Salinas Valley Memorial Healthcare System

INITIAL STUDY AND DRAFT MITIGATED NEGATIVE DECLARATION

Technical Appendices

Conditional Use Permit for the
Downing Resource Center Parking Garage Annex
and Ancillary Improvements
(CUP 2019-022)

April 2020

Technical Appendices

Appendix A: CalEEmod Outputs

Appendix B: CHRIS Records Search Results

Appendix C: Geotechnical Report Update

Appendix D: Traffic Operations Memo

Appendix A

CalEEmod Outputs

SVMHS Parking Annex - Monterey County, Annual

SVMHS Parking Annex

Monterey County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	244.00	Space	2.20	97,600.00	0
General Office Building	19.93	1000sqft	0.46	19,930.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.6	**Precipitation Freq (Days)**	55
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Construction run only

Construction Phase - Anticipated construction schedule

Grading - Anticipated export

Demolition - Estimated demolition portion of garage and pavement

Vehicle Trips - No new vehicle trips

Construction Off-road Equipment Mitigation - MBARD Dust control measure

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	66.00
tblConstructionPhase	NumDays	220.00	250.00
tblConstructionPhase	NumDays	6.00	20.00
tblConstructionPhase	NumDays	10.00	30.00
tblConstructionPhase	NumDays	3.00	10.00
tblConstructionPhase	PhaseEndDate	7/12/2021	12/31/2021
tblConstructionPhase	PhaseEndDate	6/14/2021	10/5/2021
tblConstructionPhase	PhaseEndDate	8/10/2020	9/8/2020
tblConstructionPhase	PhaseEndDate	6/28/2021	10/20/2020
tblConstructionPhase	PhaseEndDate	7/31/2020	8/11/2020
tblConstructionPhase	PhaseStartDate	6/29/2021	10/1/2021
tblConstructionPhase	PhaseStartDate	8/11/2020	10/21/2020
tblConstructionPhase	PhaseStartDate	8/1/2020	8/12/2020
tblConstructionPhase	PhaseStartDate	6/15/2021	9/9/2020
tblGrading	MaterialExported	0.00	6,550.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	WD_TR	11.03	0.00

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	0.1398	1.3798	0.9790	2.2100e-003	0.1291	0.0609	0.1900	0.0461	0.0572	0.1033	0.0000	195.4145	195.4145	0.0358	0.0000	196.3103
2021	0.3955	1.8687	1.7217	3.5100e-003	0.0517	0.0850	0.1367	0.0140	0.0816	0.0956	0.0000	300.7358	300.7358	0.0447	0.0000	301.8536
Maximum	**0.3955**	**1.8687**	**1.7217**	**3.5100e-003**	**0.1291**	**0.0850**	**0.1900**	**0.0461**	**0.0816**	**0.1033**	**0.0000**	**300.7358**	**300.7358**	**0.0447**	**0.0000**	**301.8536**

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	0.1398	1.3798	0.9790	2.2100e-003	0.0688	0.0609	0.1297	0.0234	0.0572	0.0806	0.0000	195.4143	195.4143	0.0358	0.0000	196.3102
2021	0.3955	1.8687	1.7217	3.5100e-003	0.0492	0.0850	0.1342	0.0134	0.0816	0.0950	0.0000	300.7356	300.7356	0.0447	0.0000	301.8534
Maximum	**0.3955**	**1.8687**	**1.7217**	**3.5100e-003**	**0.0688**	**0.0850**	**0.1342**	**0.0234**	**0.0816**	**0.0950**	**0.0000**	**300.7356**	**300.7356**	**0.0447**	**0.0000**	**301.8534**

	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**	**34.75**	**0.00**	**19.23**	**38.71**	**0.00**	**11.70**	**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	**7-1-2020**	**9-30-2020**	0.8375	0.8375
2	**10-1-2020**	**12-31-2020**	0.6731	0.6731
3	**1-1-2021**	**3-31-2021**	0.6651	0.6651
4	**4-1-2021**	**6-30-2021**	0.6700	0.6700
5	**7-1-2021**	**9-30-2021**	0.6773	0.6773
		Highest	0.8375	0.8375

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	0.1004	3.0000e-005	3.3700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.5500e-003	6.5500e-003	2.0000e-005	0.0000	6.9800e-003
Energy	1.7600e-003	0.0160	0.0134	1.0000e-004		1.2200e-003	1.2200e-003		1.2200e-003	1.2200e-003	0.0000	287.1688	287.1688	0.0125	2.8400e-003	288.3293
Mobile	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
Waste						0.0000	0.0000		0.0000	0.0000	3.7614	0.0000	3.7614	0.2223	0.0000	9.3188
Water						0.0000	0.0000		0.0000	0.0000	1.1238	7.7865	8.9102	0.1158	2.8000e-003	12.6385
Total	**0.1021**	**0.0160**	**0.0168**	**1.0000e-004**	**0.0000**	**1.2300e-003**	**1.2300e-003**	**0.0000**	**1.2300e-003**	**1.2300e-003**	**4.8852**	**294.9618**	**299.8470**	**0.3506**	**5.6400e-003**	**310.2936**

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	0.1004	3.0000e-005	3.3700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.5500e-003	6.5500e-003	2.0000e-005	0.0000	6.9800e-003
Energy	1.7600e-003	0.0160	0.0134	1.0000e-004		1.2200e-003	1.2200e-003		1.2200e-003	1.2200e-003	0.0000	287.1688	287.1688	0.0125	2.8400e-003	288.3293
Mobile	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
Waste						0.0000	0.0000		0.0000	0.0000	3.7614	0.0000	3.7614	0.2223	0.0000	9.3188
Water						0.0000	0.0000		0.0000	0.0000	1.1238	7.7865	8.9102	0.1158	2.8000e-003	12.6385

Total	**0.1021**	**0.0160**	**0.0168**	**1.0000e-004**	**0.0000**	**1.2300e-003**	**1.2300e-003**	**0.0000**	**1.2300e-003**	**1.2300e-003**	**4.8852**	**294.9618**	**299.8470**	**0.3506**	**5.6400e-003**	**310.2936**

	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	7/1/2020	7/28/2020	5	20	
2	Site Preparation	Site Preparation	7/29/2020	8/11/2020	5	10	
3	Grading	Grading	8/12/2020	9/8/2020	5	20	
4	Building Construction	Building Construction	10/21/2020	10/5/2021	5	250	
5	Paving	Paving	9/9/2020	10/20/2020	5	30	
6	Architectural Coating	Architectural Coating	10/1/2021	12/31/2021	5	66	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 10

Acres of Paving: 2.2

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 29,895; Non-Residential Outdoor: 9,965; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40

Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Welders	3	8.00	46	0.45

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
Architectural Coating	1	9.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	47.00	19.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	5	13.00	0.00	255.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	819.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

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					0.0289	0.0000	0.0289	4.3700e-003	0.0000	4.3700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0213	0.2095	0.1466	2.4000e-004		0.0115	0.0115		0.0108	0.0108	0.0000	21.0677	21.0677	5.4200e-003	0.0000	21.2031
Total	**0.0213**	**0.2095**	**0.1466**	**2.4000e-004**	**0.0289**	**0.0115**	**0.0404**	**4.3700e-003**	**0.0108**	**0.0151**	**0.0000**	**21.0677**	**21.0677**	**5.4200e-003**	**0.0000**	**21.2031**

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	1.0900e-003	0.0385	7.8200e-003	1.0000e-004	2.1600e-003	1.5000e-004	2.3100e-003	5.9000e-004	1.4000e-004	7.4000e-004	0.0000	9.9383	9.9383	3.7000e-004	0.0000	9.9477
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	5.7000e-004	5.3000e-004	4.7300e-003	1.0000e-005	1.0300e-003	1.0000e-005	1.0400e-003	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	0.9826	0.9826	4.0000e-005	0.0000	0.9837
Total	**1.6600e-003**	**0.0390**	**0.0126**	**1.1000e-004**	**3.1900e-003**	**1.6000e-004**	**3.3500e-003**	**8.6000e-004**	**1.5000e-004**	**1.0200e-003**	**0.0000**	**10.9209**	**10.9209**	**4.1000e-004**	**0.0000**	**10.9313**

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					0.0124	0.0000	0.0124	1.8700e-003	0.0000	1.8700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0213	0.2095	0.1466	2.4000e-004		0.0115	0.0115		0.0108	0.0108	0.0000	21.0676	21.0676	5.4200e-003	0.0000	21.2030
Total	**0.0213**	**0.2095**	**0.1466**	**2.4000e-004**	**0.0124**	**0.0115**	**0.0239**	**1.8700e-003**	**0.0108**	**0.0126**	**0.0000**	**21.0676**	**21.0676**	**5.4200e-003**	**0.0000**	**21.2030**

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	1.0900e-003	0.0385	7.8200e-003	1.0000e-004	2.0600e-003	1.5000e-004	2.2100e-003	5.7000e-004	1.4000e-004	7.1000e-004	0.0000	9.9383	9.9383	3.7000e-004	0.0000	9.9477
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	5.7000e-004	5.3000e-004	4.7300e-003	1.0000e-005	9.8000e-004	1.0000e-005	9.9000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.9826	0.9826	4.0000e-005	0.0000	0.9837
Total	**1.6600e-003**	**0.0390**	**0.0126**	**1.1000e-004**	**3.0400e-003**	**1.6000e-004**	**3.2000e-003**	**8.3000e-004**	**1.5000e-004**	**9.8000e-004**	**0.0000**	**10.9209**	**10.9209**	**4.1000e-004**	**0.0000**	**10.9313**

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					7.9500e-003	0.0000	7.9500e-003	8.6000e-004	0.0000	8.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.2600e-003	0.0996	0.0563	1.2000e-004		3.8900e-003	3.8900e-003		3.5700e-003	3.5700e-003	0.0000	10.7633	10.7633	3.4800e-003	0.0000	10.8504
Total	**8.2600e-003**	**0.0996**	**0.0563**	**1.2000e-004**	**7.9500e-003**	**3.8900e-003**	**0.0118**	**8.6000e-004**	**3.5700e-003**	**4.4300e-003**	**0.0000**	**10.7633**	**10.7633**	**3.4800e-003**	**0.0000**	**10.8504**

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	1.8000e-004	1.6000e-004	1.4600e-003	0.0000	3.2000e-004	0.0000	3.2000e-004	8.0000e-005	0.0000	9.0000e-005	0.0000	0.3023	0.3023	1.0000e-005	0.0000	0.3027
Total	**1.8000e-004**	**1.6000e-004**	**1.4600e-003**	**0.0000**	**3.2000e-004**	**0.0000**	**3.2000e-004**	**8.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.3023**	**0.3023**	**1.0000e-005**	**0.0000**	**0.3027**

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					3.4000e-003	0.0000	3.4000e-003	3.7000e-004	0.0000	3.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.2600e-003	0.0996	0.0563	1.2000e-004		3.8900e-003	3.8900e-003		3.5700e-003	3.5700e-003	0.0000	10.7633	10.7633	3.4800e-003	0.0000	10.8503
Total	**8.2600e-003**	**0.0996**	**0.0563**	**1.2000e-004**	**3.4000e-003**	**3.8900e-003**	**7.2900e-003**	**3.7000e-004**	**3.5700e-003**	**3.9400e-003**	**0.0000**	**10.7633**	**10.7633**	**3.4800e-003**	**0.0000**	**10.8503**

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	1.8000e-004	1.6000e-004	1.4600e-003	0.0000	3.0000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.3023	0.3023	1.0000e-005	0.0000	0.3027
Total	**1.8000e-004**	**1.6000e-004**	**1.4600e-003**	**0.0000**	**3.0000e-004**	**0.0000**	**3.0000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.3023**	**0.3023**	**1.0000e-005**	**0.0000**	**0.3027**

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					0.0662	0.0000	0.0662	0.0338	0.0000	0.0338	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0192	0.2134	0.0994	2.1000e-004		9.9000e-003	9.9000e-003		9.1100e-003	9.1100e-003	0.0000	18.1111	18.1111	5.8600e-003	0.0000	18.2575
Total	**0.0192**	**0.2134**	**0.0994**	**2.1000e-004**	**0.0662**	**9.9000e-003**	**0.0761**	**0.0338**	**9.1100e-003**	**0.0429**	**0.0000**	**18.1111**	**18.1111**	**5.8600e-003**	**0.0000**	**18.2575**

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	3.4900e-003	0.1235	0.0251	3.3000e-004	6.9400e-003	4.8000e-004	7.4200e-003	1.9100e-003	4.6000e-004	2.3700e-003	0.0000	31.9196	31.9196	1.2000e-003	0.0000	31.9496
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	4.4000e-004	4.1000e-004	3.6400e-003	1.0000e-005	7.9000e-004	1.0000e-005	8.0000e-004	2.1000e-004	1.0000e-005	2.2000e-004	0.0000	0.7558	0.7558	3.0000e-005	0.0000	0.7567
Total	**3.9300e-003**	**0.1239**	**0.0288**	**3.4000e-004**	**7.7300e-003**	**4.9000e-004**	**8.2200e-003**	**2.1200e-003**	**4.7000e-004**	**2.5900e-003**	**0.0000**	**32.6754**	**32.6754**	**1.2300e-003**	**0.0000**	**32.7062**

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					0.0283	0.0000	0.0283	0.0144	0.0000	0.0144	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0192	0.2134	0.0994	2.1000e-004		9.9000e-003	9.9000e-003		9.1100e-003	9.1100e-003	0.0000	18.1111	18.1111	5.8600e-003	0.0000	18.2575
Total	**0.0192**	**0.2134**	**0.0994**	**2.1000e-004**	**0.0283**	**9.9000e-003**	**0.0382**	**0.0144**	**9.1100e-003**	**0.0236**	**0.0000**	**18.1111**	**18.1111**	**5.8600e-003**	**0.0000**	**18.2575**

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	3.4900e-003	0.1235	0.0251	3.3000e-004	6.6300e-003	4.8000e-004	7.1100e-003	1.8300e-003	4.6000e-004	2.2900e-003	0.0000	31.9196	31.9196	1.2000e-003	0.0000	31.9496

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	4.4000e-004	4.1000e-004	3.6400e-003	1.0000e-005	7.5000e-004	1.0000e-005	7.6000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.7558	0.7558	3.0000e-005	0.0000	0.7567
Total	**3.9300e-003**	**0.1239**	**0.0288**	**3.4000e-004**	**7.3800e-003**	**4.9000e-004**	**7.8700e-003**	**2.0300e-003**	**4.7000e-004**	**2.5000e-003**	**0.0000**	**32.6754**	**32.6754**	**1.2300e-003**	**0.0000**	**32.7062**

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	0.0595	0.4533	0.3873	6.5000e-004		0.0247	0.0247		0.0236	0.0236	0.0000	53.9875	53.9875	0.0110	0.0000	54.2615
Total	**0.0595**	**0.4533**	**0.3873**	**6.5000e-004**		**0.0247**	**0.0247**		**0.0236**	**0.0236**	**0.0000**	**53.9875**	**53.9875**	**0.0110**	**0.0000**	**54.2615**

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	2.2000e-003	0.0613	0.0168	1.4000e-004	3.2500e-003	3.3000e-004	3.5900e-003	9.4000e-004	3.2000e-004	1.2600e-003	0.0000	13.3906	13.3906	6.2000e-004	0.0000	13.4060
Worker	5.3500e-003	4.9700e-003	0.0445	1.0000e-004	9.7100e-003	9.0000e-005	9.8000e-003	2.5800e-003	8.0000e-005	2.6600e-003	0.0000	9.2364	9.2364	4.0000e-004	0.0000	9.2463
Total	**7.5500e-003**	**0.0663**	**0.0613**	**2.4000e-004**	**0.0130**	**4.2000e-004**	**0.0134**	**3.5200e-003**	**4.0000e-004**	**3.9200e-003**	**0.0000**	**22.6269**	**22.6269**	**1.0200e-003**	**0.0000**	**22.6523**

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	0.0595	0.4533	0.3873	6.5000e-004		0.0247	0.0247		0.0236	0.0236	0.0000	53.9875	53.9875	0.0110	0.0000	54.2614
Total	**0.0595**	**0.4533**	**0.3873**	**6.5000e-004**		**0.0247**	**0.0247**		**0.0236**	**0.0236**	**0.0000**	**53.9875**	**53.9875**	**0.0110**	**0.0000**	**54.2614**

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	2.2000e-003	0.0613	0.0168	1.4000e-004	3.1100e-003	3.3000e-004	3.4500e-003	9.1000e-004	3.2000e-004	1.2300e-003	0.0000	13.3906	13.3906	6.2000e-004	0.0000	13.4060
Worker	5.3500e-003	4.9700e-003	0.0445	1.0000e-004	9.2100e-003	9.0000e-005	9.2900e-003	2.4600e-003	8.0000e-005	2.5400e-003	0.0000	9.2364	9.2364	4.0000e-004	0.0000	9.2463
Total	**7.5500e-003**	**0.0663**	**0.0613**	**2.4000e-004**	**0.0123**	**4.2000e-004**	**0.0127**	**3.3700e-003**	**4.0000e-004**	**3.7700e-003**	**0.0000**	**22.6269**	**22.6269**	**1.0200e-003**	**0.0000**	**22.6523**

3.5 Building Construction - 2021

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	0.2025	1.5867	1.4417	2.4800e-003		0.0809	0.0809		0.0775	0.0775	0.0000	205.5723	205.5723	0.0404	0.0000	206.5834
Total	**0.2025**	**1.5867**	**1.4417**	**2.4800e-003**		**0.0809**	**0.0809**		**0.0775**	**0.0775**	**0.0000**	**205.5723**	**205.5723**	**0.0404**	**0.0000**	**206.5834**

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	6.9400e-003	0.2137	0.0562	5.3000e-004	0.0124	6.6000e-004	0.0130	3.5800e-003	6.3000e-004	4.2100e-003	0.0000	50.5775	50.5775	2.2500e-003	0.0000	50.6338
Worker	0.0188	0.0169	0.1540	3.8000e-004	0.0370	3.2000e-004	0.0373	9.8300e-003	2.9000e-004	0.0101	0.0000	33.9908	33.9908	1.3500e-003	0.0000	34.0245
Total	**0.0257**	**0.2306**	**0.2102**	**9.1000e-004**	**0.0494**	**9.8000e-004**	**0.0503**	**0.0134**	**9.2000e-004**	**0.0143**	**0.0000**	**84.5682**	**84.5682**	**3.6000e-003**	**0.0000**	**84.6583**

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	0.2025	1.5867	1.4417	2.4800e-003		0.0809	0.0809		0.0775	0.0775	0.0000	205.5720	205.5720	0.0404	0.0000	206.5831

Total	**0.2025**	**1.5867**	**1.4417**	**2.4800e-003**		**0.0809**	**0.0809**		**0.0775**	**0.0775**	**0.0000**	**205.5720**	**205.5720**	**0.0404**	**0.0000**	**206.5831**

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	6.9400e-003	0.2137	0.0562	5.3000e-004	0.0119	6.6000e-004	0.0125	3.4500e-003	6.3000e-004	4.0800e-003	0.0000	50.5775	50.5775	2.2500e-003	0.0000	50.6338
Worker	0.0188	0.0169	0.1540	3.8000e-004	0.0351	3.2000e-004	0.0354	9.3600e-003	2.9000e-004	9.6500e-003	0.0000	33.9908	33.9908	1.3500e-003	0.0000	34.0245
Total	**0.0257**	**0.2306**	**0.2102**	**9.1000e-004**	**0.0469**	**9.8000e-004**	**0.0479**	**0.0128**	**9.2000e-004**	**0.0137**	**0.0000**	**84.5682**	**84.5682**	**3.6000e-003**	**0.0000**	**84.6583**

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	0.0173	0.1738	0.1771	2.7000e-004		9.8500e-003	9.8500e-003		9.0800e-003	9.0800e-003	0.0000	23.2587	23.2587	7.3700e-003	0.0000	23.4429
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0173**	**0.1738**	**0.1771**	**2.7000e-004**		**9.8500e-003**	**9.8500e-003**		**9.0800e-003**	**9.0800e-003**	**0.0000**	**23.2587**	**23.2587**	**7.3700e-003**	**0.0000**	**23.4429**

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	9.8000e-004	9.1000e-004	8.1900e-003	2.0000e-005	1.7900e-003	2.0000e-005	1.8000e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.7006	1.7006	7.0000e-005	0.0000	1.7025
Total	**9.8000e-004**	**9.1000e-004**	**8.1900e-003**	**2.0000e-005**	**1.7900e-003**	**2.0000e-005**	**1.8000e-003**	**4.8000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.7006**	**1.7006**	**7.0000e-005**	**0.0000**	**1.7025**

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	0.0173	0.1738	0.1771	2.7000e-004		9.8500e-003	9.8500e-003		9.0800e-003	9.0800e-003	0.0000	23.2586	23.2586	7.3700e-003	0.0000	23.4429
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0173**	**0.1738**	**0.1771**	**2.7000e-004**		**9.8500e-003**	**9.8500e-003**		**9.0800e-003**	**9.0800e-003**	**0.0000**	**23.2586**	**23.2586**	**7.3700e-003**	**0.0000**	**23.4429**

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	9.8000e-004	9.1000e-004	8.1900e-003	2.0000e-005	1.7000e-003	2.0000e-005	1.7100e-003	4.5000e-004	1.0000e-005	4.7000e-004	0.0000	1.7006	1.7006	7.0000e-005	0.0000	1.7025
Total	**9.8000e-004**	**9.1000e-004**	**8.1900e-003**	**2.0000e-005**	**1.7000e-003**	**2.0000e-005**	**1.7100e-003**	**4.5000e-004**	**1.0000e-005**	**4.7000e-004**	**0.0000**	**1.7006**	**1.7006**	**7.0000e-005**	**0.0000**	**1.7025**

3.7 Architectural Coating - 2021

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	0.1589					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.2200e-003	0.0504	0.0600	1.0000e-004		3.1100e-003	3.1100e-003		3.1100e-003	3.1100e-003	0.0000	8.4257	8.4257	5.8000e-004	0.0000	8.4402
Total	**0.1661**	**0.0504**	**0.0600**	**1.0000e-004**		**3.1100e-003**	**3.1100e-003**		**3.1100e-003**	**3.1100e-003**	**0.0000**	**8.4257**	**8.4257**	**5.8000e-004**	**0.0000**	**8.4402**

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	1.2000e-003	1.0800e-003	9.8300e-003	2.0000e-005	2.3600e-003	2.0000e-005	2.3800e-003	6.3000e-004	2.0000e-005	6.5000e-004	0.0000	2.1696	2.1696	9.0000e-005	0.0000	2.1718
Total	**1.2000e-003**	**1.0800e-003**	**9.8300e-003**	**2.0000e-005**	**2.3600e-003**	**2.0000e-005**	**2.3800e-003**	**6.3000e-004**	**2.0000e-005**	**6.5000e-004**	**0.0000**	**2.1696**	**2.1696**	**9.0000e-005**	**0.0000**	**2.1718**

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	0.1589					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.2200e-003	0.0504	0.0600	1.0000e-004		3.1100e-003	3.1100e-003		3.1100e-003	3.1100e-003	0.0000	8.4257	8.4257	5.8000e-004	0.0000	8.4402
Total	**0.1661**	**0.0504**	**0.0600**	**1.0000e-004**		**3.1100e-003**	**3.1100e-003**		**3.1100e-003**	**3.1100e-003**	**0.0000**	**8.4257**	**8.4257**	**5.8000e-004**	**0.0000**	**8.4402**

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	1.2000e-003	1.0800e-003	9.8300e-003	2.0000e-005	2.2400e-003	2.0000e-005	2.2600e-003	6.0000e-004	2.0000e-005	6.2000e-004	0.0000	2.1696	2.1696	9.0000e-005	0.0000	2.1718
Total	**1.2000e-003**	**1.0800e-003**	**9.8300e-003**	**2.0000e-005**	**2.2400e-003**	**2.0000e-005**	**2.2600e-003**	**6.0000e-004**	**2.0000e-005**	**6.2000e-004**	**0.0000**	**2.1696**	**2.1696**	**9.0000e-005**	**0.0000**	**2.1718**

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	0.0000	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
Unmitigated	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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.543895	0.028716	0.205211	0.131753	0.021859	0.005504	0.019097	0.027308	0.004155	0.002738	0.007724	0.001236	0.000805
General Office Building	0.543895	0.028716	0.205211	0.131753	0.021859	0.005504	0.019097	0.027308	0.004155	0.002738	0.007724	0.001236	0.000805

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	269.7587	269.7587	0.0122	2.5200e-003	270.8157
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	269.7587	269.7587	0.0122	2.5200e-003	270.8157
NaturalGas Mitigated	1.7600e-003	0.0160	0.0134	1.0000e-004		1.2200e-003	1.2200e-003		1.2200e-003	1.2200e-003	0.0000	17.4102	17.4102	3.3000e-004	3.2000e-004	17.5136
NaturalGas Unmitigated	1.7600e-003	0.0160	0.0134	1.0000e-004		1.2200e-003	1.2200e-003		1.2200e-003	1.2200e-003	0.0000	17.4102	17.4102	3.3000e-004	3.2000e-004	17.5136

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					
Enclosed Parking with Elevator	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
General Office Building	326254	1.7600e-003	0.0160	0.0134	1.0000e-004		1.2200e-003	1.2200e-003		1.2200e-003	1.2200e-003	0.0000	17.4102	17.4102	3.3000e-004	3.2000e-004	17.5136
Total		**1.7600e-003**	**0.0160**	**0.0134**	**1.0000e-004**		**1.2200e-003**	**1.2200e-003**		**1.2200e-003**	**1.2200e-003**	**0.0000**	**17.4102**	**17.4102**	**3.3000e-004**	**3.2000e-004**	**17.5136**

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					
Enclosed Parking with Elevator	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
General Office Building	326254	1.7600e-003	0.0160	0.0134	1.0000e-004		1.2200e-003	1.2200e-003		1.2200e-003	1.2200e-003	0.0000	17.4102	17.4102	3.3000e-004	3.2000e-004	17.5136
Total		**1.7600e-003**	**0.0160**	**0.0134**	**1.0000e-004**		**1.2200e-003**	**1.2200e-003**		**1.2200e-003**	**1.2200e-003**	**0.0000**	**17.4102**	**17.4102**	**3.3000e-004**	**3.2000e-004**	**17.5136**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	571936	166.3827	7.5200e-003	1.5600e-003	167.0347
General Office Building	355352	103.3759	4.6700e-003	9.7000e-004	103.7810
Total		**269.7587**	**0.0122**	**2.5300e-003**	**270.8157**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e

Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	571936	166.3827	7.5200e-003	1.5600e-003	167.0347
General Office Building	355352	103.3759	4.6700e-003	9.7000e-004	103.7810
Total		**269.7587**	**0.0122**	**2.5300e-003**	**270.8157**

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	0.1004	3.0000e-005	3.3700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.5500e-003	6.5500e-003	2.0000e-005	0.0000	6.9800e-003
Unmitigated	0.1004	3.0000e-005	3.3700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.5500e-003	6.5500e-003	2.0000e-005	0.0000	6.9800e-003

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	0.0159					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Consumer Products	0.0842					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.1000e-004	3.0000e-005	3.3700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.5500e-003	6.5500e-003	2.0000e-005	0.0000	6.9800e-003
Total	**0.1004**	**3.0000e-005**	**3.3700e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**6.5500e-003**	**6.5500e-003**	**2.0000e-005**	**0.0000**	**6.9800e-003**

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	0.0159					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0842					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.1000e-004	3.0000e-005	3.3700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.5500e-003	6.5500e-003	2.0000e-005	0.0000	6.9800e-003
Total	**0.1004**	**3.0000e-005**	**3.3700e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**6.5500e-003**	**6.5500e-003**	**2.0000e-005**	**0.0000**	**6.9800e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	8.9102	0.1158	2.8000e-003	12.6385

Unmitigated	8.9102	0.1158	2.8000e-003	12.6385

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	3.54223 / 2.17105	8.9102	0.1158	2.8000e-003	12.6385
Total		**8.9102**	**0.1158**	**2.8000e-003**	**12.6385**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	3.54223 / 2.17105	8.9102	0.1158	2.8000e-003	12.6385
Total		**8.9102**	**0.1158**	**2.8000e-003**	**12.6385**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	3.7614	0.2223	0.0000	9.3188
Unmitigated	3.7614	0.2223	0.0000	9.3188

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	18.53	3.7614	0.2223	0.0000	9.3188
Total		**3.7614**	**0.2223**	**0.0000**	**9.3188**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e

Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	18.53	3.7614	0.2223	0.0000	9.3188
Total		**3.7614**	**0.2223**	**0.0000**	**9.3188**

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

SVMHS Parking Annex
Monterey County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	244.00	Space	2.20	97,600.00	0
General Office Building	19.93	1000sqft	0.46	19,930.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.6	**Precipitation Freq (Days)**	55
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Construction run only

Construction Phase - Anticipated construction schedule

Grading - Anticipated export

Demolition - Estimated demolition portion of garage and pavement

Vehicle Trips - No new vehicle trips

Construction Off-road Equipment Mitigation - MBARD Dust control measure

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	66.00
tblConstructionPhase	NumDays	220.00	250.00
tblConstructionPhase	NumDays	6.00	20.00
tblConstructionPhase	NumDays	10.00	30.00
tblConstructionPhase	NumDays	3.00	10.00
tblConstructionPhase	PhaseEndDate	7/12/2021	12/31/2021
tblConstructionPhase	PhaseEndDate	6/14/2021	10/5/2021
tblConstructionPhase	PhaseEndDate	8/10/2020	9/8/2020
tblConstructionPhase	PhaseEndDate	6/28/2021	10/20/2020
tblConstructionPhase	PhaseEndDate	7/31/2020	8/11/2020
tblConstructionPhase	PhaseStartDate	6/29/2021	10/1/2021
tblConstructionPhase	PhaseStartDate	8/11/2020	10/21/2020
tblConstructionPhase	PhaseStartDate	8/1/2020	8/12/2020
tblConstructionPhase	PhaseStartDate	6/15/2021	9/9/2020
tblGrading	MaterialExported	0.00	6,550.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	WD_TR	11.03	0.00

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	2.5783	33.4664	17.3104	0.0550	7.4190	1.1682	8.4575	3.5956	1.0912	4.5527	0.0000	5,632.6512	5,632.6512	0.7778	0.0000	5,652.0963
2021	7.3762	19.8650	18.8721	0.0382	0.5886	0.9217	1.5103	0.1590	0.8869	1.0460	0.0000	3,619.3626	3,619.3626	0.5126	0.0000	3,632.1773
Maximum	**7.3762**	**33.4664**	**18.8721**	**0.0550**	**7.4190**	**1.1682**	**8.4575**	**3.5956**	**1.0912**	**4.5527**	**0.0000**	**5,632.6512**	**5,632.6512**	**0.7778**	**0.0000**	**5,652.0963**

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	2.5783	33.4664	17.3104	0.0550	3.5908	1.1682	4.6293	1.6526	1.0912	2.6097	0.0000	5,632.6512	5,632.6512	0.7778	0.0000	5,652.0963
2021	7.3762	19.8650	18.8721	0.0382	0.5591	0.9217	1.4808	0.1518	0.8869	1.0387	0.0000	3,619.3626	3,619.3626	0.5126	0.0000	3,632.1773
Maximum	**7.3762**	**33.4664**	**18.8721**	**0.0550**	**3.5908**	**1.1682**	**4.6293**	**1.6526**	**1.0912**	**2.6097**	**0.0000**	**5,632.6512**	**5,632.6512**	**0.7778**	**0.0000**	**5,652.0963**

	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**	**48.18**	**0.00**	**38.70**	**51.94**	**0.00**	**34.83**	**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	0.5507	2.5000e-004	0.0270	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0578	0.0578	1.5000e-004		0.0616
Energy	9.6400e-003	0.0876	0.0736	5.3000e-004		6.6600e-003	6.6600e-003		6.6600e-003	6.6600e-003		105.1585	105.1585	2.0200e-003	1.9300e-003	105.7834
Mobile	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	**0.5603**	**0.0879**	**0.1006**	**5.3000e-004**	**0.0000**	**6.7600e-003**	**6.7600e-003**	**0.0000**	**6.7600e-003**	**6.7600e-003**		**105.2162**	**105.2162**	**2.1700e-003**	**1.9300e-003**	**105.8449**

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	0.5507	2.5000e-004	0.0270	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0578	0.0578	1.5000e-004		0.0616
Energy	9.6400e-003	0.0876	0.0736	5.3000e-004		6.6600e-003	6.6600e-003		6.6600e-003	6.6600e-003		105.1585	105.1585	2.0200e-003	1.9300e-003	105.7834
Mobile	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	**0.5603**	**0.0879**	**0.1006**	**5.3000e-004**	**0.0000**	**6.7600e-003**	**6.7600e-003**	**0.0000**	**6.7600e-003**	**6.7600e-003**		**105.2162**	**105.2162**	**2.1700e-003**	**1.9300e-003**	**105.8449**

	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	7/1/2020	7/28/2020	5	20	

2	Site Preparation	Site Preparation	7/29/2020	8/11/2020	5	10	
3	Grading	Grading	8/12/2020	9/8/2020	5	20	
4	Building Construction	Building Construction	10/21/2020	10/5/2021	5	250	
5	Paving	Paving	9/9/2020	10/20/2020	5	30	
6	Architectural Coating	Architectural Coating	10/1/2021	12/31/2021	5	66	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 10

Acres of Paving: 2.2

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 29,895; Non-Residential Outdoor: 9,965; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41

Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Welders	3	8.00	46	0.45

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
Architectural Coating	1	9.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	47.00	19.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	5	13.00	0.00	255.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	819.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

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					2.8888	0.0000	2.8888	0.4375	0.0000	0.4375			0.0000			0.0000

Off-Road	2.1262	20.9463	14.6573	0.0241		1.1525	1.1525		1.0761	1.0761		2,322.3127	2,322.3127	0.5970		2,337.2363
Total	**2.1262**	**20.9463**	**14.6573**	**0.0241**	**2.8888**	**1.1525**	**4.0413**	**0.4375**	**1.0761**	**1.5136**		**2,322.3127**	**2,322.3127**	**0.5970**		**2,337.2363**

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	0.1071	3.7640	0.7571	0.0104	0.2224	0.0148	0.2372	0.0609	0.0142	0.0751		1,104.6196	1,104.6196	0.0400		1,105.6186
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	0.0574	0.0462	0.4995	1.1600e-003	0.1068	9.2000e-004	0.1077	0.0283	8.5000e-004	0.0292		115.0071	115.0071	4.9100e-003		115.1299
Total	**0.1645**	**3.8102**	**1.2566**	**0.0116**	**0.3292**	**0.0157**	**0.3449**	**0.0893**	**0.0150**	**0.1043**		**1,219.6267**	**1,219.6267**	**0.0449**		**1,220.7485**

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					1.2350	0.0000	1.2350	0.1870	0.0000	0.1870			0.0000			0.0000
Off-Road	2.1262	20.9463	14.6573	0.0241		1.1525	1.1525		1.0761	1.0761	0.0000	2,322.3127	2,322.3127	0.5970		2,337.2363
Total	**2.1262**	**20.9463**	**14.6573**	**0.0241**	**1.2350**	**1.1525**	**2.3874**	**0.1870**	**1.0761**	**1.2632**	**0.0000**	**2,322.3127**	**2,322.3127**	**0.5970**		**2,337.2363**

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	0.1071	3.7640	0.7571	0.0104	0.2123	0.0148	0.2271	0.0584	0.0142	0.0726		1,104.6196	1,104.6196	0.0400		1,105.6186
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	0.0574	0.0462	0.4995	1.1600e-003	0.1012	9.2000e-004	0.1022	0.0270	8.5000e-004	0.0278		115.0071	115.0071	4.9100e-003		115.1299
Total	**0.1645**	**3.8102**	**1.2566**	**0.0116**	**0.3135**	**0.0157**	**0.3293**	**0.0854**	**0.0150**	**0.1004**		**1,219.6267**	**1,219.6267**	**0.0449**		**1,220.7485**

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					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.6521	19.9196	11.2678	0.0245		0.7771	0.7771		0.7149	0.7149		2,372.9062	2,372.9062	0.7675		2,392.0924
Total	**1.6521**	**19.9196**	**11.2678**	**0.0245**	**1.5908**	**0.7771**	**2.3678**	**0.1718**	**0.7149**	**0.8867**		**2,372.9062**	**2,372.9062**	**0.7675**		**2,392.0924**

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	0.0353	0.0285	0.3074	7.1000e-004	0.0657	5.7000e-004	0.0663	0.0174	5.2000e-004	0.0180		70.7736	70.7736	3.0200e-003		70.8492
Total	**0.0353**	**0.0285**	**0.3074**	**7.1000e-004**	**0.0657**	**5.7000e-004**	**0.0663**	**0.0174**	**5.2000e-004**	**0.0180**		**70.7736**	**70.7736**	**3.0200e-003**		**70.8492**

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					0.6801	0.0000	0.6801	0.0734	0.0000	0.0734			0.0000			0.0000
Off-Road	1.6521	19.9196	11.2678	0.0245		0.7771	0.7771		0.7149	0.7149	0.0000	2,372.9062	2,372.9062	0.7675		2,392.0924
Total	**1.6521**	**19.9196**	**11.2678**	**0.0245**	**0.6801**	**0.7771**	**1.4571**	**0.0734**	**0.7149**	**0.7883**	**0.0000**	**2,372.9062**	**2,372.9062**	**0.7675**		**2,392.0924**

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	0.0353	0.0285	0.3074	7.1000e-004	0.0623	5.7000e-004	0.0629	0.0166	5.2000e-004	0.0171		70.7736	70.7736	3.0200e-003		70.8492
Total	**0.0353**	**0.0285**	**0.3074**	**7.1000e-004**	**0.0623**	**5.7000e-004**	**0.0629**	**0.0166**	**5.2000e-004**	**0.0171**		**70.7736**	**70.7736**	**3.0200e-003**		**70.8492**

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					6.6226	0.0000	6.6226	3.3781	0.0000	3.3781			0.0000			0.0000
Off-Road	1.9219	21.3418	9.9355	0.0206		0.9902	0.9902		0.9110	0.9110		1,996.4061	1,996.4061	0.6457		2,012.5480
Total	**1.9219**	**21.3418**	**9.9355**	**0.0206**	**6.6226**	**0.9902**	**7.6128**	**3.3781**	**0.9110**	**4.2891**		**1,996.4061**	**1,996.4061**	**0.6457**		**2,012.5480**

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	0.3439	12.0891	2.4315	0.0335	0.7143	0.0476	0.7619	0.1957	0.0455	0.2412		3,547.7782	3,547.7782	0.1284		3,550.9868
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	0.0442	0.0356	0.3842	8.9000e-004	0.0822	7.1000e-004	0.0829	0.0218	6.5000e-004	0.0224		88.4670	88.4670	3.7800e-003		88.5614
Total	**0.3880**	**12.1246**	**2.8157**	**0.0344**	**0.7964**	**0.0483**	**0.8447**	**0.2174**	**0.0462**	**0.2636**		**3,636.2452**	**3,636.2452**	**0.1321**		**3,639.5482**

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					2.8312	0.0000	2.8312	1.4442	0.0000	1.4442			0.0000			0.0000
Off-Road	1.9219	21.3418	9.9355	0.0206		0.9902	0.9902		0.9110	0.9110	0.0000	1,996.4061	1,996.4061	0.6457		2,012.5480
Total	**1.9219**	**21.3418**	**9.9355**	**0.0206**	**2.8312**	**0.9902**	**3.8213**	**1.4442**	**0.9110**	**2.3551**	**0.0000**	**1,996.4061**	**1,996.4061**	**0.6457**		**2,012.5480**

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	0.3439	12.0891	2.4315	0.0335	0.6818	0.0476	0.7294	0.1877	0.0455	0.2332		3,547.7782	3,547.7782	0.1284		3,550.9868
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	0.0442	0.0356	0.3842	8.9000e-004	0.0779	7.1000e-004	0.0786	0.0207	6.5000e-004	0.0214		88.4670	88.4670	3.7800e-003		88.5614
Total	**0.3880**	**12.1246**	**2.8157**	**0.0344**	**0.7597**	**0.0483**	**0.8080**	**0.2084**	**0.0462**	**0.2546**		**3,636.2452**	**3,636.2452**	**0.1321**		**3,639.5482**

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	2.2879	17.4336	14.8972	0.0250		0.9482	0.9482		0.9089	0.9089		2,288.8877	2,288.8877	0.4646		2,300.5014
Total	**2.2879**	**17.4336**	**14.8972**	**0.0250**		**0.9482**	**0.9482**		**0.9089**	**0.9089**		**2,288.8877**	**2,288.8877**	**0.4646**		**2,300.5014**

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	0.0829	2.3263	0.6073	5.4600e-003	0.1285	0.0127	0.1412	0.0370	0.0122	0.0492		574.7070	574.7070	0.0252		575.3374
Worker	0.2076	0.1671	1.8059	4.1800e-003	0.3861	3.3400e-003	0.3894	0.1024	3.0800e-003	0.1055		415.7950	415.7950	0.0178		416.2388
Total	**0.2905**	**2.4935**	**2.4132**	**9.6400e-003**	**0.5146**	**0.0161**	**0.5307**	**0.1394**	**0.0152**	**0.1546**		**990.5019**	**990.5019**	**0.0430**		**991.5762**

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	2.2879	17.4336	14.8972	0.0250		0.9482	0.9482		0.9089	0.9089	0.0000	2,288.8877	2,288.8877	0.4646		2,300.5014
Total	**2.2879**	**17.4336**	**14.8972**	**0.0250**		**0.9482**	**0.9482**		**0.9089**	**0.9089**	**0.0000**	**2,288.8877**	**2,288.8877**	**0.4646**		**2,300.5014**

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	0.0829	2.3263	0.6073	5.4600e-003	0.1230	0.0127	0.1357	0.0356	0.0122	0.0478		574.7070	574.7070	0.0252		575.3374
Worker	0.2076	0.1671	1.8059	4.1800e-003	0.3660	3.3400e-003	0.3693	0.0975	3.0800e-003	0.1006		415.7950	415.7950	0.0178		416.2388
Total	**0.2905**	**2.4935**	**2.4132**	**9.6400e-003**	**0.4890**	**0.0161**	**0.5050**	**0.1331**	**0.0152**	**0.1484**		**990.5019**	**990.5019**	**0.0430**		**991.5762**

3.5 Building Construction - 2021

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	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831		2,288.9355	2,288.9355	0.4503		2,300.1935
Total	**2.0451**	**16.0275**	**14.5629**	**0.0250**		**0.8173**	**0.8173**		**0.7831**	**0.7831**		**2,288.9355**	**2,288.9355**	**0.4503**		**2,300.1935**

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	0.0684	2.1329	0.5316	5.4200e-003	0.1285	6.5000e-003	0.1350	0.0370	6.2200e-003	0.0432		570.1625	570.1625	0.0241		570.7646
Worker	0.1915	0.1492	1.6450	4.0400e-003	0.3861	3.2200e-003	0.3893	0.1024	2.9700e-003	0.1054		401.8639	401.8639	0.0158		402.2598
Total	**0.2598**	**2.2820**	**2.1766**	**9.4600e-003**	**0.5146**	**9.7200e-003**	**0.5244**	**0.1394**	**9.1900e-003**	**0.1486**		**972.0264**	**972.0264**	**0.0399**		**973.0244**

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	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831	0.0000	2,288.9355	2,288.9355	0.4503		2,300.1935
Total	**2.0451**	**16.0275**	**14.5629**	**0.0250**		**0.8173**	**0.8173**		**0.7831**	**0.7831**	**0.0000**	**2,288.9355**	**2,288.9355**	**0.4503**		**2,300.1935**

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	0.0684	2.1329	0.5316	5.4200e-003	0.1230	6.5000e-003	0.1295	0.0356	6.2200e-003	0.0419		570.1625	570.1625	0.0241		570.7646
Worker	0.1915	0.1492	1.6450	4.0400e-003	0.3660	3.2200e-003	0.3692	0.0975	2.9700e-003	0.1004		401.8639	401.8639	0.0158		402.2598
Total	**0.2598**	**2.2820**	**2.1766**	**9.4600e-003**	**0.4890**	**9.7200e-003**	**0.4987**	**0.1331**	**9.1900e-003**	**0.1423**		**972.0264**	**972.0264**	**0.0399**		**973.0244**

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	1.1547	11.5873	11.8076	0.0178		0.6565	0.6565		0.6051	0.6051		1,709.2180	1,709.2180	0.5417		1,722.7605
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1547**	**11.5873**	**11.8076**	**0.0178**		**0.6565**	**0.6565**		**0.6051**	**0.6051**		**1,709.2180**	**1,709.2180**	**0.5417**		**1,722.7605**

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	0.0662	0.0533	0.5764	1.3300e-003	0.1232	1.0700e-003	0.1243	0.0327	9.8000e-004	0.0337		132.7005	132.7005	5.6700e-003		132.8422

Total	**0.0662**	**0.0533**	**0.5764**	**1.3300e-003**	**0.1232**	**1.0700e-003**	**0.1243**	**0.0327**	**9.8000e-004**	**0.0337**		**132.7005**	**132.7005**	**5.6700e-003**		**132.8422**

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	1.1547	11.5873	11.8076	0.0178		0.6565	0.6565		0.6051	0.6051	0.0000	1,709.2180	1,709.2180	0.5417		1,722.7605
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1547**	**11.5873**	**11.8076**	**0.0178**		**0.6565**	**0.6565**		**0.6051**	**0.6051**	**0.0000**	**1,709.2180**	**1,709.2180**	**0.5417**		**1,722.7605**

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	0.0662	0.0533	0.5764	1.3300e-003	0.1168	1.0700e-003	0.1179	0.0311	9.8000e-004	0.0321		132.7005	132.7005	5.6700e-003		132.8422
Total	**0.0662**	**0.0533**	**0.5764**	**1.3300e-003**	**0.1168**	**1.0700e-003**	**0.1179**	**0.0311**	**9.8000e-004**	**0.0321**		**132.7005**	**132.7005**	**5.6700e-003**		**132.8422**

3.7 Architectural Coating - 2021

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	4.8158					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**5.0347**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

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	0.0367	0.0286	0.3150	7.7000e-004	0.0739	6.2000e-004	0.0746	0.0196	5.7000e-004	0.0202		76.9527	76.9527	3.0300e-003		77.0285
Total	**0.0367**	**0.0286**	**0.3150**	**7.7000e-004**	**0.0739**	**6.2000e-004**	**0.0746**	**0.0196**	**5.7000e-004**	**0.0202**		**76.9527**	**76.9527**	**3.0300e-003**		**77.0285**

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	4.8158					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	**5.0347**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.9309**

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	0.0367	0.0286	0.3150	7.7000e-004	0.0701	6.2000e-004	0.0707	0.0187	5.7000e-004	0.0192		76.9527	76.9527	3.0300e-003		77.0285
Total	**0.0367**	**0.0286**	**0.3150**	**7.7000e-004**	**0.0701**	**6.2000e-004**	**0.0707**	**0.0187**	**5.7000e-004**	**0.0192**		**76.9527**	**76.9527**	**3.0300e-003**		**77.0285**

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	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
Unmitigated	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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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-...	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.543895	0.028716	0.205211	0.131753	0.021859	0.005504	0.019097	0.027308	0.004155	0.002738	0.007724	0.001236	0.000805
General Office Building	0.543895	0.028716	0.205211	0.131753	0.021859	0.005504	0.019097	0.027308	0.004155	0.002738	0.007724	0.001236	0.000805

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	9.6400e-003	0.0876	0.0736	5.3000e-004		6.6600e-003	6.6600e-003		6.6600e-003	6.6600e-003		105.1585	105.1585	2.0200e-003	1.9300e-003	105.7834
NaturalGas Unmitigated	9.6400e-003	0.0876	0.0736	5.3000e-004		6.6600e-003	6.6600e-003		6.6600e-003	6.6600e-003		105.1585	105.1585	2.0200e-003	1.9300e-003	105.7834

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					
Enclosed Parking with Elevator	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
General Office Building	893.847	9.6400e-003	0.0876	0.0736	5.3000e-004		6.6600e-003	6.6600e-003		6.6600e-003	6.6600e-003		105.1585	105.1585	2.0200e-003	1.9300e-003	105.7834
Total		**9.6400e-003**	**0.0876**	**0.0736**	**5.3000e-004**		**6.6600e-003**	**6.6600e-003**		**6.6600e-003**	**6.6600e-003**		**105.1585**	**105.1585**	**2.0200e-003**	**1.9300e-003**	**105.7834**

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					
Enclosed Parking with Elevator	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
General Office Building	0.893847	9.6400e-003	0.0876	0.0736	5.3000e-004		6.6600e-003	6.6600e-003		6.6600e-003	6.6600e-003		105.1585	105.1585	2.0200e-003	1.9300e-003	105.7834

Total		**9.6400e-003**	**0.0876**	**0.0736**	**5.3000e-004**		**6.6600e-003**	**6.6600e-003**		**6.6600e-003**	**6.6600e-003**		**105.1585**	**105.1585**	**2.0200e-003**	**1.9300e-003**	**105.7834**

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	0.5507	2.5000e-004	0.0270	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0578	0.0578	1.5000e-004		0.0616
Unmitigated	0.5507	2.5000e-004	0.0270	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0578	0.0578	1.5000e-004		0.0616

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	0.0871					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4611					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.5100e-003	2.5000e-004	0.0270	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0578	0.0578	1.5000e-004		0.0616
Total	**0.5507**	**2.5000e-004**	**0.0270**	**0.0000**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**		**0.0578**	**0.0578**	**1.5000e-004**		**0.0616**

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	0.0871					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4611					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.5100e-003	2.5000e-004	0.0270	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0578	0.0578	1.5000e-004		0.0616
Total	**0.5507**	**2.5000e-004**	**0.0270**	**0.0000**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**		**0.0578**	**0.0578**	**1.5000e-004**		**0.0616**

