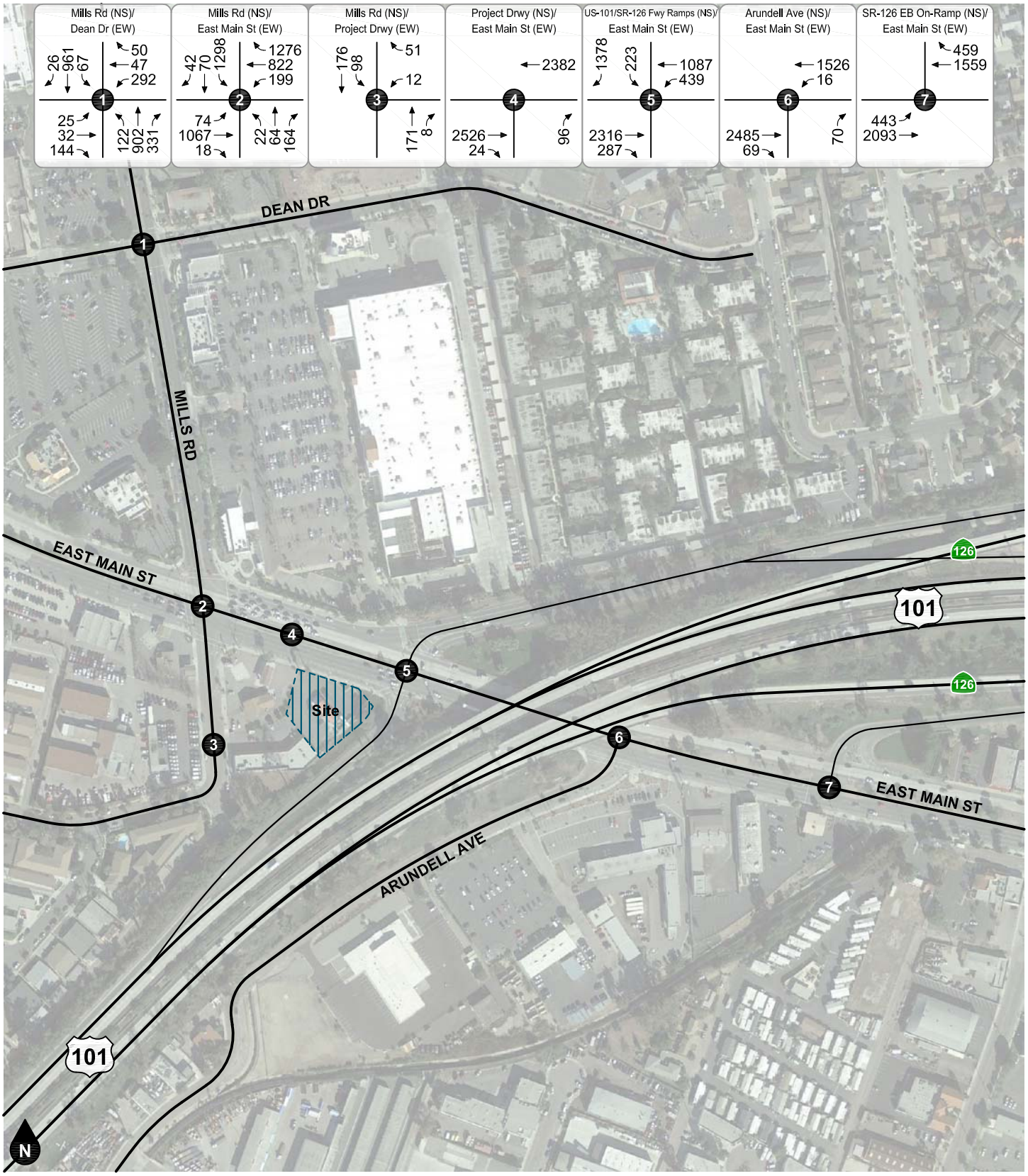
Figure 33
Existing Plus Project Alternative 1
PM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

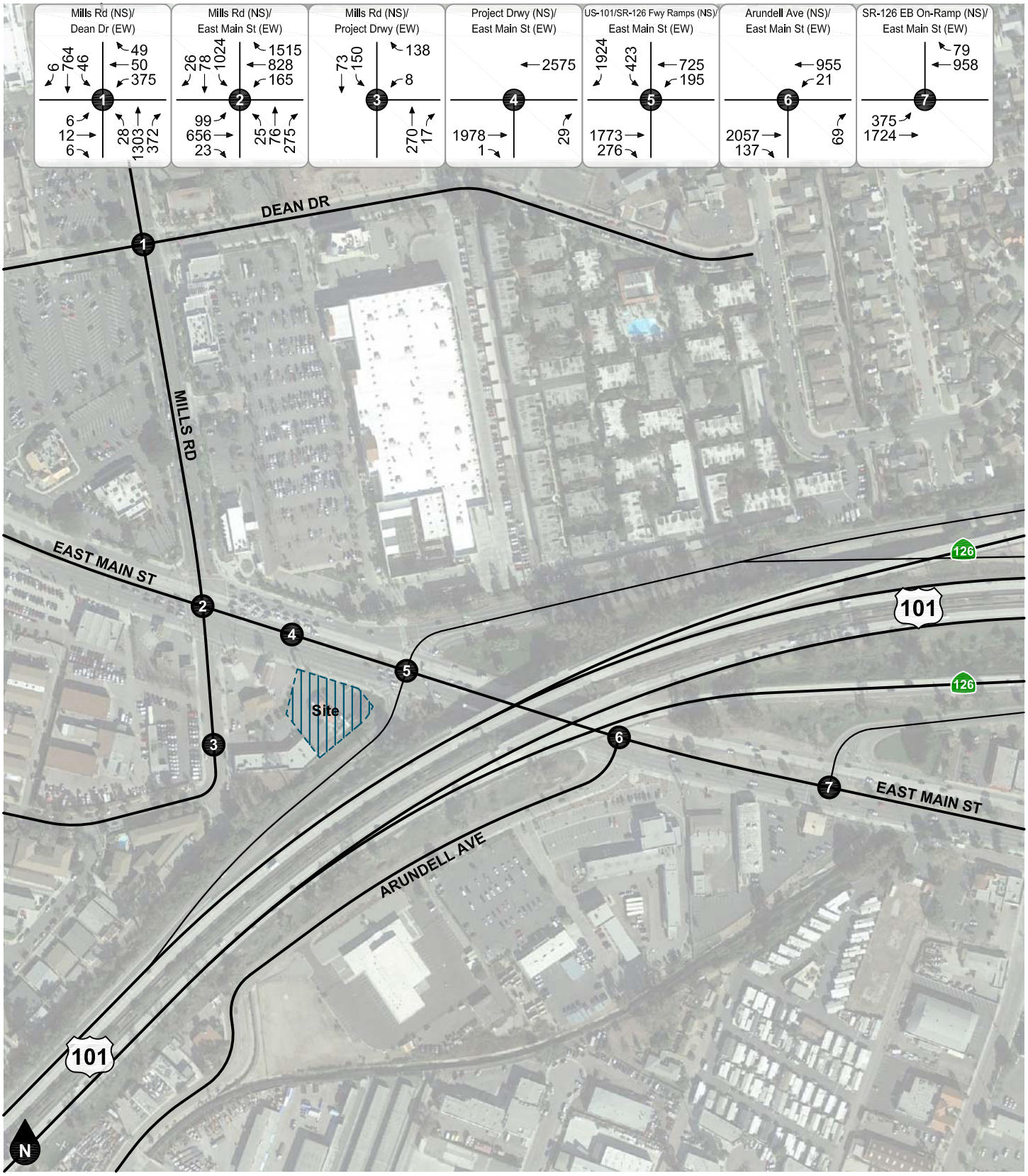
Figure 34
Existing Plus Project Alternative 2
AM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

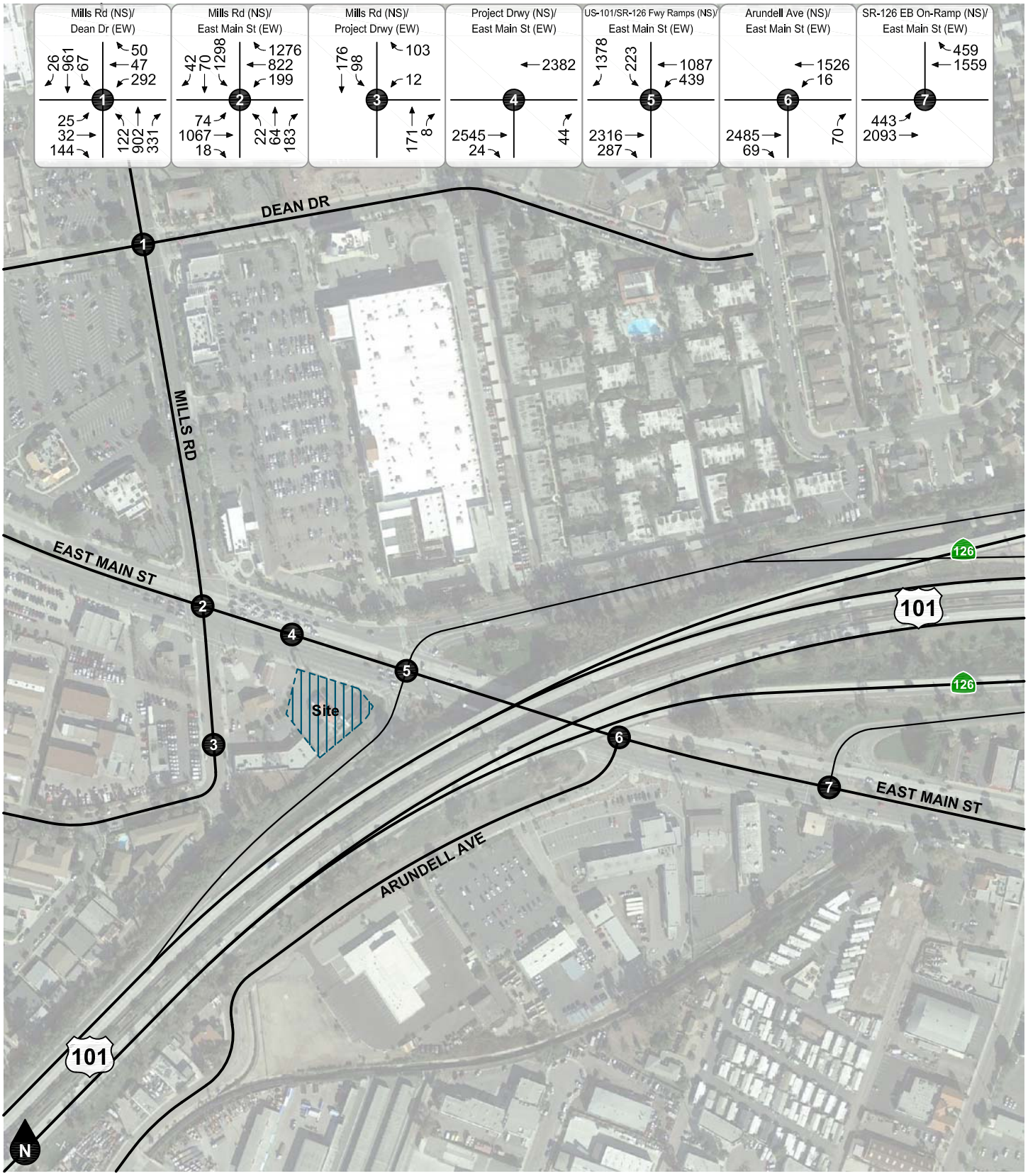
Figure 35
Existing Plus Project Alternative 2
PM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

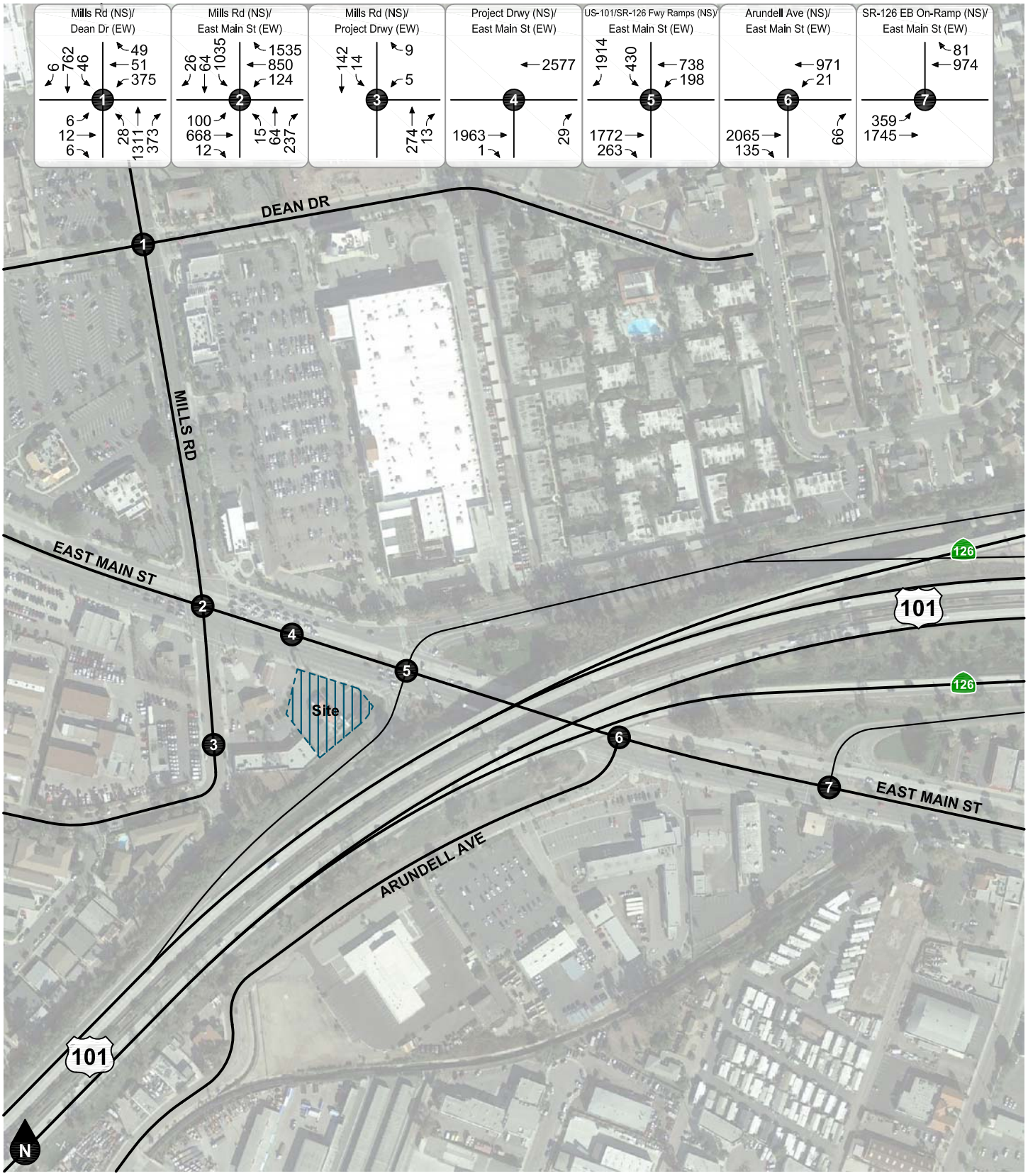
Figure 36
Existing Plus Project Alternative 3
AM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

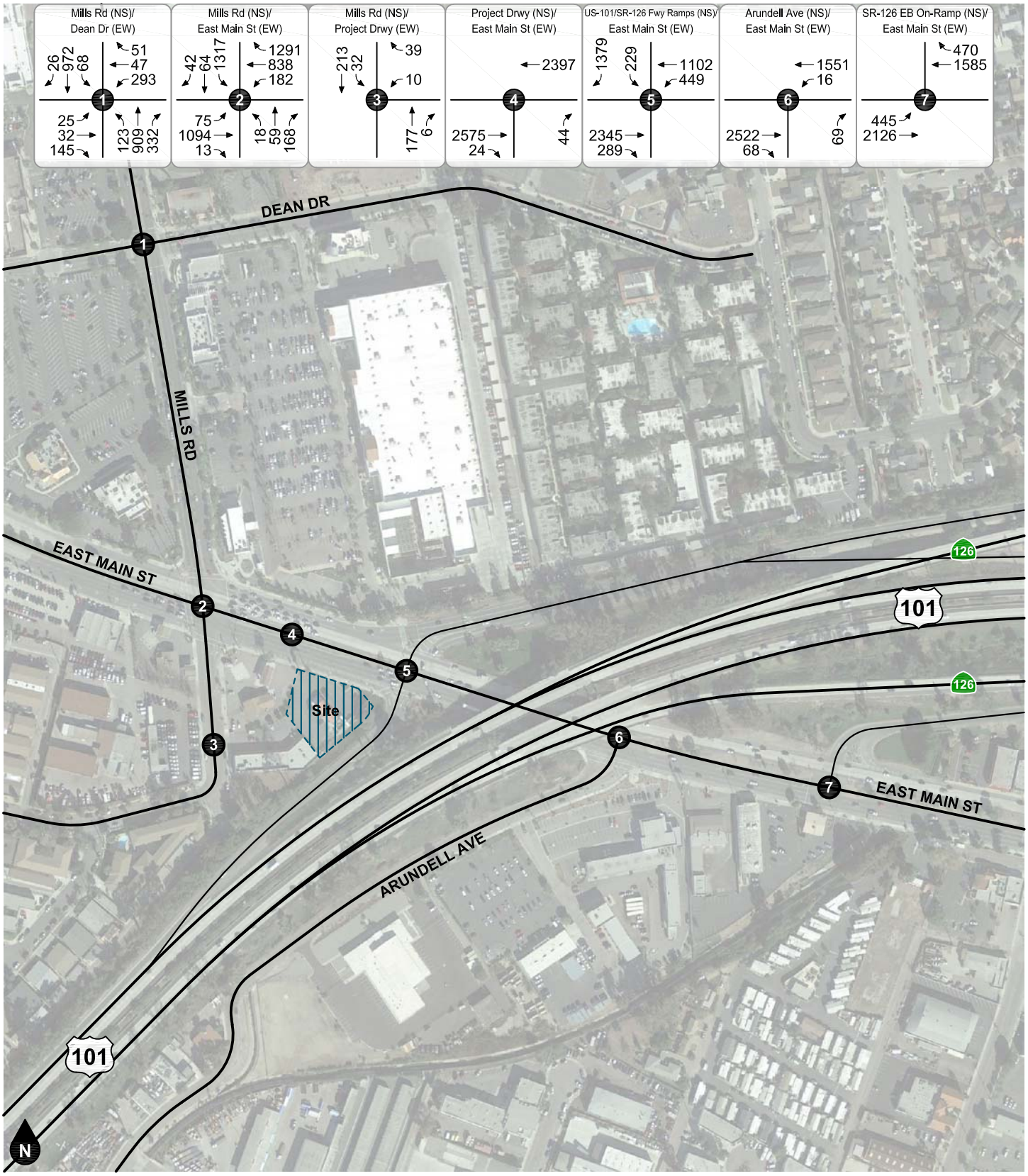
Figure 37
Existing Plus Project Alternative 3
PM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

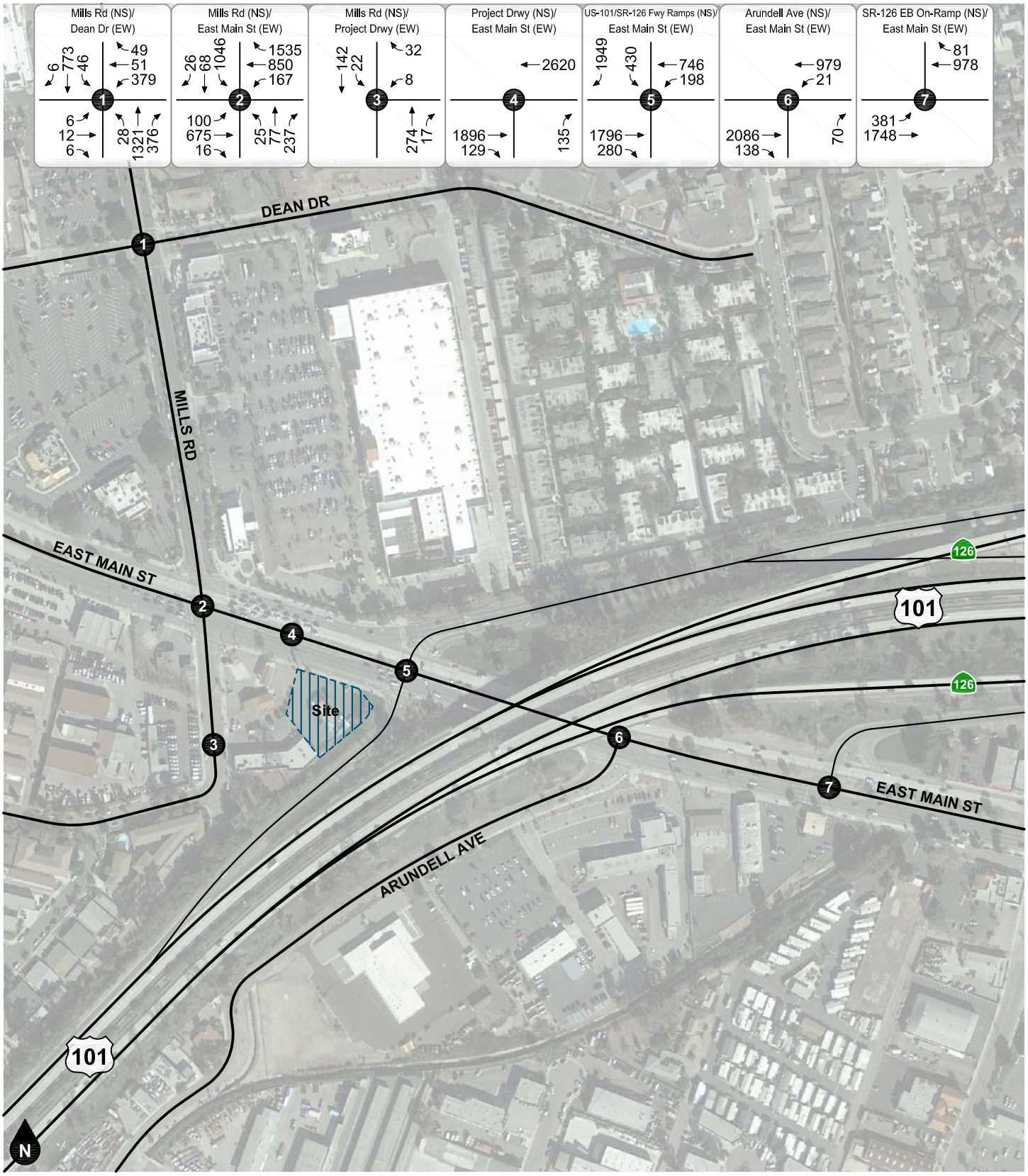
Figure 38
Opening Year (2019) Without Project
AM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

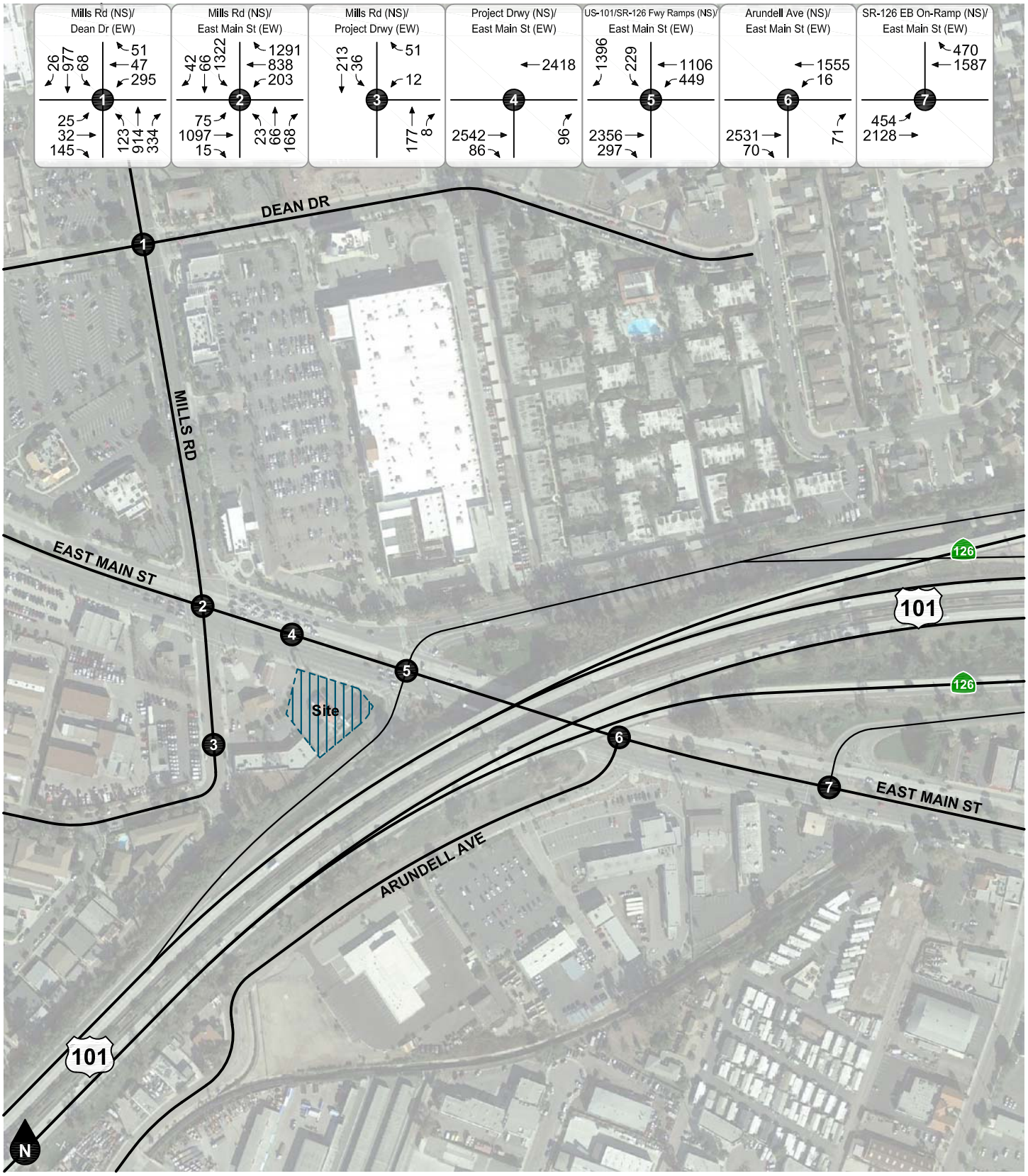
Figure 39
Opening Year (2019) Without Project
PM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

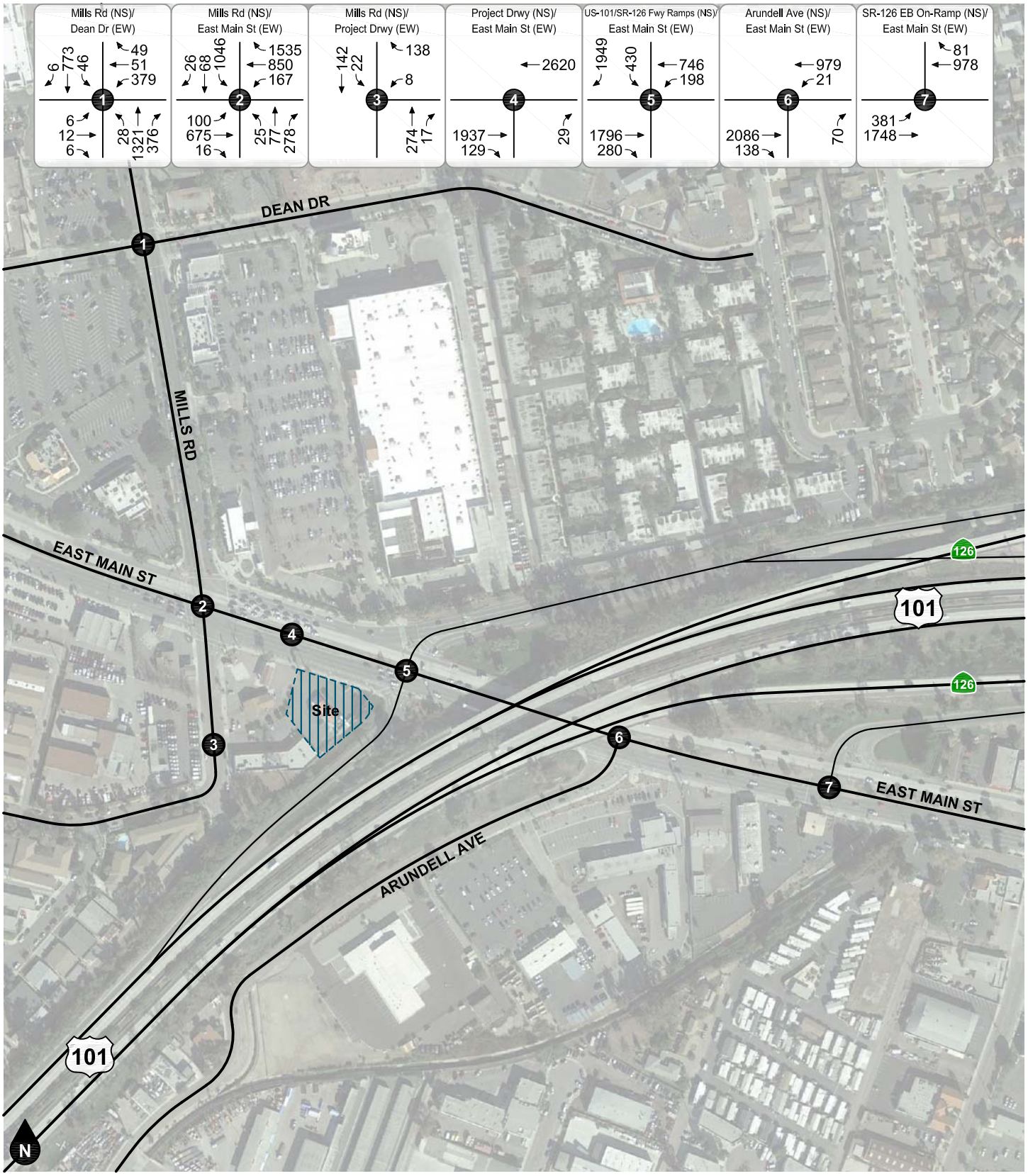
Figure 40
Opening Year (2019) With Project
AM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

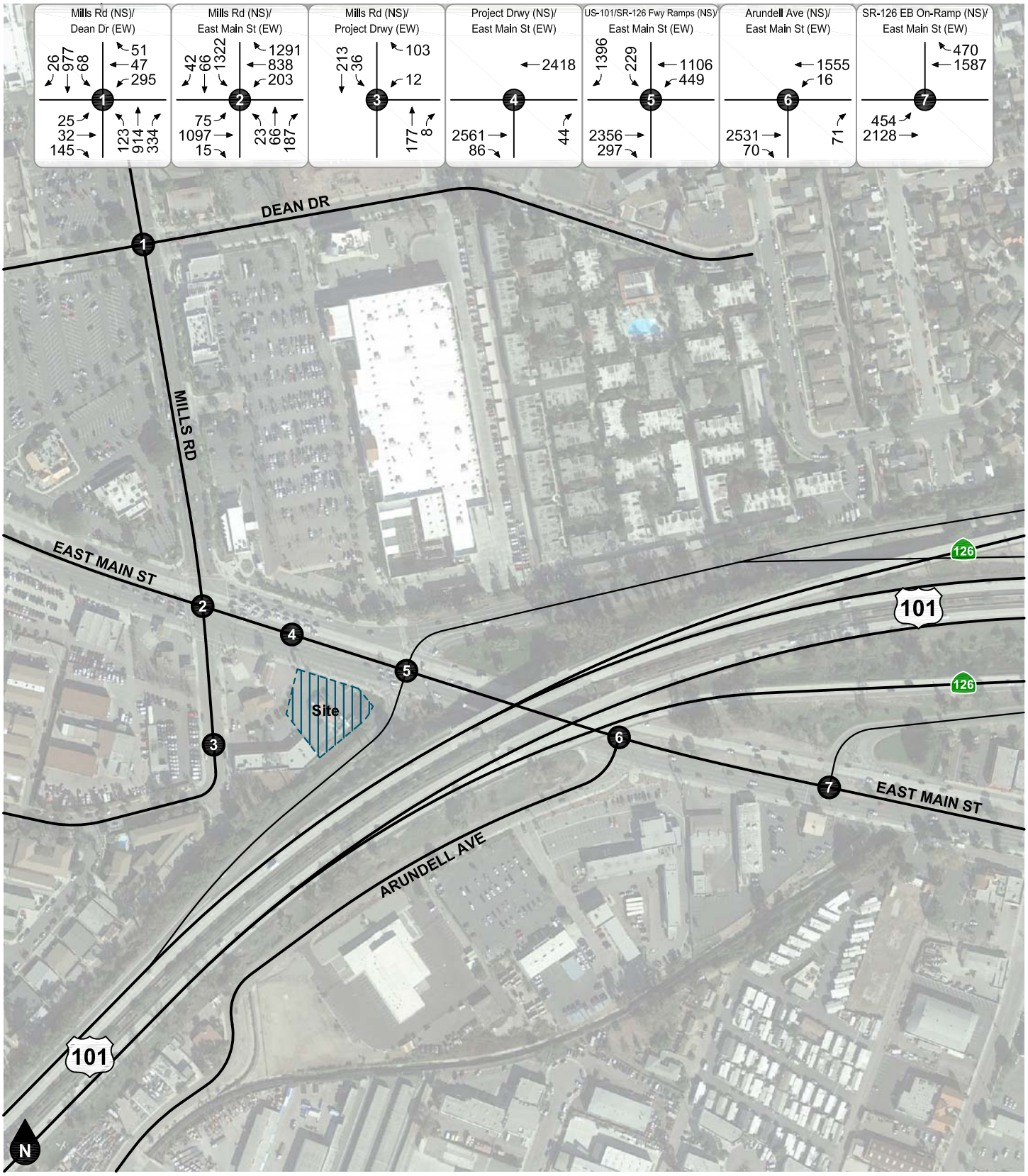
Figure 41
Opening Year (2019) With Project
PM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

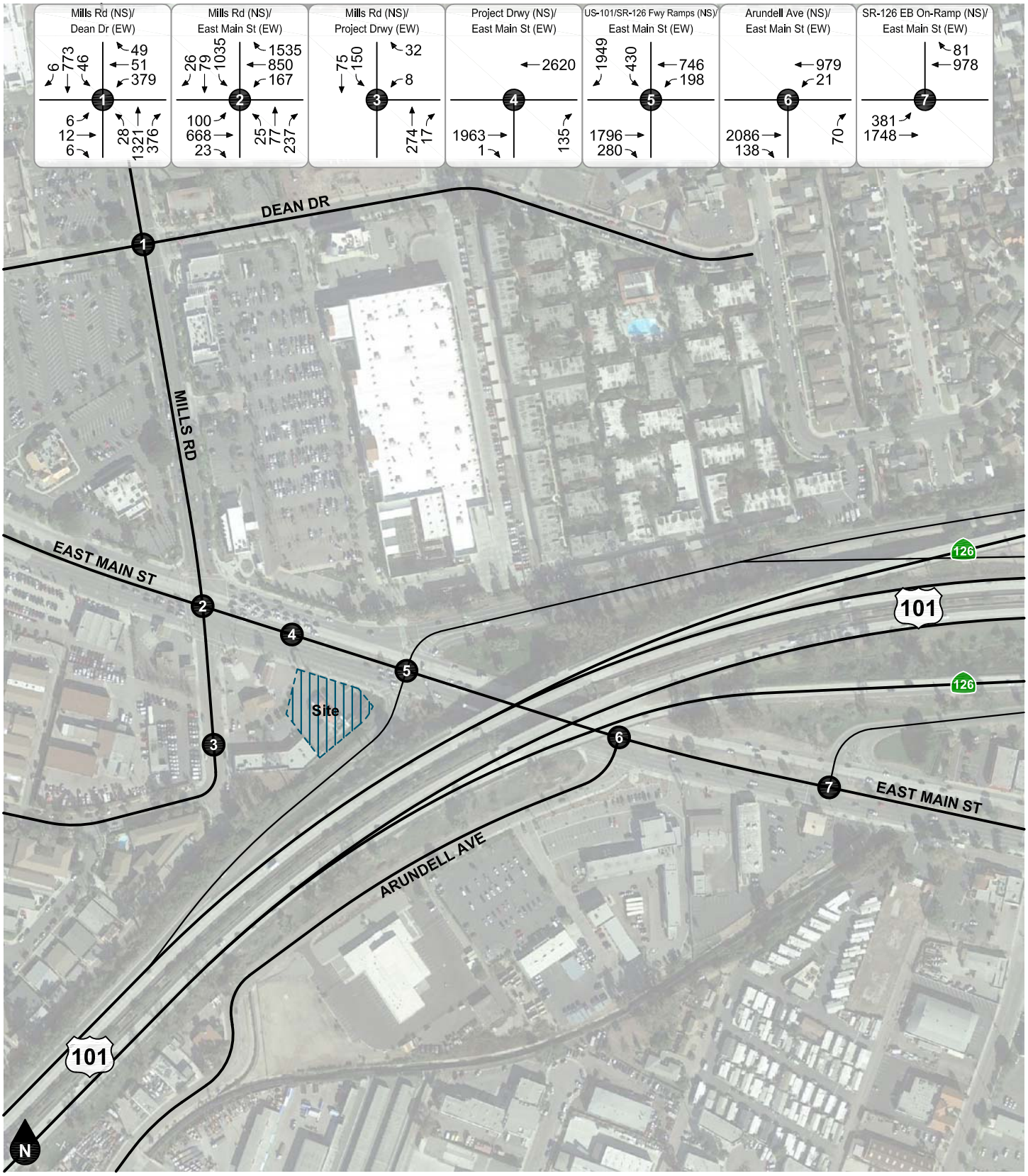
Figure 42
Opening Year (2019) With Project Alternative 1
AM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

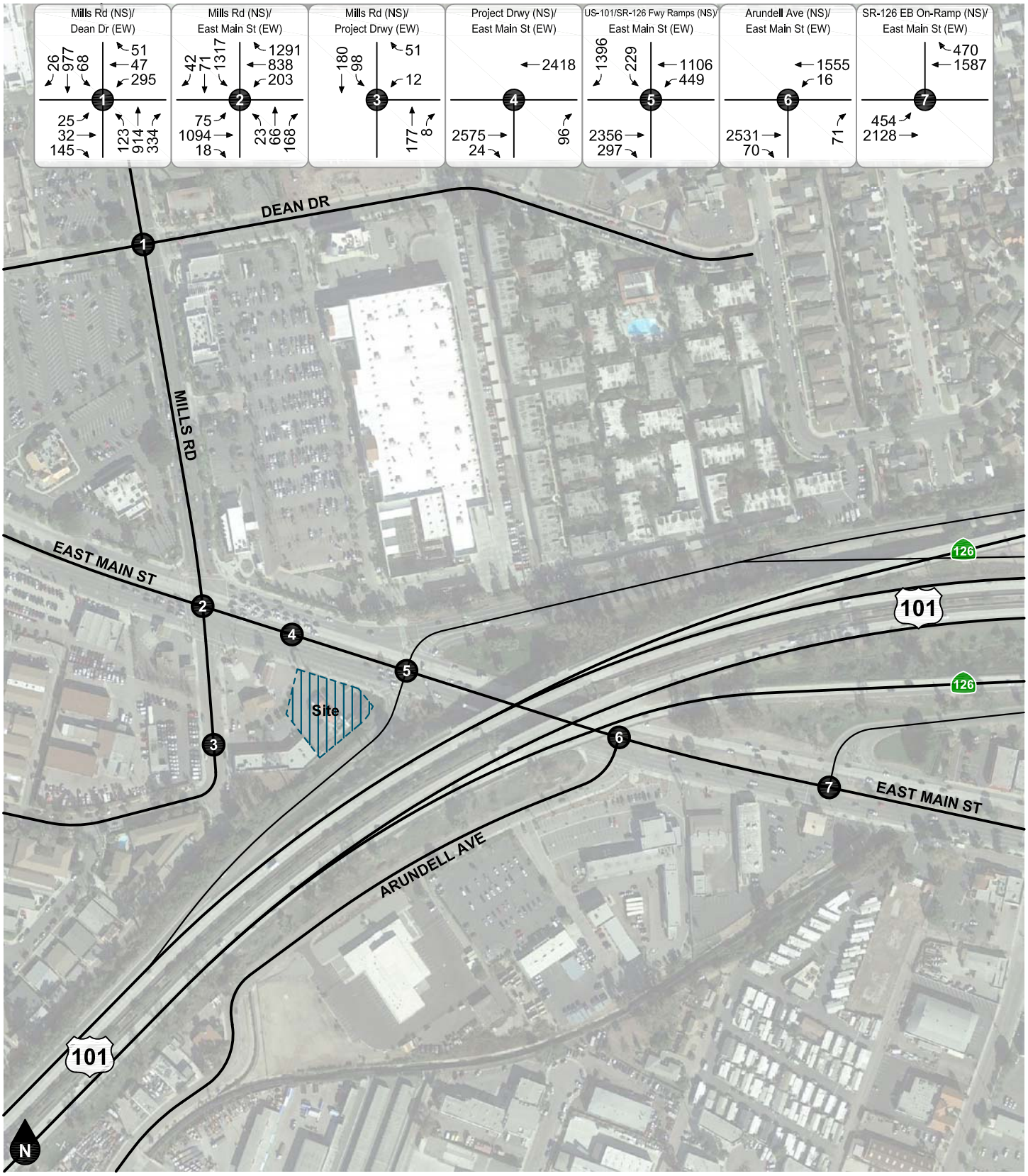
Figure 43
Opening Year (2019) With Project Alternative 1
PM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

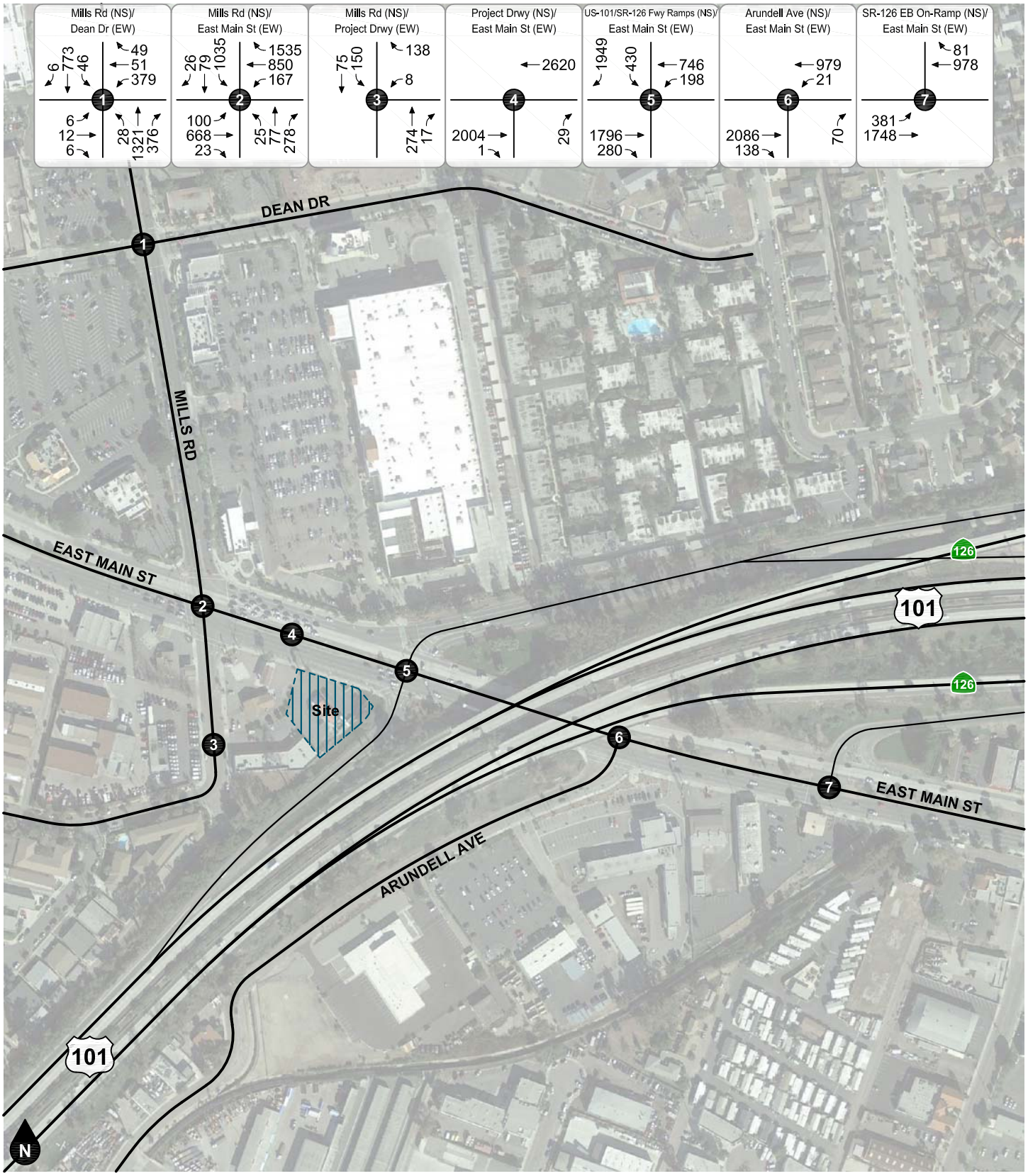
Figure 44
Opening Year (2019) With Project Alternative 2
AM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

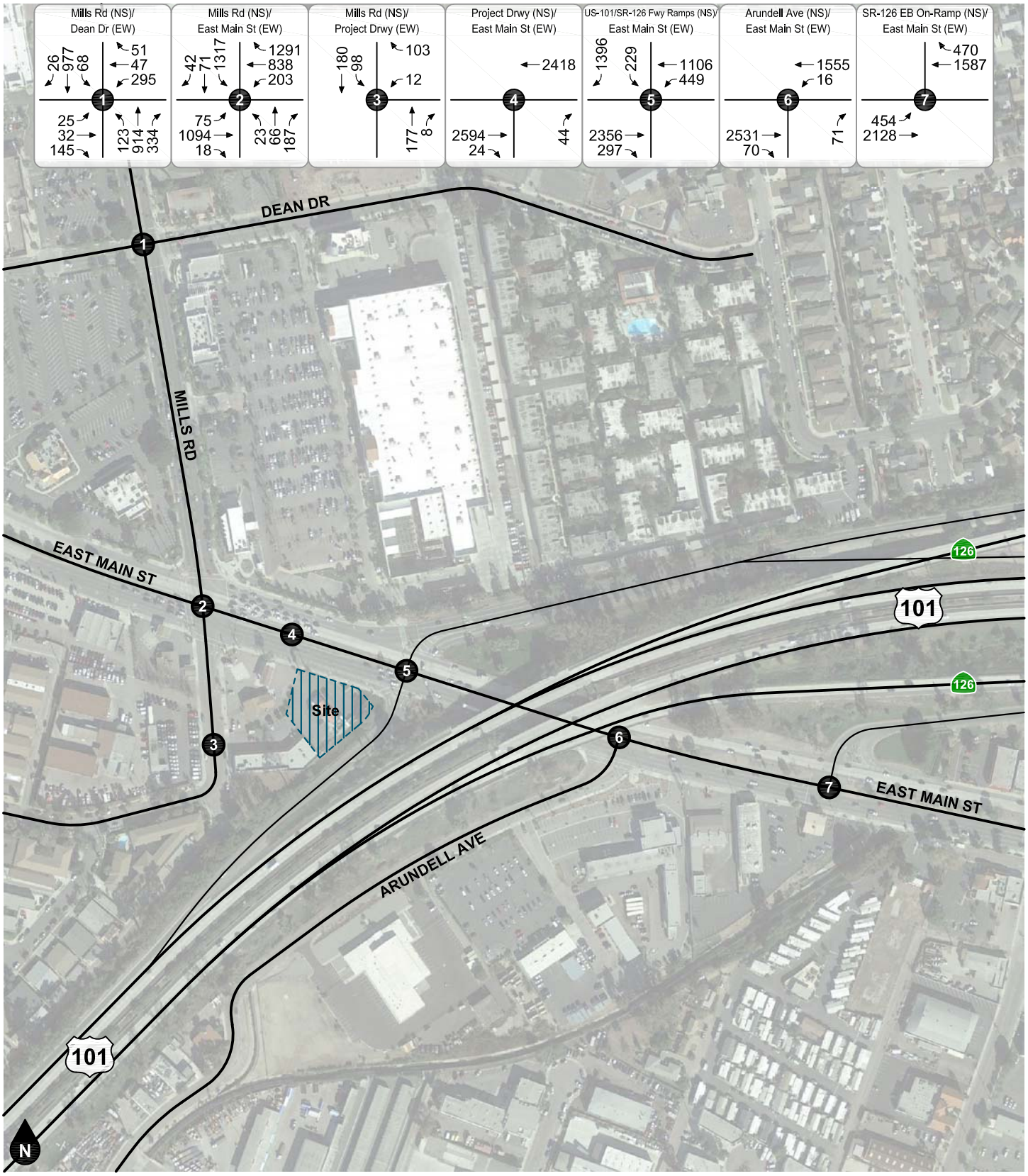
Figure 45
Opening Year (2019) With Project Alternative 2
PM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

Figure 46
Opening Year (2019) With Project Alternative 3
AM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

Figure 47
Opening Year (2019) With Project Alternative 3
PM Peak Hour Intersection Turning Movement Volumes

6. FORECAST OPERATIONS

Detailed intersection Level of Service calculation worksheets for each of the following analysis scenarios are provided in Appendix C.

EXISTING PLUS PROJECT

Intersection Levels of Service

The ICU/delay and Levels of Service for Existing Plus Project traffic conditions are shown in Table 5. As shown in Table 5, the study intersections are forecast to operate within acceptable Levels of Service (D or better for signalized intersections, E or better for unsignalized and freeway ramp intersections) during the peak hours for Existing Plus Project traffic conditions.

Significant Impact Evaluation

Table 6 evaluates the project impact at the study intersections for Existing Plus Project traffic conditions. As shown in Table 6, the proposed project is forecast to result in no significant traffic impacts at the study intersections for Existing Plus Project traffic conditions.

EXISTING PLUS PROJECT ALTERNATIVE 1

Intersection Levels of Service

The ICU/delay and Levels of Service for Existing Plus Project Alternative 1 traffic conditions are shown in Table 7. As shown in Table 7, the study intersections are forecast to operate within acceptable Levels of Service (D or better for signalized intersections, E or better for unsignalized and freeway ramp intersections) during the peak hours for Existing Plus Project Alternative 1 traffic conditions.

Significant Impact Evaluation

Table 8 evaluates the project impact at the study intersections for Existing Plus Project Alternative 1 traffic conditions. As shown in Table 8, the proposed project is forecast to result in no significant traffic impacts at the study intersections for Existing Plus Project Alternative 1 traffic conditions.

EXISTING PLUS PROJECT ALTERNATIVE 2

Intersection Levels of Service

The ICU/delay and Levels of Service for Existing Plus Project Alternative 2 traffic conditions are shown in Table 9. As shown in Table 9, the study intersections are forecast to operate within acceptable Levels of Service (D or better for signalized intersections, E or better for unsignalized and freeway ramp intersections) during the peak hours for Existing Plus Project Alternative 2 traffic conditions.

Significant Impact Evaluation

Table 10 evaluates the project impact at the study intersections for Existing Plus Project Alternative 2 traffic conditions. As shown in Table 10, the proposed project is forecast to result in no significant traffic impacts at the study intersections for Existing Plus Project Alternative 2 traffic conditions.

EXISTING PLUS PROJECT ALTERNATIVE 3

Intersection Levels of Service

The ICU/delay and Levels of Service for Existing Plus Project Alternative 3 conditions are shown in Table 11. As shown in Table 11, the study intersections are forecast to operate within acceptable Levels of Service (D or better for signalized intersections, E or better for unsignalized and freeway ramp intersections) during the peak hours for Existing Plus Project Alternative 3 traffic conditions.

Significant Impact Evaluation

Table 12 evaluates the project impact at the study intersections for Existing Plus Project Alternative 3 conditions. As shown in Table 12, the proposed project is forecast to result in no significant traffic impacts at the study intersections for Existing Plus Project Alternative 3 conditions.

OPENING YEAR (2019) WITHOUT PROJECT

Intersection Levels of Service

The ICU/delay and Levels of Service for Opening Year (2019) Without Project traffic conditions are shown in Table 13. As shown in Table 13, the study intersections are forecast to operate within acceptable Levels of Service (D or better for signalized intersections, E or better for unsignalized and freeway ramp intersections) during the peak hours for Opening Year (2019) Without Project traffic conditions.

OPENING YEAR (2019) WITH PROJECT

Intersection Levels of Service

The ICU/delay and Levels of Service for Opening Year (2019) With Project traffic conditions are shown in Table 14. As shown in Table 14, the study intersections are projected to operate within acceptable Levels of Service (D or better for signalized intersections, E or better for unsignalized and freeway ramp intersections) during the peak hours for Opening Year (2019) With Project traffic conditions.

Significant Impact Evaluation

Table 15 evaluates the project impact at the study intersections for Opening Year (2019) With Project traffic conditions. As shown in Table 15, the proposed project is forecast to result in no significant traffic impacts at the study intersections for Opening Year (2019) With Project traffic conditions.

OPENING YEAR (2019) WITH PROJECT ALTERNATIVE 1

Intersection Levels of Service

The ICU/delay and Levels of Service for Opening Year (2019) With Project Alternative 1 traffic conditions are shown in Table 16. As shown in Table 16, the study intersections are projected to operate within acceptable Levels of Service (D or better for signalized intersections, E or better for unsignalized and freeway ramp intersections) during the peak hours for Opening Year (2019) With Project Alternative 1 traffic conditions.

Significant Impact Evaluation

Table 17 evaluates the project impact at the study intersections for Opening Year (2019) With Project Alternative 1 traffic conditions. As shown in Table 17, the proposed project is forecast to result in no significant traffic impacts at the study intersections for Opening Year (2019) With Project Alternative 1 traffic conditions.

OPENING YEAR (2019) WITH PROJECT ALTERNATIVE 2

Intersection Levels of Service

The ICU/delay and Levels of Service for Opening Year (2019) With Project Alternative 2 traffic conditions are shown in Table 18. As shown in Table 18, the study intersections are projected to operate within acceptable Levels of Service (D or better for signalized intersections, E or better for unsignalized and freeway ramp intersections) during the peak hours for Opening Year (2019) With Project Alternative 2 traffic conditions.

Significant Impact Evaluation

Table 19 evaluates the project impact at the study intersections for Opening Year (2019) With Project Alternative 2 traffic conditions. As shown in Table 19, the proposed project is forecast to result in no significant traffic impacts at the study intersections for Opening Year (2019) With Project traffic conditions.

OPENING YEAR (2019) WITH PROJECT ALTERNATIVE 3

Intersection Levels of Service

The ICU/delay and Levels of Service for Opening Year (2019) With Project Alternative 3 conditions are shown in Table 20. As shown in Table 20, the study intersections are projected to operate within acceptable Levels of Service (D or better for signalized intersections, E or better for unsignalized and freeway ramp intersections) during the peak hours for Opening Year (2019) With Project Alternative 3 conditions.

Significant Impact Evaluation

Table 21 evaluates the project impact at the study intersections for Opening Year (2019) With Project Alternative 3 conditions. As shown in Table 21, the proposed project is forecast to result in no significant traffic impacts at the study intersections for Opening Year (2019) With Project Alternative 3 conditions.

FUTURE TRAFFIC SIGNAL WARRANT ANALYSIS

The application of traffic control devices is governed by Federal standards adopted by the State of California in the California Manual on Uniform Traffic Control Devices ("California MUTCD", 2014). Part 4C – Traffic Control Signal Needs Studies of the California MUTCD contains a series of warrants, or criteria, which serve to determine whether installation of a traffic signal is justified at a particular location. The California MUTCD states that a traffic control signal should not be installed unless one or more warrants are satisfied. Application of the traffic signal warrants should be based on engineering judgement and satisfaction of one or more traffic signal warrants shall not in itself require the installation of a traffic signal. The potential need for installation of a traffic signal at unsignalized intersections was evaluated based on the California Manual on Uniform Traffic Control Devices ("California MUTCD", November 2014), peak hour volume warrant (Warrant 3).

A traffic signal is not projected to be warranted at any of the unsignalized study intersections based upon the peak hour volume warrant requirements contained in the California Manual on Uniform Traffic Control Devices (2014). Traffic signal warrant worksheets are provided in Appendix D.

Table 5
Existing Plus Project ICU/Delay and Levels of Service

ID	Study Intersection	Traffic Control[1]	AM Peak Hour V/C[2] or [Delay][3]	AM Peak Hour LOS[4]	PM Peak Hour V/C[2] or [Delay][3]	PM Peak Hour LOS[4]
1.	Mills Road at Dean Drive	TS	0.561	A	0.566	A
2.	Mills Road at East Main Street	TS	0.670	B	0.619	B
3.	Mills Road at Project Driveway	CSS	[11.9]	B	[12.0]	B
4.	Project Driveway at East Main Street	CSS	[12.0]	B	[12.8]	B
5.	US-101/SR-126 Freeway Ramps at East Main Street	TS	0.831	D	0.907	E
6.	Arundell Avenue at East Main Street	CSS	[50.6]	F	[77.7]	F
7.	SR-126 Eastbound On-Ramp at East Main Street	TS	0.359	A	0.463	A

Notes:

(1) TS = Traffic Signal; CSS = Cross Street Stop

(2) V/C = Volume/Capacity

(3) Delay is shown in [seconds/vehicle]. Delay is reported for unsignalized study intersections and all study intersections within California Department of Transportation jurisdiction. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, Level of Service is based on average delay of the worst individual lane (or movements sharing a lane).

(4) LOS = Level of Service

Table 6
Existing Plus Project Significant Impact Evaluation

Signalized Intersections												
		AM Peak Hour						PM Peak Hour					
		Without Project		With Project				Without Project		With Project			
ID	Study Intersection	V/C or [Delay][1]	LOS[2]	V/C or [Delay][1]	LOS	Change	Significant Impact?	V/C or [Delay][1]	LOS[2]	V/C or [Delay][1]	LOS	Change	Significant Impact?
1.	Mills Road at Dean Drive	0.556	A	0.561	A	+0.005	No	0.564	A	0.566	A	+0.002	No
2.	Mills Road at East Main Street	0.669	B	0.670	B	+0.001	No	0.617	B	0.619	B	+0.002	No
5.	US-101/SR-126 Freeway Ramps at East Main Street	0.819	D	0.831	D	+0.012	No	0.901	E	0.907	E	+0.006	No
7.	SR-126 Eastbound On-Ramp at East Main Street	0.359	A	0.359	A	-	No	0.460	A	0.463	A	+0.003	No

Unsignalized Intersections												
		AM Peak Hour					PM Peak Hour					
		With Project					With Project					
ID	Study Intersection	[Delay][1]	LOS[2]	LOS F?	Traffic Signal Warranted?	Significant Impact?	[Delay][1]	LOS[2]	LOS F?	Traffic Signal Warranted?	Significant Impact?
3.	Mills Road at Project Driveway	[11.9]	B	No	n/a[3]	No	[12.0]	B	No	n/a	No
4.	Project Driveway at East Main Street	[12.0]	B	No	n/a	No	[12.8]	B	No	n/a	No
6.	Arundell Avenue at East Main Street	[50.6]	F	Yes	No	No	[77.7]	F	Yes	No	No

Notes:

(1) V/C = Volume/Capacity; [Delay] is shown in seconds/vehicle

(2) LOS = Level of Service

(3) n/a = not applicable; peak hour traffic signal warrant only evaluated for LOS F conditions.

Table 7
Existing Plus Project Alternative 1 ICU/Delay and Levels of Service

ID	Study Intersection	Traffic Control[1]	AM Peak Hour V/C[2] or [Delay][3]	AM Peak Hour LOS[4]	PM Peak Hour V/C[2] or [Delay][3]	PM Peak Hour LOS[4]
1.	Mills Road at Dean Drive	TS	0.561	A	0.566	A
2.	Mills Road at East Main Street	TS	0.696	B	0.631	B
3.	Mills Road at Project Driveway	CSS	[12.7]	B	[12.3]	B
4.	Project Driveway at East Main Street	CSS	[0.0]	A	[0.0]	A
5.	US-101/SR-126 Freeway Ramps at East Main Street	TS	0.831	D	0.907	E
6.	Arundell Avenue at East Main Street	CSS	[50.6]	F	[77.7]	F
7.	SR-126 Eastbound On-Ramp at East Main Street	TS	0.359	A	0.463	A

Notes:

(1) TS = Traffic Signal; CSS = Cross Street Stop

(2) V/C = Volume/Capacity

(3) Delay is shown in [seconds/vehicle]. Delay is reported for unsignalized study intersections and all study intersections within California Department of Transportation jurisdiction. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, Level of Service is based on average delay of the worst individual lane (or movements sharing a lane).

(4) LOS = Level of Service

Table 8
Existing Plus Project Alternative 1 Significant Impact Evaluation

Signalized Intersections													
		AM Peak Hour						PM Peak Hour					
		Without Project		With Project				Without Project		With Project			
ID	Study Intersection	V/C or [Delay][1]	LOS[2]	V/C or [Delay][1]	LOS	Change	Significant Impact?	V/C or [Delay][1]	LOS[2]	V/C or [Delay][1]	LOS	Change	Significant Impact?
1.	Mills Road at Dean Drive	0.556	A	0.561	A	+0.005	No	0.564	A	0.566	A	+0.002	No
2.	Mills Road at East Main Street	0.669	B	0.696	B	+0.027	No	0.617	B	0.631	B	+0.014	No
5.	US-101/SR-126 Freeway Ramps at East Main Street	0.819	D	0.831	D	+0.012	No	0.901	E	0.907	E	+0.006	No
7.	SR-126 Eastbound On-Ramp at East Main Street	0.359	A	0.359	A	-	No	0.460	A	0.463	A	+0.003	No

Unsignalized Intersections												
		AM Peak Hour					PM Peak Hour					
		With Project					With Project					
ID	Study Intersection	[Delay][1]	LOS[2]	LOS F?	Traffic Signal Warranted?	Significant Impact?	[Delay][1]	LOS[2]	LOS F?	Traffic Signal Warranted?	Significant Impact?
3.	Mills Road at Project Driveway	[12.7]	B	No	n/a[3]	No	[12.3]	B	No	n/a	No
4.	Project Driveway at East Main Street	[0.0]	A	No	n/a	No	[0.0]	A	No	n/a	No
6.	Arundell Avenue at East Main Street	[50.6]	F	Yes	No	No	[77.7]	F	Yes	No	No

Notes:

(1) V/C = Volume/Capacity; [Delay] is shown in seconds/vehicle

(2) LOS = Level of Service

(3) n/a = not applicable; peak hour traffic signal warrant only evaluated for LOS F conditions.