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

SVMHS Parking Annex

Monterey County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	244.00	Space	2.20	97,600.00	0
General Office Building	19.93	1000sqft	0.46	19,930.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.6	**Precipitation Freq (Days)**	55
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Construction run only

Construction Phase - Anticipated construction schedule

Grading - Anticipated export

Demolition - Estimated demolition portion of garage and pavement

Vehicle Trips - No new vehicle trips

Construction Off-road Equipment Mitigation - MBARD Dust control measure

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	66.00
tblConstructionPhase	NumDays	220.00	250.00
tblConstructionPhase	NumDays	6.00	20.00
tblConstructionPhase	NumDays	10.00	30.00
tblConstructionPhase	NumDays	3.00	10.00
tblConstructionPhase	PhaseEndDate	7/12/2021	12/31/2021
tblConstructionPhase	PhaseEndDate	6/14/2021	10/5/2021
tblConstructionPhase	PhaseEndDate	8/10/2020	9/8/2020
tblConstructionPhase	PhaseEndDate	6/28/2021	10/20/2020
tblConstructionPhase	PhaseEndDate	7/31/2020	8/11/2020
tblConstructionPhase	PhaseStartDate	6/29/2021	10/1/2021
tblConstructionPhase	PhaseStartDate	8/11/2020	10/21/2020
tblConstructionPhase	PhaseStartDate	8/1/2020	8/12/2020
tblConstructionPhase	PhaseStartDate	6/15/2021	9/9/2020
tblGrading	MaterialExported	0.00	6,550.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	WD_TR	11.03	0.00

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	2.6015	33.7610	17.3675	0.0543	7.4190	1.1686	8.4587	3.5956	1.0915	4.5538	0.0000	5,557.3780	5,557.3780	0.7865	0.0000	5,577.0409
2021	7.4007	19.9296	18.9137	0.0378	0.5886	0.9220	1.5106	0.1590	0.8872	1.0462	0.0000	3,572.1904	3,572.1904	0.5140	0.0000	3,585.0394
Maximum	**7.4007**	**33.7610**	**18.9137**	**0.0543**	**7.4190**	**1.1686**	**8.4587**	**3.5956**	**1.0915**	**4.5538**	**0.0000**	**5,557.3780**	**5,557.3780**	**0.7865**	**0.0000**	**5,577.0409**

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	2.6015	33.7610	17.3675	0.0543	3.5908	1.1686	4.6305	1.6526	1.0915	2.6108	0.0000	5,557.3780	5,557.3780	0.7865	0.0000	5,577.0409
2021	7.4007	19.9296	18.9137	0.0378	0.5591	0.9220	1.4811	0.1518	0.8872	1.0390	0.0000	3,572.1904	3,572.1904	0.5140	0.0000	3,585.0394
Maximum	**7.4007**	**33.7610**	**18.9137**	**0.0543**	**3.5908**	**1.1686**	**4.6305**	**1.6526**	**1.0915**	**2.6108**	**0.0000**	**5,557.3780**	**5,557.3780**	**0.7865**	**0.0000**	**5,577.0409**

	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**	**48.18**	**0.00**	**38.70**	**51.94**	**0.00**	**34.83**	**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	0.5507	2.5000e-004	0.0270	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0578	0.0578	1.5000e-004		0.0616
Energy	9.6400e-003	0.0876	0.0736	5.3000e-004		6.6600e-003	6.6600e-003		6.6600e-003	6.6600e-003		105.1585	105.1585	2.0200e-003	1.9300e-003	105.7834
Mobile	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	**0.5603**	**0.0879**	**0.1006**	**5.3000e-004**	**0.0000**	**6.7600e-003**	**6.7600e-003**	**0.0000**	**6.7600e-003**	**6.7600e-003**		**105.2162**	**105.2162**	**2.1700e-003**	**1.9300e-003**	**105.8449**

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	0.5507	2.5000e-004	0.0270	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0578	0.0578	1.5000e-004		0.0616
Energy	9.6400e-003	0.0876	0.0736	5.3000e-004		6.6600e-003	6.6600e-003		6.6600e-003	6.6600e-003		105.1585	105.1585	2.0200e-003	1.9300e-003	105.7834
Mobile	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	**0.5603**	**0.0879**	**0.1006**	**5.3000e-004**	**0.0000**	**6.7600e-003**	**6.7600e-003**	**0.0000**	**6.7600e-003**	**6.7600e-003**		**105.2162**	**105.2162**	**2.1700e-003**	**1.9300e-003**	**105.8449**

	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	7/1/2020	7/28/2020	5	20	

2	Site Preparation	Site Preparation	7/29/2020	8/11/2020	5	10	
3	Grading	Grading	8/12/2020	9/8/2020	5	20	
4	Building Construction	Building Construction	10/21/2020	10/5/2021	5	250	
5	Paving	Paving	9/9/2020	10/20/2020	5	30	
6	Architectural Coating	Architectural Coating	10/1/2021	12/31/2021	5	66	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 10

Acres of Paving: 2.2

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 29,895; Non-Residential Outdoor: 9,965; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41

Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Welders	3	8.00	46	0.45

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
Architectural Coating	1	9.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	47.00	19.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	5	13.00	0.00	255.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	819.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

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					2.8888	0.0000	2.8888	0.4375	0.0000	0.4375			0.0000			0.0000

Off-Road	2.1262	20.9463	14.6573	0.0241		1.1525	1.1525		1.0761	1.0761		2,322.3127	2,322.3127	0.5970		2,337.2363
Total	**2.1262**	**20.9463**	**14.6573**	**0.0241**	**2.8888**	**1.1525**	**4.0413**	**0.4375**	**1.0761**	**1.5136**		**2,322.3127**	**2,322.3127**	**0.5970**		**2,337.2363**

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	0.1106	3.8529	0.8190	0.0102	0.2224	0.0152	0.2376	0.0609	0.0145	0.0754		1,082.9370	1,082.9370	0.0427		1,084.0053
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	0.0625	0.0582	0.4915	1.0800e-003	0.1068	9.2000e-004	0.1077	0.0283	8.5000e-004	0.0292		107.6830	107.6830	4.6800e-003		107.8000
Total	**0.1731**	**3.9110**	**1.3105**	**0.0113**	**0.3292**	**0.0161**	**0.3453**	**0.0893**	**0.0154**	**0.1046**		**1,190.6200**	**1,190.6200**	**0.0474**		**1,191.8053**

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					1.2350	0.0000	1.2350	0.1870	0.0000	0.1870			0.0000			0.0000
Off-Road	2.1262	20.9463	14.6573	0.0241		1.1525	1.1525		1.0761	1.0761	0.0000	2,322.3127	2,322.3127	0.5970		2,337.2363
Total	**2.1262**	**20.9463**	**14.6573**	**0.0241**	**1.2350**	**1.1525**	**2.3874**	**0.1870**	**1.0761**	**1.2632**	**0.0000**	**2,322.3127**	**2,322.3127**	**0.5970**		**2,337.2363**

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	0.1106	3.8529	0.8190	0.0102	0.2123	0.0152	0.2275	0.0584	0.0145	0.0730		1,082.9370	1,082.9370	0.0427		1,084.0053
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	0.0625	0.0582	0.4915	1.0800e-003	0.1012	9.2000e-004	0.1022	0.0270	8.5000e-004	0.0278		107.6830	107.6830	4.6800e-003		107.8000
Total	**0.1731**	**3.9110**	**1.3105**	**0.0113**	**0.3135**	**0.0161**	**0.3296**	**0.0854**	**0.0154**	**0.1008**		**1,190.6200**	**1,190.6200**	**0.0474**		**1,191.8053**

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					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.6521	19.9196	11.2678	0.0245		0.7771	0.7771		0.7149	0.7149		2,372.9062	2,372.9062	0.7675		2,392.0924
Total	**1.6521**	**19.9196**	**11.2678**	**0.0245**	**1.5908**	**0.7771**	**2.3678**	**0.1718**	**0.7149**	**0.8867**		**2,372.9062**	**2,372.9062**	**0.7675**		**2,392.0924**

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	0.0385	0.0358	0.3025	6.7000e-004	0.0657	5.7000e-004	0.0663	0.0174	5.2000e-004	0.0180		66.2664	66.2664	2.8800e-003		66.3385
Total	**0.0385**	**0.0358**	**0.3025**	**6.7000e-004**	**0.0657**	**5.7000e-004**	**0.0663**	**0.0174**	**5.2000e-004**	**0.0180**		**66.2664**	**66.2664**	**2.8800e-003**		**66.3385**

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					0.6801	0.0000	0.6801	0.0734	0.0000	0.0734			0.0000			0.0000
Off-Road	1.6521	19.9196	11.2678	0.0245		0.7771	0.7771		0.7149	0.7149	0.0000	2,372.9062	2,372.9062	0.7675		2,392.0924
Total	**1.6521**	**19.9196**	**11.2678**	**0.0245**	**0.6801**	**0.7771**	**1.4571**	**0.0734**	**0.7149**	**0.7883**	**0.0000**	**2,372.9062**	**2,372.9062**	**0.7675**		**2,392.0924**

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	0.0385	0.0358	0.3025	6.7000e-004	0.0623	5.7000e-004	0.0629	0.0166	5.2000e-004	0.0171		66.2664	66.2664	2.8800e-003		66.3385
Total	**0.0385**	**0.0358**	**0.3025**	**6.7000e-004**	**0.0623**	**5.7000e-004**	**0.0629**	**0.0166**	**5.2000e-004**	**0.0171**		**66.2664**	**66.2664**	**2.8800e-003**		**66.3385**

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					6.6226	0.0000	6.6226	3.3781	0.0000	3.3781			0.0000			0.0000
Off-Road	1.9219	21.3418	9.9355	0.0206		0.9902	0.9902		0.9110	0.9110		1,996.4061	1,996.4061	0.6457		2,012.5480
Total	**1.9219**	**21.3418**	**9.9355**	**0.0206**	**6.6226**	**0.9902**	**7.6128**	**3.3781**	**0.9110**	**4.2891**		**1,996.4061**	**1,996.4061**	**0.6457**		**2,012.5480**

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	0.3552	12.3744	2.6305	0.0328	0.7143	0.0488	0.7630	0.1957	0.0466	0.2423		3,478.1389	3,478.1389	0.1372		3,481.5698
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	0.0481	0.0448	0.3781	8.3000e-004	0.0822	7.1000e-004	0.0829	0.0218	6.5000e-004	0.0224		82.8331	82.8331	3.6000e-003		82.9231
Total	**0.4033**	**12.4192**	**3.0085**	**0.0337**	**0.7964**	**0.0495**	**0.8459**	**0.2174**	**0.0473**	**0.2647**		**3,560.9720**	**3,560.9720**	**0.1408**		**3,564.4929**

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					2.8312	0.0000	2.8312	1.4442	0.0000	1.4442			0.0000			0.0000
Off-Road	1.9219	21.3418	9.9355	0.0206		0.9902	0.9902		0.9110	0.9110	0.0000	1,996.4061	1,996.4061	0.6457		2,012.5480
Total	**1.9219**	**21.3418**	**9.9355**	**0.0206**	**2.8312**	**0.9902**	**3.8213**	**1.4442**	**0.9110**	**2.3551**	**0.0000**	**1,996.4061**	**1,996.4061**	**0.6457**		**2,012.5480**

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	0.3552	12.3744	2.6305	0.0328	0.6818	0.0488	0.7306	0.1877	0.0466	0.2343		3,478.1389	3,478.1389	0.1372		3,481.5698
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	0.0481	0.0448	0.3781	8.3000e-004	0.0779	7.1000e-004	0.0786	0.0207	6.5000e-004	0.0214		82.8331	82.8331	3.6000e-003		82.9231
Total	**0.4033**	**12.4192**	**3.0085**	**0.0337**	**0.7597**	**0.0495**	**0.8091**	**0.2084**	**0.0473**	**0.2557**		**3,560.9720**	**3,560.9720**	**0.1408**		**3,564.4929**

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	2.2879	17.4336	14.8972	0.0250		0.9482	0.9482		0.9089	0.9089		2,288.8877	2,288.8877	0.4646		2,300.5014
Total	**2.2879**	**17.4336**	**14.8972**	**0.0250**		**0.9482**	**0.9482**		**0.9089**	**0.9089**		**2,288.8877**	**2,288.8877**	**0.4646**		**2,300.5014**

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	0.0877	2.3533	0.6933	5.3100e-003	0.1285	0.0131	0.1416	0.0370	0.0125	0.0495		558.0707	558.0707	0.0275		558.7584
Worker	0.2259	0.2104	1.7770	3.9200e-003	0.3861	3.3400e-003	0.3894	0.1024	3.0800e-003	0.1055		389.3154	389.3154	0.0169		389.7385
Total	**0.3136**	**2.5637**	**2.4703**	**9.2300e-003**	**0.5146**	**0.0164**	**0.5310**	**0.1394**	**0.0156**	**0.1550**		**947.3860**	**947.3860**	**0.0444**		**948.4969**

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	2.2879	17.4336	14.8972	0.0250		0.9482	0.9482		0.9089	0.9089	0.0000	2,288.8877	2,288.8877	0.4646		2,300.5014
Total	**2.2879**	**17.4336**	**14.8972**	**0.0250**		**0.9482**	**0.9482**		**0.9089**	**0.9089**	**0.0000**	**2,288.8877**	**2,288.8877**	**0.4646**		**2,300.5014**

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	0.0877	2.3533	0.6933	5.3100e-003	0.1230	0.0131	0.1361	0.0356	0.0125	0.0481		558.0707	558.0707	0.0275		558.7584
Worker	0.2259	0.2104	1.7770	3.9200e-003	0.3660	3.3400e-003	0.3693	0.0975	3.0800e-003	0.1006		389.3154	389.3154	0.0169		389.7385
Total	**0.3136**	**2.5637**	**2.4703**	**9.2300e-003**	**0.4890**	**0.0164**	**0.5054**	**0.1331**	**0.0156**	**0.1487**		**947.3860**	**947.3860**	**0.0444**		**948.4969**

3.5 Building Construction - 2021

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	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831		2,288.9355	2,288.9355	0.4503		2,300.1935
Total	**2.0451**	**16.0275**	**14.5629**	**0.0250**		**0.8173**	**0.8173**		**0.7831**	**0.7831**		**2,288.9355**	**2,288.9355**	**0.4503**		**2,300.1935**

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	0.0728	2.1516	0.6113	5.2600e-003	0.1285	6.8000e-003	0.1353	0.0370	6.5000e-003	0.0435		553.4850	553.4850	0.0264		554.1447
Worker	0.2083	0.1878	1.6130	3.7800e-003	0.3861	3.2200e-003	0.3893	0.1024	2.9700e-003	0.1054		376.2701	376.2701	0.0151		376.6465
Total	**0.2811**	**2.3393**	**2.2243**	**9.0400e-003**	**0.5146**	**0.0100**	**0.5247**	**0.1394**	**9.4700e-003**	**0.1489**		**929.7551**	**929.7551**	**0.0415**		**930.7911**

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	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831	0.0000	2,288.9355	2,288.9355	0.4503		2,300.1935
Total	**2.0451**	**16.0275**	**14.5629**	**0.0250**		**0.8173**	**0.8173**		**0.7831**	**0.7831**	**0.0000**	**2,288.9355**	**2,288.9355**	**0.4503**		**2,300.1935**

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	0.0728	2.1516	0.6113	5.2600e-003	0.1230	6.8000e-003	0.1298	0.0356	6.5000e-003	0.0422		553.4850	553.4850	0.0264		554.1447
Worker	0.2083	0.1878	1.6130	3.7800e-003	0.3660	3.2200e-003	0.3692	0.0975	2.9700e-003	0.1004		376.2701	376.2701	0.0151		376.6465
Total	**0.2811**	**2.3393**	**2.2243**	**9.0400e-003**	**0.4890**	**0.0100**	**0.4990**	**0.1331**	**9.4700e-003**	**0.1426**		**929.7551**	**929.7551**	**0.0415**		**930.7911**

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	1.1547	11.5873	11.8076	0.0178		0.6565	0.6565		0.6051	0.6051		1,709.2180	1,709.2180	0.5417		1,722.7605
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1547**	**11.5873**	**11.8076**	**0.0178**		**0.6565**	**0.6565**		**0.6051**	**0.6051**		**1,709.2180**	**1,709.2180**	**0.5417**		**1,722.7605**

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	0.0721	0.0672	0.5671	1.2500e-003	0.1232	1.0700e-003	0.1243	0.0327	9.8000e-004	0.0337		124.2496	124.2496	5.4000e-003		124.3846

Total	**0.0721**	**0.0672**	**0.5671**	**1.2500e-003**	**0.1232**	**1.0700e-003**	**0.1243**	**0.0327**	**9.8000e-004**	**0.0337**		**124.2496**	**124.2496**	**5.4000e-003**		**124.3846**

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	1.1547	11.5873	11.8076	0.0178		0.6565	0.6565		0.6051	0.6051	0.0000	1,709.2180	1,709.2180	0.5417		1,722.7605
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1547**	**11.5873**	**11.8076**	**0.0178**		**0.6565**	**0.6565**		**0.6051**	**0.6051**	**0.0000**	**1,709.2180**	**1,709.2180**	**0.5417**		**1,722.7605**

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	0.0721	0.0672	0.5671	1.2500e-003	0.1168	1.0700e-003	0.1179	0.0311	9.8000e-004	0.0321		124.2496	124.2496	5.4000e-003		124.3846
Total	**0.0721**	**0.0672**	**0.5671**	**1.2500e-003**	**0.1168**	**1.0700e-003**	**0.1179**	**0.0311**	**9.8000e-004**	**0.0321**		**124.2496**	**124.2496**	**5.4000e-003**		**124.3846**

3.7 Architectural Coating - 2021

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	4.8158					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**5.0347**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

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	0.0399	0.0360	0.3089	7.2000e-004	0.0739	6.2000e-004	0.0746	0.0196	5.7000e-004	0.0202		72.0517	72.0517	2.8800e-003		72.1238
Total	**0.0399**	**0.0360**	**0.3089**	**7.2000e-004**	**0.0739**	**6.2000e-004**	**0.0746**	**0.0196**	**5.7000e-004**	**0.0202**		**72.0517**	**72.0517**	**2.8800e-003**		**72.1238**

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	4.8158					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	**5.0347**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.9309**

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	0.0399	0.0360	0.3089	7.2000e-004	0.0701	6.2000e-004	0.0707	0.0187	5.7000e-004	0.0192		72.0517	72.0517	2.8800e-003		72.1238
Total	**0.0399**	**0.0360**	**0.3089**	**7.2000e-004**	**0.0701**	**6.2000e-004**	**0.0707**	**0.0187**	**5.7000e-004**	**0.0192**		**72.0517**	**72.0517**	**2.8800e-003**		**72.1238**

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	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
Unmitigated	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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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-...	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.543895	0.028716	0.205211	0.131753	0.021859	0.005504	0.019097	0.027308	0.004155	0.002738	0.007724	0.001236	0.000805
General Office Building	0.543895	0.028716	0.205211	0.131753	0.021859	0.005504	0.019097	0.027308	0.004155	0.002738	0.007724	0.001236	0.000805

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	9.6400e-003	0.0876	0.0736	5.3000e-004		6.6600e-003	6.6600e-003		6.6600e-003	6.6600e-003		105.1585	105.1585	2.0200e-003	1.9300e-003	105.7834
NaturalGas Unmitigated	9.6400e-003	0.0876	0.0736	5.3000e-004		6.6600e-003	6.6600e-003		6.6600e-003	6.6600e-003		105.1585	105.1585	2.0200e-003	1.9300e-003	105.7834

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					
Enclosed Parking with Elevator	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
General Office Building	893.847	9.6400e-003	0.0876	0.0736	5.3000e-004		6.6600e-003	6.6600e-003		6.6600e-003	6.6600e-003		105.1585	105.1585	2.0200e-003	1.9300e-003	105.7834
Total		**9.6400e-003**	**0.0876**	**0.0736**	**5.3000e-004**		**6.6600e-003**	**6.6600e-003**		**6.6600e-003**	**6.6600e-003**		**105.1585**	**105.1585**	**2.0200e-003**	**1.9300e-003**	**105.7834**

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					
Enclosed Parking with Elevator	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
General Office Building	0.893847	9.6400e-003	0.0876	0.0736	5.3000e-004		6.6600e-003	6.6600e-003		6.6600e-003	6.6600e-003		105.1585	105.1585	2.0200e-003	1.9300e-003	105.7834

Total		**9.6400e-003**	**0.0876**	**0.0736**	**5.3000e-004**		**6.6600e-003**	**6.6600e-003**		**6.6600e-003**	**6.6600e-003**		**105.1585**	**105.1585**	**2.0200e-003**	**1.9300e-003**	**105.7834**

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	0.5507	2.5000e-004	0.0270	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0578	0.0578	1.5000e-004		0.0616
Unmitigated	0.5507	2.5000e-004	0.0270	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0578	0.0578	1.5000e-004		0.0616

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	0.0871					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4611					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.5100e-003	2.5000e-004	0.0270	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0578	0.0578	1.5000e-004		0.0616
Total	**0.5507**	**2.5000e-004**	**0.0270**	**0.0000**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**		**0.0578**	**0.0578**	**1.5000e-004**		**0.0616**

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	0.0871					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4611					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.5100e-003	2.5000e-004	0.0270	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0578	0.0578	1.5000e-004		0.0616
Total	**0.5507**	**2.5000e-004**	**0.0270**	**0.0000**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**		**0.0578**	**0.0578**	**1.5000e-004**		**0.0616**

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

Appendix B

CHRIS Records Search Results

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM

ALAMEDA
COLUSA
CONTRA COSTA
DEL NORTE
HUMBOLDT
LAKE
MARIN
MENDOCINO
MONTEREY
NAPA
SAN BENITO
SAN FRANCISCO
SAN MATEO
SANTA CLATA
SANTA CRUZ
SOLANO
SONOMA
YOLO

Northwest Information Center
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nwic@sonoma.edu
http://www.sonoma.edu/nwic

November 14, 2019 NWIC File No.: 19-0653

Tad Steam
Kimley-Horn and Associates, Inc.
100 W. San Fernando Street, Suite 250
San Jose, CA 95113

Re: Record search results for the proposed project at 450 East Romie Lane, Salinas, Monterey County, California

Dear Mr. Steam:

Per your request received by our office on October 15, 2019, a records search was conducted for the above referenced project by reviewing pertinent Northwest Information Center (NWIC) base maps that reference cultural resources records and reports, historic-period maps, and literature for Monterey County. Please note that use of the term cultural resources includes both archaeological resources and historical buildings and/or structures.

The proposed project entails the demolition of the southern wall of the existing Downing Resource Center (DRC) parking structure in order to expand the parking garage at the existing Salinas Valley Memorial Hospital. The main component of the DRC Annex would involve the construction of a new four-level parking garage immediately adjacent to the southern wall of the existing DRC garage. The lowest (basement) level will include approximately 19,000 square feet of office and hospital support uses, connecting to the basement uses in the existing DRC structure. Excavation is anticipated to occur up to 14 feet below existing grade. Pile driving is anticipated for construction of the new parking garage.

Review of the information at our office indicates that there have been no previous cultural resource studies that cover the 450 East Romie Lane project area. This project area contains no previously recorded archaeological resources. The State Office of Historic Preservation Historic Property Directory (OHP HPD) (which includes listings of the California Register of Historical Resources, California State Historical Landmarks, California State Points of Historical Interest, and the National Register of Historic Places) lists no previously recorded buildings or structures within or adjacent to the proposed project area. In addition to these inventories, the NWIC base maps show no previously recorded buildings or structures within the proposed project area.

At the time of Euroamerican contact, the Native Americans that lived in the area were speakers of the Rumsen language, which is part of the Costanoan subfamily of the Utian language family (Shipley 1978: 89). There are no Native American resources within or adjacent to the 450 East Romie Lane project area that are referenced in the ethnographic literature (Levy 1976).

Based on an evaluation of the environmental setting and features associated with known sites, Native American resources in this part of Monterey County have been found near areas populated by oak, buckeye, laurel, and hazelnut, as well as near a variety of plant and animal resources. Sites are also found near watercourses and bodies of water. The 450 East Romie Lane project area is located in a flat area on the Salinas Valley floor in an open landscape. The project area is in proximity to several watercourses. Given the similarity of one or more of these environmental factors, there is a moderate potential for unrecorded Native American resources in the proposed project area.

Review of historical literature and maps gave no indication of the possibility of historic-period activity within the 450 East Romie Lane project area. With this information in mind, there is a low potential for unrecorded historic-period archaeological resources in the proposed project area.

The 1912 and 1940 USGS Salinas 15-minute topographic quadrangles fail to depict any buildings or structures within the 450 East Romie Lane project area. Therefore, there is a low possibility of identifying any buildings or structures that are 45 years of age or older within the project area.

RECOMMENDATIONS:

1) As noted above, there is a moderate potential of identifying Native American archaeological resources and a low potential of identifying historic-period archaeological resources in the 450 East Romie Lane project area. Given the potential for Native American resources, we recommend that a qualified archaeologist conduct further archival and field study to identify cultural resources. Field study may include, but is not limited to, hand auger sampling, shovel test units, or geoarchaeological analyses as well as other common methods used to identify the presence of archaeological resources. Please refer to the list of consultants who meet the Secretary of Interior's Standards at http://www.chrisinfo.org.

2) We recommend that the lead agency contact the local Native American tribe(s) regarding traditional, cultural, and religious heritage values. For a complete listing of tribes in the vicinity of the project, please contact the Native American Heritage Commission at (916) 373-3710.

3) If the proposed project area contains buildings or structures that meet the minimum age requirement, prior to commencement of project activities, it is recommended that this resource be assessed by a professional familiar with the architecture and history of Monterey County. Please refer to the list of consultants who meet the Secretary of Interior's Standards at http://www.chrisinfo.org.

4) Review for possible historic-period buildings or structures has included only those sources listed in the attached bibliography and should not be considered comprehensive.

5) If archaeological resources are encountered **during construction,** work should be temporarily halted in the vicinity of the discovered materials and workers should avoid altering the materials and their context until a qualified professional archaeologist has

evaluated the situation and provided appropriate recommendations. Project personnel should not collect cultural resources. Native American resources include chert or obsidian flakes, projectile points, mortars, and pestles; and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic-period resources include stone or adobe foundations or walls; structures and remains with square nails; and refuse deposits or bottle dumps, often located in old wells or privies.

6) It is recommended that any identified cultural resources be recorded on DPR 523 historic resource recordation forms, available online from the Office of Historic Preservation's website: http://ohp.parks.ca.gov/default.asp?page_id=1069

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the California Historical Resources Information System (CHRIS) Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

Thank you for using our services. If you have any questions, please contact our office at nwic@sonoma.edu or at (707) 588-8455.

Sincerely,

Jessika Akmenkalns, Ph.D.
Researcher

LITERATURE REVIEWED

In addition to archaeological maps and site records on file at the Northwest Information Center of the Historical Resources Information System, California Archaeological Inventory, the following literature was reviewed:

Breschini, Gary S., Trudy Haversat, and Mona Gudgel
2000 *10,000 Years on the Salinas Plain, An Illustrated History of Salinas City, California.* Heritage Media Corp., Carlsbad, CA.

Clark, Donald Thomas
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1860 Survey Plat for Rancho Nacional.
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1987 *A Companion to California*. University of California Press, Berkeley and Los Angeles.

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1990 *Historic Spots in California*. Fourth Edition. Stanford University Press, Stanford, CA.

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Howard, Donald M., Esq.
1979 *Prehistoric Sites Handbook: Monterey & San Luis Obispo Counties*. Angel Press, Monterey, CA.

Kroeber, A.L.
1925 *Handbook of the Indians of California*. Bureau of American Ethnology, Bulletin 78, Smithsonian Institution, Washington, D.C. (Reprint by Dover Publications, Inc., New York, 1976)

Levy, Richard
1978 Costanoan. In *California*, edited by Robert F. Heizer, pp. 485-495. Handbook of North American Indians, vol. 8, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Monterey County Historical Society, Inc.
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State of California Department of Parks and Recreation
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1988 *Five Views: An Ethnic Sites Survey for California*. State of California Department of Parks and Recreation and Office of Historic Preservation, Sacramento.

State of California Office of Historic Preservation **
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Works Progress Administration
1984 The WPA Guide to California. Reprint by Pantheon Books, New York. (Originally published as California: A Guide to the Golden State in 1939 by Books, Inc., distributed by Hastings House Publishers, NY.)

**Note that the Office of Historic Preservation's *Historic Properties Directory* includes National Register, State Registered Landmarks, California Points of Historical Interest, and the California Register of Historical Resources as well as Certified Local Government surveys that have undergone Section 106 review.

Appendix C

Geotechnical Report Update

GEOTECHNICAL INVESTIGATION

PARKING GARAGE ANNEX
SALINAS VALLEY MEMORIAL HOSPITAL
450 E. ROMIE LANE
SALINAS, CALIFORNIA

FOR
SALINAS VALLEY MEMORIAL HEALTHCARE SYSTEM
SALINAS, CALIFORNIA

Pacific Crest
ENGINEERING INC

CONSULTING GEOTECHNICAL ENGINEERS

19132-M235-A33
FEBRUARY 2020
www.4pacific-crest.com

February 12, 2020

Project No. 19132-M235-A33

Henry Ornelas
Salinas Valley Memorial Healthcare System (SVMHS)
450 E. Romie Lane
Salinas CA 93901

Subject: **Geotechnical Investigation – Design Phase**
Parking Garage Annex
Salinas Valley Memorial Hospital (SVMH)
450 E. Romie Lane
Salinas, California

Dear Mr. Ornelas,

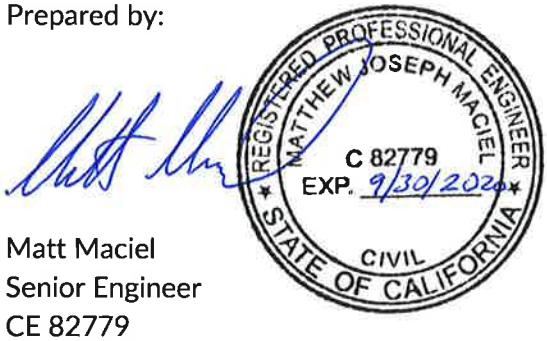
In accordance with your authorization, we have performed a geotechnical investigation for the proposed Parking Garage Annex located at the southwestern corner of the Salinas Valley Memorial Hospital Campus in Salinas, California.

The accompanying report presents our conclusions and recommendations as well as the results of the geotechnical investigation on which they are based. The conclusions and recommendations presented in this report are contingent upon our review of the plans during the design phase of the project, and our observation and testing during the construction phase of the project.

Very truly yours,

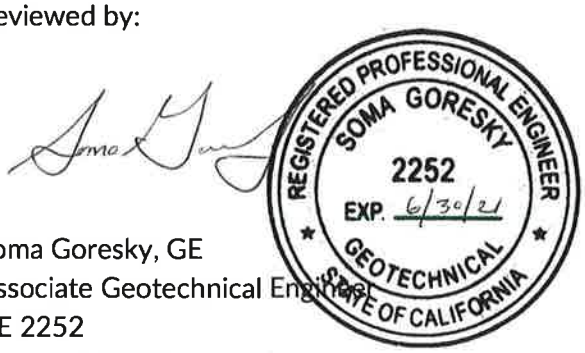
PACIFIC CREST ENGINEERING INC.

Prepared by:



Matt Maciel
Senior Engineer
CE 82779
Expires 9/30/20

Reviewed by:



Soma Goresky, GE
Associate Geotechnical Engineer
GE 2252
Expires 6/30/21

Copies: 3 to Client

TABLE OF CONTENTS

I. INTRODUCTION 1
PURPOSE AND SCOPE 1
PROJECT LOCATION 2
PROPOSED IMPROVEMENTS 2
PREVIOUS INVESTIGATIONS 2
II. INVESTIGATION METHODS 3
FIELD INVESTIGATION 3
INFILTRATION TESTING 3
LABORATORY TESTING 5
III. FINDINGS AND ANALYSIS 5
GEOLOGIC SETTING 5
SURFACE CONDITIONS 5
SUBSURFACE CONDITIONS 6
STORM WATER INFILTRATION 7
FAULTING AND SEISMICITY 7
GEOTECHNICAL HAZARDS 8
IV. DISCUSSION AND CONCLUSIONS 10
GENERAL 10
PRIMARY GEOTECHNICAL CONSIDERATIONS 11
V. RECOMMENDATIONS 12
EARTHWORK 12
FOUNDATIONS 16
SLAB-ON-GRADE CONSTRUCTION 18
RETAINING WALLS 19
PAVEMENT DESIGN 21
SURFACE DRAINAGE 22
EROSION CONTROL 23
PLAN REVIEW 23
VI. LIMITATIONS AND UNIFORMITY OF CONDITIONS 23
VII. IMPORTANT INFORMATION ABOUT YOUR GEOTECHNICAL REPORT 25
APPENDIX A – FIGURES, BORING LOGS AND LABORATORY RESULTS 27
APPENDIX B – BORINGS LOGS FROM PREVIOUS INVESTIGATIONS 47
APPENDIX C – INFILTRATION TEST RESULTS 68
APPENDIX D – SEISMIC SETTLEMENT ANALYSIS 74
APPENDIX E – ULTIMATE PIER CAPACITY 81

GEOTECHNICAL INVESTIGATION REPORT
Parking Garage Annex
Salinas Valley Memorial Hospital

I. INTRODUCTION

PURPOSE AND SCOPE

This report describes the geotechnical investigation and presents our conclusions and recommendations for the proposed Parking Garage Annex located at the southwestern corner of the Salinas Valley Memorial Hospital (SVMH) campus in Salinas, California. For purposes of this report, "site" refers to the area of the proposed annex located within the southwest corner of the SVMH campus.

Our scope of services for this project has consisted of:

1. Site reconnaissance to observe the existing conditions.
2. Review of the following published maps:
    - Geologic Map of Monterey County, California, Rosenberg, 2001.
    - Map Showing Relative Earthquake-Induced Landslide Susceptibility of Monterey County, California, Rosenberg, 2001.
    - Map Showing Liquefaction Susceptibility of Monterey County, California, Rosenberg, 2001.
    - Map Showing Relative Fault Hazards of Monterey County, CA, Rosenberg, 2001.
3. Review of geotechnical/geologic reports provided to our office by SVMH.
4. The drilling and logging of two (2) test borings.
5. The drilling, logging and testing of five (5) infiltration test borings.
6. Infiltration testing of five (5) test holes in accordance with the Central Coast Low Impact Development Initiative, with procedures outlined in the report titled "Native Soil Assessment for Small Infiltration-Based Storm Water Control Measures". Our infiltration study followed the "Shallow Quick Infiltration Test" method, as described within Attachment 1 of that document.
7. Laboratory analysis of retrieved soil samples.
8. Engineering analysis of the field and laboratory test results.
9. Review of preliminary plans and sections showing the location of the proposed annex, prepared by Kimley-Horn and Associates, Inc. dated November 19, 2019.

10. Preparation of this report documenting our investigation and presenting geotechnical recommendations for the design and construction of the project.

PROJECT LOCATION

The subject site is located at the southwestern corner of the SVMH campus, near the corner of Wilgart Way and San Jose Street in Salinas, California. Please refer to the Regional Site Map, Figure No. 1, in Appendix A for the general vicinity of the project site, which is approximately located by the following coordinates:

Latitude = 36.658800 degrees
Longitude = -121.647324 degrees

PROPOSED IMPROVEMENTS

Based on our review of preliminary plans and discussions with project team, it is our understanding that the planned improvements will include the construction of a parking garage that will serve as an extension, or annex, to the existing Downing Resource Center parking structure. The new parking structure will be the same height as the existing garage, providing an additional 155 parking spaces across 4 above ground parking levels. The new structure will also include a basement level that will provide approximately 20,000 square feet of additional hospital office and support space. It is our understanding that the proposed annex will be structurally independent of the existing parking structure. Additionally, the project will include the relocation of utility systems as necessary to support the improvements, installation of bioretention and stormwater management facilities to meet current stormwater management requirements, and permanent relocation of the trash enclosure.

Proposed grading will include the excavation of an approximately 6-foot-deep basement within the vicinity of existing structures and improvements. The existing structures may need to be protected with temporary shoring and/or underpinning, contingent on the final facility configuration and construction sequencing. If the proposed development differs significantly from that described above, our office should be contacted for additional recommendations.

PREVIOUS INVESTIGATIONS

Several geotechnical and geologic investigations have been performed for various construction and renovation project on the SVMH Campus. These investigations included subsurface borings and CPT soundings that are relevant to the proposed Annex project and were used in our analysis. These reports include the following:

- Kleinfelder, *Geotechnical Investigation for Salinas Valley Memorial Hospital Expansion Project Salinas, California*, File No. 89286/PW5, December 14, 2007
- Pacific Geotechnical Engineering, *Geotechnical Update for Proposed Central Plant and Utility Distribution Tunnel, Salinas Valley Memorial Hospital, 450 East Romie Lane, Salinas, California*, Project No. 2055/3E, February 1, 2008

Select boring data from the above referenced geotechnical investigations was used in our analysis of the proposed project area. Please refer to Figure No. 2, Appendix A of this report for the general locations of these borings. The individual boring logs from the referenced investigations are included within Appendix B of this report.

II. INVESTIGATION METHODS

FIELD INVESTIGATION

Two, 6-inch diameter test boring were drilled at the site on December 9th and 17th, 2019. The approximate locations of the test borings are shown on Figure No. 2, in Appendix A. The drilling method used was hydraulically operated continuous flight augers on a truck mounted drill rig. An engineer from Pacific Crest Engineering Inc. was present during the drilling operations to log the soil encountered and to choose sampler type and locations.

Relatively undisturbed soil samples were obtained at various depths by driving a split spoon sampler 18 inches into the ground. This was achieved by dropping a 140-pound hammer a vertical height of 30 inches. The hammer was actuated with a wire winch. The number of blows required to drive the sampler each 6-inch increment and the total number of blows required to drive the last 12 inches was recorded by the field engineer. The outside diameter of the samplers used was 3-inch or 2-inch and is designated on the Boring Logs as “L” or “T”, respectively.

The field blow counts, in 6-inch increments, are reported on the Boring Logs adjacent to each sample as well as the Standard Penetration Test data (SPT). All SPT data has been normalized to a 2-inch O.D. sampler and is reported on the Boring Logs as SPT "N" values. The normalization method used was derived from the second edition of the Foundation Engineering Handbook (H.Y. Fang, 1991). The method utilizes a Sampler Hammer Ratio which is dependent on the weight of the hammer, height of hammer drop, outside diameter of sampler, and inside diameter of sample.

The soils encountered in the borings were continuously logged in the field and visually described in accordance with the Unified Soil Classification System (ASTM D2488) as described in the Boring Log Explanation, Figures No. 4 and 5, in Appendix A. The soil classification was verified upon completion of laboratory testing in accordance with ASTM D2487.

Appendix A contains the site plan showing the locations of the test borings, our borings logs and an explanation of the soil classification system used. Stratification lines on the boring logs are approximate as the actual transition between soil types may be gradual.

INFILTRATION TESTING

Five (5) infiltration test borings were advanced within the three (3) proposed storm water infiltration areas as defined by the project civil engineer, Miles Johnson of Kimley-Horn. The approximate locations our infiltration test borings are depicted on the site map included within Appendix A of this report. The infiltration test borings were advanced to depths of 5 to 11½ feet below existing grades.

All infiltration test holes were drilled using a truck mounted drill rig equipped with 8-inch diameter solid flight augers. An engineer from Pacific Crest Engineering Inc. was present during the drilling operations to log the soil encountered and to verify the infiltration test depths. Approximately 1 to 2 inches of clean crushed ½-inch diameter gravel was placed at the bottom of each boring. A 4-inch diameter perforated pipe was then placed within each test hole, and the annular space backfilled with gravel. The test holes were presoaked for approximately 24 hours prior to infiltration testing.

The infiltration tests were performed in accordance with the Central Coast Low Impact Development Initiative, with procedures outlined in the report titled "Native Soil Assessment For Small Infiltration-Based Storm Water Control Measures". Our infiltration study followed the "Shallow Quick Infiltration Test" method, as described within Attachment 1 of the above referenced document. This procedure is generally described as follows:

1. At the commencement of each test, the water level within the infiltration test boring was adjusted to the top of the test zone (approximately 2 feet above the bottom of the boring). This was accomplished by using graduated cylinders, allowing the volume of water placed within the test boring to be recorded.

2. The water level within each test boring was maintained at a constant head for the initial 30 minutes of the test. The volume of water required to maintain the constant head was recorded.

3. Following the initial 30-minute constant head period, the water elevation was allowed to fall. This portion of the test was continued for a minimum of 2 hours, with water elevation readings being taken every 30 minutes. The difference in water elevation was then used to compute the infiltration rate at each time interval.

4. If the test boring were to run out of water during the 2-hour test, it would be refilled to the initial elevation. If the infiltration rate was such that the test boring was to run dry following 2 refills (not including the initial fill-up), then the test was concluded.

5. If the drop-in elevation at any time was less than 6 inches in 2 hours, or if the readings were not stable at the end of the 2-hour test, then the test was continued for an additional 2-hour interval (4 hours total).

6. The final infiltration rate was defined as the average infiltration rate during the last time interval. The last time interval is considered to be the last refill cycle or the last 2 hours of a 4-hour test. All final infiltration rates (I_t) are calculated in (in^3/in^2)/hr. or (in/hr.) using the Porchet Method. The factored infiltration rate (k_f), which includes a factor of safety of 2, was also calculated from the final interval.

A summary of the infiltration test results is provided below. The complete infiltration test sheets are provided within Appendix C of this report.

LABORATORY TESTING

The laboratory testing program was developed to aid in evaluating the engineering properties of the materials encountered at the site. Laboratory tests performed include:

- Moisture Density relationships in accordance with ASTM D2937.
- Field penetrometer testing to approximate unconfined compressive strength.
- Gradation testing in accordance with ASTM D1140.
- Atterberg Limits testing in accordance with ASTM D4318.
- Direct Shear testing in accordance with ASTM D3080.
- "R" Value testing in accordance with California 301.

The results of the laboratory testing are presented on the boring logs opposite the sample tested and/or presented graphically in Appendix A.

III. FINDINGS AND ANALYSIS

GEOLOGIC SETTING

The surficial geology in the area of the project site is mapped as Flood-Plain Deposits (Rosenberg 2001). The deposits locally are described as *"Unconsolidated, relatively fine-grained, heterogeneous deposits of sand and silt that commonly include relatively thin, discontinuous layers of clay."* The soils encountered during our field investigation are consistent with this description.

Based on the mapping by Rosenberg (2001), the project site is mapped in an area as having a moderate susceptibility for liquefaction to occur. Please refer to the subsequent "Geotechnical Hazard" section of this report for further discussion on the liquefaction potential at the subject site.

SURFACE CONDITIONS

The subject portion of the SVMHS campus is currently occupied by a paved parking area and an existing waste storage yard. The site is bordered by San Jose Street to the south, Wilgart Way to the west, an existing parking structure to the north, and the central plant facility to the east. A chain link fence surrounds the existing waste storage yard southwest of the existing parking structure. Ground surface across the site is relatively flat and generally paved with asphalt concrete.

The existing parking structure that will border the northern side of the proposed annex was built in 1991 and is now beginning to show signs of distress. The distress is expressed as; joint cracking between the main structure and protruding exterior ramps/stairways, sheetrock cracking of interior walls located on the lower level, sticking door jams on the lower level, and buckling glass on the lower level. The causation of the recent distress is still under investigation; however, it is our preliminary opinion that the distress is most likely attributed to the different bearing conditions between the main structure which is founded on deep piers and the protruding exterior ramps/stairways which bear upon

shallow foundation elements. Over time, the compressible near surface soils that underlay the shallow foundation elements have likely settled, while the main structure has not. The result is a relative downward movement of the protruding exterior ramps/stairways. Should ongoing investigations of this distress indicate other potential causes we request the opportunity to review these results and if necessary, provide revised recommendations for the proposed annex.

SUBSURFACE CONDITIONS

Our subsurface exploration consisted of two (2) small diameter borings drilled within the proposed footprint of the parking garage annex. The borings extended 40 and 50 feet below existing grade. The soil profiles and classifications, laboratory test results and groundwater conditions encountered for each test boring are presented in the Logs of Test Borings, in Appendix A. The general subsurface conditions are described below.

The soil profile within the upper 23 to 27 feet of ground surface generally consists of interbedded layers of sandy clay, silty sand and sandy silt (Soil Layers A, B & C of Figure 3, Appendix A). The clay and silt soils generally have low plasticity and range from stiff to very stiff in consistency. A layer of high plasticity clay was noted in boring B-2, between depths of about 14½ and 18½ feet below ground surface. The sand soils are generally very fine- to fine-grained and medium dense

The upper 23 to 27 feet of interbedded surficial soils are generally underlain by predominantly cohesionless soils consisting of poorly graded sands, silty sands and clayey sands, which were encountered to the maximum explored depth of 50 feet below the existing ground surface. These sandy soils generally densified with depth, starting with an approximately 4 to 5 foot layer of medium dense silty sand/clayey sand (Soil Layer D of Figure 3, Appendix A) that grades to a dense to very dense zone of silty sand/clayey sand (Soil Layer E of Figure 3, Appendix A)

Groundwater was not encountered in our test borings to an explored depth of 50 feet. A geologic and seismic hazards assessment performed for SVMH Campus by Pacific Geotechnical Engineering dated February 4, 2008, noted that groundwater has not been measured within the upper 50 feet for the past 33 years as of the date of that report. Additional boring and CPT data on the SVMH Campus indicates that groundwater may be between 50 and 85½ feet below ground surface in the area.

The groundwater conditions described in this report reflect the conditions encountered during our drilling investigation at the specific locations drilled. It must be anticipated that perched and regional groundwater tables may vary with location and could fluctuate with variations in rainfall, runoff, irrigation and other changes to the conditions encountered at the time our observations were made.

Please refer the Logs of Test Borings and Subsurface Soil Profile provided in Appendix A of this report, for a more detailed description and illustration of the subsurface conditions encountered at the subject site.

STORM WATER INFILTRATION

A summary of the infiltration test results is provided below. The complete infiltration test sheets are provided within Appendix C of this report.

Table No. 1 – Summary of Infiltration Test Results

Test No.	Depth of Test Zone Below Existing Grade (ft.)	Test Depth Below Existing Ground Surface (ft.)	Soil Gradation			Infiltration Rate, I_t (in/hr.)	Factored Infiltration Rate, K_f (in/hr.)
			Gravel (%)	Sand (%)	Fines (%)		
P1	Silty Sand	10.0 to 12.0	0.2	62.7	37.1	4.15	2.08
P2	Sandy Silt	7.4 to 9.4	0.1	46.9	53.0	1.55	0.77
P3	Sandy Silt	2.7 to 4.7	0.0	45.7	54.3	0.09	0.05
P4	Silty Sand	2.6 to 4.6	0.0	70.2	29.8	0.26	0.13
P5	Silt	7.4 to 9.4	0.9	7.8	91.3	2.45	1.23

We recommend that the civil engineer apply a safety factor to the design values as a way to account for seasonal variations.

FAULTING AND SEISMICITY

Faulting

Mapped faults which have the potential to generate earthquakes that could significantly affect the subject site are listed in Table No. 2. The fault distances are approximate distances based on the U.S. Geological Survey and California Geological Survey, Quaternary fault and fold database, accessed on January 2020 from the USGS website (http//earthquake.usgs.gov/hazards/qfaults/) and overlaid onto Google Earth.

Table No. 2 - Distance to Significant Faults

Fault Name	Distance (miles)	Direction
Reliz (Blanco Section)	3	Southwest
Zayante-Vergeles	11½	Northeast
Monterey Bay-Tularcitos	11½	Southwest
San Andreas	14	Northeast
Sargent	17½	Northeast
Calaveras (south)	18	Northeast
San Gregorio (Sur Region)	21	Southwest

Seismic Shaking and CBC Design Parameters

Due to the proximity of the site to active and potentially active faults, it is reasonable to assume the site will experience high intensity ground shaking during the lifetime of the project. Structures founded on thick soft soil deposits are more likely to experience more destructive shaking, with higher amplitude and lower frequency, than structures founded on bedrock. Generally, shaking will be more intense closer to earthquake epicenters. Thick soft soil deposits large distances from earthquake epicenters, however, may result in seismic accelerations significantly greater than expected in bedrock.

Selection of seismic design parameters should be determined by the project structural designer. The site coefficients and seismic ground motion values shown in the table below were developed based on CBC 2019 incorporating the ASCE 7-16 standard, and the project site location.

Table No. 3 - 2019 CBC Seismic Design Parameters [1, 2]

Seismic Design Parameter	ASCE 7-16 Value
Site Class	D
Spectral Acceleration for Short Periods	Ss = 1.705g
Spectral Acceleration for 1-second Period	S_1 = 0.596g
Short Period Site Coefficient	Fa = 1.0
1-Second Period Site Coefficient	Fv = N/A[2]
MCE Spectral Response Acceleration for Short Period	S_{MS} = 1.705g
MCE Spectral Response Acceleration for 1-Second Period	S_{M1} = N/A[2]
Design Spectral Response Acceleration for Short Period	S_{DS} = 1.137g
Design Spectral Response Acceleration for 1-Second Period	S_{D1} = N/A[2]

Note 1: Design values have been obtained by using the ASCE Hazard Tool at https://asce7hazardtool.online

Note 2: Per Section 11.4.8 of ASCE 7-16, a ground motion hazard analysis is required for Site Class D sites with S_1 greater than or equal to 0.2. The values provided in this table assume that the value of the seismic response coefficient Cs can be determined by the structural engineer based on the Exceptions as detailed in Section 11.4.8. This should be verified by the structural designer and Pacific Crest Engineering, Inc. should be contacted for revised Table 2B parameters if these Exceptions are not applicable to the project.