Table 9
Existing Plus Project Alternative 2 ICU/Delay and Levels of Service

ID	Study Intersection	Traffic Control[1]	AM Peak Hour V/C[2] or [Delay][3]	AM Peak Hour LOS[4]	PM Peak Hour V/C[2] or [Delay][3]	PM Peak Hour LOS[4]
1.	Mills Road at Dean Drive	TS	0.561	A	0.566	A
2.	Mills Road at East Main Street	TS	0.672	B	0.625	B
3.	Mills Road at Project Driveway	CSS	[14.8]	B	[13.2]	B
4.	Project Driveway at East Main Street	CSS	[12.0]	B	[12.8]	B
5.	US-101/SR-126 Freeway Ramps at East Main Street	TS	0.831	D	0.907	E
6.	Arundell Avenue at East Main Street	CSS	[50.6]	F	[77.7]	F
7.	SR-126 Eastbound On-Ramp at East Main Street	TS	0.359	A	0.463	A

Notes:

(1) TS = Traffic Signal; CSS = Cross Street Stop

(2) V/C = Volume/Capacity

(3) Delay is shown in [seconds/vehicle]. Delay is reported for unsignalized study intersections and all study intersections within California Department of Transportation jurisdiction. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, Level of Service is based on average delay of the worst individual lane (or movements sharing a lane).

(4) LOS = Level of Service

Table 10
Existing Plus Project Alternative 2 Significant Impact Evaluation

Signalized Intersections													
		AM Peak Hour						PM Peak Hour					
		Without Project		With Project				Without Project		With Project			
ID	Study Intersection	V/C or [Delay][1]	LOS[2]	V/C or [Delay][1]	LOS	Change	Significant Impact?	V/C or [Delay][1]	LOS[2]	V/C or [Delay][1]	LOS	Change	Significant Impact?
1.	Mills Road at Dean Drive	0.556	A	0.561	A	+0.005	No	0.564	A	0.566	A	+0.002	No
2.	Mills Road at East Main Street	0.669	B	0.672	B	+0.003	No	0.617	B	0.625	B	+0.008	No
5.	US-101/SR-126 Freeway Ramps at East Main Street	0.819	D	0.831	D	+0.012	No	0.901	E	0.907	E	+0.006	No
7.	SR-126 Eastbound On-Ramp at East Main Street	0.359	A	0.359	A	-	No	0.460	A	0.463	A	+0.003	No

Unsignalized Intersections												
		AM Peak Hour					PM Peak Hour					
		With Project					With Project					
ID	Study Intersection	[Delay][1]	LOS[2]	LOS F?	Traffic Signal Warranted?	Significant Impact?	[Delay][1]	LOS[2]	LOS F?	Traffic Signal Warranted?	Significant Impact?
3.	Mills Road at Project Driveway	[14.8]	B	No	n/a[3]	No	[13.2]	B	No	n/a	No
4.	Project Driveway at East Main Street	[12.0]	B	No	n/a	No	[12.8]	B	No	n/a	No
6.	Arundell Avenue at East Main Street	[50.6]	F	Yes	No	No	[77.7]	F	Yes	No	No

Notes:

(1) V/C = Volume/Capacity; [Delay] is shown in seconds/vehicle

(2) LOS = Level of Service

(3) n/a = not applicable; peak hour traffic signal warrant only evaluated for LOS F conditions.

Table 11
Existing Plus Project Alternative 3 ICU/Delay and Levels of Service

ID	Study Intersection	Traffic Control[1]	AM Peak Hour		PM Peak Hour	
			V/C[2] or [Delay][3]	LOS[4]	V/C[2] or [Delay][3]	LOS[4]
1.	Mills Road at Dean Drive	TS	0.561	A	0.566	A
2.	Mills Road at East Main Street	TS	0.698	B	0.637	B
3.	Mills Road at Project Driveway	CSS	[15.7]	C	[13.5]	B
4.	Project Driveway at East Main Street	CSS	[0.0]	A	[0.0]	A
5.	US-101/SR-126 Freeway Ramps at East Main Street	TS	0.831	D	0.907	E
6.	Arundell Avenue at East Main Street	CSS	[50.6]	F	[77.7]	F
7.	SR-126 Eastbound On-Ramp at East Main Street	TS	0.359	A	0.463	A

Notes:

(1) TS = Traffic Signal; CSS = Cross Street Stop

(2) V/C = Volume/Capacity

(3) Delay is shown in [seconds/vehicle]. Delay is reported for unsignalized study intersections and all study intersections within California Department of Transportation jurisdiction. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, Level of Service is based on average delay of the worst individual lane (or movements sharing a lane).

(4) LOS = Level of Service

Table 12
Existing Plus Project Alternative 3 Significant Impact Evaluation

Signalized Intersections													
		AM Peak Hour						PM Peak Hour					
		Without Project		With Project				Without Project		With Project			
ID	Study Intersection	V/C or [Delay][1]	LOS[2]	V/C or [Delay][1]	LOS	Change	Significant Impact?	V/C or [Delay][1]	LOS[2]	V/C or [Delay][1]	LOS	Change	Significant Impact?
1.	Mills Road at Dean Drive	0.556	A	0.561	A	+0.005	No	0.564	A	0.566	A	+0.002	No
2.	Mills Road at East Main Street	0.669	B	0.698	B	+0.029	No	0.617	B	0.637	B	+0.020	No
5.	US-101/SR-126 Freeway Ramps at East Main Street	0.819	D	0.831	D	+0.012	No	0.901	E	0.907	E	+0.006	No
7.	SR-126 Eastbound On-Ramp at East Main Street	0.359	A	0.359	A	-	No	0.460	A	0.463	A	+0.003	No

Unsignalized Intersections												
		AM Peak Hour					PM Peak Hour					
		With Project					With Project					
ID	Study Intersection	[Delay][1]	LOS[2]	LOS F?	Traffic Signal Warranted?	Significant Impact?	[Delay][1]	LOS[2]	LOS F?	Traffic Signal Warranted?	Significant Impact?
3.	Mills Road at Project Driveway	[15.7]	C	No	n/a[3]	No	[13.5]	B	No	n/a	No
4.	Project Driveway at East Main Street	[0.0]	A	No	n/a	No	[0.0]	A	No	n/a	No
6.	Arundell Avenue at East Main Street	[50.6]	F	Yes	No	No	[77.7]	F	Yes	No	No

Notes:

(1) V/C = Volume/Capacity; [Delay] is shown in seconds/vehicle

(2) LOS = Level of Service

(3) n/a = not applicable; peak hour traffic signal warrant only evaluated for LOS F conditions.

Table 13
Opening Year (2019) Without Project ICU/Delay and Levels of Service

ID	Study Intersection	Traffic Control[1]	AM Peak Hour V/C[2] or [Delay][3]	AM Peak Hour LOS[4]	PM Peak Hour V/C[2] or [Delay][3]	PM Peak Hour LOS[4]
1.	Mills Road at Dean Drive	TS	0.563	A	0.571	A
2.	Mills Road at East Main Street	TS	0.678	B	0.629	B
3.	Mills Road at Project Driveway	CSS	[11.5]	B	[11.9]	B
4.	Project Driveway at East Main Street	CSS	[10.7]	B	[11.9]	B
5.	US-101/SR-126 Freeway Ramps at East Main Street	TS	0.830	D	0.916	E
6.	Arundell Avenue at East Main Street	CSS	[51.0]	F	[81.9]	F
7.	SR-126 Eastbound On-Ramp at East Main Street	TS	0.364	A	0.469	A

Notes:

(1) TS = Traffic Signal; CSS = Cross Street Stop; AWS = All Way Stop

(2) V/C = Volume/Capacity

(3) Delay is shown in [seconds/vehicle]. Delay is reported for unsignalized study intersections and all study intersections within California Department of Transportation jurisdiction. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, Level of Service is based on average delay of the worst individual lane (or movements sharing a lane).

(4) LOS = Level of Service

Table 14
Opening Year (2019) With Project ICU/Delay and Levels of Service

ID	Study Intersection	Traffic Control[1]	AM Peak Hour		PM Peak Hour	
			V/C[2] or [Delay][3]	LOS[4]	V/C[2] or [Delay][3]	LOS[4]
1.	Mills Road at Dean Drive	TS	0.568	A	0.573	A
2.	Mills Road at East Main Street	TS	0.679	B	0.631	B
3.	Mills Road at Project Driveway	CSS	[11.9]	B	[12.1]	B
4.	Project Driveway at East Main Street	CSS	[12.0]	B	[12.8]	B
5.	US-101/SR-126 Freeway Ramps at East Main Street	TS	0.842	D	0.922	E
6.	Arundell Avenue at East Main Street	CSS	[52.6]	F	[83.3]	F
7.	SR-126 Eastbound On-Ramp at East Main Street	TS	0.364	A	0.472	A

Notes:

(1) TS = Traffic Signal; CSS = Cross Street Stop; AWS = All Way Stop

(2) V/C = Volume/Capacity

(3) Delay is shown in [seconds/vehicle]. Delay is reported for unsignalized study intersections and all study intersections within California Department of Transportation jurisdiction. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, Level of Service is based on average delay of the worst individual lane (or movements sharing a lane).

(4) LOS = Level of Service

Table 15
Opening Year (2019) With Project Significant Impact Evaluation

Signalized Intersections													
		AM Peak Hour						PM Peak Hour					
		Without Project		With Project				Without Project		With Project			
ID	Study Intersection	V/C or [Delay][1]	LOS[2]	V/C or [Delay][1]	LOS	Change	Significant Impact?	V/C or [Delay][1]	LOS[2]	V/C or [Delay][1]	LOS	Change	Significant Impact?
1.	Mills Road at Dean Drive	0.563	A	0.568	A	+0.005	No	0.571	A	0.573	A	+0.002	No
2.	Mills Road at East Main Street	0.678	B	0.679	B	+0.001	No	0.629	B	0.631	B	+0.002	No
5.	US-101/SR-126 Freeway Ramps at East Main Street	0.830	D	0.842	D	+0.012	No	0.916	E	0.922	E	+0.006	No
7.	SR-126 Eastbound On-Ramp at East Main Street	0.364	A	0.364	A	-	No	0.469	A	0.472	A	+0.003	No

Unsignalized Intersections												
		AM Peak Hour					PM Peak Hour					
		With Project					With Project					
ID	Study Intersection	[Delay][1]	LOS[2]	LOS F?	Traffic Signal Warranted?	Significant Impact?	V/C or [Delay][1]	LOS[2]	LOS F?	Traffic Signal Warranted?	Significant Impact?
3.	Mills Road at Project Driveway	[11.9]	B	No	n/a[3]	No	[12.1]	B	No	n/a	No
4.	Project Driveway at East Main Street	[12.0]	B	No	n/a	No	[12.8]	B	No	n/a	No
6.	Arundell Avenue at East Main Street	[52.6]	F	Yes	No	No	[83.3]	F	Yes	No	No

Notes:

(1) V/C = Volume/Capacity; [Delay] is shown in seconds/vehicle

(2) LOS = Level of Service

(3) n/a = not applicable; peak hour traffic signal warrant only evaluated for LOS F conditions.

Table 16
Opening Year (2019) With Project Alternative 1 ICU/Delay and Levels of Service

ID	Study Intersection	Traffic Control[1]	AM Peak Hour		PM Peak Hour	
			V/C[2] or [Delay][3]	LOS[4]	V/C[2] or [Delay][3]	LOS[4]
1.	Mills Road at Dean Drive	TS	0.568	A	0.573	A
2.	Mills Road at East Main Street	TS	0.704	C	0.643	B
3.	Mills Road at Project Driveway	CSS	[12.8]	B	[12.4]	B
4.	Project Driveway at East Main Street	CSS	[0.0]	A	[0.0]	A
5.	US-101/SR-126 Freeway Ramps at East Main Street	TS	0.842	D	0.922	E
6.	Arundell Avenue at East Main Street	CSS	[52.6]	F	[83.3]	F
7.	SR-126 Eastbound On-Ramp at East Main Street	TS	0.364	A	0.472	A

Notes:

(1) TS = Traffic Signal; CSS = Cross Street Stop; AWS = All Way Stop

(2) V/C = Volume/Capacity

(3) Delay is shown in [seconds/vehicle]. Delay is reported for unsignalized study intersections and all study intersections within California Department of Transportation jurisdiction. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, Level of Service is based on average delay of the worst individual lane (or movements sharing a lane).

(4) LOS = Level of Service

Table 17
Opening Year (2019) With Project Alternative 1 Significant Impact Evaluation

Signalized Intersections													
		AM Peak Hour						PM Peak Hour					
		Without Project		With Project				Without Project		With Project			
ID	Study Intersection	V/C or [Delay][1]	LOS[2]	V/C or [Delay][1]	LOS	Change	Significant Impact?	V/C or [Delay][1]	LOS[2]	V/C or [Delay][1]	LOS	Change	Significant Impact?
1.	Mills Road at Dean Drive	0.563	A	0.568	A	+0.005	No	0.571	A	0.573	A	+0.002	No
2.	Mills Road at East Main Street	0.678	B	0.704	C	+0.026	No	0.629	B	0.643	B	+0.014	No
5.	US-101/SR-126 Freeway Ramps at East Main Street	0.830	D	0.842	D	+0.012	No	0.916	E	0.922	E	+0.006	No
7.	SR-126 Eastbound On-Ramp at East Main Street	0.364	A	0.364	A	-	No	0.469	A	0.472	A	+0.003	No

Unsignalized Intersections												
		AM Peak Hour					PM Peak Hour					
		With Project					With Project					
ID	Study Intersection	[Delay][1]	LOS[2]	LOS F?	Traffic Signal Warranted?	Significant Impact?	V/C or [Delay][1]	LOS[2]	LOS F?	Traffic Signal Warranted?	Significant Impact?
3.	Mills Road at Project Driveway	[12.8]	B	No	n/a[3]	No	[12.4]	B	No	n/a	No
4.	Project Driveway at East Main Street	[0.0]	A	No	n/a	No	[0.0]	A	No	n/a	No
6.	Arundell Avenue at East Main Street	[52.6]	F	Yes	No	No	[83.3]	F	Yes	No	No

Notes:

(1) V/C = Volume/Capacity; [Delay] is shown in seconds/vehicle

(2) LOS = Level of Service

(3) n/a = not applicable; peak hour traffic signal warrant only evaluated for LOS F conditions.

Table 18
Opening Year (2019) With Project Alternative 2 ICU/Delay and Levels of Service

ID	Study Intersection	Traffic Control[1]	AM Peak Hour V/C[2] or [Delay][3]	AM Peak Hour LOS[4]	PM Peak Hour V/C[2] or [Delay][3]	PM Peak Hour LOS[4]
1.	Mills Road at Dean Drive	TS	0.568	A	0.573	A
2.	Mills Road at East Main Street	TS	0.681	B	0.637	B
3.	Mills Road at Project Driveway	CSS	[14.9]	B	[13.3]	B
4.	Project Driveway at East Main Street	CSS	[12.0]	B	[12.8]	B
5.	US-101/SR-126 Freeway Ramps at East Main Street	TS	0.842	D	0.922	E
6.	Arundell Avenue at East Main Street	CSS	[52.6]	F	[83.3]	F
7.	SR-126 Eastbound On-Ramp at East Main Street	TS	0.364	A	0.472	A

Notes:

(1) TS = Traffic Signal; CSS = Cross Street Stop; AWS = All Way Stop

(2) V/C = Volume/Capacity

(3) Delay is shown in [seconds/vehicle]. Delay is reported for unsignalized study intersections and all study intersections within California Department of Transportation jurisdiction. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, Level of Service is based on average delay of the worst individual lane (or movements sharing a lane).

(4) LOS = Level of Service

Table 19
Opening Year (2019) With Project Alternative 2 Significant Impact Evaluation

Signalized Intersections													
		AM Peak Hour						PM Peak Hour					
		Without Project		With Project				Without Project		With Project			
ID	Study Intersection	V/C or [Delay][1]	LOS[2]	V/C or [Delay][1]	LOS	Change	Significant Impact?	V/C or [Delay][1]	LOS[2]	V/C or [Delay][1]	LOS	Change	Significant Impact?
1.	Mills Road at Dean Drive	0.563	A	0.568	A	+0.005	No	0.571	A	0.573	A	+0.002	No
2.	Mills Road at East Main Street	0.678	B	0.681	B	+0.003	No	0.629	B	0.637	B	+0.008	No
5.	US-101/SR-126 Freeway Ramps at East Main Street	0.830	D	0.842	D	+0.012	No	0.916	E	0.922	E	+0.006	No
7.	SR-126 Eastbound On-Ramp at East Main Street	0.364	A	0.364	A	-	No	0.469	A	0.472	A	+0.003	No

Unsignalized Intersections												
		AM Peak Hour					PM Peak Hour					
		With Project					With Project					
ID	Study Intersection	[Delay][1]	LOS[2]	LOS F?	Traffic Signal Warranted?	Significant Impact?	V/C or [Delay][1]	LOS[2]	LOS F?	Traffic Signal Warranted?	Significant Impact?
3.	Mills Road at Project Driveway	[14.9]	B	No	n/a[3]	No	[13.3]	B	No	n/a	No
4.	Project Driveway at East Main Street	[12.0]	B	No	n/a	No	[12.8]	B	No	n/a	No
6.	Arundell Avenue at East Main Street	[52.6]	F	Yes	No	No	[83.3]	F	Yes	No	No

Notes:

(1) V/C = Volume/Capacity; [Delay] is shown in seconds/vehicle

(2) LOS = Level of Service

(3) n/a = not applicable; peak hour traffic signal warrant only evaluated for LOS F conditions.

Table 20
Opening Year (2019) With Project Alternative 3 ICU/Delay and Levels of Service

ID	Study Intersection	Traffic Control[1]	AM Peak Hour		PM Peak Hour	
			V/C[2] or [Delay][3]	LOS[4]	V/C[2] or [Delay][3]	LOS[4]
1.	Mills Road at Dean Drive	TS	0.568	A	0.573	A
2.	Mills Road at East Main Street	TS	0.707	C	0.649	B
3.	Mills Road at Project Driveway	CSS	[15.8]	C	[13.7]	B
4.	Project Driveway at East Main Street	CSS	[0.0]	A	[0.0]	A
5.	US-101/SR-126 Freeway Ramps at East Main Street	TS	0.842	D	0.922	E
6.	Arundell Avenue at East Main Street	CSS	[52.6]	F	[83.3]	F
7.	SR-126 Eastbound On-Ramp at East Main Street	TS	0.364	A	0.472	A

Notes:

(1) TS = Traffic Signal; CSS = Cross Street Stop; AWS = All Way Stop

(2) V/C = Volume/Capacity

(3) Delay is shown in [seconds/vehicle]. Delay is reported for unsignalized study intersections and all study intersections within California Department of Transportation jurisdiction. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, Level of Service is based on average delay of the worst individual lane (or movements sharing a lane).

(4) LOS = Level of Service

Table 21
Opening Year (2019) With Project Alternative 3 Significant Impact Evaluation

Signalized Intersections													
		AM Peak Hour						PM Peak Hour					
		Without Project		With Project				Without Project		With Project			
ID	Study Intersection	V/C or [Delay][1]	LOS[2]	V/C or [Delay][1]	LOS	Change	Significant Impact?	V/C or [Delay][1]	LOS[2]	V/C or [Delay][1]	LOS	Change	Significant Impact?
1.	Mills Road at Dean Drive	0.563	A	0.568	A	+0.005	No	0.571	A	0.573	A	+0.002	No
2.	Mills Road at East Main Street	0.678	B	0.707	C	+0.029	No	0.629	B	0.649	B	+0.020	No
5.	US-101/SR-126 Freeway Ramps at East Main Street	0.830	D	0.842	D	+0.012	No	0.916	E	0.922	E	+0.006	No
7.	SR-126 Eastbound On-Ramp at East Main Street	0.364	A	0.364	A	-	No	0.469	A	0.472	A	+0.003	No

Unsignalized Intersections												
		AM Peak Hour					PM Peak Hour					
		With Project					With Project					
ID	Study Intersection	[Delay][1]	LOS[2]	LOS F?	Traffic Signal Warranted?	Significant Impact?	V/C or [Delay][1]	LOS[2]	LOS F?	Traffic Signal Warranted?	Significant Impact?
3.	Mills Road at Project Driveway	[15.8]	C	No	n/a[3]	No	[13.7]	B	No	n/a	No
4.	Project Driveway at East Main Street	[0.0]	A	No	n/a	No	[0.0]	A	No	n/a	No
6.	Arundell Avenue at East Main Street	[52.6]	F	Yes	No	No	[83.3]	F	Yes	No	No

Notes:

(1) V/C = Volume/Capacity; [Delay] is shown in seconds/vehicle

(2) LOS = Level of Service

(3) n/a = not applicable; peak hour traffic signal warrant only evaluated for LOS F conditions.

7. CONCLUSIONS

MITIGATION MEASURES

No off-site mitigation measure improvements were identified since the proposed project is forecast to result in no significant traffic impacts at the study intersections for the scenarios analyzed.

ACCESS ALTERNATIVE RECOMMENDATION

In order to illustrate the differences between the four possible access alternatives (including the existing configuration), project volumes at the nearby intersection of Mills Road/East Main Street are provided in Table 22 for each alternative. Additionally, volume-to-capacity (V/C) ratio and Level of Service (LOS) results for Mills Road/East Main Street are provided in Table 23 for each alternative.

The existing configuration has the lowest V/C of all four alternatives and is tied for the lowest total project volume with Alternative 2. Where the existing configuration and Alternative 2 differ the most is the westbound left turn movements. The existing configuration allows for vehicles to make a westbound U-turn at the intersection to access the site from East Main Street, but the Alternative 2 inbound restriction requires vehicles to make a normal left turn to utilize the access on Mills Road. Additionally, Alternative 2 diverts eastbound through movements to eastbound right turn movements, which utilize a dedicated right turn lane. Although the V/C is lowest in the existing configuration, all alternatives analyzed will perform at an acceptable LOS of B or C. The two project access points are equally viable across all four alternatives, with East Main Street naturally being a right-in/right-out only access and Mills Road having low through volumes at the access point. Overall, the existing configuration is favorable in terms of ease of movement since it does not restrict any movements and has the lowest V/C.

GENERAL RECOMMENDATIONS

All roadway design, traffic signing and striping, and traffic control improvements relating to the proposed project should be constructed in accordance with applicable engineering standards and to the satisfaction of the City of Ventura Public Works Department.

On-site traffic signing and striping plans should be submitted for City of Ventura approval in conjunction with detailed construction plans for the project.

Off-street parking should be provided to meet City of Ventura Municipal Code requirements.

The final grading, landscaping, and street improvement plans should demonstrate that sight distance standards are met in accordance with applicable City of Ventura/California Department of Transportation sight distance standards.

As is the case for any roadway design, the City of Ventura should periodically review traffic operations in the vicinity of the project once the project is constructed to assure that the traffic operations are satisfactory.

Table 22
Project Volumes at Mils Road/East Main Street

Alternative	Peak Hour	Mills Road at East Main Street Project Volumes													Total Project Trips
		Northbound			Southbound			Eastbound			Westbound				
		Left	Through	Right	Left	Through	Right	Left	Through	Right	U-Turn	Left	Through	Right	
Existing Configuration	Morning	10	13	0	11	4	0	0	7	4	43	0	0	0	**92**
	Evening	5	7	0	5	2	0	0	3	2	21	0	0	0	**45**
Alternative 1	Morning	10	13	41	11	4	0	0	7	4	43	0	0	0	133
	Evening	5	7	19	5	2	0	0	3	2	21	0	0	0	64
Alternative 2	Morning	10	13	0	0	15	0	0	0	11	0	43	0	0	**92**
	Evening	5	7	0	0	7	0	0	0	5	0	21	0	0	**45**
Alternative 3	Morning	10	13	41	0	15	0	0	0	11	0	43	0	0	133
	Evening	5	7	19	0	7	0	0	0	5	0	21	0	0	64

Table 23
Mils Road/East Main Street LOS Summary

Alternative	Peak Hour	Existing Plus Project		Opening Year (2019) With Project	
		V/C	LOS	V/C	LOS
Existing Configuration	Morning	**0.670**	**B**	**0.679**	**B**
	Evening	**0.619**	**B**	**0.629**	**B**
Alternative 1	Morning	0.696	B	0.704	C
	Evening	0.631	B	0.643	B
Alternative 2	Morning	0.672	B	0.681	B
	Evening	0.625	B	0.637	B
Alternative 3	Morning	0.698	B	0.707	C
	Evening	0.637	B	0.649	B

APPENDICES

Appendix A Glossary

Appendix B Volume Count Worksheets

Appendix C Level of Service Worksheets

Appendix D Traffic Signal Warrant Worksheets

APPENDIX A

GLOSSARY

GLOSSARY OF TERMS

ACRONYMS

AC	Acres
ADT	Average Daily Traffic
Caltrans	California Department of Transportation
DU	Dwelling Unit
ICU	Intersection Capacity Utilization
LOS	Level of Service
TSF	Thousand Square Feet
V/C	Volume/Capacity
VMT	Vehicle Miles Traveled

TERMS

AVERAGE DAILY TRAFFIC: The average 24-hour volume for a stated period divided by the number of days in that period. For example, Annual Average Daily Traffic is the total volume during a year divided by 365 days.

BANDWIDTH: The number of seconds of green time available for through traffic in a signal progression.

BOTTLENECK: A point of constriction along a roadway that limits the amount of traffic that can proceed downstream from its location.

CAPACITY: The maximum number of vehicles that can be reasonably expected to pass over a given section of a lane or a roadway in a given time period.

CHANNELIZATION: The separation or regulation of conflicting traffic movements into definite paths of travel by the use of pavement markings, raised islands, or other suitable means to facilitate the safe and orderly movements of both vehicles and pedestrians.

CLEARANCE INTERVAL: Nearly same as yellow time. If there is an all red interval after the end of a yellow, then that is also added into the clearance interval.

CONTROL DELAY: The component of delay, typically expressed in seconds per vehicle, resulting from the type of traffic control at an intersection. Control delay is measured by comparison with the uncontrolled condition; it includes delay incurred by slowing down, stopping/waiting, and speeding up.

CORDON: An imaginary line around an area across which vehicles, persons, or other items are counted (in and out).

CORNER SIGHT DISTANCE: The minimum sight distance required by the driver of a vehicle to cross or enter the lanes of the major roadway without requiring approaching traffic travelling at a given speed to radically alter their speed or trajectory. Corner sight distance is measured from the driver's eye at 42 inches above the pavement to an object height of 36 inches above the pavement in the center of the nearest approach lane.

CYCLE LENGTH: The time period in seconds required for a traffic signal to complete one full cycle of indications.

CUL-DE-SAC: A local street open at one end only and with special provisions for turning around.

DAILY CAPACITY: A theoretical value representing the daily traffic volume that will typically result in a peak hour volume equal to the capacity of the roadway.

DELAY: The time consumed while traffic is impeded in its movement by some element over which it has no control, usually expressed in seconds per vehicle.

DEMAND RESPONSIVE SIGNAL: Same as traffic-actuated signal.

DENSITY: The number of vehicles occupying in a unit length of the through traffic lanes of a roadway at any given instant. Usually expressed in vehicles per mile.

DETECTOR: A device that responds to a physical stimulus and transmits a resulting impulse to the signal controller.

DESIGN SPEED: A speed selected for purposes of design. Features of a highway, such as curvature, superelevation, and sight distance (upon which the safe operation of vehicles is dependent) are correlated to design speed.

DIRECTIONAL SPLIT: The percent of traffic in the peak direction at any point in time.

DIVERSION: The rerouting of peak hour traffic to avoid congestion.

FORCED FLOW: Opposite of free flow.

FREE FLOW: Volumes are well below capacity. Vehicles can maneuver freely and travel is unimpeded by other traffic.

GAP: Time or distance between successive vehicles in a traffic stream, rear bumper to front bumper.

HEADWAY: Time or distance spacing between successive vehicles in a traffic stream, front bumper to front bumper.

INTERCONNECTED SIGNAL SYSTEM: A number of intersections that are connected to achieve signal progression.

LEVEL OF SERVICE: A qualitative measure of a number of factors, which include speed and travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience, and operating costs.

LOOP DETECTOR: A vehicle detector consisting of a loop of wire embedded in the roadway, energized by alternating current and producing an output circuit closure when passed over by a vehicle.

MINIMUM ACCEPTABLE GAP: Smallest time headway between successive vehicles in a traffic stream into which another vehicle is willing and able to cross or merge.

MULTI-MODAL: More than one mode; such as automobile, bus transit, rail rapid transit, and bicycle transportation modes.

OFFSET: The time interval in seconds between the beginning of green at one intersection and the beginning of green at an adjacent intersection.

PLATOON: A closely grouped component of traffic that is composed of several vehicles moving, or standing ready to move, with clear spaces ahead and behind.

PASSENGER CAR EQUIVALENT (PCE): A metric used to assess the impact of larger vehicles, such as trucks, recreational vehicles, and buses, by converting the traffic volume of larger vehicles to an equivalent number of passenger cars.

PEAK HOUR: The 60 consecutive minutes with the highest number of vehicles.

PRETIMED SIGNAL: A type of traffic signal that directs traffic to stop and go on a predetermined time schedule without regard to traffic conditions. Also, fixed time signal.

PROGRESSION: A term used to describe the progressive movement of traffic through several signalized intersections.

QUEUE: The number of vehicles waiting at a service area such as a traffic signal, stop sign, or access gate.

QUEUE LENGTH: The length of vehicle queue, typically expressed in feet, waiting at a service area such as a traffic signal, stop sign, or access gate.

SCREEN-LINE: An imaginary line or physical feature across which all trips are counted, normally to verify the validity of mathematical traffic models.

SHARED/RECIPROCAL PARKING AGREEMENT: A written binding document executed between property owners to provide a designated number of off-street parking stalls within a designated area to be available for specified businesses or land uses.

SIGHT DISTANCE: The continuous length of roadway visible to a driver or roadway user.

SIGNAL CYCLE: The time period in seconds required for one complete sequence of signal indications.

SIGNAL PHASE: The part of the signal cycle allocated to one or more traffic movements.

STACKING DISTANCE: The length of area available behind a service area, such as a traffic signal or gate, for vehicle queueing to occur.

STARTING DELAY: The delay experienced in initiating the movement of queued traffic from a stop to an average running speed through an intersection.

STOPPING SIGHT DISTANCE: The minimum distance required by the driver of a vehicle on the major roadway travelling at a given speed to bring the vehicle to a stop after an object on the road becomes visible. Stopping sight distance is measured from the driver's eye at 42 inches above the pavement to an object height of 6 inches above the pavement.

TRAFFIC-ACTUATED SIGNAL: A type of traffic signal that directs traffic to stop and go in accordance with the demands of traffic, as registered by the actuation of detectors.

TRIP: The movement of a person or vehicle from one location (origin) to another (destination). For example, from home to store to home is two trips, not one.

TRIP-END: One end of a trip at either the origin or destination (i.e., each trip has two trip-ends). A trip-end occurs when a person, object, or message is transferred to or from a vehicle.

TRIP GENERATION RATE: The quantity of trips produced and/or attracted by a specific land use stated in terms of units such as per dwelling, per acre, and per 1,000 square feet of floor space.

TRUCK: A vehicle having dual tires on one or more axles, or having more than two axles.

TURNING RADIUS: The circular arc formed by the smallest turning path radius of the front outside tire of a vehicle, such as that performed by a U-turn maneuver. This is based on the length and width of the wheel base as well as the steering mechanism of the vehicle.

UNBALANCED FLOW: Heavier traffic flow in one direction than the other. On a daily basis, most facilities have balanced flow. During the peak hours, flow is seldom balanced in an urban area.

VEHICLE MILES OF TRAVEL: A measure of the amount of usage of a section of highway, obtained by multiplying the average daily traffic by length of facility in miles.

APPENDIX B

VOLUME COUNT WORKSHEETS

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Ventura
N/S: Mills Road
E/W: Dean Drive
Weather: Clear

File Name : 01_VTA_Mills_Dean AM
Site Code : 22518716
Start Date : 9/26/2018
Page No : 1

Groups Printed- Total Volume

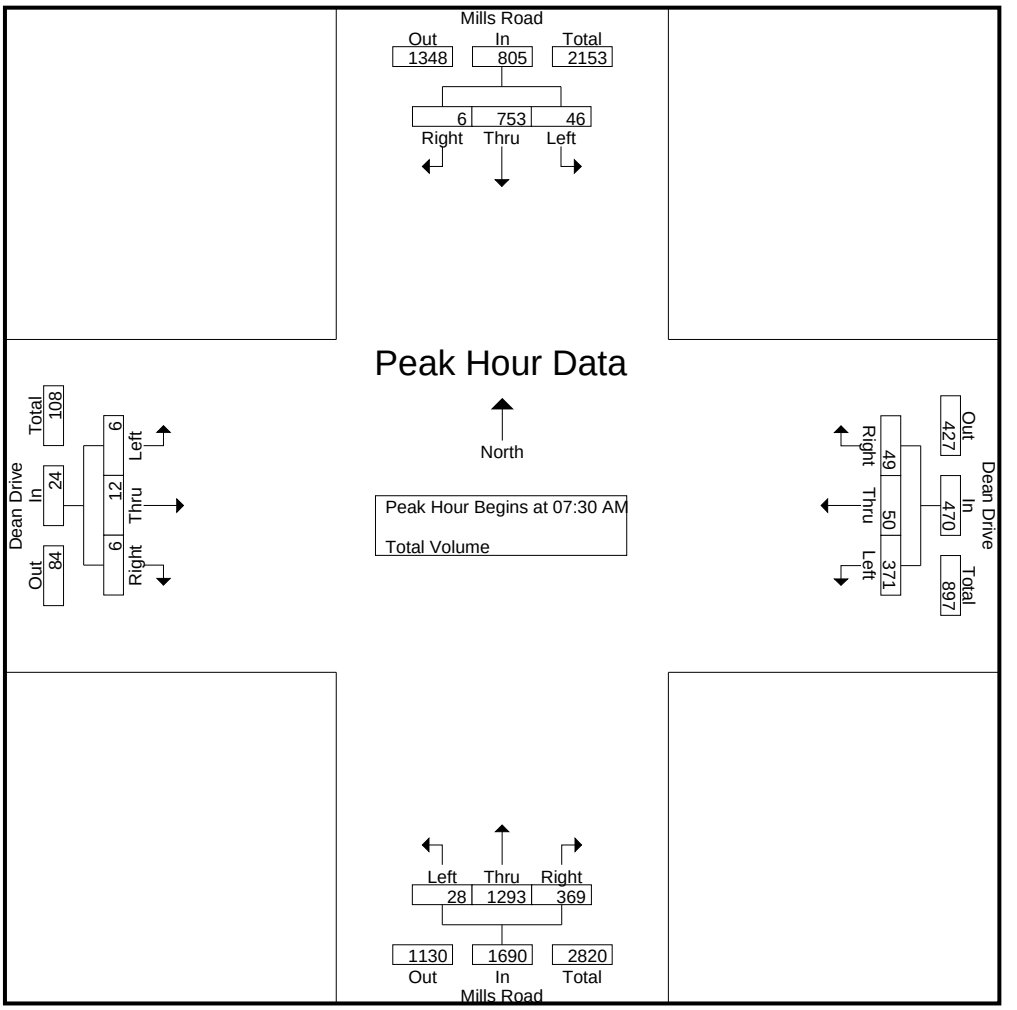
	Mills Road Southbound				Dean Drive Westbound				Mills Road Northbound				Dean Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	5	118	1	124	67	10	7	84	3	176	40	219	0	2	1	3	430
07:15 AM	7	124	1	132	71	12	5	88	3	180	35	218	1	3	1	5	443
07:30 AM	4	180	2	186	105	14	14	133	4	284	82	370	0	4	3	7	696
07:45 AM	8	200	2	210	96	11	8	115	5	343	106	454	1	3	1	5	784
Total	24	622	6	652	339	47	34	420	15	983	263	1261	2	12	6	20	2353
08:00 AM	17	210	1	228	94	17	13	124	8	339	98	445	1	3	1	5	802
08:15 AM	17	163	1	181	76	8	14	98	11	327	83	421	4	2	1	7	707
08:30 AM	11	166	5	182	84	6	13	103	5	250	42	297	2	2	5	9	591
08:45 AM	12	132	2	146	77	10	8	95	10	260	52	322	0	1	2	3	566
Total	57	671	9	737	331	41	48	420	34	1176	275	1485	7	8	9	24	2666
Grand Total	81	1293	15	1389	670	88	82	840	49	2159	538	2746	9	20	15	44	5019
Apprch %	5.8	93.1	1.1		79.8	10.5	9.8		1.8	78.6	19.6		20.5	45.5	34.1		
Total %	1.6	25.8	0.3	27.7	13.3	1.8	1.6	16.7	1	43	10.7	54.7	0.2	0.4	0.3	0.9	

	Mills Road Southbound				Dean Drive Westbound				Mills Road Northbound				Dean Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	4	180	**2**	186	**105**	14	**14**	**133**	4	284	82	370	0	**4**	**3**	**7**	696
07:45 AM	8	200	2	210	96	11	8	115	5	**343**	**106**	**454**	1	3	1	5	784
08:00 AM	**17**	**210**	1	**228**	94	**17**	13	124	8	339	98	445	1	3	1	5	**802**
08:15 AM	17	163	1	181	76	8	14	98	**11**	327	83	421	**4**	2	1	7	707
Total Volume	46	753	6	805	371	50	49	470	28	1293	369	1690	6	12	6	24	2989
% App. Total	5.7	93.5	0.7		78.9	10.6	10.4		1.7	76.5	21.8		25	50	25		
PHF	.676	.896	.750	.883	.883	.735	.875	.883	.636	.942	.870	.931	.375	.750	.500	.857	.932

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City of Ventura
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Site Code : 22518716
Start Date : 9/26/2018
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:45 AM			
+0 mins.	4	180	**2**	186	**105**	14	**14**	**133**	4	284	82	370	1	**3**	1	5
+15 mins.	8	200	2	210	96	11	8	115	5	**343**	**106**	**454**	1	3	1	5
+30 mins.	**17**	**210**	1	**228**	94	**17**	13	124	8	339	98	445	**4**	2	1	7
+45 mins.	17	163	1	181	76	8	14	98	**11**	327	83	421	2	2	**5**	**9**
Total Volume	46	753	6	805	371	50	49	470	28	1293	369	1690	8	10	8	26
% App. Total	5.7	93.5	0.7		78.9	10.6	10.4		1.7	76.5	21.8		30.8	38.5	30.8	
PHF	.676	.896	.750	.883	.883	.735	.875	.883	.636	.942	.870	.931	.500	.833	.400	.722

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City of Ventura
N/S: Mills Road
E/W: Dean Drive
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File Name : 01_VTA_Mills_Dean PM
Site Code : 22518716
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Page No : 1

Groups Printed- Total Volume

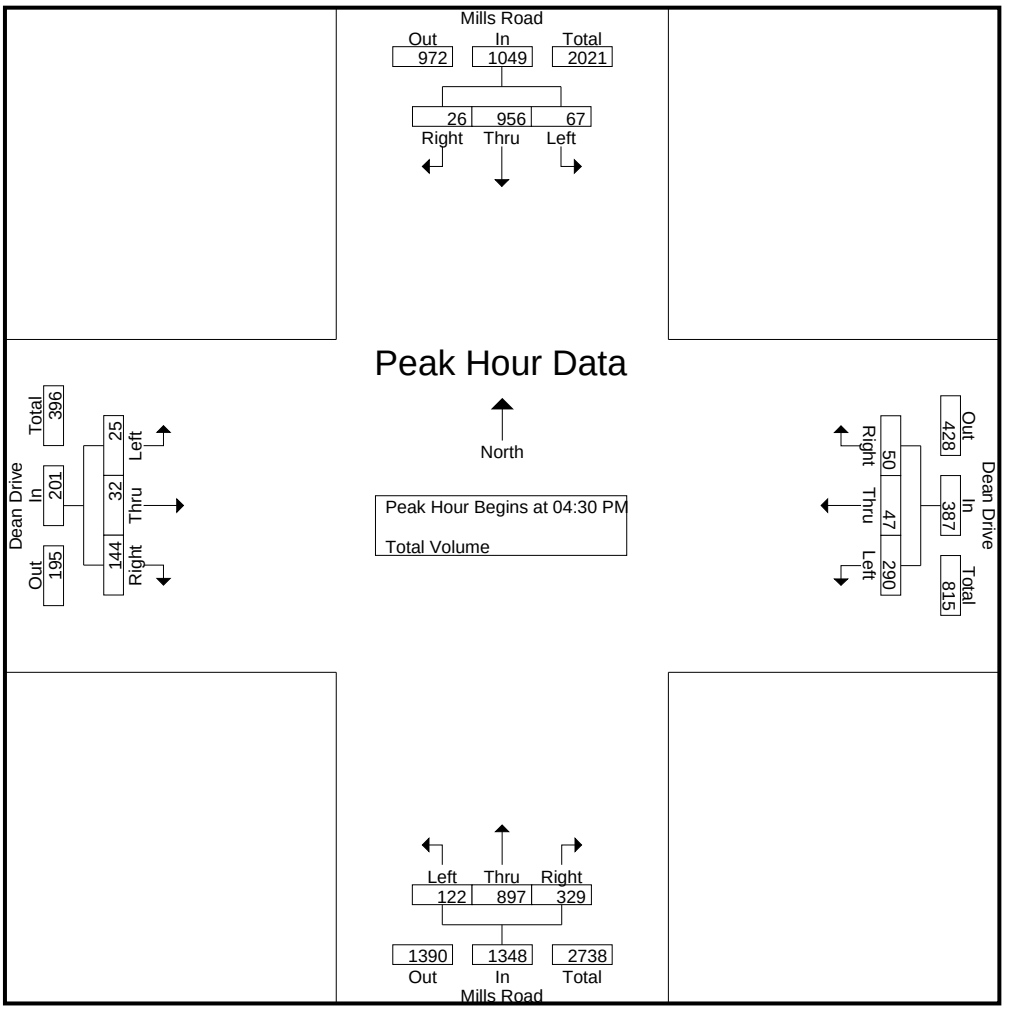
	Mills Road Southbound				Dean Drive Westbound				Mills Road Northbound				Dean Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	16	246	2	264	69	13	15	97	17	184	64	265	8	11	39	58	684
04:15 PM	21	211	5	237	79	13	13	105	33	213	77	323	5	9	31	45	710
04:30 PM	13	213	7	233	76	11	12	99	29	233	76	338	6	9	40	55	725
04:45 PM	20	253	5	278	61	12	12	85	31	242	71	344	6	6	25	37	744
Total	70	923	19	1012	285	49	52	386	110	872	288	1270	25	35	135	195	2863
05:00 PM	16	270	8	294	73	14	16	103	34	209	86	329	6	10	40	56	782
05:15 PM	18	220	6	244	80	10	10	100	28	213	96	337	7	7	39	53	734
05:30 PM	16	204	8	228	78	11	14	103	29	195	76	300	7	5	56	68	699
05:45 PM	7	206	3	216	87	16	12	115	33	195	87	315	8	8	37	53	699
Total	57	900	25	982	318	51	52	421	124	812	345	1281	28	30	172	230	2914
Grand Total	127	1823	44	1994	603	100	104	807	234	1684	633	2551	53	65	307	425	5777
Apprch %	6.4	91.4	2.2		74.7	12.4	12.9		9.2	66	24.8		12.5	15.3	72.2		
Total %	2.2	31.6	0.8	34.5	10.4	1.7	1.8	14	4.1	29.2	11	44.2	0.9	1.1	5.3	7.4	

	Mills Road Southbound				Dean Drive Westbound				Mills Road Northbound				Dean Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	13	213	7	233	76	11	12	99	29	233	76	338	6	9	**40**	55	725
04:45 PM	**20**	253	5	278	61	12	12	85	31	**242**	71	**344**	6	6	25	37	744
05:00 PM	16	**270**	**8**	**294**	73	**14**	**16**	**103**	**34**	209	86	329	6	**10**	40	**56**	**782**
05:15 PM	18	220	6	244	**80**	10	10	100	28	213	**96**	337	**7**	7	39	53	734
Total Volume	67	956	26	1049	290	47	50	387	122	897	329	1348	25	32	144	201	2985
% App. Total	6.4	91.1	2.5		74.9	12.1	12.9		9.1	66.5	24.4		12.4	15.9	71.6		
PHF	.838	.885	.813	.892	.906	.839	.781	.939	.897	.927	.857	.980	.893	.800	.900	.897	.954

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City of Ventura
N/S: Mills Road
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File Name : 01_VTA_Mills_Dean PM
Site Code : 22518716
Start Date : 9/26/2018
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				05:00 PM				04:30 PM				05:00 PM			
+0 mins.	13	213	7	233	73	14	**16**	103	29	233	76	338	6	**10**	40	56
+15 mins.	**20**	253	5	278	80	10	10	100	31	**242**	71	**344**	7	7	39	53
+30 mins.	16	**270**	**8**	**294**	78	11	14	103	**34**	209	86	329	7	5	**56**	**68**
+45 mins.	18	220	6	244	**87**	**16**	12	**115**	28	213	**96**	337	**8**	8	37	53
Total Volume	67	956	26	1049	318	51	52	421	122	897	329	1348	28	30	172	230
% App. Total	6.4	91.1	2.5		75.5	12.1	12.4		9.1	66.5	24.4		12.2	13	74.8	
PHF	.838	.885	.813	.892	.914	.797	.813	.915	.897	.927	.857	.980	.875	.750	.768	.846

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City of Ventura
N/S: Mills Road
E/W: East Main Street
Weather: Clear

File Name : 02_VTA_Mills_East Main AM
Site Code : 22518716
Start Date : 9/26/2018
Page No : 1

Groups Printed- Total Volume

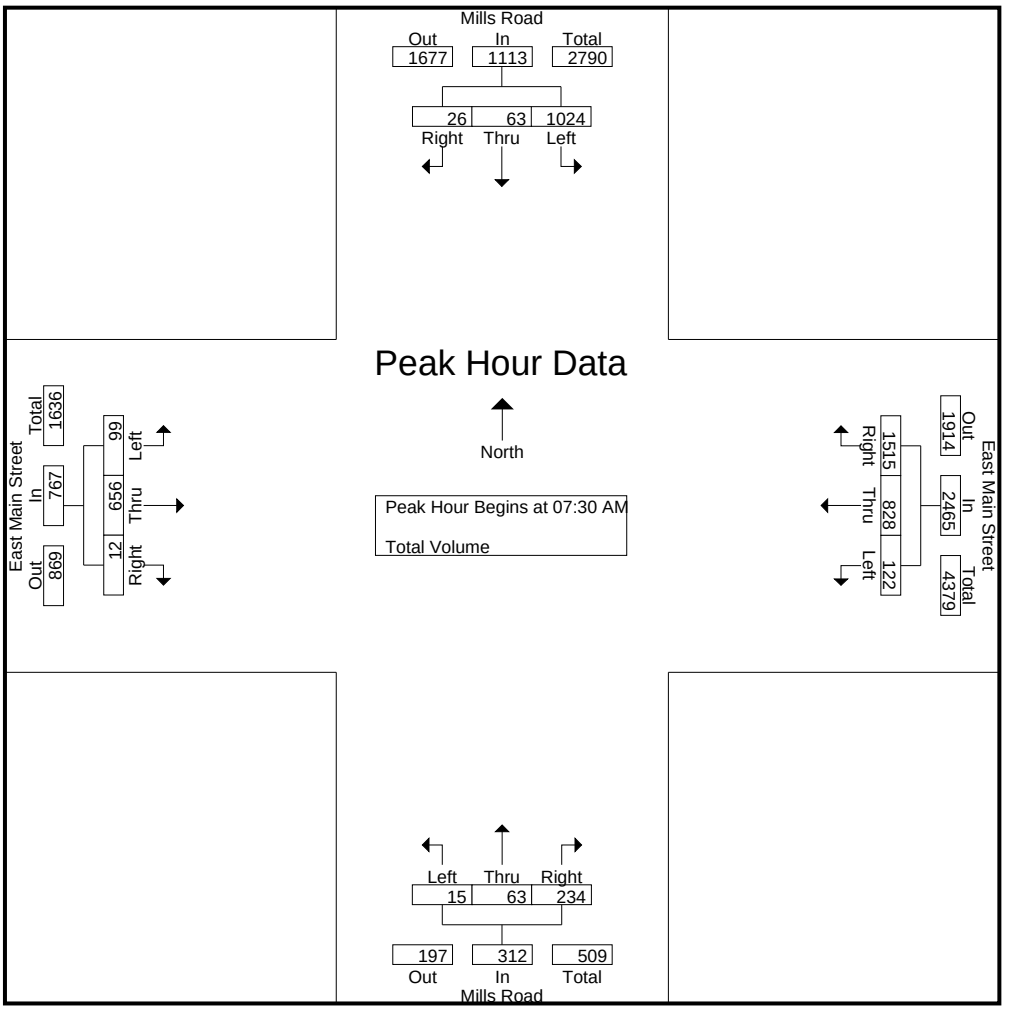
	Mills Road Southbound				East Main Street Westbound				Mills Road Northbound				East Main Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	155	10	5	170	11	127	166	304	0	6	46	52	8	95	2	105	631
07:15 AM	197	4	5	206	30	166	237	433	5	8	41	54	17	151	1	169	862
07:30 AM	277	11	3	291	36	169	349	554	3	18	65	86	19	165	3	187	1118
07:45 AM	266	12	7	285	37	252	426	715	5	18	80	103	26	154	4	184	1287
Total	895	37	20	952	114	714	1178	2006	13	50	232	295	70	565	10	645	3898
08:00 AM	264	20	8	292	28	210	381	619	5	15	48	68	26	163	4	193	1172
08:15 AM	217	20	8	245	21	197	359	577	2	12	41	55	28	174	1	203	1080
08:30 AM	213	10	10	233	20	182	317	519	4	13	44	61	23	179	1	203	1016
08:45 AM	222	8	4	234	22	171	314	507	4	16	43	63	17	180	1	198	1002
Total	916	58	30	1004	91	760	1371	2222	15	56	176	247	94	696	7	797	4270
Grand Total	1811	95	50	1956	205	1474	2549	4228	28	106	408	542	164	1261	17	1442	8168
Apprch %	92.6	4.9	2.6		4.8	34.9	60.3		5.2	19.6	75.3		11.4	87.4	1.2		
Total %	22.2	1.2	0.6	23.9	2.5	18	31.2	51.8	0.3	1.3	5	6.6	2	15.4	0.2	17.7	

	Mills Road Southbound				East Main Street Westbound				Mills Road Northbound				East Main Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	**277**	11	3	291	36	169	349	554	3	**18**	65	86	19	165	3	187	1118
07:45 AM	266	12	7	285	**37**	**252**	**426**	**715**	**5**	18	**80**	**103**	26	154	**4**	184	**1287**
08:00 AM	264	**20**	**8**	**292**	28	210	381	619	5	15	48	68	26	163	4	193	1172
08:15 AM	217	20	8	245	21	197	359	577	2	12	41	55	**28**	**174**	1	**203**	1080
Total Volume	1024	63	26	1113	122	828	1515	2465	15	63	234	312	99	656	12	767	4657
% App. Total	92	5.7	2.3		4.9	33.6	61.5		4.8	20.2	75		12.9	85.5	1.6		
PHF	.924	.788	.813	.953	.824	.821	.889	.862	.750	.875	.731	.757	.884	.943	.750	.945	.905

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City of Ventura
N/S: Mills Road
E/W: East Main Street
Weather: Clear

File Name : 02_VTA_Mills_East Main AM
Site Code : 22518716
Start Date : 9/26/2018
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				08:00 AM			
+0 mins.	**277**	11	3	291	36	169	349	554	3	**18**	65	86	26	163	**4**	193
+15 mins.	266	12	7	285	**37**	**252**	**426**	**715**	**5**	18	**80**	**103**	**28**	174	1	**203**
+30 mins.	264	**20**	**8**	**292**	28	210	381	619	5	15	48	68	23	179	1	203
+45 mins.	217	20	8	245	21	197	359	577	2	12	41	55	17	**180**	1	198
Total Volume	1024	63	26	1113	122	828	1515	2465	15	63	234	312	94	696	7	797
% App. Total	92	5.7	2.3		4.9	33.6	61.5		4.8	20.2	75		11.8	87.3	0.9	
PHF	.924	.788	.813	.953	.824	.821	.889	.862	.750	.875	.731	.757	.839	.967	.438	.982

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City of Ventura
N/S: Mills Road
E/W: East Main Street
Weather: Clear

File Name : 02_VTA_Mills_East Main PM
Site Code : 22518716
Start Date : 9/26/2018
Page No : 1

Groups Printed- Total Volume

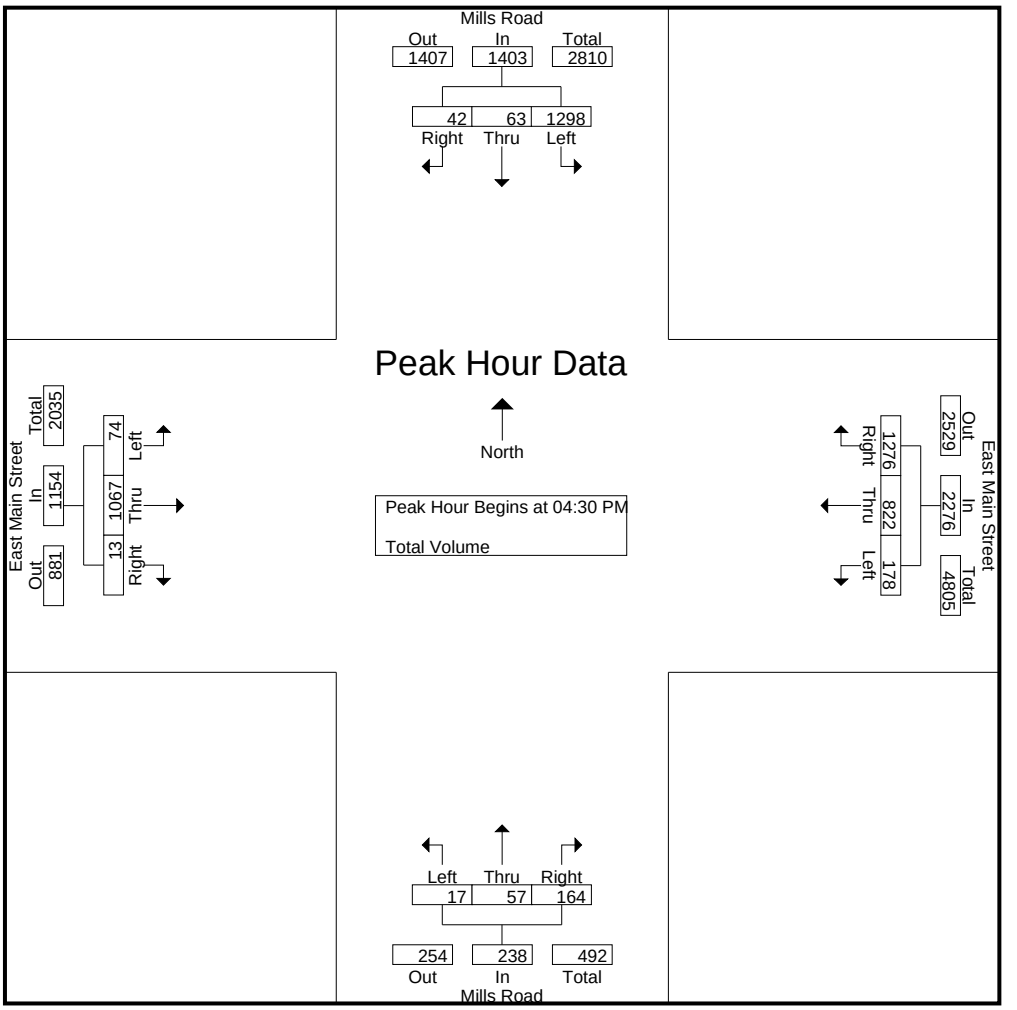
	Mills Road Southbound				East Main Street Westbound				Mills Road Northbound				East Main Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	306	11	10	327	53	202	278	533	5	14	36	55	21	221	2	244	1159
04:15 PM	311	23	8	342	35	216	309	560	8	8	37	53	27	239	1	267	1222
04:30 PM	292	15	9	316	41	194	303	538	5	10	42	57	24	284	2	310	1221
04:45 PM	350	13	10	373	34	187	331	552	4	10	35	49	23	257	5	285	1259
Total	1259	62	37	1358	163	799	1221	2183	22	42	150	214	95	1001	10	1106	4861
05:00 PM	343	16	12	371	42	213	308	563	3	21	50	74	12	264	3	279	1287
05:15 PM	313	19	11	343	61	228	334	623	5	16	37	58	15	262	3	280	1304
05:30 PM	318	15	12	345	49	213	279	541	7	17	46	70	19	225	6	250	1206
05:45 PM	308	15	6	329	43	254	281	578	3	11	46	60	20	188	5	213	1180
Total	1282	65	41	1388	195	908	1202	2305	18	65	179	262	66	939	17	1022	4977
Grand Total	2541	127	78	2746	358	1707	2423	4488	40	107	329	476	161	1940	27	2128	9838
Apprch %	92.5	4.6	2.8		8	38	54		8.4	22.5	69.1		7.6	91.2	1.3		
Total %	25.8	1.3	0.8	27.9	3.6	17.4	24.6	45.6	0.4	1.1	3.3	4.8	1.6	19.7	0.3	21.6	

	Mills Road Southbound				East Main Street Westbound				Mills Road Northbound				East Main Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	292	15	9	316	41	194	303	538	**5**	10	42	57	**24**	**284**	2	**310**	1221
04:45 PM	**350**	13	10	**373**	34	187	331	552	4	10	35	49	23	257	**5**	285	1259
05:00 PM	343	16	**12**	371	42	213	308	563	3	**21**	**50**	**74**	12	264	3	279	1287
05:15 PM	313	**19**	11	343	**61**	**228**	**334**	**623**	5	16	37	58	15	262	3	280	**1304**
Total Volume	1298	63	42	1403	178	822	1276	2276	17	57	164	238	74	1067	13	1154	5071
% App. Total	92.5	4.5	3		7.8	36.1	56.1		7.1	23.9	68.9		6.4	92.5	1.1		
PHF	.927	.829	.875	.940	.730	.901	.955	.913	.850	.679	.820	.804	.771	.939	.650	.931	.972

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City of Ventura
N/S: Mills Road
E/W: East Main Street
Weather: Clear

File Name : 02_VTA_Mills_East Main PM
Site Code : 22518716
Start Date : 9/26/2018
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				05:00 PM				05:00 PM				04:30 PM			
+0 mins.	**350**	13	10	**373**	42	213	308	563	3	**21**	**50**	**74**	**24**	**284**	2	**310**
+15 mins.	343	16	**12**	371	**61**	228	**334**	**623**	5	16	37	58	23	257	**5**	285
+30 mins.	313	**19**	11	343	49	213	279	541	**7**	17	46	70	12	264	3	279
+45 mins.	318	15	12	345	43	**254**	281	578	3	11	46	60	15	262	3	280
Total Volume	1324	63	45	1432	195	908	1202	2305	18	65	179	262	74	1067	13	1154
% App. Total	92.5	4.4	3.1		8.5	39.4	52.1		6.9	24.8	68.3		6.4	92.5	1.1	
PHF	.946	.829	.938	.960	.799	.894	.900	.925	.643	.774	.895	.885	.771	.939	.650	.931

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City of Ventura
N/S: Mills Road
E/W: Circle K Driveway
Weather: Clear

File Name : 03_VTA_Mills_Circle K AM
Site Code : 22518716
Start Date : 9/26/2018
Page No : 1

Groups Printed- Total Volume

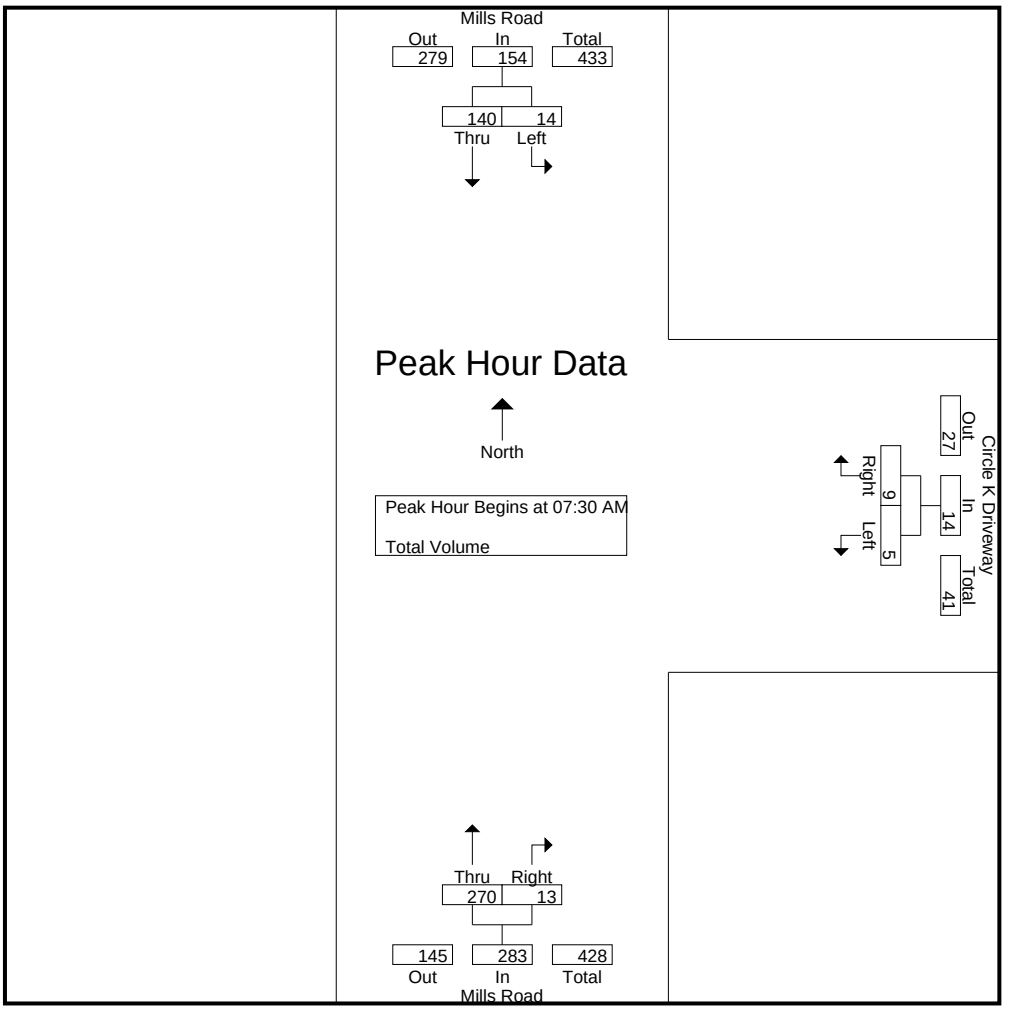
	Mills Road Southbound			Circle K Driveway Westbound			Mills Road Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	3	11	14	0	0	0	47	2	49	63
07:15 AM	4	23	27	0	3	3	45	3	48	78
07:30 AM	4	33	37	0	2	2	73	4	77	116
07:45 AM	5	37	42	1	4	5	97	4	101	148
Total	16	104	120	1	9	10	262	13	275	405
08:00 AM	2	38	40	3	2	5	53	2	55	100
08:15 AM	3	32	35	1	1	2	47	3	50	87
08:30 AM	3	18	21	0	1	1	41	2	43	65
08:45 AM	5	18	23	0	1	1	45	0	45	69
Total	13	106	119	4	5	9	186	7	193	321
Grand Total	29	210	239	5	14	19	448	20	468	726
Apprch %	12.1	87.9		26.3	73.7		95.7	4.3		
Total %	4	28.9	32.9	0.7	1.9	2.6	61.7	2.8	64.5	