The recommendations of this report are intended to reduce the potential for structural damage to an acceptable risk level, however strong seismic shaking could result in architectural damage and the need for post-earthquake repairs. It should be assumed that exterior improvements such as pavements or sidewalks may need to be repaired or replaced following strong seismic shaking.

GEOTECHNICAL HAZARDS

A quantitative analysis of geotechnical hazards was beyond our scope of services for this project. In general, however, the geotechnical hazards associated with the project site include seismic shaking (discussed above), ground surface fault rupture, liquefaction, lateral spreading, landsliding and expansive soils. A qualitative discussion of these hazards is presented below.

Ground Surface Fault Rupture

Pacific Crest Engineering Inc. has not performed a specific investigation for the presence of active faults at the project site. Based upon our review of the Map Showing Relative Fault Hazards of Monterey County (Rosenberg, 2001), the project site is not underlain by any faults.

Ground surface fault rupture typically occurs along the surficial traces of active faults during significant seismic events. Since the nearest known active, or potentially active fault trace is mapped approximately 3 miles from the site, it is our opinion that the potential for ground surface fault rupture to occur at the site should be considered low.

Liquefaction and Lateral Spreading

Based on the mapping by Rosenberg (2001), the project site is mapped in an area as having a moderate susceptibility for liquefaction to occur.

Liquefaction tends to occur in loose, saturated fine grained sands and coarse silt, or clays with low plasticity. We did not encounter groundwater during our field investigation to the maximum explored depth of 50 feet, nor has groundwater been observed at depths less than 50 feet in the general area. Consequently, it is our opinion that the potential for liquefaction to occur at the subject site should be considered low.

Liquefaction induced lateral spreading occurs when a liquefied soil mass fails toward an open slope face, or fails on an inclined topographic slope. Our analysis indicates that the site has a low potential for liquefaction, consequently the potential for lateral spreading is also considered low.

Seismically Induced Settlement

Seismically induced settlement occurs due to the compression of intergranular void space during a seismic loading event. In order to assess this hazard, we have evaluated the potential for the upper 50 feet of soil column to settle under seismic “dynamic” loading.

The potential for seismically induced dry sand settlement was evaluated quantitatively for this project, based upon the data obtained from our exploratory test borings. Our analysis utilized the software program LiqSVs Version 1.2.1.6, which is based upon the most recent recommendations of the NCEER Workshop and the work of Pradel 1998. The program calculates the seismically induced settlement due to “dynamic” compaction of loose, dry sands above the design water table.

The following criteria were used in our analysis:

- Peak Ground Acceleration (PGA_M) value of 0.75g determined in accordance with section 1803A.5.12 of the California Building Code.
- Earthquake magnitude 7.9 occurring on the San Andreas Fault, as derived from a deaggregation tool available from the USGS website.
- Groundwater Elevation of 50 feet.

Using the above parameters and the estimated SPT "blow counts" obtained from our borings, we estimate the magnitude of seismically induced ground surface settlement to be on the order of ½ inch. Please refer to Appendix D for full model parameters and results.

Landsliding

The subject site and immediate vicinity are relatively flat to gently sloping. It is our opinion that the potential for shallow landsliding to occur and adversely affect the proposed development should be considered negligible.

Expansive Soils

Expansive soils tend to heave during the rainy season and contract during the summer and this shrink/swell action extends down to the depth of seasonal moisture change. When this cyclical volume change occurs on sloping ground it results in "soil creep" due to the downward vector of the shrink/swell action. Seasonal moisture fluctuation and subsequent expansion and contraction of these types of soils typically occurs more near the ground surface where the seasonal moisture fluctuation is the greatest and decreases with depth below ground surface.

The surficial soils encountered within our test borings generally consists of sandy clay, silty sand and sandy silt, with low plasticity. Based on our laboratory testing and field observations, these soils have a low expansion potential and the hazard due to expansive soils is considered to be low.

IV. DISCUSSION AND CONCLUSIONS

GENERAL

1. The results of our investigation indicate that the proposed improvements are feasible from a geotechnical engineering standpoint, provided our recommendations are included in the design and construction of the project.

2. Grading and foundation plans should be reviewed by Pacific Crest Engineering Inc. during their preparation and prior to contract bidding.

3. Pacific Crest Engineering Inc. should be notified at least four (4) working days prior to any site clearing and grading operations on the property in order to observe the stripping and disposal of unsuitable materials, and to coordinate this work with the grading contractor. During this period, a pre-construction conference should be held on the site, with at least the client or their representative, the grading contractor, a City representative and one of our engineers present. At this meeting, the project specifications and the testing and inspection responsibilities will be outlined and discussed.

4. The findings, conclusions and recommendations provided in this report are based on the understanding that Pacific Crest Engineering will remain as Geotechnical Engineer of Record throughout the design and construction phase of the project. The validity of the findings, conclusions and recommendations contained in this report are dependent upon our review of project plans as well

as an adequate testing and observation program during the construction phase. Field observation and testing must therefore be provided by a representative of Pacific Crest Engineering Inc., to enable us to form an opinion as to whether the extent of work related to earthwork or foundation excavation complies with the project plans, specifications and our geotechnical recommendations. Pacific Crest Engineering assumes no responsibility for any site work that is performed without the full knowledge and direct observation of Pacific Crest Engineering Inc.

PRIMARY GEOTECHNICAL CONSIDERATIONS

5. Based upon the results of our investigation, it is our opinion that the primary geotechnical issues associated with the design and construction of the proposed project are the following:

a. *Differential Settlement Between New and Old Foundations*: As with all additions, it should be anticipated that differential settlement may occur between the proposed Annex and existing parking garage. In order to reduce the potential for differential settlement to occur, we recommend that the proposed Annex be founded upon a pier foundation system, similar to that of the existing parking garage. The reinforced concrete piers should derive support though friction at the concrete/soil interface and extend into the dense to very dense silty/clay sand that underlies the site. The entire foundation system should be tied together with grade beams or a structural slab in order to resist differential settlement. We understand the annex will be structurally separated from the existing garage which will aid in isolating where potential differential settlement may occur and allow for its mitigation. Detailed recommendations are presented in the Foundations section of this report.

b. *Temporary Construction Slopes and Shoring:* Excavations in excess of 6 feet are proposed within approximately 5 to 30 feet of the existing Energy Management Center (EMC). Given the proximity of the proposed excavation to the EMC and other improvements, it is likely that a shoring system will be required to safely facilitate the proposed excavations and construction process. All excavations and the protection of existing structures during construction is the responsibility of the contractor. Monitoring of existing improvements, construction sequencing, means and methods and the need for shoring should be carefully evaluated by the contractor. Refer to the Excavations and Shoring section of this report for additional recommendations.

c. *Strong Seismic Shaking:* The project site is located within a seismically active area and strong seismic shaking is expected to occur within the design lifetime of the project. Improvements should be designed and constructed in accordance with the most current CBC and the recommendations of this report to minimize reaction to seismic shaking. Structures built in accordance with the latest edition of the California Building Code have an increased potential for experiencing relatively minor damage which should be repairable, however strong seismic shaking could result in architectural damage and the need for post-earthquake repairs.

V. RECOMMENDATIONS

EARTHWORK

Clearing and Stripping

1. The initial preparation of the site may consist of demolition of portions of any existing structures and their foundations and removal of designated trees and debris. All foundation elements from existing structures must be completely removed from the building area. Tree removal should include the entire stump and root ball. Septic tanks and leaching lines, if found, must be completely removed. The extent of this soil removal will be designated by a representative of Pacific Crest Engineering Inc. in the field. This material must be removed from the site.

2. Any voids created by the removal of old structures and their foundations, tree and root balls, septic tanks, and leach lines which extend below design subgrade elevation, must be backfilled with properly compacted engineered fill which meets the requirements of this report.

3. Any wells encountered shall be capped in accordance with the requirements and approval of the County Health Department. The strength of the cap shall be equal to the adjacent soil and shall not be located within 5 feet of a structural footing.

4. Surface vegetation, tree roots and organically contaminated topsoil should then be removed ("stripped") from the area to be graded. In addition, any remaining debris or large rocks must also be removed (this includes asphalt or rocks greater than 2 inches in greatest dimension). This material may be stockpiled for future landscaping.

5. The depth of striping is anticipated to be minimal given that most of the site is already developed; however, existing landscape areas may require a stripping depth on the order of 2 to 4 inches. Final required depth of stripping must be based upon visual observations by a representative of Pacific Crest Engineering Inc., in the field. The required depth of stripping will vary based upon the type and density of vegetation across the project site and with the time of year.

Subgrade Preparation

6. It is possible that there are areas of man-made fill at the site that our field investigation did not detect. Areas of man-made fill, if encountered, will need to be completely excavated to undisturbed native material. The excavation process should be observed, and the extent designated by a representative of Pacific Crest Engineering Inc., in the field. Any voids created by fill removal must be backfilled with properly compacted engineered fill.

7. Following clearing and stripping process and any proposed excavations, the exposed subgrade soils that are to support concrete slabs-on-grade and pavements should be scarified 8 inches, moisture conditioned and compacted as outlined below.

8. Care must be taken not to undermine the foundation systems of nearby structures. Refer to the Excavation and shoring section of this report for additional recommendations on temporary excavations.

9. Areas of soft soils may be encountered at the bottom of the excavations. If soft or unstable subgrades are encountered, they may need to be subexcavated and replaced with stabilization fabric, crushed rock or other materials to create a stable working surface. The depth of over-excavations and method used should be determined in the field at the time of construction. All subexcavations should be observed by a representative of Pacific Crest Engineering Inc. and modified as necessary to establish a stable subgrade.

Material for Engineered Fill

10. Native or imported soil proposed for use as engineered fill should meet the following requirements:

a. free of organics, debris, and other deleterious materials,
b. free of "recycled" materials such as asphaltic concrete, concrete, brick, etc.,
c. granular in nature, well graded, and contain sufficient binder to allow utility trenches to stand open,
d. free of rocks in excess of 2 inches in size.

11. In addition to the above requirements, import fill should have a Plasticity Index between 4 and 12, and a minimum Resistance "R" Value of 30, and be non-expansive.

12. Samples of any proposed imported fill planned for use on this project should be submitted to Pacific Crest Engineering Inc. for appropriate testing and approval not less than ten (10) working days before the anticipated jobsite delivery. This includes proposed import trench sand, drain rock and for aggregate base materials. Imported fill material delivered to the project site without prior submittal of samples for appropriate testing and approval must be removed from the project site.

Engineered Fill Placement and Compaction

13. Engineered fill should be placed in maximum 8 inch lifts, before compaction, at a water content which is within 1 to 3 percent of the laboratory optimum value.

14. The soil on the project site should be compacted as follows:

a. In pavement areas the upper 8 inches of subgrade, and all aggregate subbase and aggregate base, should be compacted to a minimum of 95% of its maximum dry density,
b. In pavement areas all utility trench backfill should be compacted to 95% of its maximum dry density,
c. All remaining soil on the project site should be compacted to a minimum of 90% of its maximum dry density.

15. The maximum dry density will be obtained from a laboratory compaction curve run in accordance with ASTM Procedure #D1557. This test will also establish the optimum moisture content of the material. Field density testing will be performed in accordance with ASTM Test #D6938 (nuclear method).

16. We recommend field density testing be performed in maximum 1-foot elevation differences. In general terms, we recommend at least one compaction test per 200 linear feet of utility trench or retaining wall backfill, and at least one compaction test per 2,000 square feet of building or structure area. This is a subjective value and may be changed by the geotechnical engineer based on a review of the final project layout and exposed field conditions.

Cut and Fill Slopes

17. No permanent cut or fill slopes are anticipated. Should cut or fill slopes be proposed, supplemental geotechnical engineering recommendations will be required.

Soil Moisture and Weather Conditions

18. Please note that the silty nature of the soils suitable for engineered fill are generally difficult to moisture condition and compact because they are highly moisture sensative. Consequently, the contractor should expect that a diligent moisture conditioning and mixing operation will be necessary to achieve compaction.

19. If earthwork activities are done during or soon after the rainy season, the on-site soils and other materials may be too wet in their existing condition to be used as engineered fill. These materials may require a diligent and active drying and/or mixing operation to reduce the moisture content to the levels required to obtain adequate compaction as an engineered fill. If the on-site soils or other materials are too dry, water may need to be added. In some cases, the time and effort to dry the on-site soil may be considered excessive, and the import of aggregate base may be required.

Utility Trench Backfill

20. Utility trenches that are parallel to the sides of the building should be placed so that they do not extend below a line sloping down and away at a 2:1 (horizontal to vertical) slope from the bottom outside edge of all footings/grade beams.

21. Utility pipes should be designed and constructed so that the top of pipe is a minimum of 24 inches below the finish subgrade elevation of any road or pavement areas. Any pipes within the top 24 inches of finish subgrade should be concrete encased, per design by the project civil engineer.

22. For the purpose of this section of the report, backfill is defined as material placed in a trench starting one foot above the pipe, and bedding is all material placed in a trench below the backfill.

23. Unless concrete bedding is required around utility pipes, free-draining clean sand should be used as bedding. Sand bedding should be compacted to at least 95 percent relative compaction. Clean sand is defined as 100 percent passing the #4 sieve, and less than 5 percent passing the #200 sieve.

24. Approved imported clean sand or native soil should be used as utility trench backfill. Backfill in trenches located under and adjacent to structural fill, foundations, concrete slabs and pavements should be placed in horizontal layers no more than 8 inches thick. This includes areas such as sidewalks, patios, and other hardscape areas. Each layer of trench backfill should be water conditioned and compacted to at least 95 percent relative compaction

25. All utility trenches beneath perimeter foundations should be backfilled with controlled density fill (such as 2-sack sand\cement slurry) to help minimize potential moisture intrusion below interior floors. The length of the plug should be at least three times the width of the footing or grade beam at the building perimeter, but not less than 36 inches. A representative from Pacific Crest Engineering Inc. should be contacted to observe the placement of slurry plugs. In addition, all utility pipes which penetrate through the footings, stemwalls or grade beams (below the exterior soil grade) should also be sealed water-tight, as determined by the project civil engineer or architect.

26. Utility trenches which carry "nested" conduits (stacked vertically) should be backfilled with a control density fill (such as 2-sack sand\cement slurry) to an elevation one foot above the nested conduit stack. The use of pea gravel or clean sand as backfill within a zone of nested conduits is not recommended.

27. A representative from our firm should be present to observe the bottom of all trench excavations, prior to placement of utility pipes and conduits. In addition, we should observe the condition of the trench prior to placement of sand bedding, and to observe compaction of the sand bedding, in addition to any backfill planned above the bedding zone.

28. Jetting of the trench backfill is not recommended as it may result in an unsatisfactory degree of compaction.

29. Trenches must be shored as required by the local agency and the State of California Division of Industrial Safety construction safety orders.

<u>Excavations and Shoring</u>

30. As discussed above, excavations extending approximately 6 feet below existing grade are proposed within 6 feet of the existing EMC building. Consequently, it is likely that a shoring and underpinning system will be required in order to safely facilitate the proposed excavations. The design, construction and installation of the shoring and underpinning systems are the sole responsibility of the contractor.

31. It should be understood that on-site safety is the *sole responsibility* of the Contractor, and that the Contractor shall designate a *competent person* (as defined by CAL-OSHA) to monitor the slope

excavation and nearby structures prior to the start of each work day, and throughout the work day as conditions change. The competent person designated by the Contractor shall determine if flatter slope gradients are more appropriate, or if shoring should be installed to protect workers in the vicinity of the slope excavation. Refer to Title 8, California Code of Regulations, Sections 1539-1543.

32. All excavations must meet the requirements of 29 CFR 1926.651 and 1926.652 or comparable OSHA approved state plan requirements.

33. Temporary cut slopes of 1½:1 (H:V) are considered acceptable for short-term construction periods if performed during periods of fair weather. The "top" of any temporary cut slope should be set-back at least 10 feet (measured horizontally) from any nearby structure or trees. Any excavations which cannot meet these requirements will need to have a shoring system designed to support steeper sidewall gradients.

34. The chosen shoring wall should be fully drained and should not obstruct nor significantly change the normal flow of moisture or groundwater through the project soils. Wall drainage should discharge to an approved location.

35. All shoring backfill should meet the requirements for engineered fill presented in the report. If a clean gravel backfill is utilized as shoring backfill, it should be compacted in maximum 1 to 2-foot lifts using a vibra-plate or similar equipment. It is recommended that all voids behind the shoring system be completely filled with soil or gravel backfill while the shoring work is in progress.

36. A system to monitor the position and any movement of the temporary shoring walls and nearby structures should be designed, constructed, and maintained by the contractor. The system should be monitored periodically during the project and a record of the measurements kept. The monitoring should be performed by a California registered and licensed surveyor. The measurement records from the system should be available for review by the Owner and Pacific Crest Engineering Inc.

37. Pacific Crest Engineering Inc. should be contacted and made aware of any movement of the temporary shoring wall(s).

38. The temporary shoring wall system chosen by the designer should be designed using the geotechnical design criteria presented in the Retaining Wall section of this report.

39. Shoring plans should be reviewed by Pacific Crest Engineering for conformance with our recommendations at least two weeks prior to the start of any shoring work

FOUNDATIONS

40. The following recommendations are based on the proposed building envelope as shown on Figure 2 of this report. If the building site is changed, we request the opportunity to review proposed plans to confirm if these recommendations still apply.

41. Based upon the results of our investigation, we recommend that the Parking Garage Annex be supported on a reinforced concrete pier foundation system that is tied together with either grade beams or a structural slab. Piers should be designed in accordance with the following recommendations.

a. Minimum pier embedment should be 30 feet below the proposed basement finished floor elevation of 47 feet (e.g. piers to extend at least 35 feet below existing ground surface). Actual depths could depend upon a lateral and axial force analysis performed by the project structural engineer.

b. Ultimate axial compression capacities of cast-in-place piers are presented on Figure 1 of Appendix E for pier diameters ranging between 18 and 30 inches. The presented depths on the referenced figure are relative to finished floor elevation (i.e. elevation "0" as shown on the figure corresponds to the currently proposed basement finished floor elevation of 47 feet). We recommend that the structural engineer apply a minimum factor of safety of 2 to the values presented on Figure 1. These values may be increased by 1/3 for wind or seismic loading. We have neglected the upper 5 feet of skin friction in our analysis. End bearing capacity of the pier should also be neglected.

c. Preliminary embedment depths based on lateral loading may be designed using a passive soil pressure of 300 psf/ft of depth for the upper 30 feet of pier embedment (elevation 47 to 23 feet) and 400 psf/ft of depth for the pier segments below 30 feet (elevation 23 and below). Passive pressures should be assumed to act over a plane 1½ times the pier diameter. The upper five (5) feet of the pier should be ignored when calculating lateral pier capacity. Actual lateral capacities of the piers should be based on a lateral analysis performed by the project structural engineer.

d. Lateral and vertical support for piers located adjacent to basement or lower pad excavations should be ignored for the portion of the pier located above a line extending from the lower elevation and upwards towards the pier at a 45-degree inclination.

e. Piers should be at least 18 inches in diameter and spaced no closer than four (4) pier diameters, center-to-center.

f. The piers should be drilled within ½ of one percent of a vertically plumb condition.

g. The geotechnical engineer or field representative should be present during foundation drilling to verify that the piers extend sufficiently into the recommended earth materials.

h. Caving was not observed during the course of our drilling operations. If caving conditions are encountered casing should be installed in the excavation. Casing should be pulled during the placement of concrete, with a minimum of 4 feet of casing remaining embedded within the concrete at all times.

i. The base of all pier holes should be cleaned of all loose soil prior to placement of steel and concrete. All pier construction must be observed by a Pacific Crest Engineering Inc. so that we can verify that piers extend sufficiently into competent bearing materials. Any piers constructed without the full knowledge and continuous observation of a representative from Pacific Crest Engineering Inc., will render the recommendations of this report invalid.

j. The piers and grade beams should contain steel reinforcement as determined by the project civil or structural engineer.

SLAB-ON-GRADE CONSTRUCTION

42. In addition to the recommendations presented below, design and construction of concrete slab-on-grade floors should also follow Section 4.505.2 of the 2016 California Green Building Standards Code, which includes installing a vapor retarder in direct contact with concrete and a mix design that addresses bleeding, shrinkage and curling.

43. Interior concrete slabs should bear upon a compacted subgrade that has been prepared as described in the earthwork section of this report.

44. All exterior slabs, patios, walkways, etc., should be structurally independent of structural foundation system(s).

45. Interior slabs may be structurally integrated with the grade beams. If the slabs are constructed as "free floating" slabs, they should be provided with a minimum ¼ inch felt separation between the slab and foundation. The slabs should be separated into approximately 15' x 15' square sections with dummy joints or similar type crack control devices.

46. All concrete slabs-on-grade should be underlain by a minimum 6-inch-thick capillary break of ¾ inch clean crushed rock (no fines). It is recommended that neither Class II baserock nor sand be employed as the capillary break material.

47. Where floor coverings are anticipated or vapor transmission may be a problem, a vapor retarder/membrane should be placed between the capillary break layer and the floor slab in order to reduce the potential for moisture condensation under floor coverings. We recommend a high-quality vapor retarder at least 15 mil thick and puncture resistant (Stego Wrap or equivalent). The vapor retarder must meet the minimum specifications for ASTM E-1745, Standard Specification For Water Vapor Retarder. Please note that low density polyethylene film (such as Visqueen) may meet minimum current standards for permeability but not puncture resistance. Laps and seams should be overlapped at least six inches and properly sealed to provide a continuous layer beneath the entire slab that is free of holes, tears or gaps. Joints and penetrations should also be properly sealed.

48. Floor coverings should be installed on concrete slabs that have been constructed according to the guidelines outlined in ACI 302.2R and the recommendations of the flooring material manufacturer.

49. Currently, ACI 302-1R and Section 4.505.2 of the 2016 California Green Building Standards Code recommend that concrete slabs to receive moisture sensitive floor coverings be placed directly upon the vapor retarder, with *no sand cushion*. ACI states that vapor retarders are not effective in preventing residual moisture within the concrete slab from migrating to the surface. Including a low water-to-cement ratio (less than 0.50) and/or admixtures into the mix design are generally necessary to minimize water content, reduce soluble alkali content, and provide workability to the concrete. As noted in CIP 29 (*Concrete in Practice by the National Ready Mixed Concrete Association*), placing concrete directly on the vapor retarder can also create potential problems. If environmental conditions do not permit rapid drying of bleed water from the slab surface then the excess bleeding can delay finishing operations (refer to CIP 13, 19 and 20). Most of these problems can be alleviated by using a concrete with a low water content, moderate cement factor, and well-graded aggregate with the largest possible size. *With the increased occurrence of moisture related floor covering failures, minor cracking of floors placed on a vapor retarder and other problems discussed here are considered a more acceptable risk than failure of floor coverings, and these potential risks should be clearly understood by SVMH.*

50. If a sand layer is chosen as a cushion for slabs without floor coverings, it should consist of a clean sand. Clean sand is defined as 100 percent passing the #4 sieve, and less than 5 percent passing the #200 sieve.

51. Requirements for pre-wetting of the subgrade soils prior to the pouring of the slabs will depend on the specific soils and seasonal moisture conditions and will be determined by a representative of Pacific Crest Engineering Inc. at the time of construction. It is important that the subgrade soils be properly moisture conditioned at the time the concrete is poured. Subgrade moisture contents should not be allowed to exceed our moisture recommendations for effective compaction and should be maintained until the slab is poured.

52. Recommendations given above for the reduction of moisture transmission through the slab are general in nature and present good construction practice. Moisture protection measures for concrete slabs-on-grade should meet applicable ACI and ASTM standards. Pacific Crest Engineering Inc. are not waterproofing experts. For a more complete and specific discussion of moisture protection within the structure, a qualified waterproofing expert should be consulted to evaluate the general and specific moisture vapor transmission paths and any impact on the proposed construction. The waterproofing consultant should provide recommendations for mitigation of potential adverse impacts of moisture vapor transmission on various components of the structure as deemed appropriate.

53. Slab thickness, reinforcement, and doweling should be determined by the project civil or structural engineer. The use of welded wire mesh is not recommended for slab reinforcement.

RETAINING WALLS

54. Retaining walls with full drainage should be designed using the following criteria:

a. The following lateral earth pressure values should be used for design:

Table No. 4, Active and At-Rest Earth Pressure Values

Maximum Backfill Slope (H:V)	Active Earth Pressure (psf/ft of depth)	At-Rest Earth Pressure (psf/ft of depth)
Level	45	60
4:1	55	75
3:1	60	80

b. Should the slope behind the retaining walls be other than shown in Table 4, supplemental design criteria will be provided for the active earth or at rest pressures for the particular slope angle.

c. Active earth pressure values may be used when walls are free to yield an amount sufficient to develop the active earth pressure condition (about ½% of height). The effect of wall rotation should be considered for areas behind the planned retaining wall (pavements, foundations, slabs, etc.). When walls are restrained at the top or to design for minimal wall rotation, at-rest earth pressure values should be used.

d. Retaining walls that are structurally integrated with building foundations should be supported by drilled pier foundations designed in accordance with the Foundation section of this report.

e. Site walls not associated with a building structure may be supported on shallow foundations designed for an allowable bearing capacity of 1,800 psf for dead plus live load, with a 1/3rd increase for short term loads.

f. For shallow foundations a passive soil resistance to lateral loads of 300 psf/ft foundation depth may be used. The upper 1 foot of soil should be ignored when calculating passive soil resistance.

g. The mechanics of soil pressure on the footing keyway intended to enhance sliding stability has been considered. The active pressure on the keyway, acting opposite the passive pressure, may be taken as zero.

h. An ultimate coefficient of friction between base of foundation and the underlying subgrade of 0.30 may be used for design.

i. For surcharge pressures due to live or dead loads which will transmit a force to the wall, please refer to Figure No. 18 in Appendix A.

j. If applicable, traffic surcharges on the retaining wall should be simulated by assuming that an additional 2 feet of soil (240 psf) exists on the grade behind the wall.

k. If the structural designer wishes to include seismic forces in their design, the wall may be designed using the above active soil pressures plus a horizontal seismic force of $15H^2$ pounds per lineal foot (where H is the height of retained material). The resultant seismic force should be applied at a point $1/3^{rd}$ above the base of the wall. This force has been estimated using the Mononobe-Okabe method of analysis as modified by Whitman (1990) and Lew and Sitar (2010). A reduced factor of safety for overturning and sliding may be used in seismic design as determined by the structural designer.

l. To develop the resisting passive earth pressure, the retaining wall footings should be embedded a minimum of 18 inches below the lowest adjacent grade. There should be a minimum of 5 feet of horizontal cover as measured from the outside edge of the footing.

Retaining Wall Drainage

55. The above design criteria are based on fully drained conditions. Therefore, we recommend that permeable material meeting the State of California Standard Specification Section 68-2.02F, Class 1, Type A, be placed behind the wall, with a minimum width of 12 inches and extending for the full height of the wall to within 1 foot of the ground surface. The top of the permeable material should be covered with Mirafi 140N filter fabric or equivalent and then compacted native soil placed to the ground surface. A 4-inch diameter perforated rigid plastic drain pipe should be installed within 3 inches of the bottom of the permeable material and be sloped at a minimum 2 percent to discharge to a suitable, approved location. The perforations should be placed downward; oriented along the lower half of the pipe. Neither the pipe nor the permeable material should be wrapped in filter fabric. Please refer to the Typical Retaining Wall Drain Detail, Figure 19, in Appendix A for details.

56. Where walls are immediately adjacent to lower interior pad elevations the invert of the perforated pipe should extend at least 12 inches below lowest adjacent compacted pad grade.

PAVEMENT DESIGN

57. The following tables provide flexible pavement design which is based on the Caltrans Highway Design Manual – Chapter 630. The design thickness layer was determined to the nearest 0.5 inch, and includes a factor of 0.20 feet added to the asphalt concrete and aggregate base thicknesses, as outlined in the design procedure. A range of TI values have been assumed for this project; however, final TI values and corresponding design section should be determined by the project civil engineer. Based on the stated procedure, the following pavement sections are recommended:

Table No. 5, Recommended Pavement Sections

Material	Traffic Index		
	4½	5	6
Asphalt Concrete	2.5 inches	3.0 inches	3.5 inches
Class 2 Aggregate Base, R=78 min.	8.0 inches	10.0 inches	12.0 inches
Total Section	*10.5 inches*	*13.0 inches*	*15.5 inches*

58. To have the selected pavement sections perform to their greatest efficiency, it is very important that the following items be considered:

a. Properly scarify and moisture condition the upper 8 inches of the subgrade soil and compact it to a minimum of 95% of its maximum dry density, at a moisture content of 1% to 3% over the optimum moisture content for the soil.

b. Provide sufficient gradient to prevent ponding of water.

c. Use only quality materials of the type and thickness (minimum) specified. All aggregate base and subbase must meet Caltrans Standard Specifications for Class 2 materials, and be angular in shape. All Class 2 aggregate base should be ¾ inch maximum in aggregate size.

d. Compact the base uniformly to a minimum of 95% of its maximum dry density.

e. Place the asphaltic concrete only during periods of fair weather when the free air temperature is within prescribed limits by Cal Trans Specifications.

f. Porous pavement systems which consist of porous paving blocks, asphaltic concrete or concrete are generally not recommended due to the potential for saturation of the subgrade soils and resulting increased potential for a shorter pavement life. At a minimum, porous pavement systems should include a layer of Mirafi HP370 geotextile fabric placed on the subgrade soil beneath the porous paving section. These pavement systems should only be used with the understanding by the Owner of the increased potential for pavement cracking, rutting, potholes, etc.

g. Maintenance should be undertaken on a routine basis.

SURFACE DRAINAGE

59. Surface water drainage is the responsibility of the project civil engineer. The following should be considered by the civil engineer in design of the project.

60. Surface water must not be allowed to pond or be trapped adjacent to foundations, or on building pads and parking areas.

61. All roof eaves should be guttered, with the outlets from the downspouts provided with adequate capacity to carry the storm water away from structures to reduce the possibility of soil saturation and erosion. The connection should be in a closed conduit which discharges at an approved location away from structures and graded areas.

62. Final grades should be provided with positive gradient away from all foundation elements. Soil grades should slope away from foundations at least 5 percent for the first 10 feet. Impervious surfaces should slope away from foundations at least 2 percent for the first 10 feet. Concentrations of surface runoff should be handled by providing structures, such as paved or lined ditches, catch basins, etc.

63. Irrigation activities at the site should be done in a controlled and reasonable manner.

64. Following completion of the project we recommend that storm drainage provisions and performance of permanent erosion control measures be closely observed through the first season of significant rainfall, to determine if these systems are performing adequately and, if necessary, resolve any unforeseen issues.

65. The building and surface drainage facilities must not be altered nor any filling or excavation work performed in the area without first consulting Pacific Crest Engineering Inc. Surface drainage improvements developed by the project civil engineer must be maintained by the property owner at all times, as improper drainage provisions can produce undesirable affects.

EROSION CONTROL

66. The surface soils are classified as having a moderate potential for erosion. Therefore, the finished ground surface should be planted with ground cover and continually maintained to minimize surface erosion. For specific and detailed recommendations regarding erosion control on and surrounding the project site, the project civil engineer or an erosion control specialist should be consulted.

PLAN REVIEW

67. We respectfully request an opportunity to review the project plans and specifications during preparation and before bidding to verify that the recommendations of this report have been included and to provide additional recommendations, if needed. These plan review services are also typically required by the reviewing agency. Misinterpretation of our recommendations or omission of our requirements from the project plans and specifications may result in changes to the project design during the construction phase, with the potential for additional costs and delays in order to bring the project into conformance with the requirements outlined within this report. Services performed for review of the project plans and specifications are considered “post-report” services and billed on a “time and materials” fee basis in accordance with our latest Standard Fee Schedule.

VI. LIMITATIONS AND UNIFORMITY OF CONDITIONS

1. This Geotechnical Investigation was prepared specifically for SVMHS and for the specific project and location described in the body of this report. This report and the recommendations included herein should be utilized for this specific project and location exclusively. This Geotechnical Investigation should not be applied to nor utilized on any other project or project site. Please refer to the ASFE “Important Information about Your Geotechnical Engineering Report” attached with this report.

2. The recommendations of this report are based upon the assumption that the soil conditions do not deviate from those disclosed in the borings. If any variations or undesirable conditions are encountered during construction, or if the proposed construction will differ from that planned at the time, our firm should be notified so that supplemental recommendations can be provided.

3. This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information and recommendations contained herein are called to the attention of the Architects and Engineers for the project and incorporated into the plans, and that the necessary steps are taken to ensure that the Contractors and Subcontractors carry out such recommendations in the field.

4. The findings of this report are valid as of the present date. However, changes in the conditions of a property can occur with the passage of time, whether they are due to natural process or the works of man, on this or adjacent properties. In addition, changes in applicable or appropriate standards occur, whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated, wholly or partially, by changes outside of our control. This report should therefore be reviewed in light of future planned construction and then current applicable codes. This report should not be considered valid after a period of two (2) years without our review.

5. This report was prepared upon your request for our services in accordance with currently accepted standards of professional geotechnical engineering practice. No warranty as to the contents of this report is intended, and none shall be inferred from the statements or opinions expressed.

6. The scope of our services mutually agreed upon for this project did not include any environmental assessment or study for the presence of hazardous or toxic materials in the soil, surface water, groundwater, or air, on or below or around this site.

Important Information About Your

Geotechnical Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

The following information is provided to help you manage your risks.

Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical engineering study conducted for a civil engineer may not fulfill the needs of a construction contractor or even another civil engineer. Because each geotechnical engineering study is unique, each geotechnical engineering report is unique, prepared *solely* for the client. No one except you should rely on your geotechnical engineering report without first conferring with the geotechnical engineer who prepared it. *And no one — not even you —* should apply the report for any purpose or project except the one originally contemplated.

Read the Full Report

Serious problems have occurred because those relying on a geotechnical engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

A Geotechnical Engineering Report Is Based on A Unique Set of Project-Specific Factors

Geotechnical engineers consider a number of unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, do not rely on a geotechnical engineering report that was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light industrial plant to a refrigerated warehouse,
- elevation, configuration, location, orientation, or weight of the proposed structure,
- composition of the design team, or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes—even minor ones—and request an assessment of their impact. *Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.*

Subsurface Conditions Can Change

A geotechnical engineering report is based on conditions that existed at the time the study was performed. *Do not rely on a geotechnical engineering report* whose adequacy may have been affected by: the passage of time; by man-made events, such as construction on or adjacent to the site; or by natural events, such as floods, earthquakes, or groundwater fluctuations. *Always* contact the geotechnical engineer before applying the report to determine if it is still reliable. A minor amount of additional testing or analysis could prevent major problems.

Most Geotechnical Findings Are Professional Opinions

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ—sometimes significantly—from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide construction observation is the most effective method of managing the risks associated with unanticipated conditions.

A Report's Recommendations Are *Not* Final

Do not overrely on the construction recommendations included in your report. *Those recommendations are not final,* because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations only by observing actual

subsurface conditions revealed during construction. *The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's recommendations if that engineer does not perform construction observation.*

A Geotechnical Engineering Report Is Subject to Misinterpretation

Other design team members' misinterpretation of geotechnical engineering reports has resulted in costly problems. Lower that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Contractors can also misinterpret a geotechnical engineering report. Reduce that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing construction observation.

Do Not Redraw the Engineer's Logs

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

Give Contractors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can make contractors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give contractors the complete geotechnical engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise contractors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure contractors have sufficient time* to perform additional study. Only then might you be in a position to give contractors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

Read Responsibility Provisions Closely

Some clients, design professionals, and contractors do not recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that have led to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations" many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The equipment, techniques, and personnel used to perform a *geoenvironmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical engineering report does not usually relate any geoenvironmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own geoenvironmental information, ask your geotechnical consultant for risk management guidance. *Do not rely on an environmental report prepared for someone else.*

Obtain Professional Assistance To Deal with Mold

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the *express purpose* of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, a number of mold prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of the geotechnical engineering study whose findings are conveyed in this report, the geotechnical engineer in charge of this project is not a mold prevention consultant; ***none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention. Proper implementation of the recommendations conveyed in this report will not of itself be sufficient to prevent mold from growing in or on the structure involved.***

Rely, on Your ASFE-Member Geotechncial Engineer for Additional Assistance

Membership in ASFE/The Best People on Earth exposes geotechnical engineers to a wide array of risk management techniques that can be of genuine benefit for everyone involved with a construction project. Confer with you ASFE-member geotechnical engineer for more information.

ASFE
The Best People on Earth

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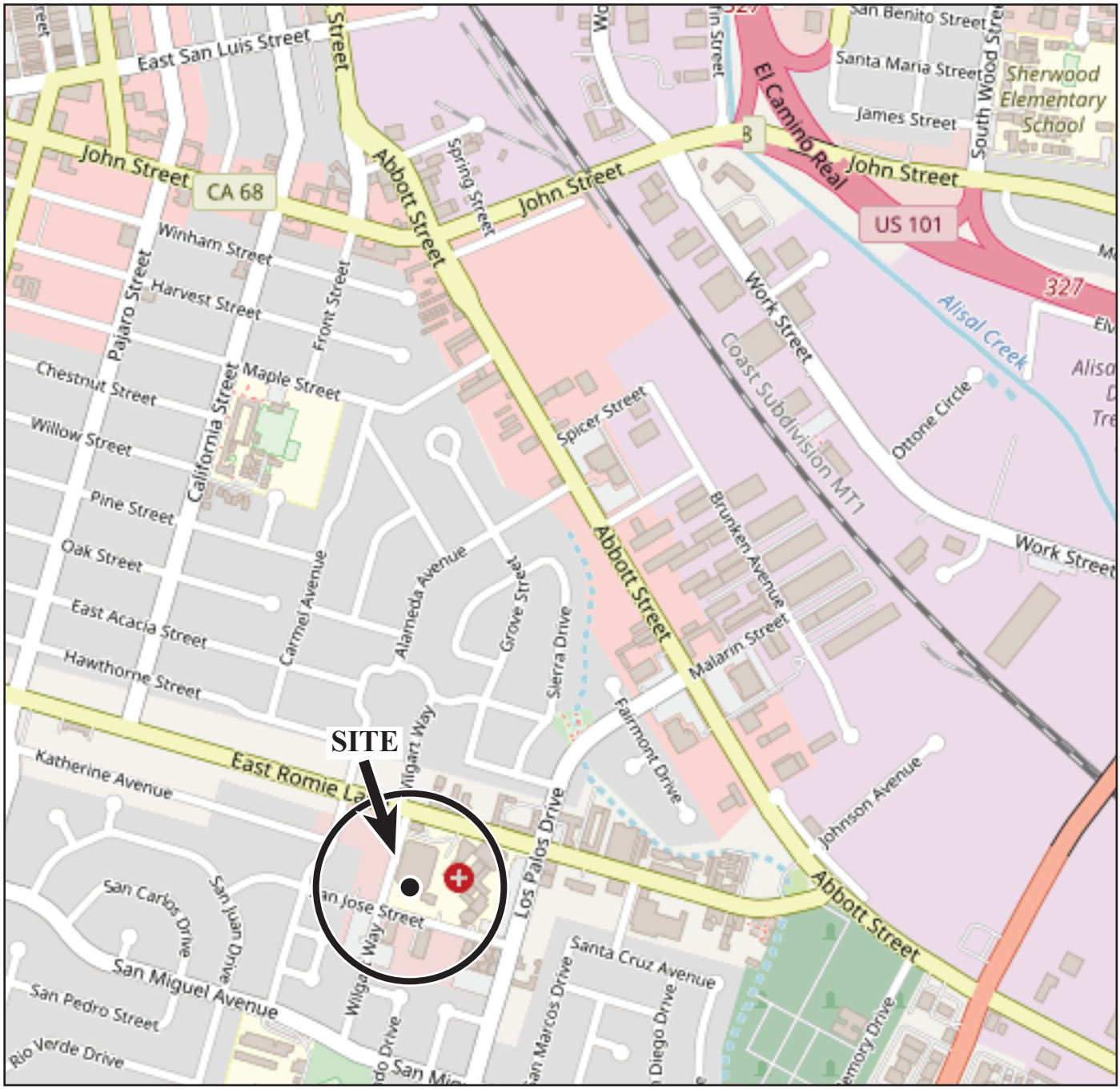
APPENDIX A

Regional Site Map
Site Map Showing Test Borings
Subsurface Soil Profile
Key to Soil Classification
Log of Test Borings
Atterberg Limits
Direct Shear Test Results
Surcharge Pressure Diagram
Typical Retaining Wall Drain Detail



0 1000 ft.

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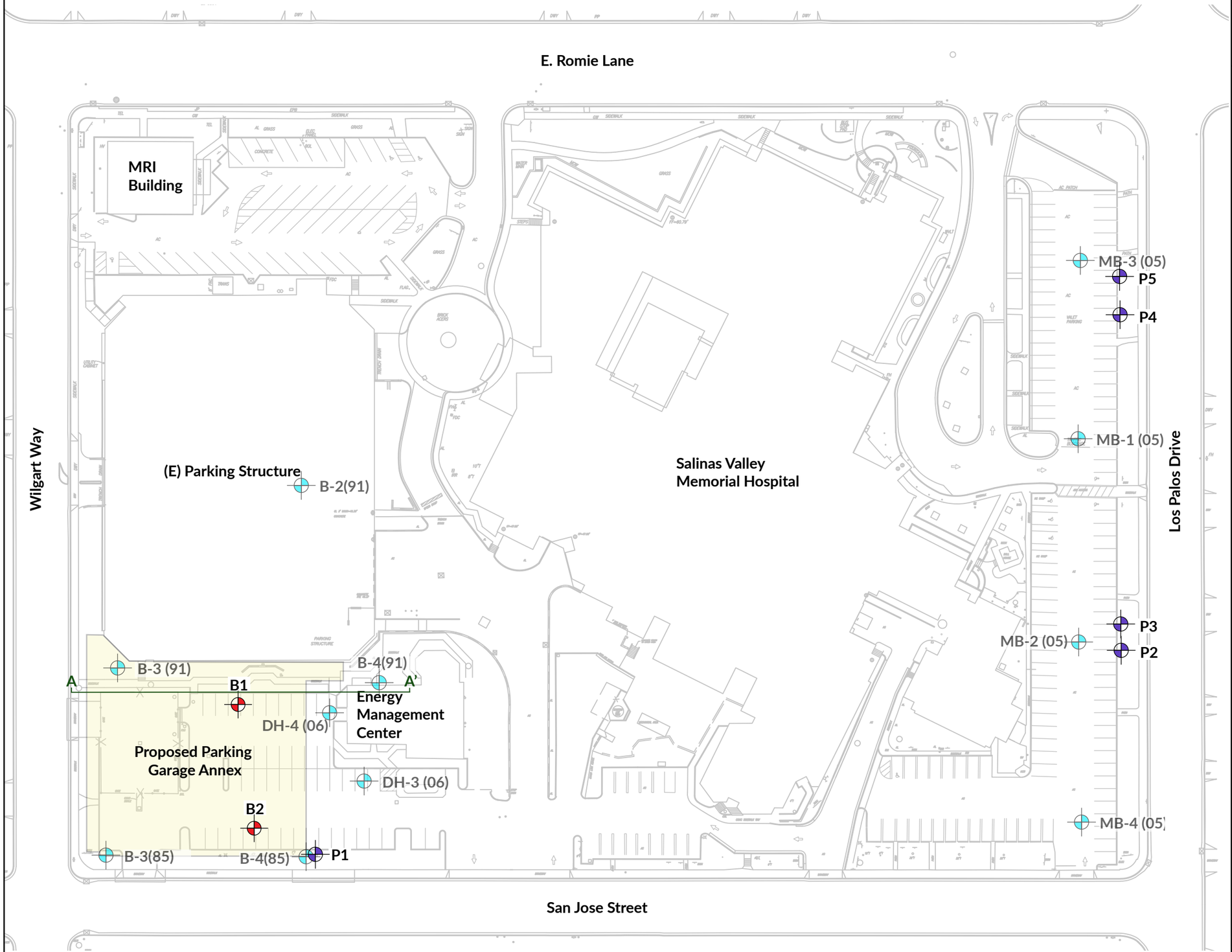
Base Map: © OpenStreetMap contributors

Pacific Crest ENGINEERING INC	**Regional Site Map** SVMH Parking Garage Annex Salinas, California	Figure No. 1 Project No. 19132 Date: 2/12/2020



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Site Map Showing Test Boring Locations
SVMH Parking Garage Annex
Salinas, California

EXPLANATION

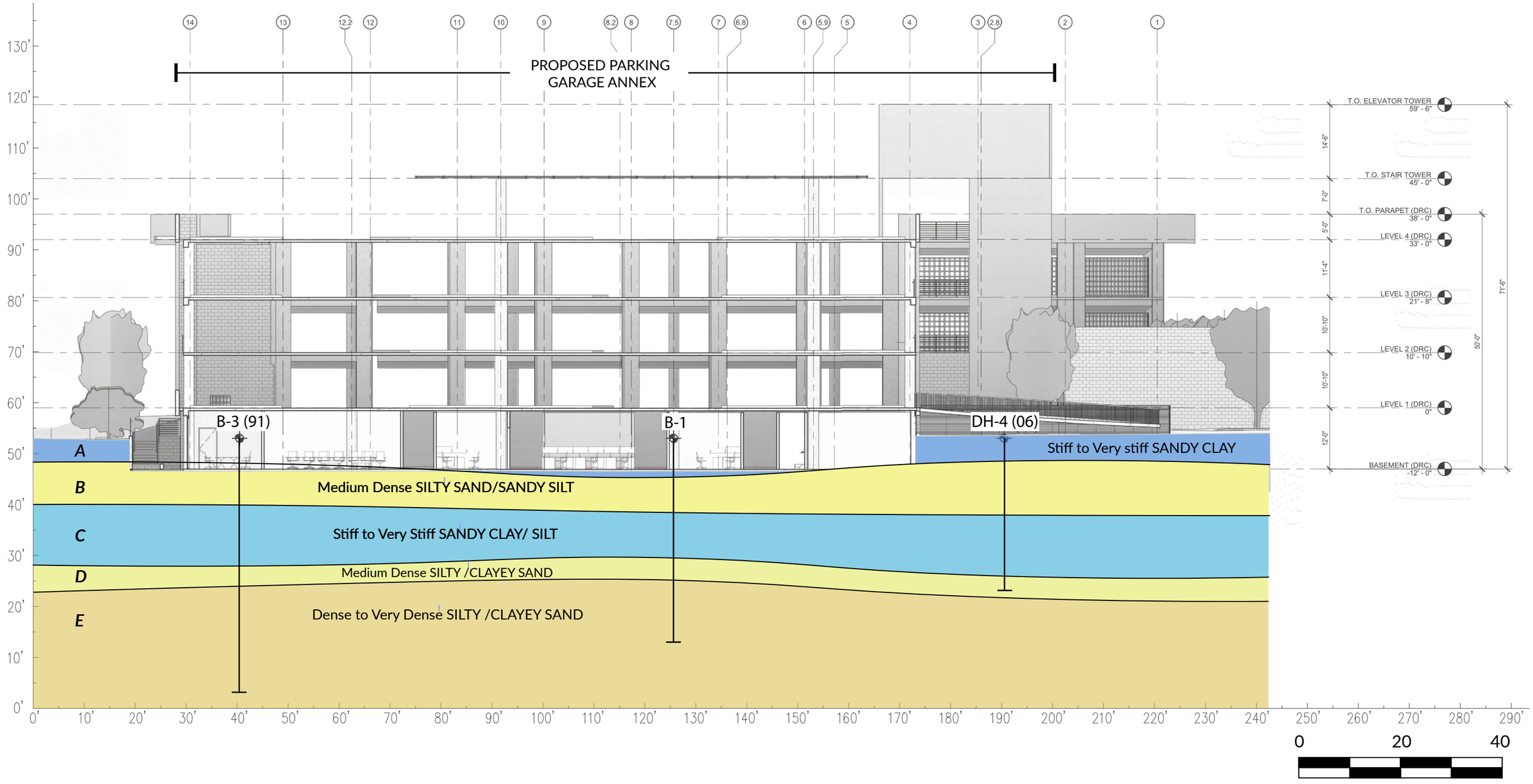
- Approximate Location of Test Boring
- Approximate Location of Infiltration Test Boring
- Approximate Location of Test Boring From Previous Investigations Used in Engineering Analysis
- A A' Line of Subsurface Soil Profile

0 70' 140'

Scale: 1 inch = 70 feet

Base Map Provided By
Kimley Horn dated 11/19/19

Figure No. 2
Project No. 19132
Date: 2/12/2020



Scale: 1 inch = 20 feet

Base Map Provided By Kimley Horn dated 11/19/19

Pacific Crest ENGINEERING INC

Subsurface Soil Profile
SVMH Parking Garage Annex
Salinas, California

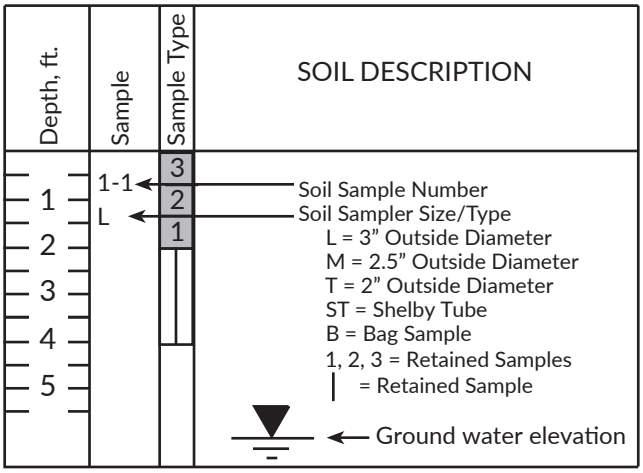
Figure No. 3
Project No. 19132
Date: 2/12/2019

KEY TO SOIL CLASSIFICATION - FINE GRAINED SOILS (FGS)
UNIFIED SOIL CLASSIFICATION SYSTEM - ASTM D2487 (Modified)

MAJOR DIVISIONS		SYMBOL	FINES	COARSENESS	SAND/GRAVEL	GROUP NAME
SILT AND CLAY	*LL < 35% Low Plasticity	**CL** Lean Clay PI > 7 Plots Above A Line -OR- **ML** Silt PI > 4 Plots Below A Line	<30% plus No. 200	<15% plus No. 200		Lean Clay / Silt
				15-30% plus No. 200	% sand ≥ % gravel	Lean Clay with Sand / Silt with Sand
					% sand < % gravel	Lean Clay with Gravel / Silt with Gravel
			≥30% plus No. 200	% sand ≥ % gravel	< 15% gravel	Sandy Lean Clay / Sandy Silt
					≥ 15% gravel	Sandy Lean Clay with Gravel / Sandy Silt with Gravel
				% sand < % gravel	< 15% sand	Gravelly Lean Clay / Gravelly Silt
					≥ 15% sand	Gravelly Lean Clay with Sand / Gravelly Silt with Sand
		CL - ML 4 < PI < 7	<30% plus No. 200	<15% plus No. 200		Silty Clay
				15-30% plus No. 200	% sand ≥ % gravel	Silty Clay with Sand
					% sand < % gravel	Silty Clay with Gravel
			≥30% plus No. 200	% sand ≥ % gravel	< 15% gravel	Sandy Silty Clay
					≥15% gravel	Sandy Silty Clay with Gravel
				% sand < % gravel	< 15% sand	Gravelly Silty Clay
					≥ 15% sand	Gravelly Silty Clay with Sand
	35% ≤ *LL < 50% Intermediate Plasticity	**CI**	<30% plus No. 200	<15% plus No. 200		Clay
				15-30% plus No. 200	% sand ≥ % gravel	Clay with Sand
					% sand < % gravel	Clay with Gravel
			≥30% plus No. 200	% sand ≥ % gravel	< 15% gravel	Sandy Clay
					≥ 15% gravel	Sandy Clay with Gravel
				% sand < % gravel	< 15% sand	Gravelly Clay
					≥ 15% sand	Gravelly Clay with Sand
	*LL > 50% High Plasticity	**CH** Fat Clay Plots Above A Line -OR- **MH** Elastic Silt Plots Below A Line	<30% plus No. 200	<15% plus No. 200		Fat Clay or Elastic Silt
				15-30% plus No. 200	% sand ≥ % gravel	Fat Clay with Sand Elastic Silt with Sand
					% sand < % gravel	Fat Clay with Gravel / Elastic Silt with Gravel
			≥30% plus No. 200	% sand ≥ % gravel	< 15% gravel	Sandy Fat Clay / Sandy Elastic Silt
					≥ 15% gravel	Sandy Fat Clay with Gravel / Sandy Elastic Silt with Gravel
				% sand < % gravel	< 15% sand	Gravelly Fat Clay / Gravelly Elastic Silt
					≥ 15% sand	Gravelly Fat Clay with Sand / Gravelly Elastic Silt with Sand

* LL = Liquid Limit
* PI = Plasticity Index

BORING LOG EXPLANATION



MOISTURE

DESCRIPTION	CRITERIA
DRY	Absence of moisture, dusty, dry to the touch
MOIST	Damp, but no visible water
WET	Visible free water, usually soil is below the water table

CONSISTENCY

DESCRIPTION	UNCONFINED SHEAR STRENGTH (KSF)	STANDARD PENETRATION (BLOWS/FOOT)
VERY SOFT	< 0.25	< 2
SOFT	0.25 - 0.5	2 - 4
FIRM	0.5 - 1.0	5 - 8
STIFF	1.0 - 2.0	9 - 15
VERY STIFF	2.0 - 4.0	16 - 30
HARD	> 4.0	> 30

Pacific Crest ENGINEERING INC

Boring Log Explanation - FGS
SVMH Parking Garage Annex
Salinas, California

Figure No. 4
Project No. 19132
Date: 2/12/2020

KEY TO SOIL CLASSIFICATION - COARSE GRAINED SOILS
UNIFIED SOIL CLASSIFICATION SYSTEM - ASTM D2487 (Modified)

MAJOR DIVISIONS		FINES	GRADE/TYPE OF FINES	SYMBOL	GROUP NAME *
GRAVEL	More than 50% of coarse fraction is larger than No. 4 sieve size	<5%	Cu ≥ 4 and 1 ≤ Cc ≤ 3	GW	Well-Graded Gravel / Well-Graded Gravel with Sand
			Cu < 4 and/or 1 > Cc > 3	GP	Poorly Graded Gravel/Poorly Graded Gravel with Sand
		5-12%	ML or MH	GW - GM	Well-Graded Gravel with Silt / Well- Graded Gravel with Silt and Sand
				GP - GM	Poorly Graded Gravel with Silt / Poorly Graded Gravel with Silt and Sand
			CL, CI or CH	GW - GC	Well-Graded Gravel with Clay / Well-Graded Gravel with Clay and Sand
				GP - GC	Poorly Graded Gravel with Clay / Poorly Graded Gravel with Clay and Sand
		>12%	ML or MH	GM	Silty Gravel / Silty Gravel with Sand
			CL, CI or CH	GC	Clayey Gravel/Clayey Gravel with Sand
			CL - ML	GC - GM	Silty, Clayey Gravel/Silty, Clayey Gravel with Sand
SAND	50% or more of coarse fraction is smaller than No. 4 sieve size	<5%	Cu ≥ 6 and 1 ≤ Cc ≤ 3	SW	Well-Graded Sand / Well-Graded Sand with Gravel
			Cu < 6 and/or 1 > Cc > 3	SP	Poorly Graded Sand / Poorly Graded Sand with Gravel
		5-12%	ML or MH	SW - SM	Well-Graded Sand with Silt / Well- Graded Sand with Silt and Gravel
				SP - SM	Poorly Graded Sand with Silt / Poorly Graded Sand with Silt and Gravel
			CL, CI or CH	SW - SC	Well-Graded Sand with Clay / Well-Graded Sand with Clay and Gravel
				SP - SC	Poorly Graded Sand with Clay / Poorly Graded Sand with Clay and Gravel
		>12%	ML or MH	SM	Silty Sand / Silty Sand with Gravel
			CL, CI or CH	SC	Clayey Sand / Clayey Sand with Gravel
			CL - ML	SC - SM	Silty, Clayey Sand / Silty, Clayey Sand with Gravel

* The term "with sand" refers to materials containing 15% or greater sand particles within a gravel soil, while the term "with gravel" refers to materials containing 15% or greater gravel particles within a sand soil.

US STANDARD SIEVE SIZE:	3 inch	¾ inch	No. 4	No. 10	No. 40	No. 200	0.002 µm
	COARSE	FINE	COARSE	MEDIUM	FINE		
COBBLES AND BOULDERS	GRAVEL		SAND			SILT	CLAY

RELATIVE DENSITY

DESCRIPTION	STANDARD PENETRATION (BLOWS/FOOT)
VERY LOOSE	0 - 4
LOOSE	5 - 10
MEDIUM DENSE	11 - 30
DENSE	31 - 50
VERY DENSE	> 50

MOISTURE

DESCRIPTION	CRITERIA
DRY	Absence of moisture, dusty, dry to the touch
MOIST	Damp, but no visible water
WET	Visible free water, usually soil is below the water table

LOGGED BY MJM DATE DRILLED 12/9/19 BORING DIAMETER 8" HS BORING NO. 1

DRILL RIG EGI Mobile B-61 HAMMER TYPE Wireline - Downhole Hammer

Depth (feet)	Sample	Sample Type	Soil Description	USCS	Field Blow Counts	SPT "N" Value	Pocket Pen. (tsf)	Moisture Content (%)	Dry Density (pcf)	% Passing #200	Plasticity Index	Additional Lab Results
			4" Asphalt Concrete 8" Aggregate Base									
1	1-1 L		**SANDY CLAY:** Brown (10YR 5/3) and dark grayish-brown (10YR 4/2), low plasticity, poorly-graded, very fine-grained, trace rootlets, dry, stiff	CL	8							
2		2			8							
		1			10	14						
3	1-2 T		Lack of rootlets, dry, very stiff		7							
					9							
4					15	24						
5	1-3 L		Dry, very stiff		10							
6		2			20							
		1			23	29		10.6	94.0	65.4		
7												
8												
			SILTY SAND: Light yellowish-brown (2.5Y 6/3), poorly-graded, very fine- to fine-grained, dry, medium dense	SM								
9	1-4 T				7							
					8							
10					9	17						
11												
12												
13												
14	1-5 L		Less fines than previous sample, dry		8							
		2			9			3.1	89.7			
15		1	**SANDY CLAY:** Mottled very dark gray (2.5Y 3/1) and light olive brown (2.5Y 3/1), intermediate plasticity, moist, stiff	CI	9	14						
16												
17												
18												
19	1-6 T		Color change to dark grayish-brown (2.5Y 4/2), slightly silty near 20 feet, moist, very stiff		8							
					10							
20					11	21		23.0		66.1	22	
21												
22												
23												

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Log of Test Borings
SVMH Parking Garage Annex
Salinas, California

Figure No. 6
Project No. 19132
Date: 2/12/2020

LOGGED BY MJM DATE DRILLED 12/9/19 BORING DIAMETER 8" HS BORING NO. 1

DRILL RIG EGI Mobile B-61 HAMMER TYPE Wireline - Downhole Hammer

Depth (feet)	Sample	Sample Type	Soil Description	USCS	Field Blow Counts	SPT "N" Value	Pocket Pen. (tsf)	Moisture Content (%)	Dry Density (pcf)	% Passing #200	Plasticity Index	Additional Lab Results
24	1-7 L	2	**SILTY SAND:** Dark grayish-brown (10YR 4/2) and dark yellowish-brown (10YR 4/6), poorly-graded, very fine- to fine-grained, trace rounded medium grains, low plasticity, moist, medium dense	SM	10 14							
25		1			26	21		11.3	123.2	48.9		
26												
27												
28												
29	1-8 L		Color change to light yellowish-brown (2.5Y 6/4) and brown (10YR 4/3), decrease in fines content, fine- to medium-grained, moist, dense		16 23							
30					27	50		7.2		15.9		
31												
32												
33												
34	1-9 L	2	Slightly coarser grained, trace sub-rounded to rounded gravels up to ¾ inch in diameter, moist, very dense		48							
35		1			50/5"	50/5"		7.5	108.8			
36												
37												
38												
39	1-10 T		Decrease fines content, moist, very dense		28 38							
40					49	87						
41			Boring terminated at 40 feet. No groundwater encountered.									
42												
43												
44												
45												
46												

Pacific Crest ENGINEERING INC

Log of Test Borings
SVMH Parking Garage Annex
Salinas, California

Figure No. 7
Project No. 19132
Date: 2/12/2020

LOGGED BY MJM DATE DRILLED 12/17/19 BORING DIAMETER 8" HS BORING NO. 2

DRILL RIG EGI Mobile B-40 HAMMER TYPE Wireline - Downhole Hammer

Depth (feet)	Sample	Sample Type	Soil Description	USCS	Field Blow Counts	SPT "N" Value	Pocket Pen. (tsf)	Moisture Content (%)	Dry Density (pcf)	% Passing #200	Plasticity Index	Additional Lab Results
			3½" Asphalt Concrete and 5½" Aggregate Base									
1	2-1 L		**SANDY CLAY:** Dark grayish-brown (10YR 4/2), low plasticity, sand is poorly-graded, very fine-grained, trace roots up to 1/8 inch in diameter, dry, very stiff	CL	10							
2		2			17							
		1			28	30	4.5	8.4	98.2	53.3	11	
3	2-2 T		Lack of roots, dry, very stiff		10							
					11							
4					14	25						
5	2-3 L		**LEAN CLAY:** Light brownish-gray, low plasticity, sand is poorly-graded, very fine- to fine-grained, trace roots up to 1/8 inch in diameter, dry, very stiff	CL	12							
6		2			13							
		1			15	21		18.3	79.9	94.8		
7												
8			**SILTY SAND:** Light brownish-gray (2.5Y 6/2), poorly-graded, very fine-grained, dry, medium dense	SM								
9	2-4 T				8							
					8							
10					11	19		10.1				
11												
12												
13												
14	2-5 L				12							
		2	Slight decrease in silt fraction, dry, medium dense		18							
		1	**FAT CLAY:** Very dark gray (2.5Y 3/1) high plasticity, dry to moist, very stiff	CH	33	28		24.6	90.0	99.6	50	
15												
16												
17												
18												
19	2-6 T		**SANDY SILT:** Light yellowish-brown (2.5Y 6/4), poorly-graded, very fine-grained, slightly plastic between 18½ and 19 feet, dry, hard	ML	10							
					14							
20					19	33		14.7		71.2		
21												
22												
23												

Pacific Crest ENGINEERING INC

Log of Test Borings
SVMH Parking Garage Annex
Salinas, California

Figure No. 8
Project No. 19132
Date: 2/12/2020

LOGGED BY MJM DATE DRILLED 12/17/19 BORING DIAMETER 8" HS BORING NO. 2

DRILL RIG EGI Mobile B-40 HAMMER TYPE Wireline - Downhole Hammer

Depth (feet)	Sample	Sample Type	Soil Description	USCS	Field Blow Counts	SPT "N" Value	Pocket Pen. (tsf)	Moisture Content (%)	Dry Density (pcf)	% Passing #200	Plasticity Index	Additional Lab Results
24	2-7 L		**SILTY SAND:** Yellowish-brown (10YR 5/4), poorly-graded, very fine- to medium-grained, trace well rounded medium gravels up to ¼ inch in diameter, moist, dense	SM	40							
		2			48							
25		1			36	44		6.3	109.7	21.4		
26												
27												
28												
29	2-8 T		Slight increase in gravel fraction, gravels are round to well-rounded and up to ¾ inch in diameter, moist, very dense		23							
					47							
30					50/5"	50/5"						
31												
32												
33												
34	2-9 L		Medium- to coarse-grained, moist, very dense		41							
		2			46							
35		1			50/5"	50/5"		6.7	103.3			
36												
37												
38												
39	2-10 T		Sand is very fine- to fine-grained transitioning to fine- to medium-grained with gravels up to ¾ inch in diameter near 39½ feet, moist, very dense		28							
					48							
40					43	91						
41												
42												
43												
44	2-11 T		Color change to variegated light gray (2.5Y 7/2) and light olive brown (2.5Y 5/4), fine- to medium-grained, lack of gravels, moist, very dense		13							
					23							
45					33	56						
46												

Pacific Crest ENGINEERING INC

Log of Test Borings
SVMH Parking Garage Annex
Salinas, California

Figure No. 9
Project No. 19132
Date: 2/12/2020

LOGGED BY MJM DATE DRILLED 12/17/19 BORING DIAMETER 8" HS BORING NO. 2

DRILL RIG EGI Mobile B-40 HAMMER TYPE Wireline - Downhole Hammer

Depth (feet)	Sample	Sample Type	Soil Description	USCS	Field Blow Counts	SPT "N" Value	Pocket Pen. (tsf)	Moisture Content (%)	Dry Density (pcf)	% Passing #200	Plasticity Index	Additional Lab Results
47			**SAND WITH SILT:** Variegated light gray (2.5Y 7/2) and light olive brown (2.5Y 5/4), poorly-graded, very fine- to fine-grained, slightly coarser grained between 49½ and 50 feet, moist, dense	SP-SM								
48												
49	2-12 T				8 13							
50					19	32		7.8		10.5		
			Boring terminated at 50 feet. No groundwater encountered.									
51												
52												
53												
54												
55												
56												
57												
58												
59												
60												
61												
62												
63												
64												
65												
66												
67												
68												
69												

Pacific Crest ENGINEERING INC

Log of Test Borings
SVMH Parking Garage Annex
Salinas, California

Figure No. 10
Project No. 19132
Date: 2/12/2020

LOGGED BY MJM | DATE DRILLED 12/9/19 | BORING DIAMETER 8" HS | BORING NO. P1

DRILL RIG EGI Mobile B-61 | HAMMER TYPE Wireline - Downhole Hammer

Depth (feet)	Sample	Sample Type	Soil Description	USCS	Field Blow Counts	SPT "N" Value	Pocket Pen. (tsf)	Moisture Content (%)	Dry Density (pcf)	% Passing #200	Plasticity Index	Additional Lab Results
1	P1-1 L		**SILTY SAND:** Very dark grayish-brown (10YR 3/2), poorly-graded, very fine-grained, trace roots and rootlets, dry, medium dense	SM	12							
2		1			17							
3					11	15						
4	P1-2 T		**SANDY CLAY:** Grayish-brown (10YR 5/2), low plasticity, sand is poorly-graded, very fine-grained, dry, very stiff	CL	7							
5					10							
					16	26		7.1		55.7		
10	P1-3 L		**SILTY SAND:** Light brownish-gray (2.5Y 6/2), poorly-graded, very fine-grained, dry, medium dense	SM	7							
11		2			12							
		1			15	14		7.9	94.9	37.1		
12			Boring terminated at 11½ feet. No groundwater encountered.									

Pacific Crest ENGINEERING INC

Log of Test Borings
SVMH Parking Garage Annex
Salinas, California

Figure No. 11
Project No. 19132
Date: 2/12/2020

LOGGED BY MJM DATE DRILLED 12/9/19 BORING DIAMETER 8" HS BORING NO. P2

DRILL RIG EGI Mobile B-61 HAMMER TYPE Wireline - Downhole Hammer

Depth (feet)	Sample	Sample Type	Soil Description	USCS	Field Blow Counts	SPT "N" Value	Pocket Pen. (tsf)	Moisture Content (%)	Dry Density (pcf)	% Passing #200	Plasticity Index	Additional Lab Results
1	P2-1 L		**CLAYEY SAND:** Very dark gray (10YR 3/1), poorly-graded, very fine-grained, low plasticity, trace roots and rootlets, moist, loose	SC	3							
2		1			6 9	8						
3												
4	P2-2 T		**SILTY SAND:** Dark grayish-brown (2.5Y 4/2), poorly-graded, very fine-grained, moist, loose	SM	3 4							
5					6	10		19.9		47.8		
6												
7												
8												
9	P2-3 L		**SANDY SILT:** Dark grayish-brown (2.5Y 4/2), poorly-graded, very fine-grained, lense of sandy clay between 9 and 9½ feet, moist, very stiff	ML	12 16							
10		1			19	25		13.6	92.6	53.0		
11			Boring terminated at 10 feet. No groundwater encountered.									
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												

Pacific Crest ENGINEERING INC

Log of Test Borings
SVMH Parking Garage Annex
Salinas, California

Figure No. 12
Project No. 19132
Date: 2/12/2020

LOGGED BY MJM DATE DRILLED 12/9/19 BORING DIAMETER 8" HS BORING NO. P3

DRILL RIG EGI Mobile B-61 HAMMER TYPE Wireline - Downhole Hammer

Depth (feet)	Sample	Sample Type	Soil Description	USCS	Field Blow Counts	SPT "N" Value	Pocket Pen. (tsf)	Moisture Content (%)	Dry Density (pcf)	% Passing #200	Plasticity Index	Additional Lab Results
1	P3-1 L		**SANDY CLAY:** Very dark gray (10YR 3/1), poorly-graded, very fine-grained, low plasticity, trace roots and rootlets, moist, very stiff	CL	8							
2		1			12 14	20		23.3	95.4	61.3		
3												
4	P3-2 T		**SANDY SILT:** Dark grayish-brown (2.5Y 4/2), low plasticity, poorly-graded, very fine-grained, trace rootlets, moist, loose	ML	3 5							
5					5	10		21.6		54.3		
6			Boring terminated at 5 feet. No groundwater encountered.									
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												

Pacific Crest ENGINEERING INC

Log of Test Borings
SVMH Parking Garage Annex
Salinas, California

Figure No. 13
Project No. 19132
Date: 2/12/2020

LOGGED BY MJM DATE DRILLED 12/9/19 BORING DIAMETER 8" HS BORING NO. P4

DRILL RIG EGI Mobile B-61 HAMMER TYPE Wireline - Downhole Hammer

Depth (feet)	Sample	Sample Type	Soil Description	USCS	Field Blow Counts	SPT "N" Value	Pocket Pen. (tsf)	Moisture Content (%)	Dry Density (pcf)	% Passing #200	Plasticity Index	Additional Lab Results
1	P4-1 L		**CLAYEY SAND:** Very dark gray (10YR 3/1), poorly-graded, very fine-grained, low plasticity, trace roots and rootlets, moist, loose	SC	2							
2		1			4 7	6						
3												
4	P4-2 L		**SILTY SAND:** Brown (10YR 4/3), poorly-graded, very fine-grained, trace rootlets, moist, loose	SM	4							
5		2 1			6 10	8		12.3	95.4	29.8		
6			Boring terminated at 5 feet. No groundwater encountered.									
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												

Pacific Crest ENGINEERING INC

Log of Test Borings
SVMH Parking Garage Annex
Salinas, California

Figure No. 14
Project No. 19132
Date: 2/12/2020

LOGGED BY MJM DATE DRILLED 12/9/19 BORING DIAMETER 8" HS BORING NO. P5

DRILL RIG EGI Mobile B-61 HAMMER TYPE Wireline - Downhole Hammer

Depth (feet)	Sample	Sample Type	Soil Description	USCS	Field Blow Counts	SPT "N" Value	Pocket Pen. (tsf)	Moisture Content (%)	Dry Density (pcf)	% Passing #200	Plasticity Index	Additional Lab Results
1	P5-1 L		**CLAYEY SAND:** Very dark gray (10YR 3/1), poorly-graded, very fine-grained, low plasticity, trace roots and rootlets, moist, loose	SC	4							
2		1			4 5	9						
3			**SANDY SILT:** Brown (10YR 4/3), low plasticity, poorly-graded, very fine-grained, slight increase in silt near 5 feet, moist, very stiff	ML								
4	P5-2 T				4 6							
5					10	16		13.8		68.5		
6												
7												
8												
9	P5-3 L		**SILT:** Brown (10YR 4/3), low plasticity, lense of sandy clay between 9 and 9½ feet, moist, very stiff	ML	8 10							
10		1			11	16		24.6	89.4	91.3		
11			Boring terminated at 10 feet. No groundwater encountered.									
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												

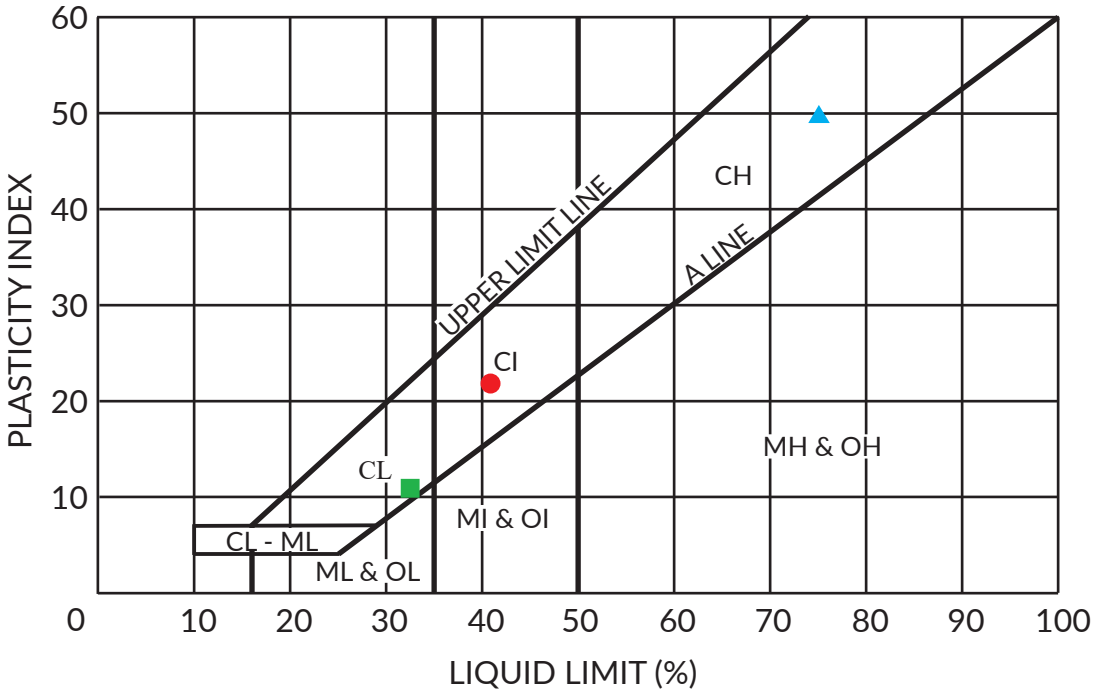
Pacific Crest ENGINEERING INC

Log of Test Borings
SVMH Parking Garage Annex
Salinas, California

Figure No. 15
Project No. 19132
Date: 2/12/2020

ATTERBERG LIMITS - ASTM D4318

PLASTICITY CHART



*This chart has been modified to include the intermediate classifications CI, MI and OI for clays and silts with liquid limits between 35 and 50.

SYMBOL	SAMPLE #	LL (%)	PL (%)	PI
●	1-6	41	19	22
■	2-1-1	32	21	11
▲	2-5-1	75	25	50

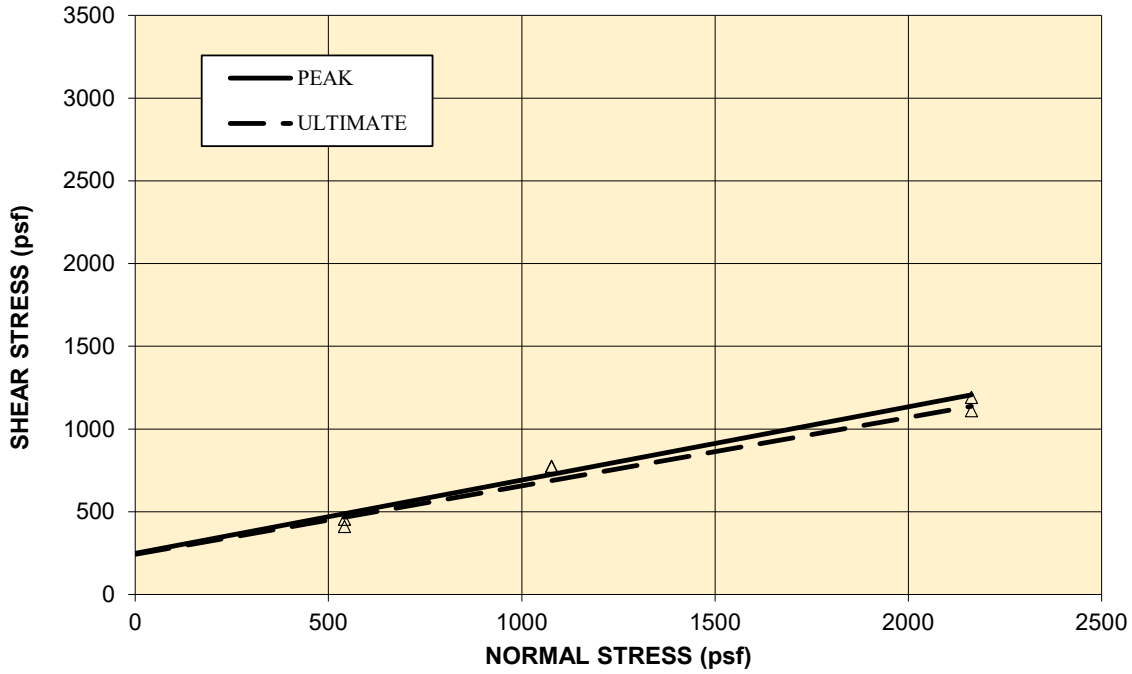
Pacific Crest ENGINEERING INC

Atterberg Limits
SVMH Parking Garage Annex
Salinas, California

Figure No. 16
Project No. 19132
Date: 2/12/2020

DIRECT SHEAR TEST - ASTM D3080

Direct Shear Test for Soils Under Consolidated Drained Conditions



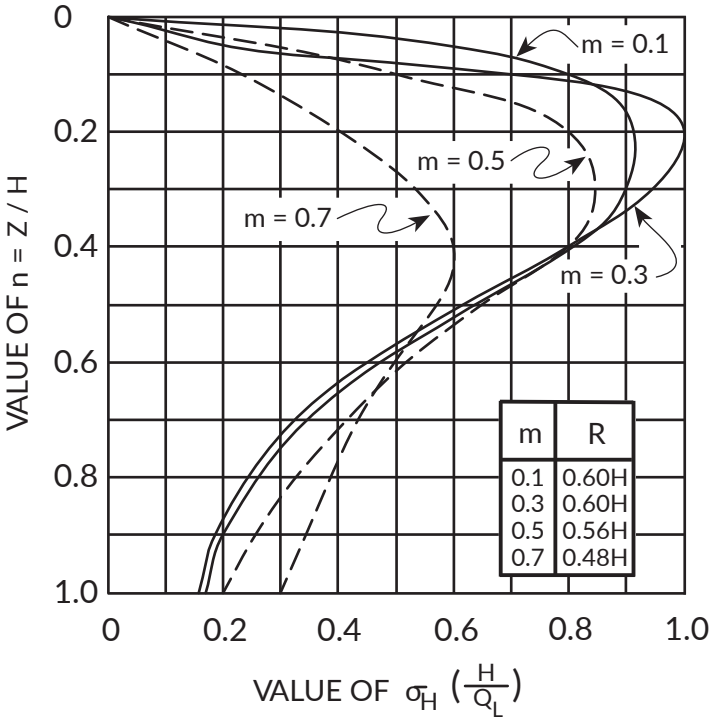
SAMPLE:	1-3-1	USCS:	ML
SOIL TYPE:		Sandy Silt	

	ϕ	C (psf)
PEAK	24	240
ULTIMATE	22	240

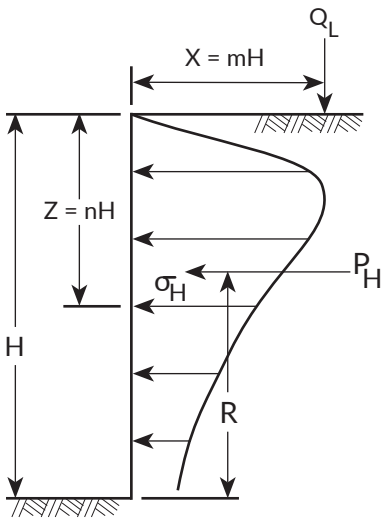
Initial Sample Data:

Sample:	A	B	C
Sample Diameter (in):	2.41	2.41	2.41
Initial Sample Height (in):	1.000	1.000	1.000
Wet Density (pcf):	102.9	101.9	100.3
Moisture (%):	14.4%	13.7%	14.2%
Dry Density (pcf):	89.9	89.6	87.8
Void Ratio:	0.87	0.88	0.92
% Saturation:	44.5%	42.0%	41.8%
Sample Data At Test:			
Normal Stress (psf):	541	1077	2163
Sample Height at Test (in):	0.991	0.993	0.992
Wet Density (pcf):	122.3	122.9	119.6
Moisture (%):	33.6%	35.0%	34.0%
Dry Density (pcf):	91.5	91.0	89.3
Void Ratio:	0.84	0.85	0.89
% Saturation:	107.9%	111.0%	103.2%
Strain Rate (in/min):	0.0030	0.0030	0.0030
Peak Shear Stress (psf):	455	775	1190
Ultimate Shear Stress (psf):	411	771	1110

LINE LOAD



m	R
0.1	0.60H
0.3	0.60H
0.5	0.56H
0.7	0.48H



FOR m ≦ 0.4:

$$\sigma_H \left(\frac{H}{Q_L}\right) = \frac{0.20\,n}{(0.16+n^2)^2}$$

$$P_H = 0.55 Q_L$$

FOR m > 0.4:

$$\sigma_H \left(\frac{H}{Q_L}\right) = \frac{1.28\,m^2 n}{(m^2+n^2)^2}$$

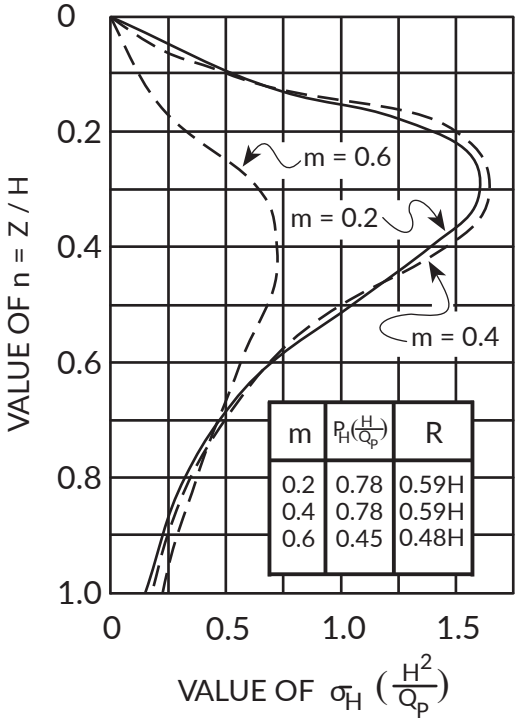
RESULTANT $P_H = \dfrac{0.64 Q_L}{(m^2+1)}$

PRESSURES FROM LINE LOAD Q_L

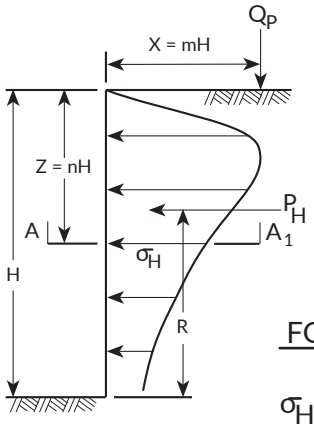
(BOUSSINESQ EQUATION MODIFIED BY

REFERENCE: Design Manual
NAVFAC DM-7.02
Figure 11
Page 7.2-74

POINT LOAD



m	$P_H(\frac{H}{Q_P})$	R
0.2	0.78	0.59H
0.4	0.78	0.59H
0.6	0.45	0.48H



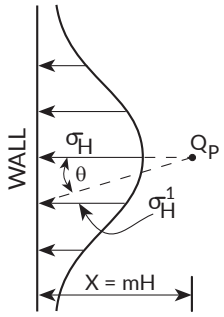
FOR m ≦ 0.4:

$$\sigma_H \left(\frac{H^2}{Q_P}\right) = \frac{0.28\,n^2}{(0.16+n^2)^3}$$

FOR m > 0.4:

$$\sigma_H \left(\frac{H^2}{Q_P}\right) = \frac{1.77\,m^2 n^2}{(m^2+n^2)^3}$$

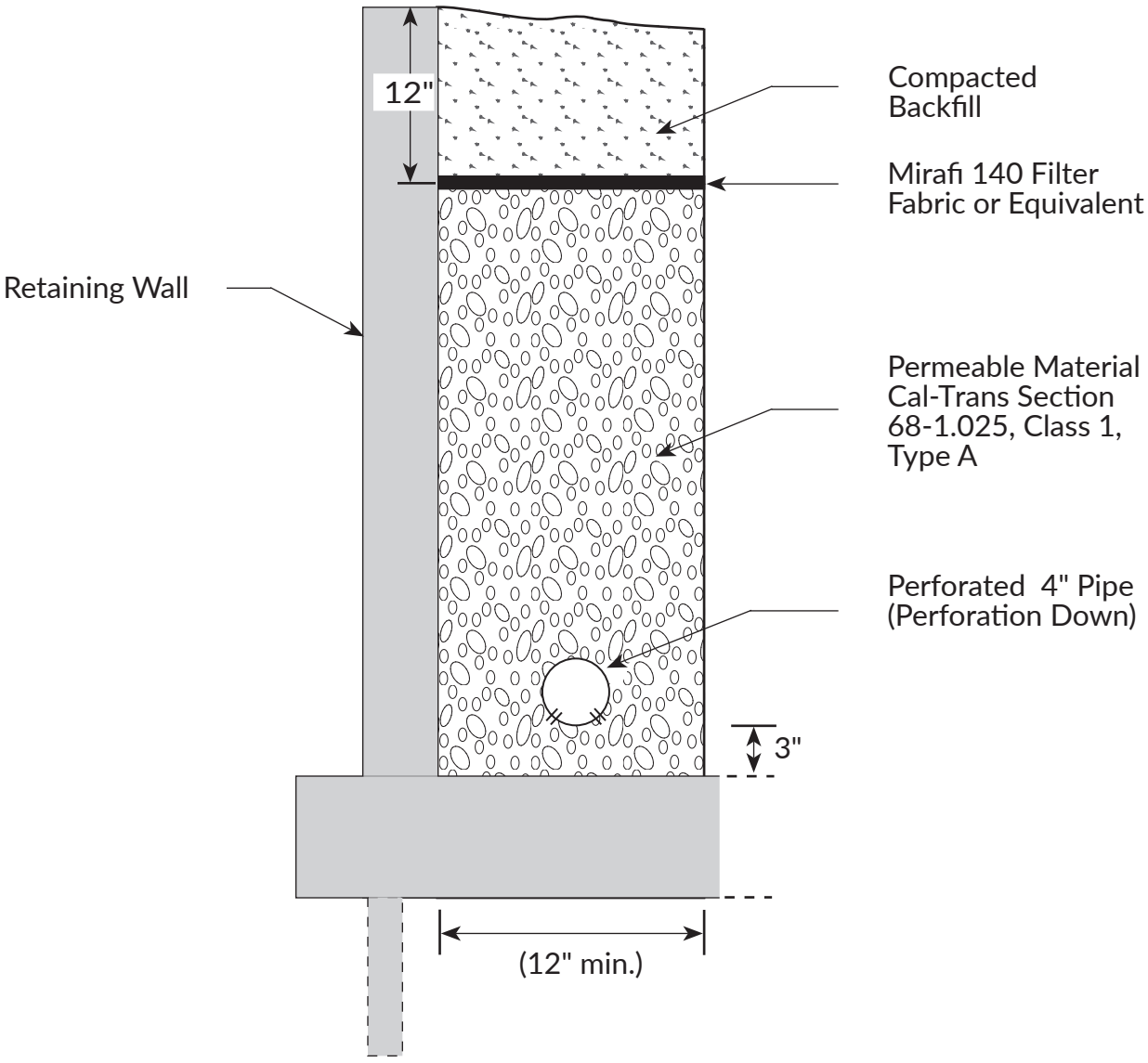
$$\sigma_H^1 = \sigma_H \cos^2(1.1\,q)$$



SECTION A-A_1

PRESSURES FROM POINT LOAD Q_P

(BOUSSINESQ EQUATION MODIFIED



Not to Scale

Pacific Crest ENGINEERING INC	**Typical Retaining Wall Drain Detail** SVMH Parking Garage Annex Salinas, California	Figure No. 19 Project No. 19132 Date: 2/12/2020

APPENDIX B

Boring Logs & CPT Soundings from Previous Investigations

Equipment 6" Flight Auger

Elevation 53.4 Feet Date 6/25/85

Laboratory Tests	Blows/foot	Moisture Content (%)	Dry Density (pcf)	Core Recov % /RQD	Drilling Rate (min/ft)	Depth (ft)	Sample
	16	8.2	77			0	
	15					5	
Tx 1753(1100)	12	14.5	86			10	
Tx 1804(1500)	24	37.9	80			15	
	16					20	
	48	10.9	120			25	
						30	
						35	
						40	

DARK BROWN SANDY SILT (ML) stiff, dry

LIGHT BROWN SANDY SILT (ML-SM) stiff, slightly moist

DARK BROWN CLAY (CL) very stiff, moist (with occasional roots)

LIGHT BROWN SILTY SAND (SM) medium dense, moist

GRAY BROWN SILTY SAND (SM) dense, wet

free water not encountered

Harding Lawson Associates
Engineers, Geologists & Geophysicists

Log of Boring 3
Salinas Hospital
Outpatient Surgery
Salinas, California

PLATE 4

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED	DATE
JGL	9401,007.04		7/85		

Equipment 8" Hollow Stem Auger

Elevation 54.5 ft** Date 09/04/91

Laboratory Tests	Odor	OVA (ppm)	Blows/foot	Depth (ft)	Sample	
				0		
				5		
				10		(see CPT-2)
				15		
				20		
				25		BROWN SILTY SAND (SM) dense, moist, fine to medium grained, slightly cemented
MA 19% passing No. 200 sieve			43"			
						gravelly zone encountered between 27 and 29 feet
				30		
			48"			becomes light orange-brown, well-graded and medium to coarse grained at 31 feet
				35		
MA 3% passing No. 200 sieve						LIGHT BROWN SAND (SP) WITH GRAVEL medium dense, moist, medium to coarse sand, subangular gravel
				40		

Harding Lawson Associates
Engineering and
Environmental Services

Log of Boring B-2 (Sheet 1 of 2)
Parking Structure, Salinas Valley Hospital
Salinas, California

PLATE A2

DRAWN	JOB NUMBER	APPROVED	FILE	DATE	REVISED DATE
	9401,010.04		12081G19		

Equipment 8" Hollow Stem Auger

Elevation 54.5 ft** Date 09/04/91

Laboratory Tests	Odor	OVA (ppm)	Blows/foot	Depth (ft)	Sample
			11"	40	
				45	
			40"	50	

Boring was terminated at 50.5 feet.
No groundwater encountered.
Hole backfilled with cuttings.

55

60

65

70

75

80

Harding Lawson Associates
Engineering and
Environmental Services

Log of Boring B-2 (Sheet 2 of 2)
Parking Structure, Salinas Valley Hospital
Salinas, California

PLATE
A2a

DRAWN	JOB NUMBER	APPROVED	FILE	DATE	REVISED DATE
	9401,010.04		12081G19		

Equipment 8" Hollow Stem Auger

Elevation 54.5 ft** Date 09/04/91

Laboratory Tests	Odor	OVA (ppm)	Blows/foot	Sample	Depth (ft)	
					0	
					5	
					10	(see CPT-3)
					15	BROWN AND GRAY SANDY SILT WITH CLAY (ML) stiff, moist
					20	
			31"		25	BROWN CLAYEY SAND (SC) dense, moist medium grained sand
					30	ORANGE-BROWN SAND WITH CLAY (SP) dense, moist, coarse grained
			40"		35	
					40	LIGHT AND DARK BROWN GRAVEL WITH SAND AND CLAY (GC) dense, moist, coarse grained sand, subangular to rounded gravel

Harding Lawson Associates
Engineering and
Environmental Services

Log of Boring B-3 (Sheet 1 of 2)
Parking Structure, Salinas Valley Hospital
Salinas, California

PLATE
A3

DRAWN	JOB NUMBER	APPROVED	FILE	DATE	REVISED DATE
	9401.010.04		12081G19		

Equipment 8" Hollow Stem Auger

Elevation 54.5 ft** Date 09/04/91

Laboratory Tests	Moisture Content (%)	Dry Density (pcf)	Blows/foot	Depth (ft)	Sample
			38"	40	
				45	
			46"	50	
				55	
				60	
				65	
				70	
				75	
				80	

LIGHT BROWN SAND (SP)
dense, moist, medium grained

Boring was terminated at 49.5 feet.
No groundwater encountered.
Hole backfilled with cuttings.

Harding Lawson Associates
Engineering and
Environmental Services

Log of Boring B-3 (Sheet 2 of 2)
Parking Structure, Salinas Valley Hospital
Salinas, California

PLATE
A3a

DRAWN	JOB NUMBER	APPROVED	FILE	DATE	REVISED DATE
	9401,010.04		12081G19		

Equipment 8" Hollow Stem Auger

Elevation 55.0 ft** Date 09/05/91

Laboratory Tests	Moisture Content (%)	Dry Density (pcf)	Blows/foot	Depth (ft)	Sample	
				0		
				5		(see CPT-4)
				10		
				15		DARK BROWN LEAN CLAY WITH SAND (CL) medium stiff, moist
LL=44, PI=26	26.8		Push	20		GRAY-BROWN SILT WITH SAND (ML) medium stiff, moist
				25		BROWN AND GRAY CLAYEY SAND (SC) dense, moist, fine grained sand
				30		
			20*			becomes course to medium grained and contains gravel with gray clay pockets at 33 feet
				35		
				40		

Harding Lawson Associates
Engineering and Environmental Services

Log of Boring B-4 (Sheet 1 of 2)
Parking Structure, Salinas Valley Hospital
Salinas, California

PLATE **A4**

DRAWN	JOB NUMBER	APPROVED	FILE	DATE	REVISED DATE
	9401,010.04		12081G19		

Equipment 8" Hollow Stem Auger

Elevation 55.0 ft** Date 09/05/91

Laboratory Tests	Moisture Content (%)	Dry Density (pcf)	Blows/foot	Depth (ft)	Sample	
				40		
			19*	45		GRAY GRAVELLY SANDY CLAY (CL) stiff, moist, rounded gravel
						LIGHT GRAY FAT CLAY WITH SILT (CH) stiff to very stiff, moist
				50		
LL=73, PI=41	42.0		13*			
				55		Boring was terminated at 54.5 feet. No groundwater encountered. Hole backfilled with cuttings.
				60		
				65		
				70		
				75		
				80		

Harding Lawson Associates
Engineering and
Environmental Services

Log of Boring B-4 (Sheet 2 of 2)
Parking Structure, Salinas Valley Hospital
Salinas, California

PLATE A4a

DRAWN	JOB NUMBER	APPROVED	FILE	DATE	REVISED DATE
	9401,010.04		12081G19		

Other Tests	Moisture Content (%)	Dry Density (pcf)	Pocket Pen (Tsf)	Torvane (Tsf)	Blows per Foot	Depth (ft.)	Sampler Type	Graphic Log	Description
						0			3-INCHES ASHALTIC CONCRETE 4-INCHES AGGREGATE BASEROCK MEDIUM BROWN SANDY SILT (ML) medium stiff, moist (FILL)
			4.5		6*				GRAY BROWN SANDY SILT (ML) medium stiff, moist
	23.5	94.0	1.5		8*	5			
						10			
	8.6	98.0			28*				LIGHT GRAY AND BROWN SILTY SAND (SM) medium dense, dry, fine-grained, 25-30% fines
						15			
LL = 68 PI = 44	38.1	82.0	1.25		9*				DARK GRAY SILTY CLAY (CH) medium stiff, moist
						20			
									MEDIUM GRAY BROWN CLAYEY SAND (SC), medium dense, moist, fine-grained
TxUU = 3853(3000)	14.0	118.0			15*				
						25			ORANGE BROWN SANDY CLAY (CL) stiff, moist, with fine-grained sand
									LIGHT GRAY BROWN SAND (SP) medium dense, dry, poorly graded, fine to medium-grained
					26				
						30			
									MOTTLED GRAY BROWN AND BLACK SAND WITH CLAY AND GRAVEL (SP-SC) dense, wet, gravels up to 1-1/2-inch diameter
						35			

Date 5/25/04
Equipment Failing 1500
Drilling Method Rotary Wash
Sampler Rope & Cathead
Hammer Weight 140 lbs. **Drop** 30 inches
Logged by BG **Datum** (MSL)
Surface Elevation Approx. 57.0 ft.

* - Equivalent SPT blow counts. Converted from field blow counts with a Modified California Sampler by multiplying by 0.7.

GEOTECH_UCSF_MACTEC 041917.GPJ GEOTECH2.GDT 8/13/04

MACTEC

Log of Boring MB-1
PARKING GARAGE AND ED EXPANSION
Salinas Valley Memorial Hospital
Salinas, California

PLATE **B-2**

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED DATE
RF	4097041917		8/04	

Other Tests	Moisture Content (%)	Dry Density (pcf)	Pocket Pen (Tsf)	Torvane (Tsf)	Blows per Foot	Depth (ft.)	Sampler Type	Graphic Log
						35		
MA -200 = 9%					36	40		
						45		
-200 = 16%					25	50		
						55		
					35/"6"	60		
						65		
						70		

Date 5/25/04
Equipment Failing 1500
Drilling Method Rotary Wash
Sampler Rope & Cathead
Hammer Weight 140 lbs. Drop 30 inches
Logged by BG Datum (MSL)
Surface Elevation Approx. 57.0 ft.

MOTTLED GRAY BROWN AND BLACK SAND WITH CLAY AND GRAVEL (SP-SC) - (continued)

MOTTLED BROWN AND WHITE CLAYEY SAND (SC) medium dense, moist to wet, medium-grained, with 10-15% fines

LIGHT GRAY SAND (SP) very dense, wet, poorly graded, trace of fines

grading slightly clayier

Groundwater measured @ 69.4 feet, 5/26/04

* - Equivalent SPT blow counts. Converted from field blow counts with a Modified California Sampler by multiplying by 0.7.

GEOTECH_UCSF_MACTEC 041917.GPJ GEOTECH2.GDT 8/13/04

MACTEC

Log of Boring MB-1
PARKING GARAGE AND ED EXPANSION
Salinas Valley Memorial Hospital
Salinas, California

PLATE **B-2**

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED DATE
RF	4097041917		8/04	

Other Tests	Moisture Content (%)	Dry Density (pcf)	Pocket Pen (Tsf)	Torvane (Tsf)	Blows per Foot	Depth (ft.)	Sampler Type	Graphic Log	
						70			LIGHT GRAY SAND (SP) - (continued)
									▼ Groundwater measured @ 72.4 feet, 6/6/04.
						75			grading gravelly
									Bottom of Boring B-1 @ depth of 77 feet. Set temporary piezometer to 75 feet, 5/26/04.