	Mills Road Southbound			Circle K Driveway Westbound			Mills Road Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	4	33	37	0	2	2	73	**4**	77	116
07:45 AM	**5**	37	**42**	1	**4**	**5**	**97**	4	**101**	**148**
08:00 AM	2	**38**	40	**3**	2	5	53	2	55	100
08:15 AM	3	32	35	1	1	2	47	3	50	87
Total Volume	14	140	154	5	9	14	270	13	283	451
% App. Total	9.1	90.9		35.7	64.3		95.4	4.6		
PHF	.700	.921	.917	.417	.563	.700	.696	.813	.700	.762

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City of Ventura
N/S: Mills Road
E/W: Circle K Driveway
Weather: Clear

File Name : 03_VTA_Mills_Circle K AM
Site Code : 22518716
Start Date : 9/26/2018
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM			07:15 AM			07:30 AM		
+0 mins.	4	33	37	0	3	3	73	**4**	77
+15 mins.	**5**	37	**42**	0	2	2	**97**	4	**101**
+30 mins.	2	**38**	40	1	**4**	**5**	53	2	55
+45 mins.	3	32	35	**3**	2	5	47	3	50
Total Volume	14	140	154	4	11	15	270	13	283
% App. Total	9.1	90.9		26.7	73.3		95.4	4.6	
PHF	.700	.921	.917	.333	.688	.750	.696	.813	.700

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City of Ventura
N/S: Mills Road
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Weather: Clear

File Name : 03_VTA_Mills_Circle K PM
Site Code : 22518716
Start Date : 9/26/2018
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Groups Printed- Total Volume

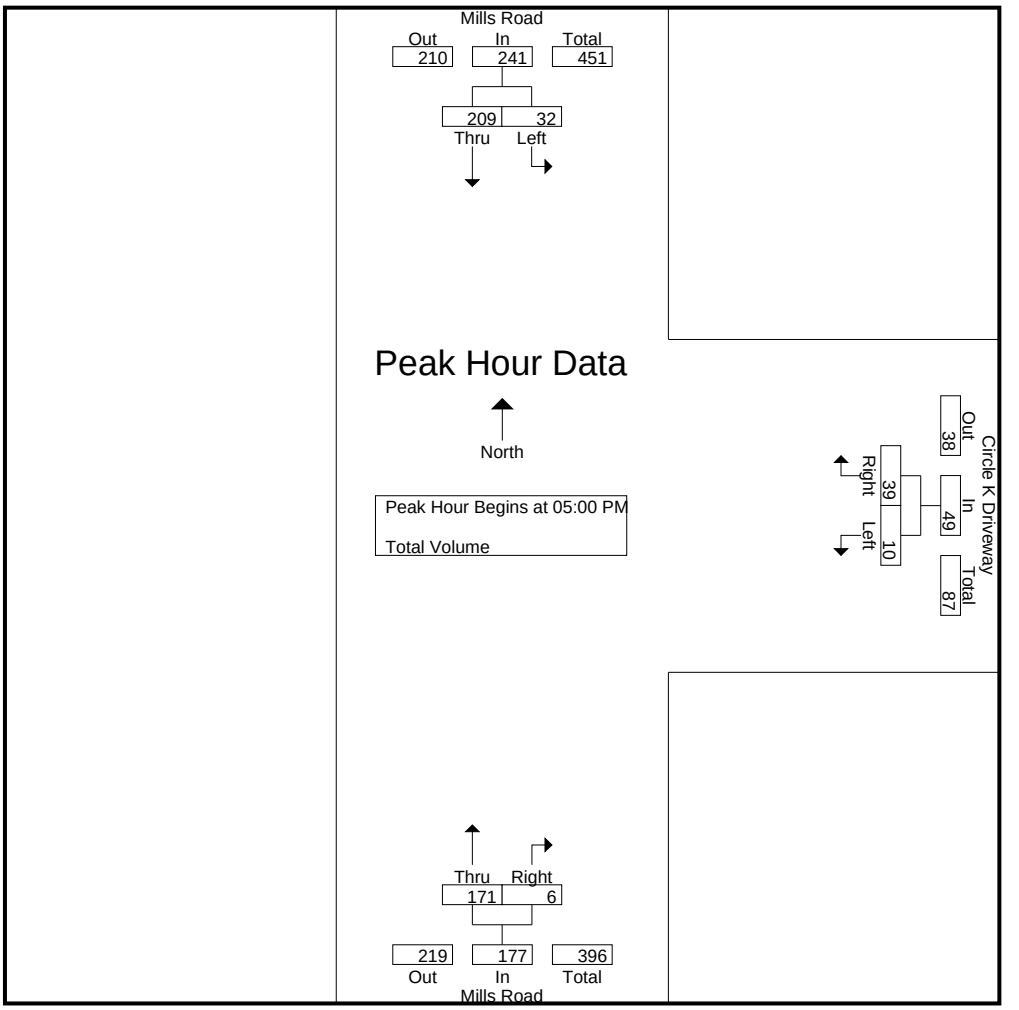
	Mills Road Southbound			Circle K Driveway Westbound			Mills Road Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	5	43	48	2	6	8	32	2	34	90
04:15 PM	9	44	53	0	9	9	30	1	31	93
04:30 PM	10	47	57	3	4	7	38	3	41	105
04:45 PM	5	38	43	1	4	5	47	2	49	97
Total	29	172	201	6	23	29	147	8	155	385
05:00 PM	9	46	55	3	7	10	48	0	48	113
05:15 PM	11	67	78	2	10	12	36	3	39	129
05:30 PM	8	51	59	3	14	17	49	0	49	125
05:45 PM	4	45	49	2	8	10	38	3	41	100
Total	32	209	241	10	39	49	171	6	177	467
Grand Total	61	381	442	16	62	78	318	14	332	852
Apprch %	13.8	86.2		20.5	79.5		95.8	4.2		
Total %	7.2	44.7	51.9	1.9	7.3	9.2	37.3	1.6	39	

	Mills Road Southbound			Circle K Driveway Westbound			Mills Road Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	9	46	55	**3**	7	10	48	0	48	113
05:15 PM	**11**	**67**	**78**	2	10	12	36	**3**	39	**129**
05:30 PM	8	51	59	3	**14**	**17**	**49**	0	**49**	125
05:45 PM	4	45	49	2	8	10	38	3	41	100
Total Volume	32	209	241	10	39	49	171	6	177	467
% App. Total	13.3	86.7		20.4	79.6		96.6	3.4		
PHF	.727	.780	.772	.833	.696	.721	.872	.500	.903	.905

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City of Ventura
N/S: Mills Road
E/W: Circle K Driveway
Weather: Clear

File Name : 03_VTA_Mills_Circle K PM
Site Code : 22518716
Start Date : 9/26/2018
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			05:00 PM			04:45 PM		
+0 mins.	9	46	55	**3**	7	10	47	2	**49**
+15 mins.	**11**	**67**	**78**	2	10	12	48	0	48
+30 mins.	8	51	59	3	**14**	**17**	36	**3**	39
+45 mins.	4	45	49	2	8	10	**49**	0	49
Total Volume	32	209	241	10	39	49	180	5	185
% App. Total	13.3	86.7		20.4	79.6		97.3	2.7	
PHF	.727	.780	.772	.833	.696	.721	.918	.417	.944

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City of Ventura
N/S: Mobile & Arbys Driveway
E/W: East Main Street
Weather: Clear

File Name : 04_VTA_Mobile-Arbys_East Main AM
Site Code : 22518716
Start Date : 9/26/2018
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Groups Printed- Total Volume

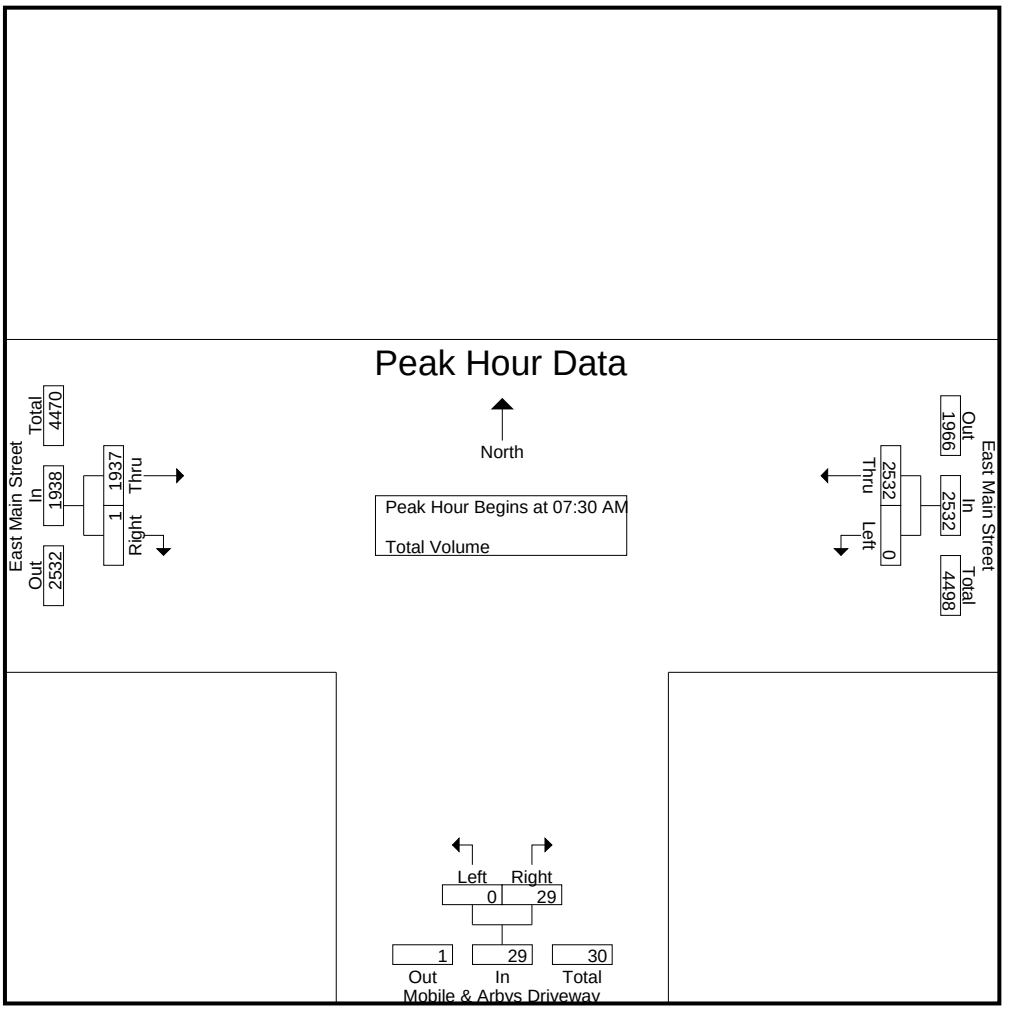
	East Main Street Westbound			Mobile & Arbys Driveway Northbound			East Main Street Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	312	312	0	13	13	304	2	306	631
07:15 AM	0	440	440	0	4	4	389	1	390	834
07:30 AM	0	571	571	0	10	10	497	0	497	1078
07:45 AM	0	732	732	0	6	6	503	1	504	1242
Total	0	2055	2055	0	33	33	1693	4	1697	3785
08:00 AM	0	635	635	0	8	8	495	0	495	1138
08:15 AM	0	594	594	0	5	5	442	0	442	1041
08:30 AM	0	520	520	0	9	9	441	1	442	971
08:45 AM	0	522	522	0	4	4	437	2	439	965
Total	0	2271	2271	0	26	26	1815	3	1818	4115
Grand Total	0	4326	4326	0	59	59	3508	7	3515	7900
Apprch %	0	100		0	100		99.8	0.2		
Total %	0	54.8	54.8	0	0.7	0.7	44.4	0.1	44.5	

	East Main Street Westbound			Mobile & Arbys Driveway Northbound			East Main Street Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	0	571	571	0	**10**	**10**	497	0	497	1078
07:45 AM	0	**732**	**732**	0	6	6	**503**	**1**	**504**	**1242**
08:00 AM	0	635	635	0	8	8	495	0	495	1138
08:15 AM	0	594	594	0	5	5	442	0	442	1041
Total Volume	0	2532	2532	0	29	29	1937	1	1938	4499
% App. Total	0	100		0	100		99.9	0.1		
PHF	.000	.865	.865	.000	.725	.725	.963	.250	.961	.906

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City of Ventura
N/S: Mobile & Arbys Driveway
E/W: East Main Street
Weather: Clear

File Name : 04_VTA_Mobile-Arbys_East Main AM
Site Code : 22518716
Start Date : 9/26/2018
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM			07:00 AM			07:30 AM		
+0 mins.	0	571	571	0	**13**	**13**	497	0	497
+15 mins.	0	**732**	**732**	0	4	4	**503**	**1**	**504**
+30 mins.	0	635	635	0	10	10	495	0	495
+45 mins.	0	594	594	0	6	6	442	0	442
Total Volume	0	2532	2532	0	33	33	1937	1	1938
% App. Total	0	100		0	100		99.9	0.1	
PHF	.000	.865	.865	.000	.635	.635	.963	.250	.961

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City of Ventura
N/S: Mobile & Arbys Driveway
E/W: East Main Street
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File Name : 04_VTA_Mobile-Arbys_East Main PM
Site Code : 22518716
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Groups Printed- Total Volume

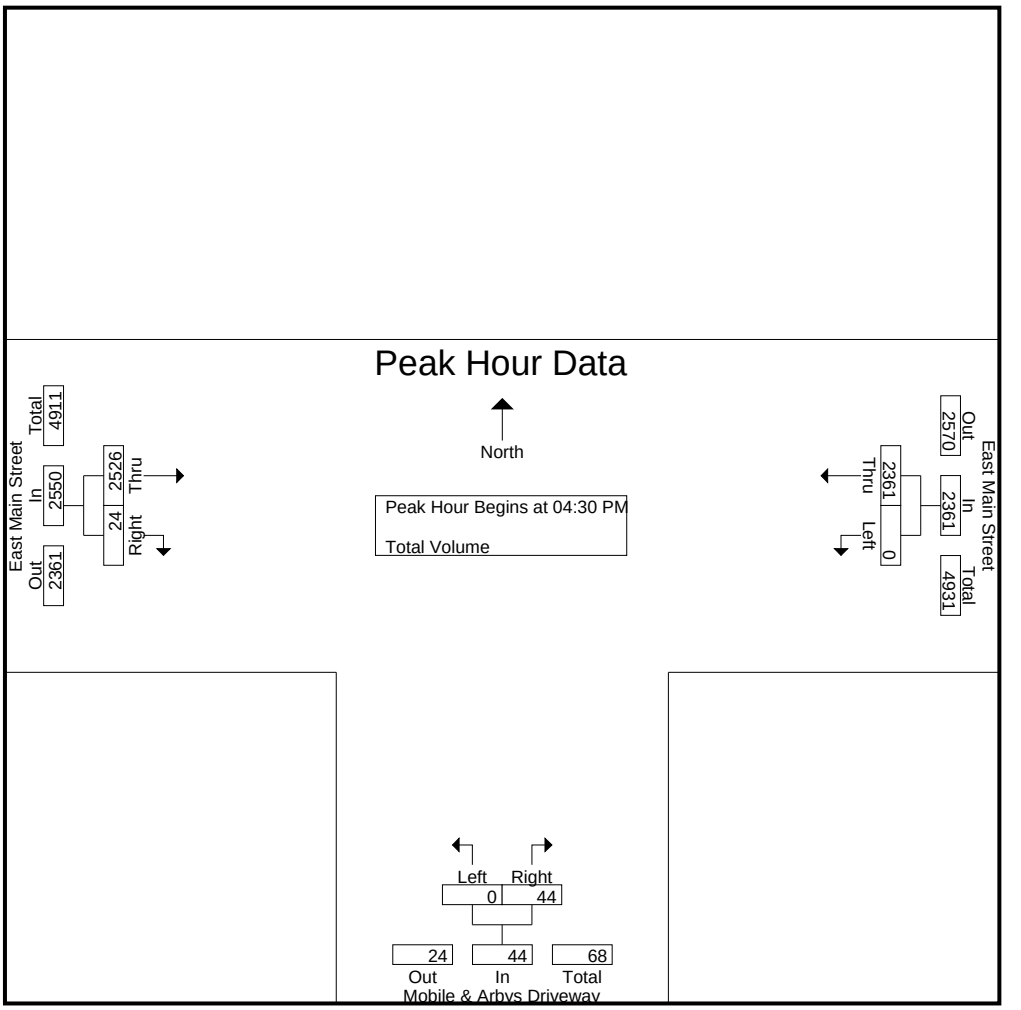
	East Main Street Westbound			Mobile & Arbys Driveway Northbound			East Main Street Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	537	537	0	10	10	557	8	565	1112
04:15 PM	0	568	568	0	9	9	586	5	591	1168
04:30 PM	0	563	563	0	16	16	622	7	629	1208
04:45 PM	0	574	574	0	14	14	633	6	639	1227
Total	0	2242	2242	0	49	49	2398	26	2424	4715
05:00 PM	0	590	590	0	7	7	652	6	658	1255
05:15 PM	0	634	634	0	7	7	619	5	624	1265
05:30 PM	0	552	552	0	7	7	574	10	584	1143
05:45 PM	0	599	599	0	10	10	541	7	548	1157
Total	0	2375	2375	0	31	31	2386	28	2414	4820
Grand Total	0	4617	4617	0	80	80	4784	54	4838	9535
Apprch %	0	100		0	100		98.9	1.1		
Total %	0	48.4	48.4	0	0.8	0.8	50.2	0.6	50.7	

	East Main Street Westbound			Mobile & Arbys Driveway Northbound			East Main Street Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	563	563	0	**16**	**16**	622	**7**	629	1208
04:45 PM	0	574	574	0	14	14	633	6	639	1227
05:00 PM	0	590	590	0	7	7	**652**	6	**658**	1255
05:15 PM	0	**634**	**634**	0	7	7	619	5	624	**1265**
Total Volume	0	2361	2361	0	44	44	2526	24	2550	4955
% App. Total	0	100		0	100		99.1	0.9		
PHF	.000	.931	.931	.000	.688	.688	.969	.857	.969	.979

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City of Ventura
N/S: Mobile & Arbys Driveway
E/W: East Main Street
Weather: Clear

File Name : 04_VTA_Mobile-Arbys_East Main PM
Site Code : 22518716
Start Date : 9/26/2018
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			04:00 PM			04:30 PM		
+0 mins.	0	590	590	0	10	10	622	**7**	629
+15 mins.	0	**634**	**634**	0	9	9	633	6	639
+30 mins.	0	552	552	0	**16**	**16**	**652**	6	**658**
+45 mins.	0	599	599	0	14	14	619	5	624
Total Volume	0	2375	2375	0	49	49	2526	24	2550
% App. Total	0	100		0	100		99.1	0.9	
PHF	.000	.937	.937	.000	.766	.766	.969	.857	.969

Location: Ventura
N/S: Mobile & Arbys Driveway
E/W: East Main Street

Date: 9/26/2018
Day: Wednesday

PEDESTRIANS

	North Leg Dead End	East Leg East Main Street	South Leg Mobile & Arbys Driveway	West Leg East Main Street	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	1	0	1
8:15 AM	0	0	0	0	0
8:30 AM	0	0	1	0	1
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	2	0	2

	North Leg Dead End	East Leg East Main Street	South Leg Mobile & Arbys Driveway	West Leg East Main Street	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	2	0	2
4:15 PM	0	0	2	0	2
4:30 PM	0	0	5	0	5
4:45 PM	0	0	1	0	1
5:00 PM	0	0	4	0	4
5:15 PM	0	0	4	0	4
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	18	0	18

Location: Ventura
N/S: Mobile & Arbys Driveway
E/W: East Main Street

Date: 9/26/2018
Day: Wednesday

BICYCLES

	Southbound Dead End			Westbound East Main Street			Northbound Mobile & Arbys Driveway			Eastbound East Main Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
7:15 AM	0	0	0	0	1	0	0	0	0	0	1	0	2
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
7:45 AM	0	0	0	0	2	0	0	0	0	0	1	0	3
8:00 AM	0	0	0	0	1	0	0	0	1	0	1	0	3
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	3	0	3
TOTAL VOLUMES:	0	0	0	0	4	0	0	0	1	0	9	0	14

	Southbound Dead End			Westbound East Main Street			Northbound Mobile & Arbys Driveway			Eastbound East Main Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	2
4:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
4:30 PM	0	0	0	0	2	0	0	0	0	0	1	0	3
4:45 PM	0	0	0	0	3	0	0	0	1	0	1	0	5
5:00 PM	0	0	0	0	1	0	0	0	0	0	1	0	2
5:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	1	0	0	0	1	0	1	0	3
5:45 PM	0	0	0	1	0	0	0	0	0	0	1	0	2
TOTAL VOLUMES:	0	0	0	1	8	0	0	0	3	0	7	0	19

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City of Ventura
N/S: US-101 NB Ramps/US-126 WB Off Ramp
E/W: East Main Street
Weather: Clear

File Name : 05_VTA_US-101_East Main AM
Site Code : 22518716
Start Date : 9/26/2018
Page No : 1

Groups Printed- Total Volume

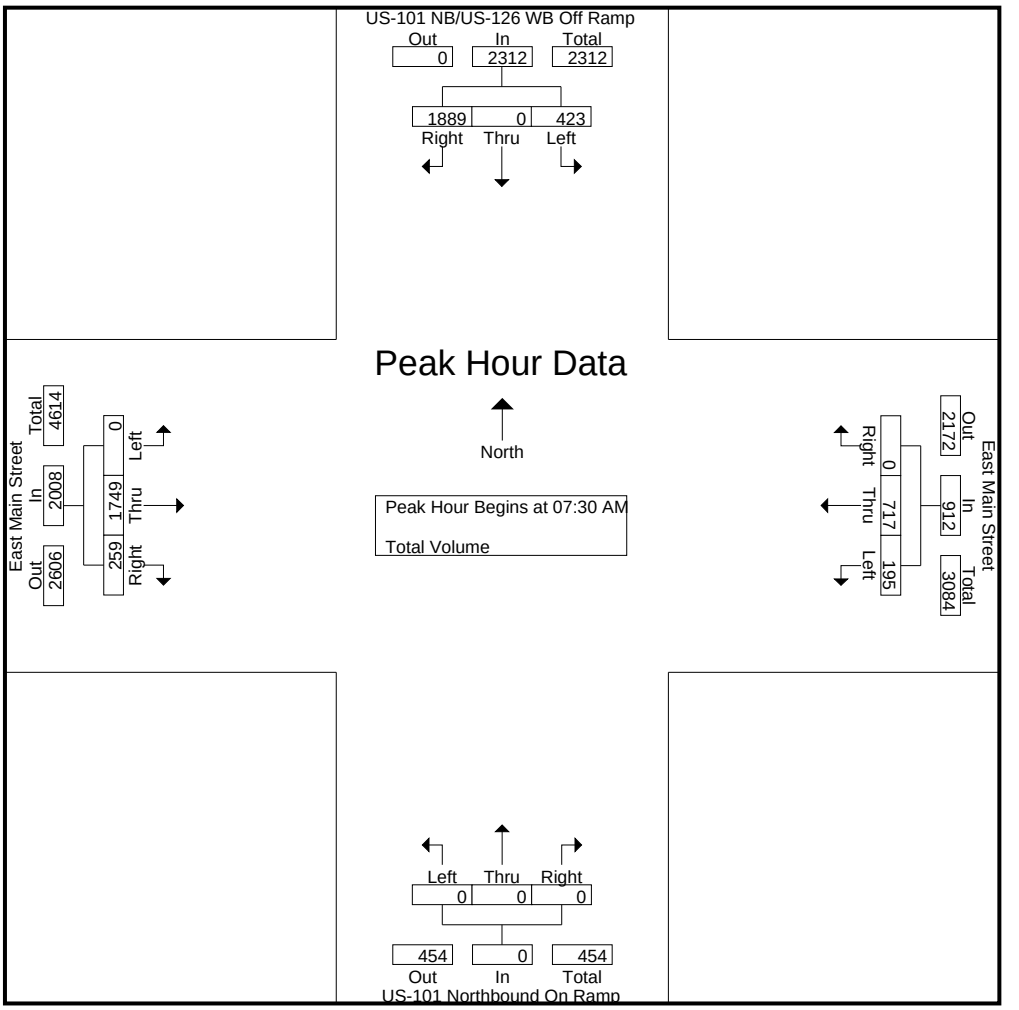
	US-101 NB/US-126 WB Off Ramp Southbound				East Main Street Westbound				US-101 Northbound On Ramp Northbound				East Main Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	92	0	235	327	36	90	0	126	0	0	0	0	0	259	41	300	753
07:15 AM	104	0	329	433	42	114	0	156	0	0	0	0	0	351	44	395	984
07:30 AM	103	0	415	518	47	175	0	222	0	0	0	0	0	441	65	506	1246
07:45 AM	124	0	527	651	45	221	0	266	0	0	0	0	0	440	77	517	1434
Total	423	0	1506	1929	170	600	0	770	0	0	0	0	0	1491	227	1718	4417
08:00 AM	86	0	466	552	52	186	0	238	0	0	0	0	0	456	65	521	1311
08:15 AM	110	0	481	591	51	135	0	186	0	0	0	0	0	412	52	464	1241
08:30 AM	104	0	383	487	44	139	0	183	0	0	0	0	0	393	69	462	1132
08:45 AM	91	0	376	467	56	164	0	220	0	0	0	0	0	391	47	438	1125
Total	391	0	1706	2097	203	624	0	827	0	0	0	0	0	1652	233	1885	4809
Grand Total	814	0	3212	4026	373	1224	0	1597	0	0	0	0	0	3143	460	3603	9226
Apprch %	20.2	0	79.8		23.4	76.6	0		0	0	0		0	87.2	12.8		
Total %	8.8	0	34.8	43.6	4	13.3	0	17.3	0	0	0	0	0	34.1	5	39.1	

	US-101 NB/US-126 WB Off Ramp Southbound				East Main Street Westbound				US-101 Northbound On Ramp Northbound				East Main Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	103	0	415	518	47	175	0	222	0	0	0	0	0	441	65	506	1246
07:45 AM	**124**	0	**527**	**651**	45	**221**	0	**266**	0	0	0	0	0	440	**77**	517	**1434**
08:00 AM	86	0	466	552	**52**	186	0	238	0	0	0	0	0	**456**	65	**521**	1311
08:15 AM	110	0	481	591	51	135	0	186	0	0	0	0	0	412	52	464	1241
Total Volume	423	0	1889	2312	195	717	0	912	0	0	0	0	0	1749	259	2008	5232
% App. Total	18.3	0	81.7		21.4	78.6	0		0	0	0		0	87.1	12.9		
PHF	.853	.000	.896	.888	.938	.811	.000	.857	.000	.000	.000	.000	.000	.959	.841	.964	.912

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City of Ventura
N/S: US-101 NB Ramps/US-126 WB Off Ramp
E/W: East Main Street
Weather: Clear

File Name : 05_VTA_US-101_East Main AM
Site Code : 22518716
Start Date : 9/26/2018
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:00 AM				07:30 AM			
+0 mins.	103	0	415	518	47	175	0	222	0	0	0	0	0	441	65	506
+15 mins.	**124**	0	**527**	**651**	45	**221**	0	**266**	0	0	0	0	0	440	**77**	517
+30 mins.	86	0	466	552	**52**	186	0	238	0	0	0	0	0	**456**	65	**521**
+45 mins.	110	0	481	591	51	135	0	186	0	0	0	0	0	412	52	464
Total Volume	423	0	1889	2312	195	717	0	912	0	0	0	0	0	1749	259	2008
% App. Total	18.3	0	81.7		21.4	78.6	0		0	0	0		0	87.1	12.9	
PHF	.853	.000	.896	.888	.938	.811	.000	.857	.000	.000	.000	.000	.000	.959	.841	.964

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City of Ventura
N/S: US-101 NB Ramps/US-126 WB Off Ramp
E/W: East Main Street
Weather: Clear

File Name : 05_VTA_US-101_East Main PM
Site Code : 22518716
Start Date : 9/26/2018
Page No : 1

Groups Printed- Total Volume

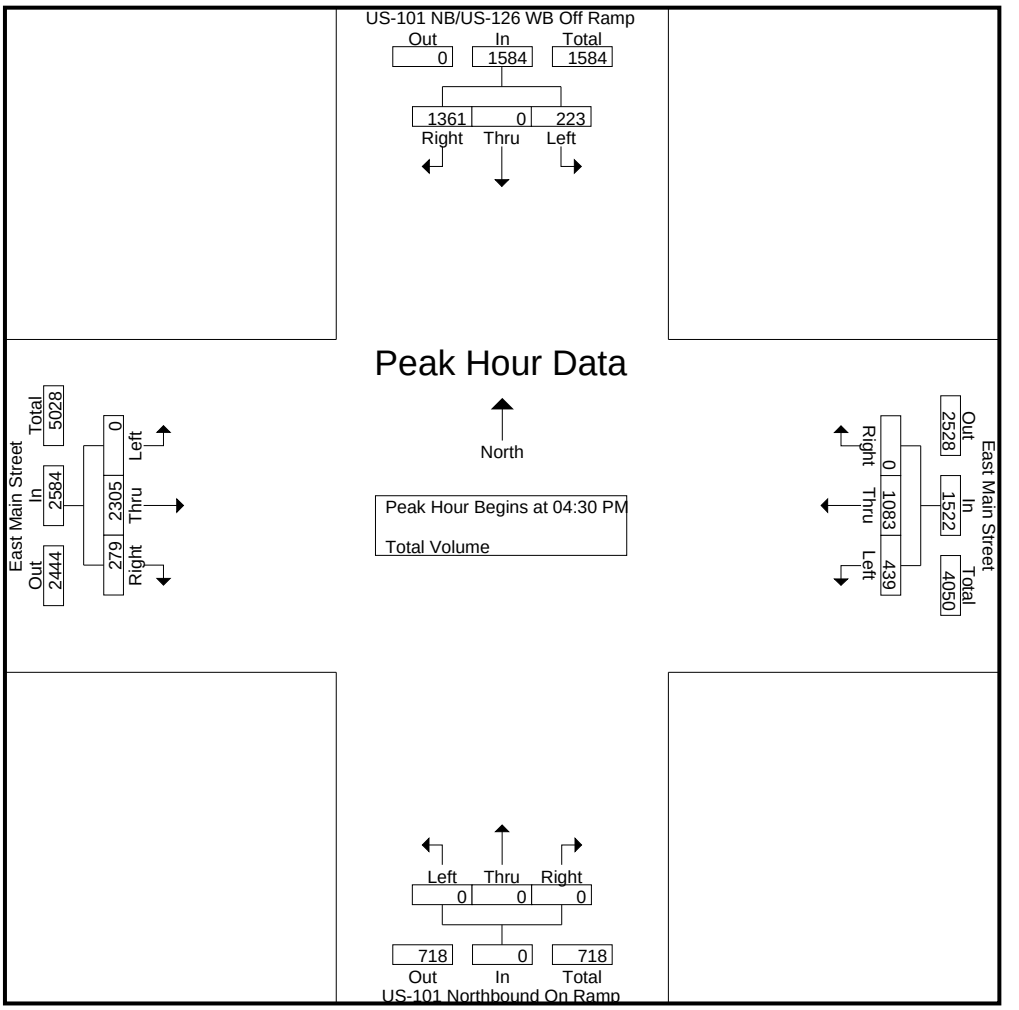
	US-101 NB/US-126 WB Off Ramp Southbound				East Main Street Westbound				US-101 Northbound On Ramp Northbound				East Main Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	49	0	276	325	119	264	0	383	0	0	0	0	0	507	63	570	1278
04:15 PM	45	0	325	370	102	253	0	355	0	0	0	0	0	531	67	598	1323
04:30 PM	59	0	347	406	105	240	0	345	0	0	0	0	0	578	71	649	1400
04:45 PM	54	0	332	386	107	265	0	372	0	0	0	0	0	573	70	643	1401
Total	207	0	1280	1487	433	1022	0	1455	0	0	0	0	0	2189	271	2460	5402
05:00 PM	52	0	323	375	110	292	0	402	0	0	0	0	0	584	76	660	1437
05:15 PM	58	0	359	417	117	286	0	403	0	0	0	0	0	570	62	632	1452
05:30 PM	43	0	308	351	103	256	0	359	0	0	0	0	0	496	81	577	1287
05:45 PM	47	0	353	400	76	267	0	343	0	0	0	0	0	474	95	569	1312
Total	200	0	1343	1543	406	1101	0	1507	0	0	0	0	0	2124	314	2438	5488
Grand Total	407	0	2623	3030	839	2123	0	2962	0	0	0	0	0	4313	585	4898	10890
Apprch %	13.4	0	86.6		28.3	71.7	0		0	0	0		0	88.1	11.9		
Total %	3.7	0	24.1	27.8	7.7	19.5	0	27.2	0	0	0	0	0	39.6	5.4	45	

	US-101 NB/US-126 WB Off Ramp Southbound				East Main Street Westbound				US-101 Northbound On Ramp Northbound				East Main Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**59**	0	347	406	105	240	0	345	0	0	0	0	0	578	71	649	1400
04:45 PM	54	0	332	386	107	265	0	372	0	0	0	0	0	573	70	643	1401
05:00 PM	52	0	323	375	110	**292**	0	402	0	0	0	0	0	**584**	**76**	**660**	1437
05:15 PM	58	0	**359**	**417**	**117**	286	0	**403**	0	0	0	0	0	570	62	632	**1452**
Total Volume	223	0	1361	1584	439	1083	0	1522	0	0	0	0	0	2305	279	2584	5690
% App. Total	14.1	0	85.9		28.8	71.2	0		0	0	0		0	89.2	10.8		
PHF	.945	.000	.948	.950	.938	.927	.000	.944	.000	.000	.000	.000	.000	.987	.918	.979	.980

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City of Ventura
N/S: US-101 NB Ramps/US-126 WB Off Ramp
E/W: East Main Street
Weather: Clear

File Name : 05_VTA_US-101_East Main PM
Site Code : 22518716
Start Date : 9/26/2018
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:45 PM				04:00 PM				04:30 PM			
+0 mins.	**59**	0	347	406	107	265	0	372	0	0	0	0	0	578	71	649
+15 mins.	54	0	332	386	110	**292**	0	402	0	0	0	0	0	573	70	643
+30 mins.	52	0	323	375	**117**	286	0	**403**	0	0	0	0	0	**584**	**76**	**660**
+45 mins.	58	0	**359**	**417**	103	256	0	359	0	0	0	0	0	570	62	632
Total Volume	223	0	1361	1584	437	1099	0	1536	0	0	0	0	0	2305	279	2584
% App. Total	14.1	0	85.9		28.5	71.5	0		0	0	0		0	89.2	10.8	
PHF	.945	.000	.948	.950	.934	.941	.000	.953	.000	.000	.000	.000	.000	.987	.918	.979

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City of Ventura
N/S: Arundell Avenue
E/W: East Main Street
Weather: Clear

File Name : 06_VTA_Arundell_East Main AM
Site Code : 22518716
Start Date : 9/26/2018
Page No : 1

Groups Printed- Total Volume

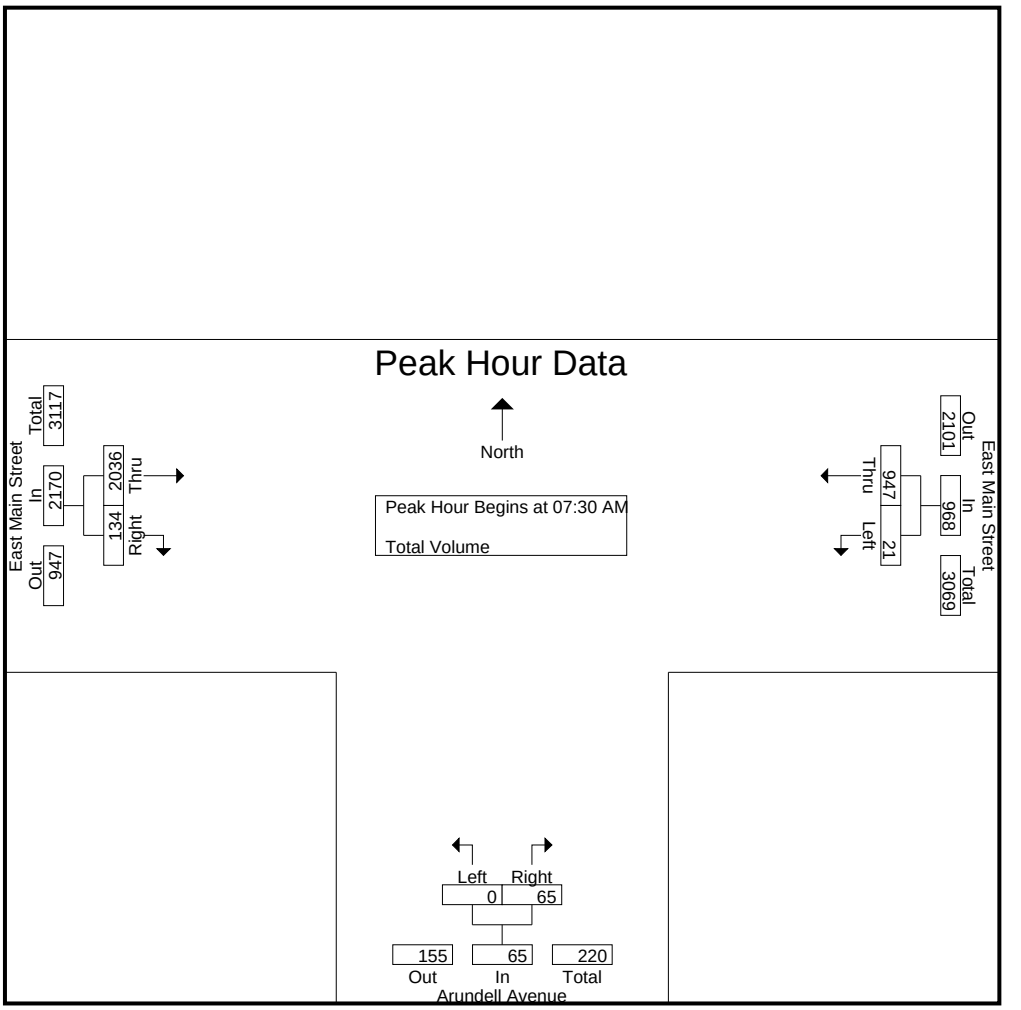
	East Main Street Westbound			Arundell Avenue Northbound			East Main Street Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	3	117	120	0	10	10	315	24	339	469
07:15 AM	5	165	170	0	18	18	426	21	447	635
07:30 AM	5	243	248	0	15	15	512	36	548	811
07:45 AM	8	274	282	0	22	22	532	37	569	873
Total	21	799	820	0	65	65	1785	118	1903	2788
08:00 AM	4	234	238	0	11	11	517	31	548	797
08:15 AM	4	196	200	0	17	17	475	30	505	722
08:30 AM	1	205	206	0	9	9	456	28	484	699
08:45 AM	1	225	226	0	15	15	455	19	474	715
Total	10	860	870	0	52	52	1903	108	2011	2933
Grand Total	31	1659	1690	0	117	117	3688	226	3914	5721
Apprch %	1.8	98.2		0	100		94.2	5.8		
Total %	0.5	29	29.5	0	2	2	64.5	4	68.4	

	East Main Street Westbound			Arundell Avenue Northbound			East Main Street Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	5	243	248	0	15	15	512	36	548	811
07:45 AM	**8**	**274**	**282**	0	**22**	**22**	**532**	**37**	**569**	**873**
08:00 AM	4	234	238	0	11	11	517	31	548	797
08:15 AM	4	196	200	0	17	17	475	30	505	722
Total Volume	21	947	968	0	65	65	2036	134	2170	3203
% App. Total	2.2	97.8		0	100		93.8	6.2		
PHF	.656	.864	.858	.000	.739	.739	.957	.905	.953	.917

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City of Ventura
N/S: Arundell Avenue
E/W: East Main Street
Weather: Clear

File Name : 06_VTA_Arundell_East Main AM
Site Code : 22518716
Start Date : 9/26/2018
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM			07:15 AM			07:30 AM		
+0 mins.	5	243	248	0	18	18	512	36	548
+15 mins.	**8**	**274**	**282**	0	15	15	**532**	**37**	**569**
+30 mins.	4	234	238	0	**22**	**22**	517	31	548
+45 mins.	4	196	200	0	11	11	475	30	505
Total Volume	21	947	968	0	66	66	2036	134	2170
% App. Total	2.2	97.8		0	100		93.8	6.2	
PHF	.656	.864	.858	.000	.750	.750	.957	.905	.953

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City of Ventura
N/S: Arundell Avenue
E/W: East Main Street
Weather: Clear

File Name : 06_VTA_Arundell_East Main PM
Site Code : 22518716
Start Date : 9/26/2018
Page No : 1

Groups Printed- Total Volume

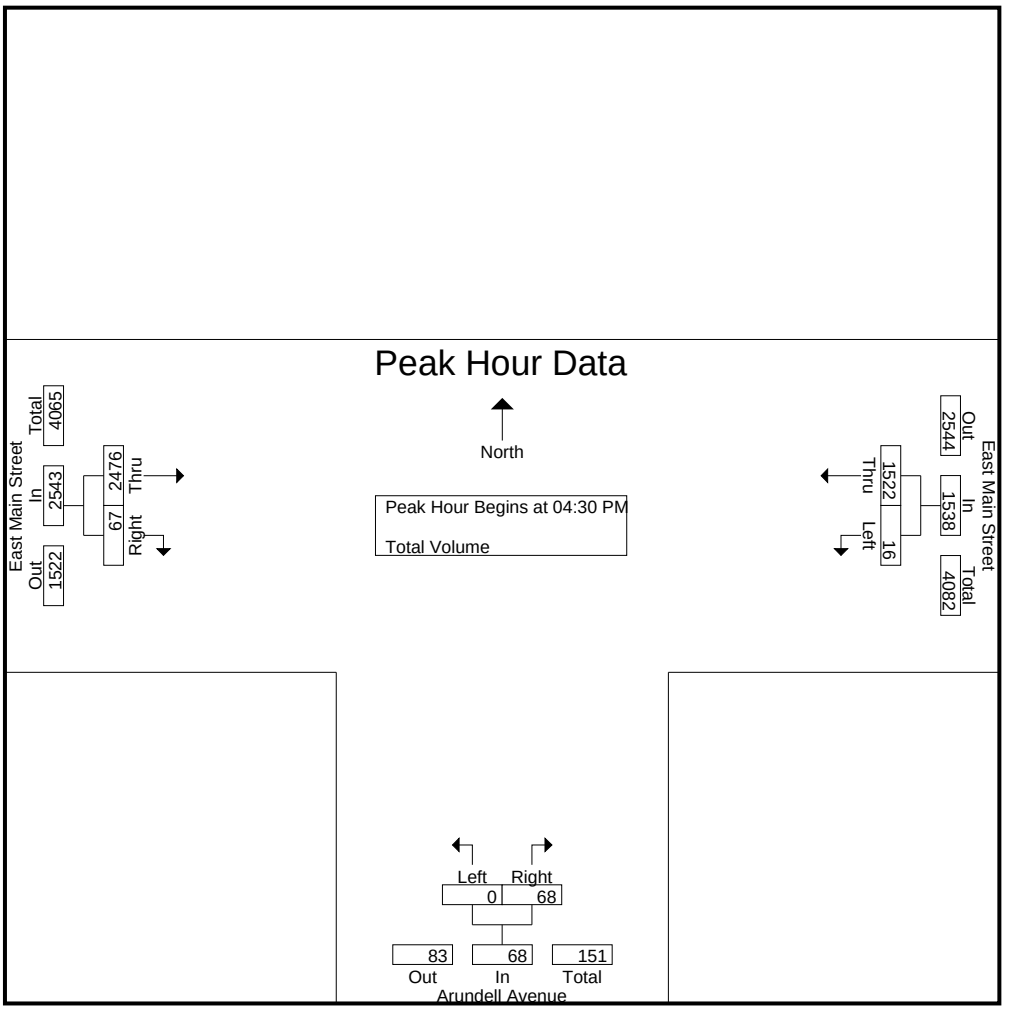
	East Main Street Westbound			Arundell Avenue Northbound			East Main Street Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	3	374	377	0	17	17	534	26	560	954
04:15 PM	3	338	341	0	16	16	563	22	585	942
04:30 PM	3	340	343	0	17	17	614	18	632	992
04:45 PM	3	370	373	0	19	19	643	16	659	1051
Total	12	1422	1434	0	69	69	2354	82	2436	3939
05:00 PM	6	423	429	0	22	22	617	18	635	1086
05:15 PM	4	389	393	0	10	10	602	15	617	1020
05:30 PM	8	355	363	0	10	10	539	11	550	923
05:45 PM	4	325	329	0	10	10	517	5	522	861
Total	22	1492	1514	0	52	52	2275	49	2324	3890
Grand Total	34	2914	2948	0	121	121	4629	131	4760	7829
Apprch %	1.2	98.8		0	100		97.2	2.8		
Total %	0.4	37.2	37.7	0	1.5	1.5	59.1	1.7	60.8	

	East Main Street Westbound			Arundell Avenue Northbound			East Main Street Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	3	340	343	0	17	17	614	**18**	632	992
04:45 PM	3	370	373	0	19	19	**643**	16	**659**	1051
05:00 PM	**6**	**423**	**429**	0	**22**	**22**	617	18	635	**1086**
05:15 PM	4	389	393	0	10	10	602	15	617	1020
Total Volume	16	1522	1538	0	68	68	2476	67	2543	4149
% App. Total	1	99		0	100		97.4	2.6		
PHF	.667	.900	.896	.000	.773	.773	.963	.931	.965	.955

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City of Ventura
N/S: Arundell Avenue
E/W: East Main Street
Weather: Clear

File Name : 06_VTA_Arundell_East Main PM
Site Code : 22518716
Start Date : 9/26/2018
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:15 PM			04:30 PM		
+0 mins.	3	370	373	0	16	16	614	**18**	632
+15 mins.	6	**423**	**429**	0	17	17	**643**	16	**659**
+30 mins.	4	389	393	0	19	19	617	18	635
+45 mins.	**8**	355	363	0	**22**	**22**	602	15	617
Total Volume	21	1537	1558	0	74	74	2476	67	2543
% App. Total	1.3	98.7		0	100		97.4	2.6	
PHF	.656	.908	.908	.000	.841	.841	.963	.931	.965

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City of Ventura
N/S: US-126 Eastbound On Ramp
E/W: East Main Street
Weather: Clear

File Name : 07_VTA_US-126 EB On Ramp_East Main AM
Site Code : 22518716
Start Date : 9/26/2018
Page No : 1

Groups Printed- Total Volume

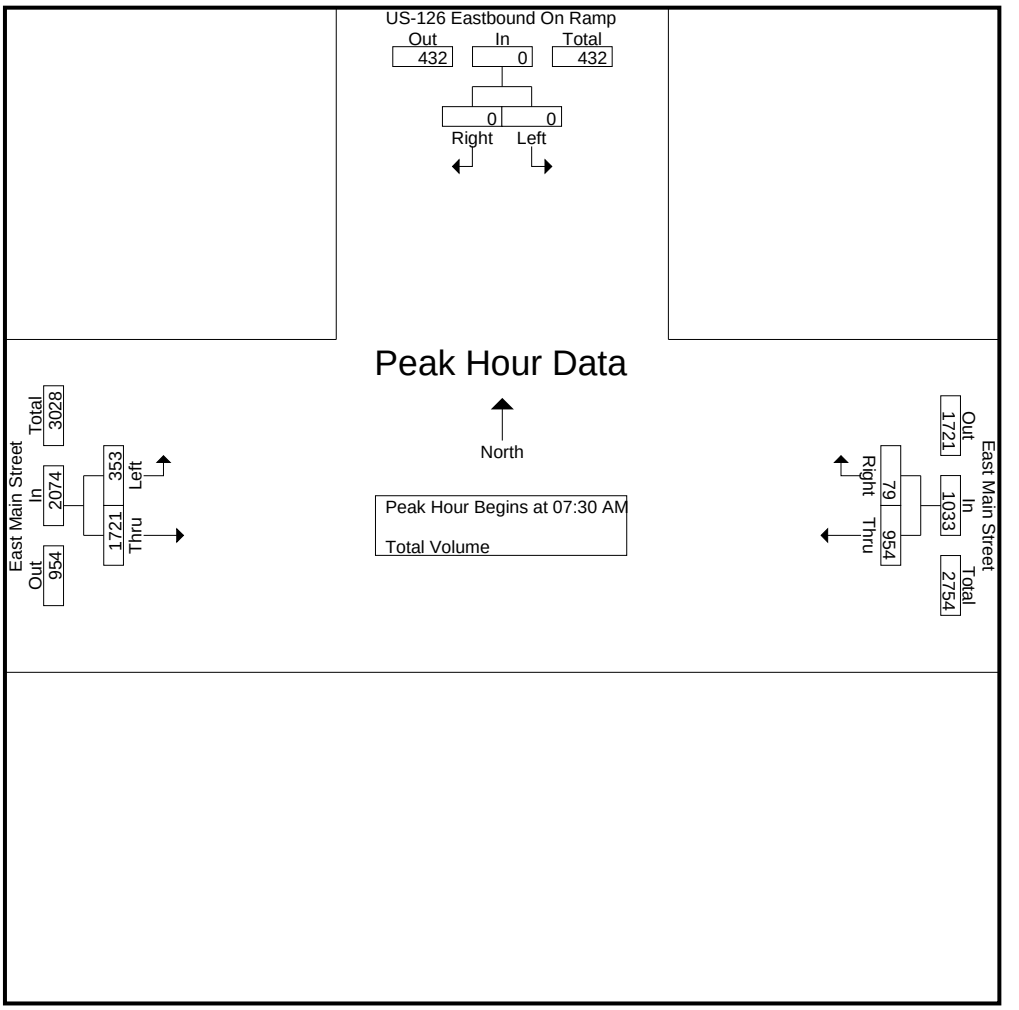
	US-126 Eastbound On Ramp Southbound			East Main Street Westbound			East Main Street Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	0	0	0	129	18	147	29	294	323	470
07:15 AM	0	0	0	160	10	170	64	376	440	610
07:30 AM	0	0	0	253	21	274	82	430	512	786
07:45 AM	0	0	0	263	22	285	107	441	548	833
Total	0	0	0	805	71	876	282	1541	1823	2699
08:00 AM	0	0	0	233	18	251	88	436	524	775
08:15 AM	0	0	0	205	18	223	76	414	490	713
08:30 AM	0	0	0	210	32	242	46	412	458	700
08:45 AM	0	0	0	217	31	248	69	403	472	720
Total	0	0	0	865	99	964	279	1665	1944	2908
Grand Total	0	0	0	1670	170	1840	561	3206	3767	5607
Apprch %	0	0		90.8	9.2		14.9	85.1		
Total %	0	0	0	29.8	3	32.8	10	57.2	67.2	

	US-126 Eastbound On Ramp Southbound			East Main Street Westbound			East Main Street Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	0	0	0	253	21	274	82	430	512	786
07:45 AM	0	0	0	**263**	**22**	**285**	**107**	**441**	**548**	**833**
08:00 AM	0	0	0	233	18	251	88	436	524	775
08:15 AM	0	0	0	205	18	223	76	414	490	713
Total Volume	0	0	0	954	79	1033	353	1721	2074	3107
% App. Total	0	0		92.4	7.6		17	83		
PHF	.000	.000	.000	.907	.898	.906	.825	.976	.946	.932

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Ventura
N/S: US-126 Eastbound On Ramp
E/W: East Main Street
Weather: Clear

File Name : 07_VTA_US-126 EB On Ramp_East Main AM
Site Code : 22518716
Start Date : 9/26/2018
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:30 AM			07:30 AM		
+0 mins.	0	0	0	253	21	274	82	430	512
+15 mins.	0	0	0	**263**	**22**	**285**	**107**	**441**	**548**
+30 mins.	0	0	0	233	18	251	88	436	524
+45 mins.	0	0	0	205	18	223	76	414	490
Total Volume	0	0	0	954	79	1033	353	1721	2074
% App. Total	0	0		92.4	7.6		17	83	
PHF	.000	.000	.000	.907	.898	.906	.825	.976	.946

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Ventura
N/S: US-126 Eastbound On Ramp
E/W: East Main Street
Weather: Clear

File Name : 07_VTA_US-126 EB On Ramp_East Main PM
Site Code : 22518716
Start Date : 9/26/2018
Page No : 1

Groups Printed- Total Volume

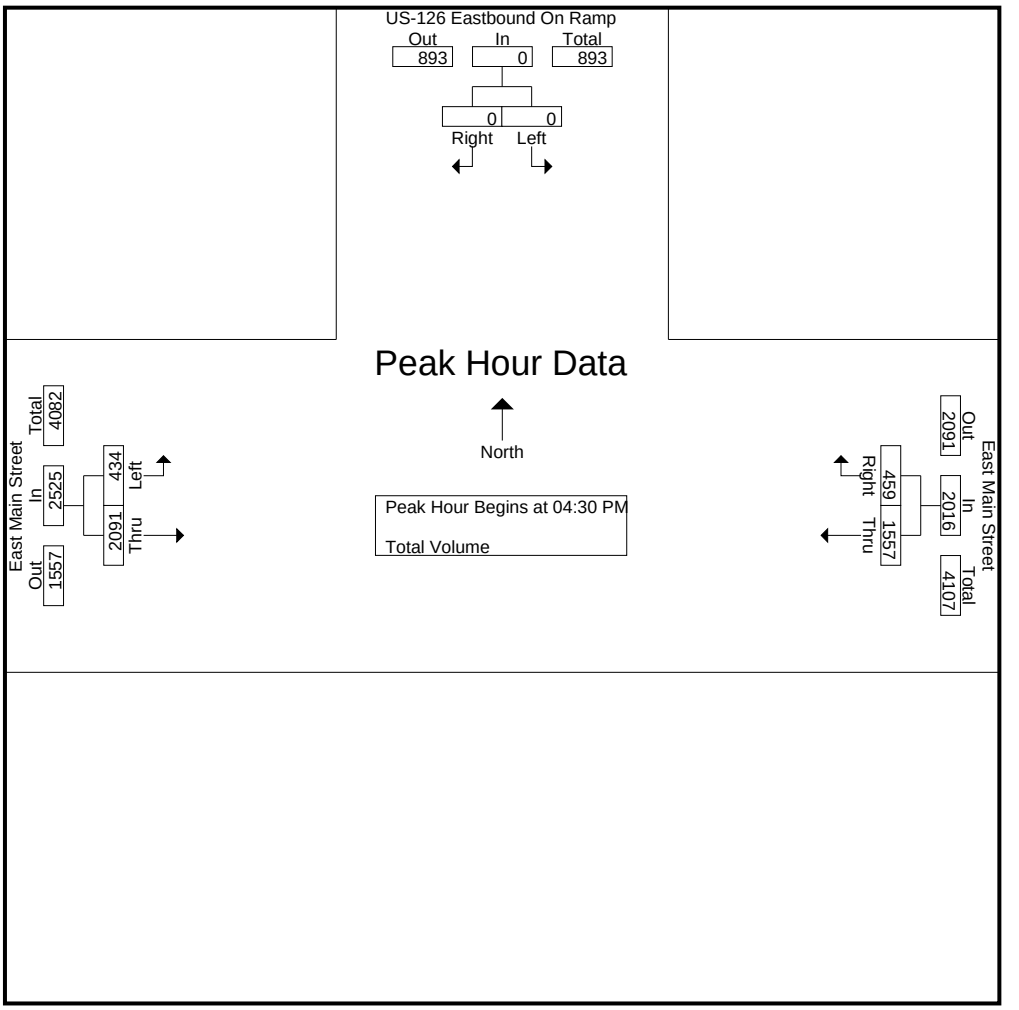
	US-126 Eastbound On Ramp Southbound			East Main Street Westbound			East Main Street Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	0	0	0	393	102	495	98	454	552	1047
04:15 PM	0	0	0	331	76	407	113	462	575	982
04:30 PM	0	0	0	352	86	438	108	523	631	1069
04:45 PM	0	0	0	393	117	510	110	549	659	1169
Total	0	0	0	1469	381	1850	429	1988	2417	4267
05:00 PM	0	0	0	425	149	574	106	515	621	1195
05:15 PM	0	0	0	387	107	494	110	504	614	1108
05:30 PM	0	0	0	359	103	462	90	462	552	1014
05:45 PM	0	0	0	334	89	423	101	429	530	953
Total	0	0	0	1505	448	1953	407	1910	2317	4270
Grand Total	0	0	0	2974	829	3803	836	3898	4734	8537
Apprch %	0	0		78.2	21.8		17.7	82.3		
Total %	0	0	0	34.8	9.7	44.5	9.8	45.7	55.5	

	US-126 Eastbound On Ramp Southbound			East Main Street Westbound			East Main Street Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	0	0	352	86	438	108	523	631	1069
04:45 PM	0	0	0	393	117	510	**110**	**549**	**659**	1169
05:00 PM	0	0	0	**425**	**149**	**574**	106	515	621	**1195**
05:15 PM	0	0	0	387	107	494	110	504	614	1108
Total Volume	0	0	0	1557	459	2016	434	2091	2525	4541
% App. Total	0	0		77.2	22.8		17.2	82.8		
PHF	.000	.000	.000	.916	.770	.878	.986	.952	.958	.950

Counts Unlimited
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Corona, CA 92878
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City of Ventura
N/S: US-126 Eastbound On Ramp
E/W: East Main Street
Weather: Clear

File Name : 07_VTA_US-126 EB On Ramp_East Main PM
Site Code : 22518716
Start Date : 9/26/2018
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:45 PM			04:30 PM		
+0 mins.	0	0	0	393	117	510	108	523	631
+15 mins.	0	0	0	**425**	**149**	**574**	**110**	**549**	**659**
+30 mins.	0	0	0	387	107	494	106	515	621
+45 mins.	0	0	0	359	103	462	110	504	614
Total Volume	0	0	0	1564	476	2040	434	2091	2525
% App. Total	0	0		76.7	23.3		17.2	82.8	
PHF	.000	.000	.000	.920	.799	.889	.986	.952	.958

APPENDIX C

LEVEL OF SERVICE WORKSHEETS

EXISTING

3550 East Main Street Starbucks

Vistro File: G:\...\AM.vistro
Report File: G:\...\AM E.pdf

Scenario 1 Existing
10/24/2018

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Mills Rd (NS) at Dean Dr (EW)	Signalized	ICU 1	NB Thru	0.556	-	A
2	Mills Rd (NS) at East Main St (EW)	Signalized	ICU 1	WB Right	0.669	-	B
3	Mills Rd (NS) at Project Drwy (EW)	Two-way stop	HCM 6th Edition	WB Left	0.009	11.5	B
5	US-101/SR-126 Fwy Ramps (NS) at East Main St (EW)	Signalized	ICU 1	SB Right	0.819	-	D
6	Arundell Ave (NS) at East Main St (EW)	Two-way stop	HCM 6th Edition	WB Left	0.205	49.0	E
7	SR-126 EB On-Ramp (NS) at East Main St (EW)	Signalized	ICU 1	EB Thru	0.359	-	A

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: Mills Rd (NS) at Dean Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.556

Intersection Setup

Name	Mills Rd			Mills Rd			Dean Dr			Dean Dr		
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 Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	200.00	100.00	293.00	200.00	100.00	100.00	61.00	100.00	148.00	445.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Mills Rd			Mills Rd			Dean Dr			Dean Dr		
Base Volume Input [veh/h]	28	1293	369	46	753	6	6	12	6	371	50	49
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	28	1293	369	46	753	6	6	12	6	371	50	49
Peak Hour 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
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]	7	323	92	12	188	2	2	3	2	93	13	12
Total Analysis Volume [veh/h]	28	1293	369	46	753	6	6	12	6	371	50	49
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.40	0.23	0.03	0.24	0.24	0.00	0.01	0.00	0.12	0.03	0.03
Intersection LOS	A											
Intersection V/C	0.556											

Intersection Level Of Service Report
Intersection 2: Mills Rd (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.669

Intersection Setup

Name	Mills Rd			Mills Rd			East Main St			East Main St			
Approach	Northbound			Southbound			Eastbound			Westbound			
Lane Configuration													
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	U-tu	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	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	2	0	1	2	0	0	2
Pocket Length [ft]	100.00	100.00	100.00	442.00	100.00	100.00	213.00	100.00	180.00	253.0	100.0	100.0	273.0
Speed [mph]	30.00			30.00			30.00			30.00			
Grade [%]	0.00			0.00			0.00			0.00			
Crosswalk	Yes			Yes			Yes			No			

Volumes

Name	Mills Rd			Mills Rd			East Main St			East Main St			
Base Volume Input [veh/h]	15	63	234	1024	63	26	99	656	12	0	122	828	1515
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	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	0
Diverted Trips [veh/h]	0	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	0
Existing Site Adjustment Volume [veh/h]	0	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	0
Total Hourly Volume [veh/h]	15	63	234	1024	63	26	99	656	12	0	122	828	1515
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	4	16	59	256	16	7	25	164	3	0	31	207	379
Total Analysis Volume [veh/h]	15	63	234	1024	63	26	99	656	12	0	122	828	1515
Pedestrian Volume [ped/h]	0			0			0			0			
Bicycle Volume [bicycles/h]	0			0			0			0			

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Permi	Prote	Permi	Overl
Signal group	0	2	0	0	6	0	3	8	0	0	7	4	4
Auxiliary Signal Groups													4,6
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.06	0.15	0.21	0.23	0.23	0.03	0.10	0.01	0.00	0.04	0.17	0.26
Intersection LOS	B												
Intersection V/C	0.669												

Intersection Level Of Service Report
Intersection 3: Mills Rd (NS) at Project Drwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	11.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.009

Intersection Setup

Name	Mills Rd		Mills Rd		Project Drwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Mills Rd		Mills Rd		Project Drwy	
Base Volume Input [veh/h]	270	13	14	140	5	9
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
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]	270	13	14	140	5	9
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	68	3	4	35	1	2
Total Analysis Volume [veh/h]	270	13	14	140	5	9
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.01	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	7.85	0.00	11.49	9.83
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.03	0.00	0.06	0.06
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.83	0.00	1.58	1.58
d_A, Approach Delay [s/veh]	0.00		0.71		10.42	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.57					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 5: US-101/SR-126 Fwy Ramps (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.819

Intersection Setup

Name	US-101 Fwy Ramps			US-101 Fwy Ramps			East Main St			East Main St		
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 Pocket	0	0	0	0	0	0	0	0	0	2	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	225.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		Yes			No			No			No	

Volumes

Name	US-101 Fwy Ramps			US-101 Fwy Ramps			East Main St			East Main St		
Base Volume Input [veh/h]	0	0	0	423	0	1889	0	1749	259	195	717	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	423	0	1889	0	1749	259	195	717	0
Peak Hour 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
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	106	0	472	0	437	65	49	179	0
Total Analysis Volume [veh/h]	0	0	0	423	0	1889	0	1749	259	195	717	0
Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	0	0	1	0	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.13	0.00	0.39	0.00	0.36	0.16	0.06	0.15	0.00
Intersection LOS	D											
Intersection V/C	0.819											

Intersection Level Of Service Report
Intersection 6: Arundell Ave (NS) at East Main St (EW)

Control Type:	Two-way stop	Delay (sec / veh):	49.0
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.205

Intersection Setup

Name	Arundell Ave		East Main St		East Main St	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	1	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	150.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Arundell Ave		East Main St		East Main St	
Base Volume Input [veh/h]	0	65	2036	134	21	947
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
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	65	2036	134	21	947
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	16	509	34	5	237
Total Analysis Volume [veh/h]	0	65	2036	134	21	947
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.36	0.02	0.00	0.21	0.01
d_M, Delay for Movement [s/veh]	0.00	35.39	0.00	0.00	49.00	0.00
Movement LOS		E	A	A	E	A
95th-Percentile Queue Length [veh/ln]	0.00	1.51	0.00	0.00	0.72	0.00
95th-Percentile Queue Length [ft/ln]	0.00	37.77	0.00	0.00	18.06	0.00
d_A, Approach Delay [s/veh]	35.39		0.00		1.06	
Approach LOS	E		A		A	
d_I, Intersection Delay [s/veh]	1.04					
Intersection LOS	E					

Intersection Level Of Service Report
Intersection 7: SR-126 EB On-Ramp (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.359

Intersection Setup

Name	US-126 Fwy Ramp		East Main St			East Main St		
Approach	Southbound		Eastbound			Westbound		
Lane Configuration								
Turning Movement	Left	Right	U-turn	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	2	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	225.00	100.00	100.00	72.00	100.00	105.00
Speed [mph]	30.00		30.00			30.00		
Grade [%]	0.00		0.00			0.00		
Crosswalk	No		No			No		

Volumes

Name	US-126 Fwy Ramp		East Main St			East Main St		
Base Volume Input [veh/h]	0	0	0	353	1721	0	954	79
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	353	1721	0	954	79
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	88	430	0	239	20
Total Analysis Volume [veh/h]	0	0	0	353	1721	0	954	79
Pedestrian Volume [ped/h]	0		0			0		
Bicycle Volume [bicycles/h]	0		0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Protected	Permissive	Protected	Permissive	Permissive
Signal group	0	0	0	3	8	7	4	0
Auxiliary Signal Groups								
Lead / Lag	-	-	-	Lead	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.11	0.36	0.00	0.20	0.05
Intersection LOS	A							
Intersection V/C	0.359							

HCS 2010 Two-Way Stop Control Summary Report

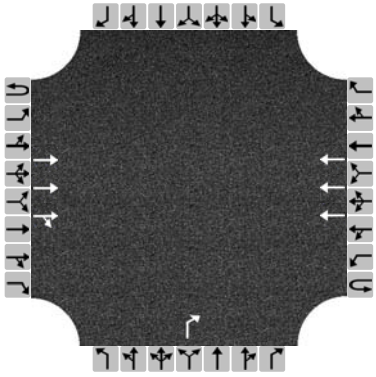
General Information

Analyst	
Agency/Co.	Ganddini Group, Inc.
Date Performed	Existing
Analysis Year	2018
Time Analyzed	Morning Peak Hour
Intersection Orientation	East-West
Project Description	3550 E. Main St. Starbucks

Site Information

Intersection	Project Dwy at E Main St
Jurisdiction	City of Ventura
East/West Street	East Main Street
North/South Street	Project Driveway
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	0	3	0		0	0	1		0	0	0
Configuration			T	TR			T					R				
Volume (veh/h)			1937	1			2532					29				
Percent Heavy Vehicles												3				
Proportion Time Blocked												0.280				
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)												32				
Capacity												660				
v/c Ratio												0.05				
95% Queue Length												0.2				
Control Delay (s/veh)												10.7				
Level of Service (LOS)												B				
Approach Delay (s/veh)									10.7							
Approach LOS									B							

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3550 East Main Street Starbucks

Vistro File: G:\...\PM.vistro
Report File: G:\...\PM E.pdf

Scenario 1 Existing
10/24/2018

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Mills Rd (NS) at Dean Dr (EW)	Signalized	ICU 1	SB Thru	0.564	-	A
2	Mills Rd (NS) at East Main St (EW)	Signalized	ICU 1	SB Thru	0.617	-	B
3	Mills Rd (NS) at Project Drwy (EW)	Two-way stop	HCM 6th Edition	WB Left	0.018	11.8	B
5	US-101/SR-126 Fwy Ramps (NS) at East Main St (EW)	Signalized	ICU 1	EB Thru	0.901	-	E
6	Arundell Ave (NS) at East Main St (EW)	Two-way stop	HCM 6th Edition	WB Left	0.243	76.5	F
7	SR-126 EB On-Ramp (NS) at East Main St (EW)	Signalized	ICU 1	EB Thru	0.460	-	A

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: Mills Rd (NS) at Dean Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.564

Intersection Setup

Name	Mills Rd			Mills Rd			Dean Dr			Dean Dr		
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 Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	200.00	100.00	293.00	200.00	100.00	100.00	61.00	100.00	148.00	445.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Mills Rd			Mills Rd			Dean Dr			Dean Dr		
Base Volume Input [veh/h]	122	897	329	67	956	26	25	32	144	290	47	50
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	122	897	329	67	956	26	25	32	144	290	47	50
Peak Hour 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
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]	31	224	82	17	239	7	6	8	36	73	12	13
Total Analysis Volume [veh/h]	122	897	329	67	956	26	25	32	144	290	47	50
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.28	0.21	0.04	0.31	0.31	0.02	0.02	0.09	0.09	0.03	0.03
Intersection LOS	A											
Intersection V/C	0.564											

Intersection Level Of Service Report
Intersection 2: Mills Rd (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.617

Intersection Setup

Name	Mills Rd			Mills Rd			East Main St			East Main St			
Approach	Northbound			Southbound			Eastbound			Westbound			
Lane Configuration													
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	U-tu	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	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	2	0	1	2	0	0	2
Pocket Length [ft]	100.00	100.00	100.00	442.00	100.00	100.00	213.00	100.00	180.00	253.0	100.0	100.0	273.0
Speed [mph]	30.00			30.00			30.00			30.00			
Grade [%]	0.00			0.00			0.00			0.00			
Crosswalk	Yes			Yes			Yes			No			

Volumes

Name	Mills Rd			Mills Rd			East Main St			East Main St			
Base Volume Input [veh/h]	17	57	164	1298	63	42	74	1067	13	0	178	822	1276
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	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	0
Diverted Trips [veh/h]	0	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	0
Existing Site Adjustment Volume [veh/h]	0	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	0
Total Hourly Volume [veh/h]	17	57	164	1298	63	42	74	1067	13	0	178	822	1276
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	4	14	41	325	16	11	19	267	3	0	45	206	319
Total Analysis Volume [veh/h]	17	57	164	1298	63	42	74	1067	13	0	178	822	1276
Pedestrian Volume [ped/h]	0			0			0			0			
Bicycle Volume [bicycles/h]	0			0			0			0			

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Permi	Prote	Permi	Overl
Signal group	0	2	0	0	6	0	3	8	0	0	7	4	4
Auxiliary Signal Groups													4,6
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.07	0.10	0.27	0.29	0.29	0.02	0.17	0.01	0.00	0.06	0.17	0.13
Intersection LOS	B												
Intersection V/C	0.617												

Intersection Level Of Service Report
Intersection 3: Mills Rd (NS) at Project Drwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	11.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.018

Intersection Setup

Name	Mills Rd		Mills Rd		Project Drwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Mills Rd		Mills Rd		Project Drwy	
Base Volume Input [veh/h]	171	6	32	209	10	39
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
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]	171	6	32	209	10	39
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	43	2	8	52	3	10
Total Analysis Volume [veh/h]	171	6	32	209	10	39
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.02	0.00	0.02	0.04
d_M, Delay for Movement [s/veh]	0.00	0.00	7.63	0.00	11.78	9.45
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.07	0.00	0.20	0.20
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.75	0.00	5.02	5.02
d_A, Approach Delay [s/veh]	0.00		1.01		9.93	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	1.56					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 5: US-101/SR-126 Fwy Ramps (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.901

Intersection Setup

Name	US-101 Fwy Ramps			US-101 Fwy Ramps			East Main St			East Main St		
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 Pocket	0	0	0	0	0	0	0	0	0	2	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	225.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		Yes			No			No			No	

Volumes

Name	US-101 Fwy Ramps			US-101 Fwy Ramps			East Main St			East Main St		
Base Volume Input [veh/h]	0	0	0	223	0	1361	0	2305	279	439	1083	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	223	0	1361	0	2305	279	439	1083	0
Peak Hour 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
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	56	0	340	0	576	70	110	271	0
Total Analysis Volume [veh/h]	0	0	0	223	0	1361	0	2305	279	439	1083	0
Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	0	0	1	0	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.07	0.00	0.28	0.00	0.48	0.17	0.14	0.23	0.00
Intersection LOS	E											
Intersection V/C	0.901											

Intersection Level Of Service Report
Intersection 6: Arundell Ave (NS) at East Main St (EW)

Control Type:	Two-way stop	Delay (sec / veh):	76.5
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.243

Intersection Setup

Name	Arundell Ave		East Main St		East Main St	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	1	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	150.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Arundell Ave		East Main St		East Main St	
Base Volume Input [veh/h]	0	68	2476	67	16	1522
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
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	68	2476	67	16	1522
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	17	619	17	4	381
Total Analysis Volume [veh/h]	0	68	2476	67	16	1522
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.50	0.02	0.00	0.24	0.02
d_M, Delay for Movement [s/veh]	0.00	55.24	0.00	0.00	76.53	0.00
Movement LOS		F	A	A	F	A
95th-Percentile Queue Length [veh/ln]	0.00	2.34	0.00	0.00	0.85	0.00
95th-Percentile Queue Length [ft/ln]	0.00	58.62	0.00	0.00	21.22	0.00
d_A, Approach Delay [s/veh]	55.24		0.00		0.80	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	1.20					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 7: SR-126 EB On-Ramp (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.460

Intersection Setup

Name	US-126 Fwy Ramp		East Main St			East Main St		
Approach	Southbound		Eastbound			Westbound		
Lane Configuration								
Turning Movement	Left	Right	U-turn	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	2	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	225.00	100.00	100.00	72.00	100.00	105.00
Speed [mph]	30.00		30.00			30.00		
Grade [%]	0.00		0.00			0.00		
Crosswalk	No		No			No		

Volumes

Name	US-126 Fwy Ramp		East Main St			East Main St		
Base Volume Input [veh/h]	0	0	0	434	2091	0	1557	459
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	434	2091	0	1557	459
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	109	523	0	389	115
Total Analysis Volume [veh/h]	0	0	0	434	2091	0	1557	459
Pedestrian Volume [ped/h]	0		0			0		
Bicycle Volume [bicycles/h]	0		0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Protected	Permissive	Protected	Permissive	Permissive
Signal group	0	0	0	3	8	7	4	0
Auxiliary Signal Groups								
Lead / Lag	-	-	-	Lead	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.14	0.44	0.00	0.32	0.29
Intersection LOS	A							
Intersection V/C	0.460							

HCS 2010 Two-Way Stop Control Summary Report

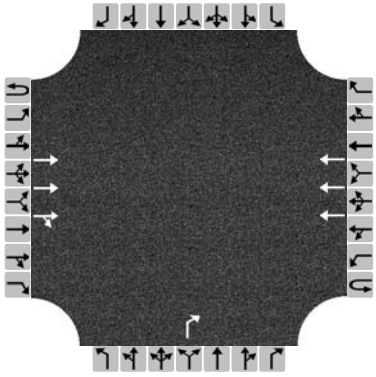
General Information

Analyst	
Agency/Co.	Ganddini Group, Inc.
Date Performed	Existing
Analysis Year	2018
Time Analyzed	Evening Peak Hour
Intersection Orientation	East-West
Project Description	3550 E. Main St. Starbucks

Site Information

Intersection	Project Dwy at E Main St
Jurisdiction	City of Ventura
East/West Street	East Main Street
North/South Street	Project Driveway
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	0	3	0		0	0	1		0	0	0
Configuration			T	TR			T					R				
Volume (veh/h)			2526	24			2361					44				
Percent Heavy Vehicles												3				
Proportion Time Blocked			0.000	0.000			0.000					0.380				
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)												48				
Capacity												568				
v/c Ratio												0.08				
95% Queue Length												0.3				
Control Delay (s/veh)												11.9				
Level of Service (LOS)												B				
Approach Delay (s/veh)									11.9							
Approach LOS									B							

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EXISTING PLUS PROJECT

3550 East Main Street Starbucks

Vistro File: G:\...\AM.vistro
Report File: G:\...\AM EP.pdf

Scenario 2 Existing Plus Project
10/24/2018

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Mills Rd (NS) at Dean Dr (EW)	Signalized	ICU 1	NB Thru	0.561	-	A
2	Mills Rd (NS) at East Main St (EW)	Signalized	ICU 1	WB Right	0.670	-	B
3	Mills Rd (NS) at Project Drwy (EW)	Two-way stop	HCM 6th Edition	WB Left	0.015	11.9	B
5	US-101/SR-126 Fwy Ramps (NS) at East Main St (EW)	Signalized	ICU 1	SB Right	0.831	-	D
6	Arundell Ave (NS) at East Main St (EW)	Two-way stop	HCM 6th Edition	WB Left	0.211	50.6	F
7	SR-126 EB On-Ramp (NS) at East Main St (EW)	Signalized	ICU 1	EB Thru	0.359	-	A

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: Mills Rd (NS) at Dean Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.561

Intersection Setup

Name	Mills Rd			Mills Rd			Dean Dr			Dean Dr		
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 Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	200.00	100.00	293.00	200.00	100.00	100.00	61.00	100.00	148.00	445.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Mills Rd			Mills Rd			Dean Dr			Dean Dr		
Base Volume Input [veh/h]	28	1293	369	46	753	6	6	12	6	371	50	49
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	10	3	0	11	0	0	0	0	4	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	28	1303	372	46	764	6	6	12	6	375	50	49
Peak Hour 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
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]	7	326	93	12	191	2	2	3	2	94	13	12
Total Analysis Volume [veh/h]	28	1303	372	46	764	6	6	12	6	375	50	49
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.41	0.23	0.03	0.24	0.24	0.00	0.01	0.00	0.12	0.03	0.03
Intersection LOS	A											
Intersection V/C	0.561											

Intersection Level Of Service Report
Intersection 2: Mills Rd (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.670

Intersection Setup

Name	Mills Rd			Mills Rd			East Main St			East Main St			
Approach	Northbound			Southbound			Eastbound			Westbound			
Lane Configuration													
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	U-tu	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	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	2	0	1	2	0	0	2
Pocket Length [ft]	100.00	100.00	100.00	442.00	100.00	100.00	213.00	100.00	180.00	253.0	100.0	100.0	273.0
Speed [mph]	30.00			30.00			30.00			30.00			
Grade [%]	0.00			0.00			0.00			0.00			
Crosswalk	Yes			Yes			Yes			No			

Volumes

Name	Mills Rd			Mills Rd			East Main St			East Main St			
Base Volume Input [veh/h]	15	63	234	1024	63	26	99	656	12	0	122	828	1515
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	10	13	0	11	4	0	0	7	4	43	0	0	0
Diverted Trips [veh/h]	0	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	0
Existing Site Adjustment Volume [veh/h]	0	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	0
Total Hourly Volume [veh/h]	25	76	234	1035	67	26	99	663	16	43	122	828	1515
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	6	19	59	259	17	7	25	166	4	11	31	207	379
Total Analysis Volume [veh/h]	25	76	234	1035	67	26	99	663	16	43	122	828	1515
Pedestrian Volume [ped/h]	0			0			0			0			
Bicycle Volume [bicycles/h]	0			0			0			0			

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Permi	Prote	Permi	Overl
Signal group	0	2	0	0	6	0	3	8	0	0	7	4	4
Auxiliary Signal Groups													4,6
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.09	0.15	0.22	0.24	0.24	0.03	0.10	0.01	0.03	0.04	0.17	0.26
Intersection LOS	B												
Intersection V/C	0.670												

Intersection Level Of Service Report
Intersection 3: Mills Rd (NS) at Project Drwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	11.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.015

Intersection Setup

Name	Mills Rd		Mills Rd		Project Drwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Mills Rd		Mills Rd		Project Drwy	
Base Volume Input [veh/h]	270	13	14	140	5	9
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	4	8	0	3	23
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]	270	17	22	140	8	32
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	68	4	6	35	2	8
Total Analysis Volume [veh/h]	270	17	22	140	8	32
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.02	0.00	0.01	0.04
d_M, Delay for Movement [s/veh]	0.00	0.00	7.87	0.00	11.88	10.04
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.05	0.00	0.18	0.18
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.32	0.00	4.50	4.50
d_A, Approach Delay [s/veh]	0.00		1.07		10.41	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	1.21					
Intersection LOS	B					

Intersection Level Of Service Report

Intersection 5: US-101/SR-126 Fwy Ramps (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.831

Intersection Setup

Name	US-101 Fwy Ramps			US-101 Fwy Ramps			East Main St			East Main St		
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 Pocket	0	0	0	0	0	0	0	0	0	2	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	225.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		Yes			No			No			No	

Volumes

Name	US-101 Fwy Ramps			US-101 Fwy Ramps			East Main St			East Main St		
Base Volume Input [veh/h]	0	0	0	423	0	1889	0	1749	259	195	717	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	35	0	24	17	0	8	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	423	0	1924	0	1773	276	195	725	0
Peak Hour 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
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	106	0	481	0	443	69	49	181	0
Total Analysis Volume [veh/h]	0	0	0	423	0	1924	0	1773	276	195	725	0
Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	0	0	1	0	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.13	0.00	0.40	0.00	0.37	0.17	0.06	0.15	0.00
Intersection LOS	D											
Intersection V/C	0.831											

Intersection Level Of Service Report
Intersection 6: Arundell Ave (NS) at East Main St (EW)

Control Type:	Two-way stop	Delay (sec / veh):	50.6
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.211

Intersection Setup

Name	Arundell Ave		East Main St		East Main St	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	1	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	150.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Arundell Ave		East Main St		East Main St	
Base Volume Input [veh/h]	0	65	2036	134	21	947
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	4	21	3	0	8
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	69	2057	137	21	955
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	17	514	34	5	239
Total Analysis Volume [veh/h]	0	69	2057	137	21	955
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.39	0.02	0.00	0.21	0.01
d_M, Delay for Movement [s/veh]	0.00	37.30	0.00	0.00	50.57	0.00
Movement LOS		E	A	A	F	A
95th-Percentile Queue Length [veh/ln]	0.00	1.68	0.00	0.00	0.75	0.00
95th-Percentile Queue Length [ft/ln]	0.00	42.04	0.00	0.00	18.63	0.00
d_A, Approach Delay [s/veh]	37.30		0.00		1.09	
Approach LOS	E		A		A	
d_I, Intersection Delay [s/veh]	1.12					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 7: SR-126 EB On-Ramp (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.359

Intersection Setup

Name	US-126 Fwy Ramp		East Main St			East Main St		
Approach	Southbound		Eastbound			Westbound		
Lane Configuration								
Turning Movement	Left	Right	U-turn	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	2	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	225.00	100.00	100.00	72.00	100.00	105.00
Speed [mph]	30.00		30.00			30.00		
Grade [%]	0.00		0.00			0.00		
Crosswalk	No		No			No		

Volumes

Name	US-126 Fwy Ramp		East Main St			East Main St		
Base Volume Input [veh/h]	0	0	0	353	1721	0	954	79
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	4	18	3	0	4	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	4	371	1724	0	958	79
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	1	93	431	0	240	20
Total Analysis Volume [veh/h]	0	0	4	371	1724	0	958	79
Pedestrian Volume [ped/h]	0		0			0		
Bicycle Volume [bicycles/h]	0		0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Protected	Permissive	Protected	Permissive	Permissive
Signal group	0	0	0	3	8	7	4	0
Auxiliary Signal Groups								
Lead / Lag	-	-	-	Lead	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.12	0.36	0.00	0.20	0.05
Intersection LOS	A							
Intersection V/C	0.359							

HCS 2010 Two-Way Stop Control Summary Report

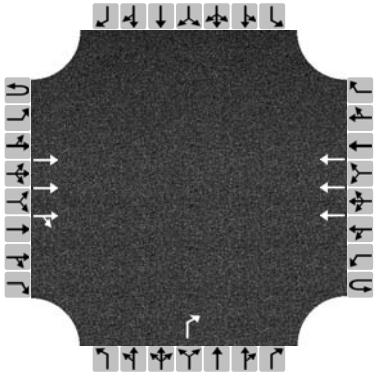
General Information

Analyst	
Agency/Co.	Ganddini Group, Inc.
Date Performed	Existing Plus Project
Analysis Year	2018
Time Analyzed	Morning Peak Hour
Intersection Orientation	East-West
Project Description	3550 E. Main St. Starbucks

Site Information

Intersection	Project Dwy at E Main St
Jurisdiction	City of Ventura
East/West Street	East Main Street
North/South Street	Project Driveway
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	0	3	0		0	0	1		0	0	0
Configuration			T	TR			T					R				
Volume (veh/h)			1870	129			2575					135				
Percent Heavy Vehicles												3				
Proportion Time Blocked			0.000	0.000			0.000					0.280				
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)												147				
Capacity												660				
v/c Ratio												0.22				
95% Queue Length												0.8				
Control Delay (s/veh)												12.0				
Level of Service (LOS)												B				
Approach Delay (s/veh)									12.0							
Approach LOS									B							

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3550 East Main Street Starbucks

Vistro File: G:\...\PM.vistro
Report File: G:\...\PM EP.pdf

Scenario 2 Existing Plus Project
10/24/2018

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Mills Rd (NS) at Dean Dr (EW)	Signalized	ICU 1	SB Thru	0.566	-	A
2	Mills Rd (NS) at East Main St (EW)	Signalized	ICU 1	SB Thru	0.619	-	B
3	Mills Rd (NS) at Project Drwy (EW)	Two-way stop	HCM 6th Edition	WB Left	0.022	12.0	B
5	US-101/SR-126 Fwy Ramps (NS) at East Main St (EW)	Signalized	ICU 1	EB Thru	0.907	-	E
6	Arundell Ave (NS) at East Main St (EW)	Two-way stop	HCM 6th Edition	WB Left	0.247	77.7	F
7	SR-126 EB On-Ramp (NS) at East Main St (EW)	Signalized	ICU 1	EB Thru	0.463	-	A

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: Mills Rd (NS) at Dean Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.566

Intersection Setup

Name	Mills Rd			Mills Rd			Dean Dr			Dean Dr		
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 Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	200.00	100.00	293.00	200.00	100.00	100.00	61.00	100.00	148.00	445.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Mills Rd			Mills Rd			Dean Dr			Dean Dr		
Base Volume Input [veh/h]	122	897	329	67	956	26	25	32	144	290	47	50
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	5	2	0	5	0	0	0	0	2	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	122	902	331	67	961	26	25	32	144	292	47	50
Peak Hour 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
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]	31	226	83	17	240	7	6	8	36	73	12	13
Total Analysis Volume [veh/h]	122	902	331	67	961	26	25	32	144	292	47	50
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.28	0.21	0.04	0.31	0.31	0.02	0.02	0.09	0.09	0.03	0.03
Intersection LOS	A											
Intersection V/C	0.566											

Intersection Level Of Service Report
Intersection 2: Mills Rd (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.619

Intersection Setup

Name	Mills Rd			Mills Rd			East Main St			East Main St			
Approach	Northbound			Southbound			Eastbound			Westbound			
Lane Configuration													
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	U-tu	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	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	2	0	1	2	0	0	2
Pocket Length [ft]	100.00	100.00	100.00	442.00	100.00	100.00	213.00	100.00	180.00	253.0	100.0	100.0	273.0
Speed [mph]	30.00			30.00			30.00			30.00			
Grade [%]	0.00			0.00			0.00			0.00			
Crosswalk	Yes			Yes			Yes			No			

Volumes

Name	Mills Rd			Mills Rd			East Main St			East Main St			
Base Volume Input [veh/h]	17	57	164	1298	63	42	74	1067	13	0	178	822	1276
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	5	7	0	5	2	0	0	3	2	21	0	0	0
Diverted Trips [veh/h]	0	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	0
Existing Site Adjustment Volume [veh/h]	0	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	0
Total Hourly Volume [veh/h]	22	64	164	1303	65	42	74	1070	15	21	178	822	1276
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	6	16	41	326	16	11	19	268	4	5	45	206	319
Total Analysis Volume [veh/h]	22	64	164	1303	65	42	74	1070	15	21	178	822	1276
Pedestrian Volume [ped/h]	0			0			0			0			
Bicycle Volume [bicycles/h]	0			0			0			0			

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Permi	Prote	Permi	Overl
Signal group	0	2	0	0	6	0	3	8	0	0	7	4	4
Auxiliary Signal Groups													4,6
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.08	0.10	0.27	0.29	0.29	0.02	0.17	0.01	0.01	0.06	0.17	0.13
Intersection LOS	B												
Intersection V/C	0.619												

Intersection Level Of Service Report
Intersection 3: Mills Rd (NS) at Project Drwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	12.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.022

Intersection Setup

Name	Mills Rd		Mills Rd		Project Drwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Mills Rd		Mills Rd		Project Drwy	
Base Volume Input [veh/h]	171	6	32	209	10	39
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	2	4	0	2	12
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]	171	8	36	209	12	51
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	43	2	9	52	3	13
Total Analysis Volume [veh/h]	171	8	36	209	12	51
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.03	0.00	0.02	0.06
d_M, Delay for Movement [s/veh]	0.00	0.00	7.65	0.00	11.97	9.55
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.08	0.00	0.26	0.26
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.98	0.00	6.56	6.56
d_A, Approach Delay [s/veh]	0.00		1.12		10.01	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	1.86					
Intersection LOS	B					

Intersection Level Of Service Report

Intersection 5: US-101/SR-126 Fwy Ramps (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.907

Intersection Setup

Name	US-101 Fwy Ramps			US-101 Fwy Ramps			East Main St			East Main St		
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 Pocket	0	0	0	0	0	0	0	0	0	2	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	225.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		Yes			No			No			No	

Volumes

Name	US-101 Fwy Ramps			US-101 Fwy Ramps			East Main St			East Main St		
Base Volume Input [veh/h]	0	0	0	223	0	1361	0	2305	279	439	1083	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	17	0	11	8	0	4	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	223	0	1378	0	2316	287	439	1087	0
Peak Hour 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
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	56	0	345	0	579	72	110	272	0
Total Analysis Volume [veh/h]	0	0	0	223	0	1378	0	2316	287	439	1087	0
Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	0	0	1	0	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.07	0.00	0.29	0.00	0.48	0.18	0.14	0.23	0.00
Intersection LOS	E											
Intersection V/C	0.907											

Intersection Level Of Service Report
Intersection 6: Arundell Ave (NS) at East Main St (EW)

Control Type:	Two-way stop	Delay (sec / veh):	77.7
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.247

Intersection Setup

Name	Arundell Ave		East Main St		East Main St	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	1	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	150.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Arundell Ave		East Main St		East Main St	
Base Volume Input [veh/h]	0	68	2476	67	16	1522
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	2	9	2	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]	0	70	2485	69	16	1526
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	18	621	17	4	382
Total Analysis Volume [veh/h]	0	70	2485	69	16	1526
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.52	0.02	0.00	0.25	0.02
d_M, Delay for Movement [s/veh]	0.00	57.29	0.00	0.00	77.75	0.00
Movement LOS		F	A	A	F	A
95th-Percentile Queue Length [veh/ln]	0.00	2.47	0.00	0.00	0.86	0.00
95th-Percentile Queue Length [ft/ln]	0.00	61.86	0.00	0.00	21.51	0.00
d_A, Approach Delay [s/veh]	57.29		0.00		0.81	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	1.26					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 7: SR-126 EB On-Ramp (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.463

Intersection Setup

Name	US-126 Fwy Ramp		East Main St			East Main St		
Approach	Southbound		Eastbound			Westbound		
Lane Configuration								
Turning Movement	Left	Right	U-turn	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	2	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	225.00	100.00	100.00	72.00	100.00	105.00
Speed [mph]	30.00		30.00			30.00		
Grade [%]	0.00		0.00			0.00		
Crosswalk	No		No			No		

Volumes

Name	US-126 Fwy Ramp		East Main St			East Main St		
Base Volume Input [veh/h]	0	0	0	434	2091	0	1557	459
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	2	7	2	0	2	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	2	441	2093	0	1559	459
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	1	110	523	0	390	115
Total Analysis Volume [veh/h]	0	0	2	441	2093	0	1559	459
Pedestrian Volume [ped/h]	0		0			0		
Bicycle Volume [bicycles/h]	0		0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Protected	Permissive	Protected	Permissive	Permissive
Signal group	0	0	0	3	8	7	4	0
Auxiliary Signal Groups								
Lead / Lag	-	-	-	Lead	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.14	0.44	0.00	0.32	0.29
Intersection LOS	A							
Intersection V/C	0.463							

HCS 2010 Two-Way Stop Control Summary Report

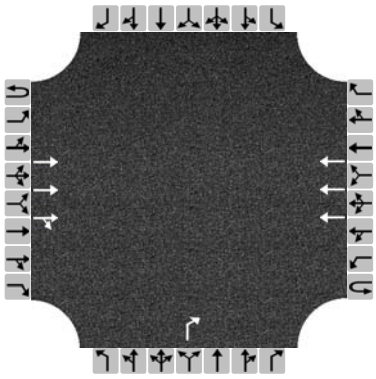
General Information

Analyst	
Agency/Co.	Ganddini Group, Inc.
Date Performed	Existing Plus Project
Analysis Year	2018
Time Analyzed	Evening Peak Hour
Intersection Orientation	East-West
Project Description	3550 E. Main St. Starbucks

Site Information

Intersection	Project Dwy at E Main St
Jurisdiction	City of Ventura
East/West Street	East Main Street
North/South Street	Project Driveway
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	0	3	0		0	0	1		0	0	0
Configuration			T	TR			T					R				
Volume (veh/h)			2493	86			2382					96				
Percent Heavy Vehicles												3				
Proportion Time Blocked			0.000	0.000			0.000					0.380				
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)												104				
Capacity												568				
v/c Ratio												0.18				
95% Queue Length												0.7				
Control Delay (s/veh)												12.8				
Level of Service (LOS)												B				
Approach Delay (s/veh)									12.8							
Approach LOS									B							

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EXISTING PLUS PROJECT ALTERNATIVE 1

3550 East Main Street Starbucks

Vistro File: G:\...\AM Alt 1.vistro
Report File: G:\...\AM EP Alt 1.pdf

Scenario 1 Existing Plus Project Alternative 1
10/24/2018

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Mills Rd (NS) at Dean Dr (EW)	Signalized	ICU 1	NB Thru	0.561	-	A
2	Mills Rd (NS) at East Main St (EW)	Signalized	ICU 1	WB Right	0.696	-	B
3	Mills Rd (NS) at Project Drwy (EW)	Two-way stop	HCM 6th Edition	WB Left	0.015	12.7	B
5	US-101/SR-126 Fwy Ramps (NS) at East Main St (EW)	Signalized	ICU 1	SB Right	0.831	-	D
6	Arundell Ave (NS) at East Main St (EW)	Two-way stop	HCM 6th Edition	WB Left	0.211	50.6	F
7	SR-126 EB On-Ramp (NS) at East Main St (EW)	Signalized	ICU 1	EB Thru	0.359	-	A

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: Mills Rd (NS) at Dean Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.561

Intersection Setup

Name	Mills Rd			Mills Rd			Dean Dr			Dean Dr		
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 Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	200.00	100.00	293.00	200.00	100.00	100.00	61.00	100.00	148.00	445.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Mills Rd			Mills Rd			Dean Dr			Dean Dr		
Base Volume Input [veh/h]	28	1293	369	46	753	6	6	12	6	371	50	49
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	10	3	0	11	0	0	0	0	4	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	28	1303	372	46	764	6	6	12	6	375	50	49
Peak Hour 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
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]	7	326	93	12	191	2	2	3	2	94	13	12
Total Analysis Volume [veh/h]	28	1303	372	46	764	6	6	12	6	375	50	49
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.41	0.23	0.03	0.24	0.24	0.00	0.01	0.00	0.12	0.03	0.03
Intersection LOS	A											
Intersection V/C	0.561											

Intersection Level Of Service Report
Intersection 2: Mills Rd (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.696

Intersection Setup

Name	Mills Rd			Mills Rd			East Main St			East Main St			
Approach	Northbound			Southbound			Eastbound			Westbound			
Lane Configuration													
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	U-tu	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	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	2	0	1	2	0	0	2
Pocket Length [ft]	100.00	100.00	100.00	442.00	100.00	100.00	213.00	100.00	180.00	253.0	100.0	100.0	273.0
Speed [mph]	30.00			30.00			30.00			30.00			
Grade [%]	0.00			0.00			0.00			0.00			
Crosswalk	Yes			Yes			Yes			No			

Volumes

Name	Mills Rd			Mills Rd			East Main St			East Main St			
Base Volume Input [veh/h]	15	63	234	1024	63	26	99	656	12	0	122	828	1515
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	10	13	41	11	4	0	0	7	4	43	0	0	0
Diverted Trips [veh/h]	0	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	0
Existing Site Adjustment Volume [veh/h]	0	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	0
Total Hourly Volume [veh/h]	25	76	275	1035	67	26	99	663	16	43	122	828	1515
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	6	19	69	259	17	7	25	166	4	11	31	207	379
Total Analysis Volume [veh/h]	25	76	275	1035	67	26	99	663	16	43	122	828	1515
Pedestrian Volume [ped/h]	0			0			0			0			
Bicycle Volume [bicycles/h]	0			0			0			0			

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Permi	Prote	Permi	Overl
Signal group	0	2	0	0	6	0	3	8	0	0	7	4	4
Auxiliary Signal Groups													4,6
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.09	0.17	0.22	0.24	0.24	0.03	0.10	0.01	0.03	0.04	0.17	0.26
Intersection LOS	B												
Intersection V/C	0.696												

Intersection Level Of Service Report
Intersection 3: Mills Rd (NS) at Project Drwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	12.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.015

Intersection Setup

Name	Mills Rd		Mills Rd		Project Drwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Mills Rd		Mills Rd		Project Drwy	
Base Volume Input [veh/h]	270	13	14	140	5	9
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	4	8	0	3	64
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	65
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]	270	17	22	140	8	138
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	68	4	6	35	2	35
Total Analysis Volume [veh/h]	270	17	22	140	8	138
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.02	0.00	0.01	0.18
d_M, Delay for Movement [s/veh]	0.00	0.00	7.87	0.00	12.75	10.91
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.05	0.00	0.72	0.72
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.32	0.00	18.12	18.12
d_A, Approach Delay [s/veh]	0.00		1.07		11.01	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	2.99					
Intersection LOS	B					

Intersection Level Of Service Report

Intersection 5: US-101/SR-126 Fwy Ramps (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.831

Intersection Setup

Name	US-101 Fwy Ramps			US-101 Fwy Ramps			East Main St			East Main St		
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 Pocket	0	0	0	0	0	0	0	0	0	2	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	225.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		Yes			No			No			No	

Volumes

Name	US-101 Fwy Ramps			US-101 Fwy Ramps			East Main St			East Main St		
Base Volume Input [veh/h]	0	0	0	423	0	1889	0	1749	259	195	717	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	35	0	24	17	0	8	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	423	0	1924	0	1773	276	195	725	0
Peak Hour 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
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	106	0	481	0	443	69	49	181	0
Total Analysis Volume [veh/h]	0	0	0	423	0	1924	0	1773	276	195	725	0
Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	0	0	1	0	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.13	0.00	0.40	0.00	0.37	0.17	0.06	0.15	0.00
Intersection LOS	D											
Intersection V/C	0.831											

Intersection Level Of Service Report
Intersection 6: Arundell Ave (NS) at East Main St (EW)

Control Type:	Two-way stop	Delay (sec / veh):	50.6
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.211

Intersection Setup

Name	Arundell Ave		East Main St		East Main St	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	1	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	150.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Arundell Ave		East Main St		East Main St	
Base Volume Input [veh/h]	0	65	2036	134	21	947
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	4	21	3	0	8
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	69	2057	137	21	955
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	17	514	34	5	239
Total Analysis Volume [veh/h]	0	69	2057	137	21	955
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.39	0.02	0.00	0.21	0.01
d_M, Delay for Movement [s/veh]	0.00	37.30	0.00	0.00	50.57	0.00
Movement LOS		E	A	A	F	A
95th-Percentile Queue Length [veh/ln]	0.00	1.68	0.00	0.00	0.75	0.00
95th-Percentile Queue Length [ft/ln]	0.00	42.04	0.00	0.00	18.63	0.00
d_A, Approach Delay [s/veh]	37.30		0.00		1.09	
Approach LOS	E		A		A	
d_I, Intersection Delay [s/veh]	1.12					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 7: SR-126 EB On-Ramp (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.359

Intersection Setup

Name	US-126 Fwy Ramp		East Main St			East Main St		
Approach	Southbound		Eastbound			Westbound		
Lane Configuration								
Turning Movement	Left	Right	U-turn	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	2	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	225.00	100.00	100.00	72.00	100.00	105.00
Speed [mph]	30.00		30.00			30.00		
Grade [%]	0.00		0.00			0.00		
Crosswalk	No		No			No		

Volumes

Name	US-126 Fwy Ramp		East Main St			East Main St		
Base Volume Input [veh/h]	0	0	0	353	1721	0	954	79
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	4	18	3	0	4	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	4	371	1724	0	958	79
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	1	93	431	0	240	20
Total Analysis Volume [veh/h]	0	0	4	371	1724	0	958	79
Pedestrian Volume [ped/h]	0		0			0		
Bicycle Volume [bicycles/h]	0		0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Protected	Permissive	Protected	Permissive	Permissive
Signal group	0	0	0	3	8	7	4	0
Auxiliary Signal Groups								
Lead / Lag	-	-	-	Lead	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.12	0.36	0.00	0.20	0.05
Intersection LOS	A							
Intersection V/C	0.359							

3550 East Main Street Starbucks

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Scenario 1 Existing Plus Project Alternative 1
10/24/2018

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Mills Rd (NS) at Dean Dr (EW)	Signalized	ICU 1	SB Thru	0.566	-	A
2	Mills Rd (NS) at East Main St (EW)	Signalized	ICU 1	SB Thru	0.631	-	B
3	Mills Rd (NS) at Project Drwy (EW)	Two-way stop	HCM 6th Edition	WB Left	0.022	12.3	B
5	US-101/SR-126 Fwy Ramps (NS) at East Main St (EW)	Signalized	ICU 1	EB Thru	0.907	-	E
6	Arundell Ave (NS) at East Main St (EW)	Two-way stop	HCM 6th Edition	WB Left	0.247	77.7	F
7	SR-126 EB On-Ramp (NS) at East Main St (EW)	Signalized	ICU 1	EB Thru	0.463	-	A

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: Mills Rd (NS) at Dean Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.566

Intersection Setup

Name	Mills Rd			Mills Rd			Dean Dr			Dean Dr		
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 Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	200.00	100.00	293.00	200.00	100.00	100.00	61.00	100.00	148.00	445.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Mills Rd			Mills Rd			Dean Dr			Dean Dr		
Base Volume Input [veh/h]	122	897	329	67	956	26	25	32	144	290	47	50
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	5	2	0	5	0	0	0	0	2	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	122	902	331	67	961	26	25	32	144	292	47	50
Peak Hour 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
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]	31	226	83	17	240	7	6	8	36	73	12	13
Total Analysis Volume [veh/h]	122	902	331	67	961	26	25	32	144	292	47	50
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.28	0.21	0.04	0.31	0.31	0.02	0.02	0.09	0.09	0.03	0.03
Intersection LOS	A											
Intersection V/C	0.566											

Intersection Level Of Service Report
Intersection 2: Mills Rd (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.631

Intersection Setup

Name	Mills Rd			Mills Rd			East Main St			East Main St			
Approach	Northbound			Southbound			Eastbound			Westbound			
Lane Configuration													
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	U-tu	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	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	2	0	1	2	0	0	2
Pocket Length [ft]	100.00	100.00	100.00	442.00	100.00	100.00	213.00	100.00	180.00	253.0	100.0	100.0	273.0
Speed [mph]	30.00			30.00			30.00			30.00			
Grade [%]	0.00			0.00			0.00			0.00			
Crosswalk	Yes			Yes			Yes			No			

Volumes

Name	Mills Rd			Mills Rd			East Main St			East Main St			
Base Volume Input [veh/h]	17	57	164	1298	63	42	74	1067	13	0	178	822	1276
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	5	7	19	5	2	0	0	3	2	21	0	0	0
Diverted Trips [veh/h]	0	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	0
Existing Site Adjustment Volume [veh/h]	0	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	0
Total Hourly Volume [veh/h]	22	64	183	1303	65	42	74	1070	15	21	178	822	1276
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	6	16	46	326	16	11	19	268	4	5	45	206	319
Total Analysis Volume [veh/h]	22	64	183	1303	65	42	74	1070	15	21	178	822	1276
Pedestrian Volume [ped/h]	0			0			0			0			
Bicycle Volume [bicycles/h]	0			0			0			0			

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Permi	Prote	Permi	Overl
Signal group	0	2	0	0	6	0	3	8	0	0	7	4	4
Auxiliary Signal Groups													4,6
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.08	0.11	0.27	0.29	0.29	0.02	0.17	0.01	0.01	0.06	0.17	0.13
Intersection LOS	B												
Intersection V/C	0.631												

Intersection Level Of Service Report
Intersection 3: Mills Rd (NS) at Project Drwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	12.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.022

Intersection Setup

Name	Mills Rd		Mills Rd		Project Drwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Mills Rd		Mills Rd		Project Drwy	
Base Volume Input [veh/h]	171	6	32	209	10	39
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	2	4	0	2	31
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	33
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]	171	8	36	209	12	103
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	43	2	9	52	3	26
Total Analysis Volume [veh/h]	171	8	36	209	12	103
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.03	0.00	0.02	0.12
d_M, Delay for Movement [s/veh]	0.00	0.00	7.65	0.00	12.29	9.86
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.08	0.00	0.49	0.49
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.98	0.00	12.20	12.20
d_A, Approach Delay [s/veh]	0.00		1.12		10.12	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	2.67					
Intersection LOS	B					

Intersection Level Of Service Report

Intersection 5: US-101/SR-126 Fwy Ramps (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.907

Intersection Setup

Name	US-101 Fwy Ramps			US-101 Fwy Ramps			East Main St			East Main St		
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 Pocket	0	0	0	0	0	0	0	0	0	2	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	225.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		Yes			No			No			No	

Volumes

Name	US-101 Fwy Ramps			US-101 Fwy Ramps			East Main St			East Main St		
Base Volume Input [veh/h]	0	0	0	223	0	1361	0	2305	279	439	1083	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	17	0	11	8	0	4	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	223	0	1378	0	2316	287	439	1087	0
Peak Hour 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
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	56	0	345	0	579	72	110	272	0
Total Analysis Volume [veh/h]	0	0	0	223	0	1378	0	2316	287	439	1087	0
Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	0	0	1	0	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.07	0.00	0.29	0.00	0.48	0.18	0.14	0.23	0.00
Intersection LOS	E											
Intersection V/C	0.907											

Intersection Level Of Service Report
Intersection 6: Arundell Ave (NS) at East Main St (EW)

Control Type:	Two-way stop	Delay (sec / veh):	77.7
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.247

Intersection Setup

Name	Arundell Ave		East Main St		East Main St	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	1	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	150.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Arundell Ave		East Main St		East Main St	
Base Volume Input [veh/h]	0	68	2476	67	16	1522
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	2	9	2	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]	0	70	2485	69	16	1526
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	18	621	17	4	382
Total Analysis Volume [veh/h]	0	70	2485	69	16	1526
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.52	0.02	0.00	0.25	0.02
d_M, Delay for Movement [s/veh]	0.00	57.29	0.00	0.00	77.75	0.00
Movement LOS		F	A	A	F	A
95th-Percentile Queue Length [veh/ln]	0.00	2.47	0.00	0.00	0.86	0.00
95th-Percentile Queue Length [ft/ln]	0.00	61.86	0.00	0.00	21.51	0.00
d_A, Approach Delay [s/veh]	57.29		0.00		0.81	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	1.26					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 7: SR-126 EB On-Ramp (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.463

Intersection Setup

Name	US-126 Fwy Ramp		East Main St			East Main St		
Approach	Southbound		Eastbound			Westbound		
Lane Configuration								
Turning Movement	Left	Right	U-turn	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	2	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	225.00	100.00	100.00	72.00	100.00	105.00
Speed [mph]	30.00		30.00			30.00		
Grade [%]	0.00		0.00			0.00		
Crosswalk	No		No			No		

Volumes

Name	US-126 Fwy Ramp		East Main St			East Main St		
Base Volume Input [veh/h]	0	0	0	434	2091	0	1557	459
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	2	7	2	0	2	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	2	441	2093	0	1559	459
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	1	110	523	0	390	115
Total Analysis Volume [veh/h]	0	0	2	441	2093	0	1559	459
Pedestrian Volume [ped/h]	0		0			0		
Bicycle Volume [bicycles/h]	0		0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Protected	Permissive	Protected	Permissive	Permissive
Signal group	0	0	0	3	8	7	4	0
Auxiliary Signal Groups								
Lead / Lag	-	-	-	Lead	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.14	0.44	0.00	0.32	0.29
Intersection LOS	A							
Intersection V/C	0.463							

EXISTING PLUS PROJECT ALTERNATIVE 2

3550 East Main Street Starbucks

Vistro File: G:\...\AM Alt 2.vistro
Report File: G:\...\AM EP Alt 2.pdf

Scenario 1 Existing Plus Project Alternative 2
10/24/2018

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Mills Rd (NS) at Dean Dr (EW)	Signalized	ICU 1	NB Thru	0.561	-	A
2	Mills Rd (NS) at East Main St (EW)	Signalized	ICU 1	WB Right	0.672	-	B
3	Mills Rd (NS) at Project Drwy (EW)	Two-way stop	HCM 6th Edition	WB Left	0.021	14.8	B
5	US-101/SR-126 Fwy Ramps (NS) at East Main St (EW)	Signalized	ICU 1	SB Right	0.831	-	D
6	Arundell Ave (NS) at East Main St (EW)	Two-way stop	HCM 6th Edition	WB Left	0.211	50.6	F
7	SR-126 EB On-Ramp (NS) at East Main St (EW)	Signalized	ICU 1	EB Thru	0.359	-	A

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: Mills Rd (NS) at Dean Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.561

Intersection Setup

Name	Mills Rd			Mills Rd			Dean Dr			Dean Dr		
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 Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	200.00	100.00	293.00	200.00	100.00	100.00	61.00	100.00	148.00	445.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Mills Rd			Mills Rd			Dean Dr			Dean Dr		
Base Volume Input [veh/h]	28	1293	369	46	753	6	6	12	6	371	50	49
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	10	3	0	11	0	0	0	0	4	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	28	1303	372	46	764	6	6	12	6	375	50	49
Peak Hour 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
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]	7	326	93	12	191	2	2	3	2	94	13	12
Total Analysis Volume [veh/h]	28	1303	372	46	764	6	6	12	6	375	50	49
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.41	0.23	0.03	0.24	0.24	0.00	0.01	0.00	0.12	0.03	0.03
Intersection LOS	A											
Intersection V/C	0.561											

Intersection Level Of Service Report
Intersection 2: Mills Rd (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.672

Intersection Setup

Name	Mills Rd			Mills Rd			East Main St			East Main St			
Approach	Northbound			Southbound			Eastbound			Westbound			
Lane Configuration													
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	U-tu	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	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	2	0	1	2	0	0	2
Pocket Length [ft]	100.00	100.00	100.00	442.00	100.00	100.00	213.00	100.00	180.00	253.0	100.0	100.0	273.0
Speed [mph]	30.00			30.00			30.00			30.00			
Grade [%]	0.00			0.00			0.00			0.00			
Crosswalk	Yes			Yes			Yes			No			

Volumes

Name	Mills Rd			Mills Rd			East Main St			East Main St			
Base Volume Input [veh/h]	15	63	234	1024	63	26	99	656	12	0	122	828	1515
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	10	13	0	0	15	0	0	0	11	0	43	0	0
Diverted Trips [veh/h]	0	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	0
Existing Site Adjustment Volume [veh/h]	0	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	0
Total Hourly Volume [veh/h]	25	76	234	1024	78	26	99	656	23	0	165	828	1515
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	6	19	59	256	20	7	25	164	6	0	41	207	379
Total Analysis Volume [veh/h]	25	76	234	1024	78	26	99	656	23	0	165	828	1515
Pedestrian Volume [ped/h]	0			0			0			0			
Bicycle Volume [bicycles/h]	0			0			0			0			

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Permi	Prote	Permi	Overl
Signal group	0	2	0	0	6	0	3	8	0	0	7	4	4
Auxiliary Signal Groups													4,6
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.09	0.15	0.21	0.24	0.24	0.03	0.10	0.01	0.00	0.05	0.17	0.26
Intersection LOS	B												
Intersection V/C	0.672												

Intersection Level Of Service Report
Intersection 3: Mills Rd (NS) at Project Drwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	14.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.021

Intersection Setup

Name	Mills Rd		Mills Rd		Project Drwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Mills Rd		Mills Rd		Project Drwy	
Base Volume Input [veh/h]	270	13	14	140	5	9
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	4	69	0	3	23
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	67	-67	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]	270	17	150	73	8	32
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	68	4	38	18	2	8
Total Analysis Volume [veh/h]	270	17	150	73	8	32
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.12	0.00	0.02	0.04
d_M, Delay for Movement [s/veh]	0.00	0.00	8.20	0.00	14.81	10.12
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.40	0.00	0.20	0.20
95th-Percentile Queue Length [ft/ln]	0.00	0.00	9.97	0.00	5.03	5.03
d_A, Approach Delay [s/veh]	0.00		5.52		11.05	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	3.04					
Intersection LOS	B					

Intersection Level Of Service Report

Intersection 5: US-101/SR-126 Fwy Ramps (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.831

Intersection Setup

Name	US-101 Fwy Ramps			US-101 Fwy Ramps			East Main St			East Main St		
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 Pocket	0	0	0	0	0	0	0	0	0	2	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	225.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		Yes			No			No			No	

Volumes

Name	US-101 Fwy Ramps			US-101 Fwy Ramps			East Main St			East Main St		
Base Volume Input [veh/h]	0	0	0	423	0	1889	0	1749	259	195	717	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	35	0	24	17	0	8	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	423	0	1924	0	1773	276	195	725	0
Peak Hour 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
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	106	0	481	0	443	69	49	181	0
Total Analysis Volume [veh/h]	0	0	0	423	0	1924	0	1773	276	195	725	0
Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	0	0	1	0	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.13	0.00	0.40	0.00	0.37	0.17	0.06	0.15	0.00
Intersection LOS	D											
Intersection V/C	0.831											

Intersection Level Of Service Report
Intersection 6: Arundell Ave (NS) at East Main St (EW)

Control Type:	Two-way stop	Delay (sec / veh):	50.6
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.211

Intersection Setup

Name	Arundell Ave		East Main St		East Main St	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	1	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	150.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Arundell Ave		East Main St		East Main St	
Base Volume Input [veh/h]	0	65	2036	134	21	947
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	4	21	3	0	8
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	69	2057	137	21	955
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	17	514	34	5	239
Total Analysis Volume [veh/h]	0	69	2057	137	21	955
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.39	0.02	0.00	0.21	0.01
d_M, Delay for Movement [s/veh]	0.00	37.30	0.00	0.00	50.57	0.00
Movement LOS		E	A	A	F	A
95th-Percentile Queue Length [veh/ln]	0.00	1.68	0.00	0.00	0.75	0.00
95th-Percentile Queue Length [ft/ln]	0.00	42.04	0.00	0.00	18.63	0.00
d_A, Approach Delay [s/veh]	37.30		0.00		1.09	
Approach LOS	E		A		A	
d_I, Intersection Delay [s/veh]	1.12					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 7: SR-126 EB On-Ramp (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.359

Intersection Setup

Name	US-126 Fwy Ramp		East Main St			East Main St		
Approach	Southbound		Eastbound			Westbound		
Lane Configuration								
Turning Movement	Left	Right	U-turn	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	2	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	225.00	100.00	100.00	72.00	100.00	105.00
Speed [mph]	30.00		30.00			30.00		
Grade [%]	0.00		0.00			0.00		
Crosswalk	No		No			No		

Volumes

Name	US-126 Fwy Ramp		East Main St			East Main St		
Base Volume Input [veh/h]	0	0	0	353	1721	0	954	79
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	4	18	3	0	4	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	4	371	1724	0	958	79
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	1	93	431	0	240	20
Total Analysis Volume [veh/h]	0	0	4	371	1724	0	958	79
Pedestrian Volume [ped/h]	0		0			0		
Bicycle Volume [bicycles/h]	0		0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Protected	Permissive	Protected	Permissive	Permissive
Signal group	0	0	0	3	8	7	4	0
Auxiliary Signal Groups								
Lead / Lag	-	-	-	Lead	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.12	0.36	0.00	0.20	0.05
Intersection LOS	A							
Intersection V/C	0.359							

HCS 2010 Two-Way Stop Control Summary Report

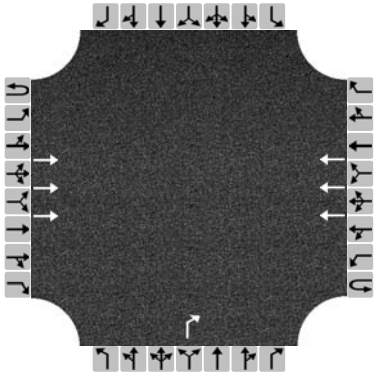
General Information

Analyst	
Agency/Co.	Ganddini Group, Inc.
Date Performed	Existing Plus Project Alternative 2
Analysis Year	2018
Time Analyzed	Morning Peak Hour
Intersection Orientation	East-West
Project Description	3550 E. Main St. Starbucks

Site Information

Intersection	Project Dwy at E Main St
Jurisdiction	City of Ventura
East/West Street	East Main Street
North/South Street	Project Driveway
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	0	3	0		0	0	1		0	0	0
Configuration			T				T					R				
Volume (veh/h)			1937				2575					135				
Percent Heavy Vehicles												3				
Proportion Time Blocked			0.000				0.000					0.280				
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)												147				
Capacity												660				
v/c Ratio												0.22				
95% Queue Length												0.8				
Control Delay (s/veh)												12.0				
Level of Service (LOS)												B				
Approach Delay (s/veh)									12.0							
Approach LOS									B							

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3550 East Main Street Starbucks

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Report File: G:\...\PM EP Alt 2.pdf

Scenario 1 Existing Plus Project Alternative 2
10/24/2018

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Mills Rd (NS) at Dean Dr (EW)	Signalized	ICU 1	SB Thru	0.566	-	A
2	Mills Rd (NS) at East Main St (EW)	Signalized	ICU 1	SB Thru	0.625	-	B
3	Mills Rd (NS) at Project Drwy (EW)	Two-way stop	HCM 6th Edition	WB Left	0.026	13.2	B
5	US-101/SR-126 Fwy Ramps (NS) at East Main St (EW)	Signalized	ICU 1	EB Thru	0.907	-	E
6	Arundell Ave (NS) at East Main St (EW)	Two-way stop	HCM 6th Edition	WB Left	0.247	77.7	F
7	SR-126 EB On-Ramp (NS) at East Main St (EW)	Signalized	ICU 1	EB Thru	0.463	-	A

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: Mills Rd (NS) at Dean Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.566

Intersection Setup

Name	Mills Rd			Mills Rd			Dean Dr			Dean Dr		
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 Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	200.00	100.00	293.00	200.00	100.00	100.00	61.00	100.00	148.00	445.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Mills Rd			Mills Rd			Dean Dr			Dean Dr		
Base Volume Input [veh/h]	122	897	329	67	956	26	25	32	144	290	47	50
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	5	2	0	5	0	0	0	0	2	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	122	902	331	67	961	26	25	32	144	292	47	50
Peak Hour 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
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]	31	226	83	17	240	7	6	8	36	73	12	13
Total Analysis Volume [veh/h]	122	902	331	67	961	26	25	32	144	292	47	50
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.28	0.21	0.04	0.31	0.31	0.02	0.02	0.09	0.09	0.03	0.03
Intersection LOS	A											
Intersection V/C	0.566											

Intersection Level Of Service Report
Intersection 2: Mills Rd (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.625

Intersection Setup

Name	Mills Rd			Mills Rd			East Main St			East Main St			
Approach	Northbound			Southbound			Eastbound			Westbound			
Lane Configuration													
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	U-tu	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	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	2	0	1	2	0	0	2
Pocket Length [ft]	100.00	100.00	100.00	442.00	100.00	100.00	213.00	100.00	180.00	253.0	100.0	100.0	273.0
Speed [mph]	30.00			30.00			30.00			30.00			
Grade [%]	0.00			0.00			0.00			0.00			
Crosswalk	Yes			Yes			Yes			No			

Volumes

Name	Mills Rd			Mills Rd			East Main St			East Main St			
Base Volume Input [veh/h]	17	57	164	1298	63	42	74	1067	13	0	178	822	1276
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	5	7	0	0	7	0	0	0	5	0	21	0	0
Diverted Trips [veh/h]	0	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	0
Existing Site Adjustment Volume [veh/h]	0	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	0
Total Hourly Volume [veh/h]	22	64	164	1298	70	42	74	1067	18	0	199	822	1276
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	6	16	41	325	18	11	19	267	5	0	50	206	319
Total Analysis Volume [veh/h]	22	64	164	1298	70	42	74	1067	18	0	199	822	1276
Pedestrian Volume [ped/h]	0			0			0			0			
Bicycle Volume [bicycles/h]	0			0			0			0			

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Permi	Prote	Permi	Overl
Signal group	0	2	0	0	6	0	3	8	0	0	7	4	4
Auxiliary Signal Groups													4,6
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.08	0.10	0.27	0.29	0.29	0.02	0.17	0.01	0.00	0.06	0.17	0.13
Intersection LOS	B												
Intersection V/C	0.625												

Intersection Level Of Service Report
Intersection 3: Mills Rd (NS) at Project Drwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	13.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.026

Intersection Setup

Name	Mills Rd		Mills Rd		Project Drwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Mills Rd		Mills Rd		Project Drwy	
Base Volume Input [veh/h]	171	6	32	209	10	39
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	2	33	0	2	12
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	33	-33	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]	171	8	98	176	12	51
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	43	2	25	44	3	13
Total Analysis Volume [veh/h]	171	8	98	176	12	51
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.07	0.00	0.03	0.06
d_M, Delay for Movement [s/veh]	0.00	0.00	7.77	0.00	13.22	9.59
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.23	0.00	0.28	0.28
95th-Percentile Queue Length [ft/ln]	0.00	0.00	5.65	0.00	6.91	6.91
d_A, Approach Delay [s/veh]	0.00		2.78		10.28	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	2.73					
Intersection LOS	B					

Intersection Level Of Service Report

Intersection 5: US-101/SR-126 Fwy Ramps (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.907

Intersection Setup

Name	US-101 Fwy Ramps			US-101 Fwy Ramps			East Main St			East Main St		
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 Pocket	0	0	0	0	0	0	0	0	0	2	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	225.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		Yes			No			No			No	

Volumes

Name	US-101 Fwy Ramps			US-101 Fwy Ramps			East Main St			East Main St		
Base Volume Input [veh/h]	0	0	0	223	0	1361	0	2305	279	439	1083	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	17	0	11	8	0	4	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	223	0	1378	0	2316	287	439	1087	0
Peak Hour 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
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	56	0	345	0	579	72	110	272	0
Total Analysis Volume [veh/h]	0	0	0	223	0	1378	0	2316	287	439	1087	0
Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	0	0	1	0	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.07	0.00	0.29	0.00	0.48	0.18	0.14	0.23	0.00
Intersection LOS	E											
Intersection V/C	0.907											

Intersection Level Of Service Report
Intersection 6: Arundell Ave (NS) at East Main St (EW)

Control Type:	Two-way stop	Delay (sec / veh):	77.7
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.247

Intersection Setup

Name	Arundell Ave		East Main St		East Main St	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	1	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	150.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Arundell Ave		East Main St		East Main St	
Base Volume Input [veh/h]	0	68	2476	67	16	1522
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	2	9	2	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]	0	70	2485	69	16	1526
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	18	621	17	4	382
Total Analysis Volume [veh/h]	0	70	2485	69	16	1526
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.52	0.02	0.00	0.25	0.02
d_M, Delay for Movement [s/veh]	0.00	57.29	0.00	0.00	77.75	0.00
Movement LOS		F	A	A	F	A
95th-Percentile Queue Length [veh/ln]	0.00	2.47	0.00	0.00	0.86	0.00
95th-Percentile Queue Length [ft/ln]	0.00	61.86	0.00	0.00	21.51	0.00
d_A, Approach Delay [s/veh]	57.29		0.00		0.81	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	1.26					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 7: SR-126 EB On-Ramp (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.463

Intersection Setup

Name	US-126 Fwy Ramp		East Main St			East Main St		
Approach	Southbound		Eastbound			Westbound		
Lane Configuration								
Turning Movement	Left	Right	U-turn	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	2	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	225.00	100.00	100.00	72.00	100.00	105.00
Speed [mph]	30.00		30.00			30.00		
Grade [%]	0.00		0.00			0.00		
Crosswalk	No		No			No		

Volumes

Name	US-126 Fwy Ramp		East Main St			East Main St		
Base Volume Input [veh/h]	0	0	0	434	2091	0	1557	459
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	2	7	2	0	2	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	2	441	2093	0	1559	459
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	1	110	523	0	390	115
Total Analysis Volume [veh/h]	0	0	2	441	2093	0	1559	459
Pedestrian Volume [ped/h]	0		0			0		
Bicycle Volume [bicycles/h]	0		0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Protected	Permissive	Protected	Permissive	Permissive
Signal group	0	0	0	3	8	7	4	0
Auxiliary Signal Groups								
Lead / Lag	-	-	-	Lead	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.14	0.44	0.00	0.32	0.29
Intersection LOS	A							
Intersection V/C	0.463							

HCS 2010 Two-Way Stop Control Summary Report

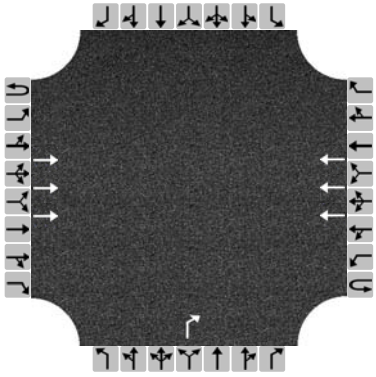
General Information

Analyst	
Agency/Co.	Ganddini Group, Inc.
Date Performed	Existing Plus Project Alternative 2
Analysis Year	2018
Time Analyzed	Evening Peak Hour
Intersection Orientation	East-West
Project Description	3550 E. Main St. Starbucks

Site Information

Intersection	Project Dwy at E Main St
Jurisdiction	City of Ventura
East/West Street	East Main Street
North/South Street	Project Driveway
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	0	3	0		0	0	1		0	0	0
Configuration			T				T					R				
Volume (veh/h)			2526				2382					96				
Percent Heavy Vehicles												3				
Proportion Time Blocked			0.000				0.000					0.380				
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)												104				
Capacity												568				
v/c Ratio												0.18				
95% Queue Length												0.7				
Control Delay (s/veh)												12.8				
Level of Service (LOS)												B				
Approach Delay (s/veh)									12.8							
Approach LOS									B							

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EXISTING PLUS PROJECT ALTERNATIVE 3

3550 East Main Street Starbucks

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Report File: G:\...\AM EP Alt 3.pdf

Scenario 1 Existing Plus Project Alternative 3
10/24/2018

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Mills Rd (NS) at Dean Dr (EW)	Signalized	ICU 1	NB Thru	0.561	-	A
2	Mills Rd (NS) at East Main St (EW)	Signalized	ICU 1	WB Right	0.698	-	B
3	Mills Rd (NS) at Project Drwy (EW)	Two-way stop	HCM 6th Edition	WB Left	0.021	15.7	C
5	US-101/SR-126 Fwy Ramps (NS) at East Main St (EW)	Signalized	ICU 1	SB Right	0.831	-	D
6	Arundell Ave (NS) at East Main St (EW)	Two-way stop	HCM 6th Edition	WB Left	0.211	50.6	F
7	SR-126 EB On-Ramp (NS) at East Main St (EW)	Signalized	ICU 1	EB Thru	0.359	-	A