Date 5/25/04
Equipment Failing 1500
Drilling Method Rotary Wash
Sampler Rope & Cathead
Hammer Weight 140 lbs. **Drop** 30 inches
Logged by BG **Datum** (MSL)
Surface Elevation Approx. 57.0 ft.

* - Equivalent SPT blow counts. Converted from field blow counts with a Modified California Sampler by multiplying by 0.7.

GEOTECH_UCSF_MACTEC 041917.GPJ GEOTECH2.GDT 8/13/04

MACTEC

Log of Boring MB-1
PARKING GARAGE AND ED EXPANSION
Salinas Valley Memorial Hospital
Salinas, California

PLATE **B-2**

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED DATE
RF	4097041917		8/04	

Date 5/26/04
Equipment Failing 1500
Drilling Method Rotary Wash
Sampler Rope & Cathead
Hammer Weight 140 lbs. Drop 30 inches
Logged by BG Datum (MSL)
Surface Elevation Approx. 56.0 ft.

Other Tests	Moisture Content (%)	Dry Density (pcf)	Pocket Pen (Tsf)	Torvane (Tsf)	Blows per Foot	Depth (ft.)	Sampler Type	Graphic Log	
						0			5-INCHES ASPHALTIC CONCRETE
									3-INCHES AGGREGATE BASEROCK
					7*				DARK BROWN SILT (ML) medium stiff, dry, with minor rootlets (FILL)
	14.4	104.0	4.5		8*	5			MEDIUM TO LIGHT BROWN SANDY SILT (ML) stiff to very stiff, dry, with varying amounts of very fine-grained sand
			2.75		13*	10			
	22.4	100.0	1.25		23*	15			
LL = 40 PI = 17	30.0	92.0	1.0		11*	20			MEDIUM GRAY BROWN SILTY CLAY (CL) stiff, moist, medium plasticity, with traces of sand
TxUU = 2781(2500)	23.4	104.0	3.0		25*	25			MOTTLED LIGHT GRAY AND ORANGE BROWN SANDY CLAY (CL) very stiff, moist, with fine-grained sand
									TAN TO ORANGE BROWN CLAYEY SAND (SC) medium dense, moist
MA -200 = 6%					67	30			GRAY BROWN SAND WITH CLAY (SP-SC) very dense, dry to moist, medium-grained, with 5 to 15% fines
						35			

* - Equivalent SPT blow counts. Converted from field blow counts with a Modified California Sampler by multiplying by 0.7.

GEOTECH_UCSF_MACTEC 041917.GPJ GEOTECH2.GDT 8/13/04

MACTEC

Log of Boring MB-2
PARKING GARAGE AND ED EXPANSION
Salinas Valley Memorial Hospital
Salinas, California

PLATE **B-3**

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED DATE
RF	4097041917		8/04	

Other Tests	Moisture Content (%)	Dry Density (pcf)	Pocket Pen (Tsf)	Torvane (Tsf)	Blows per Foot	Depth (ft.)	Sampler Type	Graphic Log	
						35			GRAY BROWN SAND WITH CLAY (SP-SC) - (continued)
	27.3	97.0			56/"10*	40			
-200 = 14%					56	50			grading light gray with occassional angular gravel to 1-inch diameter
						55			OLIVE BROWN SAND WITH GRAVEL (SP) very dense, dry to moist, with subangular gravels and partially cemented nodules, 10% fines
	17.4	103.0			18	60			Bottom of Boring B-2 @ 60.5 feet. Groundwater not measured due to rotary wash drilling methods. Backfilled with cement grout.

Date 5/26/04
Equipment Failing 1500
Drilling Method Rotary Wash
Sampler Rope & Cathead
Hammer Weight 140 lbs. **Drop** 30 inches
Logged by BG **Datum** (MSL)
Surface Elevation Approx. 56.0 ft.

* - Equivalent SPT blow counts. Converted from field blow counts with a Modified California Sampler by multiplying by 0.7.

GEOTECH_UCSF_MACTEC 041917.GPJ GEOTECH2.GDT 8/13/04

MACTEC

Log of Boring MB-2
PARKING GARAGE AND ED EXPANSION
Salinas Valley Memorial Hospital
Salinas, California

PLATE
B-3

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED DATE
RF	4097041917		8/04	

Other Tests	Moisture Content (%)	Dry Density (pcf)	Pocket Pen (Tsf)	Torvane (Tsf)	Blows per Foot	Depth (ft.)	Sampler Type	Graphic Log	
						0			3-INCHES ASPHALTIC CONCRETE 4-INCHES AGGREGATE BASEROCK
					13*				MEDIUM BROWN SANDY SILT (ML) stiff, moist, with fine-grained sand and minor rootlets (FILL)
					9*	5			MEDIUM BROWN SANDY SILT (ML) medium stiff, dry
-200 = 62%	13.8	94.0			13*	10			LIGHT TO TAN BROWN SANDY SILT (ML) stiff to very stiff, moist, with fine-grained sand
	22.5	98.0			23*	15			grading yellow brown
LL = 64 PI = 40	24.4	94.0			11*	20			MEDIUM GRAY SILTY CLAY (CH) stiff, moist, with traces of fine-grained sand
-200 = 58%	29.1	95.0			6*	25			DARK GRAY SILTY CLAY (CH) medium stiff, moist, with thin clayey sand lenses
					45	30			MOTTLED WHITE AND TAN BROWN SAND WITH CLAY AND GRAVEL (SP-SC) dense, dry, with angular gravels to 1-1/2-inch diameter, 10% fines
						35			

Date 5/26/04
Equipment Failing 1500
Drilling Method Rotary Wash
Sampler Rope & Cathead
Hammer Weight 140 lbs. **Drop** 30 inches
Logged by BG **Datum** (MSL)
Surface Elevation Approx. 57.0 ft.

* - Equivalent SPT blow counts. Converted from field blow counts with a Modified California Sampler by multiplying by 0.7.

GEOTECH_UCSF_MACTEC 041917.GPJ GEOTECH2.GDT 8/13/04

MACTEC

Log of Boring MB-3
PARKING GARAGE AND ED EXPANSION
Salinas Valley Memorial Hospital
Salinas, California

PLATE **B-4**

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED DATE
RF	4097041917		8/04	

Other Tests	Moisture Content (%)	Dry Density (pcf)	Pocket Pen (Tsf)	Torvane (Tsf)	Blows per Foot	Depth (ft.)	Sampler Type	Graphic Log
						35		
MA -200 = 26%					22	40		
-200 = 64%	28.3	95.0			28*	45		
					11	50		
-200 = 93%	43.7	76.0	2.0		13*			
					52	55		
						60		

Date 5/26/04
Equipment Failing 1500
Drilling Method Rotary Wash
Sampler Rope & Cathead
Hammer Weight 140 lbs. **Drop** 30 inches
Logged by BG **Datum** (MSL)
Surface Elevation Approx. 57.0 ft.

MOTTLED WHITE AND TAN BROWN SAND WITH CLAY AND GRAVEL (SP-SC) - (continued)

GRAY AND LIGHT BROWN CLAYEY SAND (SC) medium dense, moist

LIGHT BROWN SANDY CLAY (CL) very stiff, moist

TAN BROWN SILTY CLAY (CH) stiff, moist, with gravel

LIGHT GRAY SILTY SAND (SM) very dense, moist to wet, fine-grained, 15-20% fines

Bottom of Boring B-3 @ 60.5 feet.
Groundwater not measured due to rotary wash drilling methods.
Backfilled with cement grout.

* - Equivalent SPT blow counts. Converted from field blow counts with a Modified California Sampler by multiplying by 0.7.

GEOTECH_UCSF_MACTEC 041917.GPJ GEOTECH2.GDT 8/13/04

MACTEC

Log of Boring MB-3
PARKING GARAGE AND ED EXPANSION
Salinas Valley Memorial Hospital
Salinas, California

PLATE **B-4**

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED DATE
RF	4097041917		8/04	

Date 5/26/04
Equipment Failing 1500
Drilling Method Rotary Wash
Sampler Rope & Cathead
Hammer Weight 140 lbs. Drop 30 inches
Logged by BG Datum (MSL)
Surface Elevation Approx. 55.0 ft.

Other Tests	Moisture Content (%)	Dry Density (pcf)	Pocket Pen (Tsf)	Torvane (Tsf)	Blows per Foot	Depth (ft.)	Sampler Type	Graphic Log	
						0			6-INCHES ASPHALTIC CONCRETE 6-INCHES AGGREGATE BASEROCK DARK BROWN CLAYEY SILT (ML) medium stiff, moist, with minor roots and plastic fragments (FILL)
			4.5		8*				LIGHT GRAY BROWN SANDY SILT (ML) medium stiff, dry, with very fine-grained sand and minor rootlets
						5			
									OLIVE BROWN SANDY SILT (ML) sitff, dry, with very fine-grained sand
					13*				
						10			
-200 = 46%					10				OLIVE TO REDDISH BROWN SILTY SAND (SM) medium dense, dry, very fine to fine-grained, with interbedded thin silt layers
						15			
									OLIVE BROWN SILTY CLAY WITH SAND (CL-CH) very stiff, moist
LL = 50 PI = 24	28.6	92.0	1.25		11*				
						20			
TxUU = 662(2000)	17.4	110.0	2.5						
-200 = 68%	23.6	102.0	2.75		27*				
						25			OLIVE TO LIGHT BROWN SAND WITH SILT (SP-SM) medium dense, medium-grained, with 5-10% fines
									LIGHT BROWN SAND (SP) dense, dry, medium-grained, less than 5% fines
					45				
						30			
						35			

* - Equivalent SPT blow counts. Converted from field blow counts with a Modified California Sampler by multiplying by 0.7.

GEOTECH_UCSF_MACTEC 041917.GPJ GEOTECH2.GDT 8/13/04

MACTEC

Log of Boring MB-4
PARKING GARAGE AND ED EXPANSION
Salinas Valley Memorial Hospital
Salinas, California

PLATE
B-5

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED DATE
RF	4097041917		8/04	

Other Tests	Moisture Content (%)	Dry Density (pcf)	Pocket Pen (Tsf)	Torvane (Tsf)	Blows per Foot	Depth (ft.)	Sampler Type	Graphic Log
						35		
					63	40		
						45		
MA -200 = 28%					31	50		
						55		
					68/"10"			

Date 5/26/04
Equipment Failing 1500
Drilling Method Rotary Wash
Sampler Rope & Cathead
Hammer Weight 140 lbs. **Drop** 30 inches
Logged by BG **Datum** (MSL)
Surface Elevation Approx. 55.0 ft.

OLIVE BROWN SAND (SW) very dense, dry to moist, well graded, with traces of coarse gravel

OLIVE BROWN CLAYEY SAND WITH GRAVEL (SC) dense, dry to moist, gravels to 1/2-inch diameter, with interbedded thin clay layers

OLIVE BROWN SILTY SAND (SM) very dense, most to wet, fine-grained, poorly graded

Bottom of Boring B-4 @ 59 feet.
Groundwater not measured due to rotary wash drilling methods.
Backfilled with cement grout.

* - Equivalent SPT blow counts. Converted from field blow counts with a Modified California Sampler by multiplying by 0.7.

GEOTECH_UCSF_MACTEC 041917.GPJ GEOTECH2.GDT 8/13/04

MACTEC

Log of Boring MB-4
PARKING GARAGE AND ED EXPANSION
Salinas Valley Memorial Hospital
Salinas, California

PLATE **B-5**

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED DATE
RF	4097041917		8/04	

DATE: 3/3/06	LOG OF EXPLORATORY DRILL HOLE	DH- 3
PROJECT NAME: SVMH Power Generator Building & Utility Bridge		PROJECT NUMBER: 2055/1E
DRILL RIG: Mobile B-43, 140# above-ground hammer		LOGGED BY: SWK
HOLE DIAMETER: 8" Hollow stem auger		HOLE ELEVATION: -----
SAMPLER: D = 3" OD, 2½" ID Split-spoon X = 2½" OD, 2" ID Split-spoon I = Standard Penetrometer (2" OD SPT) S = Slough in sample	GROUND WATER DEPTH: Initial: --- Final: ---	

DESCRIPTION OF EARTH MATERIALS	SOIL TYPE	DEPTH (ft)	SAMPLE	BLOWS PER FOOT	POCKET PEN (tsf)	% PASSING #200 SIEVE	LIQUID LIMIT	WATER CONTENT	PLASTICITY INDEX	DRY DENSITY (pcf)	FAILURE STRAIN (%)	UNCONFINED COMPRESSIVE STRENGTH (psf)
PAVEMENT (±5" AC on ±5" sand)												
<u>ALLUVIUM</u>, **CLAYEY SAND to SANDY LEAN CLAY**: very dark grayish brown (10YR 3/2), moist, medium dense sand to very stiff clay, mostly fine sand	SC/ CL	1	S									
		2	D	33	4.5+							
		3	D									
		4	S	12	3.3	47		9		86		
dark yellowish brown		5	D									
		6	D	20	4.5+							
		7										
		8										
		9	S									
		10	D	24				8		93		
		11	D									
		12										
		13										
		14	S									
		15	D	28								
		16	D									
ELASTIC SILT: very dark grayish brown (10YR 3/2), moist, stiff, with fine sand	MH	17										
		18										
		19	S									
		20	D	11	1.5			29		96		
			D		1.5							

DATE: 3/3/06	LOG OF EXPLORATORY DRILL HOLE	DH- 3
PROJECT NAME: SVMH Power Generator Building & Utility Bridge		PROJECT NUMBER: 2055/1E
DRILL RIG: Mobile B-43, 140# above-ground hammer		LOGGED BY: SWK
HOLE DIAMETER: 8" Hollow stem auger		HOLE ELEVATION: -----
SAMPLER: D = 3" OD, 2½" ID Split-spoon X = 2½" OD, 2" ID Split-spoon I = Standard Penetrometer (2" OD SPT) S = Slough in sample	GROUND WATER DEPTH: Initial: --- Final: ---	

DESCRIPTION OF EARTH MATERIALS	SOIL TYPE	DEPTH (ft)	SAMPLE	BLOWS PER FOOT	POCKET PEN (tsf)	% PASSING #200 SIEVE	LIQUID LIMIT	WATER CONTENT	PLASTICITY INDEX	DRY DENSITY (pcf)	FAILURE STRAIN (%)	UNCONFINED COMPRESSIVE STRENGTH (psf)
ELASTIC SILT (continued)	MH	21										
		22										
CLAYEY SAND to SANDY LEAN CLAY: dark yellowish brown (10YR 4/4), moist, medium dense sand to stiff clay, mostly fine sand	SC/CL	23										
		24	S									
		25	I	13								
		26	I									
POORLY GRADED SAND: yellowish brown (10YR 5/4), moist, dense, mostly fine to medium sand	SP	27										
		28										
		29	S									
		30	I	39								
BOTTOM OF HOLE @ 30 FEET **NO GROUNDWATER ENCOUNTERED**		31	I									
		32										
		33										
		34										
		35										
		36										
		37										
		38										
		39										
		40										

DATE: 3/3/06	LOG OF EXPLORATORY DRILL HOLE	DH- 4
PROJECT NAME: SVMH Power Generator Building & Utility Bridge		PROJECT NUMBER: 2055/1E
DRILL RIG: Mobile B-43, 140# above-ground hammer		LOGGED BY: SWK
HOLE DIAMETER: 8" Hollow stem auger		HOLE ELEVATION: -----
SAMPLER: D = 3" OD, 2½" ID Split-spoon X = 2½" OD, 2" ID Split-spoon I = Standard Penetrometer (2" OD SPT) S = Slough in sample	GROUND WATER DEPTH: Initial: --- Final: ---	

DESCRIPTION OF EARTH MATERIALS	SOIL TYPE	DEPTH (ft)	SAMPLE	BLOWS PER FOOT	POCKET PEN (tsf)	% PASSING #200 SIEVE	LIQUID LIMIT	WATER CONTENT	PLASTICITY INDEX	DRY DENSITY (pcf)	FAILURE STRAIN (%)	UNCONFINED COMPRESSIVE STRENGTH (psf)
PAVEMENT (±5" AC on ±7" Agg. Base)		1										
ALLUVIUM, CLAYEY SAND to SANDY LEAN CLAY: very dark grayish brown (10YR 3/2), moist, medium dense sand to very stiff clay, mostly fine sand	SC/ CL	2	S	19	4.2							
			D		4.5+	47		8		95		
		3	D									
			S	11								
		4	D		2.7							
SILT WITH SAND: gray brown (10YR 4/2), moist, stiff	ML	5										
			S									
		6	D	20	4.5+							
			D		3.2	79		11		85		
		7										
SILTY SAND: brown (10YR 5/3), moist, medium dense, mostly fine to medium sand	SM	8										
		9	S									
			D	22								
		10	D									
		11										
		12										
		13										
		14	S									
			I	12								
		15	I									
ELASTIC SILT: dark gray (10YR 3/1), moist, stiff	MH	16										
		17										
		18										
		19	S									
			D	10	1.0							
		20	D		0.9			27		96		

DATE: 3/3/06	LOG OF EXPLORATORY DRILL HOLE	DH- 4
PROJECT NAME: SVMH Power Generator Building & Utility Bridge		PROJECT NUMBER: 2055/1E
DRILL RIG: Mobile B-43, 140# above-ground hammer		LOGGED BY: SWK
HOLE DIAMETER: 8" Hollow stem auger		HOLE ELEVATION: -----

SAMPLER: D = 3" OD, 2½" ID Split-spoon; X = 2½" OD, 2" ID Split-spoon; I = Standard Penetrometer (2" OD SPT); S = Slough in sample

GROUND WATER DEPTH: Initial: --- Final: ---

DESCRIPTION OF EARTH MATERIALS	SOIL TYPE	DEPTH (ft)	SAMPLE	BLOWS PER FOOT	POCKET PEN (tsf)	% PASSING #200 SIEVE	LIQUID LIMIT	WATER CONTENT	PLASTICITY INDEX	DRY DENSITY (pcf)	FAILURE STRAIN (%)	UNCONFINED COMPRESSIVE STRENGTH (psf)
CLAYEY SAND to SANDY LEAN CLAY: dark yellowish brown (10YR 4/4), moist, medium dense sand to stiff clay, mostly fine sand	SC/ CL	21										
		22										
		23										
		24	S I I	34								
		25										
		26										
POORLY GRADED SAND: yellowish brown (10YR 5/6), moist, dense, mostly fine to medium sand	SP	27										
		28										
		29	S I I	22								
BOTTOM OF HOLE @ 30 FEET **NO GROUNDWATER ENCOUNTERED**		30										
		31										
		32										
		33										
		34										
		35										
		36										
		37										
		38										
		39										
		40										

APPENDIX C

Infiltration Test Results

SHALLOW QUICK INFILTROMETER TEST							
Test Information							
Test No.:	P1	*Test Date:*	12/18/2019	*Test By:*	ML	*Job No.:*	19132
Location of Test:		Off San Jose Street South of Proposed Parking Garage Annex					
Soil Information							
% Gravel	0.2	*% Sand*	62.7	*% Fines*		37.1	
USCS Description:		Silty Sand		*USCS Classification:*		SM	
Test Configuration & Constants							
Existing Surface Elevation (ft.)			53.0	*Boring Depth (ft.)*			12.0
Bioswale Invert Elevation (ft.)			43.0	*Diameter of Test Boring (in.)*			8.0
Bottom of Boring Elevation (ft.)			41.0	*Cross-Section Area of Boring (in^2)*			50.3

Constant Head Infiltration Data

Interval		*Actual Time (hr:min)*	*Interval Time (min)*	*Water Head (in)*	*Initial Fill Volume (in^3)*	*Final Fill Volume (in^3)*	*Infiltration Rate (in/hr.)*
0	*Start*	9:30 AM	30	24.00	808.50	2079.00	3.89
	End	10:00 AM					

Falling Head Infiltration Data

Interval		*Actual Time (hr:min)*	*Interval Time (min)*	*Flow Readings*		*Infiltration Volume (in^3)*	*Infiltration Rate (in/hr.)*
				Water Head (in)	*Change in Elev (in)*		
1	*Start*	10:10 AM	10	24.00	9.48	476.52	5.35
	End	10:20 AM		14.52			
	Start	10:20 AM	10	14.52	5.04	253.34	4.32
	End	10:30 AM		9.48			
	Start	10:30 AM	10	9.48	3.36	168.89	4.11
	End	10:40 AM		6.12			
	Start	10:40 AM	10	6.12	2.28	114.61	3.92
	End	10:50 AM		3.84			
	Start	10:50 AM	10	3.84	1.68	84.45	4.03
	End	11:00 AM		2.16			
	Start	11:00 AM	10	2.16	1.32	66.35	4.53
	End	11:10 AM		0.84			
	Start	11:10 AM	10	0.84	0.84	42.22	4.17
	End	11:20 AM		0.00			
2	*Start*	11:20 AM	10	24.00	9.96	500.64	5.69
	End	11:30 AM		14.04			
	Start	11:30 AM	10	14.04	4.68	235.24	4.10
	End	11:40 AM		9.36			
	Start	11:40 AM	10	9.36	3.00	150.80	3.65
	End	11:50 AM		6.36			
	Start	11:50 AM	10	6.36	2.28	114.61	3.79
	End	12:00 PM		4.08			
	Start	12:00 PM	10	4.08	1.56	78.41	3.53
	End	12:10 PM		2.52			

Test Results

Infiltration Rate, I_t (in/hr):	4.15	Factored Infiltration Rate, K_f (in/hr)**:	2.08

*I_t is taken as the average infiltration rate for Interval 2. **K_f includes a factor of safety of 2.

SHALLOW QUICK INFILTROMETER TEST							
Test Information							
Test No.:	P2	*Test Date:*	12/18/2019	*Test By:*	ML	*Job No.:*	19132
Location of Test:		Off Los Palos Drive, Southern Half of Property					
Soil Information							
% Gravel	0.1	*% Sand*	46.9	*% Fines*		53.0	
USCS Description:		Sandy Silt		*USCS Classification:*		ML	
Test Configuration & Constants							
Existing Surface Elevation (ft.)			55.0	*Boring Depth (ft.)*			9.4
Bioswale Invert Elevation (ft.)			47.6	*Diameter of Test Boring (in.)*			8.0
Bottom of Boring Elevation (ft.)			45.6	*Cross-Section Area of Boring (in^2)*			50.3

Constant Head Infiltration Data

Interval		*Actual Time (hr:min)*	*Interval Time (min)*	*Water Head (in)*	*Initial Fill Volume (in^3)*	*Final Fill Volume (in^3)*	*Infiltration Rate (in/hr.)*
0	*Start*	11:34 AM	30	24.00	693.00	1155.00	1.41
	End	12:04 PM					

Falling Head Infiltration Data

Interval		*Actual Time (hr:min)*	*Interval Time (min)*	*Flow Readings*		*Infiltration Volume (in^3)*	*Infiltration Rate (in/hr.)*
				Water Head (in)	*Change in Elev (in)*		
1	*Start*	12:17 PM	20	25.20	4.44	223.18	1.07
	End	12:37 PM		20.76			
	Start	12:37 PM	20	20.76	3.96	199.05	1.14
	End	12:57 PM		16.80			
	Start	12:57 PM	20	16.80	2.76	138.73	0.95
	End	1:17 PM		14.04			
	Start	1:17 PM	20	14.04	4.68	235.24	2.05
	End	1:37 PM		9.36			
	Start	1:37 PM	20	9.36	3.60	180.96	2.26
	End	1:57 PM		5.76			
	Start	1:57 PM	20	5.76	2.04	102.54	1.82
	End	2:17 PM		3.72			

Test Results

Infiltration Rate, I_t (in/hr):	1.55	Factored Infiltration Rate, K_f (in/hr)**:	0.77

*I_t is taken as the average infiltration rate for Interval 2. **K_f includes a factor of safety of 2.

SHALLOW QUICK INFILTROMETER TEST							
Test Information							
Test No.:	P3	*Test Date:*	12/18/2019	*Test By:*	ML	*Job No.:*	19132
Location of Test:		Off Los Palos Drive, Southern Half of Property					
Soil Information							
% Gravel	0.0	*% Sand*	45.7	*% Fines*		54.3	
USCS Description:		Sandy Silt		*USCS Classification:*		ML	
Test Configuration & Constants							
Existing Surface Elevation (ft.)			55.0	*Boring Depth (ft.)*			4.7
Bioswale Invert Elevation (ft.)			52.3	*Diameter of Test Boring (in.)*			8.0
Bottom of Boring Elevation (ft.)			50.3	*Cross-Section Area of Boring (in^2)*			50.3
Constant Head Infiltration Data							
Interval		*Actual Time (hr:min)*	*Interval Time (min)*	*Water Head (in)*	*Initial Fill Volume (in^3)*	*Final Fill Volume (in^3)*	*Infiltration Rate (in/hr.)*
0	*Start*	11:37 AM	30	24.00	693.00	924.00	0.71
	End	12:07 PM					
Falling Head Infiltration Data							
Interval		*Actual Time (hr:min)*	*Interval Time (min)*	*Flow Readings*		*Infiltration Volume (in^3)*	*Infiltration Rate (in/hr.)*
				Water Head (in)	*Change in Elev (in)*		
1	*Start*	12:15 PM	20	24.72	0.84	42.22	0.19
	End	12:35 PM		23.88			
	Start	12:35 PM	20	23.88	0.12	6.03	0.03
	End	12:55 PM		23.76			
	Start	12:55 PM	20	23.76	0.60	30.16	0.14
	End	1:15 PM		23.16			
	Start	1:15 PM	20	23.16	0.36	18.10	0.09
	End	1:35 PM		22.80			
	Start	1:35 PM	20	22.80	0.24	12.06	0.06
	End	1:55 PM		22.56			
	Start	1:55 PM	20	22.56	0.48	24.13	0.12
	End	2:15 PM		22.08			
2	*Start*	2:15 PM	20	22.08	0.48	24.13	0.12
	End	2:35 PM		21.60			
	Start	2:35 PM	20	21.60	0.24	12.06	0.06
	End	2:55 PM		21.36			
	Start	2:55 PM	20	21.36	0.36	18.10	0.09
	End	3:15 PM		21.00			
	Start	3:15 PM	20	21.00	0.48	24.13	0.13
	End	3:35 PM		20.52			
	Start	3:35 PM	20	20.52	0.36	18.10	0.10
	End	3:55 PM		20.16			
	Start	3:55 PM	20	20.16	0.24	12.06	0.07
	End	4:15 PM		19.92			
Test Results							
Infiltration Rate, I_t (in/hr):			0.09	Factored Infiltration Rate, K_f (in/hr)**:			0.05

*I_t is taken as the average infiltration rate for Interval 2. **K_f includes a factor of safety of 2.

SHALLOW QUICK INFILTROMETER TEST							
Test Information							
Test No.:	P4	*Test Date:*	12/18/2019	*Test By:*	ML	*Job No.:*	19132
Location of Test:		Off Los Palos Drive, Northern Half of Property					
Soil Information							
% Gravel	0.0	*% Sand*	70.2	*% Fines*		29.8	
USCS Description:		Silty Sand		*USCS Classification:*		SM	
Test Configuration & Constants							
Existing Surface Elevation (ft.)			55.5	*Boring Depth (ft.)*			4.6
Bioswale Invert Elevation (ft.)			53.0	*Diameter of Test Boring (in.)*			8.0
Bottom of Boring Elevation (ft.)			51.0	*Cross-Section Area of Boring (in^2)*			50.3
Constant Head Infiltration Data							
Interval		*Actual Time (hr:min)*	*Interval Time (min)*	*Water Head (in)*	*Initial Fill Volume (in^3)*	*Final Fill Volume (in^3)*	*Infiltration Rate (in/hr.)*
0	*Start*	12:24 AM	30	24.00	519.75	693.00	0.53
	End	12:54 PM					
Falling Head Infiltration Data							
Interval		*Actual Time (hr:min)*	*Interval Time (min)*	*Flow Readings*		*Infiltration Volume (in^3)*	*Infiltration Rate (in/hr.)*
				Water Head (in)	*Change in Elev (in)*		
1	*Start*	12:54 PM	20	24.48	1.20	60.32	0.28
	End	1:14 PM		23.28			
	Start	1:14 PM	20	23.28	0.96	48.25	0.23
	End	1:34 PM		22.32			
	Start	1:34 PM	20	22.32	1.20	60.32	0.30
	End	1:54 PM		21.12			
	Start	1:54 PM	20	21.12	0.72	36.19	0.19
	End	2:14 PM		20.40			
	Start	2:14 PM	20	20.40	0.96	48.25	0.26
	End	2:34 PM		19.44			
	Start	2:34 PM	20	19.44	0.96	48.25	0.27
	End	2:54 PM		18.48			
Test Results							
Infiltration Rate, I_t (in/hr):			0.26	Factored Infiltration Rate, K_f (in/hr)**:			0.13

*I_t is taken as the average infiltration rate for Interval 2. **K_f includes a factor of safety of 2.

SHALLOW QUICK INFILTROMETER TEST							
Test Information							
Test No.:	P5	*Test Date:*	12/18/2019	*Test By:*	ML	*Job No.:*	19132
Location of Test:		Off Los Palos Drive, Northern Half of Property					
Soil Information							
% Gravel	0.9	*% Sand*	7.8	*% Fines*		91.3	
USCS Description:		Silt		*USCS Classification:*		ML	
Test Configuration & Constants							
Existing Surface Elevation (ft.)			55.5	*Boring Depth (ft.)*			9.4
Bioswale Invert Elevation (ft.)			48.1	*Diameter of Test Boring (in.)*			8.0
Bottom of Boring Elevation (ft.)			46.1	*Cross-Section Area of Boring (in^2)*			50.3
Constant Head Infiltration Data							
Interval		*Actual Time (hr:min)*	*Interval Time (min)*	*Water Head (in)*	*Initial Fill Volume (in^3)*	*Final Fill Volume (in^3)*	*Infiltration Rate (in/hr.)*
0	*Start*	9:30 AM	30	24.00	693.00	2079.00	4.24
	End	10:00 AM					
Falling Head Infiltration Data							
Interval		*Actual Time (hr:min)*	*Interval Time (min)*	*Flow Readings*		*Infiltration Volume (in^3)*	*Infiltration Rate (in/hr.)*
				Water Head (in)	*Change in Elev (in)*		
1	*Start*	12:52 PM	10	24.00	15.12	760.01	9.84
	End	1:02 PM		8.88			
	Start	1:02 PM	10	8.88	2.04	102.54	2.48
	End	1:12 PM		6.84			
	Start	1:12 PM	10	6.84	0.96	48.25	1.38
	End	1:22 PM		5.88			
	Start	1:22 PM	10	5.88	0.96	48.25	1.56
	End	1:32 PM		4.92			
	Start	1:32 PM	10	4.92	0.36	18.10	0.64
	End	1:42 PM		4.56			
	Start	1:42 PM	10	4.56	0.96	48.25	1.89
	End	1:52 PM		3.60			
	Start	1:52 PM	10	3.60	0.48	24.13	1.07
	End	2:02 PM		3.12			
	Start	2:02 PM	10	3.12	0.60	30.16	1.49
	End	2:12 PM		2.52			
	Start	2:12 PM	10	2.52	0.60	30.16	1.71
	End	2:22 PM		1.92			
	Start	2:22 PM	10	1.92	0.72	36.19	2.43
	End	2:32 PM		1.20			
	Start	2:32 PM	10	1.20	0.48	24.13	1.95
	End	2:42 PM		0.72			
	Start	2:42 PM	10	0.72	0.60	30.16	2.98
	End	2:52 PM		0.12			
Test Results							
Infiltration Rate, I_t (in/hr):			2.45	Factored Infiltration Rate, K_f (in/hr)**:			1.23

*I_t is taken as the average infiltration rate for Interval 2. **K_f includes a factor of safety of 2.

APPENDIX D

Seismic Settlement Analysis

Pacific Crest
ENGINEERING INC

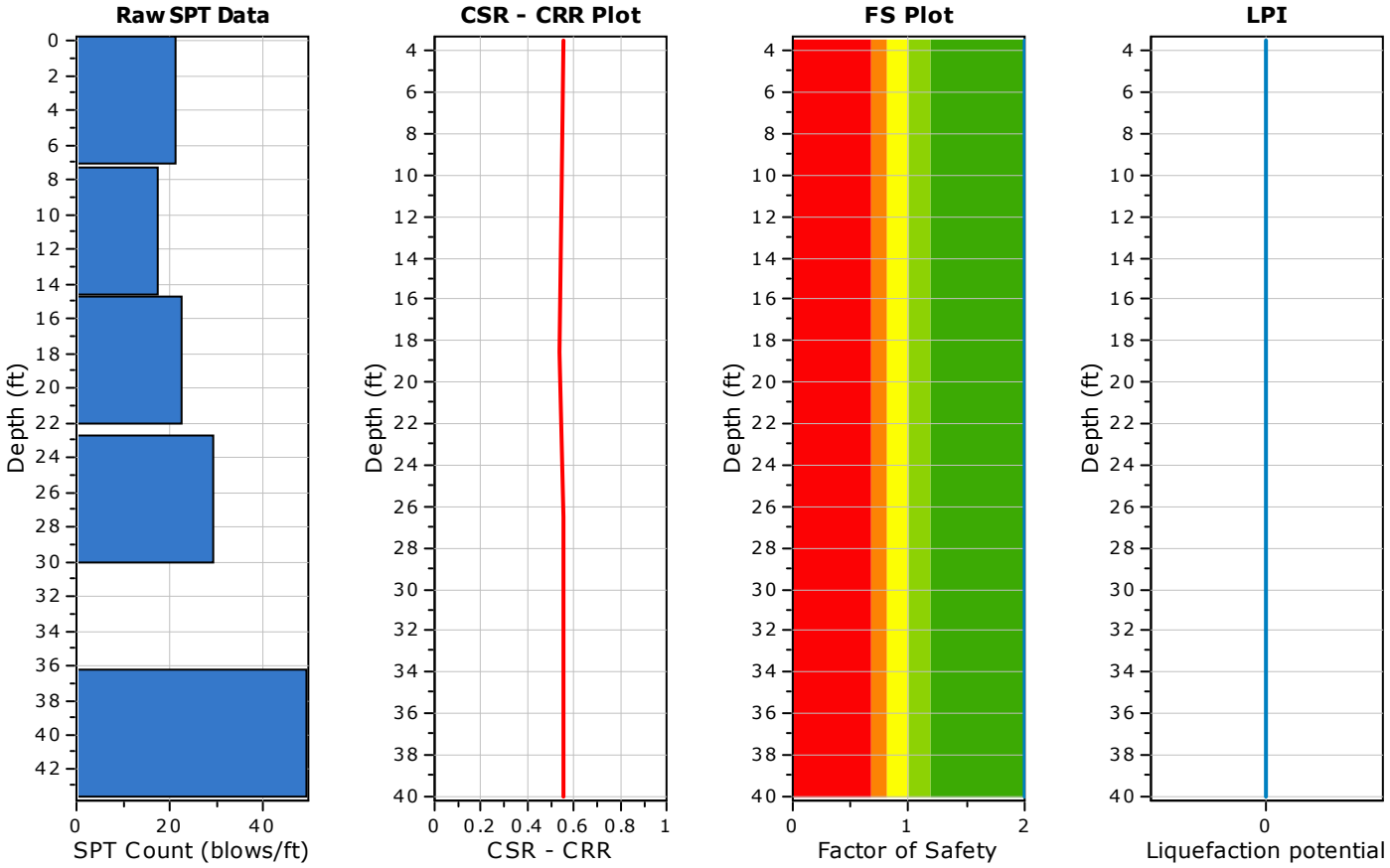
SPT BASED LIQUEFACTION ANALYSIS REPORT

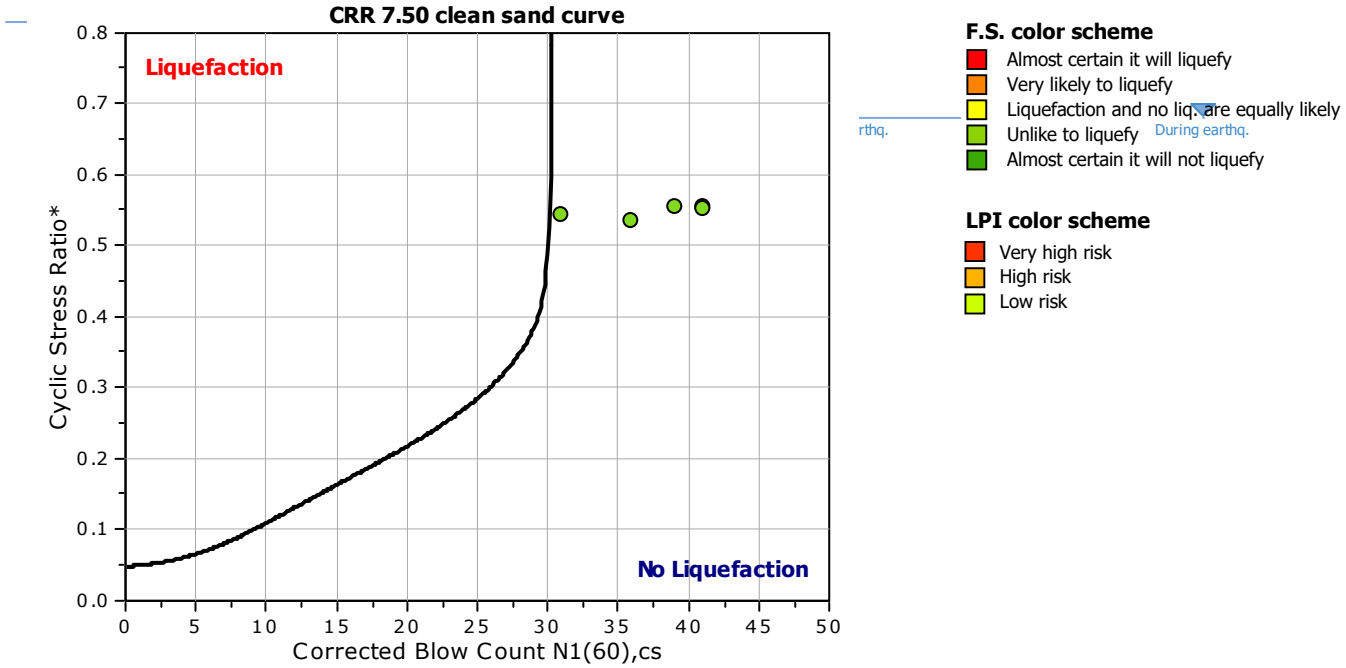
Project title : SVMH Parking Garage Annex **SPT Name: Site Model**

Location : Salinas, California

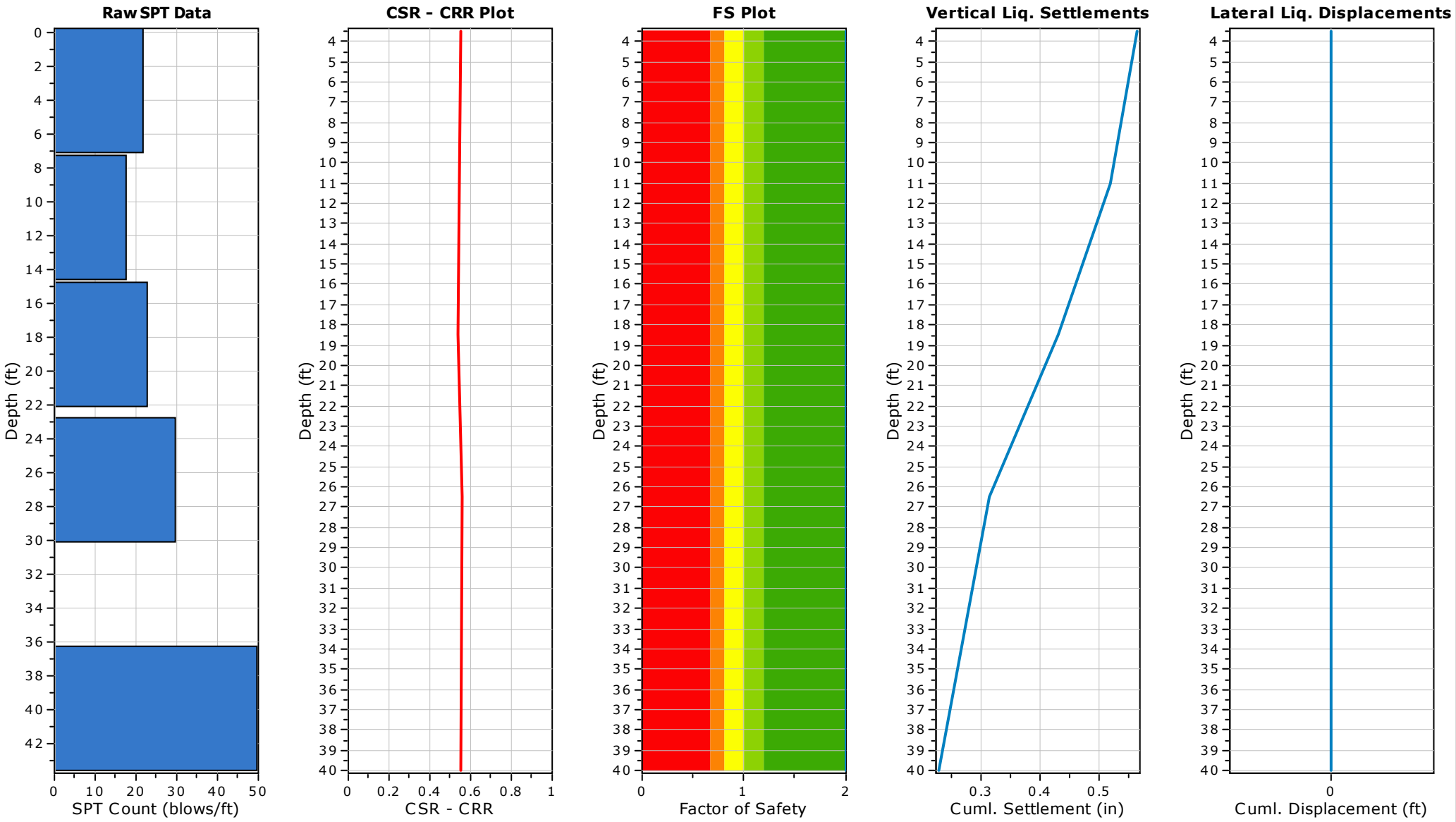
:: Input parameters and analysis properties ::

Analysis method:	NCEER 1998	G.W.T. (in-situ):	50.00 ft
Fines correction method:	NCEER 1998	G.W.T. (earthq.):	50.00 ft
Sampling method:	Standard Sampler	Earthquake magnitude M_w:	7.90 ft
Borehole diameter:	200mm	Peak ground acceleration:	0.75 g
Rod length:	3.00 ft	Eq. external load:	0.00 tsf
Hammer energy ratio:	1.00		





:: Overall Liquefaction Assessment Analysis Plots ::



:: Field input data ::

Test Depth (ft)	SPT Field Value (blows)	Fines Content (%)	Unit Weight (pcf)	Infl. Thickness (ft)	Can Liquefy
3.50	22	55.00	104.00	8.00	Yes
11.00	18	79.00	100.00	6.00	Yes
18.50	23	79.00	117.00	9.00	Yes
26.50	30	35.00	115.00	7.00	Yes
40.00	50	13.00	120.00	20.00	Yes

Abbreviations

Depth: Depth at which test was performed (ft)
SPT Field Value: Number of blows per foot
Fines Content: Fines content at test depth (%)
Unit Weight: Unit weight at test depth (pcf)
Infl. Thickness: Thickness of the soil layer to be considered in settlements analysis (ft)
Can Liquefy: User defined switch for excluding/including test depth from the analysis procedure

:: Cyclic Resistance Ratio (CRR) calculation data ::

Depth (ft)	SPT Field Value	Unit Weight (pcf)	σ_v (tsf)	u_o (tsf)	σ'_{vo} (tsf)	C_N	C_E	C_B	C_R	C_S	$(N_1)_{60}$	Fines Content (%)	α	β	$(N_1)_{60cs}$	$CRR_{7.5}$
3.50	22	104.00	0.18	0.00	0.18	1.60	1.00	1.15	0.75	1.00	30	55.00	5.00	1.20	41	4.000
11.00	18	100.00	0.56	0.00	0.56	1.27	1.00	1.15	0.85	1.00	22	79.00	5.00	1.20	31	4.000
18.50	23	117.00	1.00	0.00	1.00	1.03	1.00	1.15	0.95	1.00	26	79.00	5.00	1.20	36	4.000
26.50	30	115.00	1.46	0.00	1.46	0.85	1.00	1.15	0.95	1.00	28	35.00	5.00	1.20	39	4.000
40.00	50	120.00	2.27	0.00	2.27	0.66	1.00	1.15	1.00	1.00	38	13.00	1.89	1.04	41	4.000

Abbreviations

σ_v: Total stress during SPT test (tsf)
u_o: Water pore pressure during SPT test (tsf)
σ'_{vo}: Effective overburden pressure during SPT test (tsf)
C_N: Overburden corretion factor
C_E: Energy correction factor
C_B: Borehole diameter correction factor
C_R: Rod length correction factor
C_S: Liner correction factor
$N_{1(60)}$: Corrected N_{SPT} to a 60% energy ratio
α, β: Clean sand equivalent clean sand formula coefficients
$N_{1(60)cs}$: Corected $N_{1(60)}$ value for fines content
$CRR_{7.5}$: Cyclic resistance ratio for M=7.5

:: Cyclic Stress Ratio calculation (CSR fully adjusted and normalized) ::

Depth (ft)	Unit Weight (pcf)	$\sigma_{v,eq}$ (tsf)	$u_{o,eq}$ (tsf)	$\sigma'_{vo,eq}$ (tsf)	r_d	α	CSR	MSF	$CSR_{eq,M=7.5}$	K_{sigma}	CSR^*	FS	
3.50	104.00	0.18	0.00	0.18	0.99	1.00	0.484	0.88	0.554	1.00	0.554	2.000	●
11.00	100.00	0.56	0.00	0.56	0.98	1.00	0.476	0.88	0.544	1.00	0.544	2.000	●
18.50	117.00	1.00	0.00	1.00	0.96	1.00	0.468	0.88	0.535	1.00	0.535	2.000	●
26.50	115.00	1.46	0.00	1.46	0.94	1.00	0.456	0.88	0.522	0.94	0.556	2.000	●
40.00	120.00	2.27	0.00	2.27	0.85	1.00	0.415	0.88	0.474	0.86	0.552	2.000	●

:: Cyclic Stress Ratio calculation (CSR fully adjusted and normalized) ::

Depth (ft)	Unit Weight (pcf)	$\sigma_{v,eq}$ (tsf)	$u_{o,eq}$ (tsf)	$\sigma'_{vo,eq}$ (tsf)	r_d	α	CSR	MSF	$CSR_{eq,M=7.5}$	K_{sigma}	CSR^*	FS

Abbreviations

$\sigma_{v,eq}$: Total overburden pressure at test point, during earthquake (tsf)
$u_{o,eq}$: Water pressure at test point, during earthquake (tsf)
$\sigma'_{vo,eq}$: Effective overburden pressure, during earthquake (tsf)
r_d : Nonlinear shear mass factor
α: Improvement factor due to stone columns
CSR : Cyclic Stress Ratio (adjusted for improvement)
MSF : Magnitude Scaling Factor
$CSR_{eq,M=7.5}$: CSR adjusted for M=7.5
K_{sigma}: Effective overburden stress factor
CSR^*: CSR fully adjusted
FS: Calculated factor of safety against soil liquefaction

:: Liquefaction potential according to Iwasaki ::

Depth (ft)	FS	F	wz	Thickness (ft)	I_L
3.50	2.000	0.00	9.47	7.50	0.00
11.00	2.000	0.00	8.32	7.50	0.00
18.50	2.000	0.00	7.18	7.50	0.00
26.50	2.000	0.00	5.96	8.00	0.00
40.00	2.000	0.00	3.90	13.50	0.00

Overall potential I_L : 0.00

I_L = 0.00 - No liquefaction
I_L between 0.00 and 5 - Liquefaction not probable
I_L between 5 and 15 - Liquefaction probable
I_L > 15 - Liquefaction certain

:: Vertical settlements estimation for dry sands ::

Depth (ft)	$(N_1)_{60}$	τ_{av}	p	G_{max} (tsf)	α	b	γ	ε_{15}	N_c	ε_{Nc} (%)	Δh (ft)	ΔS (in)
3.50	30	0.09	0.12	0.54	0.13	17788.41	0.00	0.00	19.17	0.02	8.00	0.045
11.00	22	0.27	0.37	0.86	0.15	9092.16	0.00	0.00	19.17	0.06	6.00	0.088
18.50	26	0.47	0.67	1.21	0.16	6416.38	0.00	0.00	19.17	0.05	9.00	0.117
26.50	28	0.66	0.98	1.50	0.18	5108.91	0.00	0.00	19.17	0.05	7.00	0.087
40.00	38	0.94	1.52	1.90	0.21	3917.89	0.00	0.00	19.17	0.05	20.00	0.229

Cumulative settlemetns: 0.565

Abbreviations

τ_{av}: Average cyclic shear stress
p: Average stress
G_{max}: Maximum shear modulus (tsf)
α, b: Shear strain formula variables
γ: Average shear strain
ε_{15}: Volumetric strain after 15 cycles
N_c: Number of cycles
ε_{Nc}: Volumetric strain for number of cycles N_c (%)
Δh: Thickness of soil layer (in)
ΔS: Settlement of soil layer (in)

:: Lateral displacements estimation for saturated sands ::

Depth (ft)	$(N_1)_{60}$	D_r (%)	γ_{max} (%)	d_z (ft)	LDI	LD (ft)
3.50	30	76.68	0.00	8.00	0.000	0.00
11.00	22	65.67	0.00	6.00	0.000	0.00
18.50	26	71.39	0.00	9.00	0.000	0.00
26.50	28	74.08	0.00	7.00	0.000	0.00
40.00	38	86.30	0.00	20.00	0.000	0.00

Cumulative lateral displacements: 0.00

Abbreviations

D_r: Relative density (%)
γ_{max}: Maximum amplitude of cyclic shear strain (%)
d_z: Soil layer thickness (ft)
LDI: Lateral displacement index (ft)
LD: Actual estimated displacement (ft)

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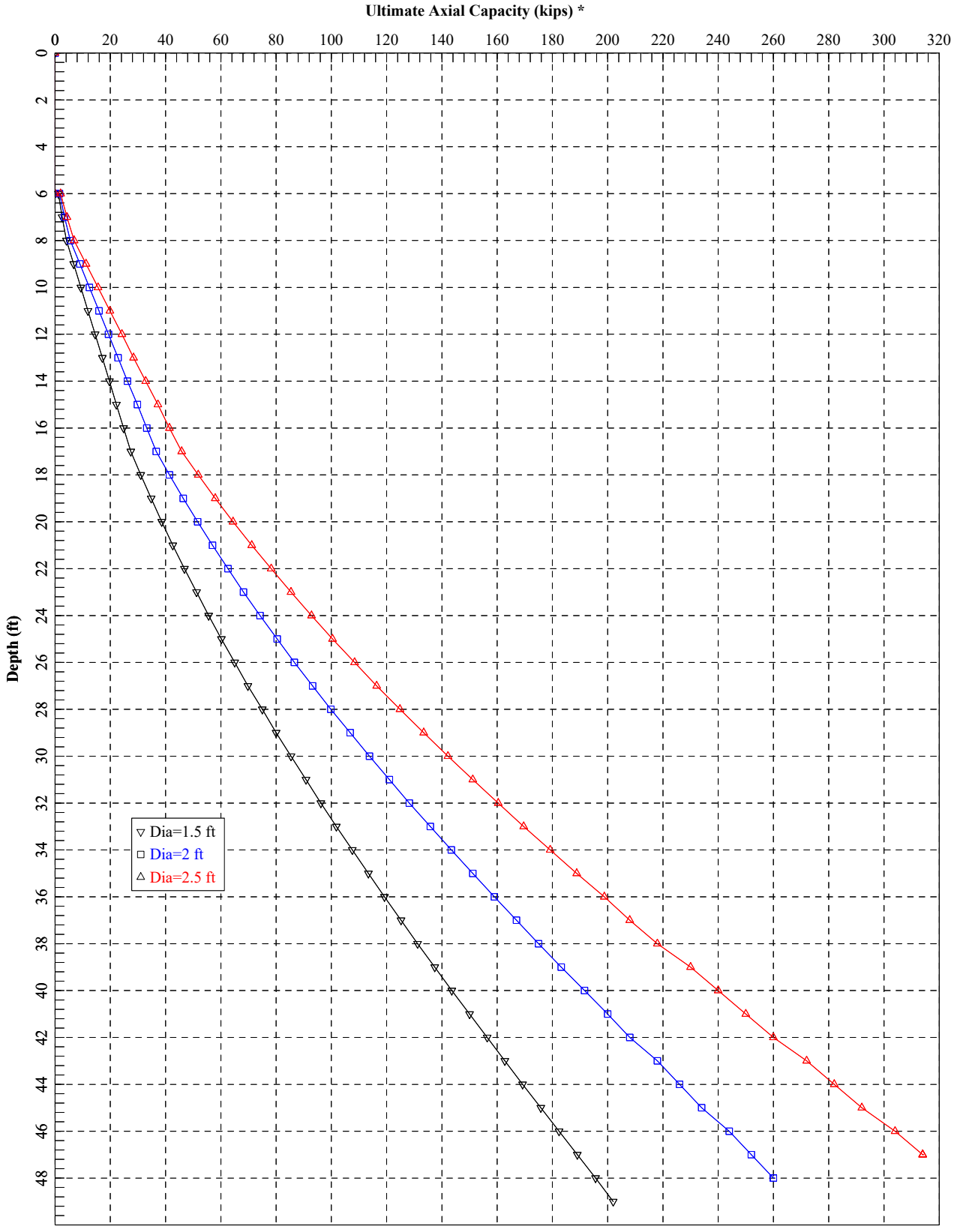
APPENDIX E

Ultimate Pier Capacity



*This chart provides ultimate values. We recommend the Structural Engineer utilize a minimum factor of safety of 2 for ASD.