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: Mills Rd (NS) at Dean Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.561

Intersection Setup

Name	Mills Rd			Mills Rd			Dean Dr			Dean Dr		
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 Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	200.00	100.00	293.00	200.00	100.00	100.00	61.00	100.00	148.00	445.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Mills Rd			Mills Rd			Dean Dr			Dean Dr		
Base Volume Input [veh/h]	28	1293	369	46	753	6	6	12	6	371	50	49
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	10	3	0	11	0	0	0	0	4	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	28	1303	372	46	764	6	6	12	6	375	50	49
Peak Hour 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
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]	7	326	93	12	191	2	2	3	2	94	13	12
Total Analysis Volume [veh/h]	28	1303	372	46	764	6	6	12	6	375	50	49
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.41	0.23	0.03	0.24	0.24	0.00	0.01	0.00	0.12	0.03	0.03
Intersection LOS	A											
Intersection V/C	0.561											

Intersection Level Of Service Report
Intersection 2: Mills Rd (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.698

Intersection Setup

Name	Mills Rd			Mills Rd			East Main St			East Main St			
Approach	Northbound			Southbound			Eastbound			Westbound			
Lane Configuration													
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	U-tu	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	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	2	0	1	2	0	0	2
Pocket Length [ft]	100.00	100.00	100.00	442.00	100.00	100.00	213.00	100.00	180.00	253.0	100.0	100.0	273.0
Speed [mph]	30.00			30.00			30.00			30.00			
Grade [%]	0.00			0.00			0.00			0.00			
Crosswalk	Yes			Yes			Yes			No			

Volumes

Name	Mills Rd			Mills Rd			East Main St			East Main St			
Base Volume Input [veh/h]	15	63	234	1024	63	26	99	656	12	0	122	828	1515
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	10	13	41	0	15	0	0	0	11	0	43	0	0
Diverted Trips [veh/h]	0	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	0
Existing Site Adjustment Volume [veh/h]	0	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	0
Total Hourly Volume [veh/h]	25	76	275	1024	78	26	99	656	23	0	165	828	1515
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	6	19	69	256	20	7	25	164	6	0	41	207	379
Total Analysis Volume [veh/h]	25	76	275	1024	78	26	99	656	23	0	165	828	1515
Pedestrian Volume [ped/h]	0			0			0			0			
Bicycle Volume [bicycles/h]	0			0			0			0			

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Permi	Prote	Permi	Overl
Signal group	0	2	0	0	6	0	3	8	0	0	7	4	4
Auxiliary Signal Groups													4,6
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.09	0.17	0.21	0.24	0.24	0.03	0.10	0.01	0.00	0.05	0.17	0.26
Intersection LOS	B												
Intersection V/C	0.698												

Intersection Level Of Service Report
Intersection 3: Mills Rd (NS) at Project Drwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	15.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.021

Intersection Setup

Name	Mills Rd		Mills Rd		Project Drwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Mills Rd		Mills Rd		Project Drwy	
Base Volume Input [veh/h]	270	13	14	140	5	9
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	4	69	0	3	64
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	67	-67	0	65
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]	270	17	150	73	8	138
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	68	4	38	18	2	35
Total Analysis Volume [veh/h]	270	17	150	73	8	138
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.12	0.00	0.02	0.18
d_M, Delay for Movement [s/veh]	0.00	0.00	8.20	0.00	15.69	11.00
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.40	0.00	0.75	0.75
95th-Percentile Queue Length [ft/ln]	0.00	0.00	9.97	0.00	18.84	18.84
d_A, Approach Delay [s/veh]	0.00		5.52		11.25	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	4.38					
Intersection LOS	C					

Intersection Level Of Service Report

Intersection 5: US-101/SR-126 Fwy Ramps (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.831

Intersection Setup

Name	US-101 Fwy Ramps			US-101 Fwy Ramps			East Main St			East Main St		
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 Pocket	0	0	0	0	0	0	0	0	0	2	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	225.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		Yes			No			No			No	

Volumes

Name	US-101 Fwy Ramps			US-101 Fwy Ramps			East Main St			East Main St		
Base Volume Input [veh/h]	0	0	0	423	0	1889	0	1749	259	195	717	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	35	0	24	17	0	8	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	423	0	1924	0	1773	276	195	725	0
Peak Hour 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
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	106	0	481	0	443	69	49	181	0
Total Analysis Volume [veh/h]	0	0	0	423	0	1924	0	1773	276	195	725	0
Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	0	0	1	0	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.13	0.00	0.40	0.00	0.37	0.17	0.06	0.15	0.00
Intersection LOS	D											
Intersection V/C	0.831											

Intersection Level Of Service Report
Intersection 6: Arundell Ave (NS) at East Main St (EW)

Control Type:	Two-way stop	Delay (sec / veh):	50.6
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.211

Intersection Setup

Name	Arundell Ave		East Main St		East Main St	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	1	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	150.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Arundell Ave		East Main St		East Main St	
Base Volume Input [veh/h]	0	65	2036	134	21	947
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	4	21	3	0	8
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	69	2057	137	21	955
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	17	514	34	5	239
Total Analysis Volume [veh/h]	0	69	2057	137	21	955
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.39	0.02	0.00	0.21	0.01
d_M, Delay for Movement [s/veh]	0.00	37.30	0.00	0.00	50.57	0.00
Movement LOS		E	A	A	F	A
95th-Percentile Queue Length [veh/ln]	0.00	1.68	0.00	0.00	0.75	0.00
95th-Percentile Queue Length [ft/ln]	0.00	42.04	0.00	0.00	18.63	0.00
d_A, Approach Delay [s/veh]	37.30		0.00		1.09	
Approach LOS	E		A		A	
d_I, Intersection Delay [s/veh]	1.12					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 7: SR-126 EB On-Ramp (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.359

Intersection Setup

Name	US-126 Fwy Ramp		East Main St			East Main St		
Approach	Southbound		Eastbound			Westbound		
Lane Configuration								
Turning Movement	Left	Right	U-turn	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	2	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	225.00	100.00	100.00	72.00	100.00	105.00
Speed [mph]	30.00		30.00			30.00		
Grade [%]	0.00		0.00			0.00		
Crosswalk	No		No			No		

Volumes

Name	US-126 Fwy Ramp		East Main St			East Main St		
Base Volume Input [veh/h]	0	0	0	353	1721	0	954	79
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	4	18	3	0	4	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	4	371	1724	0	958	79
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	1	93	431	0	240	20
Total Analysis Volume [veh/h]	0	0	4	371	1724	0	958	79
Pedestrian Volume [ped/h]	0		0			0		
Bicycle Volume [bicycles/h]	0		0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Protected	Permissive	Protected	Permissive	Permissive
Signal group	0	0	0	3	8	7	4	0
Auxiliary Signal Groups								
Lead / Lag	-	-	-	Lead	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.12	0.36	0.00	0.20	0.05
Intersection LOS	A							
Intersection V/C	0.359							

3550 East Main Street Starbucks

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Report File: G:\...\PM EP Alt 3.pdf

Scenario 1 Existing Plus Project Alternative 3
10/24/2018

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Mills Rd (NS) at Dean Dr (EW)	Signalized	ICU 1	SB Thru	0.566	-	A
2	Mills Rd (NS) at East Main St (EW)	Signalized	ICU 1	SB Thru	0.637	-	B
3	Mills Rd (NS) at Project Drwy (EW)	Two-way stop	HCM 6th Edition	WB Left	0.026	13.5	B
5	US-101/SR-126 Fwy Ramps (NS) at East Main St (EW)	Signalized	ICU 1	EB Thru	0.907	-	E
6	Arundell Ave (NS) at East Main St (EW)	Two-way stop	HCM 6th Edition	WB Left	0.247	77.7	F
7	SR-126 EB On-Ramp (NS) at East Main St (EW)	Signalized	ICU 1	EB Thru	0.463	-	A

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: Mills Rd (NS) at Dean Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.566

Intersection Setup

Name	Mills Rd			Mills Rd			Dean Dr			Dean Dr		
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 Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	200.00	100.00	293.00	200.00	100.00	100.00	61.00	100.00	148.00	445.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Mills Rd			Mills Rd			Dean Dr			Dean Dr		
Base Volume Input [veh/h]	122	897	329	67	956	26	25	32	144	290	47	50
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	5	2	0	5	0	0	0	0	2	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	122	902	331	67	961	26	25	32	144	292	47	50
Peak Hour 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
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]	31	226	83	17	240	7	6	8	36	73	12	13
Total Analysis Volume [veh/h]	122	902	331	67	961	26	25	32	144	292	47	50
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.28	0.21	0.04	0.31	0.31	0.02	0.02	0.09	0.09	0.03	0.03
Intersection LOS	A											
Intersection V/C	0.566											

Intersection Level Of Service Report
Intersection 2: Mills Rd (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.637

Intersection Setup

Name	Mills Rd			Mills Rd			East Main St			East Main St			
Approach	Northbound			Southbound			Eastbound			Westbound			
Lane Configuration													
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	U-tu	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	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	2	0	1	2	0	0	2
Pocket Length [ft]	100.00	100.00	100.00	442.00	100.00	100.00	213.00	100.00	180.00	253.0	100.0	100.0	273.0
Speed [mph]	30.00			30.00			30.00			30.00			
Grade [%]	0.00			0.00			0.00			0.00			
Crosswalk	Yes			Yes			Yes			No			

Volumes

Name	Mills Rd			Mills Rd			East Main St			East Main St			
Base Volume Input [veh/h]	17	57	164	1298	63	42	74	1067	13	0	178	822	1276
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	5	7	19	0	7	0	0	0	5	0	21	0	0
Diverted Trips [veh/h]	0	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	0
Existing Site Adjustment Volume [veh/h]	0	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	0
Total Hourly Volume [veh/h]	22	64	183	1298	70	42	74	1067	18	0	199	822	1276
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	6	16	46	325	18	11	19	267	5	0	50	206	319
Total Analysis Volume [veh/h]	22	64	183	1298	70	42	74	1067	18	0	199	822	1276
Pedestrian Volume [ped/h]	0			0			0			0			
Bicycle Volume [bicycles/h]	0			0			0			0			

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Permi	Prote	Permi	Overl
Signal group	0	2	0	0	6	0	3	8	0	0	7	4	4
Auxiliary Signal Groups													4,6
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.08	0.11	0.27	0.29	0.29	0.02	0.17	0.01	0.00	0.06	0.17	0.13
Intersection LOS	B												
Intersection V/C	0.637												

Intersection Level Of Service Report
Intersection 3: Mills Rd (NS) at Project Drwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	13.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.026

Intersection Setup

Name	Mills Rd		Mills Rd		Project Drwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Mills Rd		Mills Rd		Project Drwy	
Base Volume Input [veh/h]	171	6	32	209	10	39
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	2	33	0	2	31
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	33	-33	0	33
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]	171	8	98	176	12	103
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	43	2	25	44	3	26
Total Analysis Volume [veh/h]	171	8	98	176	12	103
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.07	0.00	0.03	0.12
d_M, Delay for Movement [s/veh]	0.00	0.00	7.77	0.00	13.54	9.91
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.23	0.00	0.50	0.50
95th-Percentile Queue Length [ft/ln]	0.00	0.00	5.65	0.00	12.60	12.60
d_A, Approach Delay [s/veh]	0.00		2.78		10.29	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	3.42					
Intersection LOS	B					

Intersection Level Of Service Report

Intersection 5: US-101/SR-126 Fwy Ramps (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.907

Intersection Setup

Name	US-101 Fwy Ramps			US-101 Fwy Ramps			East Main St			East Main St		
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 Pocket	0	0	0	0	0	0	0	0	0	2	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	225.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		Yes			No			No			No	

Volumes

Name	US-101 Fwy Ramps			US-101 Fwy Ramps			East Main St			East Main St		
Base Volume Input [veh/h]	0	0	0	223	0	1361	0	2305	279	439	1083	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	17	0	11	8	0	4	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	223	0	1378	0	2316	287	439	1087	0
Peak Hour 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
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	56	0	345	0	579	72	110	272	0
Total Analysis Volume [veh/h]	0	0	0	223	0	1378	0	2316	287	439	1087	0
Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	0	0	1	0	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.07	0.00	0.29	0.00	0.48	0.18	0.14	0.23	0.00
Intersection LOS	E											
Intersection V/C	0.907											

Intersection Level Of Service Report
Intersection 6: Arundell Ave (NS) at East Main St (EW)

Control Type:	Two-way stop	Delay (sec / veh):	77.7
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.247

Intersection Setup

Name	Arundell Ave		East Main St		East Main St	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	1	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	150.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Arundell Ave		East Main St		East Main St	
Base Volume Input [veh/h]	0	68	2476	67	16	1522
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	2	9	2	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]	0	70	2485	69	16	1526
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	18	621	17	4	382
Total Analysis Volume [veh/h]	0	70	2485	69	16	1526
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.52	0.02	0.00	0.25	0.02
d_M, Delay for Movement [s/veh]	0.00	57.29	0.00	0.00	77.75	0.00
Movement LOS		F	A	A	F	A
95th-Percentile Queue Length [veh/ln]	0.00	2.47	0.00	0.00	0.86	0.00
95th-Percentile Queue Length [ft/ln]	0.00	61.86	0.00	0.00	21.51	0.00
d_A, Approach Delay [s/veh]	57.29		0.00		0.81	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	1.26					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 7: SR-126 EB On-Ramp (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.463

Intersection Setup

Name	US-126 Fwy Ramp		East Main St			East Main St		
Approach	Southbound		Eastbound			Westbound		
Lane Configuration								
Turning Movement	Left	Right	U-turn	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	2	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	225.00	100.00	100.00	72.00	100.00	105.00
Speed [mph]	30.00		30.00			30.00		
Grade [%]	0.00		0.00			0.00		
Crosswalk	No		No			No		

Volumes

Name	US-126 Fwy Ramp		East Main St			East Main St		
Base Volume Input [veh/h]	0	0	0	434	2091	0	1557	459
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	2	7	2	0	2	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	2	441	2093	0	1559	459
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	1	110	523	0	390	115
Total Analysis Volume [veh/h]	0	0	2	441	2093	0	1559	459
Pedestrian Volume [ped/h]	0		0			0		
Bicycle Volume [bicycles/h]	0		0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Protected	Permissive	Protected	Permissive	Permissive
Signal group	0	0	0	3	8	7	4	0
Auxiliary Signal Groups								
Lead / Lag	-	-	-	Lead	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.14	0.44	0.00	0.32	0.29
Intersection LOS	A							
Intersection V/C	0.463							

OPENING YEAR (2019) WITHOUT PROJECT

3550 East Main Street Starbucks

Vistro File: G:\...\AM.vistro
Report File: G:\...\AM OY.pdf

Scenario 3 Opening Year (2019) Without Project
10/24/2018

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Mills Rd (NS) at Dean Dr (EW)	Signalized	ICU 1	NB Thru	0.563	-	A
2	Mills Rd (NS) at East Main St (EW)	Signalized	ICU 1	WB Right	0.678	-	B
3	Mills Rd (NS) at Project Drwy (EW)	Two-way stop	HCM 6th Edition	WB Left	0.009	11.5	B
5	US-101/SR-126 Fwy Ramps (NS) at East Main St (EW)	Signalized	ICU 1	SB Right	0.830	-	D
6	Arundell Ave (NS) at East Main St (EW)	Two-way stop	HCM 6th Edition	WB Left	0.212	51.0	F
7	SR-126 EB On-Ramp (NS) at East Main St (EW)	Signalized	ICU 1	EB Thru	0.364	-	A

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: Mills Rd (NS) at Dean Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.563

Intersection Setup

Name	Mills Rd			Mills Rd			Dean Dr			Dean Dr		
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 Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	200.00	100.00	293.00	200.00	100.00	100.00	61.00	100.00	148.00	445.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Mills Rd			Mills Rd			Dean Dr			Dean Dr		
Base Volume Input [veh/h]	28	1293	369	46	753	6	6	12	6	371	50	49
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	5	0	0	1	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	28	1311	373	46	762	6	6	12	6	375	51	49
Peak Hour 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
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]	7	328	93	12	191	2	2	3	2	94	13	12
Total Analysis Volume [veh/h]	28	1311	373	46	762	6	6	12	6	375	51	49
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.41	0.23	0.03	0.24	0.24	0.00	0.01	0.00	0.12	0.03	0.03
Intersection LOS	A											
Intersection V/C	0.563											

Intersection Level Of Service Report
Intersection 2: Mills Rd (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.678

Intersection Setup

Name	Mills Rd			Mills Rd			East Main St			East Main St			
Approach	Northbound			Southbound			Eastbound			Westbound			
Lane Configuration													
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	U-tu	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	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	2	0	1	2	0	0	2
Pocket Length [ft]	100.00	100.00	100.00	442.00	100.00	100.00	213.00	100.00	180.00	253.0	100.0	100.0	273.0
Speed [mph]	30.00			30.00			30.00			30.00			
Grade [%]	0.00			0.00			0.00			0.00			
Crosswalk	Yes			Yes			Yes			No			

Volumes

Name	Mills Rd			Mills Rd			East Main St			East Main St			
Base Volume Input [veh/h]	15	63	234	1024	63	26	99	656	12	0	122	828	1515
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	1	1	0	0	0	5	0	0	1	14	5
Diverted Trips [veh/h]	0	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	0
Existing Site Adjustment Volume [veh/h]	0	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	0
Total Hourly Volume [veh/h]	15	64	237	1035	64	26	100	668	12	0	124	850	1535
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	4	16	59	259	16	7	25	167	3	0	31	213	384
Total Analysis Volume [veh/h]	15	64	237	1035	64	26	100	668	12	0	124	850	1535
Pedestrian Volume [ped/h]	0			0			0			0			
Bicycle Volume [bicycles/h]	0			0			0			0			

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Permi	Prote	Permi	Overl
Signal group	0	2	0	0	6	0	3	8	0	0	7	4	4
Auxiliary Signal Groups													4,6
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.06	0.15	0.22	0.23	0.23	0.03	0.10	0.01	0.00	0.04	0.18	0.26
Intersection LOS	B												
Intersection V/C	0.678												

Intersection Level Of Service Report
Intersection 3: Mills Rd (NS) at Project Drwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	11.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.009

Intersection Setup

Name	Mills Rd		Mills Rd		Project Drwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Mills Rd		Mills Rd		Project Drwy	
Base Volume Input [veh/h]	270	13	14	140	5	9
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.01	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	0	0	1	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]	274	13	14	142	5	9
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	69	3	4	36	1	2
Total Analysis Volume [veh/h]	274	13	14	142	5	9
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.01	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	7.85	0.00	11.54	9.86
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.03	0.00	0.06	0.06
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.83	0.00	1.59	1.59
d_A, Approach Delay [s/veh]	0.00		0.70		10.46	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.56					
Intersection LOS	B					

Intersection Level Of Service Report

Intersection 5: US-101/SR-126 Fwy Ramps (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.830

Intersection Setup

Name	US-101 Fwy Ramps			US-101 Fwy Ramps			East Main St			East Main St		
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 Pocket	0	0	0	0	0	0	0	0	0	2	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	225.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		Yes			No			No			No	

Volumes

Name	US-101 Fwy Ramps			US-101 Fwy Ramps			East Main St			East Main St		
Base Volume Input [veh/h]	0	0	0	423	0	1889	0	1749	259	195	717	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.01	1.00	1.01	1.00	1.01	1.01	1.01	1.01	1.00
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	3	0	6	0	6	1	1	14	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	430	0	1914	0	1772	263	198	738	0
Peak Hour 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
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	108	0	479	0	443	66	50	185	0
Total Analysis Volume [veh/h]	0	0	0	430	0	1914	0	1772	263	198	738	0
Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	0	0	1	0	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.13	0.00	0.40	0.00	0.37	0.16	0.06	0.15	0.00
Intersection LOS	D											
Intersection V/C	0.830											

Intersection Level Of Service Report
Intersection 6: Arundell Ave (NS) at East Main St (EW)

Control Type:	Two-way stop	Delay (sec / veh):	51.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.212

Intersection Setup

Name	Arundell Ave		East Main St		East Main St	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	1	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	150.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Arundell Ave		East Main St		East Main St	
Base Volume Input [veh/h]	0	65	2036	134	21	947
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	9	0	0	15
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	66	2065	135	21	971
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	17	516	34	5	243
Total Analysis Volume [veh/h]	0	66	2065	135	21	971
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.37	0.02	0.00	0.21	0.01
d_M, Delay for Movement [s/veh]	0.00	36.73	0.00	0.00	50.98	0.00
Movement LOS		E	A	A	F	A
95th-Percentile Queue Length [veh/ln]	0.00	1.59	0.00	0.00	0.75	0.00
95th-Percentile Queue Length [ft/ln]	0.00	39.75	0.00	0.00	18.78	0.00
d_A, Approach Delay [s/veh]	36.73		0.00		1.08	
Approach LOS	E		A		A	
d_I, Intersection Delay [s/veh]	1.07					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 7: SR-126 EB On-Ramp (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.364

Intersection Setup

Name	US-126 Fwy Ramp		East Main St			East Main St		
Approach	Southbound		Eastbound			Westbound		
Lane Configuration								
Turning Movement	Left	Right	U-turn	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	2	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	225.00	100.00	100.00	72.00	100.00	105.00
Speed [mph]	30.00		30.00			30.00		
Grade [%]	0.00		0.00			0.00		
Crosswalk	No		No			No		

Volumes

Name	US-126 Fwy Ramp		East Main St			East Main St		
Base Volume Input [veh/h]	0	0	0	353	1721	0	954	79
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.01	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	3	5	0	2	7	0	10	1
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	5	0	359	1745	0	974	81
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	1	0	90	436	0	244	20
Total Analysis Volume [veh/h]	3	5	0	359	1745	0	974	81
Pedestrian Volume [ped/h]	0		0			0		
Bicycle Volume [bicycles/h]	0		0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Protected	Permissive	Protected	Permissive	Permissive
Signal group	0	0	0	3	8	7	4	0
Auxiliary Signal Groups								
Lead / Lag	-	-	-	Lead	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.11	0.36	0.00	0.20	0.05
Intersection LOS	A							
Intersection V/C	0.364							

HCS 2010 Two-Way Stop Control Summary Report

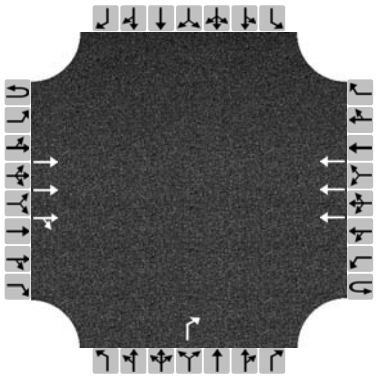
General Information

Analyst	
Agency/Co.	Ganddini Group, Inc.
Date Performed	Opening Year Without Project
Analysis Year	2019
Time Analyzed	Morning Peak Hour
Intersection Orientation	East-West
Project Description	3550 E. Main St. Starbucks

Site Information

Intersection	Project Dwy at E Main St
Jurisdiction	City of Ventura
East/West Street	East Main Street
North/South Street	Project Driveway
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	0	3	0		0	0	1		0	0	0
Configuration			T	TR			T					R				
Volume (veh/h)			1963	1			2577					29				
Percent Heavy Vehicles												3				
Proportion Time Blocked			0.000	0.000			0.000					0.280				
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)												32				
Capacity												660				
v/c Ratio												0.05				
95% Queue Length												0.2				
Control Delay (s/veh)												10.7				
Level of Service (LOS)												B				
Approach Delay (s/veh)									10.7							
Approach LOS									B							

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3550 East Main Street Starbucks

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Scenario 3 Opening Year (2019) Without Project
10/24/2018

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Mills Rd (NS) at Dean Dr (EW)	Signalized	ICU 1	SB Thru	0.571	-	A
2	Mills Rd (NS) at East Main St (EW)	Signalized	ICU 1	SB Right	0.629	-	B
3	Mills Rd (NS) at Project Drwy (EW)	Two-way stop	HCM 6th Edition	WB Left	0.018	11.9	B
5	US-101/SR-126 Fwy Ramps (NS) at East Main St (EW)	Signalized	ICU 1	EB Thru	0.916	-	E
6	Arundell Ave (NS) at East Main St (EW)	Two-way stop	HCM 6th Edition	WB Left	0.257	81.9	F
7	SR-126 EB On-Ramp (NS) at East Main St (EW)	Signalized	ICU 1	EB Thru	0.469	-	A

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: Mills Rd (NS) at Dean Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.571

Intersection Setup

Name	Mills Rd			Mills Rd			Dean Dr			Dean Dr		
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 Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	200.00	100.00	293.00	200.00	100.00	100.00	61.00	100.00	148.00	445.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Mills Rd			Mills Rd			Dean Dr			Dean Dr		
Base Volume Input [veh/h]	122	897	329	67	956	26	25	32	144	290	47	50
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	3	0	0	6	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	123	909	332	68	972	26	25	32	145	293	47	51
Peak Hour 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
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]	31	227	83	17	243	7	6	8	36	73	12	13
Total Analysis Volume [veh/h]	123	909	332	68	972	26	25	32	145	293	47	51
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.28	0.21	0.04	0.31	0.31	0.02	0.02	0.09	0.09	0.03	0.03
Intersection LOS	A											
Intersection V/C	0.571											

Intersection Level Of Service Report
Intersection 2: Mills Rd (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.629

Intersection Setup

Name	Mills Rd			Mills Rd			East Main St			East Main St			
Approach	Northbound			Southbound			Eastbound			Westbound			
Lane Configuration													
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	U-tu	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	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	2	0	1	2	0	0	2
Pocket Length [ft]	100.00	100.00	100.00	442.00	100.00	100.00	213.00	100.00	180.00	253.0	100.0	100.0	273.0
Speed [mph]	30.00			30.00			30.00			30.00			
Grade [%]	0.00			0.00			0.00			0.00			
Crosswalk	Yes			Yes			Yes			No			

Volumes

Name	Mills Rd			Mills Rd			East Main St			East Main St			
Base Volume Input [veh/h]	17	57	164	1298	63	42	74	1067	13	0	178	822	1276
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	1	2	6	0	0	0	16	0	0	2	8	2
Diverted Trips [veh/h]	0	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	0
Existing Site Adjustment Volume [veh/h]	0	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	0
Total Hourly Volume [veh/h]	18	59	168	1317	64	42	75	1094	13	0	182	838	1291
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	5	15	42	329	16	11	19	274	3	0	46	210	323
Total Analysis Volume [veh/h]	18	59	168	1317	64	42	75	1094	13	0	182	838	1291
Pedestrian Volume [ped/h]	0			0			0			0			
Bicycle Volume [bicycles/h]	0			0			0			0			

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Permi	Prote	Permi	Overl
Signal group	0	2	0	0	6	0	3	8	0	0	7	4	4
Auxiliary Signal Groups													4,6
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.07	0.11	0.27	0.30	0.30	0.02	0.17	0.01	0.00	0.06	0.17	0.13
Intersection LOS	B												
Intersection V/C	0.629												

Intersection Level Of Service Report
Intersection 3: Mills Rd (NS) at Project Drwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	11.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.018

Intersection Setup

Name	Mills Rd		Mills Rd		Project Drwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Mills Rd		Mills Rd		Project Drwy	
Base Volume Input [veh/h]	171	6	32	209	10	39
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.01	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	0	0	2	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]	177	6	32	213	10	39
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	44	2	8	53	3	10
Total Analysis Volume [veh/h]	177	6	32	213	10	39
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.02	0.00	0.02	0.05
d_M, Delay for Movement [s/veh]	0.00	0.00	7.65	0.00	11.88	9.49
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.07	0.00	0.20	0.20
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.76	0.00	5.07	5.07
d_A, Approach Delay [s/veh]	0.00		1.00		9.98	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	1.54					
Intersection LOS	B					

Intersection Level Of Service Report

Intersection 5: US-101/SR-126 Fwy Ramps (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.916

Intersection Setup

Name	US-101 Fwy Ramps			US-101 Fwy Ramps			East Main St			East Main St		
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 Pocket	0	0	0	0	0	0	0	0	0	2	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	225.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		Yes			No			No			No	

Volumes

Name	US-101 Fwy Ramps			US-101 Fwy Ramps			East Main St			East Main St		
Base Volume Input [veh/h]	0	0	0	223	0	1361	0	2305	279	439	1083	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.01	1.00	1.01	1.00	1.01	1.01	1.01	1.01	1.00
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	4	0	17	7	6	8	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	229	0	1379	0	2345	289	449	1102	0
Peak Hour 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
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	57	0	345	0	586	72	112	276	0
Total Analysis Volume [veh/h]	0	0	0	229	0	1379	0	2345	289	449	1102	0
Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	0	0	1	0	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.07	0.00	0.29	0.00	0.49	0.18	0.14	0.23	0.00
Intersection LOS	E											
Intersection V/C	0.916											

Intersection Level Of Service Report
Intersection 6: Arundell Ave (NS) at East Main St (EW)

Control Type:	Two-way stop	Delay (sec / veh):	81.9
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.257

Intersection Setup

Name	Arundell Ave		East Main St		East Main St	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	1	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	150.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Arundell Ave		East Main St		East Main St	
Base Volume Input [veh/h]	0	68	2476	67	16	1522
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	21	0	0	14
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	69	2522	68	16	1551
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	17	631	17	4	388
Total Analysis Volume [veh/h]	0	69	2522	68	16	1551
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.53	0.03	0.00	0.26	0.02
d_M, Delay for Movement [s/veh]	0.00	59.36	0.00	0.00	81.92	0.00
Movement LOS		F	A	A	F	A
95th-Percentile Queue Length [veh/ln]	0.00	2.51	0.00	0.00	0.90	0.00
95th-Percentile Queue Length [ft/ln]	0.00	62.79	0.00	0.00	22.49	0.00
d_A, Approach Delay [s/veh]	59.36		0.00		0.84	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	1.28					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 7: SR-126 EB On-Ramp (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.469

Intersection Setup

Name	US-126 Fwy Ramp		East Main St			East Main St		
Approach	Southbound		Eastbound			Westbound		
Lane Configuration								
Turning Movement	Left	Right	U-turn	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	2	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	225.00	100.00	100.00	72.00	100.00	105.00
Speed [mph]	30.00		30.00			30.00		
Grade [%]	0.00		0.00			0.00		
Crosswalk	No		No			No		

Volumes

Name	US-126 Fwy Ramp		East Main St			East Main St		
Base Volume Input [veh/h]	0	0	0	434	2091	0	1557	459
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.01	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	2	0	7	14	0	12	6
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	2	0	445	2126	0	1585	470
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	1	0	111	532	0	396	118
Total Analysis Volume [veh/h]	4	2	0	445	2126	0	1585	470
Pedestrian Volume [ped/h]	0		0			0		
Bicycle Volume [bicycles/h]	0		0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Protected	Permissive	Protected	Permissive	Permissive
Signal group	0	0	0	3	8	7	4	0
Auxiliary Signal Groups								
Lead / Lag	-	-	-	Lead	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.14	0.44	0.00	0.33	0.29
Intersection LOS	A							
Intersection V/C	0.469							

HCS 2010 Two-Way Stop Control Summary Report

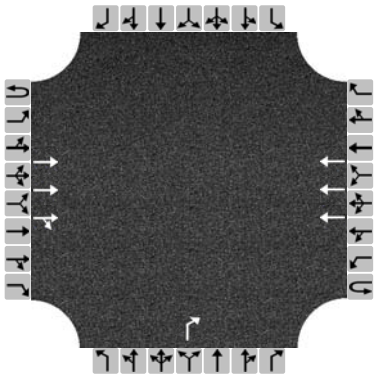
General Information

Analyst	
Agency/Co.	Ganddini Group, Inc.
Date Performed	Opening Year Without Project
Analysis Year	2019
Time Analyzed	Evening Peak Hour
Intersection Orientation	East-West
Project Description	3550 E. Main St. Starbucks

Site Information

Intersection	Project Dwy at E Main St
Jurisdiction	City of Ventura
East/West Street	East Main Street
North/South Street	Project Driveway
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	0	3	0		0	0	1		0	0	0
Configuration			T	TR			T					R				
Volume (veh/h)			2575	24			2397					44				
Percent Heavy Vehicles												3				
Proportion Time Blocked			0.000	0.000			0.000					0.380				
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)												48				
Capacity												568				
v/c Ratio												0.08				
95% Queue Length												0.3				
Control Delay (s/veh)												11.9				
Level of Service (LOS)												B				
Approach Delay (s/veh)									11.9							
Approach LOS									B							

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OPENING YEAR (2019) WITH PROJECT

3550 East Main Street Starbucks

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Scenario 4 Opening Year (2019) With Project
10/24/2018

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Mills Rd (NS) at Dean Dr (EW)	Signalized	ICU 1	NB Thru	0.568	-	A
2	Mills Rd (NS) at East Main St (EW)	Signalized	ICU 1	WB Right	0.679	-	B
3	Mills Rd (NS) at Project Drwy (EW)	Two-way stop	HCM 6th Edition	WB Left	0.015	11.9	B
5	US-101/SR-126 Fwy Ramps (NS) at East Main St (EW)	Signalized	ICU 1	SB Right	0.842	-	D
6	Arundell Ave (NS) at East Main St (EW)	Two-way stop	HCM 6th Edition	WB Left	0.219	52.6	F
7	SR-126 EB On-Ramp (NS) at East Main St (EW)	Signalized	ICU 1	EB Thru	0.364	-	A

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: Mills Rd (NS) at Dean Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.568

Intersection Setup

Name	Mills Rd			Mills Rd			Dean Dr			Dean Dr		
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 Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	200.00	100.00	293.00	200.00	100.00	100.00	61.00	100.00	148.00	445.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Mills Rd			Mills Rd			Dean Dr			Dean Dr		
Base Volume Input [veh/h]	28	1293	369	46	753	6	6	12	6	371	50	49
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	15	3	0	12	0	0	0	0	4	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	28	1321	376	46	773	6	6	12	6	379	51	49
Peak Hour 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
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]	7	330	94	12	193	2	2	3	2	95	13	12
Total Analysis Volume [veh/h]	28	1321	376	46	773	6	6	12	6	379	51	49
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.41	0.24	0.03	0.24	0.24	0.00	0.01	0.00	0.12	0.03	0.03
Intersection LOS	A											
Intersection V/C	0.568											

Intersection Level Of Service Report
Intersection 2: Mills Rd (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.679

Intersection Setup

Name	Mills Rd			Mills Rd			East Main St			East Main St			
Approach	Northbound			Southbound			Eastbound			Westbound			
Lane Configuration													
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	U-tu	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	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	2	0	1	2	0	0	2
Pocket Length [ft]	100.00	100.00	100.00	442.00	100.00	100.00	213.00	100.00	180.00	253.0	100.0	100.0	273.0
Speed [mph]	30.00			30.00			30.00			30.00			
Grade [%]	0.00			0.00			0.00			0.00			
Crosswalk	Yes			Yes			Yes			No			

Volumes

Name	Mills Rd			Mills Rd			East Main St			East Main St			
Base Volume Input [veh/h]	15	63	234	1024	63	26	99	656	12	0	122	828	1515
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	10	13	1	12	4	0	0	12	4	43	1	14	5
Diverted Trips [veh/h]	0	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	0
Existing Site Adjustment Volume [veh/h]	0	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	0
Total Hourly Volume [veh/h]	25	77	237	1046	68	26	100	675	16	43	124	850	1535
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	6	19	59	262	17	7	25	169	4	11	31	213	384
Total Analysis Volume [veh/h]	25	77	237	1046	68	26	100	675	16	43	124	850	1535
Pedestrian Volume [ped/h]	0			0			0			0			
Bicycle Volume [bicycles/h]	0			0			0			0			

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Permi	Prote	Permi	Overl
Signal group	0	2	0	0	6	0	3	8	0	0	7	4	4
Auxiliary Signal Groups													4,6
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.09	0.15	0.22	0.24	0.24	0.03	0.11	0.01	0.03	0.04	0.18	0.26
Intersection LOS	B												
Intersection V/C	0.679												

Intersection Level Of Service Report
Intersection 3: Mills Rd (NS) at Project Drwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	11.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.015

Intersection Setup

Name	Mills Rd		Mills Rd		Project Drwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Mills Rd		Mills Rd		Project Drwy	
Base Volume Input [veh/h]	270	13	14	140	5	9
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.01	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	4	8	1	3	23
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]	274	17	22	142	8	32
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	69	4	6	36	2	8
Total Analysis Volume [veh/h]	274	17	22	142	8	32
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.02	0.00	0.01	0.04
d_M, Delay for Movement [s/veh]	0.00	0.00	7.88	0.00	11.93	10.07
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.05	0.00	0.18	0.18
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.32	0.00	4.53	4.53
d_A, Approach Delay [s/veh]	0.00		1.06		10.44	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	1.19					
Intersection LOS	B					

Intersection Level Of Service Report

Intersection 5: US-101/SR-126 Fwy Ramps (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.842

Intersection Setup

Name	US-101 Fwy Ramps			US-101 Fwy Ramps			East Main St			East Main St		
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 Pocket	0	0	0	0	0	0	0	0	0	2	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	225.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		Yes			No			No			No	

Volumes

Name	US-101 Fwy Ramps			US-101 Fwy Ramps			East Main St			East Main St		
Base Volume Input [veh/h]	0	0	0	423	0	1889	0	1749	259	195	717	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.01	1.00	1.01	1.00	1.01	1.01	1.01	1.01	1.00
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	3	0	41	0	30	18	1	22	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	430	0	1949	0	1796	280	198	746	0
Peak Hour 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
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	108	0	487	0	449	70	50	187	0
Total Analysis Volume [veh/h]	0	0	0	430	0	1949	0	1796	280	198	746	0
Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	0	0	1	0	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.13	0.00	0.41	0.00	0.37	0.18	0.06	0.16	0.00
Intersection LOS	D											
Intersection V/C	0.842											

Intersection Level Of Service Report
Intersection 6: Arundell Ave (NS) at East Main St (EW)

Control Type:	Two-way stop	Delay (sec / veh):	52.6
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.219

Intersection Setup

Name	Arundell Ave		East Main St		East Main St	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	1	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	150.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Arundell Ave		East Main St		East Main St	
Base Volume Input [veh/h]	0	65	2036	134	21	947
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	4	30	3	0	23
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	70	2086	138	21	979
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	18	522	35	5	245
Total Analysis Volume [veh/h]	0	70	2086	138	21	979
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.40	0.02	0.00	0.22	0.01
d_M, Delay for Movement [s/veh]	0.00	38.79	0.00	0.00	52.64	0.00
Movement LOS		E	A	A	F	A
95th-Percentile Queue Length [veh/ln]	0.00	1.77	0.00	0.00	0.77	0.00
95th-Percentile Queue Length [ft/ln]	0.00	44.23	0.00	0.00	19.37	0.00
d_A, Approach Delay [s/veh]	38.79		0.00		1.11	
Approach LOS	E		A		A	
d_I, Intersection Delay [s/veh]	1.16					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 7: SR-126 EB On-Ramp (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.364

Intersection Setup

Name	US-126 Fwy Ramp		East Main St			East Main St		
Approach	Southbound		Eastbound			Westbound		
Lane Configuration								
Turning Movement	Left	Right	U-turn	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	2	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	225.00	100.00	100.00	72.00	100.00	105.00
Speed [mph]	30.00		30.00			30.00		
Grade [%]	0.00		0.00			0.00		
Crosswalk	No		No			No		

Volumes

Name	US-126 Fwy Ramp		East Main St			East Main St		
Base Volume Input [veh/h]	0	0	0	353	1721	0	954	79
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.01	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	3	5	4	20	10	0	14	1
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	5	4	377	1748	0	978	81
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	1	1	94	437	0	245	20
Total Analysis Volume [veh/h]	3	5	4	377	1748	0	978	81
Pedestrian Volume [ped/h]	0		0			0		
Bicycle Volume [bicycles/h]	0		0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Protected	Permissive	Protected	Permissive	Permissive
Signal group	0	0	0	3	8	7	4	0
Auxiliary Signal Groups								
Lead / Lag	-	-	-	Lead	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.12	0.36	0.00	0.20	0.05
Intersection LOS	A							
Intersection V/C	0.364							

HCS 2010 Two-Way Stop Control Summary Report

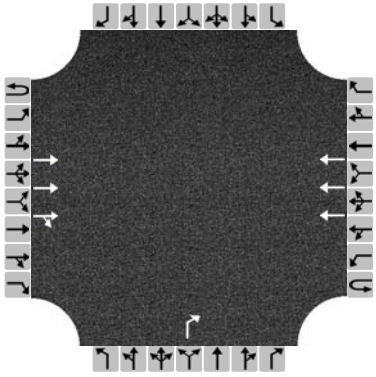
General Information

Analyst	
Agency/Co.	Ganddini Group, Inc.
Date Performed	Opening Year With Project
Analysis Year	2019
Time Analyzed	Morning Peak Hour
Intersection Orientation	East-West
Project Description	3550 E. Main St. Starbucks

Site Information

Intersection	Project Dwy at E Main St
Jurisdiction	City of Ventura
East/West Street	East Main Street
North/South Street	Project Driveway
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	0	3	0		0	0	1		0	0	0
Configuration			T	TR			T					R				
Volume (veh/h)			1896	129			2620					135				
Percent Heavy Vehicles												3				
Proportion Time Blocked												0.280				
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)												147				
Capacity												660				
v/c Ratio												0.22				
95% Queue Length												0.8				
Control Delay (s/veh)												12.0				
Level of Service (LOS)												B				
Approach Delay (s/veh)									12.0							
Approach LOS									B							

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3550 East Main Street Starbucks

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Report File: G:\...\PM OYP.pdf

Scenario 4 Opening Year (2019) With Project
10/24/2018

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Mills Rd (NS) at Dean Dr (EW)	Signalized	ICU 1	SB Thru	0.573	-	A
2	Mills Rd (NS) at East Main St (EW)	Signalized	ICU 1	SB Thru	0.631	-	B
3	Mills Rd (NS) at Project Drwy (EW)	Two-way stop	HCM 6th Edition	WB Left	0.022	12.1	B
5	US-101/SR-126 Fwy Ramps (NS) at East Main St (EW)	Signalized	ICU 1	EB Thru	0.922	-	E
6	Arundell Ave (NS) at East Main St (EW)	Two-way stop	HCM 6th Edition	WB Left	0.261	83.3	F
7	SR-126 EB On-Ramp (NS) at East Main St (EW)	Signalized	ICU 1	EB Thru	0.472	-	A

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: Mills Rd (NS) at Dean Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.573

Intersection Setup

Name	Mills Rd			Mills Rd			Dean Dr			Dean Dr		
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 Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	200.00	100.00	293.00	200.00	100.00	100.00	61.00	100.00	148.00	445.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Mills Rd			Mills Rd			Dean Dr			Dean Dr		
Base Volume Input [veh/h]	122	897	329	67	956	26	25	32	144	290	47	50
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	8	2	0	11	0	0	0	0	2	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	123	914	334	68	977	26	25	32	145	295	47	51
Peak Hour 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
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]	31	229	84	17	244	7	6	8	36	74	12	13
Total Analysis Volume [veh/h]	123	914	334	68	977	26	25	32	145	295	47	51
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.29	0.21	0.04	0.31	0.31	0.02	0.02	0.09	0.09	0.03	0.03
Intersection LOS	A											
Intersection V/C	0.573											

Intersection Level Of Service Report
Intersection 2: Mills Rd (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.631

Intersection Setup

Name	Mills Rd			Mills Rd			East Main St			East Main St			
Approach	Northbound			Southbound			Eastbound			Westbound			
Lane Configuration													
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	U-tu	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	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	2	0	1	2	0	0	2
Pocket Length [ft]	100.00	100.00	100.00	442.00	100.00	100.00	213.00	100.00	180.00	253.0	100.0	100.0	273.0
Speed [mph]	30.00			30.00			30.00			30.00			
Grade [%]	0.00			0.00			0.00			0.00			
Crosswalk	Yes			Yes			Yes			No			

Volumes

Name	Mills Rd			Mills Rd			East Main St			East Main St			
Base Volume Input [veh/h]	17	57	164	1298	63	42	74	1067	13	0	178	822	1276
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	6	8	2	11	2	0	0	19	2	21	2	8	2
Diverted Trips [veh/h]	0	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	0
Existing Site Adjustment Volume [veh/h]	0	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	0
Total Hourly Volume [veh/h]	23	66	168	1322	66	42	75	1097	15	21	182	838	1291
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	6	17	42	331	17	11	19	274	4	5	46	210	323
Total Analysis Volume [veh/h]	23	66	168	1322	66	42	75	1097	15	21	182	838	1291
Pedestrian Volume [ped/h]	0			0			0			0			
Bicycle Volume [bicycles/h]	0			0			0			0			

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Permi	Prote	Permi	Overl
Signal group	0	2	0	0	6	0	3	8	0	0	7	4	4
Auxiliary Signal Groups													4,6
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.09	0.11	0.28	0.30	0.30	0.02	0.17	0.01	0.01	0.06	0.17	0.13
Intersection LOS	B												
Intersection V/C	0.631												

Intersection Level Of Service Report
Intersection 3: Mills Rd (NS) at Project Drwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	12.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.022

Intersection Setup

Name	Mills Rd		Mills Rd		Project Drwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Mills Rd		Mills Rd		Project Drwy	
Base Volume Input [veh/h]	171	6	32	209	10	39
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.01	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	2	4	2	2	12
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]	177	8	36	213	12	51
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	44	2	9	53	3	13
Total Analysis Volume [veh/h]	177	8	36	213	12	51
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.03	0.00	0.02	0.06
d_M, Delay for Movement [s/veh]	0.00	0.00	7.66	0.00	12.07	9.59
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.08	0.00	0.27	0.27
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.99	0.00	6.63	6.63
d_A, Approach Delay [s/veh]	0.00		1.11		10.06	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	1.83					
Intersection LOS	B					

Intersection Level Of Service Report

Intersection 5: US-101/SR-126 Fwy Ramps (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.922

Intersection Setup

Name	US-101 Fwy Ramps			US-101 Fwy Ramps			East Main St			East Main St		
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 Pocket	0	0	0	0	0	0	0	0	0	2	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	225.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		Yes			No			No			No	

Volumes

Name	US-101 Fwy Ramps			US-101 Fwy Ramps			East Main St			East Main St		
Base Volume Input [veh/h]	0	0	0	223	0	1361	0	2305	279	439	1083	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.01	1.00	1.01	1.00	1.01	1.01	1.01	1.01	1.00
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	21	0	28	15	6	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
Total Hourly Volume [veh/h]	0	0	0	229	0	1396	0	2356	297	449	1106	0
Peak Hour 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
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	57	0	349	0	589	74	112	277	0
Total Analysis Volume [veh/h]	0	0	0	229	0	1396	0	2356	297	449	1106	0
Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	0	0	1	0	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.07	0.00	0.29	0.00	0.49	0.19	0.14	0.23	0.00
Intersection LOS	E											
Intersection V/C	0.922											

Intersection Level Of Service Report
Intersection 6: Arundell Ave (NS) at East Main St (EW)

Control Type:	Two-way stop	Delay (sec / veh):	83.3
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.261

Intersection Setup

Name	Arundell Ave		East Main St		East Main St	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	1	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	150.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Arundell Ave		East Main St		East Main St	
Base Volume Input [veh/h]	0	68	2476	67	16	1522
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	2	30	2	0	18
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	71	2531	70	16	1555
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	18	633	18	4	389
Total Analysis Volume [veh/h]	0	71	2531	70	16	1555
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.55	0.03	0.00	0.26	0.02
d_M, Delay for Movement [s/veh]	0.00	61.68	0.00	0.00	83.25	0.00
Movement LOS		F	A	A	F	A
95th-Percentile Queue Length [veh/ln]	0.00	2.65	0.00	0.00	0.91	0.00
95th-Percentile Queue Length [ft/ln]	0.00	66.23	0.00	0.00	22.80	0.00
d_A, Approach Delay [s/veh]	61.68		0.00		0.85	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	1.35					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 7: SR-126 EB On-Ramp (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.472

Intersection Setup

Name	US-126 Fwy Ramp		East Main St			East Main St		
Approach	Southbound		Eastbound			Westbound		
Lane Configuration								
Turning Movement	Left	Right	U-turn	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	2	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	225.00	100.00	100.00	72.00	100.00	105.00
Speed [mph]	30.00		30.00			30.00		
Grade [%]	0.00		0.00			0.00		
Crosswalk	No		No			No		

Volumes

Name	US-126 Fwy Ramp		East Main St			East Main St		
Base Volume Input [veh/h]	0	0	0	434	2091	0	1557	459
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.01	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	2	2	14	16	0	14	6
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	2	2	452	2128	0	1587	470
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	1	1	113	532	0	397	118
Total Analysis Volume [veh/h]	4	2	2	452	2128	0	1587	470
Pedestrian Volume [ped/h]	0		0			0		
Bicycle Volume [bicycles/h]	0		0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Protected	Permissive	Protected	Permissive	Permissive
Signal group	0	0	0	3	8	7	4	0
Auxiliary Signal Groups								
Lead / Lag	-	-	-	Lead	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.14	0.44	0.00	0.33	0.29
Intersection LOS	A							
Intersection V/C	0.472							

HCS 2010 Two-Way Stop Control Summary Report

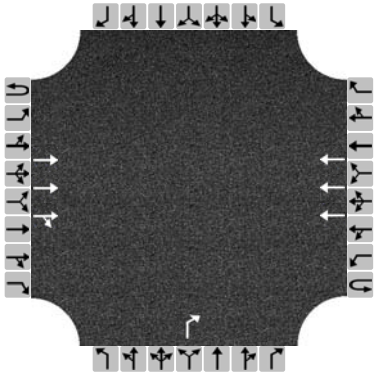
General Information

Analyst	
Agency/Co.	Ganddini Group, Inc.
Date Performed	Opening Year With Project
Analysis Year	2019
Time Analyzed	Evening Peak Hour
Intersection Orientation	East-West
Project Description	3550 E. Main St. Starbucks

Site Information

Intersection	Project Dwy at E Main St
Jurisdiction	City of Ventura
East/West Street	East Main Street
North/South Street	Project Driveway
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	0	3	0		0	0	1		0	0	0
Configuration			T	TR			T					R				
Volume (veh/h)			2542	86			2418					96				
Percent Heavy Vehicles												3				
Proportion Time Blocked												0.380				
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)												104				
Capacity												568				
v/c Ratio												0.18				
95% Queue Length												0.7				
Control Delay (s/veh)												12.8				
Level of Service (LOS)												B				
Approach Delay (s/veh)									12.8							
Approach LOS									B							

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OPENING YEAR (2019) WITH PROJECT ALTERNATIVE 1

3550 East Main Street Starbucks

Vistro File: G:\...\AM Alt 1.vistro
Report File: G:\...\AM OYP Alt 1.pdf

Scenario 2 Opening Year (2019) With Project Alternative 1
10/24/2018

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Mills Rd (NS) at Dean Dr (EW)	Signalized	ICU 1	NB Thru	0.568	-	A
2	Mills Rd (NS) at East Main St (EW)	Signalized	ICU 1	WB Right	0.704	-	C
3	Mills Rd (NS) at Project Drwy (EW)	Two-way stop	HCM 6th Edition	WB Left	0.015	12.8	B
5	US-101/SR-126 Fwy Ramps (NS) at East Main St (EW)	Signalized	ICU 1	SB Right	0.842	-	D
6	Arundell Ave (NS) at East Main St (EW)	Two-way stop	HCM 6th Edition	WB Left	0.219	52.6	F
7	SR-126 EB On-Ramp (NS) at East Main St (EW)	Signalized	ICU 1	EB Thru	0.364	-	A

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: Mills Rd (NS) at Dean Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.568

Intersection Setup

Name	Mills Rd			Mills Rd			Dean Dr			Dean Dr		
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 Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	200.00	100.00	293.00	200.00	100.00	100.00	61.00	100.00	148.00	445.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Mills Rd			Mills Rd			Dean Dr			Dean Dr		
Base Volume Input [veh/h]	28	1293	369	46	753	6	6	12	6	371	50	49
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	15	3	0	12	0	0	0	0	4	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	28	1321	376	46	773	6	6	12	6	379	51	49
Peak Hour 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
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]	7	330	94	12	193	2	2	3	2	95	13	12
Total Analysis Volume [veh/h]	28	1321	376	46	773	6	6	12	6	379	51	49
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.41	0.24	0.03	0.24	0.24	0.00	0.01	0.00	0.12	0.03	0.03
Intersection LOS	A											
Intersection V/C	0.568											

Intersection Level Of Service Report
Intersection 2: Mills Rd (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.704

Intersection Setup

Name	Mills Rd			Mills Rd			East Main St			East Main St			
Approach	Northbound			Southbound			Eastbound			Westbound			
Lane Configuration													
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	U-tu	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	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	2	0	1	2	0	0	2
Pocket Length [ft]	100.00	100.00	100.00	442.00	100.00	100.00	213.00	100.00	180.00	253.0	100.0	100.0	273.0
Speed [mph]	30.00			30.00			30.00			30.00			
Grade [%]	0.00			0.00			0.00			0.00			
Crosswalk	Yes			Yes			Yes			No			

Volumes

Name	Mills Rd			Mills Rd			East Main St			East Main St			
Base Volume Input [veh/h]	15	63	234	1024	63	26	99	656	12	0	122	828	1515
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	10	13	42	12	4	0	0	12	4	43	1	14	5
Diverted Trips [veh/h]	0	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	0
Existing Site Adjustment Volume [veh/h]	0	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	0
Total Hourly Volume [veh/h]	25	77	278	1046	68	26	100	675	16	43	124	850	1535
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	6	19	70	262	17	7	25	169	4	11	31	213	384
Total Analysis Volume [veh/h]	25	77	278	1046	68	26	100	675	16	43	124	850	1535
Pedestrian Volume [ped/h]	0			0			0			0			
Bicycle Volume [bicycles/h]	0			0			0			0			

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Permi	Prote	Permi	Overl
Signal group	0	2	0	0	6	0	3	8	0	0	7	4	4
Auxiliary Signal Groups													4,6
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.09	0.17	0.22	0.24	0.24	0.03	0.11	0.01	0.03	0.04	0.18	0.26
Intersection LOS	C												
Intersection V/C	0.704												

Intersection Level Of Service Report
Intersection 3: Mills Rd (NS) at Project Drwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	12.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.015

Intersection Setup

Name	Mills Rd		Mills Rd		Project Drwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Mills Rd		Mills Rd		Project Drwy	
Base Volume Input [veh/h]	270	13	14	140	5	9
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.01	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	4	8	1	3	64
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	65
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]	274	17	22	142	8	138
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	69	4	6	36	2	35
Total Analysis Volume [veh/h]	274	17	22	142	8	138
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.02	0.00	0.01	0.18
d_M, Delay for Movement [s/veh]	0.00	0.00	7.88	0.00	12.81	10.95
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.05	0.00	0.73	0.73
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.32	0.00	18.24	18.24
d_A, Approach Delay [s/veh]	0.00		1.06		11.05	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	2.97					
Intersection LOS	B					

Intersection Level Of Service Report

Intersection 5: US-101/SR-126 Fwy Ramps (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.842

Intersection Setup

Name	US-101 Fwy Ramps			US-101 Fwy Ramps			East Main St			East Main St		
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 Pocket	0	0	0	0	0	0	0	0	0	2	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	225.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		Yes			No			No			No	

Volumes

Name	US-101 Fwy Ramps			US-101 Fwy Ramps			East Main St			East Main St		
Base Volume Input [veh/h]	0	0	0	423	0	1889	0	1749	259	195	717	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.01	1.00	1.01	1.00	1.01	1.01	1.01	1.01	1.00
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	3	0	41	0	30	18	1	22	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	430	0	1949	0	1796	280	198	746	0
Peak Hour 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
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	108	0	487	0	449	70	50	187	0
Total Analysis Volume [veh/h]	0	0	0	430	0	1949	0	1796	280	198	746	0
Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	0	0	1	0	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.13	0.00	0.41	0.00	0.37	0.18	0.06	0.16	0.00
Intersection LOS	D											
Intersection V/C	0.842											

Intersection Level Of Service Report
Intersection 6: Arundell Ave (NS) at East Main St (EW)

Control Type:	Two-way stop	Delay (sec / veh):	52.6
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.219

Intersection Setup

Name	Arundell Ave		East Main St		East Main St	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	1	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	150.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Arundell Ave		East Main St		East Main St	
Base Volume Input [veh/h]	0	65	2036	134	21	947
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	4	30	3	0	23
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	70	2086	138	21	979
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	18	522	35	5	245
Total Analysis Volume [veh/h]	0	70	2086	138	21	979
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.40	0.02	0.00	0.22	0.01
d_M, Delay for Movement [s/veh]	0.00	38.79	0.00	0.00	52.64	0.00
Movement LOS		E	A	A	F	A
95th-Percentile Queue Length [veh/ln]	0.00	1.77	0.00	0.00	0.77	0.00
95th-Percentile Queue Length [ft/ln]	0.00	44.23	0.00	0.00	19.37	0.00
d_A, Approach Delay [s/veh]	38.79		0.00		1.11	
Approach LOS	E		A		A	
d_I, Intersection Delay [s/veh]	1.16					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 7: SR-126 EB On-Ramp (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.364

Intersection Setup

Name	US-126 Fwy Ramp		East Main St			East Main St		
Approach	Southbound		Eastbound			Westbound		
Lane Configuration								
Turning Movement	Left	Right	U-turn	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	2	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	225.00	100.00	100.00	72.00	100.00	105.00
Speed [mph]	30.00		30.00			30.00		
Grade [%]	0.00		0.00			0.00		
Crosswalk	No		No			No		

Volumes

Name	US-126 Fwy Ramp		East Main St			East Main St		
Base Volume Input [veh/h]	0	0	0	353	1721	0	954	79
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.01	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	3	5	4	20	10	0	14	1
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	5	4	377	1748	0	978	81
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	1	1	94	437	0	245	20
Total Analysis Volume [veh/h]	3	5	4	377	1748	0	978	81
Pedestrian Volume [ped/h]	0		0			0		
Bicycle Volume [bicycles/h]	0		0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Protected	Permissive	Protected	Permissive	Permissive
Signal group	0	0	0	3	8	7	4	0
Auxiliary Signal Groups								
Lead / Lag	-	-	-	Lead	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.12	0.36	0.00	0.20	0.05
Intersection LOS	A							
Intersection V/C	0.364							

3550 East Main Street Starbucks

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Scenario 2 Opening Year (2019) With Project Alternative 1
10/24/2018

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Mills Rd (NS) at Dean Dr (EW)	Signalized	ICU 1	SB Thru	0.573	-	A
2	Mills Rd (NS) at East Main St (EW)	Signalized	ICU 1	SB Thru	0.643	-	B
3	Mills Rd (NS) at Project Drwy (EW)	Two-way stop	HCM 6th Edition	WB Left	0.022	12.4	B
5	US-101/SR-126 Fwy Ramps (NS) at East Main St (EW)	Signalized	ICU 1	EB Thru	0.922	-	E
6	Arundell Ave (NS) at East Main St (EW)	Two-way stop	HCM 6th Edition	WB Left	0.261	83.3	F
7	SR-126 EB On-Ramp (NS) at East Main St (EW)	Signalized	ICU 1	EB Thru	0.472	-	A

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: Mills Rd (NS) at Dean Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.573

Intersection Setup

Name	Mills Rd			Mills Rd			Dean Dr			Dean Dr		
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 Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	200.00	100.00	293.00	200.00	100.00	100.00	61.00	100.00	148.00	445.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Mills Rd			Mills Rd			Dean Dr			Dean Dr		
Base Volume Input [veh/h]	122	897	329	67	956	26	25	32	144	290	47	50
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	8	2	0	11	0	0	0	0	2	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	123	914	334	68	977	26	25	32	145	295	47	51
Peak Hour 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
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]	31	229	84	17	244	7	6	8	36	74	12	13
Total Analysis Volume [veh/h]	123	914	334	68	977	26	25	32	145	295	47	51
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.29	0.21	0.04	0.31	0.31	0.02	0.02	0.09	0.09	0.03	0.03
Intersection LOS	A											
Intersection V/C	0.573											

Intersection Level Of Service Report
Intersection 2: Mills Rd (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.643

Intersection Setup

Name	Mills Rd			Mills Rd			East Main St			East Main St			
Approach	Northbound			Southbound			Eastbound			Westbound			
Lane Configuration													
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	U-tu	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	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	2	0	1	2	0	0	2
Pocket Length [ft]	100.00	100.00	100.00	442.00	100.00	100.00	213.00	100.00	180.00	253.0	100.0	100.0	273.0
Speed [mph]	30.00			30.00			30.00			30.00			
Grade [%]	0.00			0.00			0.00			0.00			
Crosswalk	Yes			Yes			Yes			No			

Volumes

Name	Mills Rd			Mills Rd			East Main St			East Main St			
Base Volume Input [veh/h]	17	57	164	1298	63	42	74	1067	13	0	178	822	1276
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	6	8	21	11	2	0	0	19	2	21	2	8	2
Diverted Trips [veh/h]	0	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	0
Existing Site Adjustment Volume [veh/h]	0	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	0
Total Hourly Volume [veh/h]	23	66	187	1322	66	42	75	1097	15	21	182	838	1291
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	6	17	47	331	17	11	19	274	4	5	46	210	323
Total Analysis Volume [veh/h]	23	66	187	1322	66	42	75	1097	15	21	182	838	1291
Pedestrian Volume [ped/h]	0			0			0			0			
Bicycle Volume [bicycles/h]	0			0			0			0			

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Permi	Prote	Permi	Overl
Signal group	0	2	0	0	6	0	3	8	0	0	7	4	4
Auxiliary Signal Groups													4,6
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.09	0.12	0.28	0.30	0.30	0.02	0.17	0.01	0.01	0.06	0.17	0.13
Intersection LOS	B												
Intersection V/C	0.643												

Intersection Level Of Service Report
Intersection 3: Mills Rd (NS) at Project Drwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	12.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.022

Intersection Setup

Name	Mills Rd		Mills Rd		Project Drwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Mills Rd		Mills Rd		Project Drwy	
Base Volume Input [veh/h]	171	6	32	209	10	39
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.01	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	2	4	2	2	31
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	33
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]	177	8	36	213	12	103
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	44	2	9	53	3	26
Total Analysis Volume [veh/h]	177	8	36	213	12	103
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.03	0.00	0.02	0.12
d_M, Delay for Movement [s/veh]	0.00	0.00	7.66	0.00	12.39	9.91
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.08	0.00	0.49	0.49
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.99	0.00	12.32	12.32
d_A, Approach Delay [s/veh]	0.00		1.11		10.17	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	2.63					
Intersection LOS	B					

Intersection Level Of Service Report

Intersection 5: US-101/SR-126 Fwy Ramps (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.922

Intersection Setup

Name	US-101 Fwy Ramps			US-101 Fwy Ramps			East Main St			East Main St		
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 Pocket	0	0	0	0	0	0	0	0	0	2	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	225.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		Yes			No			No			No	

Volumes

Name	US-101 Fwy Ramps			US-101 Fwy Ramps			East Main St			East Main St		
Base Volume Input [veh/h]	0	0	0	223	0	1361	0	2305	279	439	1083	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.01	1.00	1.01	1.00	1.01	1.01	1.01	1.01	1.00
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	21	0	28	15	6	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
Total Hourly Volume [veh/h]	0	0	0	229	0	1396	0	2356	297	449	1106	0
Peak Hour 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
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	57	0	349	0	589	74	112	277	0
Total Analysis Volume [veh/h]	0	0	0	229	0	1396	0	2356	297	449	1106	0
Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	0	0	1	0	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.07	0.00	0.29	0.00	0.49	0.19	0.14	0.23	0.00
Intersection LOS	E											
Intersection V/C	0.922											

Intersection Level Of Service Report
Intersection 6: Arundell Ave (NS) at East Main St (EW)