Pacific Crest ENGINEERING INC	**Ultimate Capacity vs. Depth** Parking Garage Annex Salinas, California	Figure No. 1 Project No. 2009 Date: 2/12/20

```
=========================================================================

                  SHAFT for Windows, Version 2017.8.9

                   Serial Number :  500126173

                VERTICALLY LOADED DRILLED SHAFT ANALYSIS
                 (c) Copyright ENSOFT, Inc., 1987-2017
                       All Rights Reserved

=========================================================================

     Path to file locations      : H:\PF\2019\19132 - Parking Garage
Annex\Engineering\
     Name of input data file     : Parking Annex Shaft Analysis - SPT Average.sf8d
     Name of output file         : Parking Annex Shaft Analysis - SPT Average.sf8o
     Name of plot output file    : Parking Annex Shaft Analysis - SPT Average.sf8p
     Name of runtime file        : Parking Annex Shaft Analysis - SPT Average.sf8r

     -------------------------------------------------------------------------
                         Time and Date of Analysis
     -------------------------------------------------------------------------

               Date:  February 06, 2020     Time:  11:26:24

     SVMH Parking Garage Annex


     PROPOSED DEPTH =      50.0 FT
     ----------------


     NUMBER OF LAYERS =    5
     ------------------


     WATER TABLE DEPTH =       0.0 FT.
     -------------------



     FACTOR OF SAFETY APPLIED TO THE ULTIMATE SIDE FRICTION CAPACITY = 2.00
     ---------------------------------------------------------
     FACTOR OF SAFETY APPLIED TO THE ULTIMATE BASE CAPACITY = 3.00
     ----------------------------------------------------


     SOIL INFORMATION
```

LAYER NO 1----CLAY

  AT THE TOP

STRENGTH REDUCTION FACTOR-ALPHA	= 0.550E+00	(*)
END BEARING COEFFICIENT-Nc	= 0.600E+01	(*)
UNDRAINED SHEAR STRENGTH, LB/SQ FT	= 0.240E+03	
BLOWS PER FOOT FROM STANDARD PENETRATION TEST	= 0.000E+00	
SOIL UNIT WEIGHT, LB/CU FT	= 0.104E+03	
MAXIMUM LOAD TRANSFER FOR SOIL, LB/SQ FT	= 0.100E+11	
DEPTH, FT	= 0.000E+00	

  AT THE BOTTOM

STRENGTH REDUCTION FACTOR-ALPHA	= 0.550E+00	(*)
END BEARING COEFFICIENT-Nc	= 0.760E+01	(*)
UNDRAINED SHEAR STRENGTH, LB/SQ FT	= 0.240E+03	
BLOWS PER FOOT FROM STANDARD PENETRATION TEST	= 0.000E+00	
SOIL UNIT WEIGHT, LB/CU FT	= 0.104E+03	
MAXIMUM LOAD TRANSFER FOR SOIL, LB/SQ FT	= 0.100E+11	
DEPTH, FT	= 0.200E+01	

LAYER NO 2----SAND

  AT THE TOP

  SIDE FRICTION PROCEDURE, BETA METHOD

SKIN FRICTION COEFFICIENT- BETA	= 0.120E+01	(*)
INTERNAL FRICTION ANGLE, DEG.	= 0.000E+00	
BLOWS PER FOOT FROM STANDARD PENETRATION TEST	= 0.180E+02	
SOIL UNIT WEIGHT, LB/CU FT	= 0.100E+03	
MAXIMUM LOAD TRANSFER FOR SOIL, LB/SQ FT	= 0.100E+11	
DEPTH, FT	= 0.200E+01	

  AT THE BOTTOM

  SIDE FRICTION PROCEDURE, BETA METHOD

SKIN FRICTION COEFFICIENT- BETA	= 0.112E+01	(*)
INTERNAL FRICTION ANGLE, DEG.	= 0.000E+00	
BLOWS PER FOOT FROM STANDARD PENETRATION TEST	= 0.180E+02	
SOIL UNIT WEIGHT, LB/CU FT	= 0.100E+03	
MAXIMUM LOAD TRANSFER FOR SOIL, LB/SQ FT	= 0.100E+11	
DEPTH, FT	= 0.800E+01	

LAYER NO 3----CLAY

AT THE TOP

STRENGTH REDUCTION FACTOR-ALPHA	= 0.550E+00	(*)
END BEARING COEFFICIENT-Nc	= 0.900E+01	(*)
UNDRAINED SHEAR STRENGTH, LB/SQ FT	= 0.100E+04	
BLOWS PER FOOT FROM STANDARD PENETRATION TEST	= 0.000E+00	
SOIL UNIT WEIGHT, LB/CU FT	= 0.117E+03	
MAXIMUM LOAD TRANSFER FOR SOIL, LB/SQ FT	= 0.100E+11	
DEPTH, FT	= 0.800E+01	

AT THE BOTTOM

STRENGTH REDUCTION FACTOR-ALPHA	= 0.550E+00	(*)
END BEARING COEFFICIENT-Nc	= 0.900E+01	(*)
UNDRAINED SHEAR STRENGTH, LB/SQ FT	= 0.100E+04	
BLOWS PER FOOT FROM STANDARD PENETRATION TEST	= 0.000E+00	
SOIL UNIT WEIGHT, LB/CU FT	= 0.117E+03	
MAXIMUM LOAD TRANSFER FOR SOIL, LB/SQ FT	= 0.100E+11	
DEPTH, FT	= 0.170E+02	

LAYER NO 4----SAND

AT THE TOP

SIDE FRICTION PROCEDURE, BETA METHOD

SKIN FRICTION COEFFICIENT- BETA	= 0.943E+00	(*)
INTERNAL FRICTION ANGLE, DEG.	= 0.000E+00	
BLOWS PER FOOT FROM STANDARD PENETRATION TEST	= 0.300E+02	
SOIL UNIT WEIGHT, LB/CU FT	= 0.115E+03	
MAXIMUM LOAD TRANSFER FOR SOIL, LB/SQ FT	= 0.100E+11	
DEPTH, FT	= 0.170E+02	

AT THE BOTTOM

SIDE FRICTION PROCEDURE, BETA METHOD

SKIN FRICTION COEFFICIENT- BETA	= 0.839E+00	(*)
INTERNAL FRICTION ANGLE, DEG.	= 0.000E+00	
BLOWS PER FOOT FROM STANDARD PENETRATION TEST	= 0.300E+02	
SOIL UNIT WEIGHT, LB/CU FT	= 0.115E+03	
MAXIMUM LOAD TRANSFER FOR SOIL, LB/SQ FT	= 0.100E+11	
DEPTH, FT	= 0.240E+02	