Control Type:	Two-way stop	Delay (sec / veh):	83.3
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.261

Intersection Setup

Name	Arundell Ave		East Main St		East Main St	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	1	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	150.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Arundell Ave		East Main St		East Main St	
Base Volume Input [veh/h]	0	68	2476	67	16	1522
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	2	30	2	0	18
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	71	2531	70	16	1555
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	18	633	18	4	389
Total Analysis Volume [veh/h]	0	71	2531	70	16	1555
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.55	0.03	0.00	0.26	0.02
d_M, Delay for Movement [s/veh]	0.00	61.68	0.00	0.00	83.25	0.00
Movement LOS		F	A	A	F	A
95th-Percentile Queue Length [veh/ln]	0.00	2.65	0.00	0.00	0.91	0.00
95th-Percentile Queue Length [ft/ln]	0.00	66.23	0.00	0.00	22.80	0.00
d_A, Approach Delay [s/veh]	61.68		0.00		0.85	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	1.35					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 7: SR-126 EB On-Ramp (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.472

Intersection Setup

Name	US-126 Fwy Ramp		East Main St			East Main St		
Approach	Southbound		Eastbound			Westbound		
Lane Configuration								
Turning Movement	Left	Right	U-turn	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	2	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	225.00	100.00	100.00	72.00	100.00	105.00
Speed [mph]	30.00		30.00			30.00		
Grade [%]	0.00		0.00			0.00		
Crosswalk	No		No			No		

Volumes

Name	US-126 Fwy Ramp		East Main St			East Main St		
Base Volume Input [veh/h]	0	0	0	434	2091	0	1557	459
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.01	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	2	2	14	16	0	14	6
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	2	2	452	2128	0	1587	470
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	1	1	113	532	0	397	118
Total Analysis Volume [veh/h]	4	2	2	452	2128	0	1587	470
Pedestrian Volume [ped/h]	0		0			0		
Bicycle Volume [bicycles/h]	0		0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Protected	Permissive	Protected	Permissive	Permissive
Signal group	0	0	0	3	8	7	4	0
Auxiliary Signal Groups								
Lead / Lag	-	-	-	Lead	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.14	0.44	0.00	0.33	0.29
Intersection LOS	A							
Intersection V/C	0.472							

OPENING YEAR (2019) WITH PROJECT ALTERNATIVE 2

3550 East Main Street Starbucks

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Scenario 2 Opening Year (2019) With Project Alternative 2
10/24/2018

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Mills Rd (NS) at Dean Dr (EW)	Signalized	ICU 1	NB Thru	0.568	-	A
2	Mills Rd (NS) at East Main St (EW)	Signalized	ICU 1	WB Right	0.681	-	B
3	Mills Rd (NS) at Project Drwy (EW)	Two-way stop	HCM 6th Edition	WB Left	0.021	14.9	B
5	US-101/SR-126 Fwy Ramps (NS) at East Main St (EW)	Signalized	ICU 1	SB Right	0.842	-	D
6	Arundell Ave (NS) at East Main St (EW)	Two-way stop	HCM 6th Edition	WB Left	0.219	52.6	F
7	SR-126 EB On-Ramp (NS) at East Main St (EW)	Signalized	ICU 1	EB Thru	0.364	-	A

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: Mills Rd (NS) at Dean Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.568

Intersection Setup

Name	Mills Rd			Mills Rd			Dean Dr			Dean Dr		
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 Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	200.00	100.00	293.00	200.00	100.00	100.00	61.00	100.00	148.00	445.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Mills Rd			Mills Rd			Dean Dr			Dean Dr		
Base Volume Input [veh/h]	28	1293	369	46	753	6	6	12	6	371	50	49
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	15	3	0	12	0	0	0	0	4	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	28	1321	376	46	773	6	6	12	6	379	51	49
Peak Hour 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
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]	7	330	94	12	193	2	2	3	2	95	13	12
Total Analysis Volume [veh/h]	28	1321	376	46	773	6	6	12	6	379	51	49
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.41	0.24	0.03	0.24	0.24	0.00	0.01	0.00	0.12	0.03	0.03
Intersection LOS	A											
Intersection V/C	0.568											

Intersection Level Of Service Report
Intersection 2: Mills Rd (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.681

Intersection Setup

Name	Mills Rd			Mills Rd			East Main St			East Main St			
Approach	Northbound			Southbound			Eastbound			Westbound			
Lane Configuration													
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	U-tu	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	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	2	0	1	2	0	0	2
Pocket Length [ft]	100.00	100.00	100.00	442.00	100.00	100.00	213.00	100.00	180.00	253.0	100.0	100.0	273.0
Speed [mph]	30.00			30.00			30.00			30.00			
Grade [%]	0.00			0.00			0.00			0.00			
Crosswalk	Yes			Yes			Yes			No			

Volumes

Name	Mills Rd			Mills Rd			East Main St			East Main St			
Base Volume Input [veh/h]	15	63	234	1024	63	26	99	656	12	0	122	828	1515
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	10	13	1	1	15	0	0	5	11	0	44	14	5
Diverted Trips [veh/h]	0	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	0
Existing Site Adjustment Volume [veh/h]	0	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	0
Total Hourly Volume [veh/h]	25	77	237	1035	79	26	100	668	23	0	167	850	1535
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	6	19	59	259	20	7	25	167	6	0	42	213	384
Total Analysis Volume [veh/h]	25	77	237	1035	79	26	100	668	23	0	167	850	1535
Pedestrian Volume [ped/h]	0			0			0			0			
Bicycle Volume [bicycles/h]	0			0			0			0			

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Permi	Prote	Permi	Overl
Signal group	0	2	0	0	6	0	3	8	0	0	7	4	4
Auxiliary Signal Groups													4,6
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.09	0.15	0.22	0.24	0.24	0.03	0.10	0.01	0.00	0.05	0.18	0.26
Intersection LOS	B												
Intersection V/C	0.681												

Intersection Level Of Service Report
Intersection 3: Mills Rd (NS) at Project Drwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	14.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.021

Intersection Setup

Name	Mills Rd		Mills Rd		Project Drwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Mills Rd		Mills Rd		Project Drwy	
Base Volume Input [veh/h]	270	13	14	140	5	9
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.01	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	4	69	1	3	23
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	67	-67	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]	274	17	150	75	8	32
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	69	4	38	19	2	8
Total Analysis Volume [veh/h]	274	17	150	75	8	32
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.12	0.00	0.02	0.04
d_M, Delay for Movement [s/veh]	0.00	0.00	8.21	0.00	14.89	10.15
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.40	0.00	0.20	0.20
95th-Percentile Queue Length [ft/ln]	0.00	0.00	10.01	0.00	5.07	5.07
d_A, Approach Delay [s/veh]	0.00		5.47		11.09	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	3.01					
Intersection LOS	B					

Intersection Level Of Service Report

Intersection 5: US-101/SR-126 Fwy Ramps (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.842

Intersection Setup

Name	US-101 Fwy Ramps			US-101 Fwy Ramps			East Main St			East Main St		
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 Pocket	0	0	0	0	0	0	0	0	0	2	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	225.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		Yes			No			No			No	

Volumes

Name	US-101 Fwy Ramps			US-101 Fwy Ramps			East Main St			East Main St		
Base Volume Input [veh/h]	0	0	0	423	0	1889	0	1749	259	195	717	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.01	1.00	1.01	1.00	1.01	1.01	1.01	1.01	1.00
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	3	0	41	0	30	18	1	22	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	430	0	1949	0	1796	280	198	746	0
Peak Hour 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
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	108	0	487	0	449	70	50	187	0
Total Analysis Volume [veh/h]	0	0	0	430	0	1949	0	1796	280	198	746	0
Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	0	0	1	0	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.13	0.00	0.41	0.00	0.37	0.18	0.06	0.16	0.00
Intersection LOS	D											
Intersection V/C	0.842											

Intersection Level Of Service Report
Intersection 6: Arundell Ave (NS) at East Main St (EW)

Control Type:	Two-way stop	Delay (sec / veh):	52.6
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.219

Intersection Setup

Name	Arundell Ave		East Main St		East Main St	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	1	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	150.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Arundell Ave		East Main St		East Main St	
Base Volume Input [veh/h]	0	65	2036	134	21	947
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	4	30	3	0	23
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	70	2086	138	21	979
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	18	522	35	5	245
Total Analysis Volume [veh/h]	0	70	2086	138	21	979
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.40	0.02	0.00	0.22	0.01
d_M, Delay for Movement [s/veh]	0.00	38.79	0.00	0.00	52.64	0.00
Movement LOS		E	A	A	F	A
95th-Percentile Queue Length [veh/ln]	0.00	1.77	0.00	0.00	0.77	0.00
95th-Percentile Queue Length [ft/ln]	0.00	44.23	0.00	0.00	19.37	0.00
d_A, Approach Delay [s/veh]	38.79		0.00		1.11	
Approach LOS	E		A		A	
d_I, Intersection Delay [s/veh]	1.16					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 7: SR-126 EB On-Ramp (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.364

Intersection Setup

Name	US-126 Fwy Ramp		East Main St			East Main St		
Approach	Southbound		Eastbound			Westbound		
Lane Configuration								
Turning Movement	Left	Right	U-turn	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	2	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	225.00	100.00	100.00	72.00	100.00	105.00
Speed [mph]	30.00		30.00			30.00		
Grade [%]	0.00		0.00			0.00		
Crosswalk	No		No			No		

Volumes

Name	US-126 Fwy Ramp		East Main St			East Main St		
Base Volume Input [veh/h]	0	0	0	353	1721	0	954	79
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.01	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	3	5	4	20	10	0	14	1
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	5	4	377	1748	0	978	81
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	1	1	94	437	0	245	20
Total Analysis Volume [veh/h]	3	5	4	377	1748	0	978	81
Pedestrian Volume [ped/h]	0		0			0		
Bicycle Volume [bicycles/h]	0		0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Protected	Permissive	Protected	Permissive	Permissive
Signal group	0	0	0	3	8	7	4	0
Auxiliary Signal Groups								
Lead / Lag	-	-	-	Lead	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.12	0.36	0.00	0.20	0.05
Intersection LOS	A							
Intersection V/C	0.364							

HCS 2010 Two-Way Stop Control Summary Report

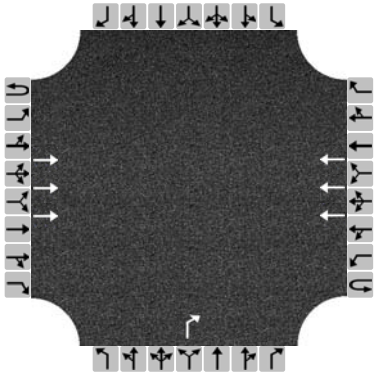
General Information

Analyst	
Agency/Co.	Ganddini Group, Inc.
Date Performed	Opening Year With Project Alternative 2
Analysis Year	2019
Time Analyzed	Morning Peak Hour
Intersection Orientation	East-West
Project Description	3550 E. Main St. Starbucks

Site Information

Intersection	Project Dwy at E Main St
Jurisdiction	City of Ventura
East/West Street	East Main Street
North/South Street	Project Driveway
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	0	3	0		0	0	1		0	0	0
Configuration			T				T					R				
Volume (veh/h)			1963				2620					135				
Percent Heavy Vehicles												3				
Proportion Time Blocked			0.000				0.000					0.280				
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)												147				
Capacity												660				
v/c Ratio												0.22				
95% Queue Length												0.8				
Control Delay (s/veh)												12.0				
Level of Service (LOS)												B				
Approach Delay (s/veh)									12.0							
Approach LOS									B							

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3550 East Main Street Starbucks

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Report File: G:\...\PM OYP Alt 2.pdf

Scenario 2 Opening Year (2019) With Project Alternative 2
10/24/2018

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Mills Rd (NS) at Dean Dr (EW)	Signalized	ICU 1	SB Thru	0.573	-	A
2	Mills Rd (NS) at East Main St (EW)	Signalized	ICU 1	SB Thru	0.637	-	B
3	Mills Rd (NS) at Project Drwy (EW)	Two-way stop	HCM 6th Edition	WB Left	0.026	13.3	B
5	US-101/SR-126 Fwy Ramps (NS) at East Main St (EW)	Signalized	ICU 1	EB Thru	0.922	-	E
6	Arundell Ave (NS) at East Main St (EW)	Two-way stop	HCM 6th Edition	WB Left	0.261	83.3	F
7	SR-126 EB On-Ramp (NS) at East Main St (EW)	Signalized	ICU 1	EB Thru	0.472	-	A

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: Mills Rd (NS) at Dean Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.573

Intersection Setup

Name	Mills Rd			Mills Rd			Dean Dr			Dean Dr		
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 Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	200.00	100.00	293.00	200.00	100.00	100.00	61.00	100.00	148.00	445.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Mills Rd			Mills Rd			Dean Dr			Dean Dr		
Base Volume Input [veh/h]	122	897	329	67	956	26	25	32	144	290	47	50
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	8	2	0	11	0	0	0	0	2	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	123	914	334	68	977	26	25	32	145	295	47	51
Peak Hour 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
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]	31	229	84	17	244	7	6	8	36	74	12	13
Total Analysis Volume [veh/h]	123	914	334	68	977	26	25	32	145	295	47	51
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.29	0.21	0.04	0.31	0.31	0.02	0.02	0.09	0.09	0.03	0.03
Intersection LOS	A											
Intersection V/C	0.573											

Intersection Level Of Service Report
Intersection 2: Mills Rd (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.637

Intersection Setup

Name	Mills Rd			Mills Rd			East Main St			East Main St			
Approach	Northbound			Southbound			Eastbound			Westbound			
Lane Configuration													
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	U-tu	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	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	2	0	1	2	0	0	2
Pocket Length [ft]	100.00	100.00	100.00	442.00	100.00	100.00	213.00	100.00	180.00	253.0	100.0	100.0	273.0
Speed [mph]	30.00			30.00			30.00			30.00			
Grade [%]	0.00			0.00			0.00			0.00			
Crosswalk	Yes			Yes			Yes			No			

Volumes

Name	Mills Rd			Mills Rd			East Main St			East Main St			
Base Volume Input [veh/h]	17	57	164	1298	63	42	74	1067	13	0	178	822	1276
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	6	8	2	6	7	0	0	16	5	0	23	8	2
Diverted Trips [veh/h]	0	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	0
Existing Site Adjustment Volume [veh/h]	0	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	0
Total Hourly Volume [veh/h]	23	66	168	1317	71	42	75	1094	18	0	203	838	1291
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	6	17	42	329	18	11	19	274	5	0	51	210	323
Total Analysis Volume [veh/h]	23	66	168	1317	71	42	75	1094	18	0	203	838	1291
Pedestrian Volume [ped/h]	0			0			0			0			
Bicycle Volume [bicycles/h]	0			0			0			0			

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Permi	Prote	Permi	Overl
Signal group	0	2	0	0	6	0	3	8	0	0	7	4	4
Auxiliary Signal Groups													4,6
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.09	0.11	0.27	0.30	0.30	0.02	0.17	0.01	0.00	0.06	0.17	0.13
Intersection LOS	B												
Intersection V/C	0.637												

Intersection Level Of Service Report
Intersection 3: Mills Rd (NS) at Project Drwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	13.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.026

Intersection Setup

Name	Mills Rd		Mills Rd		Project Drwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Mills Rd		Mills Rd		Project Drwy	
Base Volume Input [veh/h]	171	6	32	209	10	39
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.01	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	2	33	2	2	12
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	33	-33	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]	177	8	98	180	12	51
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	44	2	25	45	3	13
Total Analysis Volume [veh/h]	177	8	98	180	12	51
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.07	0.00	0.03	0.06
d_M, Delay for Movement [s/veh]	0.00	0.00	7.79	0.00	13.34	9.63
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.23	0.00	0.28	0.28
95th-Percentile Queue Length [ft/ln]	0.00	0.00	5.68	0.00	6.99	6.99
d_A, Approach Delay [s/veh]	0.00		2.75		10.34	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	2.69					
Intersection LOS	B					

Intersection Level Of Service Report

Intersection 5: US-101/SR-126 Fwy Ramps (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.922

Intersection Setup

Name	US-101 Fwy Ramps			US-101 Fwy Ramps			East Main St			East Main St		
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 Pocket	0	0	0	0	0	0	0	0	0	2	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	225.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		Yes			No			No			No	

Volumes

Name	US-101 Fwy Ramps			US-101 Fwy Ramps			East Main St			East Main St		
Base Volume Input [veh/h]	0	0	0	223	0	1361	0	2305	279	439	1083	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.01	1.00	1.01	1.00	1.01	1.01	1.01	1.01	1.00
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	21	0	28	15	6	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
Total Hourly Volume [veh/h]	0	0	0	229	0	1396	0	2356	297	449	1106	0
Peak Hour 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
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	57	0	349	0	589	74	112	277	0
Total Analysis Volume [veh/h]	0	0	0	229	0	1396	0	2356	297	449	1106	0
Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	0	0	1	0	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.07	0.00	0.29	0.00	0.49	0.19	0.14	0.23	0.00
Intersection LOS	E											
Intersection V/C	0.922											

Intersection Level Of Service Report
Intersection 6: Arundell Ave (NS) at East Main St (EW)

Control Type:	Two-way stop	Delay (sec / veh):	83.3
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.261

Intersection Setup

Name	Arundell Ave		East Main St		East Main St	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	1	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	150.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Arundell Ave		East Main St		East Main St	
Base Volume Input [veh/h]	0	68	2476	67	16	1522
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	2	30	2	0	18
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	71	2531	70	16	1555
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	18	633	18	4	389
Total Analysis Volume [veh/h]	0	71	2531	70	16	1555
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.55	0.03	0.00	0.26	0.02
d_M, Delay for Movement [s/veh]	0.00	61.68	0.00	0.00	83.25	0.00
Movement LOS		F	A	A	F	A
95th-Percentile Queue Length [veh/ln]	0.00	2.65	0.00	0.00	0.91	0.00
95th-Percentile Queue Length [ft/ln]	0.00	66.23	0.00	0.00	22.80	0.00
d_A, Approach Delay [s/veh]	61.68		0.00		0.85	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	1.35					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 7: SR-126 EB On-Ramp (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.472

Intersection Setup

Name	US-126 Fwy Ramp		East Main St			East Main St		
Approach	Southbound		Eastbound			Westbound		
Lane Configuration								
Turning Movement	Left	Right	U-turn	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	2	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	225.00	100.00	100.00	72.00	100.00	105.00
Speed [mph]	30.00		30.00			30.00		
Grade [%]	0.00		0.00			0.00		
Crosswalk	No		No			No		

Volumes

Name	US-126 Fwy Ramp		East Main St			East Main St		
Base Volume Input [veh/h]	0	0	0	434	2091	0	1557	459
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.01	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	2	2	14	16	0	14	6
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	2	2	452	2128	0	1587	470
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	1	1	113	532	0	397	118
Total Analysis Volume [veh/h]	4	2	2	452	2128	0	1587	470
Pedestrian Volume [ped/h]	0		0			0		
Bicycle Volume [bicycles/h]	0		0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Protected	Permissive	Protected	Permissive	Permissive
Signal group	0	0	0	3	8	7	4	0
Auxiliary Signal Groups								
Lead / Lag	-	-	-	Lead	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.14	0.44	0.00	0.33	0.29
Intersection LOS	A							
Intersection V/C	0.472							

HCS 2010 Two-Way Stop Control Summary Report

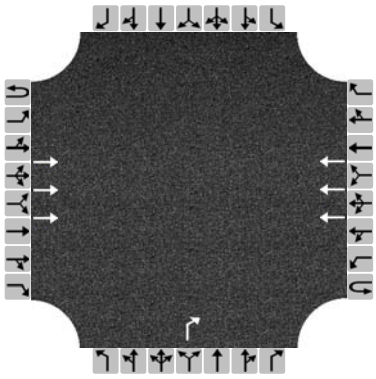
General Information

Analyst	
Agency/Co.	Ganddini Group, Inc.
Date Performed	Opening Year With Project Alternative 2
Analysis Year	2019
Time Analyzed	Evening Peak Hour
Intersection Orientation	East-West
Project Description	3550 E. Main St. Starbucks

Site Information

Intersection	Project Dwy at E Main St
Jurisdiction	City of Ventura
East/West Street	East Main Street
North/South Street	Project Driveway
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	0	3	0		0	0	1		0	0	0
Configuration			T				T					R				
Volume (veh/h)			2575				2418					96				
Percent Heavy Vehicles												3				
Proportion Time Blocked			0.000				0.000					0.380				
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)												104				
Capacity												568				
v/c Ratio												0.18				
95% Queue Length												0.7				
Control Delay (s/veh)												12.8				
Level of Service (LOS)												B				
Approach Delay (s/veh)									12.8							
Approach LOS									B							

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OPENING YEAR (2019) WITH PROJECT ALTERNATIVE 3

3550 East Main Street Starbucks

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Scenario 2 Opening Year (2019) With Project Alternative 3
10/24/2018

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Mills Rd (NS) at Dean Dr (EW)	Signalized	ICU 1	NB Thru	0.568	-	A
2	Mills Rd (NS) at East Main St (EW)	Signalized	ICU 1	WB Right	0.707	-	C
3	Mills Rd (NS) at Project Drwy (EW)	Two-way stop	HCM 6th Edition	WB Left	0.021	15.8	C
5	US-101/SR-126 Fwy Ramps (NS) at East Main St (EW)	Signalized	ICU 1	SB Right	0.842	-	D
6	Arundell Ave (NS) at East Main St (EW)	Two-way stop	HCM 6th Edition	WB Left	0.219	52.6	F
7	SR-126 EB On-Ramp (NS) at East Main St (EW)	Signalized	ICU 1	EB Thru	0.364	-	A

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: Mills Rd (NS) at Dean Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.568

Intersection Setup

Name	Mills Rd			Mills Rd			Dean Dr			Dean Dr		
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 Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	200.00	100.00	293.00	200.00	100.00	100.00	61.00	100.00	148.00	445.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Mills Rd			Mills Rd			Dean Dr			Dean Dr		
Base Volume Input [veh/h]	28	1293	369	46	753	6	6	12	6	371	50	49
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	15	3	0	12	0	0	0	0	4	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	28	1321	376	46	773	6	6	12	6	379	51	49
Peak Hour 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
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]	7	330	94	12	193	2	2	3	2	95	13	12
Total Analysis Volume [veh/h]	28	1321	376	46	773	6	6	12	6	379	51	49
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.41	0.24	0.03	0.24	0.24	0.00	0.01	0.00	0.12	0.03	0.03
Intersection LOS	A											
Intersection V/C	0.568											

Intersection Level Of Service Report
Intersection 2: Mills Rd (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.707

Intersection Setup

Name	Mills Rd			Mills Rd			East Main St			East Main St			
Approach	Northbound			Southbound			Eastbound			Westbound			
Lane Configuration													
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	U-tu	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	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	2	0	1	2	0	0	2
Pocket Length [ft]	100.00	100.00	100.00	442.00	100.00	100.00	213.00	100.00	180.00	253.0	100.0	100.0	273.0
Speed [mph]	30.00			30.00			30.00			30.00			
Grade [%]	0.00			0.00			0.00			0.00			
Crosswalk	Yes			Yes			Yes			No			

Volumes

Name	Mills Rd			Mills Rd			East Main St			East Main St			
Base Volume Input [veh/h]	15	63	234	1024	63	26	99	656	12	0	122	828	1515
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	10	13	42	1	15	0	0	5	11	0	44	14	5
Diverted Trips [veh/h]	0	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	0
Existing Site Adjustment Volume [veh/h]	0	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	0
Total Hourly Volume [veh/h]	25	77	278	1035	79	26	100	668	23	0	167	850	1535
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	6	19	70	259	20	7	25	167	6	0	42	213	384
Total Analysis Volume [veh/h]	25	77	278	1035	79	26	100	668	23	0	167	850	1535
Pedestrian Volume [ped/h]	0			0			0			0			
Bicycle Volume [bicycles/h]	0			0			0			0			

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Permi	Prote	Permi	Overl
Signal group	0	2	0	0	6	0	3	8	0	0	7	4	4
Auxiliary Signal Groups													4,6
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.09	0.17	0.22	0.24	0.24	0.03	0.10	0.01	0.00	0.05	0.18	0.26
Intersection LOS	C												
Intersection V/C	0.707												

Intersection Level Of Service Report
Intersection 3: Mills Rd (NS) at Project Drwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	15.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.021

Intersection Setup

Name	Mills Rd		Mills Rd		Project Drwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Mills Rd		Mills Rd		Project Drwy	
Base Volume Input [veh/h]	270	13	14	140	5	9
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.01	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	4	69	1	3	64
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	67	-67	0	65
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]	274	17	150	75	8	138
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	69	4	38	19	2	35
Total Analysis Volume [veh/h]	274	17	150	75	8	138
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.12	0.00	0.02	0.18
d_M, Delay for Movement [s/veh]	0.00	0.00	8.21	0.00	15.78	11.04
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.40	0.00	0.76	0.76
95th-Percentile Queue Length [ft/ln]	0.00	0.00	10.01	0.00	18.97	18.97
d_A, Approach Delay [s/veh]	0.00		5.47		11.30	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	4.35					
Intersection LOS	C					

Intersection Level Of Service Report

Intersection 5: US-101/SR-126 Fwy Ramps (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.842

Intersection Setup

Name	US-101 Fwy Ramps			US-101 Fwy Ramps			East Main St			East Main St		
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 Pocket	0	0	0	0	0	0	0	0	0	2	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	225.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		Yes			No			No			No	

Volumes

Name	US-101 Fwy Ramps			US-101 Fwy Ramps			East Main St			East Main St		
Base Volume Input [veh/h]	0	0	0	423	0	1889	0	1749	259	195	717	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.01	1.00	1.01	1.00	1.01	1.01	1.01	1.01	1.00
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	3	0	41	0	30	18	1	22	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	430	0	1949	0	1796	280	198	746	0
Peak Hour 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
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	108	0	487	0	449	70	50	187	0
Total Analysis Volume [veh/h]	0	0	0	430	0	1949	0	1796	280	198	746	0
Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	0	0	1	0	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.13	0.00	0.41	0.00	0.37	0.18	0.06	0.16	0.00
Intersection LOS	D											
Intersection V/C	0.842											

Intersection Level Of Service Report
Intersection 6: Arundell Ave (NS) at East Main St (EW)

Control Type:	Two-way stop	Delay (sec / veh):	52.6
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.219

Intersection Setup

Name	Arundell Ave		East Main St		East Main St	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	1	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	150.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Arundell Ave		East Main St		East Main St	
Base Volume Input [veh/h]	0	65	2036	134	21	947
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	4	30	3	0	23
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	70	2086	138	21	979
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	18	522	35	5	245
Total Analysis Volume [veh/h]	0	70	2086	138	21	979
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.40	0.02	0.00	0.22	0.01
d_M, Delay for Movement [s/veh]	0.00	38.79	0.00	0.00	52.64	0.00
Movement LOS		E	A	A	F	A
95th-Percentile Queue Length [veh/ln]	0.00	1.77	0.00	0.00	0.77	0.00
95th-Percentile Queue Length [ft/ln]	0.00	44.23	0.00	0.00	19.37	0.00
d_A, Approach Delay [s/veh]	38.79		0.00		1.11	
Approach LOS	E		A		A	
d_I, Intersection Delay [s/veh]	1.16					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 7: SR-126 EB On-Ramp (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.364

Intersection Setup

Name	US-126 Fwy Ramp		East Main St			East Main St		
Approach	Southbound		Eastbound			Westbound		
Lane Configuration								
Turning Movement	Left	Right	U-turn	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	2	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	225.00	100.00	100.00	72.00	100.00	105.00
Speed [mph]	30.00		30.00			30.00		
Grade [%]	0.00		0.00			0.00		
Crosswalk	No		No			No		

Volumes

Name	US-126 Fwy Ramp		East Main St			East Main St		
Base Volume Input [veh/h]	0	0	0	353	1721	0	954	79
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.01	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	3	5	4	20	10	0	14	1
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	5	4	377	1748	0	978	81
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	1	1	94	437	0	245	20
Total Analysis Volume [veh/h]	3	5	4	377	1748	0	978	81
Pedestrian Volume [ped/h]	0		0			0		
Bicycle Volume [bicycles/h]	0		0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Protected	Permissive	Protected	Permissive	Permissive
Signal group	0	0	0	3	8	7	4	0
Auxiliary Signal Groups								
Lead / Lag	-	-	-	Lead	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.12	0.36	0.00	0.20	0.05
Intersection LOS	A							
Intersection V/C	0.364							

3550 East Main Street Starbucks

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Scenario 2 Opening Year (2019) With Project Alternative 3
10/24/2018

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Mills Rd (NS) at Dean Dr (EW)	Signalized	ICU 1	SB Thru	0.573	-	A
2	Mills Rd (NS) at East Main St (EW)	Signalized	ICU 1	SB Thru	0.649	-	B
3	Mills Rd (NS) at Project Drwy (EW)	Two-way stop	HCM 6th Edition	WB Left	0.026	13.7	B
5	US-101/SR-126 Fwy Ramps (NS) at East Main St (EW)	Signalized	ICU 1	EB Thru	0.922	-	E
6	Arundell Ave (NS) at East Main St (EW)	Two-way stop	HCM 6th Edition	WB Left	0.261	83.3	F
7	SR-126 EB On-Ramp (NS) at East Main St (EW)	Signalized	ICU 1	EB Thru	0.472	-	A

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: Mills Rd (NS) at Dean Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.573

Intersection Setup

Name	Mills Rd			Mills Rd			Dean Dr			Dean Dr		
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 Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	200.00	100.00	293.00	200.00	100.00	100.00	61.00	100.00	148.00	445.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Mills Rd			Mills Rd			Dean Dr			Dean Dr		
Base Volume Input [veh/h]	122	897	329	67	956	26	25	32	144	290	47	50
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	8	2	0	11	0	0	0	0	2	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	123	914	334	68	977	26	25	32	145	295	47	51
Peak Hour 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
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]	31	229	84	17	244	7	6	8	36	74	12	13
Total Analysis Volume [veh/h]	123	914	334	68	977	26	25	32	145	295	47	51
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.29	0.21	0.04	0.31	0.31	0.02	0.02	0.09	0.09	0.03	0.03
Intersection LOS	A											
Intersection V/C	0.573											

Intersection Level Of Service Report
Intersection 2: Mills Rd (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.649

Intersection Setup

Name	Mills Rd			Mills Rd			East Main St			East Main St			
Approach	Northbound			Southbound			Eastbound			Westbound			
Lane Configuration													
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	U-tu	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	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	2	0	1	2	0	0	2
Pocket Length [ft]	100.00	100.00	100.00	442.00	100.00	100.00	213.00	100.00	180.00	253.0	100.0	100.0	273.0
Speed [mph]	30.00			30.00			30.00			30.00			
Grade [%]	0.00			0.00			0.00			0.00			
Crosswalk	Yes			Yes			Yes			No			

Volumes

Name	Mills Rd			Mills Rd			East Main St			East Main St			
Base Volume Input [veh/h]	17	57	164	1298	63	42	74	1067	13	0	178	822	1276
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	6	8	21	6	7	0	0	16	5	0	23	8	2
Diverted Trips [veh/h]	0	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	0
Existing Site Adjustment Volume [veh/h]	0	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	0
Total Hourly Volume [veh/h]	23	66	187	1317	71	42	75	1094	18	0	203	838	1291
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	6	17	47	329	18	11	19	274	5	0	51	210	323
Total Analysis Volume [veh/h]	23	66	187	1317	71	42	75	1094	18	0	203	838	1291
Pedestrian Volume [ped/h]	0			0			0			0			
Bicycle Volume [bicycles/h]	0			0			0			0			

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Permi	Prote	Permi	Overl
Signal group	0	2	0	0	6	0	3	8	0	0	7	4	4
Auxiliary Signal Groups													4,6
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.09	0.12	0.27	0.30	0.30	0.02	0.17	0.01	0.00	0.06	0.17	0.13
Intersection LOS	B												
Intersection V/C	0.649												

Intersection Level Of Service Report
Intersection 3: Mills Rd (NS) at Project Drwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	13.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.026

Intersection Setup

Name	Mills Rd		Mills Rd		Project Drwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Mills Rd		Mills Rd		Project Drwy	
Base Volume Input [veh/h]	171	6	32	209	10	39
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.01	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	2	33	2	2	31
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	33	-33	0	33
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]	177	8	98	180	12	103
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	44	2	25	45	3	26
Total Analysis Volume [veh/h]	177	8	98	180	12	103
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.07	0.00	0.03	0.12
d_M, Delay for Movement [s/veh]	0.00	0.00	7.79	0.00	13.66	9.96
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.23	0.00	0.51	0.51
95th-Percentile Queue Length [ft/ln]	0.00	0.00	5.68	0.00	12.73	12.73
d_A, Approach Delay [s/veh]	0.00		2.75		10.34	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	3.38					
Intersection LOS	B					

Intersection Level Of Service Report

Intersection 5: US-101/SR-126 Fwy Ramps (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.922

Intersection Setup

Name	US-101 Fwy Ramps			US-101 Fwy Ramps			East Main St			East Main St		
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 Pocket	0	0	0	0	0	0	0	0	0	2	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	225.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		Yes			No			No			No	

Volumes

Name	US-101 Fwy Ramps			US-101 Fwy Ramps			East Main St			East Main St		
Base Volume Input [veh/h]	0	0	0	223	0	1361	0	2305	279	439	1083	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.01	1.00	1.01	1.00	1.01	1.01	1.01	1.01	1.00
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	21	0	28	15	6	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
Total Hourly Volume [veh/h]	0	0	0	229	0	1396	0	2356	297	449	1106	0
Peak Hour 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
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	57	0	349	0	589	74	112	277	0
Total Analysis Volume [veh/h]	0	0	0	229	0	1396	0	2356	297	449	1106	0
Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	0	0	1	0	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.07	0.00	0.29	0.00	0.49	0.19	0.14	0.23	0.00
Intersection LOS	E											
Intersection V/C	0.922											

Intersection Level Of Service Report
Intersection 6: Arundell Ave (NS) at East Main St (EW)

Control Type:	Two-way stop	Delay (sec / veh):	83.3
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.261

Intersection Setup

Name	Arundell Ave		East Main St		East Main St	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	1	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	150.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Arundell Ave		East Main St		East Main St	
Base Volume Input [veh/h]	0	68	2476	67	16	1522
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	2	30	2	0	18
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	71	2531	70	16	1555
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	18	633	18	4	389
Total Analysis Volume [veh/h]	0	71	2531	70	16	1555
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.55	0.03	0.00	0.26	0.02
d_M, Delay for Movement [s/veh]	0.00	61.68	0.00	0.00	83.25	0.00
Movement LOS		F	A	A	F	A
95th-Percentile Queue Length [veh/ln]	0.00	2.65	0.00	0.00	0.91	0.00
95th-Percentile Queue Length [ft/ln]	0.00	66.23	0.00	0.00	22.80	0.00
d_A, Approach Delay [s/veh]	61.68		0.00		0.85	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	1.35					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 7: SR-126 EB On-Ramp (NS) at East Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.472

Intersection Setup

Name	US-126 Fwy Ramp		East Main St			East Main St		
Approach	Southbound		Eastbound			Westbound		
Lane Configuration								
Turning Movement	Left	Right	U-turn	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	2	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	225.00	100.00	100.00	72.00	100.00	105.00
Speed [mph]	30.00		30.00			30.00		
Grade [%]	0.00		0.00			0.00		
Crosswalk	No		No			No		

Volumes

Name	US-126 Fwy Ramp		East Main St			East Main St		
Base Volume Input [veh/h]	0	0	0	434	2091	0	1557	459
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.01	1.01	1.01	1.01	1.01	1.01
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	2	2	14	16	0	14	6
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	2	2	452	2128	0	1587	470
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	1	1	113	532	0	397	118
Total Analysis Volume [veh/h]	4	2	2	452	2128	0	1587	470
Pedestrian Volume [ped/h]	0		0			0		
Bicycle Volume [bicycles/h]	0		0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	0.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Protected	Permissive	Protected	Permissive	Permissive
Signal group	0	0	0	3	8	7	4	0
Auxiliary Signal Groups								
Lead / Lag	-	-	-	Lead	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.14	0.44	0.00	0.33	0.29
Intersection LOS	A							
Intersection V/C	0.472							

APPENDIX D

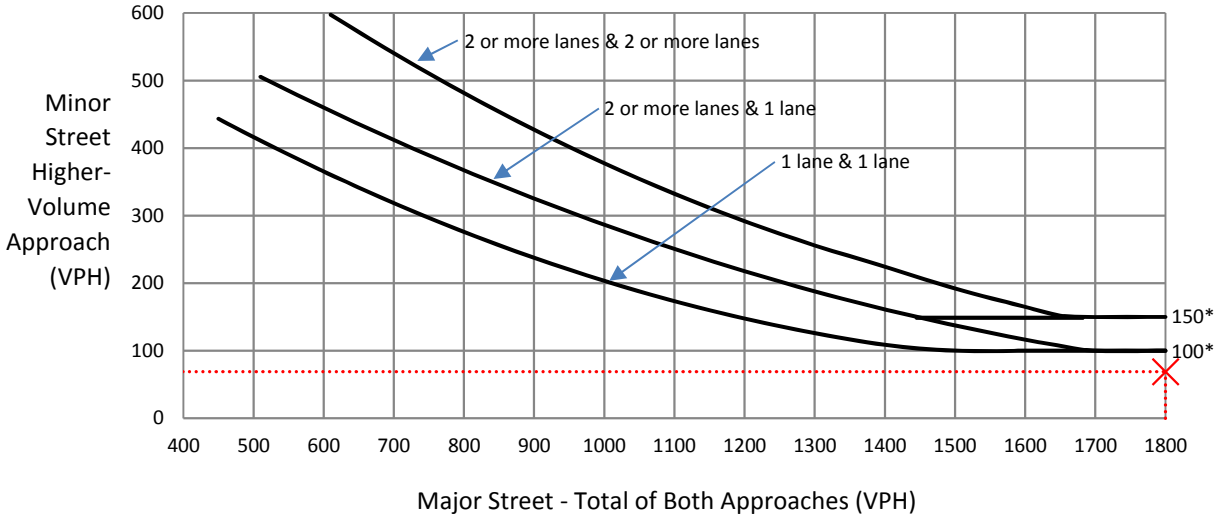
TRAFFIC SIGNAL WARRANT WORKSHEETS

Figure D-1

Arundell Avenue (NS) / East Main Street (EW) - #6
Existing Plus Project
Morning Peak Hour

Major Street:	East Main Street	Volume:	3170
Minor Street:	Arundell Avenue	Volume:	69

Warrant 3, Peak Hour Vehicular Volume (100% Factor)



Traffic Signal Warrant Is NOT Satisfied

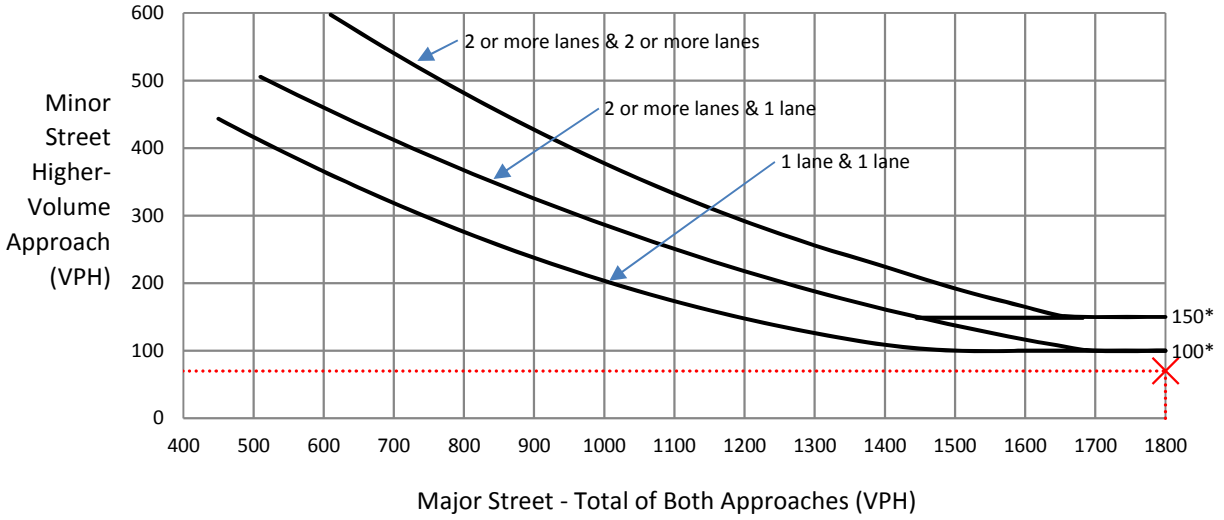
*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one lane.

Figure D-2

Arundell Avenue (NS) / East Main Street (EW) - #6
Existing Plus Project
Evening Peak Hour

Major Street:	East Main Street	Volume:	4096
Minor Street:	Arundell Avenue	Volume:	70

Warrant 3, Peak Hour Vehicular Volume (100% Factor)



Traffic Signal Warrant Is NOT Satisfied

*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one lane.

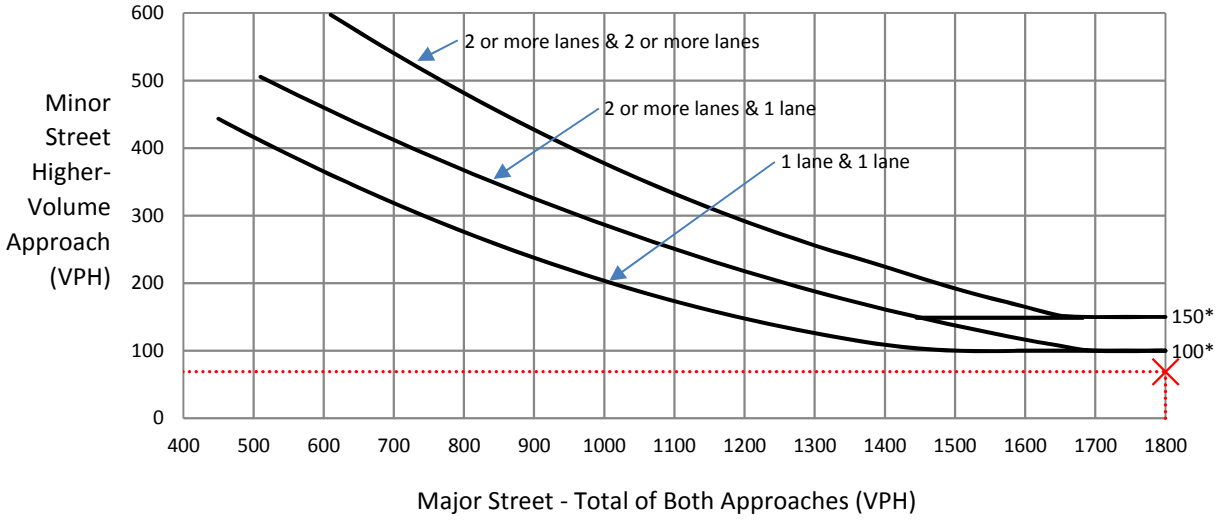
Figure D-3

Arundell Avenue (NS) / East Main Street (EW) - #6
Existing Plus Project Alternative 1
Morning Peak Hour

Major Street: East Main Street — Volume: 3170

Minor Street: Arundell Avenue — Volume: 69

Warrant 3, Peak Hour Vehicular Volume (100% Factor)



Traffic Signal Warrant Is NOT Satisfied

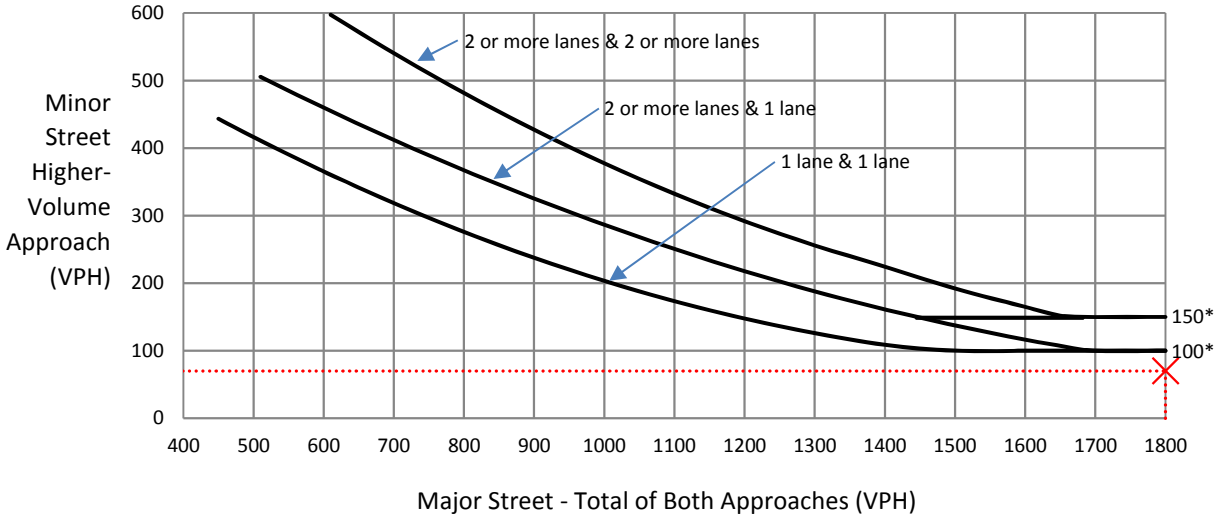
*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one lane.

Figure D-4

Arundell Avenue (NS) / East Main Street (EW) - #6
Existing Plus Project Alternative 1
Evening Peak Hour

Major Street:	East Main Street	Volume:	4096
Minor Street:	Arundell Avenue	Volume:	70

Warrant 3, Peak Hour Vehicular Volume (100% Factor)



Traffic Signal Warrant Is NOT Satisfied

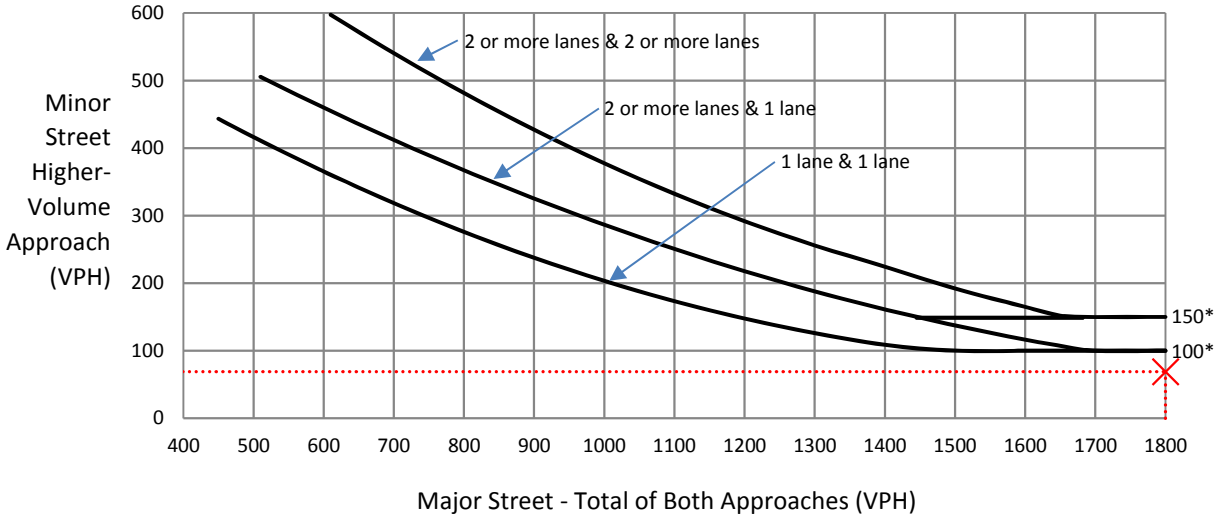
*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one lane.

Figure D-5

Arundell Avenue (NS) / East Main Street (EW) - #6
Existing Plus Project Alternative 2
Morning Peak Hour

Major Street:	East Main Street	Volume:	3170
Minor Street:	Arundell Avenue	Volume:	69

Warrant 3, Peak Hour Vehicular Volume (100% Factor)



Traffic Signal Warrant Is NOT Satisfied

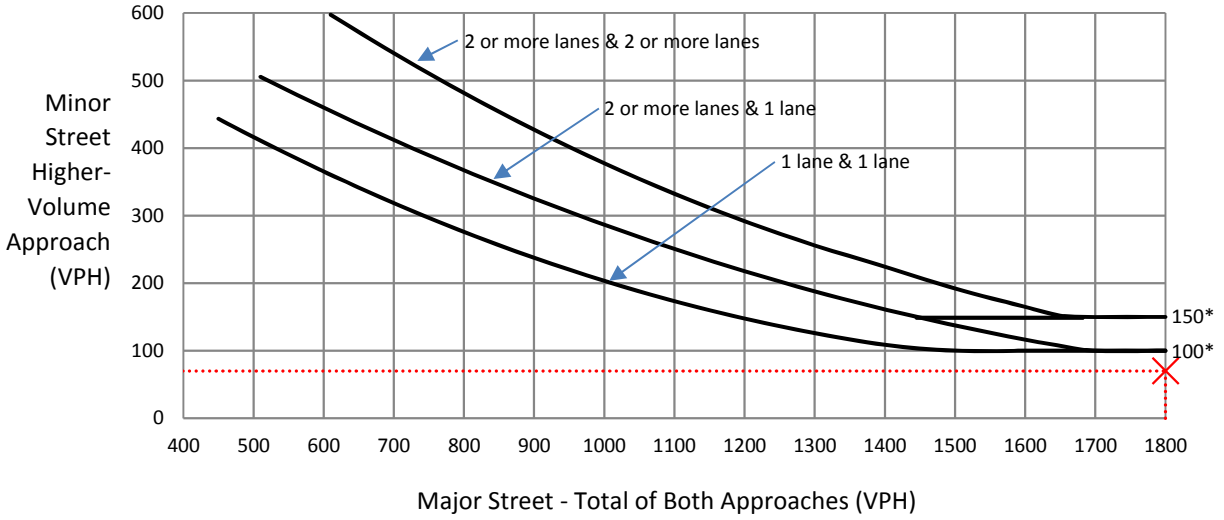
*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one lane.

Figure D-6

Arundell Avenue (NS) / East Main Street (EW) - #6
Existing Plus Project Alternative 2
Evening Peak Hour

Major Street:	East Main Street	Volume:	4096
Minor Street:	Arundell Avenue	Volume:	70

Warrant 3, Peak Hour Vehicular Volume (100% Factor)



Traffic Signal Warrant Is NOT Satisfied

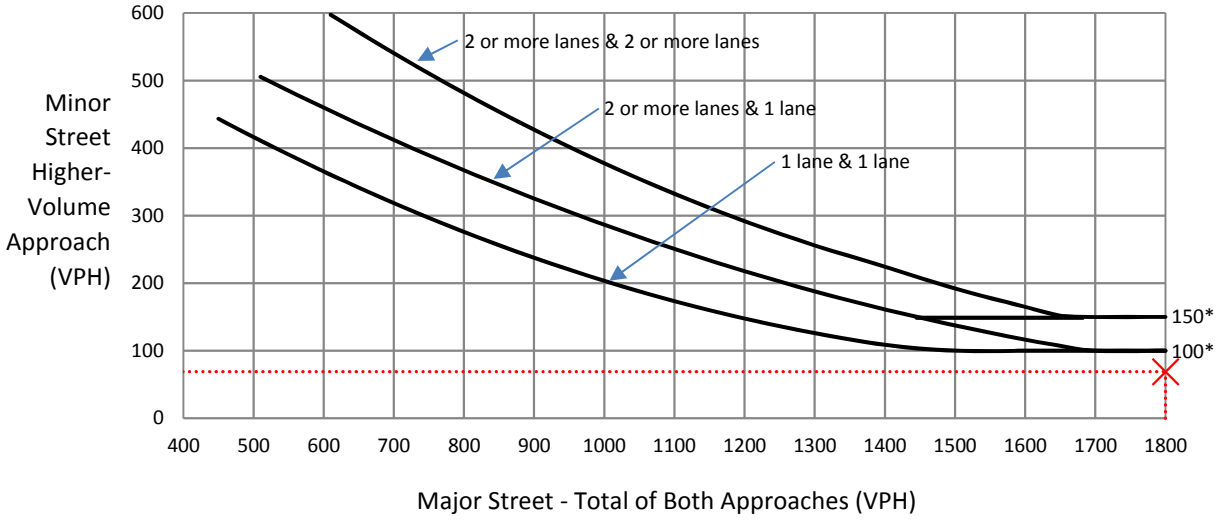
*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one lane.

Figure D-7

Arundell Avenue (NS) / East Main Street (EW) - #6
Existing Plus Project Alternative 3
Morning Peak Hour

Major Street:	East Main Street	Volume:	3170
Minor Street:	Arundell Avenue	Volume:	69

Warrant 3, Peak Hour Vehicular Volume (100% Factor)



Traffic Signal Warrant Is NOT Satisfied

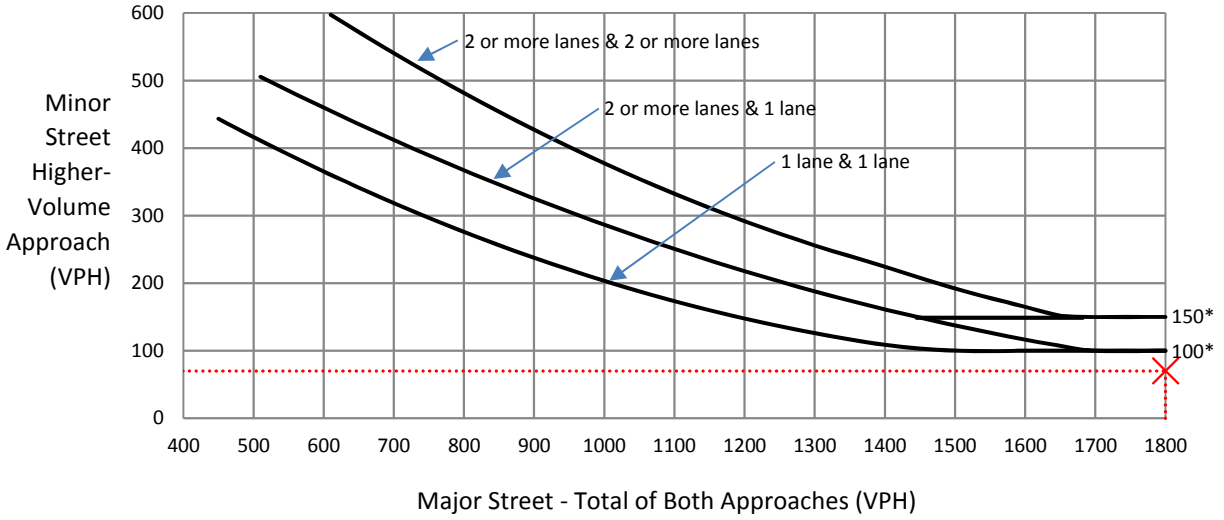
*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one lane.

Figure D-8

Arundell Avenue (NS) / East Main Street (EW) - #6
Existing Plus Project Alternative 3
Evening Peak Hour

Major Street:	East Main Street	Volume:	4096
Minor Street:	Arundell Avenue	Volume:	70

Warrant 3, Peak Hour Vehicular Volume (100% Factor)



Traffic Signal Warrant Is NOT Satisfied

*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one lane.

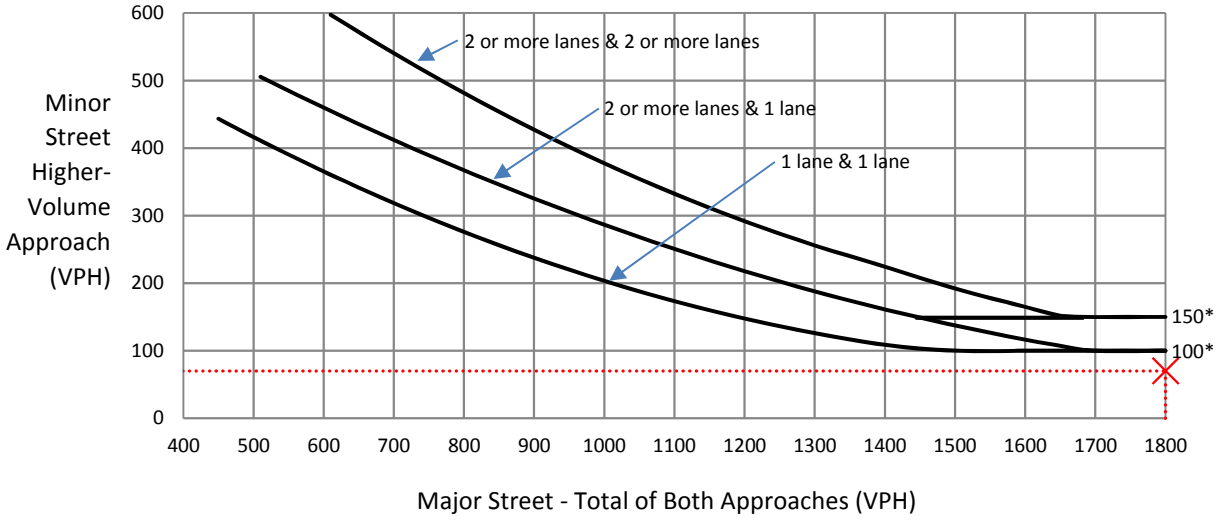
Figure D-9

Arundell Avenue (NS) / East Main Street (EW) - #6
Opening Year (2019) With Project
Morning Peak Hour

Major Street: East Main Street Volume: 3224

Minor Street: Arundell Avenue Volume: 70

Warrant 3, Peak Hour Vehicular Volume (100% Factor)



Traffic Signal Warrant Is NOT Satisfied

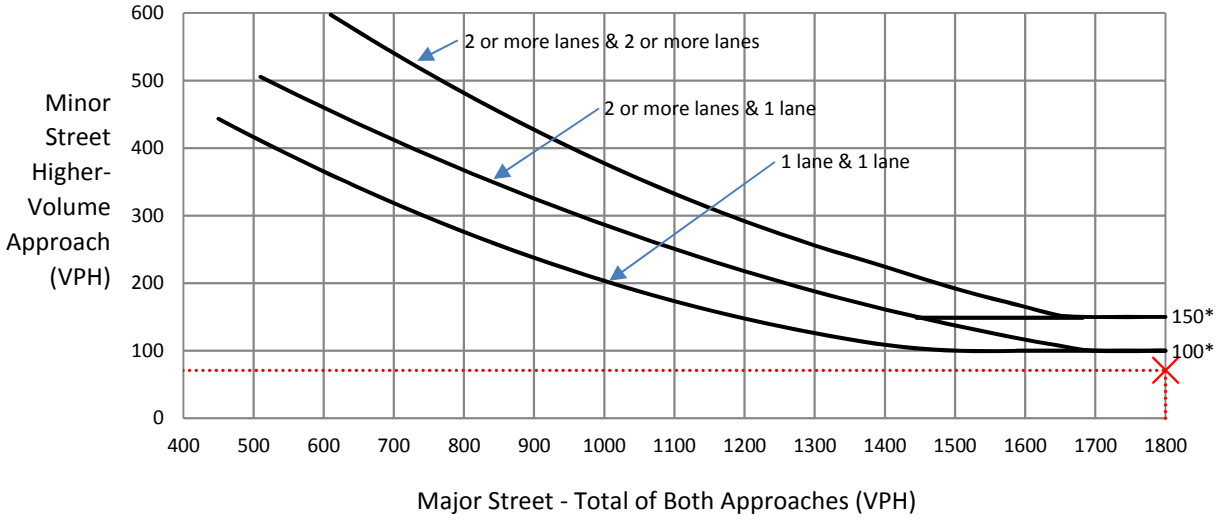
*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one lane.

Figure D-10

Arundell Avenue (NS) / East Main Street (EW) - #6
Opening Year (2019) With Project
Evening Peak Hour

Major Street:	East Main Street	Volume:	4172
Minor Street:	Arundell Avenue	Volume:	71

Warrant 3, Peak Hour Vehicular Volume (100% Factor)



Traffic Signal Warrant Is NOT Satisfied

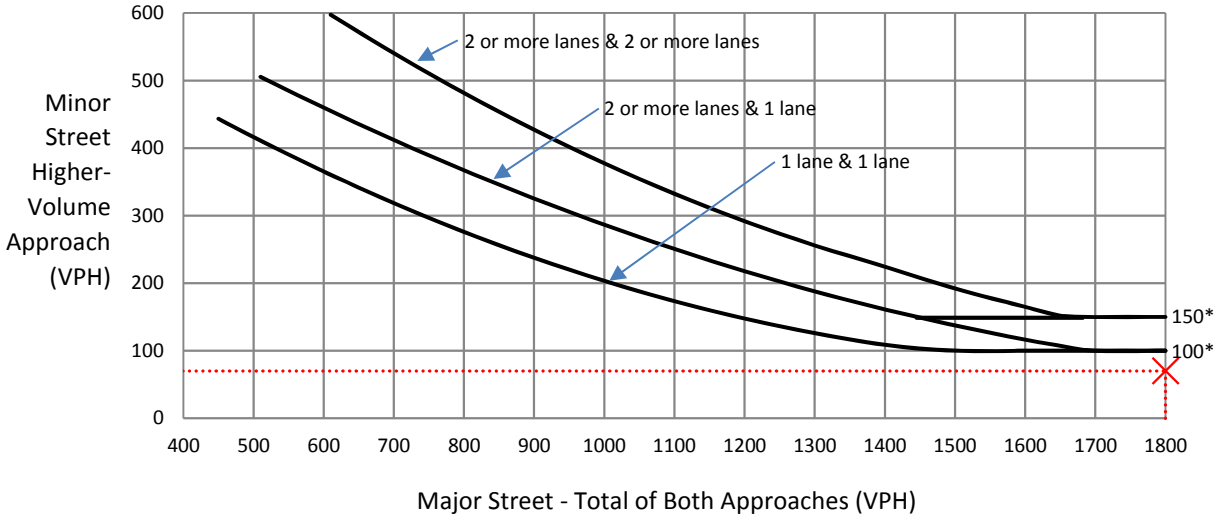
*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one lane.

Figure D-11

Arundell Avenue (NS) / East Main Street (EW) - #6
Opening Year (2019) With Project Alternative 1
Morning Peak Hour

Major Street:	East Main Street	Volume:	3224
Minor Street:	Arundell Avenue	Volume:	70

Warrant 3, Peak Hour Vehicular Volume (100% Factor)



Traffic Signal Warrant Is NOT Satisfied

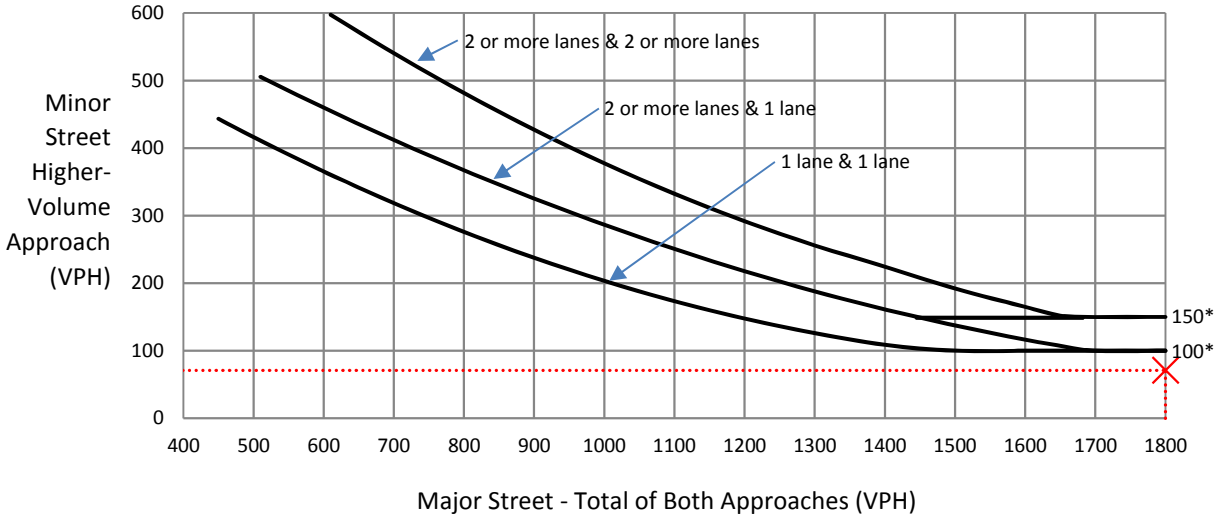
*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one lane.