LAYER NO 5----SAND

AT THE TOP

SIDE FRICTION PROCEDURE, BETA METHOD

SKIN FRICTION COEFFICIENT- BETA	= 0.839E+00	(*)

```
  INTERNAL FRICTION ANGLE, DEG.                       = 0.000E+00
  BLOWS PER FOOT FROM STANDARD PENETRATION TEST       = 0.670E+02
  SOIL UNIT WEIGHT, LB/CU FT                          = 0.120E+03
  MAXIMUM LOAD TRANSFER FOR SOIL, LB/SQ FT            = 0.100E+11
  DEPTH, FT                                           = 0.240E+02

  AT THE BOTTOM

  SIDE FRICTION PROCEDURE, BETA METHOD
  SKIN FRICTION COEFFICIENT- BETA                     = 0.517E+00  (*)
  INTERNAL FRICTION ANGLE, DEG.                       = 0.000E+00
  BLOWS PER FOOT FROM STANDARD PENETRATION TEST       = 0.670E+02
  SOIL UNIT WEIGHT, LB/CU FT                          = 0.120E+03
  MAXIMUM LOAD TRANSFER FOR SOIL, LB/SQ FT            = 0.100E+11
  DEPTH, FT                                           = 0.530E+02


(*) ESTIMATED BY THE PROGRAM BASED ON OTHER PARAMETERS



INPUT DRILLED SHAFT INFORMATION
-------------------------------

 MINIMUM SHAFT DIAMETER    =    1.500  FT.
 MAXIMUM SHAFT DIAMETER    =    2.500  FT.
 RATIO BASE/SHAFT DIAMETER =    0.000  FT.
 ANGLE OF BELL             =    0.000  DEG.
 IGNORED TOP PORTION       =    5.000  FT.
 IGNORED BOTTOM PORTION    =    0.000  FT.
 ELASTIC MODULUS, Ec       = 0.316E+07 LB/SQ IN




COMPUTATION RESULTS
-------------------



- CASE ANALYZED      :     1
  VARIATION LENGTH   :     1
  VARIATION DIAMETER :     1



DRILLED SHAFT INFORMATION
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DIAMETER OF STEM	=	1.500	FT.
DIAMETER OF BASE	=	1.500	FT.
END OF STEM TO BASE	=	0.000	FT.
ANGLE OF BELL	=	0.000	DEG.
IGNORED TOP PORTION	=	5.000	FT.
IGNORED BOTTOM PORTION	=	0.000	FT.
AREA OF ONE PERCENT STEEL	=	2.545	SQ.IN.
ELASTIC MODULUS, Ec	=	0.316E+07	LB/SQ IN
VOLUME OF UNDERREAM	=	0.000	CU.YDS.
SHAFT LENGTH	=	50.000	FT.

PREDICTED RESULTS

QS = ULTIMATE SIDE RESISTANCE;
QB = ULTIMATE BASE RESISTANCE;
WT = WEIGHT OF DRILLED SHAFT (FOR UPLIFT CAPACITY ONLY);
QU = TOTAL ULTIMATE RESISTANCE;
QBD = TOTAL ALLOWABLE LOAD USING A FACTOR OF SAFETY
APPLIED TO THE ULTIMATE BASE RESISTANCE;
QDN = TOTAL ALLOWABLE LOAD USING FACTORS OF SAFETY
APPLIED TO THE ULTIMATE SIDE RESISTANCE AND
THE ULTIMATE BASE RESISTANCE.

LENGTH (FT)	VOLUME (CU.YDS)	QS (TONS)	QB (TONS)	QU (TONS)	QBD (TONS)	QDN (TONS)	QU/VOLUME (TONS/CU.YDS)
6.0	0.39	0.60	0.00	0.60	0.60	0.30	1.54
7.0	0.46	1.29	0.00	1.29	1.29	0.65	2.82
8.0	0.52	2.07	0.00	2.07	2.07	1.03	3.95
9.0	0.59	3.36	0.00	3.36	3.36	1.68	5.71
10.0	0.65	4.66	0.00	4.66	4.66	2.33	7.12
11.0	0.72	5.96	0.00	5.96	5.96	2.98	8.27
12.0	0.79	7.25	0.00	7.25	7.25	3.63	9.23
13.0	0.85	8.55	0.00	8.55	8.55	4.27	10.05
14.0	0.92	9.84	0.00	9.84	9.84	4.92	10.74
15.0	0.98	11.14	0.00	11.14	11.14	5.57	11.35
16.0	1.05	12.44	0.00	12.44	12.44	6.22	11.87
17.0	1.11	13.73	0.00	13.73	13.73	6.87	12.34
18.0	1.18	15.51	0.00	15.51	15.51	7.76	13.17
19.0	1.24	17.38	0.00	17.38	17.38	8.69	13.97
20.0	1.31	19.32	0.00	19.32	19.32	9.66	14.76
21.0	1.37	21.35	0.00	21.35	21.35	10.67	15.53
22.0	1.44	23.44	0.00	23.44	23.44	11.72	16.28
23.0	1.51	25.61	0.00	25.61	25.61	12.80	17.01
24.0	1.57	27.84	0.00	27.84	27.84	13.92	17.72
25.0	1.64	30.14	0.00	30.14	30.14	15.07	18.42

26.0	1.70	32.51	0.00	32.51	32.51	16.25	19.10
27.0	1.77	34.95	0.00	34.95	34.95	17.47	19.77
28.0	1.83	37.45	0.00	37.45	37.45	18.73	20.44
29.0	1.90	40.03	0.00	40.03	40.03	20.01	21.09
30.0	1.96	42.66	0.00	42.66	42.66	21.33	21.72
31.0	2.03	45.35	0.00	45.35	45.35	22.68	22.35
32.0	2.09	48.10	0.00	48.10	48.10	24.05	22.96
33.0	2.16	50.90	0.00	50.90	50.90	25.45	23.57
34.0	2.23	53.76	0.00	53.76	53.76	26.88	24.16
35.0	2.29	56.66	0.00	56.66	56.66	28.33	24.73
36.0	2.36	59.61	0.00	59.61	59.61	29.81	25.30
37.0	2.42	62.61	0.00	62.61	62.61	31.30	25.85
38.0	2.49	65.65	0.00	65.65	65.65	32.82	26.39
39.0	2.55	68.72	0.00	68.72	68.72	34.36	26.92
40.0	2.62	71.84	0.00	71.84	71.84	35.92	27.44
41.0	2.68	74.99	0.00	74.99	74.99	37.49	27.94
42.0	2.75	78.17	0.00	78.17	78.17	39.08	28.43
43.0	2.81	81.38	0.00	81.38	81.38	40.69	28.91
44.0	2.88	84.62	0.00	84.62	84.62	42.31	29.38
45.0	2.95	87.89	0.00	87.89	87.89	43.95	29.84
46.0	3.01	91.18	0.00	91.18	91.18	45.59	30.28
47.0	3.08	94.50	0.00	94.50	94.50	47.25	30.72
48.0	3.14	97.83	0.00	97.83	97.83	48.92	31.14
49.0	3.21	101.19	0.00	101.19	101.19	50.59	31.55

AXIAL LOAD VS SETTLEMENT CURVES

RESULT FROM TREND (AVERAGED) LINE

TOP LOAD TON	TOP MOVEMENT IN.	TIP LOAD TON	TIP MOVEMENT IN.
0.2829E-01	0.3262E-04	0.1718E-11	0.1000E-04
0.1415E+00	0.1631E-03	0.8591E-11	0.5000E-04
0.2829E+00	0.3262E-03	0.1718E-10	0.1000E-03
0.1437E+02	0.1645E-01	0.8591E-09	0.5000E-02
0.2150E+02	0.2467E-01	0.1289E-08	0.7500E-02
0.2777E+02	0.3258E-01	0.1718E-08	0.1000E-01
0.5532E+02	0.7275E-01	0.4296E-08	0.2500E-01
0.7605E+02	0.1193E+00	0.8591E-08	0.5000E-01
0.8529E+02	0.1537E+00	0.1289E-07	0.7500E-01
0.9134E+02	0.1854E+00	0.1713E-07	0.1000E+00
0.9504E+02	0.3401E+00	0.4011E-07	0.2500E+00
0.9417E+02	0.5896E+00	0.6097E-07	0.5000E+00
0.9410E+02	0.7145E+00	0.7077E-07	0.6250E+00
0.9401E+02	0.8707E+00	0.8182E-07	0.7812E+00

0.9394E+02	0.9893E+00	0.8969E-07	0.9000E+00

RESULT FROM UPPER-BOUND LINE

TOP LOAD TON	TOP MOVEMENT IN.	TIP LOAD TON	TIP MOVEMENT IN.
0.4354E-01	0.4317E-04	0.2455E-11	0.1000E-04
0.2177E+00	0.2158E-03	0.1227E-10	0.5000E-04
0.4354E+00	0.4317E-03	0.2455E-10	0.1000E-03
0.2225E+02	0.2187E-01	0.1227E-08	0.5000E-02
0.3223E+02	0.3246E-01	0.1841E-08	0.7500E-02
0.4042E+02	0.4226E-01	0.2455E-08	0.1000E-01
0.7252E+02	0.8874E-01	0.6137E-08	0.2500E-01
0.9235E+02	0.1355E+00	0.1227E-07	0.5000E-01
0.9736E+02	0.1660E+00	0.1841E-07	0.7500E-01
0.9970E+02	0.1938E+00	0.2435E-07	0.1000E+00
0.9917E+02	0.3438E+00	0.5548E-07	0.2500E+00
0.9882E+02	0.5937E+00	0.7109E-07	0.5000E+00
0.9882E+02	0.7187E+00	0.7924E-07	0.6250E+00
0.9882E+02	0.8749E+00	0.8844E-07	0.7812E+00
0.9882E+02	0.9937E+00	0.9544E-07	0.9000E+00

RESULT FROM LOWER-BOUND LINE

TOP LOAD TON	TOP MOVEMENT IN.	TIP LOAD TON	TIP MOVEMENT IN.
0.1599E-01	0.2354E-04	0.9819E-12	0.1000E-04
0.7996E-01	0.1177E-03	0.4909E-11	0.5000E-04
0.1599E+00	0.2354E-03	0.9819E-11	0.1000E-03
0.8078E+01	0.1183E-01	0.4909E-09	0.5000E-02
0.1212E+02	0.1774E-01	0.7364E-09	0.7500E-02
0.1613E+02	0.2365E-01	0.9819E-09	0.1000E-01
0.3629E+02	0.5635E-01	0.2455E-08	0.2500E-01
0.5854E+02	0.1023E+00	0.4909E-08	0.5000E-01
0.7255E+02	0.1410E+00	0.7364E-08	0.7500E-01
0.8271E+02	0.1767E+00	0.9917E-08	0.1000E+00
0.9057E+02	0.3363E+00	0.2474E-07	0.2500E+00
0.8953E+02	0.5855E+00	0.5086E-07	0.5000E+00
0.8938E+02	0.7103E+00	0.6230E-07	0.6250E+00
0.8920E+02	0.8664E+00	0.7521E-07	0.7812E+00
0.8906E+02	0.9850E+00	0.8395E-07	0.9000E+00

- CASE ANALYZED : 2
  VARIATION LENGTH : 1
  VARIATION DIAMETER : 2

DRILLED SHAFT INFORMATION

DIAMETER OF STEM	=	2.000	FT.
DIAMETER OF BASE	=	2.000	FT.
END OF STEM TO BASE	=	0.000	FT.
ANGLE OF BELL	=	0.000	DEG.
IGNORED TOP PORTION	=	5.000	FT.
IGNORED BOTTOM PORTION	=	0.000	FT.
AREA OF ONE PERCENT STEEL	=	4.524	SQ.IN.
ELASTIC MODULUS, Ec	=	0.316E+07	LB/SQ IN
VOLUME OF UNDERREAM	=	0.000	CU.YDS.
SHAFT LENGTH	=	50.000	FT.

PREDICTED RESULTS

QS = ULTIMATE SIDE RESISTANCE;
QB = ULTIMATE BASE RESISTANCE;
WT = WEIGHT OF DRILLED SHAFT (FOR UPLIFT CAPACITY ONLY);
QU = TOTAL ULTIMATE RESISTANCE;
QBD = TOTAL ALLOWABLE LOAD USING A FACTOR OF SAFETY
APPLIED TO THE ULTIMATE BASE RESISTANCE;
QDN = TOTAL ALLOWABLE LOAD USING FACTORS OF SAFETY
APPLIED TO THE ULTIMATE SIDE RESISTANCE AND
THE ULTIMATE BASE RESISTANCE.

LENGTH (FT)	VOLUME (CU.YDS)	QS (TONS)	QB (TONS)	QU (TONS)	QBD (TONS)	QDN (TONS)	QU/VOLUME (TONS/CU.YDS)
6.0	0.70	0.80	0.00	0.80	0.80	0.40	1.15
7.0	0.81	1.72	0.00	1.72	1.72	0.86	2.12
8.0	0.93	2.76	0.00	2.76	2.76	1.38	2.96
9.0	1.05	4.49	0.00	4.49	4.49	2.24	4.28
10.0	1.16	6.21	0.00	6.21	6.21	3.11	5.34
11.0	1.28	7.94	0.00	7.94	7.94	3.97	6.20
12.0	1.40	9.67	0.00	9.67	9.67	4.83	6.92
13.0	1.51	11.40	0.00	11.40	11.40	5.70	7.53
14.0	1.63	13.13	0.00	13.13	13.13	6.56	8.06
15.0	1.75	14.85	0.00	14.85	14.85	7.43	8.51
16.0	1.86	16.58	0.00	16.58	16.58	8.29	8.91
17.0	1.98	18.31	0.00	18.31	18.31	9.16	9.26
18.0	2.09	20.69	0.00	20.69	20.69	10.34	9.88
19.0	2.21	23.17	0.00	23.17	23.17	11.59	10.48
20.0	2.33	25.77	0.00	25.77	25.77	12.88	11.07
21.0	2.44	28.46	0.00	28.46	28.46	14.23	11.65

22.0	2.56	31.25	0.00	31.25	31.25	15.63	12.21
23.0	2.68	34.14	0.00	34.14	34.14	17.07	12.76
24.0	2.79	37.12	0.00	37.12	37.12	18.56	13.29
25.0	2.91	40.19	0.00	40.19	40.19	20.09	13.81
26.0	3.03	43.34	0.00	43.34	43.34	21.67	14.33
27.0	3.14	46.60	0.00	46.60	46.60	23.30	14.83
28.0	3.26	49.94	0.00	49.94	49.94	24.97	15.33
29.0	3.37	53.37	0.00	53.37	53.37	26.68	15.81
30.0	3.49	56.88	0.00	56.88	56.88	28.44	16.29
31.0	3.61	60.47	0.00	60.47	60.47	30.23	16.76
32.0	3.72	64.13	0.00	64.13	64.13	32.07	17.22
33.0	3.84	67.87	0.00	67.87	67.87	33.94	17.67
34.0	3.96	71.68	0.00	71.68	71.68	35.84	18.12
35.0	4.07	75.55	0.00	75.55	75.55	37.78	18.55
36.0	4.19	79.49	0.00	79.49	79.49	39.74	18.97
37.0	4.31	83.48	0.00	83.48	83.48	41.74	19.39
38.0	4.42	87.53	0.00	87.53	87.53	43.76	19.79
39.0	4.54	91.63	0.00	91.63	91.63	45.82	20.19
40.0	4.65	95.78	0.00	95.78	95.78	47.89	20.58
41.0	4.77	99.98	0.00	99.98	99.98	49.99	20.96
42.0	4.89	104.23	0.00	104.23	104.23	52.11	21.32
43.0	5.00	108.51	0.00	108.51	108.51	54.26	21.69
44.0	5.12	112.83	0.00	112.83	112.83	56.42	22.04
45.0	5.24	117.19	0.00	117.19	117.19	58.60	22.38
46.0	5.35	121.58	0.00	121.58	121.58	60.79	22.71
47.0	5.47	126.00	0.00	126.00	126.00	63.00	23.04
48.0	5.59	130.45	0.00	130.45	130.45	65.22	23.35

AXIAL LOAD VS SETTLEMENT CURVES

RESULT FROM TREND (AVERAGED) LINE

TOP LOAD TON	TOP MOVEMENT IN.	TIP LOAD TON	TIP MOVEMENT IN.
0.2329E-01	0.2087E-04	0.2291E-11	0.1000E-04
0.1164E+00	0.1043E-03	0.1146E-10	0.5000E-04
0.2329E+00	0.2087E-03	0.2291E-10	0.1000E-03
0.1174E+02	0.1047E-01	0.1146E-08	0.5000E-02
0.1762E+02	0.1571E-01	0.1718E-08	0.7500E-02
0.2349E+02	0.2094E-01	0.2291E-08	0.1000E-01
0.5337E+02	0.5077E-01	0.5728E-08	0.2500E-01
0.8487E+02	0.9222E-01	0.1146E-07	0.5000E-01
0.9914E+02	0.1254E+00	0.1718E-07	0.7500E-01
0.1078E+03	0.1552E+00	0.2291E-07	0.1000E+00
0.1229E+03	0.3141E+00	0.5603E-07	0.2500E+00

0.1214E+03	0.5638E+00	0.9040E-07	0.5000E+00
0.1213E+03	0.6887E+00	0.1035E-06	0.6250E+00
0.1212E+03	0.8449E+00	0.1207E-06	0.7812E+00
0.1210E+03	0.1264E+01	0.1595E-06	0.1200E+01

RESULT FROM UPPER-BOUND LINE

TOP LOAD TON	TOP MOVEMENT IN.	TIP LOAD TON	TIP MOVEMENT IN.
0.3403E-01	0.2536E-04	0.3273E-11	0.1000E-04
0.1701E+00	0.1268E-03	0.1636E-10	0.5000E-04
0.3403E+00	0.2536E-03	0.3273E-10	0.1000E-03
0.1721E+02	0.1275E-01	0.1636E-08	0.5000E-02
0.2582E+02	0.1913E-01	0.2455E-08	0.7500E-02
0.3443E+02	0.2551E-01	0.3273E-08	0.1000E-01
0.7351E+02	0.6027E-01	0.8182E-08	0.2500E-01
0.1075E+03	0.1044E+00	0.1636E-07	0.5000E-01
0.1196E+03	0.1366E+00	0.2455E-07	0.7500E-01
0.1245E+03	0.1643E+00	0.3273E-07	0.1000E+00
0.1285E+03	0.3169E+00	0.7790E-07	0.2500E+00
0.1273E+03	0.5666E+00	0.1135E-06	0.5000E+00
0.1273E+03	0.6916E+00	0.1220E-06	0.6250E+00
0.1273E+03	0.8479E+00	0.1368E-06	0.7812E+00
0.1273E+03	0.1267E+01	0.1697E-06	0.1200E+01

RESULT FROM LOWER-BOUND LINE

TOP LOAD TON	TOP MOVEMENT IN.	TIP LOAD TON	TIP MOVEMENT IN.
0.1390E-01	0.1675E-04	0.1309E-11	0.1000E-04
0.6952E-01	0.8376E-04	0.6546E-11	0.5000E-04
0.1390E+00	0.1675E-03	0.1309E-10	0.1000E-03
0.6990E+01	0.8390E-02	0.6546E-09	0.5000E-02
0.1049E+02	0.1259E-01	0.9819E-09	0.7500E-02
0.1398E+02	0.1678E-01	0.1309E-08	0.1000E-01
0.3384E+02	0.4157E-01	0.3273E-08	0.2500E-01
0.5970E+02	0.7950E-01	0.6546E-08	0.5000E-01
0.7723E+02	0.1138E+00	0.9819E-08	0.7500E-01
0.9063E+02	0.1459E+00	0.1309E-07	0.1000E+00
0.1173E+03	0.3113E+00	0.3417E-07	0.2500E+00
0.1155E+03	0.5609E+00	0.6729E-07	0.5000E+00
0.1154E+03	0.6858E+00	0.8496E-07	0.6250E+00
0.1152E+03	0.8420E+00	0.1046E-06	0.7812E+00
0.1147E+03	0.1260E+01	0.1492E-06	0.1200E+01

- CASE ANALYZED : 3

VARIATION LENGTH : 1
VARIATION DIAMETER : 3

DRILLED SHAFT INFORMATION

DIAMETER OF STEM = 2.500 FT.
DIAMETER OF BASE = 2.500 FT.
END OF STEM TO BASE = 0.000 FT.
ANGLE OF BELL = 0.000 DEG.
IGNORED TOP PORTION = 5.000 FT.
IGNORED BOTTOM PORTION = 0.000 FT.
AREA OF ONE PERCENT STEEL = 7.069 SQ.IN.
ELASTIC MODULUS, Ec = 0.316E+07 LB/SQ IN
VOLUME OF UNDERREAM = 0.000 CU.YDS.
SHAFT LENGTH = 50.000 FT.

PREDICTED RESULTS

QS = ULTIMATE SIDE RESISTANCE;
QB = ULTIMATE BASE RESISTANCE;
WT = WEIGHT OF DRILLED SHAFT (FOR UPLIFT CAPACITY ONLY);
QU = TOTAL ULTIMATE RESISTANCE;
QBD = TOTAL ALLOWABLE LOAD USING A FACTOR OF SAFETY
APPLIED TO THE ULTIMATE BASE RESISTANCE;
QDN = TOTAL ALLOWABLE LOAD USING FACTORS OF SAFETY
APPLIED TO THE ULTIMATE SIDE RESISTANCE AND
THE ULTIMATE BASE RESISTANCE.

LENGTH (FT)	VOLUME (CU.YDS)	QS (TONS)	QB (TONS)	QU (TONS)	QBD (TONS)	QDN (TONS)	QU/VOLUME (TONS/CU.YDS)
6.0	1.09	1.00	0.00	1.00	1.00	0.50	0.92
7.0	1.27	2.16	0.00	2.16	2.16	1.08	1.69
8.0	1.45	3.45	0.00	3.45	3.45	1.72	2.37
9.0	1.64	5.61	0.00	5.61	5.61	2.80	3.43
10.0	1.82	7.77	0.00	7.77	7.77	3.88	4.27
11.0	2.00	9.93	0.00	9.93	9.93	4.96	4.96
12.0	2.18	12.09	0.00	12.09	12.09	6.04	5.54
13.0	2.36	14.25	0.00	14.25	14.25	7.12	6.03
14.0	2.55	16.41	0.00	16.41	16.41	8.20	6.45
15.0	2.73	18.57	0.00	18.57	18.57	9.28	6.81
16.0	2.91	20.73	0.00	20.73	20.73	10.36	7.12
17.0	3.09	22.89	0.00	22.89	22.89	11.44	7.40
18.0	3.27	25.86	0.00	25.86	25.86	12.93	7.90

19.0	3.45	28.97	0.00	28.97	28.97	14.48	8.38
20.0	3.64	32.21	0.00	32.21	32.21	16.10	8.86
21.0	3.82	35.58	0.00	35.58	35.58	17.79	9.32
22.0	4.00	39.07	0.00	39.07	39.07	19.53	9.77
23.0	4.18	42.68	0.00	42.68	42.68	21.34	10.21
24.0	4.36	46.41	0.00	46.41	46.41	23.20	10.63
25.0	4.55	50.23	0.00	50.23	50.23	25.12	11.05
26.0	4.73	54.18	0.00	54.18	54.18	27.09	11.46
27.0	4.91	58.25	0.00	58.25	58.25	29.12	11.86
28.0	5.09	62.42	0.00	62.42	62.42	31.21	12.26
29.0	5.27	66.71	0.00	66.71	66.71	33.36	12.65
30.0	5.45	71.10	0.00	71.10	71.10	35.55	13.03
31.0	5.64	75.59	0.00	75.59	75.59	37.79	13.41
32.0	5.82	80.17	0.00	80.17	80.17	40.08	13.78
33.0	6.00	84.84	0.00	84.84	84.84	42.42	14.14
34.0	6.18	89.60	0.00	89.60	89.60	44.80	14.49
35.0	6.36	94.44	0.00	94.44	94.44	47.22	14.84
36.0	6.55	99.36	0.00	99.36	99.36	49.68	15.18
37.0	6.73	104.35	0.00	104.35	104.35	52.17	15.51
38.0	6.91	109.41	0.00	109.41	109.41	54.71	15.83
39.0	7.09	114.54	0.00	114.54	114.54	57.27	16.15
40.0	7.27	119.73	0.00	119.73	119.73	59.86	16.46
41.0	7.45	124.98	0.00	124.98	124.98	62.49	16.76
42.0	7.64	130.28	0.00	130.28	130.28	65.14	17.06
43.0	7.82	135.64	0.00	135.64	135.64	67.82	17.35
44.0	8.00	141.04	0.00	141.04	141.04	70.52	17.63
45.0	8.18	146.49	0.00	146.49	146.49	73.24	17.90
46.0	8.36	151.97	0.00	151.97	151.97	75.99	18.17
47.0	8.55	157.50	0.00	157.50	157.50	78.75	18.43

AXIAL LOAD VS SETTLEMENT CURVES

RESULT FROM TREND (AVERAGED) LINE

TOP LOAD TON	TOP MOVEMENT IN.	TIP LOAD TON	TIP MOVEMENT IN.
0.2087E-01	0.1628E-04	0.2864E-11	0.1000E-04
0.1043E+00	0.8141E-04	0.1432E-10	0.5000E-04
0.2087E+00	0.1628E-03	0.2864E-10	0.1000E-03
0.1049E+02	0.8154E-02	0.1432E-08	0.5000E-02
0.1573E+02	0.1223E-01	0.2148E-08	0.7500E-02
0.2098E+02	0.1631E-01	0.2864E-08	0.1000E-01
0.5160E+02	0.4067E-01	0.7160E-08	0.2500E-01
0.8648E+02	0.7701E-01	0.1432E-07	0.5000E-01
0.1089E+03	0.1094E+00	0.2148E-07	0.7500E-01

0.1205E+03	0.1386E+00	0.2864E-07	0.1000E+00
0.1476E+03	0.2982E+00	0.7078E-07	0.2500E+00
0.1473E+03	0.5484E+00	0.1254E-06	0.5000E+00
0.1465E+03	0.6733E+00	0.1412E-06	0.6250E+00
0.1464E+03	0.7983E+00	0.1571E-06	0.7500E+00
0.1460E+03	0.1548E+01	0.2492E-06	0.1500E+01

RESULT FROM UPPER-BOUND LINE

TOP LOAD TON	TOP MOVEMENT IN.	TIP LOAD TON	TIP MOVEMENT IN.
0.2972E-01	0.1873E-04	0.4091E-11	0.1000E-04
0.1486E+00	0.9367E-04	0.2046E-10	0.5000E-04
0.2972E+00	0.1873E-03	0.4091E-10	0.1000E-03
0.1497E+02	0.9391E-02	0.2046E-08	0.5000E-02
0.2245E+02	0.1409E-01	0.3068E-08	0.7500E-02
0.2994E+02	0.1878E-01	0.4091E-08	0.1000E-01
0.7184E+02	0.4656E-01	0.1023E-07	0.2500E-01
0.1140E+03	0.8576E-01	0.2046E-07	0.5000E-01
0.1354E+03	0.1185E+00	0.3068E-07	0.7500E-01
0.1446E+03	0.1468E+00	0.4091E-07	0.1000E+00
0.1554E+03	0.3007E+00	0.9901E-07	0.2500E+00
0.1541E+03	0.5505E+00	0.1681E-06	0.5000E+00
0.1536E+03	0.6755E+00	0.1774E-06	0.6250E+00
0.1536E+03	0.8005E+00	0.1866E-06	0.7500E+00
0.1536E+03	0.1550E+01	0.2651E-06	0.1500E+01

RESULT FROM LOWER-BOUND LINE

TOP LOAD TON	TOP MOVEMENT IN.	TIP LOAD TON	TIP MOVEMENT IN.
0.1279E-01	0.1397E-04	0.1636E-11	0.1000E-04
0.6396E-01	0.6985E-04	0.8182E-11	0.5000E-04
0.1279E+00	0.1397E-03	0.1636E-10	0.1000E-03
0.6417E+01	0.6990E-02	0.8182E-09	0.5000E-02
0.9627E+01	0.1049E-01	0.1227E-08	0.7500E-02
0.1284E+02	0.1398E-01	0.1636E-08	0.1000E-01
0.3205E+02	0.3495E-01	0.4091E-08	0.2500E-01
0.5846E+02	0.6826E-01	0.8182E-08	0.5000E-01
0.7961E+02	0.1000E+00	0.1227E-07	0.7500E-01
0.9471E+02	0.1301E+00	0.1636E-07	0.1000E+00
0.1398E+03	0.2957E+00	0.4255E-07	0.2500E+00
0.1400E+03	0.5463E+00	0.8264E-07	0.5000E+00
0.1393E+03	0.6711E+00	0.1051E-06	0.6250E+00
0.1392E+03	0.7961E+00	0.1276E-06	0.7500E+00
0.1383E+03	0.1546E+01	0.2332E-06	0.1500E+01

Appendix D

Traffic Operations Memo

Kimley»Horn

MEMORANDUM

To: Henry Ornelas COO/ John Lett, Salinas Valley Memorial Healthcare System

From: Frederik Venter, Kimley-Horn and Associates

Date: December 12, 2019

Subject: Salinas Valley Memorial Healthcare System (SVMHS) DRC Annex Traffic Study

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This memorandum summarizes the intersection operation analysis for the proposed DRC Annex Expansion at the Salinas Valley Memorial Hospital (SVMH) located in Salinas, California. The memorandum forms part of the Conditional Use Permit (CUP) application for the DRC Annex hospital project.

BACKGROUND

The proposed project is the expansion of the DRC parking garage, referred to as the DRC Annex, shown in **Figure 1**. The purpose of the DRC Annex is to increase the parking supply on the hospital site. There is currently a parking shortfall on the hospital site and the additional supply will improve parking capacity. The project will not increase staffing or patients for the hospital and patient beds will remain unchanged. No new trips will be generated to the site, however current trips will be re-rerouted around the site due to the revised parking layout. The hospital is also leasing 253 parking spaces at the 91 Spicer Street location, referred to as the Blue Lot, to offset the current high occupancy at the campus. The hospital has a 5-year minimum lease agreement for the Blue Lot and is assumed to remain in place through the construction of the DRC Annex.

The Project will also expand the DRC basement office area. The expansion of the DRC basement office area is for the relocation of administrative staff in preparation for future Master Plan development. Although there is an increase in office square footage, this area is for the relocation of existing administrative staff and would not induce additional trips.

TRAFFIC ANALYSIS

Level of Service and Queuing was analyzed for five intersections and three driveways, listed below.

Figure 1 provides the control and driveway numbering for future references in the report.

The following locations were analyzed for this report:

1. Wilgart Way at East Romie Lane,
2. Wilgart Way at MRI Lot,
3. Wilgart Way at San Jose Street,
4. Los Palos Drive at E. Romie Lane,
5. Los Palos Drive at San Jose Street,
6. Wilgart Way at DRC Entrance (driveway),
7. San Jose Street at Breschini Energy Driveway, and

8. San Jose Street at ER Department Driveway

Existing traffic counts were collected Tuesday October 30th, 2018 and are provided in the appendix of this report. Please refer to **Figure 1** for Driveway references.

LEVEL OF SERVICE (LOS) ANALYSIS

Analysis of potential impacts at roadway intersections is based on the concept of Level of Service (LOS). The LOS of an intersection is a qualitative measure used to describe operational conditions. LOS ranges from A (best), which represents minimal delay, to F (worst), which represents heavy delay and a facility that is operating at or near its functional capacity. Levels of Service for this study were determined using methods defined in the *Highway Capacity Manual (HCM)* and *Synchro 9* traffic analysis software.

HCM methodologies include procedures for analyzing side-street stop-controlled (SSSC), all-way stop-controlled (AWSC), and signalized intersections. The SSSC procedure defines LOS as a function of average control delay for each minor street approach movement. Conversely, the AWSC and signalized intersection procedures define LOS as a function of average control delay for the overall intersection.

Per the City of Salinas General Plan Circulation Element (dated September 2002), LOS D is an acceptable LOS.

Table 1 relates the operational characteristics associated with each LOS category for signalized and unsignalized intersections.

Table 1 – Intersection Level of Service Definitions

Level of Service	Description	Signalized (Avg. Control Delay per veh sec/veh.)	Unsignalized (Avg. Control Delay per veh sec/veh.)
A	Free flow with no delays. Users are virtually unaffected by others in the traffic stream	Less than 10	Less than 10
B	Stable traffic. Traffic flows smoothly with few delays.	Less than or equal to 10 to 20	Less than or equal to 10 to 15
C	Stable flow but the operation of individual users becomes affected by other vehicles. Modest delays.	Less than or equal to 20 to 35	Less than or equal to 15 to 25
D	Approaching unstable flow. Operation of individual users becomes significantly affected by other vehicles. Delays may be more than one cycle during peak hours.	Less than or equal to 35 to 55	Less than or equal to 25 to 35
E	Unstable flow with operating conditions at or near the capacity level. Long delays and vehicle queuing.	Less than or equal to 55 to 80	Less than or equal to 35 to 50
F	Forced or breakdown flow that causes reduced capacity. Stop and go traffic conditions. Excessive long delays and vehicle queuing.	Greater than or equal to 80	Greater than or equal to 50

Source: Transportation Research Board, Highway Capacity Manual 2010, National Research Council.

Project impacts are determined by comparing conditions without the proposed Project to those with the proposed Project. Significant impacts for intersections are created when traffic from the proposed Project causes the LOS to fall below the maintaining agency's LOS threshold or causes deficient intersections to deteriorate further per the criteria indicated below.

EXISTING CONDITIONS

Existing Conditions were evaluated using existing lane geometry, traffic control, and peak hour traffic volumes and illustrated in **Figure 3**. **Table 3** summarizes the LOS and delay under Existing Conditions.

Table 3 – Existing Conditions Level of Service

Intersection		Control		AM Peak Hour		PM Peak Hour	
				LOS	Delay	LOS	Delay
1	Wilgart Way at E. Romie Ln[1]	Signal	Overall	16.7	B	15.1	B
2	Wilgart Way at MRI Lot[1]	Signal	Overall	14.5	B	18.7	B
3	Wilgart Way at San Jose St	AWSC	Overall	8.0	A	7.8	A
4	Los Palos Dr at E. Romie Ln	Signal	Overall	16.7	B	16.7	B
5	Los Palos Dr at San Jose St	SSSC	Overall	1.7	A	4.5	A
			Worst Approach	*11.5*	*B (EB)*	*13.2*	*B (EB)*
6	Wilgart Way at DRC Entrance	SSSC	Overall	3.0	A	5.0	A
			Worst Approach	*9.5*	*A (WB)*	*9.4*	*A (WB)*
7	San Jose St at Breschini Energy Lot Driveway	SSSC	Overall	0.5	A	0.7	A
			Worst Approach	*8.8*	*A (SB)*	*9.2*	*A (SB)*
8	San Jose St at ER Dept. Driveway	SSSC	Overall	1.2	A	1.3	A
			Worst Approach	*9.2*	*A (SB)*	*9.8*	*A (SB)*
9	San Jose St at DRC Annex Driveway	SSSC	*Does Not Exist in Existing Conditions*				

[1]HCM 2000 was used to analyze Intersections 1 and 2 due to the fact they are clustered intersection which can not be analyzed in HCM 6 methodology.
Source: Kimley-Horn, 2019

Intersections 1 through 8, operate in acceptable conditions in the AM and PM Peak Hour in Existing Conditions.

DRC ANNEX PROJECT REROUTED TRIPS

The Project is intended to address existing parking shortfalls, and the hospital will continue to generate the same traffic volumes to the site with the DRC Annex project. As part of the project two existing driveways will be closed. The driveway to the existing trash enclosure on Wilgart Way and the Breschini Energy Lot Driveway will be closed, and a new driveway for the DRC Annex will be opened east of the former Breshini Lot Driveway. Existing Trips were reassigned by assuming that trips using the Breschini lot would likely use the DRC Annex Driveway as well as a small percentage of the existing DRC trips, particularly those using the first floor of the DRC would use the DRC Annex Driveway (8 percent or the portion of the First Floor of the DRC Annex of total DRC and DRC Annex spaces). Trips were redistributed based on the Trip Distribution shown in **Figure 3**.

Figure 4 illustrates the peak hour traffic volumes as a result of the project. **Table 4** summarizes the LOS and delay under Project Conditions.

Table 4 – DRC Annex Conditions Level of Service

Intersection		Control		AM Peak Hour		PM Peak Hour	
				LOS	Delay	LOS	Delay
1	Wilgart Way at E. Romie Ln[1]	Signal	Overall	16.6	B	15.1	B
2	Wilgart Way at MRI Lot[1]	Signal	Overall	14.5	B	18.6	B
3	Wilgart Way at San Jose St	AWSC	Overall	8.0	A	7.8	A
4	Los Palos Dr at E. Romie Ln	Signal	Overall	16.8	B	16.7	B
5	Los Palos Dr at San Jose St	SSSC	Overall	1.8	A	4.6	A
			Worst Approach	*11.6*	*B (EB)*	*13.4*	*B (EB)*
6	Wilgart Way at DRC Entrance	SSSC	Overall	2.9	A	4.7	A
			Worst Approach	*9.5*	*A (WB)*	*9.4*	*A (WB)*
7	San Jose St at Breschini Energy Lot Driveway	SSSC	*Does Not Exist in DRC Annex Conditions*				
8	San Jose St at ER Dept. Driveway	SSSC	Overall	1.2	A	1.4	A
			Worst Approach	*9.3*	*A (SB)*	*9.9*	*A (SB)*
9	San Jose St at DRC Annex Driveway	SSSC	Overall	*0.9*	A	1.2	A
			Worst Approach	*8.9*	*A (SB)*	*9.4*	*A (SB)*

[1]HCM 2000 was used to analyze Intersections 1 and 2 due to the fact they are clustered intersection which cannot be analyzed in HCM 6 methodology.
Source: Kimley-Horn, 2019

All study intersections under DRC Annex Conditions continue to operate in acceptable conditions in the AM and PM Peak Hour.

Summary

All study intersections operate at acceptable levels in Existing and DRC Annex Conditions, and no impact to level of service is created as a result of this project.

Attachments

Figure 1 – Project Study Area, Study Intersections and Driveway Locations
Figure 2 – Existing Conditions Intersection Lane Geometry, Traffic Control and Volumes
Figure 3 – Project Trip Distribution
Figure 4 – DRC Annex Conditions Intersection Lane Geometry, Traffic Control and Volumes
Appendix A – Intersection Turning Movement Counts
Appendix B – Driveway Counts
Appendix C – Synchro Analysis Sheets

Kimley»Horn

NORTH

Figure 1
Project Study Area, Study Intersections and Driveway Locations
Salinas Valley Memorial Hospital

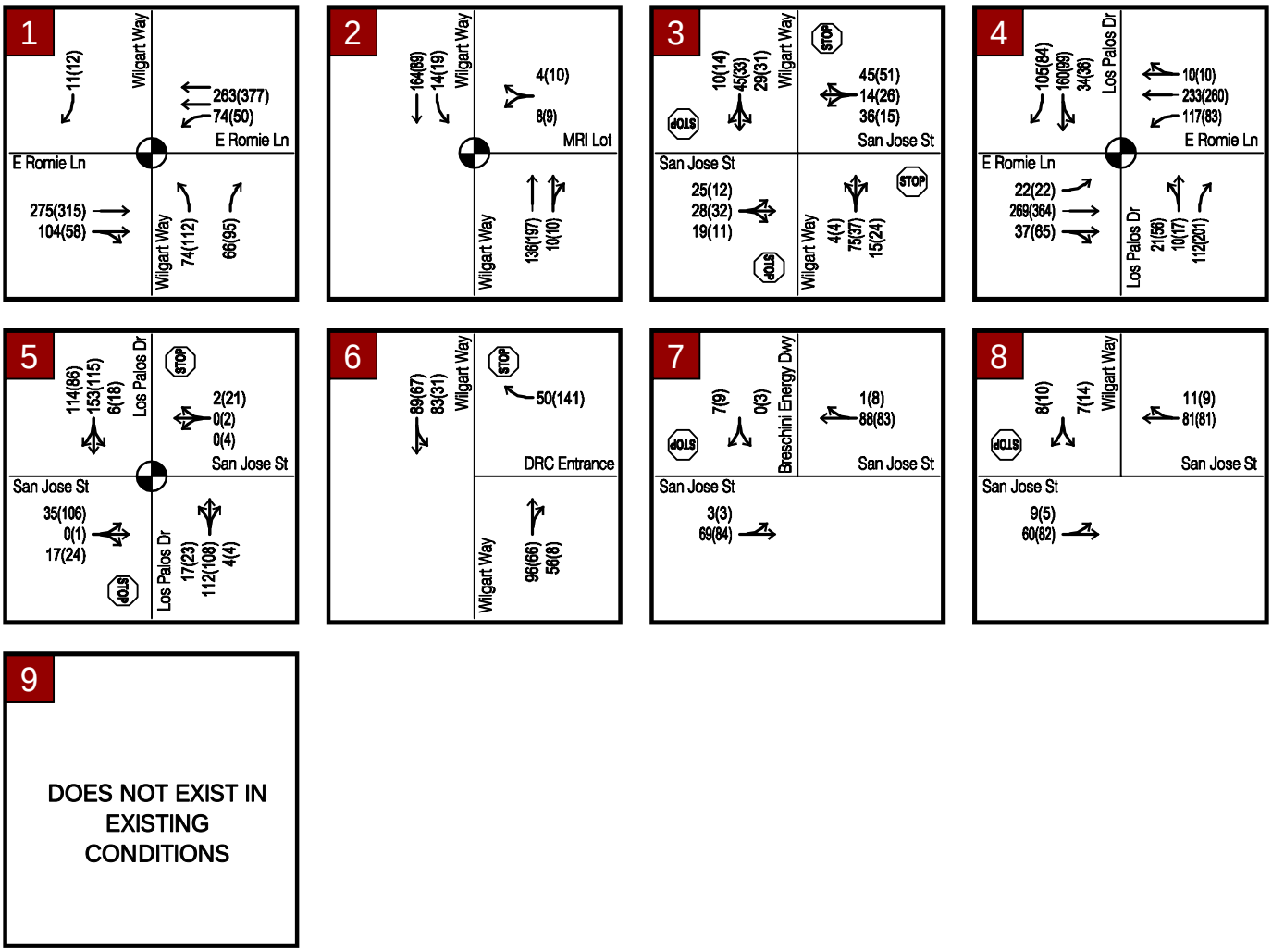

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Figure 2
Existing Conditions
Intersection Lane Geometry, Traffic Control & Volumes
SVMHS DRC Annex Traffic Study

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Figure 3
Project Trip Distribution
Salinas Valley Memorial Hospital

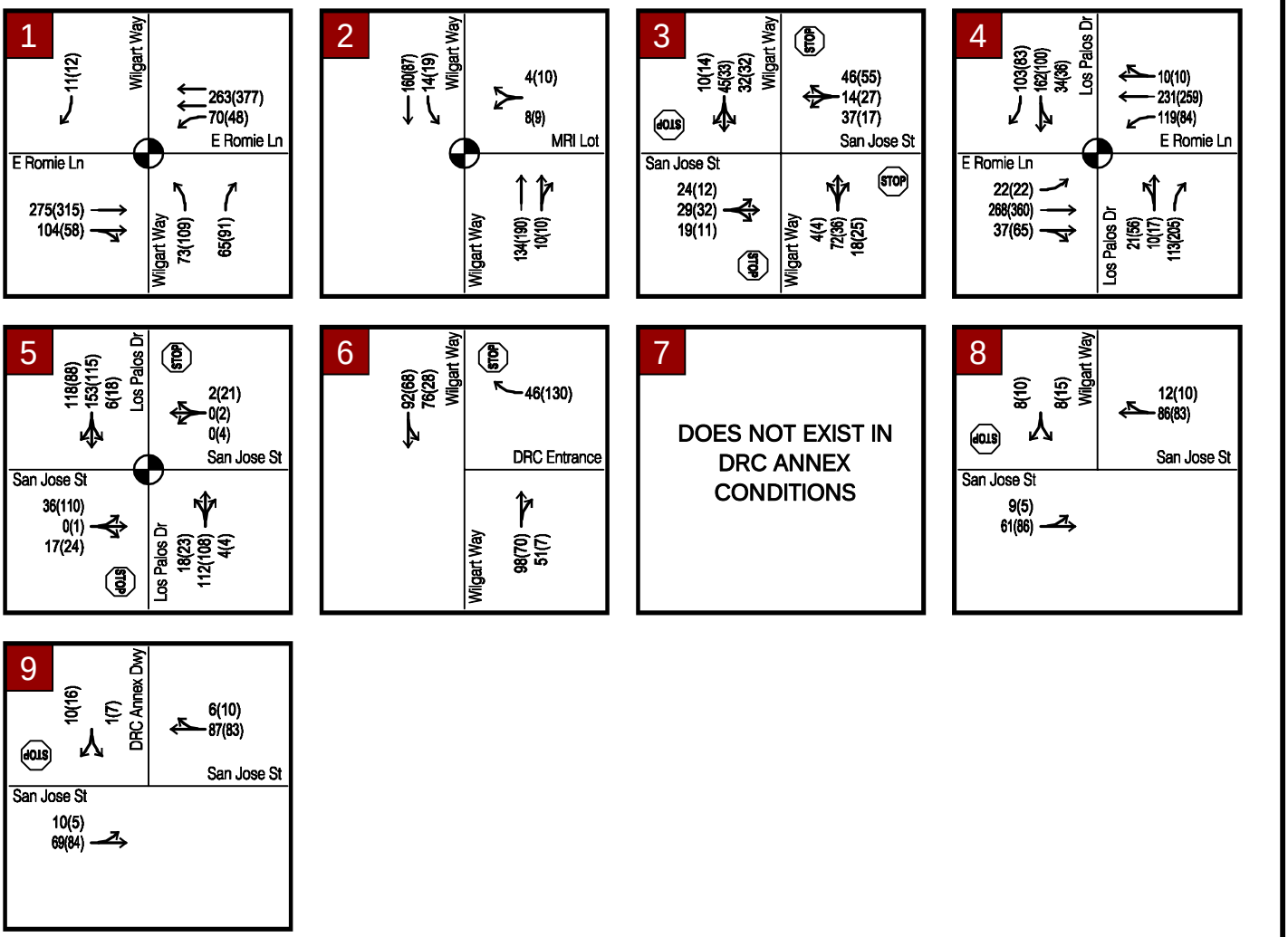

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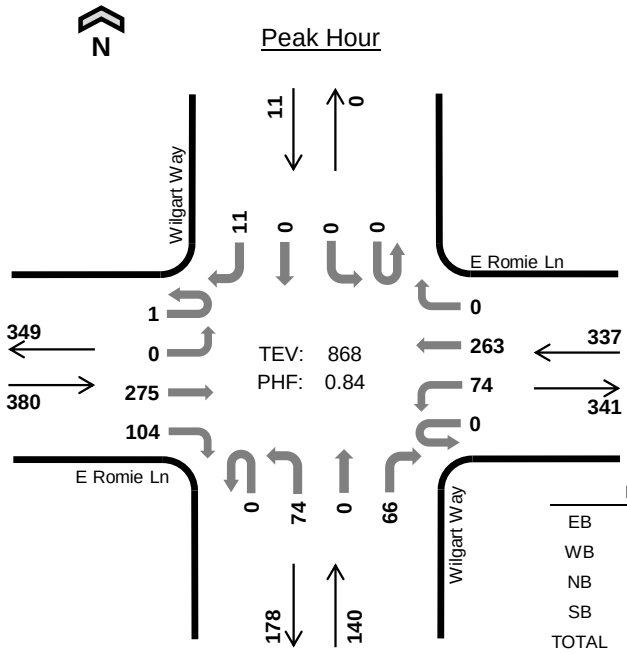
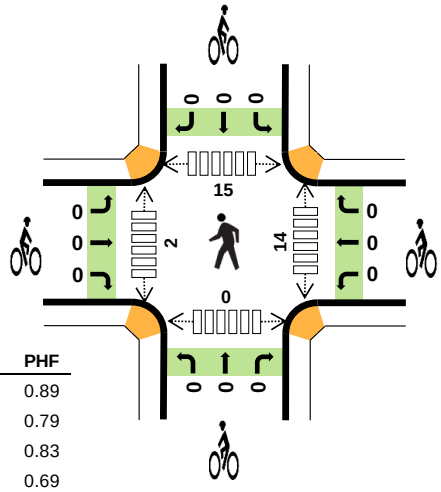
Figure 4
DRC Annex Conditions
Intersection Lane Geometry, Traffic Control & Volumes
SVMHS DRC Annex Traffic Study

Wilgart Way
E Romie Ln

Date: 10/30/2018
Count Period: 6:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM





	HV %:	PHF
EB	1.1%	0.89
WB	0.9%	0.79
NB	1.4%	0.83
SB	0.0%	0.69
TOTAL	1.0%	0.84

Three-Hour Count Summaries

Interval Start		E Romie Ln Eastbound				E Romie Ln Westbound				Wilgart Way Northbound				Wilgart Way Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:45 AM		0	0	75	31	0	23	83	0	0	19	0	23	0	0	0	4	258	0
8:00 AM		0	0	81	26	0	24	53	0	0	20	0	17	0	0	0	3	224	0
8:15 AM		1	0	60	25	0	16	64	0	0	20	0	18	0	0	0	4	208	0
8:30 AM		0	0	59	22	0	11	63	0	0	15	0	8	0	0	0	0	178	868
Peak Hour	All	1	0	275	104	0	74	263	0	0	74	0	66	0	0	0	11	868	0
	HV	0	0	3	1	0	0	3	0	0	1	0	1	0	0	0	0	9	0
	HV%	0%	-	1%	1%	-	0%	1%	-	-	1%	-	2%	-	-	-	0%	1%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:45 AM	2	1	1	0	*4*	0	0	0	0	*0*	1	1	10	0	*12*
8:00 AM	1	0	0	0	*1*	0	0	0	0	*0*	7	1	2	0	*10*
8:15 AM	0	1	1	0	*2*	0	0	0	0	*0*	3	0	3	0	*6*
8:30 AM	1	1	0	0	*2*	0	0	0	0	*0*	3	0	0	0	*3*
Peak Hour	4	3	2	0	*9*	0	0	0	0	*0*	14	2	15	0	*31*

Three-Hour Count Summaries

Interval Start	E Romie Ln Eastbound				E Romie Ln Westbound				Wilgart Way Northbound				Wilgart Way Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 AM	0	0	14	1	0	6	11	0	0	2	0	2	0	0	0	0	36	0
6:15 AM	0	0	21	6	0	10	7	0	0	3	0	0	0	0	0	2	49	0
6:30 AM	0	0	23	22	0	25	18	0	0	2	0	1	0	0	0	3	94	0
6:45 AM	0	0	34	32	0	34	14	0	0	1	0	2	0	0	0	1	118	297
7:00 AM	0	0	16	13	0	10	30	0	0	2	0	5	0	0	0	1	77	338
7:15 AM	0	0	23	15	0	17	23	0	0	4	0	5	0	0	0	5	92	381
7:30 AM	0	0	42	17	0	21	49	0	0	23	0	16	0	0	0	1	169	456
7:45 AM	**0**	**0**	**75**	**31**	**0**	**23**	**83**	**0**	**0**	**19**	**0**	**23**	**0**	**0**	**0**	**4**	**258**	596
8:00 AM	**0**	**0**	**81**	**26**	**0**	**24**	**53**	**0**	**0**	**20**	**0**	**17**	**0**	**0**	**0**	**3**	**224**	743
8:15 AM	**1**	**0**	**60**	**25**	**0**	**16**	**64**	**0**	**0**	**20**	**0**	**18**	**0**	**0**	**0**	**4**	**208**	859
8:30 AM	**0**	**0**	**59**	**22**	**0**	**11**	**63**	**0**	**0**	**15**	**0**	**8**	**0**	**0**	**0**	**0**	**178**	**868**
8:45 AM	0	0	71	21	0	21	64	0	0	14	0	7	0	0	0	1	199	809
Count Total	1	0	519	231	0	218	479	0	0	125	0	104	0	0	0	25	1,702	0
Peak Hour All	**1**	**0**	**275**	**104**	**0**	**74**	**263**	**0**	**0**	**74**	**0**	**66**	**0**	**0**	**0**	**11**	**868**	**0**
Peak Hour HV	**0**	**0**	**3**	**1**	**0**	**0**	**3**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**9**	**0**
Peak Hour HV%	**0%**	**-**	**1%**	**1%**	**-**	**0%**	**1%**	**-**	**-**	**1%**	**-**	**2%**	**-**	**-**	**-**	**0%**	**1%**	**0**

Note: Three-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
6:00 AM	1	0	0	0	*1*	0	0	0	0	*0*	0	0	1	0	*1*
6:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
6:30 AM	1	3	0	0	*4*	0	0	0	0	*0*	0	0	0	0	*0*
6:45 AM	4	0	0	0	*4*	0	0	0	0	*0*	0	0	1	1	*2*
7:00 AM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	1	1	*2*
7:15 AM	1	1	1	0	*3*	0	0	0	0	*0*	2	0	3	1	*6*
7:30 AM	0	1	0	0	*1*	0	0	0	0	*0*	1	0	1	0	*2*
7:45 AM	**2**	**1**	**1**	**0**	***4***	**0**	**0**	**0**	**0**	***0***	**1**	**1**	**10**	**0**	*12*
8:00 AM	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**7**	**1**	**2**	**0**	*10*
8:15 AM	**0**	**1**	**1**	**0**	***2***	**0**	**0**	**0**	**0**	***0***	**3**	**0**	**3**	**0**	*6*
8:30 AM	**1**	**1**	**0**	**0**	***2***	**0**	**0**	**0**	**0**	***0***	**3**	**0**	**0**	**0**	***3***
8:45 AM	1	1	0	0	*2*	0	0	0	0	*0*	6	0	2	1	*9*
Count Total	12	10	3	0	*25*	0	0	0	0	*0*	23	2	24	4	*53*
Peak Hour	**4**	**3**	**2**	**0**	***9***	**0**	**0**	**0**	**0**	***0***	**14**	**2**	**15**	**0**	***31***

Three-Hour Count Summaries - Heavy Vehicles

Interval Start	E Romie Ln Eastbound				E Romie Ln Westbound				Wilgart Way Northbound				Wilgart Way Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	4	0
6:45 AM	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	4	9
7:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	9
7:15 AM	0	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	3	12
7:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	9
7:45 AM	**0**	**0**	**2**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**4**	9
8:00 AM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	9
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	8
8:30 AM	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**9**
8:45 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	7
Count Total	0	0	10	2	0	0	10	0	0	1	0	2	0	0	0	0	25	0
Peak Hour	**0**	**0**	**3**	**1**	**0**	**0**	**3**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**9**	**0**

Three-Hour Count Summaries - Bikes

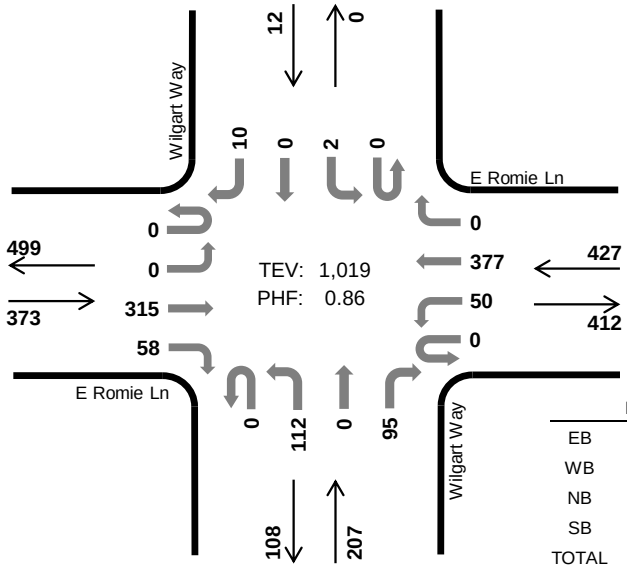
Interval Start	E Romie Ln Eastbound			E Romie Ln Westbound			Wilgart Way Northbound			Wilgart Way Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

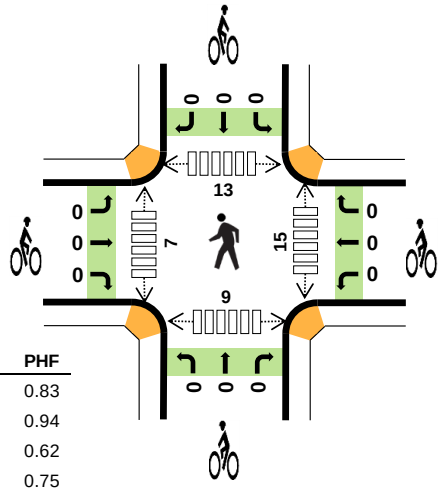
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Wilgart Way
E Romie Ln

Date: 10/30/2018
Count Period: 3:00 PM to 6:00 PM
Peak Hour: 3:00 PM to 4:00 PM

Peak Hour





	HV %:	PHF
EB	0.5%	0.83
WB	1.4%	0.94
NB	0.5%	0.62
SB	0.0%	0.75
TOTAL	0.9%	0.86

Three-Hour Count Summaries

Interval Start		E Romie Ln Eastbound				E Romie Ln Westbound				Wilgart Way Northbound				Wilgart Way Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
3:00 PM		0	0	102	10	0	17	97	0	0	22	0	19	0	0	0	1	268	0
3:15 PM		0	0	69	11	0	10	88	0	0	18	0	24	0	1	0	3	224	0
3:30 PM		0	0	78	24	0	9	100	0	0	47	0	36	0	0	0	3	297	0
3:45 PM		0	0	66	13	0	14	92	0	0	25	0	16	0	1	0	3	230	1,019
Peak Hour	All	0	0	315	58	0	50	377	0	0	112	0	95	0	2	0	10	1,019	0
	HV	0	0	2	0	0	2	4	0	0	1	0	0	0	0	0	0	9	0
	HV%	-	-	1%	0%	-	4%	1%	-	-	1%	-	0%	-	0%	-	0%	1%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
3:00 PM	0	3	0	0	*3*	0	0	0	0	*0*	3	4	7	4	*18*
3:15 PM	0	1	1	0	*2*	0	0	0	0	*0*	4	1	3	3	*11*
3:30 PM	2	0	0	0	*2*	0	0	0	0	*0*	4	2	2	1	*9*
3:45 PM	0	2	0	0	*2*	0	0	0	0	*0*	4	0	1	1	*6*
Peak Hour	2	6	1	0	*9*	0	0	0	0	*0*	15	7	13	9	*44*

Three-Hour Count Summaries

Interval Start	E Romie Ln Eastbound				E Romie Ln Westbound				Wilgart Way Northbound				Wilgart Way Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
3:00 PM	**0**	**0**	**102**	**10**	**0**	**17**	**97**	**0**	**0**	**22**	**0**	**19**	**0**	**0**	**0**	**1**	**268**	0
3:15 PM	**0**	**0**	**69**	**11**	**0**	**10**	**88**	**0**	**0**	**18**	**0**	**24**	**0**	**1**	**0**	**3**	**224**	0
3:30 PM	**0**	**0**	**78**	**24**	**0**	**9**	**100**	**0**	**0**	**47**	**0**	**36**	**0**	**0**	**0**	**3**	**297**	0
3:45 PM	**0**	**0**	**66**	**13**	**0**	**14**	**92**	**0**	**0**	**25**	**0**	**16**	**0**	**1**	**0**	**3**	**230**	**1,019**
4:00 PM	0	0	76	5	0	8	92	0	0	27	0	14	0	0	0	3	225	976
4:15 PM	0	0	68	15	0	7	95	0	0	27	0	21	0	0	0	6	239	991
4:30 PM	0	0	64	9	0	11	118	0	0	44	0	16	0	0	0	1	263	957
4:45 PM	1	0	68	9	0	7	71	0	0	30	0	11	0	0	0	1	198	925
5:00 PM	0	0	69	11	0	6	112	0	0	28	0	19	0	0	0	6	251	951
5:15 PM	0	0	38	8	0	8	73	0	0	25	0	12	0	0	0	2	166	878
5:30 PM	0	0	53	6	0	8	61	0	0	13	0	14	0	0	0	5	160	775
5:45 PM	0	0	43	3	0	9	48	0	0	7	0	8	0	0	0	2	120	697
Count Total	1	0	794	124	0	114	1,047	0	0	313	0	210	0	2	0	36	2,641	0
Peak Hour All	**0**	**0**	**315**	**58**	**0**	**50**	**377**	**0**	**0**	**112**	**0**	**95**	**0**	**2**	**0**	**10**	**1,019**	**0**
Peak Hour HV	**0**	**0**	**2**	**0**	**0**	**2**	**4**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**9**	**0**
Peak Hour HV%	**-**	**-**	**1%**	**0%**	**-**	**4%**	**1%**	**-**	**-**	**1%**	**-**	**0%**	**-**	**0%**	**-**	**0%**	**1%**	**0**

Note: Three-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
3:00 PM	**0**	**3**	**0**	**0**	***3***	**0**	**0**	**0**	**0**	***0***	**3**	**4**	**7**	**4**	*18*
3:15 PM	**0**	**1**	**1**	**0**	***2***	**0**	**0**	**0**	**0**	***0***	**4**	**1**	**3**	**3**	*11*
3:30 PM	**2**	**0**	**0**	**0**	***2***	**0**	**0**	**0**	**0**	***0***	**4**	**2**	**2**	**1**	*9*
3:45 PM	**0**	**2**	**0**	**0**	***2***	**0**	**0**	**0**	**0**	***0***	**4**	**0**	**1**	**1**	***6***
4:00 PM	2	0	0	0	*2*	0	0	0	0	*0*	3	0	1	1	*5*
4:15 PM	0	1	0	0	*1*	0	0	0	0	*0*	3	0	1	1	*5*
4:30 PM	1	1	0	0	*2*	0	0	0	0	*0*	4	1	0	2	*7*
4:45 PM	2	0	0	0	*2*	0	0	0	0	*0*	2	1	1	0	*4*
5:00 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	2	2	9	1	*14*
5:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	1	3	*4*
5:45 PM	1	0	0	0	*1*	0	0	0	0	*0*	5	0	0	3	*8*
Count Total	8	8	1	0	*17*	0	0	0	0	*0*	34	11	26	20	*91*
Peak Hour	**2**	**6**	**1**	**0**	***9***	**0**	**0**	**0**	**0**	***0***	**15**	**7**	**13**	**9**	***44***

Three-Hour Count Summaries - Heavy Vehicles

Interval Start	E Romie Ln Eastbound				E Romie Ln Westbound				Wilgart Way Northbound				Wilgart Way Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
3:00 PM	**0**	**0**	**0**	**0**	**0**	**2**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	0
3:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	0
3:30 PM	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	0
3:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**9**
4:00 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	8
4:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	7
4:30 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	7
4:45 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Count Total	0	0	8	0	0	2	6	0	0	1	0	0	0	0	0	0	17	0
Peak Hour	**0**	**0**	**2**	**0**	**0**	**2**	**4**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**9**	**0**

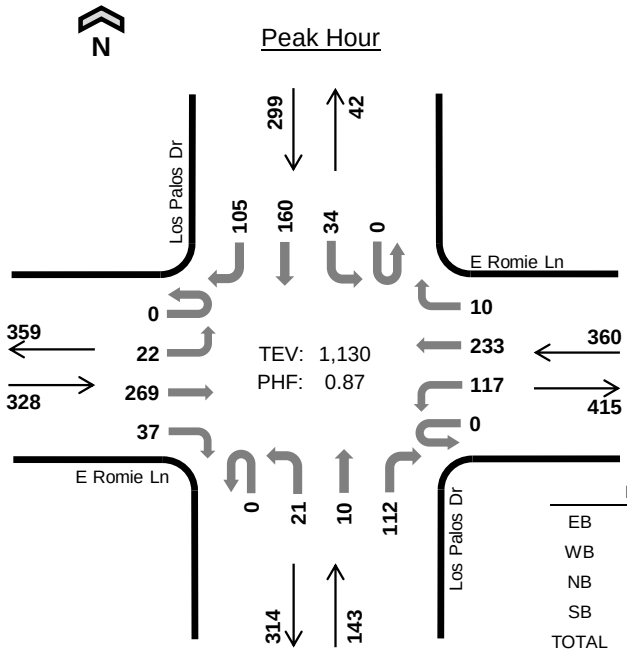
Three-Hour Count Summaries - Bikes

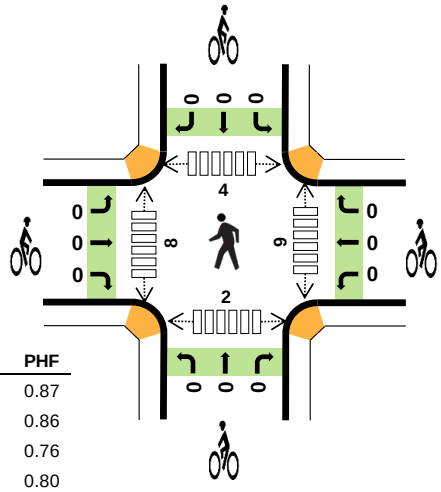
Interval Start	E Romie Ln Eastbound			E Romie Ln Westbound			Wilgart Way Northbound			Wilgart Way Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
3:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
3:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
3:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
3:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Los Palos Dr
E Romie Ln

Date: 10/30/2018
Count Period: 6:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM





	HV %:	PHF
EB	1.2%	0.87
WB	1.4%	0.86
NB	0.0%	0.76
SB	0.7%	0.80
TOTAL	1.0%	0.87

Three-Hour Count Summaries

Interval Start		E Romie Ln Eastbound				E Romie Ln Westbound				Los Palos Dr Northbound				Los Palos Dr Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:45 AM		0	7	77	10	0	32	72	1	0	2	4	27	0	11	44	38	325	0
8:00 AM		0	3	77	13	0	39	55	3	0	1	3	20	0	9	42	18	283	0
8:15 AM		0	9	60	7	0	26	57	0	0	9	1	37	0	8	38	29	281	0
8:30 AM		0	3	55	7	0	20	49	6	0	9	2	28	0	6	36	20	241	1,130
Peak Hour	All	0	22	269	37	0	117	233	10	0	21	10	112	0	34	160	105	1,130	0
	HV	0	0	4	0	0	2	3	0	0	0	0	0	0	1	1	0	11	0
	HV%	-	0%	1%	0%	-	2%	1%	0%	-	0%	0%	0%	-	3%	1%	0%	1%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:45 AM	3	2	0	0	*5*	0	0	0	0	*0*	2	3	3	1	*9*
8:00 AM	1	1	0	1	*3*	0	0	0	0	*0*	3	3	0	0	*6*
8:15 AM	0	1	0	0	*1*	0	0	0	0	*0*	3	1	1	1	*6*
8:30 AM	0	1	0	1	*2*	0	0	0	0	*0*	1	1	0	0	*2*
Peak Hour	4	5	0	2	*11*	0	0	0	0	*0*	9	8	4	2	*23*

Three-Hour Count Summaries

Interval Start	E Romie Ln Eastbound				E Romie Ln Westbound				Los Palos Dr Northbound				Los Palos Dr Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 AM	0	1	15	1	0	5	8	1	0	0	1	4	0	2	9	10	57	0
6:15 AM	0	1	18	2	0	14	10	2	0	1	1	11	0	4	12	9	85	0
6:30 AM	0	0	18	5	0	6	18	2	0	1	0	8	0	3	21	25	107	0
6:45 AM	0	1	27	7	0	12	22	1	0	0	0	17	0	2	31	29	149	398
7:00 AM	0	1	18	2	0	11	27	1	0	3	2	11	0	6	11	11	104	445
7:15 AM	0	2	26	6	0	15	22	1	0	2	1	15	0	6	23	15	134	494
7:30 AM	0	3	53	9	0	17	47	0	0	4	2	17	0	5	40	23	220	607
7:45 AM	**0**	**7**	**77**	**10**	**0**	**32**	**72**	**1**	**0**	**2**	**4**	**27**	**0**	**11**	**44**	**38**	**325**	783
8:00 AM	**0**	**3**	**77**	**13**	**0**	**39**	**55**	**3**	**0**	**1**	**3**	**20**	**0**	**9**	**42**	**18**	**283**	962
8:15 AM	**0**	**9**	**60**	**7**	**0**	**26**	**57**	**0**	**0**	**9**	**1**	**37**	**0**	**8**	**38**	**29**	**281**	1,109
8:30 AM	**0**	**3**	**55**	**7**	**0**	**20**	**49**	**6**	**0**	**9**	**2**	**28**	**0**	**6**	**36**	**20**	**241**	**1,130**
8:45 AM	0	3	58	14	0	31	65	5	0	3	1	33	0	13	30	24	280	1,085
Count Total	0	34	502	83	0	228	452	23	0	35	18	228	0	75	337	251	2,266	0
Peak Hour All	**0**	**22**	**269**	**37**	**0**	**117**	**233**	**10**	**0**	**21**	**10**	**112**	**0**	**34**	**160**	**105**	**1,130**	**0**
Peak Hour HV	**0**	**0**	**4**	**0**	**0**	**2**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**11**	**0**
Peak Hour HV%	**-**	**0%**	**1%**	**0%**	**-**	**2%**	**1%**	**0%**	**-**	**0%**	**0%**	**0%**	**-**	**3%**	**1%**	**0%**	**1%**	**0**

Note: Three-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
6:00 AM	1	1	1	1	*4*	0	0	0	0	*0*	0	0	0	0	*0*
6:15 AM	0	1	1	0	*2*	0	0	0	0	*0*	4	0	0	4	*8*
6:30 AM	1	1	1	0	*3*	0	0	0	0	*0*	2	1	1	1	*5*
6:45 AM	3	1	1	0	*5*	0	0	0	0	*0*	0	0	1	1	*2*
7:00 AM	0	1	2	0	*3*	0	0	0	0	*0*	0	1	1	0	*2*
7:15 AM	2	0	1	1	*4*	0	0	0	0	*0*	0	0	1	0	*1*
7:30 AM	0	2	1	1	*4*	0	0	0	0	*0*	0	2	1	0	*3*
7:45 AM	**3**	**2**	**0**	**0**	***5***	**0**	**0**	**0**	**0**	***0***	**2**	**3**	**3**	**1**	*9*
8:00 AM	**1**	**1**	**0**	**1**	***3***	**0**	**0**	**0**	**0**	***0***	**3**	**3**	**0**	**0**	*6*
8:15 AM	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**3**	**1**	**1**	**1**	*6*
8:30 AM	**0**	**1**	**0**	**1**	***2***	**0**	**0**	**0**	**0**	***0***	**1**	**1**	**0**	**0**	***2***
8:45 AM	1	1	0	0	*2*	0	0	0	0	*0*	0	0	1	2	*3*
Count Total	12	13	8	5	*38*	0	0	0	0	*0*	15	12	10	10	*47*
Peak Hour	**4**	**5**	**0**	**2**	***11***	**0**	**0**	**0**	**0**	***0***	**9**	**8**	**4**	**2**	***23***

Three-Hour Count Summaries - Heavy Vehicles

Interval Start	E Romie Ln				E Romie Ln				Los Palos Dr				Los Palos Dr				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 AM	0	1	0	0	0	1	0	0	0	0	0	1	0	0	1	0	4	0
6:15 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	2	0
6:30 AM	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	3	0
6:45 AM	0	0	3	0	0	1	0	0	0	0	0	1	0	0	0	0	5	14
7:00 AM	0	0	0	0	0	0	1	0	0	0	0	2	0	0	0	0	3	13
7:15 AM	0	0	2	0	0	0	0	0	0	1	0	0	0	0	1	0	4	15
7:30 AM	0	0	0	0	0	1	1	0	0	0	0	1	0	1	0	0	4	16
7:45 AM	**0**	**0**	**3**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	16
8:00 AM	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**3**	16
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	13
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**2**	**11**
8:45 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	8
Count Total	0	1	10	1	0	6	7	0	0	3	0	5	0	2	3	0	38	0
Peak Hour	**0**	**0**	**4**	**0**	**0**	**2**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**11**	**0**

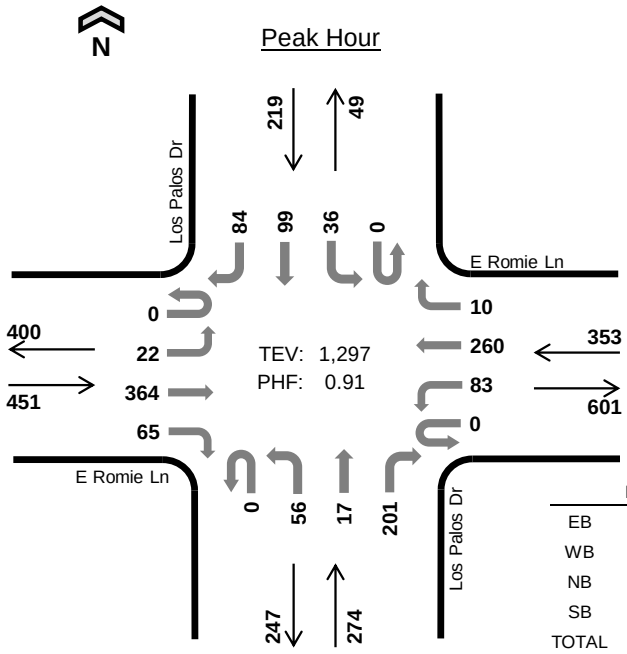
Three-Hour Count Summaries - Bikes

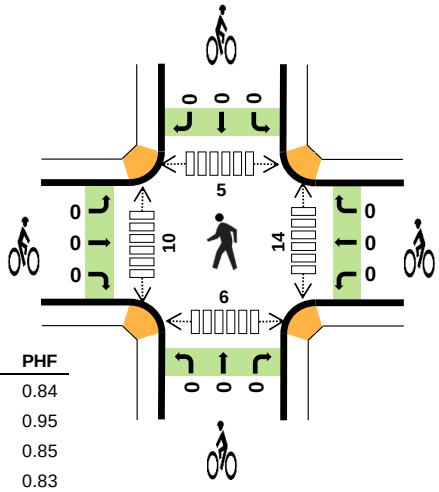
Interval Start	E Romie Ln			E Romie Ln			Los Palos Dr			Los Palos Dr			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Los Palos Dr
E Romie Ln

Date: 10/30/2018
Count Period: 3:00 PM to 6:00 PM
Peak Hour: 3:00 PM to 4:00 PM





	HV %:	PHF
EB	0.2%	0.84
WB	1.7%	0.95
NB	3.6%	0.85
SB	0.9%	0.83
TOTAL	1.5%	0.91

Three-Hour Count Summaries

Interval Start		E Romie Ln Eastbound				E Romie Ln Westbound				Los Palos Dr Northbound				Los Palos Dr Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
3:00 PM		0	7	107	21	0	26	65	2	0	12	4	52	0	9	20	17	342	0
3:15 PM		0	3	78	22	0	21	66	2	0	12	4	42	0	6	24	20	300	0
3:30 PM		0	6	101	13	0	20	67	2	0	18	4	59	0	11	27	28	356	0
3:45 PM		0	6	78	9	0	16	62	4	0	14	5	48	0	10	28	19	299	1,297
Peak Hour	All	0	22	364	65	0	83	260	10	0	56	17	201	0	36	99	84	1,297	0
	HV	0	0	1	0	0	2	4	0	0	1	1	8	0	0	1	1	19	0
	HV%	-	0%	0%	0%	-	2%	2%	0%	-	2%	6%	4%	-	0%	1%	1%	1%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
3:00 PM	0	2	4	1	*7*	0	0	0	0	*0*	9	1	0	1	*11*
3:15 PM	0	2	1	0	*3*	0	0	0	0	*0*	3	4	4	0	*11*
3:30 PM	1	1	2	0	*4*	0	0	0	0	*0*	2	2	0	4	*8*
3:45 PM	0	1	3	1	*5*	0	0	0	0	*0*	0	3	1	1	*5*
Peak Hour	1	6	10	2	*19*	0	0	0	0	*0*	14	10	5	6	*35*

Three-Hour Count Summaries

Interval Start	E Romie Ln Eastbound				E Romie Ln Westbound				Los Palos Dr Northbound				Los Palos Dr Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
3:00 PM	**0**	**7**	**107**	**21**	**0**	**26**	**65**	**2**	**0**	**12**	**4**	**52**	**0**	**9**	**20**	**17**	**342**	0
3:15 PM	**0**	**3**	**78**	**22**	**0**	**21**	**66**	**2**	**0**	**12**	**4**	**42**	**0**	**6**	**24**	**20**	**300**	0
3:30 PM	**0**	**6**	**101**	**13**	**0**	**20**	**67**	**2**	**0**	**18**	**4**	**59**	**0**	**11**	**27**	**28**	**356**	0
3:45 PM	**0**	**6**	**78**	**9**	**0**	**16**	**62**	**4**	**0**	**14**	**5**	**48**	**0**	**10**	**28**	**19**	**299**	**1,297**
4:00 PM	0	8	68	11	0	21	52	1	0	19	5	44	0	7	27	17	280	1,235
4:15 PM	0	5	77	8	0	14	61	3	0	16	2	43	0	5	15	20	269	1,204
4:30 PM	0	4	79	10	0	10	74	2	0	24	4	64	0	9	22	17	319	1,167
4:45 PM	0	3	88	6	0	7	48	5	0	9	5	35	0	11	17	16	250	1,118
5:00 PM	0	4	85	6	0	8	58	1	0	14	1	61	0	3	21	25	287	1,125
5:15 PM	0	2	56	5	0	7	53	2	0	12	0	23	0	8	15	7	190	1,046