Figure D-12

Arundell Avenue (NS) / East Main Street (EW) - #6
Opening Year (2019) With Project Alternative 1
Evening Peak Hour

Major Street:	East Main Street	Volume:	4172
Minor Street:	Arundell Avenue	Volume:	71

Warrant 3, Peak Hour Vehicular Volume (100% Factor)



Traffic Signal Warrant Is NOT Satisfied

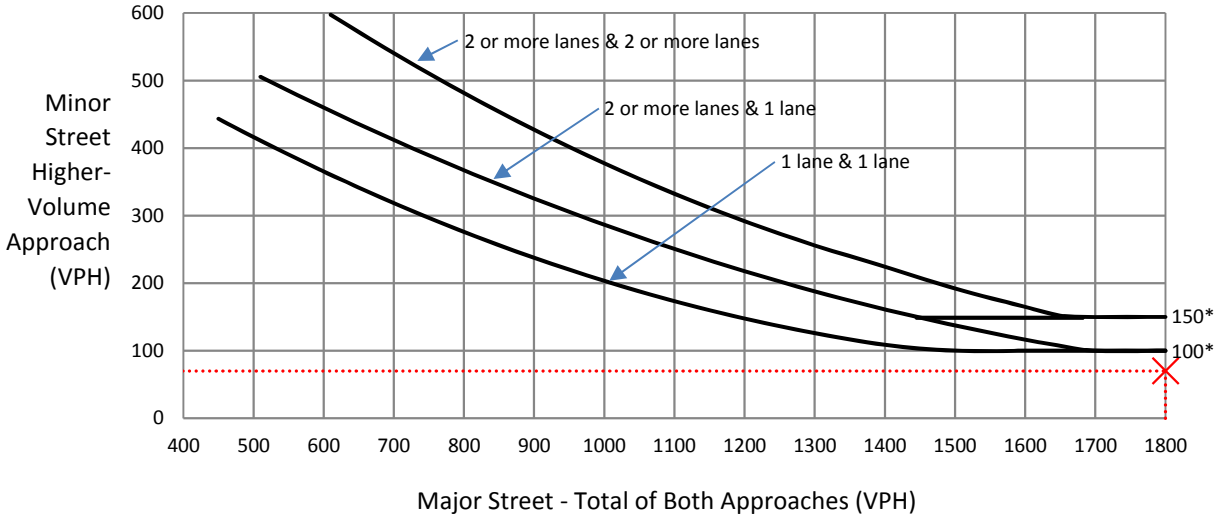
*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one lane.

Figure D-13

Arundell Avenue (NS) / East Main Street (EW) - #6
Opening Year (2019) With Project Alternative 2
Morning Peak Hour

Major Street:	East Main Street	Volume:	3224
Minor Street:	Arundell Avenue	Volume:	70

Warrant 3, Peak Hour Vehicular Volume (100% Factor)



Traffic Signal Warrant Is NOT Satisfied

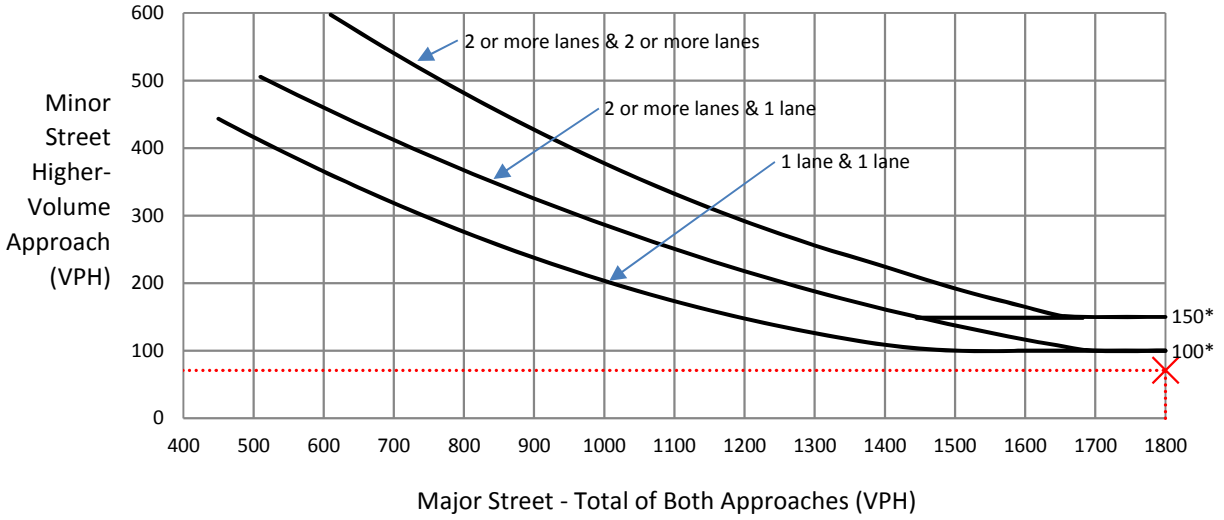
*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one lane.

Figure D-14

Arundell Avenue (NS) / East Main Street (EW) - #6
Opening Year (2019) With Project Alternative 2
Evening Peak Hour

Major Street:	East Main Street	Volume:	4172
Minor Street:	Arundell Avenue	Volume:	71

Warrant 3, Peak Hour Vehicular Volume (100% Factor)



Traffic Signal Warrant Is NOT Satisfied

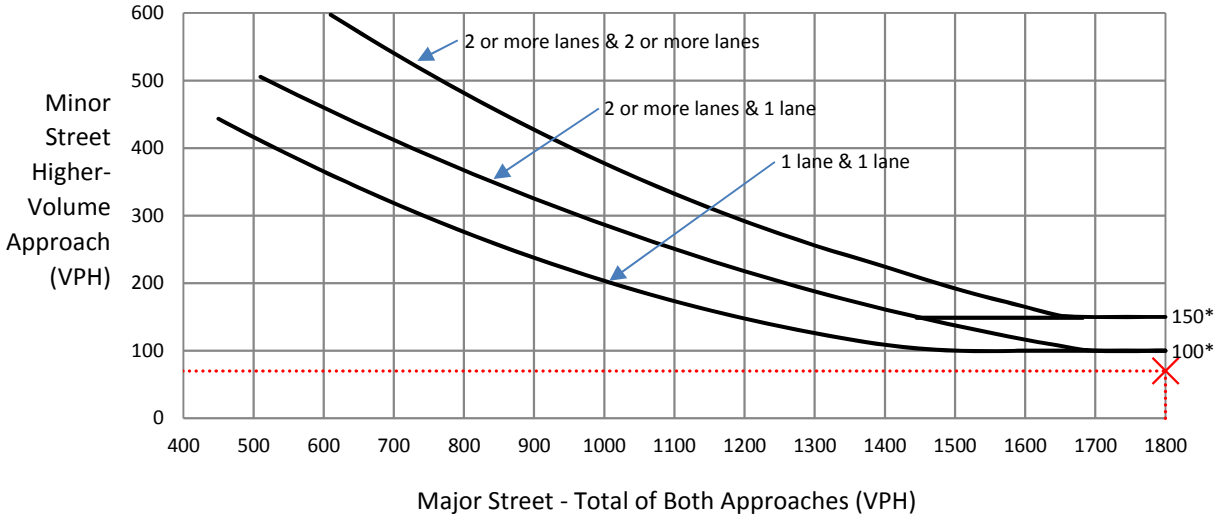
*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one lane.

Figure D-15

Arundell Avenue (NS) / East Main Street (EW) - #6
Opening Year (2019) With Project Alternative 3
Morning Peak Hour

Major Street:	East Main Street	Volume:	3224
Minor Street:	Arundell Avenue	Volume:	70

Warrant 3, Peak Hour Vehicular Volume (100% Factor)



Traffic Signal Warrant Is NOT Satisfied

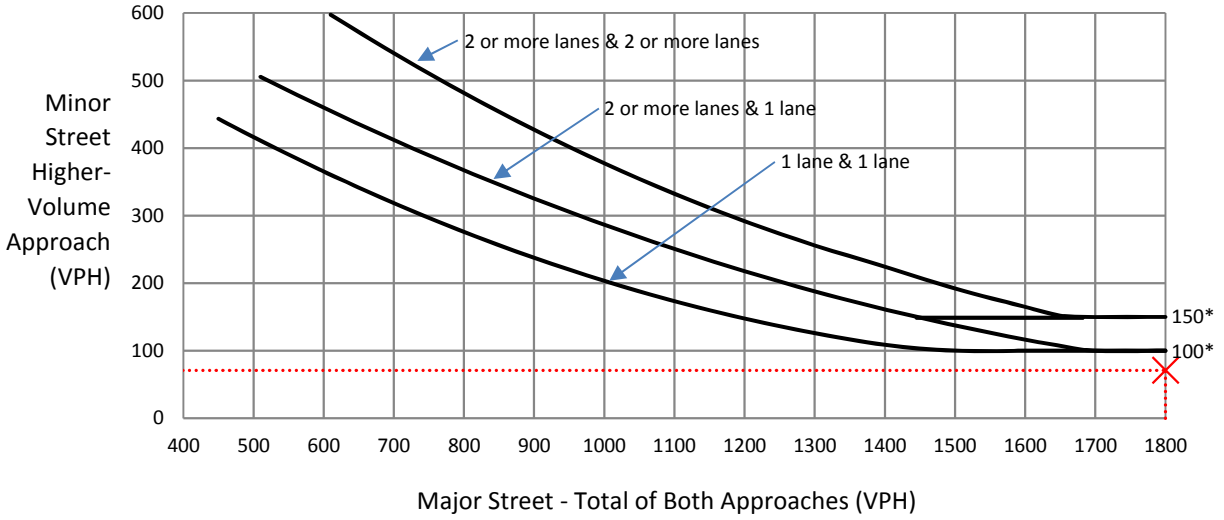
*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one lane.

Figure D-16

Arundell Avenue (NS) / East Main Street (EW) - #6
Opening Year (2019) With Project Alternative 3
Evening Peak Hour

Major Street:	East Main Street	Volume:	4172
Minor Street:	Arundell Avenue	Volume:	71

Warrant 3, Peak Hour Vehicular Volume (100% Factor)



Traffic Signal Warrant Is NOT Satisfied

*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one lane.

Noise Measurement 1

- Freq Weight : A
- Time Weight : SLOW
- Level Range : 40-100
- Max dB : 83.1 - 2019/07/18 07:51:52
- Level Range : 40-100
- SEL : 104.2
- Leq : 74.7
-

No.s	Date Time	(dB)				
1	2019/07/18 07:37:43	75.0	73.3	77.5	78.3	81.1
6	2019/07/18 07:37:58	81.2	81.3	80.9	78.7	74.0
11	2019/07/18 07:38:13	71.6	71.3	69.6	68.2	69.1
16	2019/07/18 07:38:28	68.7	68.5	67.2	66.0	65.6
21	2019/07/18 07:38:43	65.3	67.0	67.9	67.4	67.9
26	2019/07/18 07:38:58	69.8	72.5	75.0	74.4	76.2
31	2019/07/18 07:39:13	77.3	78.2	76.7	75.3	76.5
36	2019/07/18 07:39:28	75.1	70.7	67.6	69.9	73.0
41	2019/07/18 07:39:43	71.0	71.9	78.3	79.6	80.1
46	2019/07/18 07:39:58	77.6	79.0	81.1	75.3	72.3
51	2019/07/18 07:40:13	71.5	70.0	70.2	69.1	70.8
56	2019/07/18 07:40:28	70.5	68.8	70.4	70.4	72.1
61	2019/07/18 07:40:43	72.3	69.0	65.8	67.0	67.1
66	2019/07/18 07:40:58	71.1	74.5	76.8	77.0	72.2
71	2019/07/18 07:41:13	71.8	74.9	76.6	76.6	74.8
76	2019/07/18 07:41:28	73.6	75.2	74.0	72.6	72.5
81	2019/07/18 07:41:43	69.8	73.3	79.8	78.8	81.1
86	2019/07/18 07:41:58	79.5	78.9	78.8	74.3	73.6
91	2019/07/18 07:42:13	73.9	71.7	68.0	69.7	69.1
96	2019/07/18 07:42:28	69.4	70.4	67.1	68.6	70.0
101	2019/07/18 07:42:43	69.2	67.4	66.4	66.5	66.4
106	2019/07/18 07:42:58	68.2	72.9	74.0	73.3	72.7
111	2019/07/18 07:43:13	74.0	74.6	71.6	72.3	73.5
116	2019/07/18 07:43:28	77.0	77.2	73.3	75.9	78.6
121	2019/07/18 07:43:43	73.4	74.6	80.8	81.2	80.6
126	2019/07/18 07:43:58	79.8	79.9	79.8	76.9	77.3
131	2019/07/18 07:44:13	73.8	72.1	70.7	70.2	71.1
136	2019/07/18 07:44:28	73.1	71.8	67.4	65.1	66.9
141	2019/07/18 07:44:43	72.3	64.9	63.2	64.0	65.2
146	2019/07/18 07:44:58	70.3	74.3	75.9	71.1	69.0
151	2019/07/18 07:45:13	71.3	71.8	75.2	75.2	81.5
156	2019/07/18 07:45:28	77.0	72.4	70.2	72.9	75.9
161	2019/07/18 07:45:43	72.5	75.8	80.1	74.7	80.2
166	2019/07/18 07:45:58	73.8	71.7	72.2	72.7	74.9
171	2019/07/18 07:46:13	73.1	70.0	69.9	69.4	72.0
176	2019/07/18 07:46:28	72.3	72.7	68.4	68.2	71.8
181	2019/07/18 07:46:43	72.4	73.4	69.5	67.6	68.2
186	2019/07/18 07:46:58	69.5	76.1	77.6	75.5	72.9
191	2019/07/18 07:47:13	73.1	74.5	73.3	74.1	76.5
196	2019/07/18 07:47:28	74.9	72.4	74.3	74.6	76.7
201	2019/07/18 07:47:43	77.6	81.6	80.4	80.7	81.4
206	2019/07/18 07:47:58	79.2	79.3	80.3	81.8	80.6
211	2019/07/18 07:48:13	80.5	77.0	71.9	69.8	71.2
216	2019/07/18 07:48:28	69.0	67.1	66.6	65.8	67.3
221	2019/07/18 07:48:43	67.2	65.3	64.9	65.7	67.6
226	2019/07/18 07:48:58	70.8	73.7	77.4	75.8	73.0
231	2019/07/18 07:49:13	73.3	72.3	74.5	73.7	74.5
236	2019/07/18 07:49:28	80.9	78.9	73.6	72.8	74.9
241	2019/07/18 07:49:43	71.3	69.9	76.8	77.7	79.8
246	2019/07/18 07:49:58	79.6	78.0	74.0	75.0	71.8
251	2019/07/18 07:50:13	74.1	72.7	72.7	71.7	70.8
256	2019/07/18 07:50:28	67.8	66.5	66.0	65.6	70.9
261	2019/07/18 07:50:43	69.4	68.6	66.5	70.8	73.1
266	2019/07/18 07:50:58	71.5	71.4	76.8	74.8	75.4
271	2019/07/18 07:51:13	73.4	73.9	74.5	73.8	73.6
276	2019/07/18 07:51:28	77.4	76.0	78.6	76.9	74.9
281	2019/07/18 07:51:43	73.4	75.6	80.7	80.7	77.9
286	2019/07/18 07:51:58	77.6	80.0	76.9	73.3	70.9
291	2019/07/18 07:52:13	69.9	68.8	69.2	74.6	70.7
296	2019/07/18 07:52:28	70.0	70.1	73.6	70.1	67.6

Noise Measurement 2

- Freq Weight : A
- Time Weight : SLOW
- Level Range : 40-100
- Max dB : 79.0 - 2019/07/18 08:23:54
- Level Range : 40-100
- SEL : 94.1
- Leq : 64.6
-

No.s	Date Time	(dB)				
1	2019/07/18 08:18:31	61.1	60.2	62.3	65.9	66.6
6	2019/07/18 08:18:46	74.0	68.8	68.5	63.0	63.3
11	2019/07/18 08:19:01	70.1	62.9	63.2	63.9	61.1
16	2019/07/18 08:19:16	69.5	65.7	63.9	69.9	67.2
21	2019/07/18 08:19:31	69.2	62.6	60.1	60.4	58.1
26	2019/07/18 08:19:46	59.3	63.0	68.6	66.2	61.9
31	2019/07/18 08:20:01	59.5	63.4	62.6	61.0	59.6
36	2019/07/18 08:20:16	61.2	67.3	63.8	64.9	63.4
41	2019/07/18 08:20:31	60.6	60.5	61.3	62.7	61.9
46	2019/07/18 08:20:46	61.4	58.1	57.8	57.5	57.9
51	2019/07/18 08:21:01	58.6	59.1	60.7	61.1	60.6
56	2019/07/18 08:21:16	61.3	59.1	58.7	60.5	67.1
61	2019/07/18 08:21:31	65.0	67.7	65.2	61.0	61.6
66	2019/07/18 08:21:46	61.2	60.5	59.7	60.2	64.4
71	2019/07/18 08:22:01	69.2	62.1	66.4	62.5	63.6
76	2019/07/18 08:22:16	64.7	62.2	60.3	58.4	62.3
81	2019/07/18 08:22:31	62.6	62.7	61.3	59.2	59.0
86	2019/07/18 08:22:46	60.7	60.7	65.4	66.5	61.7
91	2019/07/18 08:23:01	57.9	57.3	59.2	70.0	64.4
96	2019/07/18 08:23:16	61.0	60.7	67.2	61.9	64.6
101	2019/07/18 08:23:31	63.7	60.3	60.6	61.0	63.1
106	2019/07/18 08:23:46	66.0	72.9	78.7	69.7	65.3
111	2019/07/18 08:24:01	64.3	61.5	58.6	60.3	59.6
116	2019/07/18 08:24:16	60.2	60.3	59.5	66.0	64.0
121	2019/07/18 08:24:31	66.9	67.2	67.2	71.5	67.8
126	2019/07/18 08:24:46	63.1	61.4	61.7	61.6	61.7
131	2019/07/18 08:25:01	70.3	64.2	62.1	60.2	59.3
136	2019/07/18 08:25:16	57.3	57.1	57.3	57.8	58.9
141	2019/07/18 08:25:31	58.2	57.6	59.8	65.5	69.1
146	2019/07/18 08:25:46	62.0	62.4	60.9	61.1	60.4
151	2019/07/18 08:26:01	61.5	62.8	60.8	61.1	60.7
156	2019/07/18 08:26:16	60.1	59.3	61.1	61.1	61.4
161	2019/07/18 08:26:31	65.4	63.7	62.2	60.4	58.9
166	2019/07/18 08:26:46	57.8	57.7	57.9	59.5	60.2
171	2019/07/18 08:27:01	67.2	61.0	61.2	68.0	66.8
176	2019/07/18 08:27:16	62.7	71.0	65.4	61.6	58.7
181	2019/07/18 08:27:31	58.5	58.5	58.8	59.1	58.5
186	2019/07/18 08:27:46	59.9	62.5	60.9	62.1	63.6
191	2019/07/18 08:28:01	68.4	63.4	63.9	65.7	66.7
196	2019/07/18 08:28:16	65.9	64.3	68.5	63.6	67.9
201	2019/07/18 08:28:31	61.4	63.5	66.9	63.5	63.5
206	2019/07/18 08:28:46	71.6	69.3	66.0	64.6	64.4
211	2019/07/18 08:29:01	68.5	66.2	66.5	62.7	62.8
216	2019/07/18 08:29:16	61.6	60.8	63.9	63.2	61.1
221	2019/07/18 08:29:31	59.5	60.5	59.1	59.1	61.8
226	2019/07/18 08:29:46	71.6	66.1	62.9	63.5	62.4
231	2019/07/18 08:30:01	60.7	59.7	60.2	59.7	61.7
236	2019/07/18 08:30:16	64.9	70.5	62.6	59.3	56.9
241	2019/07/18 08:30:31	66.2	65.1	60.4	59.7	58.4
246	2019/07/18 08:30:46	59.2	60.7	61.7	60.0	59.2
251	2019/07/18 08:31:01	59.0	58.1	57.3	57.4	56.6
256	2019/07/18 08:31:16	56.2	57.5	59.1	59.5	57.9
261	2019/07/18 08:31:31	60.0	67.2	67.8	64.9	61.7
266	2019/07/18 08:31:46	64.0	64.9	61.8	62.0	60.2
271	2019/07/18 08:32:01	64.7	64.7	65.3	62.5	62.6
276	2019/07/18 08:32:16	70.5	64.2	64.7	69.0	63.9
281	2019/07/18 08:32:31	65.1	74.5	73.3	66.3	62.6
286	2019/07/18 08:32:46	62.3	66.1	61.0	61.7	67.0
291	2019/07/18 08:33:01	63.6	64.8	63.0	62.4	60.8
296	2019/07/18 08:33:16	60.0	59.2	59.4	58.8	59.4

Noise Measurement 3

- Freq Weight : A
- Time Weight : SLOW
- Level Range : 40-100
- Max dB : 76.5 - 2019/07/18 08:45:07
- Level Range : 40-100
- SEL : 93.6
- Leq : 64.0
-

No.s	Date Time	(dB)				
1	2019/07/18 08:42:54	61.7	61.5	60.8	61.0	61.8
6	2019/07/18 08:43:09	64.5	64.3	67.7	67.1	64.7
11	2019/07/18 08:43:24	65.7	63.4	64.0	62.5	61.7
16	2019/07/18 08:43:39	61.7	63.8	67.9	66.1	64.2
21	2019/07/18 08:43:54	64.6	63.9	63.4	65.7	65.9
26	2019/07/18 08:44:09	71.6	69.1	67.3	64.7	66.0
31	2019/07/18 08:44:24	68.0	65.9	64.3	62.9	63.1
36	2019/07/18 08:44:39	65.2	63.2	66.9	68.4	67.2
41	2019/07/18 08:44:54	65.1	62.8	63.9	66.9	71.5
46	2019/07/18 08:45:09	64.1	72.7	63.5	60.1	60.7
51	2019/07/18 08:45:24	61.1	62.0	62.6	63.6	62.5
56	2019/07/18 08:45:39	62.7	64.1	64.0	63.3	62.9
61	2019/07/18 08:45:54	62.0	62.9	62.5	62.3	62.1
66	2019/07/18 08:46:09	61.1	60.5	60.6	60.7	62.5
71	2019/07/18 08:46:24	63.4	61.9	60.9	61.0	61.3
76	2019/07/18 08:46:39	63.1	62.3	63.6	66.4	65.7
81	2019/07/18 08:46:54	63.6	62.0	60.6	62.2	61.5
86	2019/07/18 08:47:09	60.3	60.5	60.7	60.8	61.0
91	2019/07/18 08:47:24	61.2	62.0	64.0	65.4	63.4
96	2019/07/18 08:47:39	61.2	62.7	64.4	63.9	63.8
101	2019/07/18 08:47:54	62.7	62.1	61.8	62.0	61.8
106	2019/07/18 08:48:09	62.6	61.8	62.0	62.8	62.3
111	2019/07/18 08:48:24	68.9	65.7	62.3	61.4	64.2
116	2019/07/18 08:48:39	64.7	61.7	61.5	63.5	64.3
121	2019/07/18 08:48:54	63.6	64.7	63.5	64.8	64.0
126	2019/07/18 08:49:09	62.7	62.7	63.1	63.4	62.8
131	2019/07/18 08:49:24	62.4	61.9	62.5	63.2	63.3
136	2019/07/18 08:49:39	61.7	68.8	66.9	65.8	64.5
141	2019/07/18 08:49:54	63.2	63.6	62.0	61.9	63.8
146	2019/07/18 08:50:09	63.9	60.8	61.5	61.5	61.8
151	2019/07/18 08:50:24	61.4	61.4	60.4	62.8	64.8
156	2019/07/18 08:50:39	63.1	62.5	66.4	62.3	62.1
161	2019/07/18 08:50:54	61.2	62.4	63.0	60.5	59.7
166	2019/07/18 08:51:09	60.5	62.1	60.5	59.9	61.8
171	2019/07/18 08:51:24	62.9	63.0	63.8	65.7	66.3
176	2019/07/18 08:51:39	63.3	62.8	63.6	63.7	64.2
181	2019/07/18 08:51:54	65.5	66.3	63.4	63.0	65.3
186	2019/07/18 08:52:09	64.6	60.5	59.3	58.9	60.7
191	2019/07/18 08:52:24	60.2	60.2	60.3	60.9	62.1
196	2019/07/18 08:52:39	64.3	64.2	62.4	61.4	61.4
201	2019/07/18 08:52:54	60.8	61.5	60.4	60.2	60.8
206	2019/07/18 08:53:09	61.7	62.5	62.6	72.7	66.4
211	2019/07/18 08:53:24	66.7	64.3	63.1	62.9	64.2
216	2019/07/18 08:53:39	67.4	65.5	62.9	62.9	61.4
221	2019/07/18 08:53:54	61.5	62.5	62.2	67.1	70.4
226	2019/07/18 08:54:09	73.4	64.1	61.0	62.3	64.4
231	2019/07/18 08:54:24	61.7	60.0	60.3	61.6	64.5
236	2019/07/18 08:54:39	63.4	63.0	63.3	63.3	63.3
241	2019/07/18 08:54:54	65.3	64.0	64.0	62.5	60.8
246	2019/07/18 08:55:09	59.9	59.7	61.9	65.3	62.7
251	2019/07/18 08:55:24	65.3	64.6	63.7	63.4	64.4
256	2019/07/18 08:55:39	64.4	61.3	59.7	60.8	60.0
261	2019/07/18 08:55:54	59.4	58.6	57.7	58.7	59.2
266	2019/07/18 08:56:09	59.9	60.4	60.0	61.7	63.2
271	2019/07/18 08:56:24	63.4	61.5	59.7	59.4	58.9
276	2019/07/18 08:56:39	60.0	61.1	62.8	67.2	66.7
281	2019/07/18 08:56:54	62.5	67.4	67.5	63.7	62.5
286	2019/07/18 08:57:09	62.4	60.5	59.8	59.2	59.5
291	2019/07/18 08:57:24	61.1	63.4	63.6	63.6	62.6
296	2019/07/18 08:57:39	62.3	61.1	60.5	61.5	60.7

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 07/25/2019
Case Description: 3550 East Main Street Starbucks

**** Receptor #1 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Multi-Family Residential	Residential	65.0	45.0	45.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	370.0	0.0
Backhoe	No	40		77.6	370.0	0.0
Dozer	No	40		81.7	370.0	0.0

Results

	Calculated (dBA)		Noise Limits (dBA)				Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw	72.2	65.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	60.2	56.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	64.3	60.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	72.2	66.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Groundborne Noise and Vibration Modeling

Notes
The reference distance is measured from the nearest anticipated point of construction equipment to the nearest structure.

	Reference Level Inputs			
Equipment	**PPV_{ref} (in/sec)**	**Lv_{ref} (VdB)**	**RMS_{ref} (in/sec)**	**Reference Distance**
Vibratory Roller	0.21	94	0.050	25
Loaded trucks	0.076	83	0.014	25
Small bulldozer	0.003	58	0.001	25

	Vibration Level at Receiver			
Equipment	**Distance (feet)**	**PPV_x (in/sec)**	**Lv_x (VdB)**	**RMS_x (in/sec)**
Vibratory Roller	40	0.1252	90	0.030
Loaded trucks	40	0.0453	79	0.008
Small bulldozer	40	0.0018	54	0.000

	Vibration Level at Receiver			
Equipment	**Distance (feet)**	**PPV_x (in/sec)**	**Lv_x (VdB)**	**RMS_x (in/sec)**
Vibratory Roller	300	0.0136	70	0.003
Loaded trucks	300	0.0049	59	0.001
Small bulldozer	300	0	34	0.000

Source
California Department of Transportation (Caltrans). 2013. Transportation and Construction Last Updated: 4/11/2019

Relative Increase in Noise Levels (Traffic)

Existing plus Project Traffic Volume Increase Calculations				
Roadway Segment	**Initial Traffic Volume**	**Future Traffic Volume**	**Percentage Increase in Traffic Volume**	**Increase in Noise Level (dBA)**
East Main Street (Existing plus Project)	43790	45590	4.1%	0.2
South Mills Road (Existing plus Project)	5090	5773	13.4%	0.5
East Main Street (Cumulative plus Project)	43790	46290	5.7%	0.2
South Mills Road (Cumulative plus Project)	5090	5843	14.8%	0.6

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Since 1978

Richard L. Pool, P.E.
Scott A. Schell, AICP, PTP

August 30, 2019

19045L03

Elizabeth Valerio
Valerio
5858 Wilshire Boulevard, #200
Los Angeles, CA 90036

TRANSPORTATION MANAGEMENT PLAN FOR THE MAIN AND MILLS STARBUCKS COFFEE SHOP PROJECT

Associated Transportation Engineers (ATE) has developed the following Transportation Management Plan (TMP) for the Starbucks Coffee Shop Project (the "Project") proposed within the retail commercial center located on the southeast corner of the Main Street/Mills Road intersection in the City of Ventura. It is understood that the TMP will be submitted to the City as part of the Project's application package.

PROJECT DESCRIPTION

The Project is proposing to demolish the existing Arby's fast-food restaurant located in the eastern portion of the commercial center and construct a Starbucks Coffee Shop with a drive-through lane. Figure 1 (attached) illustrates the Project site plan. As shown on the site plan, the Project consists of a new 1,670 square-foot building, 1,357 square-feet of outdoor patio area, and a drive-through lane with storage for 11 vehicles. Surrounding land uses within the center include a Mobil gas station and a retail commercial building.

CITY TMP REQUIREMENTS

The City is requiring a TMP for the Project, including exhibits and written descriptions of the following components:

1. Permanent traffic control measures and pavement directional signage throughout the retail commercial center.

2. Exhibits detailing the internal circulation of the site and turning movements at driveway ingress/egress locations and the entry and exit of the drive-through lane.

3. A written description regarding "Vehicle Queue Overflow Management" operational characteristics that are to be implemented when the number of vehicles exceeds the number of vehicle queue spots in the drive-through lane. Potential operational characteristics can include, but are not limited to:

    - Placement of temporary traffic control measures (i.e. traffic cones)
    - Identification of overflow parking onsite
    - Use of handheld wireless ordering equipment

4. Vehicle Queue Exit Management operational characteristics.

SITE ACCESS AND CIRCULATION

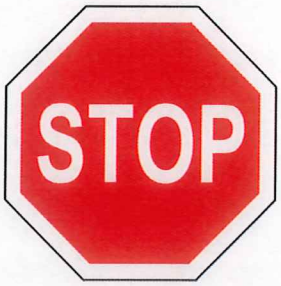
Figure 2 illustrates the circulation pattern for vehicles entering the retail commercial center driveways for access to the drive-through. As shown on the site plan, access to the Starbucks parking area and drive-through lane would be provided by a driveway on South Mills Road and a right-turn only driveway on East Main Street. Vehicles would enter these driveways and proceed to the drive-through lane for customer service.



Drive-Through Entry. An analysis was completed using the AutoTurn software to evaluate vehicles entering the drive-through lane from the adjacent parking lot drive aisles. As illustrated on Figures 3a and 3b, vehicles can maneuver into the drive-through lane. Based on a review of the provided site plan, the internal parking lot design is expected to provide an acceptable circulation system.

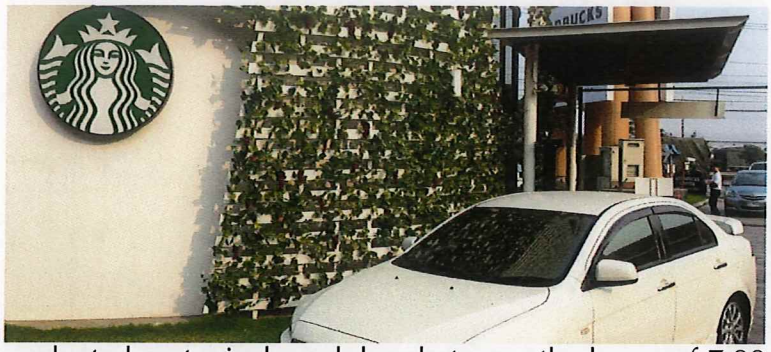


Figure 4 illustrates the proposed drive-through access plan, which includes pavement marking and directional signs. As shown on the left, pavement markings would be installed to direct vehicles entering the site from South Mills Road to the drive-through lane. Proposed markings and directional signs from the provided site plan are adequate.



Drive-Through Exit. Figure 5 illustrates the exiting patterns for the drive-through facility. As shown on the figure, vehicles would exit the drive-through lane near the northwest corner of the coffee shop building and would then proceed through the parking lot to exit the site on either Main Street or South Mills Road. A STOP-sign, STOP bar, and STOP legend are proposed near the drive-through exit (see Figure 6). The proposed signage and striping are expected to be adequate.

DRIVE-THROUGH STORAGE AND QUEUING



The site plan shows that the drive-through lane would accommodate a queue of 11 vehicles (assuming 20 feet per vehicle). Queue data collected at three Starbucks drive-through locations identified by City staff were reviewed to evaluate the vehicle storage requirement for the proposed Starbucks. The queue studies were conducted on typical weekdays between the hours of 7:00 AM and 9:00 AM, which is the peak activity time for Starbucks drive-through lanes. The queue studies observed the number of vehicles queued in the drive-through lane and counted the total number of vehicles using the drive-through also the order board. Table 1 summarizes the results of the queue studies. More details of the queue studies (e.g. day of week, maximum queues, average queues etc.) and aerial maps for each site surveyed are attached for reference.

Table 1
Starbucks Coffee Shop - Drive-Through Queue Study Results

Site	Storage Provided	Average Max. Queue	Average Queue Order Board	Exceed Storage	Maximum Queue	Exceed Storage	Occurrences	Duration[(a)]
Ventura	14 Vehicles	6 Vehicles	3 Vehicles	NO	14 Vehicles	NO	0 Occurrences	0 Minutes
Oxnard	11 Vehicles	7 Vehicles	3 Vehicles	NO	11 Vehicles	NO	0 Occurrences	0 Minutes
Thousand Oaks	7 Vehicles	9 Vehicles	3 Vehicles	NO	13 Vehicles	Yes/6 Vehicles	2 Occurrences	< 3 Minutes

(a) Number of minutes per occurrence.

As shown in Table 1, the maximum queues observed at the three Starbucks ranged from 11 to 14 vehicles. The average queue from the order board was 3 vehicles. Based on the queue studies, the 11-vehicle storage area for the proposed project could be exceeded during peak periods if the store is busier than average. There are several factors to consider when evaluating the maximum queues at drive-through facilities. First, the queue data recorded at

the Thousand Oaks site indicate that the maximum queue of 13 vehicles lasted for less than 3 minutes. Second, drivers accessing drive-through lanes tend to not queue in areas where they would block other vehicle movements. Instead, drivers opt to park and then walk into the establishment. Or, drivers simply leave the establishment. Finally, drive-through queues can be self-regulating, as drivers will tend to alter their behavior based on wait times and the availability of other similar uses in the area. In this case, there are numerous other coffee shops within a 2-mile radius of the Project site, including 2 Starbucks coffee shops on Mills Road north of the site and one Starbucks on Telephone Road east of the site. Starbucks now offers pre-ordering on smartphones so that orders are processed in advance of the customer picking up their order.

Vehicle Queue Overflow Management

The data presented above indicate that queues would generally be accommodated in the drive-through stacking lane provided for the Project. There could be short periods when queues could exceed the 11-vehicle stacking capacity of the drive-through lane if the store is busier than average. Figures 7a and 7b illustrate the drive-through facility assuming the queues reached 12 vehicles. As illustrated on Figure 7a, the 12th vehicle in the queue extending to the southwest would block one or two parking spaces in the adjacent parking lot and could interfere with two-way traffic flow in the drive-aisle. Figure 7b illustrates that the 12th vehicle in the queue extending to the north would block two parking spaces within the parking lot. Figures 8a and 8b illustrate the drive-through facility assuming the queues reached 13 vehicles. As illustrated on Figure 8a, the 13th vehicle in the queue extending to the southwest would block two or three parking spaces in the adjacent parking lot and could interfere with two-way traffic flow in the drive-aisle. Figure 8b illustrates that the 13th vehicle in the queue extending to the north would block one parking space within the parking lot. As noted previously, the peak queues at Starbucks would occur between 7:00 AM and 9:00 AM. During this morning period, the adjacent business in the strip commercial center would not be busy and there would be low vehicle activity in the adjacent parking lot.

City staff requested that the study identify the maximum theoretical queues that could be accommodated without interfering with operations on South Mills Road or Main Street. The site design would accommodate a queue of approximately 20 cars extending to the southwest without interfering with operations on South Mills Road; and the design would accommodate a queue of approximately 18 vehicles extending to the northeast without interfering with operations on Main Street.

The following measures should be considered if the peak queues extend to 12 vehicles or more.

1. The first measure would be the implementation of an expedited ordering process to reduce wait times in the drive-through facility (which may include additional staff

within the Starbucks coffee shop to reduce order preparation times and, if necessary, remote ordering).

2. The second measure would be to place a "KEEP CLEAR" pavement marking in the area between the Starbucks drive-aisle entry and the adjacent parking lot to the southwest to prevent vehicles from blocking the two-way access aisle between the parcels.



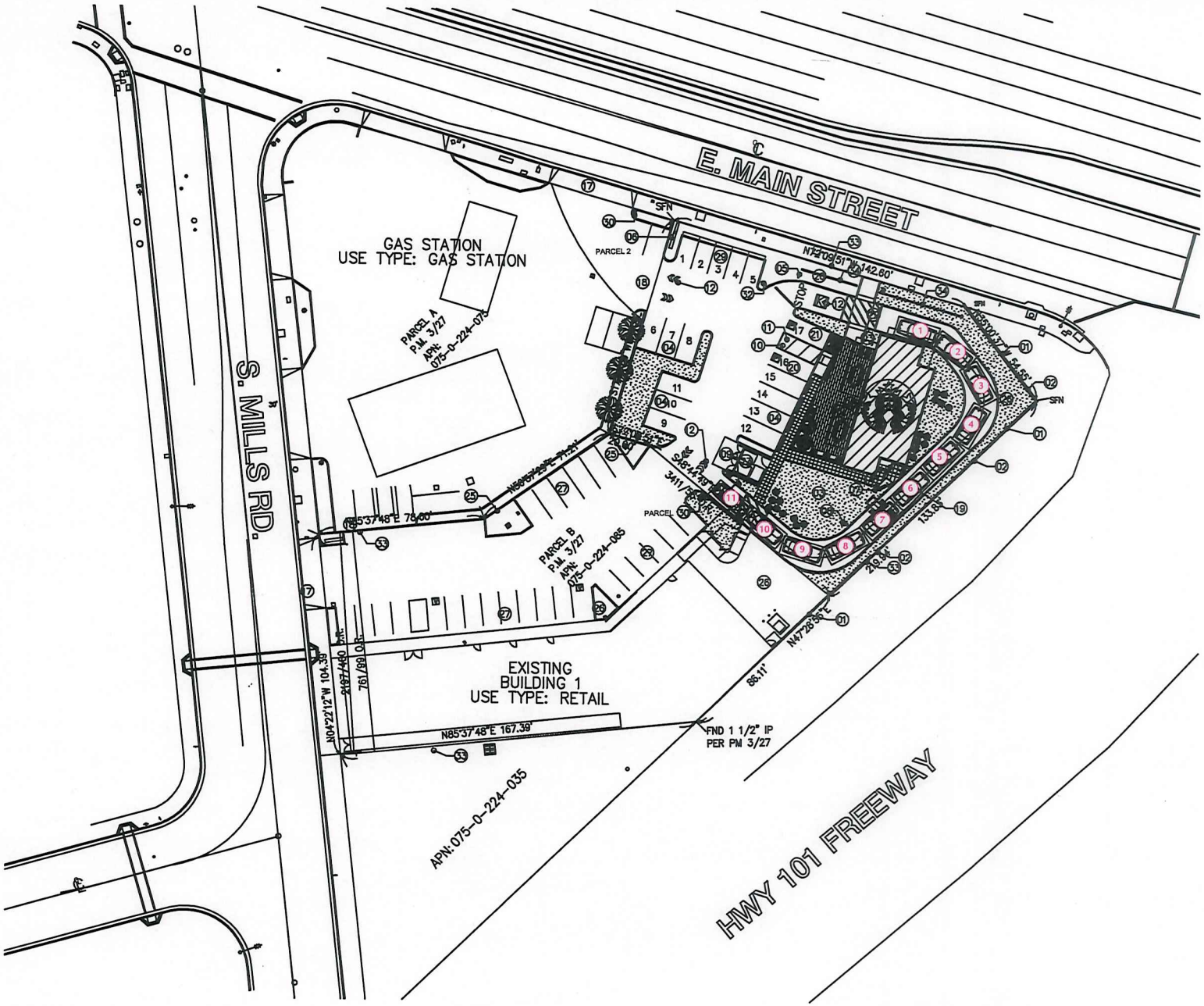
This concludes the TMP for the Main and Mills Starbucks Coffee Shop Project.

Associated Transportation Engineers,

Scott A. Schell, AICP, PTP
Vice President

SAS/DFN

Attachments: Figures 1 through 8b
Queue Survey Results
Aerial Maps

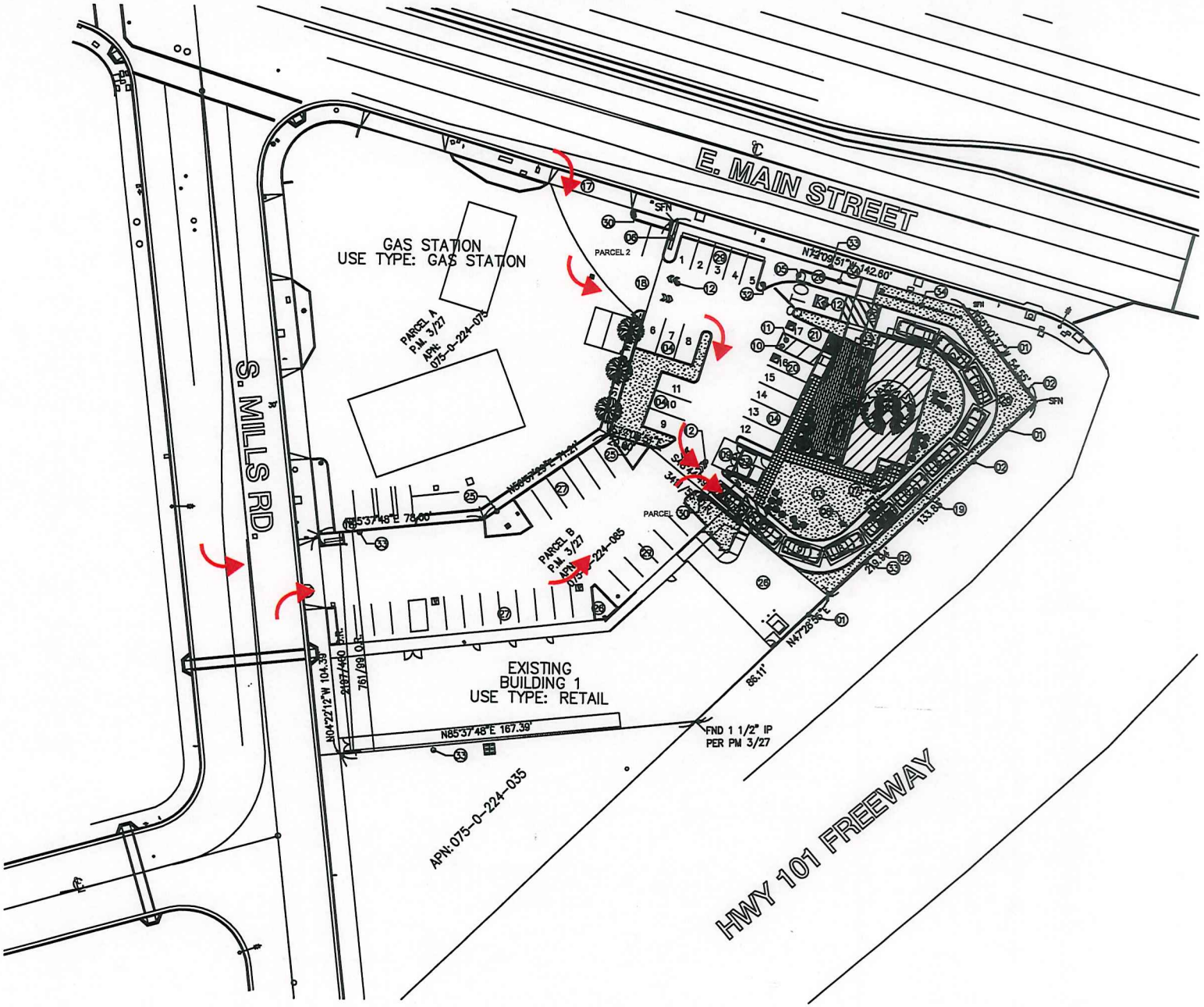


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PROJECT SITE PLAN

FIGURE 1

JH - ATE#19045

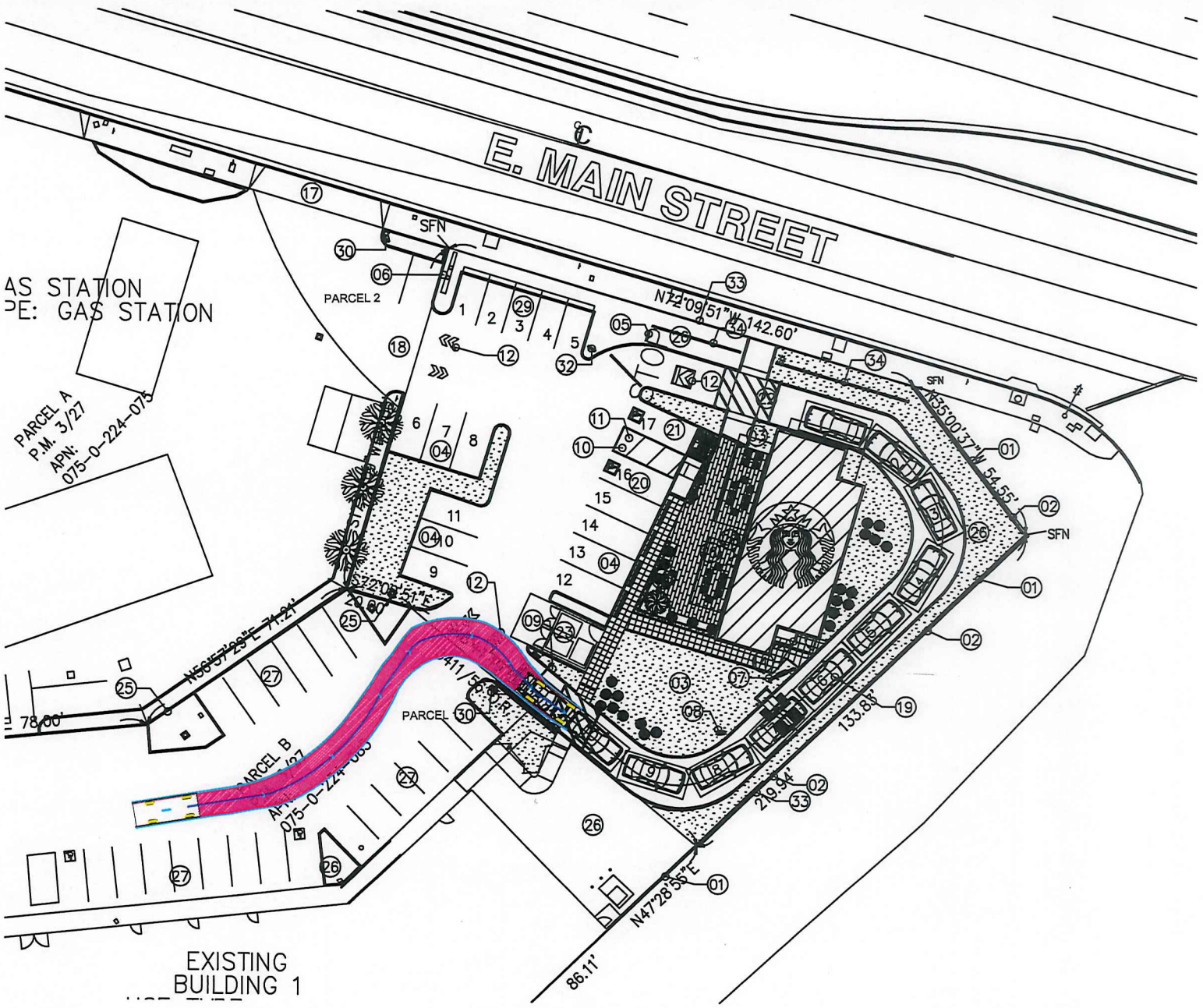


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DRIVE-THRU INBOUND ACCESS ROUTES

FIGURE 2

JH - ATE#19045

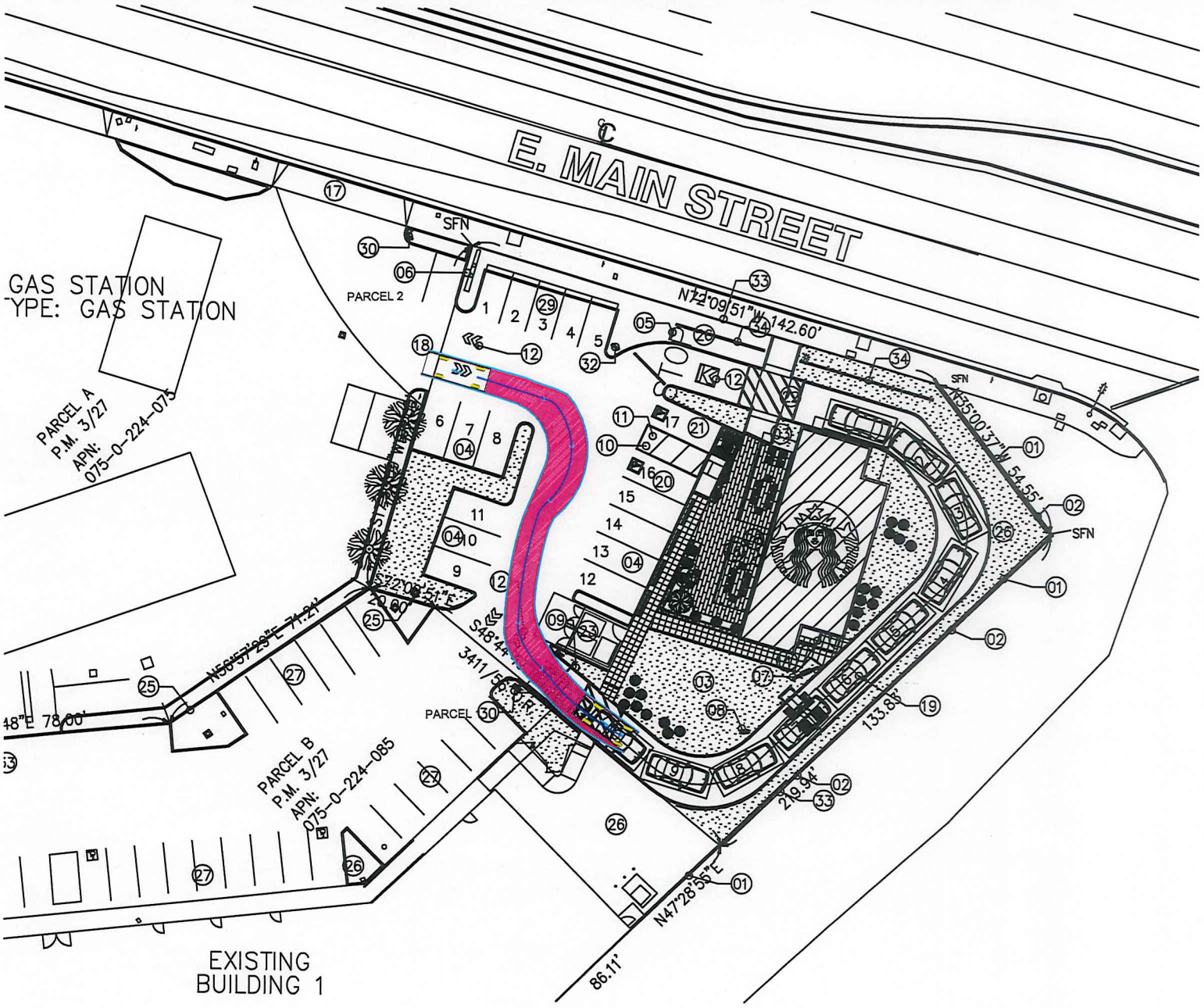


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DRIVE-THRU ANALYSIS RIGHT-TURN ANALYSIS

FIGURE 3a

JH - ATE#19045

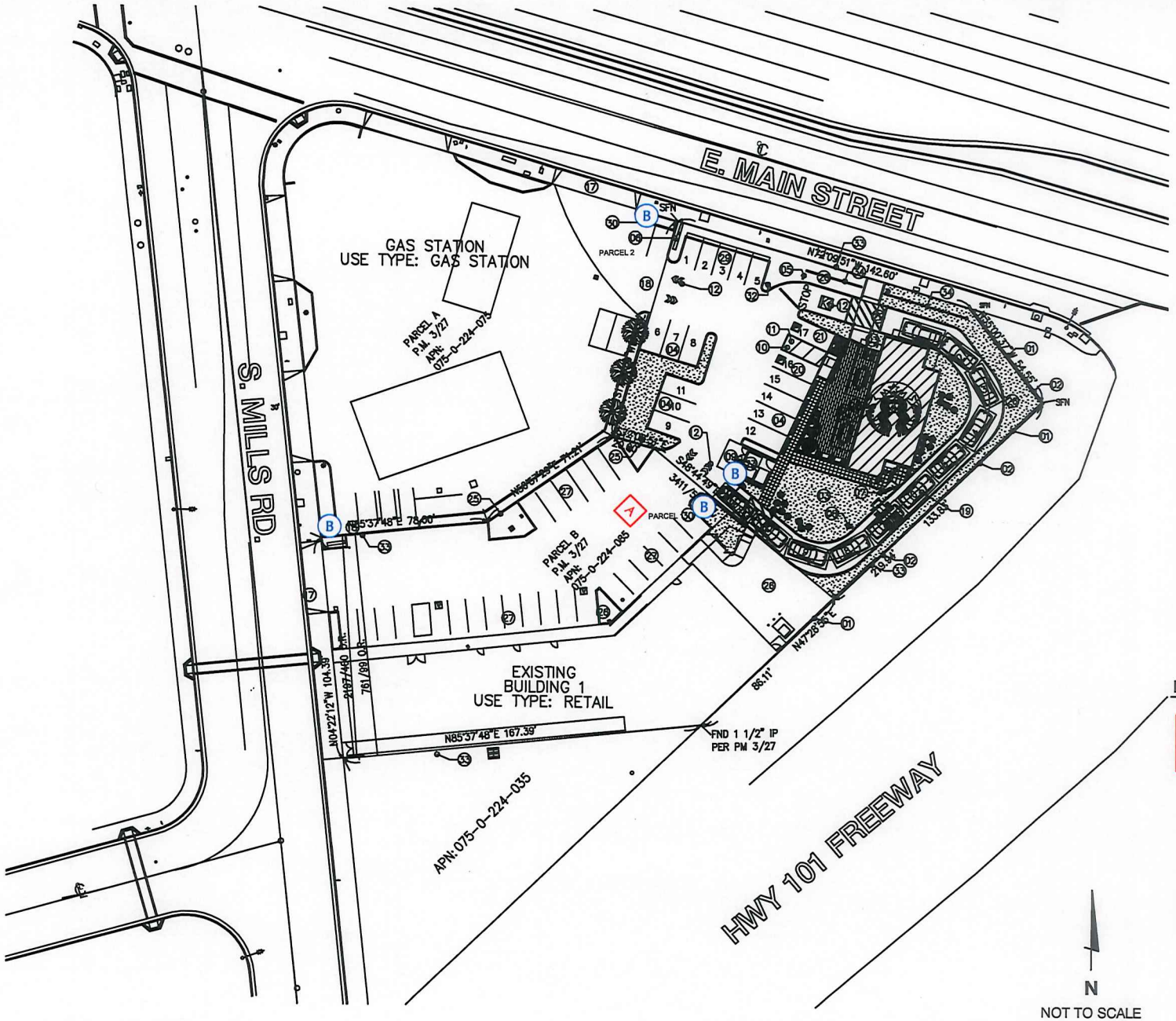


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DRIVE-THRU ANALYSIS LEFT-TURN ANALYSIS

FIGURE 3b

JH - ATE#19045

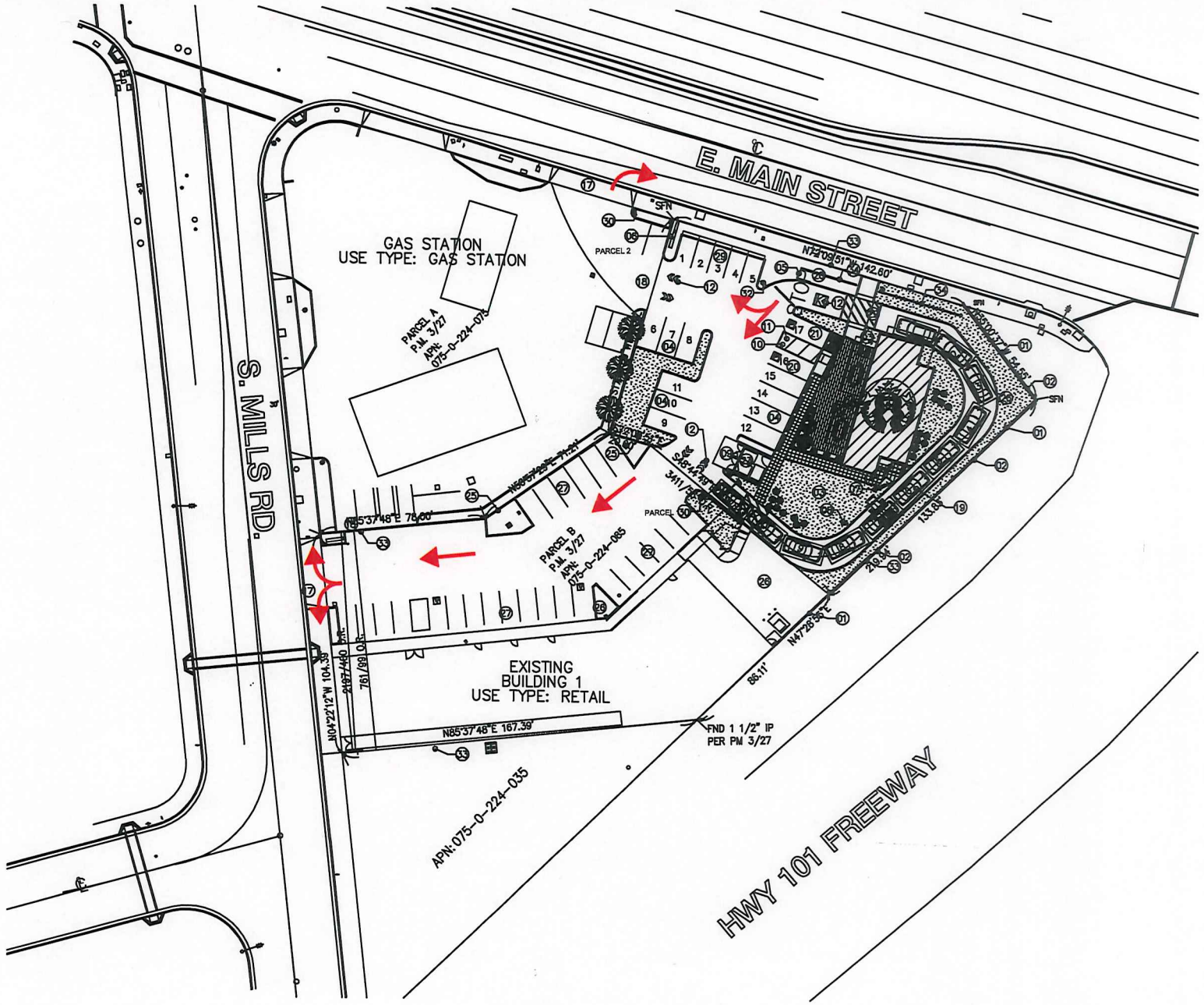


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PROPOSED PAVEMENT MARKINGS AND DIRECTIONAL SIGNS

FIGURE 4

JH - ATE#19045

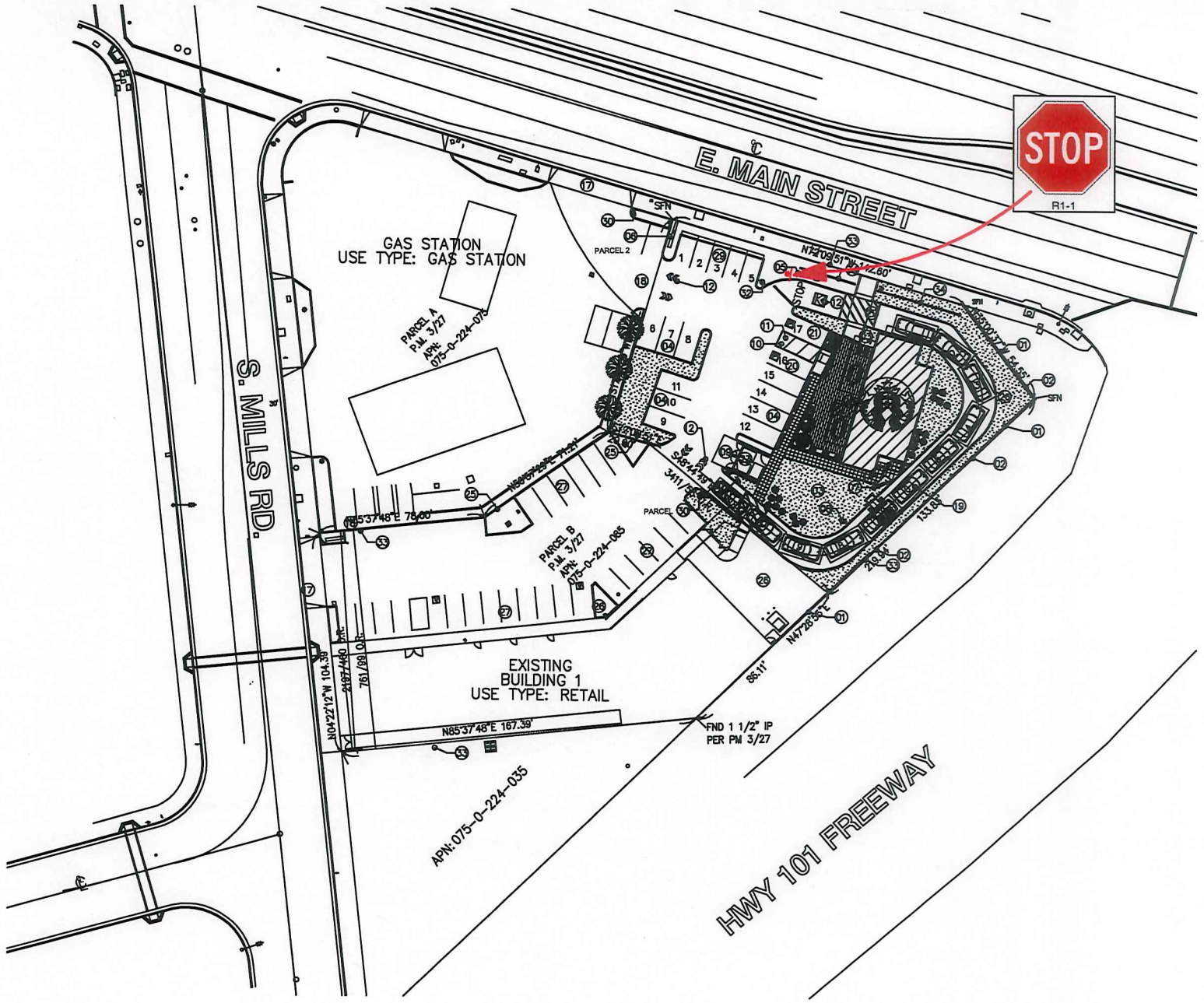


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DRIVE-THRU OUTBOUND ACCESS ROUTES

FIGURE 5

JH - ATE#19045

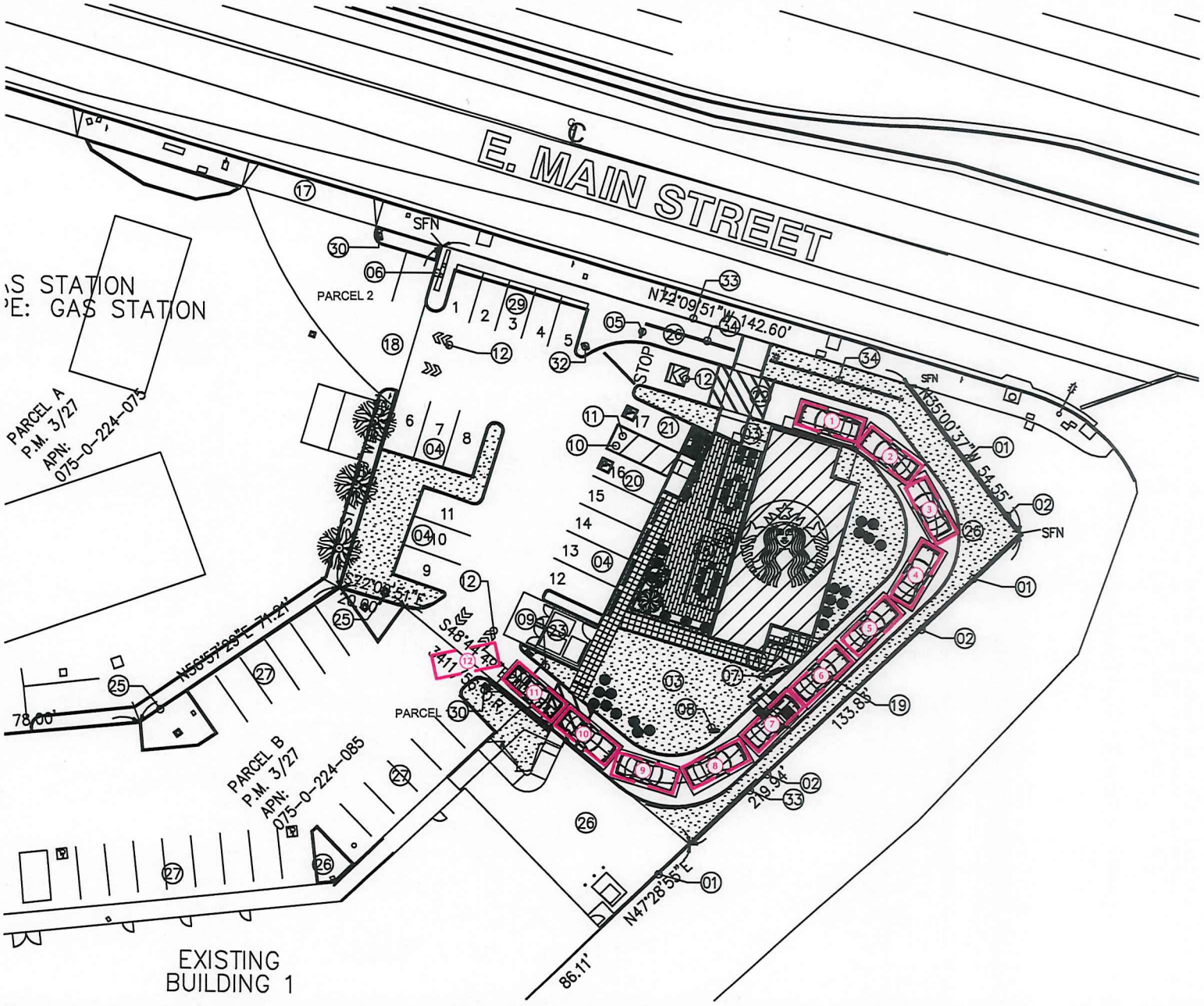


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STOP SIGN, STOP LEGEND, AND STOP BAR AT DRIVE-THRU EXIT

FIGURE 6

JH - ATE#19045

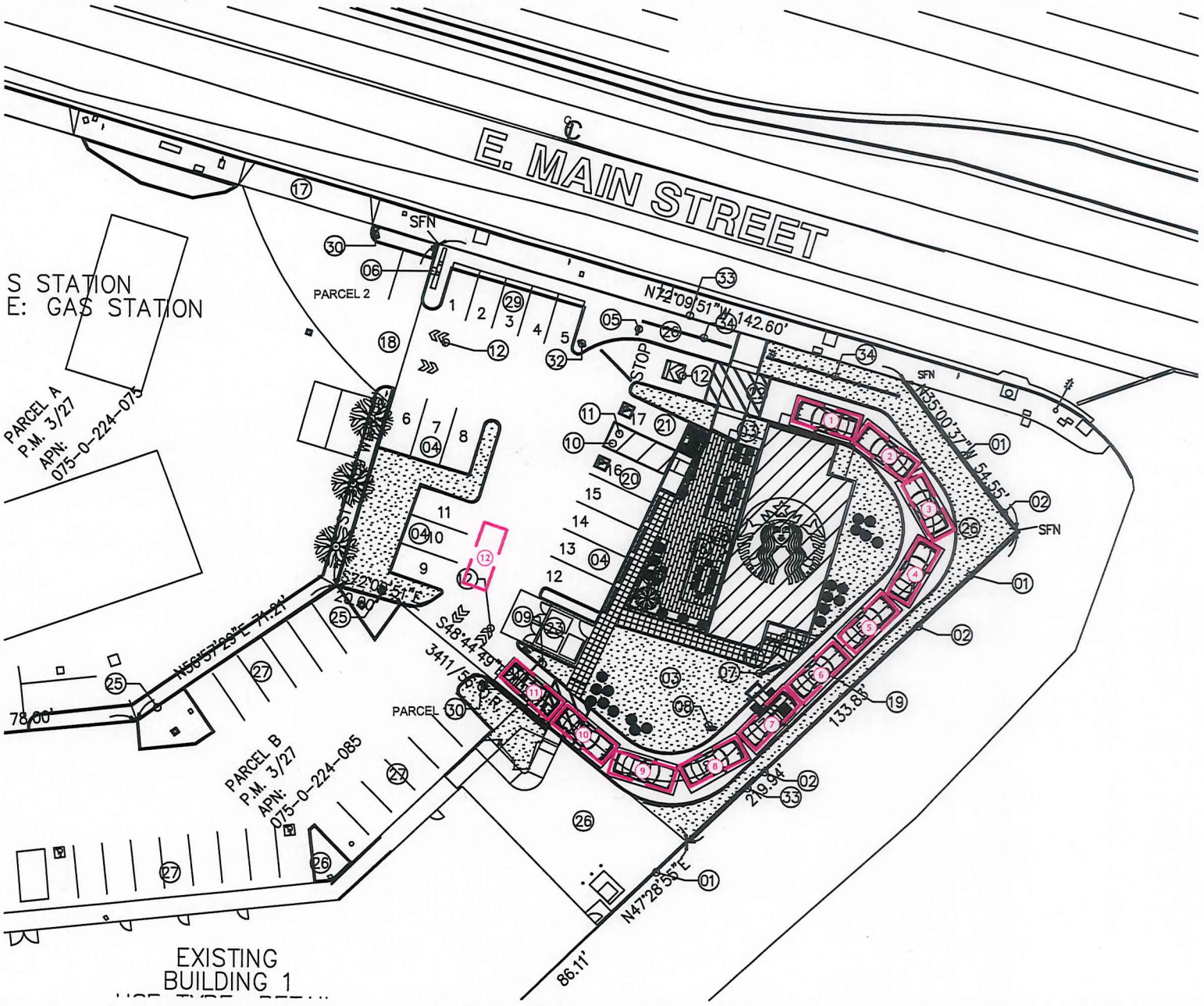


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DRIVE THRU WITH 12 VEHICLE QUEUE

FIGURE 7a

JH - ATE#19045

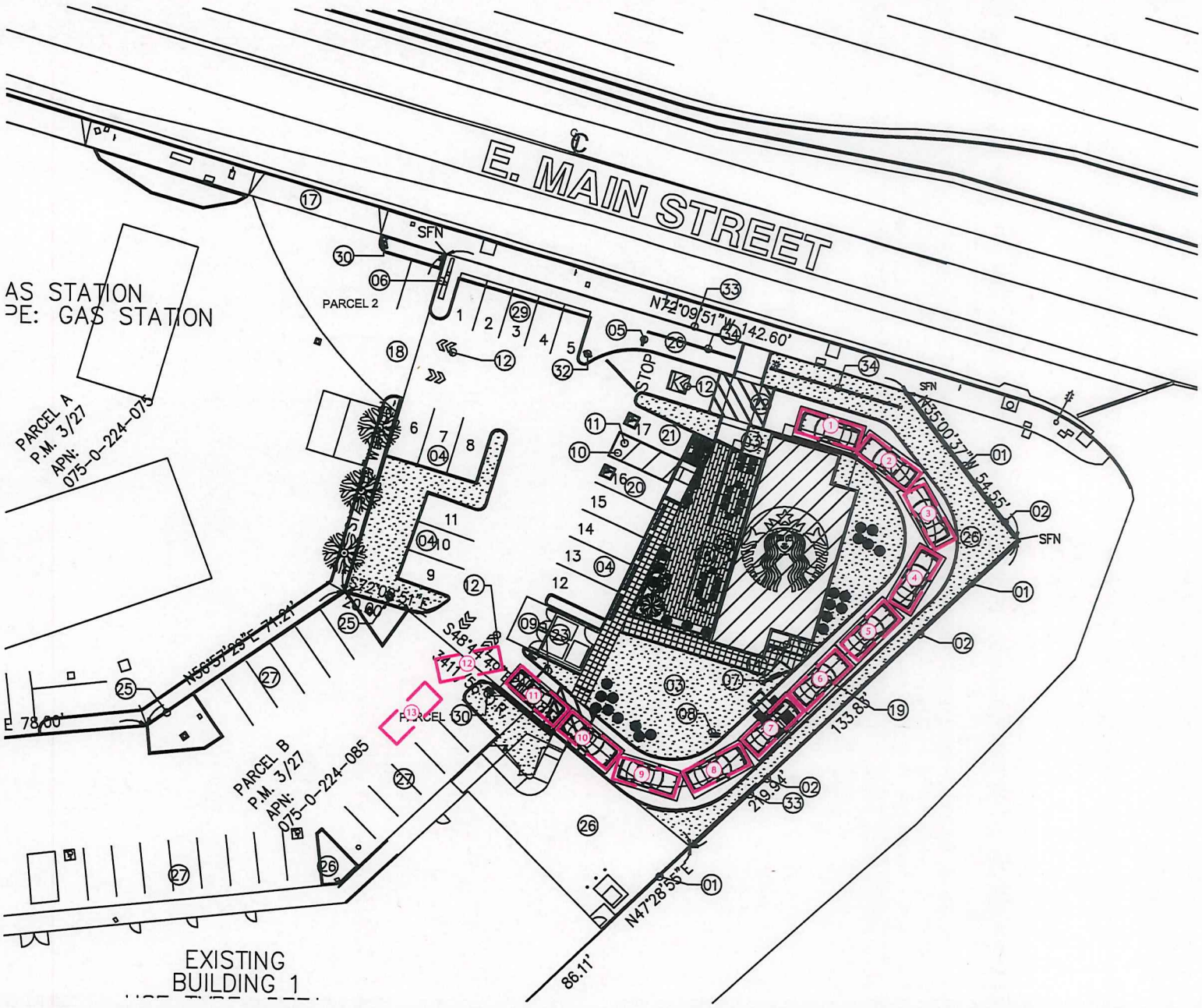


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DRIVE THRU WITH 12 VEHICLE QUEUE

FIGURE 7b

JH - ATE#19045

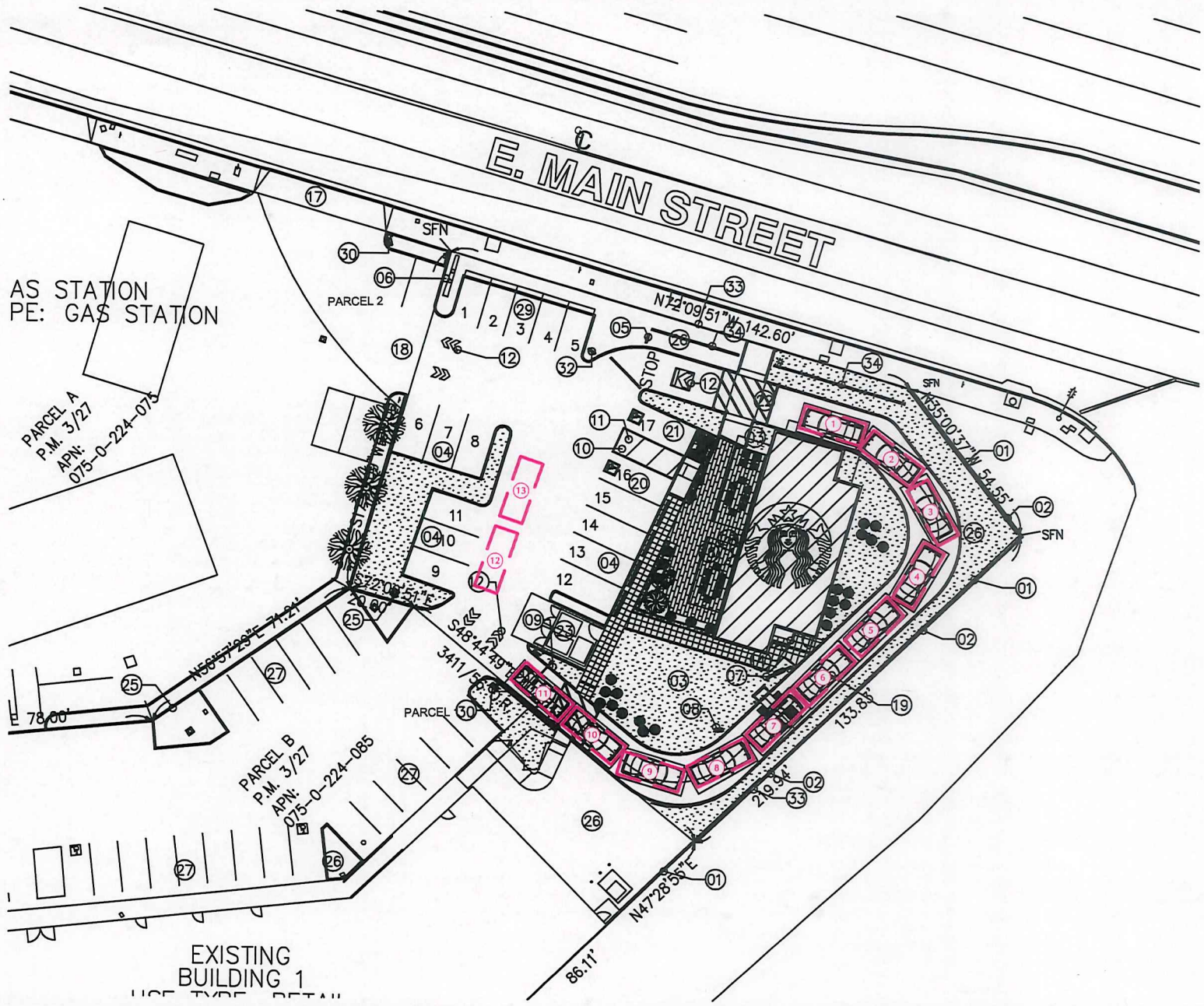


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DRIVE THRU WITH 13 VEHICLE QUEUE

FIGURE 8a

JH - ATE#19045

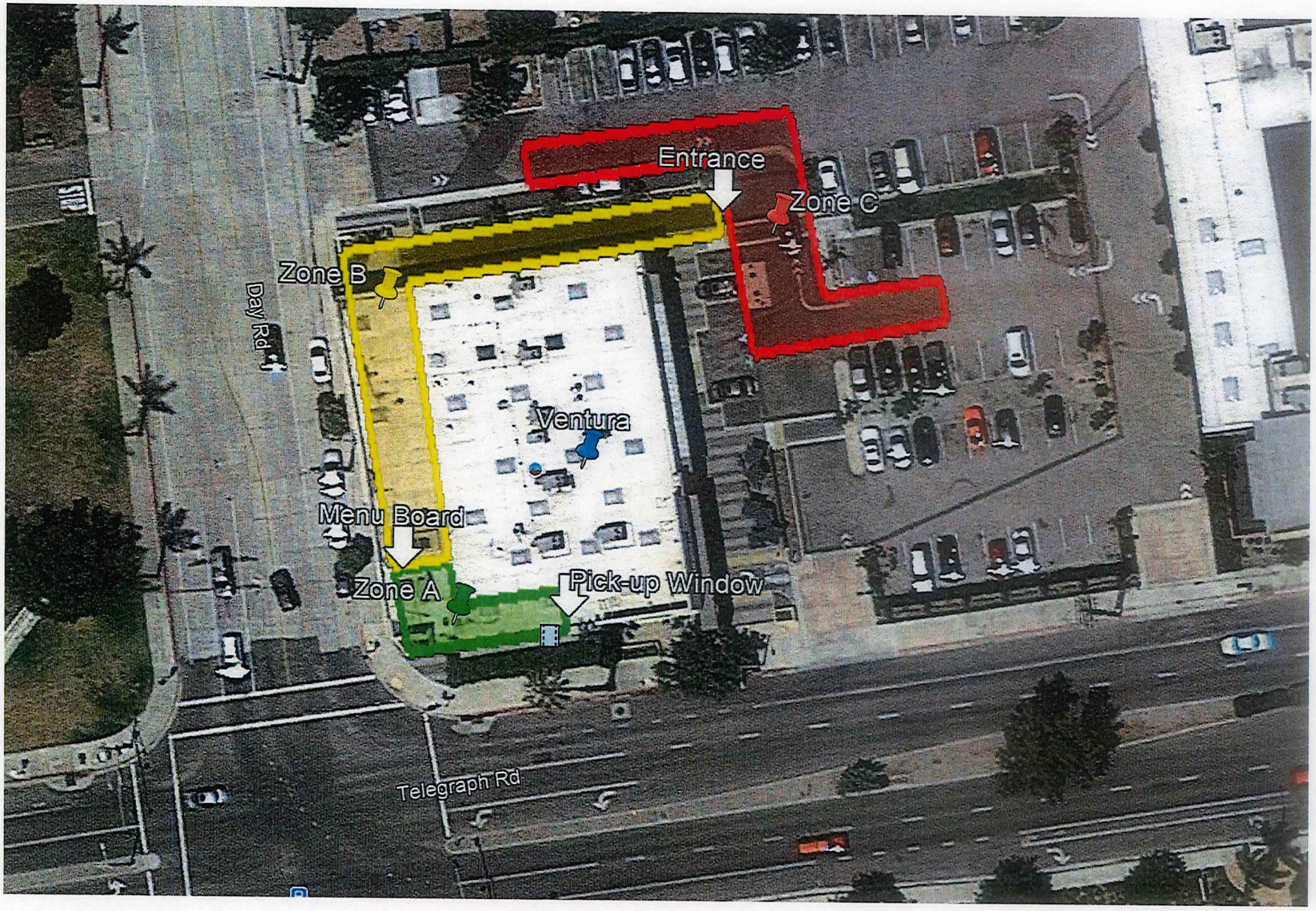


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DRIVE THRU WITH 13 VEHICLE QUEUE

FIGURE 8b

JH - ATE#19045



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NOT TO SCALE

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STARBUCKS - VENTURA

FIGURE A

JH - ATE#19045

Prepared by National Data & Surveying Services

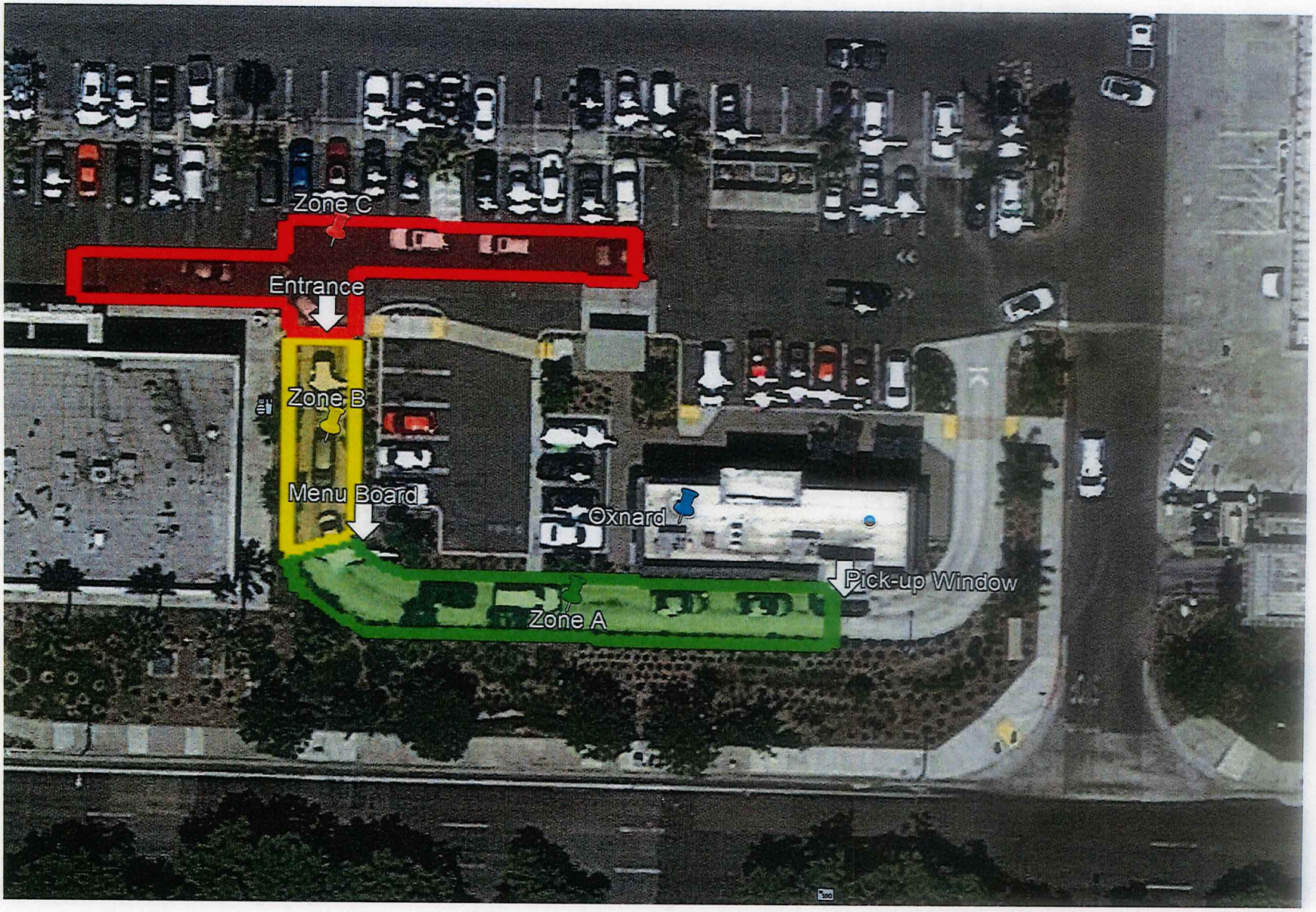
Drive-thru Queue Study

Location: 5101 Telegraph Rd Ventura
City: Ventura, CA

Date: 8/7/2019
Day: Wednesday

Time	Zone A	Zone B	Zone C	Total
7:00 AM	0	0	0	0
7:01 AM	0	0	0	0
7:02 AM	0	0	0	0
7:03 AM	0	1	0	1
7:04 AM	1	1	0	2
7:05 AM	2	2	0	4
7:06 AM	4	0	0	4
7:07 AM	3	0	0	3
7:08 AM	1	1	0	2
7:09 AM	0	3	0	3
7:10 AM	3	1	0	4
7:11 AM	4	0	0	4
7:12 AM	4	2	0	6
7:13 AM	3	1	0	4
7:14 AM	2	2	0	4
7:15 AM	3	2	0	5
7:16 AM	4	1	2	7
7:17 AM	4	4	1	9
7:18 AM	4	4	1	9
7:19 AM	4	3	0	7
7:20 AM	4	4	0	8
7:21 AM	4	4	1	9
7:22 AM	4	4	0	8
7:23 AM	4	4	2	10
7:24 AM	4	3	3	10
7:25 AM	4	5	2	11
7:26 AM	4	4	3	11
7:27 AM	4	5	5	14
7:28 AM	4	4	5	13
7:29 AM	4	5	4	13
7:30 AM	4	3	4	11
7:31 AM	3	5	2	10
7:32 AM	4	4	1	9
7:33 AM	3	4	0	7
7:34 AM	4	3	0	7
7:35 AM	4	4	2	10
7:36 AM	4	4	2	10
7:37 AM	4	3	1	8
7:38 AM	4	3	0	7
7:39 AM	4	3	0	7
7:40 AM	4	2	0	6
7:41 AM	4	1	0	5
7:42 AM	4	1	0	5
7:43 AM	3	0	0	3
7:44 AM	3	0	0	3
7:45 AM	3	0	0	3
7:46 AM	2	2	0	4
7:47 AM	4	2	0	6
7:48 AM	3	0	0	3
7:49 AM	1	0	0	1
7:50 AM	1	0	0	1
7:51 AM	0	0	0	0
7:52 AM	0	1	0	1
7:53 AM	1	0	0	1
7:54 AM	1	0	0	1
7:55 AM	0	0	0	0
7:56 AM	0	0	0	0
7:57 AM	1	2	0	3
7:58 AM	2	1	0	3
7:59 AM	3	1	0	4
8:00 AM	2	2	0	4
8:01 AM	2	1	0	3
8:02 AM	3	1	0	4
8:03 AM	2	1	0	3
8:04 AM	3	3	0	6
8:05 AM	3	1	0	4
8:06 AM	3	1	0	4
8:07 AM	3	0	0	3
8:08 AM	1	0	0	1
8:09 AM	1	1	0	2
8:10 AM	2	2	0	4
8:11 AM	3	1	0	4
8:12 AM	2	0	0	2
8:13 AM	0	1	0	1
8:14 AM	1	1	0	2
8:15 AM	2	1	0	3
8:16 AM	2	1	0	3
8:17 AM	2	0	0	2
8:18 AM	1	0	0	1
8:19 AM	0	2	0	2
8:20 AM	3	1	0	4
8:21 AM	2	0	0	2
8:22 AM	3	1	0	4
8:23 AM	2	0	0	2
8:24 AM	2	0	0	2
8:25 AM	1	0	0	1
8:26 AM	1	0	0	1
8:27 AM	0	2	0	2
8:28 AM	2	1	0	3
8:29 AM	3	0	0	3
8:30 AM	3	0	0	3
8:31 AM	2	0	0	2
8:32 AM	2	0	0	2
8:33 AM	1	0	0	1
8:34 AM	1	1	0	2
8:35 AM	1	0	0	1
8:36 AM	1	0	0	1
8:37 AM	0	2	0	2
8:38 AM	1	2	0	3
8:39 AM	3	1	0	4
8:40 AM	3	2	0	5
8:41 AM	4	1	0	5
8:42 AM	3	1	0	4
8:43 AM	1	0	0	1
8:44 AM	0	1	0	1
8:45 AM	1	2	0	3
8:46 AM	3	2	0	5
8:47 AM	3	4	0	7
8:48 AM	2	3	0	5
8:49 AM	3	1	0	4
8:50 AM	4	1	0	5
8:51 AM	4	2	0	6
8:52 AM	4	2	0	6
8:53 AM	4	1	0	5
8:54 AM	3	1	0	4
8:55 AM	3	0	0	3
8:56 AM	1	1	0	2
8:57 AM	3	0	0	3
8:58 AM	2	3	0	5
8:59 AM	1	3	0	4

Time	Max Queue Total	Max Queue Pickup Window (Zone A)	Max Queue Order Board (Zone B)
7:00 AM	2	1	1
7:05 AM	4	4	3
7:10 AM	6	4	2
7:15 AM	9	4	4
7:20 AM	10	4	4
7:25 AM	14	4	5
7:30 AM	11	4	5
7:35 AM	10	4	4
7:40 AM	6	4	2
7:45 AM	6	4	2
7:50 AM	1	1	1
7:55 AM	4	3	2
8:00 AM	6	3	3
8:05 AM	4	3	1
8:10 AM	4	3	2
8:15 AM	3	2	2
8:20 AM	4	3	1
8:25 AM	3	3	2
8:30 AM	3	3	1
8:35 AM	4	3	2
8:40 AM	5	4	2
8:45 AM	7	3	4
8:50 AM	6	4	2
8:55 AM	5	3	3
Avg. Queue	6	3	3



N

NOT TO SCALE

ASSOCIATED
TRANSPORTATION
ENGINEERS

STARBUCKS - OXNARD

FIGURE B

JH - ATE#19045

Prepared by National Data & Surveying Services

Drive-thru Queue Study

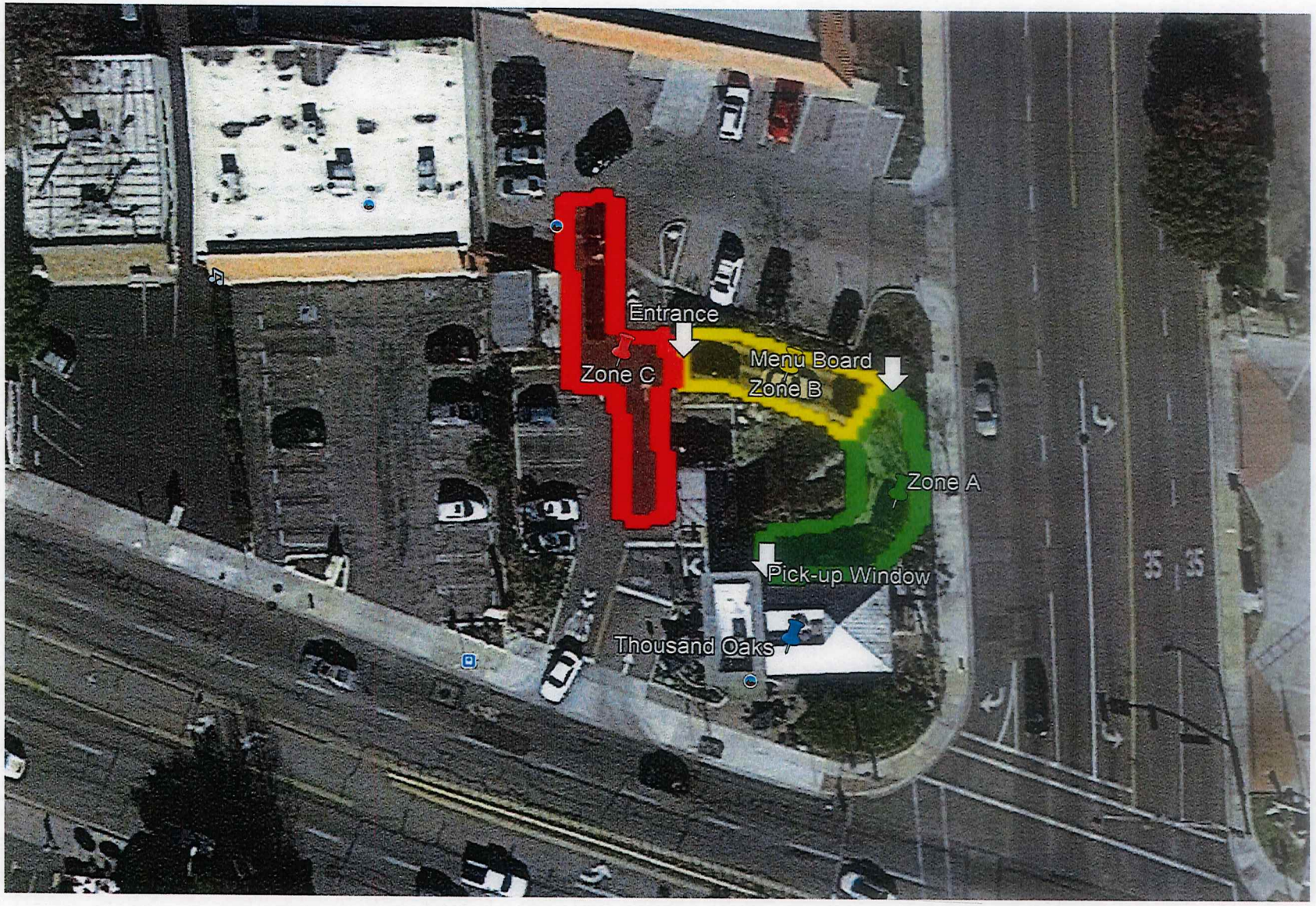
Location: 1921 N Rose Ave-Oxnard
City: Oxnard, CA

Date: 8/6/2019
Day: Tuesday

Time	Zone A	Zone B	Zone C	Total
7:00 AM	1	1	0	2
7:01 AM	2	0	0	2
7:02 AM	0	1	0	1
7:03 AM	1	0	0	1
7:04 AM	1	0	0	1
7:05 AM	0	1	0	1
7:06 AM	1	2	0	3
7:07 AM	2	1	0	3
7:08 AM	1	2	0	3
7:09 AM	2	1	0	3
7:10 AM	2	1	0	3
7:11 AM	1	0	0	1
7:12 AM	1	3	0	4
7:13 AM	1	2	0	3
7:14 AM	1	1	0	2
7:15 AM	1	0	0	1
7:16 AM	1	0	0	1
7:17 AM	0	2	0	2
7:18 AM	2	2	1	5
7:19 AM	3	2	1	6
7:20 AM	1	3	0	4
7:21 AM	0	2	0	2
7:22 AM	2	1	0	3
7:23 AM	1	1	0	2
7:24 AM	2	0	0	2
7:25 AM	0	1	0	1
7:26 AM	1	1	0	2
7:27 AM	1	1	0	2
7:28 AM	1	0	0	1
7:29 AM	1	1	0	2
7:30 AM	1	1	0	2
7:31 AM	1	1	0	2
7:32 AM	2	3	0	5
7:33 AM	2	3	1	6
7:34 AM	2	3	2	7
7:35 AM	3	3	2	8
7:36 AM	3	3	0	6
7:37 AM	2	3	3	8
7:38 AM	1	3	2	6
7:39 AM	1	3	2	6
7:40 AM	2	3	1	6
7:41 AM	3	3	2	8
7:42 AM	4	3	1	8
7:43 AM	3	2	2	7
7:44 AM	3	3	2	8
7:45 AM	4	3	2	9
7:46 AM	2	3	3	8
7:47 AM	3	3	2	8
7:48 AM	3	3	0	6
7:49 AM	4	3	0	7
7:50 AM	4	1	0	5
7:51 AM	4	1	0	5
7:52 AM	4	2	0	6
7:53 AM	4	0	0	4
7:54 AM	2	0	0	2
7:55 AM	1	0	0	1
7:56 AM	0	2	0	2
7:57 AM	1	3	1	5
7:58 AM	1	3	1	5
7:59 AM	2	3	1	6
8:00 AM	3	3	0	6
8:01 AM	3	3	1	7
8:02 AM	3	3	2	8
8:03 AM	3	3	1	7
8:04 AM	4	2	0	6
8:05 AM	3	3	0	6
8:06 AM	3	3	1	7
8:07 AM	3	2	4	9
8:08 AM	2	2	1	5
8:09 AM	2	3	3	8
8:10 AM	1	3	2	6
8:11 AM	3	3	1	7
8:12 AM	5	3	0	8
8:13 AM	5	2	0	7
8:14 AM	5	0	0	5
8:15 AM	4	1	0	5
8:16 AM	3	1	0	4
8:17 AM	2	1	0	3
8:18 AM	1	1	0	2
8:19 AM	0	3	0	3
8:20 AM	2	2	0	4
8:21 AM	3	1	0	4
8:22 AM	3	0	0	3
8:23 AM	1	2	0	3
8:24 AM	2	2	0	4
8:25 AM	2	1	0	3
8:26 AM	3	1	0	4
8:27 AM	2	2	0	4
8:28 AM	4	1	0	5
8:29 AM	5	1	0	6
8:30 AM	7	1	0	8
8:31 AM	4	3	0	7
8:32 AM	3	3	0	6
8:33 AM	3	1	0	4
8:34 AM	4	3	1	8
8:35 AM	5	3	1	9
8:36 AM	4	3	1	8
8:37 AM	2	3	2	7
8:38 AM	4	3	2	9
8:39 AM	4	3	4	11
8:40 AM	3	3	5	11
8:41 AM	2	2	4	8
8:42 AM	2	3	2	7
8:43 AM	1	3	1	5
8:44 AM	2	3	2	7
8:45 AM	4	2	0	6
8:46 AM	3	3	1	7
8:47 AM	2	2	2	6
8:48 AM	2	3	3	8
8:49 AM	2	3	3	8
8:50 AM	1	3	4	8
8:51 AM	1	3	5	9
8:52 AM	3	3	4	10
8:53 AM	2	3	3	8
8:54 AM	2	2	2	6
8:55 AM	3	3	1	7
8:56 AM	2	3	1	6
8:57 AM	2	3	0	5
8:58 AM	2	2	0	4
8:59 AM	2	3	0	5

Time	Max Queue Total	Max Queue Pickup Window (Zone A)	Max Queue Order Board (Zone B)
7:00 AM	2	2	1
7:05 AM	3	2	2
7:10 AM	4	2	3
7:15 AM	6	3	2
7:20 AM	4	2	3
7:25 AM	2	1	1
7:30 AM	7	2	3
7:35 AM	8	3	3
7:40 AM	8	4	3
7:45 AM	9	4	3
7:50 AM	6	4	2
7:55 AM	6	2	3
8:00 AM	8	4	3
8:05 AM	9	3	3
8:10 AM	8	5	3
8:15 AM	5	4	3
8:20 AM	4	3	2
8:25 AM	6	5	2
8:30 AM	8	7	3
8:35 AM	11	5	3
8:40 AM	11	3	3
8:45 AM	8	4	3
8:50 AM	10	3	3
8:55 AM	7	3	3

Avg. Queue	7	3	3



N

NOT TO SCALE

ASSOCIATED
TRANSPORTATION
ENGINEERS

STARBUCKS - THOUSAND OAKS

FIGURE C

JH - ATE#19045

Prepared by National Data & Surveying Services

Drive-thru Queue Study

Location: 1195 E Thousand Oaks Blvd
City: Thousand Oaks, CA

Date: 8/6/2019
Day: Tuesday

Time	Zone A	Zone B	Zone C	Total
7:00 AM	2	3	2	7
7:01 AM	2	3	1	6
7:02 AM	3	3	0	6
7:03 AM	3	3	0	6
7:04 AM	3	3	0	6
7:05 AM	4	3	1	8
7:06 AM	4	3	1	8
7:07 AM	4	3	0	7
7:08 AM	4	3	0	7
7:09 AM	4	2	1	7
7:10 AM	4	1	0	5
7:11 AM	4	3	2	9
7:12 AM	4	3	2	9
7:13 AM	4	2	2	8
7:14 AM	4	3	1	8
7:15 AM	3	3	2	8
7:16 AM	4	3	2	9
7:17 AM	4	3	1	8
7:18 AM	4	3	0	7
7:19 AM	4	3	1	8
7:20 AM	4	3	2	9
7:21 AM	4	3	2	9
7:22 AM	4	3	3	10
7:23 AM	4	3	3	10
7:24 AM	4	3	2	9
7:25 AM	4	3	2	9
7:26 AM	4	3	4	11
7:27 AM	4	3	3	10
7:28 AM	4	3	3	10
7:29 AM	4	2	3	9
7:30 AM	4	2	3	9
7:31 AM	4	3	4	11
7:32 AM	4	3	3	10
7:33 AM	4	3	3	10
7:34 AM	4	3	2	9
7:35 AM	4	3	1	8
7:36 AM	4	2	0	6
7:37 AM	4	2	0	6
7:38 AM	4	2	1	7
7:39 AM	4	2	1	7
7:40 AM	4	3	0	7
7:41 AM	4	1	0	5
7:42 AM	2	2	0	4
7:43 AM	3	1	0	4
7:44 AM	3	1	0	4
7:45 AM	2	3	1	6
7:46 AM	2	2	1	5
7:47 AM	4	3	0	7
7:48 AM	4	2	0	6
7:49 AM	3	2	0	5
7:50 AM	3	1	0	4
7:51 AM	3	1	0	4
7:52 AM	2	3	0	5
7:53 AM	2	2	0	4
7:54 AM	3	1	0	4
7:55 AM	1	1	0	2
7:56 AM	1	0	0	1
7:57 AM	0	1	0	1
7:58 AM	1	1	0	2
7:59 AM	1	0	0	1
8:00 AM	2	0	0	2
8:01 AM	2	1	0	3
8:02 AM	2	0	0	2
8:03 AM	1	2	0	3
8:04 AM	2	2	0	4
8:05 AM	2	2	0	4
8:06 AM	3	3	1	7
8:07 AM	3	1	1	5
8:08 AM	4	2	1	7
8:09 AM	4	3	2	9
8:10 AM	4	2	3	9
8:11 AM	4	3	2	9
8:12 AM	4	2	1	7
8:13 AM	4	2	0	6
8:14 AM	4	2	0	6
8:15 AM	2	2	0	4
8:16 AM	3	2	0	5
8:17 AM	3	1	0	4
8:18 AM	4	0	0	4
8:19 AM	2	1	0	3
8:20 AM	2	2	0	4
8:21 AM	4	1	0	5
8:22 AM	4	1	0	5
8:23 AM	4	1	0	5
8:24 AM	3	3	0	6
8:25 AM	3	2	0	5
8:26 AM	2	2	0	4
8:27 AM	2	2	3	7
8:28 AM	4	2	2	8
8:29 AM	4	2	2	8
8:30 AM	3	1	3	7
8:31 AM	4	0	2	6
8:32 AM	4	3	3	10
8:33 AM	4	3	4	11
8:34 AM	4	3	4	11
8:35 AM	4	3	4	11
8:36 AM	4	3	3	10
8:37 AM	4	3	2	9
8:38 AM	4	3	0	7
8:39 AM	4	2	0	6
8:40 AM	4	1	0	5
8:41 AM	4	0	0	4
8:42 AM	3	1	0	4
8:43 AM	0	3	1	4
8:44 AM	2	3	5	10
8:45 AM	4	3	3	10
8:46 AM	4	3	4	11
8:47 AM	4	3	3	10
8:48 AM	4	3	3	10
8:49 AM	4	3	4	11
8:50 AM	4	2	3	9
8:51 AM	4	2	3	9
8:52 AM	4	3	2	9
8:53 AM	4	3	5	12
8:54 AM	4	3	6	13
8:55 AM	4	3	6	13
8:56 AM	4	3	5	12
8:57 AM	4	3	4	11
8:58 AM	4	3	4	11
8:59 AM	4	3	3	10

Time	Max Queue Total	Max Queue Pickup Window (Zone A)	Max Queue Order Board (Zone B)
7:00 AM	7	3	3
7:05 AM	8	4	3
7:10 AM	9	4	3
7:15 AM	9	4	3
7:20 AM	10	4	3
7:25 AM	11	4	3
7:30 AM	11	4	3
7:35 AM	8	4	3
7:40 AM	7	4	3
7:45 AM	7	4	3
7:50 AM	5	3	3
7:55 AM	2	1	1
8:00 AM	4	2	2
8:05 AM	9	4	3
8:10 AM	9	4	3
8:15 AM	5	4	2
8:20 AM	6	4	3
8:25 AM	8	4	2
8:30 AM	11	4	3
8:35 AM	11	4	3
8:40 AM	10	4	3
8:45 AM	11	4	3
8:50 AM	13	4	3
8:55 AM	13	4	3

Avg. Queue	9	4	3

CITY OF VENTURA

October 8, 2019

yak tityu tityu yak tiłhini –
Northern Chumash Tribe
Mona Tucker, Chairperson
660 Camino Del Rey
Arroyo Grande, CA, 93420

RE: Assembly Bill 52 Consultation for the 3550 East Main Street Starbucks Project, City of Ventura, Ventura County, California

Dear Ms. Tucker,

The City of Ventura (City) is preparing an Initial Study-Negative Declaration for the 3550 Main Street Starbucks Project (Project). The proposed Project would involve demolishing and removing the existing Arby's fast-food restaurant located in the northeastern half of the project site and constructing a Starbucks Coffee Shop with a drive-thru lane. The proposed project consists of a new 1,670 square foot building, a 1,357 square foot outdoor patio area, and a drive-thru lane with queuing storage for 11 vehicles. The proposed project is subject to the California Environmental Quality Act (CEQA), and the City of Ventura (City) is the lead agency for the project.

The proposed Project must comply with California Public Resources Code § 21080.3.1 (Assembly Bill [AB] 52 of 2014), which requires local governments to conduct meaningful consultation with California Native American tribes that have requested to be notified by lead agencies of proposed projects in the geographic area with which the tribe is traditionally and culturally affiliated.

The input of the yak ityu ityu yak tiłhini – Northern Chumash Tribe is important to the City's planning process. Under AB 52, you have 30 days from receipt of this letter to respond in writing if you wish to consult on the proposed project. If you require any additional information or have any questions, please contact me at 805-658-4749 or via e-mail at mclensay@cityofventura.net. Thank you for your assistance.

Sincerely,

Maruja Clensay
Senior Planner
City of Ventura

Enclosure: Project Location Map

CITY OF VENTURA

October 8, 2019

Santa Ynez Band of Chumash Indians
Kenneth Kahn, Chairperson
P.O. Box 517
Santa Ynez, CA, 93460

RE: Assembly Bill 52 Consultation for the 3550 East Main Street Starbucks Project, City of Ventura, Ventura County, California

Dear Mr. Kahn,

The City of Ventura (City) is preparing an Initial Study-Negative Declaration for the 3550 Main Street Starbucks Project (Project). The proposed Project would involve demolishing and removing the existing Arby's fast-food restaurant located in the northeastern half of the project site and constructing a Starbucks Coffee Shop with a drive-thru lane. The proposed project consists of a new 1,670 square foot building, a 1,357 square foot outdoor patio area, and a drive-thru lane with queuing storage for 11 vehicles. The proposed project is subject to the California Environmental Quality Act (CEQA), and the City of Ventura (City) is the lead agency for the project.

The proposed Project must comply with California Public Resources Code § 21080.3.1 (Assembly Bill [AB] 52 of 2014), which requires local governments to conduct meaningful consultation with California Native American tribes that have requested to be notified by lead agencies of proposed projects in the geographic area with which the tribe is traditionally and culturally affiliated.

The input of the Santa Ynez Band of Chumash Indians is important to the City's planning process. Under AB 52, you have 30 days from receipt of this letter to respond in writing if you wish to consult on the proposed project. If you require any additional information or have any questions, please contact me at 805-658-4749 or via e-mail at mclensay@cityofventura.net. Thank you for your assistance.

Sincerely,

Maruja Clensay
Senior Planner
City of Ventura

Enclosure: Project Location Map

CITY OF VENTURA

October 8, 2019

San Luis Obispo County Chumash Council
Mark Vigil, Chief
1030 Ritchie Road
Grover Beach, CA, 93433

RE: Assembly Bill 52 Consultation for the 3550 East Main Street Starbucks Project, City of Ventura, Ventura County, California

Dear Mr. Vigil,

The City of Ventura (City) is preparing an Initial Study-Negative Declaration for the 3550 Main Street Starbucks Project (Project). The proposed Project would involve demolishing and removing the existing Arby's fast-food restaurant located in the northeastern half of the project site and constructing a Starbucks Coffee Shop with a drive-thru lane. The proposed project consists of a new 1,670 square foot building, a 1,357 square foot outdoor patio area, and a drive-thru lane with queuing storage for 11 vehicles. The proposed project is subject to the California Environmental Quality Act (CEQA), and the City of Ventura (City) is the lead agency for the project.

The proposed Project must comply with California Public Resources Code § 21080.3.1 (Assembly Bill [AB] 52 of 2014), which requires local governments to conduct meaningful consultation with California Native American tribes that have requested to be notified by lead agencies of proposed projects in the geographic area with which the tribe is traditionally and culturally affiliated.

The input of the San Luis Obispo County Chumash Council is important to the City's planning process. Under AB 52, you have 30 days from receipt of this letter to respond in writing if you wish to consult on the proposed project. If you require any additional information or have any questions, please contact me at 805-658-4749 or via e-mail at mclensay@cityofventura.net. Thank you for your assistance.

Sincerely,

Maruja Clensay
Senior Planner
City of Ventura

Enclosure: Project Location Map

CITY OF VENTURA

October 8, 2019

Northern Chumash Tribal Council
Fred Collins, Spokesperson
P.O. Box 6533
Los Osos, CA, 93412

RE: Assembly Bill 52 Consultation for the 3550 East Main Street Starbucks Project, City of Ventura, Ventura County, California

Dear Mr. Collins,

The City of Ventura (City) is preparing an Initial Study-Negative Declaration for the 3550 Main Street Starbucks Project (Project). The proposed Project would involve demolishing and removing the existing Arby's fast-food restaurant located in the northeastern half of the project site and constructing a Starbucks Coffee Shop with a drive-thru lane. The proposed project consists of a new 1,670 square foot building, a 1,357 square foot outdoor patio area, and a drive-thru lane with queuing storage for 11 vehicles. The proposed project is subject to the California Environmental Quality Act (CEQA), and the City of Ventura (City) is the lead agency for the project.

The proposed Project must comply with California Public Resources Code § 21080.3.1 (Assembly Bill [AB] 52 of 2014), which requires local governments to conduct meaningful consultation with California Native American tribes that have requested to be notified by lead agencies of proposed projects in the geographic area with which the tribe is traditionally and culturally affiliated.

The input of the Northern Chumash Tribal Council is important to the City's planning process. Under AB 52, you have 30 days from receipt of this letter to respond in writing if you wish to consult on the proposed project. If you require any additional information or have any questions, please contact me at 805-658-4749 or via e-mail at mclensay@cityofventura.net. Thank you for your assistance.

Sincerely,

Maruja Clensay
Senior Planner
City of Ventura

Enclosure: Project Location Map

CITY OF VENTURA

October 8, 2019

Coastal Band of the Chumash Nation
Gino Altamirano, Chairperson
P. O. Box 4464
Santa Barbara, CA, 93140

RE: Assembly Bill 52 Consultation for the 3550 East Main Street Starbucks Project, City of Ventura, Ventura County, California

Dear Mr. Altamirano,

The City of Ventura (City) is preparing an Initial Study-Negative Declaration for the 3550 Main Street Starbucks Project (Project). The proposed Project would involve demolishing and removing the existing Arby's fast-food restaurant located in the northeastern half of the project site and constructing a Starbucks Coffee Shop with a drive-thru lane. The proposed project consists of a new 1,670 square foot building, a 1,357 square foot outdoor patio area, and a drive-thru lane with queuing storage for 11 vehicles. The proposed project is subject to the California Environmental Quality Act (CEQA), and the City of Ventura (City) is the lead agency for the project.

The proposed Project must comply with California Public Resources Code § 21080.3.1 (Assembly Bill [AB] 52 of 2014), which requires local governments to conduct meaningful consultation with California Native American tribes that have requested to be notified by lead agencies of proposed projects in the geographic area with which the tribe is traditionally and culturally affiliated.

The input of the Coastal Band of the Chumash Nation is important to the City's planning process. Under AB 52, you have 30 days from receipt of this letter to respond in writing if you wish to consult on the proposed project. If you require any additional information or have any questions, please contact me at 805-658-4749 or via e-mail at mclensay@cityofventura.net. Thank you for your assistance.

Sincerely,

Maruja Clensay
Senior Planner
City of Ventura

Enclosure: Project Location Map

CITY OF VENTURA

October 8, 2019

Chumash Council of Bakersfield
Julio Quair, Chairperson
729 Texas Street
Bakersfield, CA, 93307

RE: Assembly Bill 52 Consultation for the 3550 East Main Street Starbucks Project, City of Ventura, Ventura County, California

Dear Mr. Quair,

The City of Ventura (City) is preparing an Initial Study-Negative Declaration for the 3550 Main Street Starbucks Project (Project). The proposed Project would involve demolishing and removing the existing Arby's fast-food restaurant located in the northeastern half of the project site and constructing a Starbucks Coffee Shop with a drive-thru lane. The proposed project consists of a new 1,670 square foot building, a 1,357 square foot outdoor patio area, and a drive-thru lane with queuing storage for 11 vehicles. The proposed project is subject to the California Environmental Quality Act (CEQA), and the City of Ventura (City) is the lead agency for the project.

The proposed Project must comply with California Public Resources Code § 21080.3.1 (Assembly Bill [AB] 52 of 2014), which requires local governments to conduct meaningful consultation with California Native American tribes that have requested to be notified by lead agencies of proposed projects in the geographic area with which the tribe is traditionally and culturally affiliated.

The input of the Chumash Council of Bakersfield is important to the City's planning process. Under AB 52, you have 30 days from receipt of this letter to respond in writing if you wish to consult on the proposed project. If you require any additional information or have any questions, please contact me at 805-658-4749 or via e-mail at mclensay@cityofventura.net. Thank you for your assistance.

Sincerely,

Maruja Clensay
Senior Planner
City of Ventura

Enclosure: Project Location Map

CITY OF VENTURA

October 8, 2019

Barbareno/Ventureno Band of Mission Indians
Julie Tumamait-Stenslie, Chairperson
365 North Poli Ave
Ojai, CA, 93023

RE: Assembly Bill 52 Consultation for the 3550 East Main Street Starbucks Project, City of Ventura, Ventura County, California

Dear Ms. Tumamait-Stenslie,

The City of Ventura (City) is preparing an Initial Study-Negative Declaration for the 3550 Main Street Starbucks Project (Project). The proposed Project would involve demolishing and removing the existing Arby's fast-food restaurant located in the northeastern half of the project site and constructing a Starbucks Coffee Shop with a drive-thru lane. The proposed project consists of a new 1,670 square foot building, a 1,357 square foot outdoor patio area, and a drive-thru lane with queuing storage for 11 vehicles. The proposed project is subject to the California Environmental Quality Act (CEQA), and the City of Ventura (City) is the lead agency for the project.

The proposed Project must comply with California Public Resources Code § 21080.3.1 (Assembly Bill [AB] 52 of 2014), which requires local governments to conduct meaningful consultation with California Native American tribes that have requested to be notified by lead agencies of proposed projects in the geographic area with which the tribe is traditionally and culturally affiliated.

The input of the Barbareno/Ventureno Band of Mission Indians is important to the City's planning process. Under AB 52, you have 30 days from receipt of this letter to respond in writing if you wish to consult on the proposed project. If you require any additional information or have any questions, please contact me at 805-658-4749 or via e-mail at mclensay@cityofventura.net. Thank you for your assistance.

Sincerely,

Maruja Clensay
Senior Planner
City of Ventura

Enclosure: Project Location Map

SANTA YNEZ CHUMASH
TRIBAL ELDER'S COUNCIL
TO PROTECT AND PRESERVE TRIBAL ANCESTRY, TRADITIONS AND CULTURE

Santa Ynez Band of Chumash Indians
Tribal Elders' Council
P.O. Box 517 ◆ Santa Ynez ◆ CA ◆ 93460
Phone: (805)688-7997 ◆ Fax: (805)688-9578 ◆ Email: elders@santaynezchuhmash.org

October 28, 2019

City of Ventura
501 Polli Street
P.O. Box 99
Ventura, CA 93002-0099

Att: Maruja Clensay, Senior Planner

Re: Starbucks-3550 East Main Street, Ventura

Dear Ms. Clensay:

Thank you for contacting the Tribal Elders' Council for the Santa Ynez Band of Chumash Indians in regards to the above mentioned project.

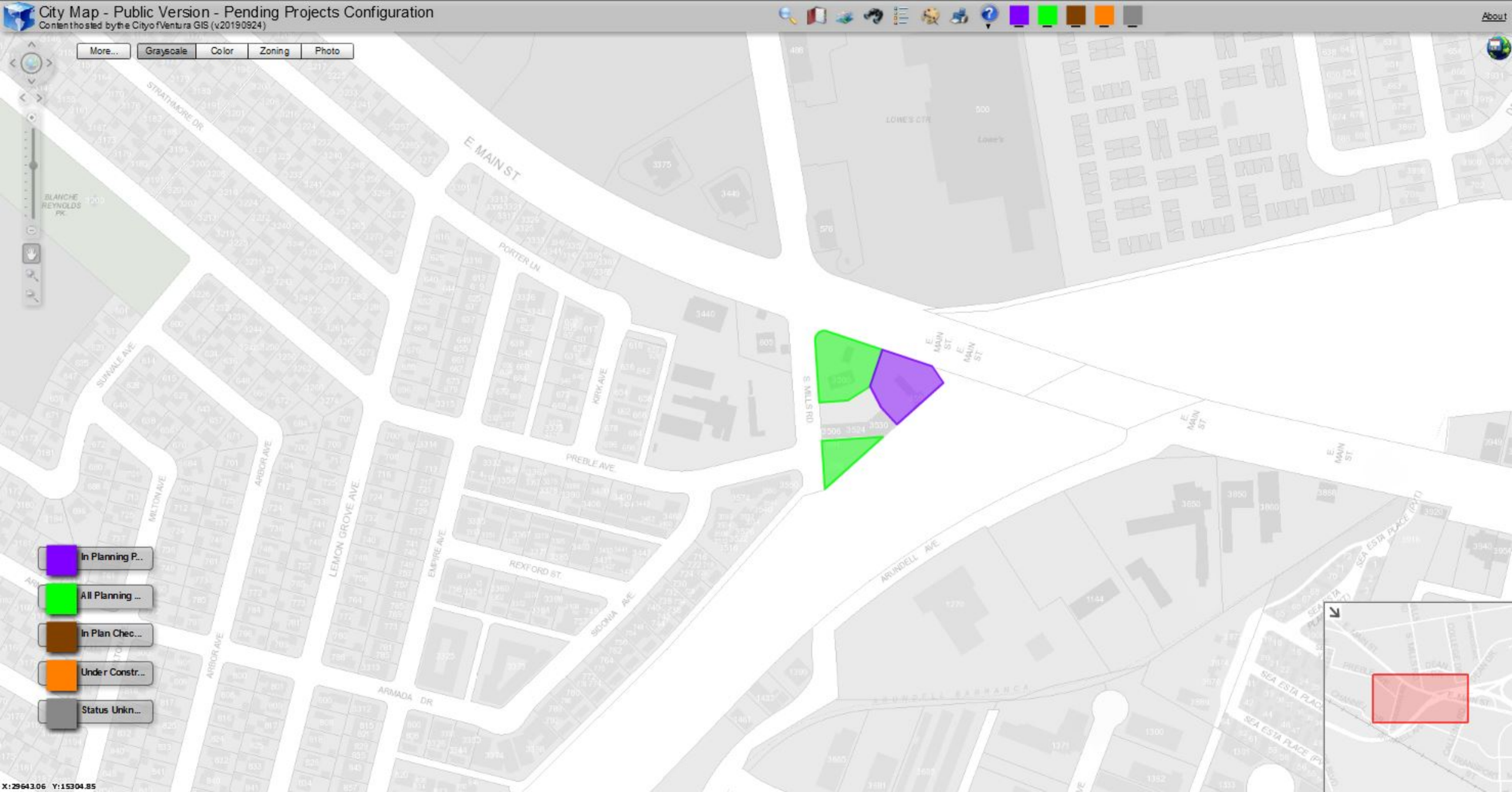
At this time, the Elders Council requests no further consultation on this project; however, if supplementary literature reveals additional information, or if the scope of the work changes, we kindly ask to be notified.

If you decide to have the presence of a Native American monitor in place during ground disturbance to assure that any cultural items unearthed be identified as quickly as possible, please contact our office or Chumash of the project area.

Thank you for remembering that at one time our ancestors walked this sacred land.

Sincerely Yours,

The Tribal Elders' Council Governing Board


City Map - Public Version - Pending Projects Configuration
Content hosted by the City of Ventura GIS (v20190924)
About
More...
Grayscale
Color
Zoning
Photo
E MAIN ST
PORTER LN
PREBLE AVE
REXFORD ST
ARUNDELL AVE
ARMADA DR
LEMON GROVE AVE
EMPIRE AVE
KIRK AVE
SIDONIA AVE
ARBOR AVE
MILTON AVE
SUNVALE AVE
STRATHMORE DR
S MILLS RD
BLANCHE REYNOLDS PK
SEA ESTA PLACE
In Planning P...
All Planning ...
In Plan Chec...
Under Constr...
Status Unkn...
X:29643.06 Y:15304.85

PROJECT ID: **PROJ-11236**

PROJECT NAME: **3500 E MAIN ST_MOBILE GAS**

DEVELOPER:

A & S ENGINEERING
28405 SAND CANYON RD STE
CANYON COUNTRY, CA 91387-

CONTACT: **AHMAD GHADERI**

PHONE: **(661)250-9300**

CATEGORY: **Commercial**

STATUS: **All Planning Approvals**

PLANNER: **MC**

DATE FILED: **January 17, 2017**

DATE APPROVED: **December 19, 2018**

ZONE: **C-2**

PROJECT LOCATION: **3500 E Main St**

APN: **075-0-224-075**

PROJECT DESCRIPTION: **Demolish existing building and rebuild new 2,860 square foot food mart and 833 square foot car wash.**

Building Height:

Number of Stories: **1.0**

View this Project on the Map...

View Current Project List...

Sq.Ft. Commercial: **2849**

Sq.Ft. Industrial: **0**

Sq.Ft. Institutional: **0**

Sq.Ft. Office: **0**

Sq.Ft. Retail: **0**

Sq.Ft. Hotel: **0**

Units Total: **0**

Units Live/Work: **0**

Units.Aff.Ext.Low: **0**

Units.Aff.Very.Low: **0**

Units.Aff.Low: **0**

Units.Aff.Mod: **0**

The above project details reflect data extracted this morning from the City of Ventura's EnerGov system.
While reasonable effort has been made to ensure the accuracy of the data contained herein, no guarantee can be made as to its accuracy.
No decision that may result in the loss of life or property should be made on the basis of the information contained in this document.

How to Contact Us: If you have questions about this product, please send email to **GIS@cityofventura.net**

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