5:30 PM	0	4	56	12	0	4	55	3	0	5	2	25	0	7	9	15	197	924
5:45 PM	0	6	42	5	0	6	38	1	0	4	2	21	0	5	10	9	149	823
Count Total	0	58	915	128	0	160	699	28	0	159	38	517	0	91	235	210	3,238	0
Peak Hour All	**0**	**22**	**364**	**65**	**0**	**83**	**260**	**10**	**0**	**56**	**17**	**201**	**0**	**36**	**99**	**84**	**1,297**	**0**
Peak Hour HV	**0**	**0**	**1**	**0**	**0**	**2**	**4**	**0**	**0**	**1**	**1**	**8**	**0**	**0**	**1**	**1**	**19**	**0**
Peak Hour HV%	**-**	**0%**	**0%**	**0%**	**-**	**2%**	**2%**	**0%**	**-**	**2%**	**6%**	**4%**	**-**	**0%**	**1%**	**1%**	**1%**	**0**

Note: Three-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
3:00 PM	**0**	**2**	**4**	**1**	***7***	**0**	**0**	**0**	**0**	***0***	**9**	**1**	**0**	**1**	*11*
3:15 PM	**0**	**2**	**1**	**0**	***3***	**0**	**0**	**0**	**0**	***0***	**3**	**4**	**4**	**0**	*11*
3:30 PM	**1**	**1**	**2**	**0**	***4***	**0**	**0**	**0**	**0**	***0***	**2**	**2**	**0**	**4**	*8*
3:45 PM	**0**	**1**	**3**	**1**	***5***	**0**	**0**	**0**	**0**	***0***	**0**	**3**	**1**	**1**	***5***
4:00 PM	2	1	3	0	*6*	0	0	0	0	*0*	1	2	1	1	*5*
4:15 PM	0	1	0	0	*1*	0	0	0	0	*0*	1	0	0	4	*5*
4:30 PM	2	1	0	0	*3*	0	0	0	0	*0*	0	5	2	1	*8*
4:45 PM	2	1	0	1	*4*	0	0	1	0	*1*	0	1	1	1	*3*
5:00 PM	0	0	0	0	*0*	0	0	0	0	*0*	2	0	0	0	*2*
5:15 PM	0	0	1	0	*1*	0	0	0	0	*0*	1	1	4	1	*7*
5:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	4	0	1	*5*
5:45 PM	1	0	0	0	*1*	0	0	0	0	*0*	0	0	1	2	*3*
Count Total	8	10	14	3	*35*	0	0	1	0	*1*	19	23	14	17	*73*
Peak Hour	**1**	**6**	**10**	**2**	***19***	**0**	**0**	**0**	**0**	***0***	**14**	**10**	**5**	**6**	***35***

Three-Hour Count Summaries - Heavy Vehicles

Interval Start	E Romie Ln				E Romie Ln				Los Palos Dr				Los Palos Dr				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
3:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**1**	**0**	**3**	**0**	**0**	**1**	**0**	**7**	0
3:15 PM	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**3**	0
3:30 PM	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**4**	0
3:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**2**	**0**	**0**	**0**	**1**	**5**	**19**
4:00 PM	0	0	2	0	0	1	0	0	0	0	0	3	0	0	0	0	6	18
4:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	16
4:30 PM	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	3	15
4:45 PM	0	0	2	0	0	1	0	0	0	0	0	0	0	0	1	0	4	14
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	8
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
5:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
Count Total	0	0	8	0	0	4	6	0	0	1	1	12	0	0	2	1	35	0
Peak Hour	**0**	**0**	**1**	**0**	**0**	**2**	**4**	**0**	**0**	**1**	**1**	**8**	**0**	**0**	**1**	**1**	**19**	**0**

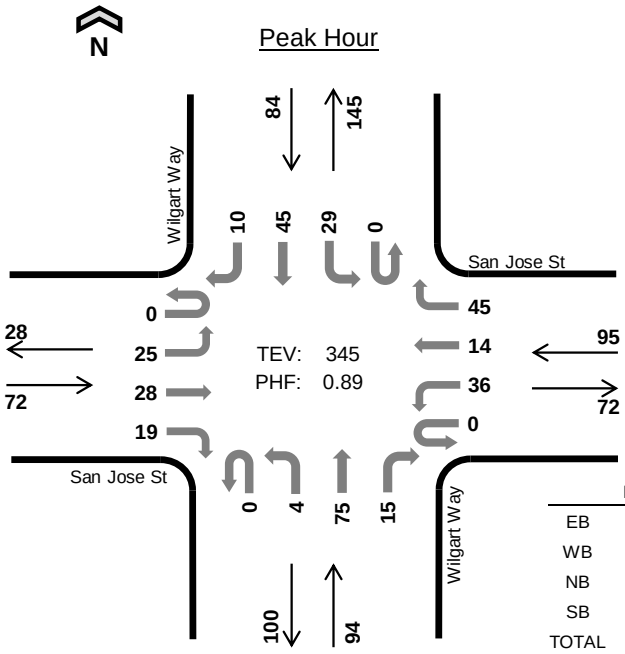
Three-Hour Count Summaries - Bikes

Interval Start	E Romie Ln			E Romie Ln			Los Palos Dr			Los Palos Dr			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
3:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
3:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
3:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
3:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	1	0	0	0	0	1	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

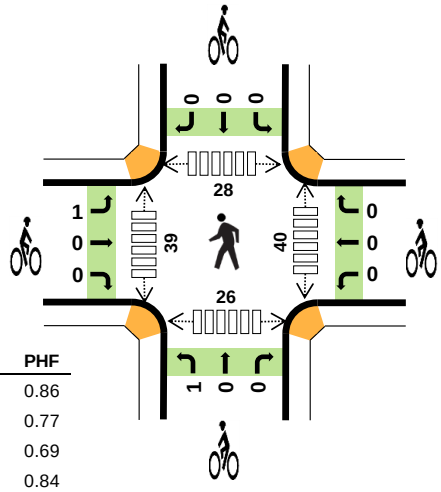
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Wilgart Way
San Jose St

Date: 10/30/2018
Count Period: 6:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM



	HV %:	PHF
EB	1.4%	0.86
WB	4.2%	0.77
NB	0.0%	0.69
SB	1.2%	0.84
TOTAL	1.7%	0.89



Three-Hour Count Summaries

Interval Start		San Jose St Eastbound				San Jose St Westbound				Wilgart Way Northbound				Wilgart Way Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:45 AM		0	5	5	8	0	14	3	14	0	0	19	4	0	6	15	4	97	0
8:00 AM		0	9	6	5	0	12	3	13	0	1	13	2	0	6	15	2	87	0
8:15 AM		0	6	11	4	0	3	3	8	0	0	31	3	0	7	8	4	88	0
8:30 AM		0	5	6	2	0	7	5	10	0	3	12	6	0	10	7	0	73	345
Peak Hour	All	0	25	28	19	0	36	14	45	0	4	75	15	0	29	45	10	345	0
	HV	0	0	1	0	0	0	3	1	0	0	0	0	0	1	0	0	6	0
	HV%	-	0%	4%	0%	-	0%	21%	2%	-	0%	0%	0%	-	3%	0%	0%	2%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:45 AM	0	1	0	0	*1*	1	0	0	0	*1*	10	20	15	7	*52*
8:00 AM	0	0	0	0	*0*	0	0	0	0	*0*	19	15	11	7	*52*
8:15 AM	0	1	0	0	*1*	0	0	1	0	*1*	7	2	1	7	*17*
8:30 AM	1	2	0	1	*4*	0	0	0	0	*0*	4	2	1	5	*12*
Peak Hour	1	4	0	1	*6*	1	0	1	0	*2*	40	39	28	26	*133*

Three-Hour Count Summaries

Interval Start	San Jose St Eastbound				San Jose St Westbound				Wilgart Way Northbound				Wilgart Way Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 AM	0	0	1	0	0	0	1	1	0	0	1	2	0	0	0	1	7	0
6:15 AM	0	2	0	1	0	3	0	2	0	0	4	8	0	0	4	0	24	0
6:30 AM	0	2	4	1	0	4	2	4	0	0	8	3	0	4	2	1	35	0
6:45 AM	0	3	2	2	0	10	1	5	0	0	11	7	0	3	7	0	51	117
7:00 AM	0	3	0	0	0	2	2	2	0	1	12	4	0	4	0	0	30	140
7:15 AM	0	5	5	4	0	6	6	9	0	0	12	3	0	4	10	2	66	182
7:30 AM	0	4	6	3	0	5	5	9	0	2	14	1	0	9	9	1	68	215
7:45 AM	**0**	**5**	**5**	**8**	**0**	**14**	**3**	**14**	**0**	**0**	**19**	**4**	**0**	**6**	**15**	**4**	**97**	261
8:00 AM	**0**	**9**	**6**	**5**	**0**	**12**	**3**	**13**	**0**	**1**	**13**	**2**	**0**	**6**	**15**	**2**	**87**	318
8:15 AM	**0**	**6**	**11**	**4**	**0**	**3**	**3**	**8**	**0**	**0**	**31**	**3**	**0**	**7**	**8**	**4**	**88**	340
8:30 AM	**0**	**5**	**6**	**2**	**0**	**7**	**5**	**10**	**0**	**3**	**12**	**6**	**0**	**10**	**7**	**0**	**73**	**345**
8:45 AM	0	4	7	2	0	8	3	12	0	1	12	5	0	8	6	3	71	319
Count Total	0	48	53	32	0	74	34	89	0	8	149	48	0	61	83	18	697	0
Peak Hour All	**0**	**25**	**28**	**19**	**0**	**36**	**14**	**45**	**0**	**4**	**75**	**15**	**0**	**29**	**45**	**10**	**345**	**0**
Peak Hour HV	**0**	**0**	**1**	**0**	**0**	**0**	**3**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**6**	**0**
Peak Hour HV%	**-**	**0%**	**4%**	**0%**	**-**	**0%**	**21%**	**2%**	**-**	**0%**	**0%**	**0%**	**-**	**3%**	**0%**	**0%**	**2%**	**0**

Note: Three-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
6:00 AM	0	0	1	0	*1*	0	0	0	0	*0*	1	2	0	1	*4*
6:15 AM	0	1	0	1	*2*	0	0	0	0	*0*	0	0	0	1	*1*
6:30 AM	1	0	0	1	*2*	0	0	0	0	*0*	4	0	0	3	*7*
6:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	9	5	5	12	*31*
7:00 AM	0	0	0	0	*0*	0	0	0	0	*0*	1	0	1	3	*5*
7:15 AM	2	0	0	0	*2*	0	0	0	0	*0*	1	3	1	7	*12*
7:30 AM	0	2	0	1	*3*	0	0	0	0	*0*	6	4	4	0	*14*
7:45 AM	**0**	**1**	**0**	**0**	***1***	**1**	**0**	**0**	**0**	***1***	**10**	**20**	**15**	**7**	*52*
8:00 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**19**	**15**	**11**	**7**	*52*
8:15 AM	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**1**	**0**	***1***	**7**	**2**	**1**	**7**	*17*
8:30 AM	**1**	**2**	**0**	**1**	***4***	**0**	**0**	**0**	**0**	***0***	**4**	**2**	**1**	**5**	***12***
8:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	4	2	2	0	*8*
Count Total	4	7	1	4	*16*	1	0	1	0	*2*	66	55	41	53	*215*
Peak Hour	**1**	**4**	**0**	**1**	***6***	**1**	**0**	**1**	**0**	***2***	**40**	**39**	**28**	**26**	***133***

Three-Hour Count Summaries - Heavy Vehicles

Interval Start	San Jose St				San Jose St				Wilgart Way				Wilgart Way				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
6:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	2	0
6:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	2	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
7:15 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	4
7:30 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	3	5
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	6
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	6
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	5
8:30 AM	**0**	**0**	**1**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**4**	**6**
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Count Total	0	1	1	2	0	0	3	4	0	0	0	1	0	3	1	0	16	0
Peak Hour	**0**	**0**	**1**	**0**	**0**	**0**	**3**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**6**	**0**

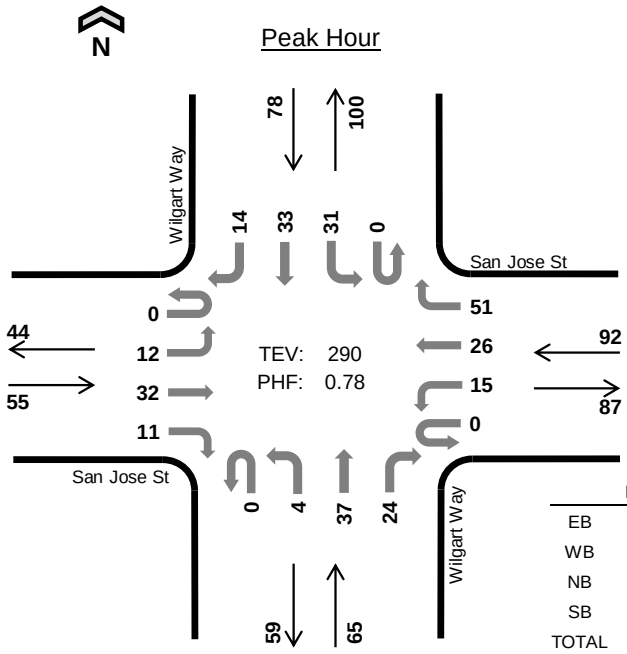
Three-Hour Count Summaries - Bikes

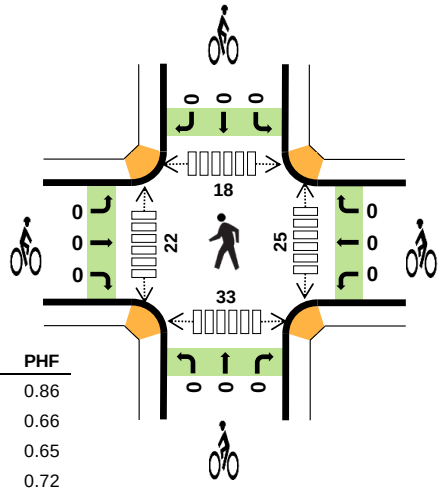
Interval Start	San Jose St			San Jose St			Wilgart Way			Wilgart Way			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	1
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	1
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	2
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	1	0	0	0	0	0	1	0	0	0	0	0	2	0
Peak Hour	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**2**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Wilgart Way
San Jose St

Date: 10/30/2018
Count Period: 3:00 PM to 6:00 PM
Peak Hour: 3:30 PM to 4:30 PM





	HV %:	PHF
EB	1.8%	0.86
WB	0.0%	0.66
NB	0.0%	0.65
SB	0.0%	0.72
TOTAL	0.3%	0.78

Three-Hour Count Summaries

Interval Start		San Jose St Eastbound				San Jose St Westbound				Wilgart Way Northbound				Wilgart Way Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
3:30 PM		0	1	12	2	0	3	11	21	0	1	8	7	0	12	8	7	93	0
3:45 PM		0	3	10	2	0	0	5	6	0	1	8	3	0	6	5	3	52	0
4:00 PM		0	6	7	3	0	6	7	13	0	0	9	3	0	2	9	2	67	0
4:15 PM		0	2	3	4	0	6	3	11	0	2	12	11	0	11	11	2	78	290
Peak Hour	All	0	12	32	11	0	15	26	51	0	4	37	24	0	31	33	14	290	0
	HV	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	HV%	-	0%	3%	0%	-	0%	0%	0%	-	0%	0%	0%	-	0%	0%	0%	0%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
3:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	10	3	4	10	*27*
3:45 PM	1	0	0	0	*1*	0	0	0	0	*0*	7	5	6	7	*25*
4:00 PM	0	0	0	0	*0*	0	0	0	0	*0*	4	4	3	3	*14*
4:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	4	10	5	13	*32*
Peak Hour	1	0	0	0	*1*	0	0	0	0	*0*	25	22	18	33	*98*

Three-Hour Count Summaries

Interval Start	San Jose St Eastbound				San Jose St Westbound				Wilgart Way Northbound				Wilgart Way Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
3:00 PM	0	3	8	1	1	10	6	20	0	0	7	4	0	8	2	4	74	0
3:15 PM	0	1	4	1	0	3	4	15	0	0	4	5	0	8	5	1	51	0
3:30 PM	**0**	**1**	**12**	**2**	**0**	**3**	**11**	**21**	**0**	**1**	**8**	**7**	**0**	**12**	**8**	**7**	**93**	0
3:45 PM	**0**	**3**	**10**	**2**	**0**	**0**	**5**	**6**	**0**	**1**	**8**	**3**	**0**	**6**	**5**	**3**	**52**	270
4:00 PM	**0**	**6**	**7**	**3**	**0**	**6**	**7**	**13**	**0**	**0**	**9**	**3**	**0**	**2**	**9**	**2**	**67**	263
4:15 PM	**0**	**2**	**3**	**4**	**0**	**6**	**3**	**11**	**0**	**2**	**12**	**11**	**0**	**11**	**11**	**2**	**78**	**290**
4:30 PM	0	0	4	2	0	2	3	11	0	8	17	12	0	5	11	5	80	277
4:45 PM	0	0	3	1	0	4	2	15	0	5	5	2	0	2	3	3	45	270
5:00 PM	0	2	3	0	0	3	5	16	0	5	8	1	0	2	4	2	51	254
5:15 PM	0	3	2	1	0	3	3	6	0	2	5	2	0	1	11	3	42	218
5:30 PM	0	2	4	2	0	1	5	8	0	1	4	4	0	3	8	0	42	180
5:45 PM	0	1	0	0	0	1	1	7	0	0	2	1	0	4	7	4	28	163
Count Total	0	24	60	19	1	42	55	149	0	25	89	55	0	64	84	36	703	0
Peak Hour All	**0**	**12**	**32**	**11**	**0**	**15**	**26**	**51**	**0**	**4**	**37**	**24**	**0**	**31**	**33**	**14**	**290**	**0**
Peak Hour HV	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**
Peak Hour HV%	**-**	**0%**	**3%**	**0%**	**-**	**0%**	**0%**	**0%**	**-**	**0%**	**0%**	**0%**	**-**	**0%**	**0%**	**0%**	**0%**	**0**

Note: Three-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
3:00 PM	0	0	0	1	*1*	0	0	0	0	*0*	12	3	9	7	*31*
3:15 PM	0	0	1	0	*1*	0	0	0	0	*0*	8	2	1	4	*15*
3:30 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**10**	**3**	**4**	**10**	*27*
3:45 PM	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**7**	**5**	**6**	**7**	*25*
4:00 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**4**	**4**	**3**	**3**	*14*
4:15 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**4**	**10**	**5**	**13**	***32***
4:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	6	8	7	9	*30*
4:45 PM	0	0	0	0	*0*	0	0	0	0	*0*	2	6	4	3	*15*
5:00 PM	0	0	0	0	*0*	0	0	0	0	*0*	2	5	5	4	*16*
5:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	1	3	2	1	*7*
5:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	1	1	1	*3*
5:45 PM	0	0	0	0	*0*	0	0	0	0	*0*	4	3	1	2	*10*
Count Total	1	0	1	1	*3*	0	0	0	0	*0*	60	53	48	64	*225*
Peak Hour	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**25**	**22**	**18**	**33**	***98***

Three-Hour Count Summaries - Heavy Vehicles

Interval Start	San Jose St Eastbound				San Jose St Westbound				Wilgart Way Northbound				Wilgart Way Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
3:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
3:45 PM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	3
4:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	2
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	1	0	0	0	0	0	0	0	0	1	0	1	0	0	3	0
Peak Hour	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**

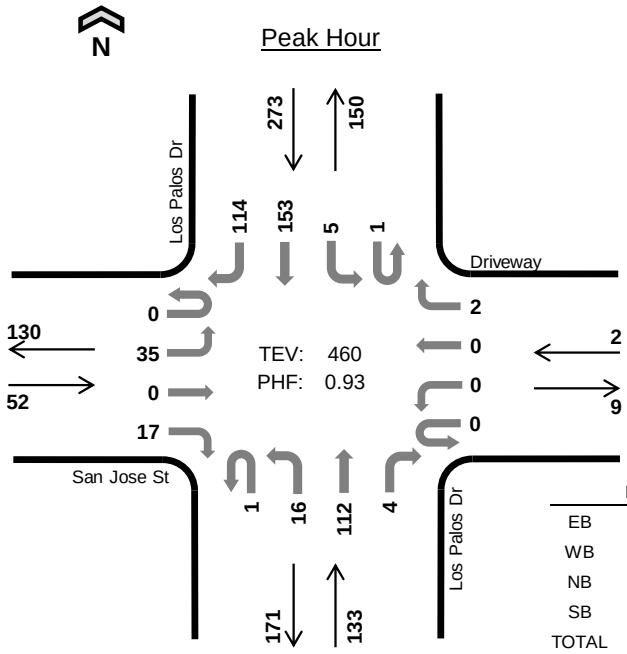
Three-Hour Count Summaries - Bikes

Interval Start	San Jose St Eastbound			San Jose St Westbound			Wilgart Way Northbound			Wilgart Way Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
3:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

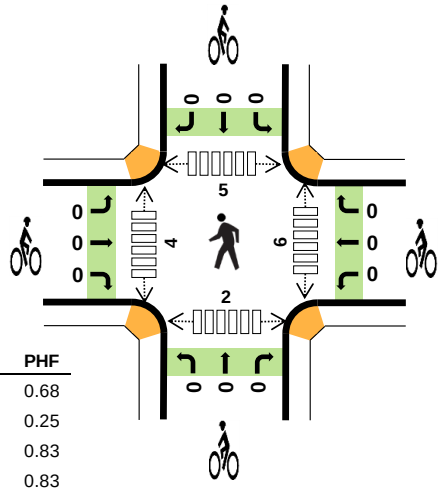
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Los Palos Dr
San Jose St

Date: 10/30/2018
Count Period: 6:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM



	HV %:	PHF
EB	0.0%	0.68
WB	0.0%	0.25
NB	0.0%	0.83
SB	0.7%	0.83
TOTAL	0.4%	0.93



Three-Hour Count Summaries

Interval Start		San Jose St Eastbound				Driveway Westbound				Los Palos Dr Northbound				Los Palos Dr Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:45 AM		0	5	0	4	0	0	0	0	0	8	32	0	1	1	39	34	124	0
8:00 AM		0	3	0	3	0	0	0	0	0	3	23	1	0	0	41	41	115	0
8:15 AM		0	12	0	6	0	0	0	0	1	2	30	2	0	1	41	19	114	0
8:30 AM		0	15	0	4	0	0	0	2	0	3	27	1	0	3	32	20	107	460
Peak Hour	All	0	35	0	17	0	0	0	2	1	16	112	4	1	5	153	114	460	0
	HV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0
	HV%	-	0%	-	0%	-	-	-	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	1	2	1	1	*5*
8:00 AM	0	0	0	2	*2*	0	0	0	0	*0*	2	0	3	0	*5*
8:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	1	1	1	0	*3*
8:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	2	1	0	1	*4*
Peak Hour	0	0	0	2	*2*	0	0	0	0	*0*	6	4	5	2	*17*

Three-Hour Count Summaries

Interval Start	San Jose St Eastbound				Driveway Westbound				Los Palos Dr Northbound				Los Palos Dr Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 AM	0	2	0	0	0	0	0	0	0	0	4	0	0	0	1	13	20	0
6:15 AM	0	5	0	1	0	0	0	0	0	7	8	0	0	0	0	19	40	0
6:30 AM	0	6	0	0	0	0	0	0	0	1	4	0	1	0	2	29	43	0
6:45 AM	0	11	0	0	0	0	0	0	0	10	6	0	0	0	8	39	74	177
7:00 AM	0	3	0	0	0	0	0	0	0	3	10	0	0	0	7	18	41	198
7:15 AM	0	10	0	0	0	0	0	0	0	2	9	0	0	0	14	23	58	216
7:30 AM	0	11	0	2	0	0	0	0	0	1	14	0	0	0	28	32	88	261
7:45 AM	**0**	**5**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**8**	**32**	**0**	**1**	**1**	**39**	**34**	**124**	311
8:00 AM	**0**	**3**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**3**	**23**	**1**	**0**	**0**	**41**	**41**	**115**	385
8:15 AM	**0**	**12**	**0**	**6**	**0**	**0**	**0**	**0**	**1**	**2**	**30**	**2**	**0**	**1**	**41**	**19**	**114**	441
8:30 AM	**0**	**15**	**0**	**4**	**0**	**0**	**0**	**2**	**0**	**3**	**27**	**1**	**0**	**3**	**32**	**20**	**107**	**460**
8:45 AM	0	11	0	2	0	0	1	1	0	2	20	3	0	9	25	31	105	441
Count Total	0	94	0	22	0	0	1	3	1	42	187	7	2	14	238	318	929	0
Peak Hour All	**0**	**35**	**0**	**17**	**0**	**0**	**0**	**2**	**1**	**16**	**112**	**4**	**1**	**5**	**153**	**114**	**460**	**0**
Peak Hour HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**2**	**0**
Peak Hour HV%	**-**	**0%**	**-**	**0%**	**-**	**-**	**-**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**2%**	**0%**	**0**

Note: Three-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
6:00 AM	1	0	0	2	*3*	0	0	0	0	*0*	0	0	0	0	*0*
6:15 AM	1	0	2	1	*4*	0	0	0	0	*0*	0	0	0	0	*0*
6:30 AM	1	0	0	1	*2*	0	0	0	0	*0*	2	0	0	0	*2*
6:45 AM	1	0	0	1	*2*	0	0	0	0	*0*	2	0	1	1	*4*
7:00 AM	1	0	1	0	*2*	0	0	0	0	*0*	0	0	1	0	*1*
7:15 AM	0	0	1	1	*2*	0	0	0	0	*0*	1	2	1	1	*5*
7:30 AM	1	0	0	1	*2*	0	0	0	0	*0*	0	2	0	0	*2*
7:45 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**1**	**2**	**1**	**1**	*5*
8:00 AM	**0**	**0**	**0**	**2**	***2***	**0**	**0**	**0**	**0**	***0***	**2**	**0**	**3**	**0**	*5*
8:15 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**1**	**1**	**1**	**0**	*3*
8:30 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**2**	**1**	**0**	**1**	***4***
8:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	1	0	2	1	*4*
Count Total	6	0	4	9	*19*	0	0	0	0	*0*	12	8	10	5	*35*
Peak Hour	**0**	**0**	**0**	**2**	***2***	**0**	**0**	**0**	**0**	***0***	**6**	**4**	**5**	**2**	***17***

Three-Hour Count Summaries - Heavy Vehicles

Interval Start	San Jose St				Driveway				Los Palos Dr				Los Palos Dr				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3	0
6:15 AM	0	0	0	1	0	0	0	0	0	0	2	0	0	0	0	1	4	0
6:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0
6:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	11
7:00 AM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	10
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2	8
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	8
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	6
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**2**	6
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	4
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Count Total	0	5	0	1	0	0	0	0	0	0	4	0	0	0	1	8	19	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**2**	**0**

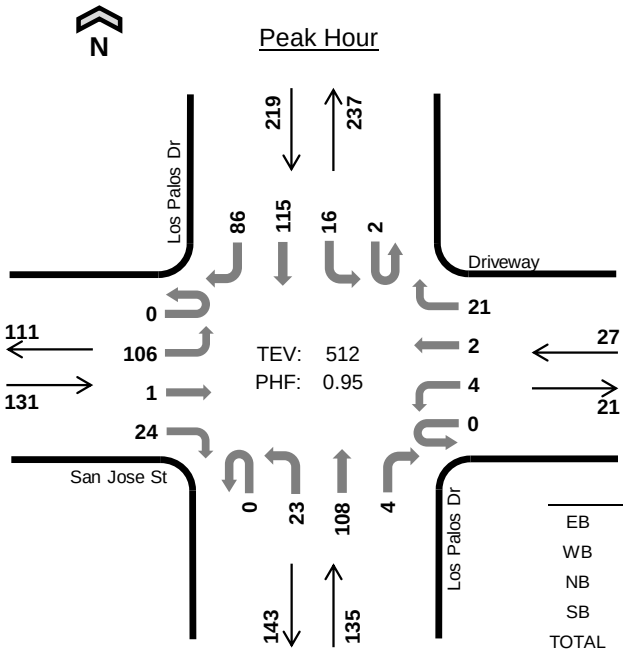
Three-Hour Count Summaries - Bikes

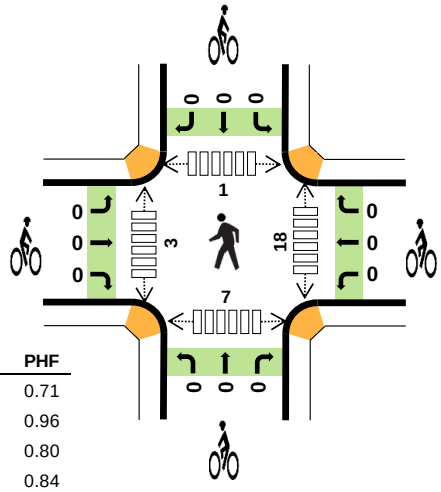
Interval Start	San Jose St			Driveway			Los Palos Dr			Los Palos Dr			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Los Palos Dr
San Jose St

Date: 10/30/2018
Count Period: 3:00 PM to 6:00 PM
Peak Hour: 3:00 PM to 4:00 PM





	HV %:	PHF
EB	4.6%	0.71
WB	0.0%	0.96
NB	3.0%	0.80
SB	1.4%	0.84
TOTAL	2.5%	0.95

Three-Hour Count Summaries

Interval Start		San Jose St Eastbound				Driveway Westbound				Los Palos Dr Northbound				Los Palos Dr Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
3:00 PM		0	24	1	5	0	2	0	4	0	8	34	0	1	6	27	23	135	0
3:15 PM		0	19	0	5	0	1	1	5	0	6	31	1	0	5	29	31	134	0
3:30 PM		0	38	0	8	0	1	0	6	0	4	20	3	1	3	31	17	132	0
3:45 PM		0	25	0	6	0	0	1	6	0	5	23	0	0	2	28	15	111	512
Peak Hour	All	0	106	1	24	0	4	2	21	0	23	108	4	2	16	115	86	512	0
	HV	0	6	0	0	0	0	0	0	0	0	4	0	0	0	2	1	13	0
	HV%	-	6%	0%	0%	-	0%	0%	0%	-	0%	4%	0%	0%	0%	2%	1%	3%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
3:00 PM	3	0	2	1	*6*	0	0	0	0	*0*	8	0	1	2	*11*
3:15 PM	0	0	0	1	*1*	0	0	0	0	*0*	4	0	0	0	*4*
3:30 PM	1	0	1	1	*3*	0	0	0	0	*0*	6	3	0	5	*14*
3:45 PM	2	0	1	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	6	0	4	3	*13*	0	0	0	0	*0*	18	3	1	7	*29*

Three-Hour Count Summaries

Interval Start	San Jose St Eastbound				Driveway Westbound				Los Palos Dr Northbound				Los Palos Dr Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
3:00 PM	**0**	**24**	**1**	**5**	**0**	**2**	**0**	**4**	**0**	**8**	**34**	**0**	**1**	**6**	**27**	**23**	**135**	0
3:15 PM	**0**	**19**	**0**	**5**	**0**	**1**	**1**	**5**	**0**	**6**	**31**	**1**	**0**	**5**	**29**	**31**	**134**	0
3:30 PM	**0**	**38**	**0**	**8**	**0**	**1**	**0**	**6**	**0**	**4**	**20**	**3**	**1**	**3**	**31**	**17**	**132**	0
3:45 PM	**0**	**25**	**0**	**6**	**0**	**0**	**1**	**6**	**0**	**5**	**23**	**0**	**0**	**2**	**28**	**15**	**111**	**512**
4:00 PM	0	19	0	6	0	0	0	8	0	3	30	1	1	8	32	12	120	497
4:15 PM	0	16	0	3	0	1	1	8	0	1	34	0	0	4	20	13	101	464
4:30 PM	0	31	0	3	0	0	0	3	0	1	41	0	1	0	26	18	124	456
4:45 PM	0	18	0	2	0	0	0	4	0	3	24	0	0	0	22	8	81	426
5:00 PM	0	21	0	3	0	0	0	2	0	6	44	1	0	1	26	10	114	420
5:15 PM	0	18	0	3	0	0	0	0	1	2	13	0	0	0	16	16	69	388
5:30 PM	0	16	0	3	0	0	1	0	0	1	11	0	0	0	17	6	55	319
5:45 PM	0	11	0	1	0	0	0	0	0	0	16	0	0	0	11	7	46	284
Count Total	0	256	1	48	0	5	4	46	1	40	321	6	4	29	285	176	1,222	0
Peak Hour All	**0**	**106**	**1**	**24**	**0**	**4**	**2**	**21**	**0**	**23**	**108**	**4**	**2**	**16**	**115**	**86**	**512**	**0**
Peak Hour HV	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**2**	**1**	**13**	**0**
Peak Hour HV%	**-**	**6%**	**0%**	**0%**	**-**	**0%**	**0%**	**0%**	**-**	**0%**	**4%**	**0%**	**0%**	**0%**	**2%**	**1%**	**3%**	**0**

Note: Three-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
3:00 PM	**3**	**0**	**2**	**1**	***6***	**0**	**0**	**0**	**0**	***0***	**8**	**0**	**1**	**2**	*11*
3:15 PM	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**0**	**0**	***0***	**4**	**0**	**0**	**0**	*4*
3:30 PM	**1**	**0**	**1**	**1**	***3***	**0**	**0**	**0**	**0**	***0***	**6**	**3**	**0**	**5**	*14*
3:45 PM	**2**	**0**	**1**	**0**	***3***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
4:00 PM	2	0	1	1	*4*	0	0	0	0	*0*	0	1	2	0	*3*
4:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	1	0	0	*1*
4:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	2	2	0	1	*5*
4:45 PM	0	0	0	2	*2*	0	0	1	0	*1*	1	1	0	3	*5*
5:00 PM	0	0	0	0	*0*	0	0	0	0	*0*	3	0	3	0	*6*
5:15 PM	1	0	0	0	*1*	0	0	0	0	*0*	0	1	2	0	*3*
5:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	3	0	0	*3*
5:45 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	2	0	0	*2*
Count Total	9	0	5	6	*20*	0	0	1	0	*1*	24	14	8	11	*57*
Peak Hour	**6**	**0**	**4**	**3**	***13***	**0**	**0**	**0**	**0**	***0***	**18**	**3**	**1**	**7**	***29***

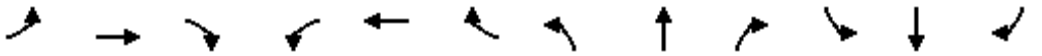
Three-Hour Count Summaries - Heavy Vehicles

Interval Start	San Jose St				Driveway				Los Palos Dr				Los Palos Dr				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
3:00 PM	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**1**	**0**	**6**	0
3:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	0
3:30 PM	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**3**	0
3:45 PM	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**3**	**13**
4:00 PM	0	2	0	0	0	0	0	0	0	0	1	0	0	0	1	0	4	11
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	6
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	9	0	0	0	0	0	0	0	0	5	0	0	0	4	2	20	0
Peak Hour	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**2**	**1**	**13**	**0**

Three-Hour Count Summaries - Bikes

Interval Start	San Jose St			Driveway			Los Palos Dr			Los Palos Dr			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
3:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
3:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
3:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
3:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	1	0	0	0	0	1	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	275	104	74	263	0	74	0	66	0	0	11
Future Volume (vph)	0	275	104	74	263	0	74	0	66	0	0	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		8.9		2.5	3.9		3.2		3.2			2.5
Lane Util. Factor		0.95		1.00	0.95		1.00		1.00			1.00
Frpb, ped/bikes		1.00		1.00	1.00		1.00		1.00			1.00
Flpb, ped/bikes		1.00		1.00	1.00		1.00		1.00			1.00
Frt		0.96		1.00	1.00		1.00		0.85			0.86
Flt Protected		1.00		0.95	1.00		0.95		1.00			1.00
Satd. Flow (prot)		3427		1787	3574		1787		1599			1644
Flt Permitted		1.00		0.95	1.00		0.95		1.00			1.00
Satd. Flow (perm)		3427		1787	3574		1787		1599			1644
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	0	327	124	88	313	0	88	0	79	0	0	13
RTOR Reduction (vph)	0	34	0	0	0	0	0	0	47	0	0	13
Lane Group Flow (vph)	0	417	0	88	313	0	88	0	32	0	0	0
Confl. Peds. (#/hr)							2		14			17
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	0%	0%	0%
Turn Type		NA		Prot	NA		Prot		Prot			Prot
Protected Phases		2		1	6		9		9			5
Permitted Phases												
Actuated Green, G (s)		15.8		6.4	27.6		26.4		26.4			0.6
Effective Green, g (s)		17.8		7.4	28.6		27.4		27.4			1.6
Actuated g/C Ratio		0.26		0.11	0.43		0.41		0.41			0.02
Clearance Time (s)		10.9		3.5	4.9		4.2		4.2			3.5
Vehicle Extension (s)		3.0		2.0	3.0		2.0		2.0			2.0
Lane Grp Cap (vph)		907		196	1521		728		651			39
v/s Ratio Prot		c0.12		c0.05	0.09		c0.05		0.02			0.00
v/s Ratio Perm												
v/c Ratio		0.46		0.45	0.21		0.12		0.05			0.01
Uniform Delay, d1		20.7		28.0	12.2		12.4		12.0			32.0
Progression Factor		1.00		1.00	1.00		0.07		1.00			1.00
Incremental Delay, d2		0.4		0.6	0.1		0.0		0.0			0.0
Delay (s)		21.0		28.6	12.2		0.9		12.0			32.1
Level of Service		C		C	B		A		B			C
Approach Delay (s)		21.0			15.8			6.2			32.1	
Approach LOS		C			B			A			C	

Intersection Summary			
HCM 2000 Control Delay	16.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	67.2	Sum of lost time (s)	33.6
Intersection Capacity Utilization	33.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	8	4	136	10	14	164
Future Volume (vph)	8	4	136	10	14	164
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	11.0		11.2		4.2	4.2
Lane Util. Factor	1.00		0.95		1.00	1.00
Frpb, ped/bikes	1.00		1.00		1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00	1.00
Frt	0.95		0.99		1.00	1.00
Flt Protected	0.97		1.00		0.95	1.00
Satd. Flow (prot)	1739		3528		1787	1881
Flt Permitted	0.97		1.00		0.95	1.00
Satd. Flow (perm)	1739		3528		1787	1881
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	10	5	166	12	17	200
RTOR Reduction (vph)	5	0	5	0	0	0
Lane Group Flow (vph)	10	0	173	0	17	200
Confl. Peds. (#/hr)				11		
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Turn Type	Prot		NA		Split	NA
Protected Phases	4		3		10	10
Permitted Phases						
Actuated Green, G (s)	0.7		7.7		32.4	32.4
Effective Green, g (s)	0.7		7.7		32.4	32.4
Actuated g/C Ratio	0.01		0.11		0.48	0.48
Clearance Time (s)	11.0		11.2		4.2	4.2
Vehicle Extension (s)	2.0		2.0		2.0	2.0
Lane Grp Cap (vph)	18		404		861	906
v/s Ratio Prot	c0.01		c0.05		0.01	c0.11
v/s Ratio Perm						
v/c Ratio	0.56		0.43		0.02	0.22
Uniform Delay, d1	33.1		27.7		9.1	10.1
Progression Factor	1.00		1.00		0.06	0.07
Incremental Delay, d2	19.6		0.3		0.0	0.0
Delay (s)	52.7		28.0		0.6	0.8
Level of Service	D		C		A	A
Approach Delay (s)	52.7		28.0			0.8
Approach LOS	D		C			A

Intersection Summary			
HCM 2000 Control Delay	14.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	67.2	Sum of lost time (s)	36.6
Intersection Capacity Utilization	28.8%	ICU Level of Service	A
Analysis Period (min)	15		

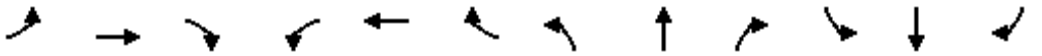
c Critical Lane Group

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	28	19	36	14	45	4	75	15	29	45	10
Future Vol, veh/h	25	28	19	36	14	45	4	75	15	29	45	10
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	1	1	1	1	1	1	0	0	0	4	4	4
Mvmt Flow	28	31	21	40	16	51	4	84	17	33	51	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.9	7.9	8	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	35%	38%	35%
Vol Thru, %	80%	39%	15%	54%
Vol Right, %	16%	26%	47%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	94	72	95	84
LT Vol	4	25	36	29
Through Vol	75	28	14	45
RT Vol	15	19	45	10
Lane Flow Rate	106	81	107	94
Geometry Grp	1	1	1	1
Degree of Util (X)	0.127	0.099	0.126	0.118
Departure Headway (Hd)	4.339	4.402	4.257	4.502
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	828	816	844	798
Service Time	2.356	2.418	2.272	2.518
HCM Lane V/C Ratio	0.128	0.099	0.127	0.118
HCM Control Delay	8	7.9	7.9	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.3	0.4	0.4



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	269	37	117	233	10	21	10	112	34	160	105
Future Volume (veh/h)	22	269	37	117	233	10	21	10	112	34	160	105
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	25	309	43	134	268	11	24	11	129	39	184	121
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	1	1	1
Cap, veh/h	32	887	122	208	1329	54	277	103	415	142	422	411
Arrive On Green	0.02	0.28	0.28	0.12	0.38	0.38	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1795	3159	435	1795	3506	143	532	397	1593	175	1621	1581
Grp Volume(v), veh/h	25	174	178	134	136	143	35	0	129	223	0	121
Grp Sat Flow(s),veh/h/ln	1795	1791	1803	1795	1791	1858	929	0	1593	1796	0	1581
Q Serve(g_s), s	0.6	3.4	3.4	3.1	2.2	2.3	0.1	0.0	2.9	0.0	0.0	2.7
Cycle Q Clear(g_c), s	0.6	3.4	3.4	3.1	2.2	2.3	4.4	0.0	2.9	4.3	0.0	2.7
Prop In Lane	1.00		0.24	1.00		0.08	0.69		1.00	0.17		1.00
Lane Grp Cap(c), veh/h	32	503	507	208	679	704	380	0	415	564	0	411
V/C Ratio(X)	0.78	0.35	0.35	0.64	0.20	0.20	0.09	0.00	0.31	0.40	0.00	0.29
Avail Cap(c_a), veh/h	1026	1023	1030	1026	1023	1062	771	0	911	1103	0	903
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.4	12.5	12.6	18.5	9.1	9.1	12.3	0.0	13.0	13.6	0.0	13.0
Incr Delay (d2), s/veh	83.1	1.5	1.5	11.5	0.5	0.5	0.4	0.0	1.5	1.6	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	1.3	1.4	1.8	0.8	0.8	0.3	0.0	1.0	1.8	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	104.5	14.0	14.1	29.9	9.7	9.6	12.7	0.0	14.6	15.2	0.0	14.4
LnGrp LOS	F	B	B	C	A	A	B	A	B	B	A	B
Approach Vol, veh/h		377			413			164			344	
Approach Delay, s/veh		20.0			16.2			14.2			14.9	
Approach LOS		C			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.1	17.3		16.4	5.8	21.6		16.4				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	25.0	25.0		25.0	25.0	25.0		25.0				
Max Q Clear Time (g_c+I1), s	5.1	5.4		6.4	2.6	4.3		6.3				
Green Ext Time (p_c), s	1.2	3.6		1.6	0.1	2.8		3.6				

Intersection Summary			
HCM 6th Ctrl Delay		16.7	
HCM 6th LOS		B	

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	35	0	17	0	0	2	17	112	4	6	153	114
Future Vol, veh/h	35	0	17	0	0	2	17	112	4	6	153	114
Conflicting Peds, #/hr	5	0	2	2	0	5	4	0	6	6	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	1	1	1
Mvmt Flow	38	0	18	0	0	2	18	120	4	6	165	123

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	407	409	233	414	468	133	292	0	0	130	0	0
Stage 1	243	243	-	164	164	-	-	-	-	-	-	-
Stage 2	164	166	-	250	304	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.11	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.209	-	-
Pot Cap-1 Maneuver	558	535	811	552	496	922	1281	-	-	1462	-	-
Stage 1	765	708	-	843	766	-	-	-	-	-	-	-
Stage 2	843	765	-	759	667	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	543	519	806	527	481	912	1276	-	-	1454	-	-
Mov Cap-2 Maneuver	543	519	-	527	481	-	-	-	-	-	-	-
Stage 1	750	702	-	825	750	-	-	-	-	-	-	-
Stage 2	824	749	-	737	661	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.5	9	1	0.2
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1276	-	-	608	912	1454	-	-
HCM Lane V/C Ratio	0.014	-	-	0.092	0.002	0.004	-	-
HCM Control Delay (s)	7.9	0	-	11.5	9	7.5	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0	0	-	-

Intersection	
Int Delay, s/veh	3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	50	96	56	83	89
Future Vol, veh/h	0	50	96	56	83	89
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	69	133	78	115	124

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	172	0	0	211	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	4.12	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	0	872	-	-	1360	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	872	-	-	1360	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.5	0	3.8
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	872	1360	-
HCM Lane V/C Ratio	-	-	0.08	0.085	-
HCM Control Delay (s)	-	-	9.5	7.9	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.3	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	69	88	1	0	7
Future Vol, veh/h	3	69	88	1	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	76	97	1	0	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	98	0	-	0	180	98
Stage 1	-	-	-	-	98	-
Stage 2	-	-	-	-	82	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1495	-	-	-	810	958
Stage 1	-	-	-	-	926	-
Stage 2	-	-	-	-	941	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1495	-	-	-	808	958
Mov Cap-2 Maneuver	-	-	-	-	808	-
Stage 1	-	-	-	-	924	-
Stage 2	-	-	-	-	941	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1495	-	-	-	958
HCM Lane V/C Ratio	0.002	-	-	-	0.008
HCM Control Delay (s)	7.4	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

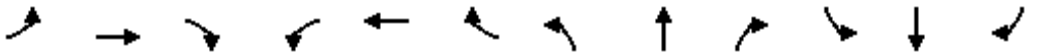
Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	9	60	81	11	7	8
Future Vol, veh/h	9	60	81	11	7	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	68	92	13	8	9

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	105	0	-	0	187	99
Stage 1	-	-	-	-	99	-
Stage 2	-	-	-	-	88	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1486	-	-	-	802	957
Stage 1	-	-	-	-	925	-
Stage 2	-	-	-	-	935	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1486	-	-	-	796	957
Mov Cap-2 Maneuver	-	-	-	-	796	-
Stage 1	-	-	-	-	919	-
Stage 2	-	-	-	-	935	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1486	-	-	-	874
HCM Lane V/C Ratio	0.007	-	-	-	0.02
HCM Control Delay (s)	7.4	0	-	-	9.2
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	315	58	50	377	0	112	0	95	0	0	12
Future Volume (vph)	0	315	58	50	377	0	112	0	95	0	0	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		8.9		2.5	3.9		3.2		3.2			2.5
Lane Util. Factor		0.95		1.00	0.95		1.00		1.00			1.00
Frpb, ped/bikes		1.00		1.00	1.00		1.00		1.00			1.00
Flpb, ped/bikes		1.00		1.00	1.00		1.00		1.00			1.00
Frt		0.98		1.00	1.00		1.00		0.85			0.86
Flt Protected		1.00		0.95	1.00		0.95		1.00			1.00
Satd. Flow (prot)		3479		1787	3574		1787		1599			1644
Flt Permitted		1.00		0.95	1.00		0.95		1.00			1.00
Satd. Flow (perm)		3479		1787	3574		1787		1599			1644
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	0	366	67	58	438	0	130	0	110	0	0	14
RTOR Reduction (vph)	0	13	0	0	0	0	0	0	61	0	0	14
Lane Group Flow (vph)	0	420	0	58	438	0	130	0	49	0	0	0
Confl. Peds. (#/hr)			9	9			7		15			7
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	0%	0%	0%
Turn Type		NA		Prot	NA		Prot		Prot			Prot
Protected Phases		2		1	6		9		9			5
Permitted Phases												
Actuated Green, G (s)		15.3		4.0	24.7		28.5		28.5			0.6
Effective Green, g (s)		17.3		5.0	25.7		29.5		29.5			1.6
Actuated g/C Ratio		0.26		0.08	0.39		0.44		0.44			0.02
Clearance Time (s)		10.9		3.5	4.9		4.2		4.2			3.5
Vehicle Extension (s)		3.0		2.0	3.0		2.0		2.0			2.0
Lane Grp Cap (vph)		906		134	1383		793		710			39
v/s Ratio Prot		c0.12		c0.03	0.12		c0.07		0.03			0.00
v/s Ratio Perm												
v/c Ratio		0.46		0.43	0.32		0.16		0.07			0.01
Uniform Delay, d1		20.7		29.3	14.2		11.1		10.6			31.6
Progression Factor		1.00		1.00	1.00		0.06		0.18			1.00
Incremental Delay, d2		0.4		0.8	0.1		0.0		0.0			0.0
Delay (s)		21.0		30.2	14.3		0.7		2.0			31.7
Level of Service		C		C	B		A		A			C
Approach Delay (s)		21.0			16.2			1.3			31.7	
Approach LOS		C			B			A			C	

Intersection Summary			
HCM 2000 Control Delay	15.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	66.4	Sum of lost time (s)	33.6
Intersection Capacity Utilization	35.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	9	10	197	10	19	89
Future Volume (vph)	9	10	197	10	19	89
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	11.0		11.2		4.2	4.2
Lane Util. Factor	1.00		0.95		1.00	1.00
Frpb, ped/bikes	1.00		1.00		1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00	1.00
Frt	0.93		0.99		1.00	1.00
Flt Protected	0.98		1.00		0.95	1.00
Satd. Flow (prot)	1708		3540		1787	1881
Flt Permitted	0.98		1.00		0.95	1.00
Satd. Flow (perm)	1708		3540		1787	1881
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	11	12	232	12	22	105
RTOR Reduction (vph)	12	0	3	0	0	0
Lane Group Flow (vph)	11	0	241	0	22	105
Confl. Peds. (#/hr)				11		
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Turn Type	Prot		NA		Split	NA
Protected Phases	4		3		10	10
Permitted Phases						
Actuated Green, G (s)	1.5		9.0		29.5	29.5
Effective Green, g (s)	1.5		9.0		29.5	29.5
Actuated g/C Ratio	0.02		0.14		0.44	0.44
Clearance Time (s)	11.0		11.2		4.2	4.2
Vehicle Extension (s)	2.0		2.0		2.0	2.0
Lane Grp Cap (vph)	38		479		793	835
v/s Ratio Prot	c0.01		c0.07		0.01	c0.06
v/s Ratio Perm						
v/c Ratio	0.30		0.50		0.03	0.13
Uniform Delay, d1	31.9		26.6		10.4	10.9
Progression Factor	1.00		1.00		0.04	0.03
Incremental Delay, d2	1.6		0.3		0.0	0.0
Delay (s)	33.5		26.9		0.4	0.4
Level of Service	C		C		A	A
Approach Delay (s)	33.5		26.9			0.4
Approach LOS	C		C			A

Intersection Summary			
HCM 2000 Control Delay	18.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	66.4	Sum of lost time (s)	36.6
Intersection Capacity Utilization	31.8%	ICU Level of Service	A
Analysis Period (min)	15		

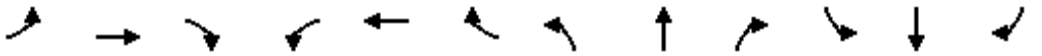
c Critical Lane Group

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	32	11	15	26	51	4	37	24	31	33	14
Future Vol, veh/h	12	32	11	15	26	51	4	37	24	31	33	14
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles, %	2	2	2	0	0	0	0	0	0	0	0	0
Mvmt Flow	15	41	14	19	33	65	5	47	31	40	42	18
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.8	7.7	7.7	8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	22%	16%	40%
Vol Thru, %	57%	58%	28%	42%
Vol Right, %	37%	20%	55%	18%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	65	55	92	78
LT Vol	4	12	15	31
Through Vol	37	32	26	33
RT Vol	24	11	51	14
Lane Flow Rate	83	71	118	100
Geometry Grp	1	1	1	1
Degree of Util (X)	0.097	0.086	0.134	0.121
Departure Headway (Hd)	4.212	4.389	4.087	4.373
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	853	819	880	822
Service Time	2.227	2.402	2.099	2.386
HCM Lane V/C Ratio	0.097	0.087	0.134	0.122
HCM Control Delay	7.7	7.8	7.7	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.3	0.5	0.4



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	364	65	83	260	10	56	17	201	36	99	84
Future Volume (veh/h)	22	364	65	83	260	10	56	17	201	36	99	84
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1870	1870	1870	1841	1841	1841	1885	1885	1885
Adj Flow Rate, veh/h	24	400	71	91	286	11	62	19	221	40	109	92
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	2	2	2	4	4	4	1	1	1
Cap, veh/h	31	882	155	134	1206	46	368	94	444	184	416	455
Arrive On Green	0.02	0.29	0.29	0.08	0.35	0.35	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1810	3062	539	1781	3488	134	762	324	1537	269	1440	1574
Grp Volume(v), veh/h	24	234	237	91	145	152	81	0	221	149	0	92
Grp Sat Flow(s),veh/h/ln	1810	1805	1796	1781	1777	1845	1086	0	1537	1709	0	1574
Q Serve(g_s), s	0.6	4.6	4.7	2.1	2.5	2.5	1.3	0.0	5.1	0.0	0.0	1.9
Cycle Q Clear(g_c), s	0.6	4.6	4.7	2.1	2.5	2.5	4.0	0.0	5.1	2.6	0.0	1.9
Prop In Lane	1.00		0.30	1.00		0.07	0.77		1.00	0.27		1.00
Lane Grp Cap(c), veh/h	31	520	517	134	615	638	461	0	444	600	0	455
V/C Ratio(X)	0.76	0.45	0.46	0.68	0.24	0.24	0.18	0.00	0.50	0.25	0.00	0.20
Avail Cap(c_a), veh/h	1048	1046	1041	1032	1030	1069	828	0	891	1065	0	912
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.1	12.6	12.6	19.4	10.1	10.1	12.4	0.0	12.7	11.8	0.0	11.6
Incr Delay (d2), s/veh	82.0	2.2	2.3	19.6	0.7	0.7	0.7	0.0	3.1	0.8	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.8	1.9	1.5	0.9	0.9	0.6	0.0	1.8	1.0	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	103.1	14.8	14.9	39.1	10.8	10.8	13.1	0.0	15.8	12.6	0.0	12.4
LnGrp LOS	F	B	B	D	B	B	B	A	B	B	A	B
Approach Vol, veh/h		495			388			302			241	
Approach Delay, s/veh		19.1			17.4			15.1			12.5	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.2	17.4		17.5	5.7	19.9		17.5				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	25.0	25.0		25.0	25.0	25.0		25.0				
Max Q Clear Time (g_c+I1), s	4.1	6.7		7.1	2.6	4.5		4.6				
Green Ext Time (p_c), s	0.7	4.9		3.2	0.1	3.0		2.5				

Intersection Summary			
HCM 6th Ctrl Delay		16.7	
HCM 6th LOS		B	

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	106	1	24	4	2	21	23	108	4	18	115	86
Future Vol, veh/h	106	1	24	4	2	21	23	108	4	18	115	86
Conflicting Peds, #/hr	1	0	7	7	0	1	3	0	18	18	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	5	5	5	0	0	0	3	3	3	1	1	1
Mvmt Flow	112	1	25	4	2	22	24	114	4	19	121	91

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	385	392	177	407	435	135	215	0	0	136	0	0
Stage 1	208	208	-	182	182	-	-	-	-	-	-	-
Stage 2	177	184	-	225	253	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.1	6.5	6.2	4.13	-	-	4.11	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.5	4	3.3	2.227	-	-	2.209	-	-
Pot Cap-1 Maneuver	568	539	858	558	517	919	1349	-	-	1454	-	-
Stage 1	787	724	-	824	753	-	-	-	-	-	-	-
Stage 2	818	742	-	782	701	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	536	510	850	514	490	902	1345	-	-	1429	-	-
Mov Cap-2 Maneuver	536	510	-	514	490	-	-	-	-	-	-	-
Stage 1	770	711	-	794	726	-	-	-	-	-	-	-
Stage 2	780	715	-	741	688	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.2	9.9	1.3	0.6
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1345	-	-	575	768	1429	-	-
HCM Lane V/C Ratio	0.018	-	-	0.24	0.037	0.013	-	-
HCM Control Delay (s)	7.7	0	-	13.2	9.9	7.6	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.9	0.1	0	-	-

Intersection	
Int Delay, s/veh	5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	141	66	8	31	67
Future Vol, veh/h	0	141	66	8	31	67
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	0	164	77	9	36	78

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	82	0	0	86	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.21	-	-	4.11	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.309	-	-	2.209	-
Pot Cap-1 Maneuver	0	980	-	-	1517	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	980	-	-	1517	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	2.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	980	1517	-
HCM Lane V/C Ratio	-	-	0.167	0.024	-
HCM Control Delay (s)	-	-	9.4	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0.1	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	84	83	8	3	9
Future Vol, veh/h	3	84	83	8	3	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	69	69	69	69	69	69
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	122	120	12	4	13

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	132	0	-	0	256	126
Stage 1	-	-	-	-	126	-
Stage 2	-	-	-	-	130	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1453	-	-	-	733	924
Stage 1	-	-	-	-	900	-
Stage 2	-	-	-	-	896	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1453	-	-	-	731	924
Mov Cap-2 Maneuver	-	-	-	-	731	-
Stage 1	-	-	-	-	897	-
Stage 2	-	-	-	-	896	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1453	-	-	-	867
HCM Lane V/C Ratio	0.003	-	-	-	0.02
HCM Control Delay (s)	7.5	0	-	-	9.2
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

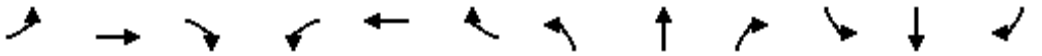
Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	82	81	9	14	10
Future Vol, veh/h	5	82	81	9	14	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	65	65	65	65	65	65
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	126	125	14	22	15

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	139	0	-	0	274	132
Stage 1	-	-	-	-	132	-
Stage 2	-	-	-	-	142	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1445	-	-	-	716	917
Stage 1	-	-	-	-	894	-
Stage 2	-	-	-	-	885	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1445	-	-	-	712	917
Mov Cap-2 Maneuver	-	-	-	-	712	-
Stage 1	-	-	-	-	889	-
Stage 2	-	-	-	-	885	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	9.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1445	-	-	-	785
HCM Lane V/C Ratio	0.005	-	-	-	0.047
HCM Control Delay (s)	7.5	0	-	-	9.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	275	104	70	263	0	73	0	65	0	0	11
Future Volume (vph)	0	275	104	70	263	0	73	0	65	0	0	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		8.9		2.5	3.9		3.2		3.2			2.5
Lane Util. Factor		0.95		1.00	0.95		1.00		1.00			1.00
Frpb, ped/bikes		1.00		1.00	1.00		1.00		1.00			1.00
Flpb, ped/bikes		1.00		1.00	1.00		1.00		1.00			1.00
Frt		0.96		1.00	1.00		1.00		0.85			0.86
Flt Protected		1.00		0.95	1.00		0.95		1.00			1.00
Satd. Flow (prot)		3427		1787	3574		1787		1599			1644
Flt Permitted		1.00		0.95	1.00		0.95		1.00			1.00
Satd. Flow (perm)		3427		1787	3574		1787		1599			1644
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	0	327	124	83	313	0	87	0	77	0	0	13
RTOR Reduction (vph)	0	34	0	0	0	0	0	0	46	0	0	13
Lane Group Flow (vph)	0	417	0	83	313	0	87	0	31	0	0	0
Confl. Peds. (#/hr)							2		14			17
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	0%	0%	0%
Turn Type		NA		Prot	NA		Prot		Prot			Prot
Protected Phases		2		1	6		9		9			5
Permitted Phases												
Actuated Green, G (s)		15.9		6.2	27.5		26.4		26.4			0.6
Effective Green, g (s)		17.9		7.2	28.5		27.4		27.4			1.6
Actuated g/C Ratio		0.27		0.11	0.42		0.41		0.41			0.02
Clearance Time (s)		10.9		3.5	4.9		4.2		4.2			3.5
Vehicle Extension (s)		3.0		2.0	3.0		2.0		2.0			2.0
Lane Grp Cap (vph)		914		191	1518		729		652			39
v/s Ratio Prot		c0.12		c0.05	0.09		c0.05		0.02			0.00
v/s Ratio Perm												
v/c Ratio		0.46		0.43	0.21		0.12		0.05			0.01
Uniform Delay, d1		20.5		28.0	12.2		12.3		12.0			32.0
Progression Factor		1.00		1.00	1.00		0.07		1.00			1.00
Incremental Delay, d2		0.4		0.6	0.1		0.0		0.0			0.0
Delay (s)		20.9		28.6	12.2		0.9		12.0			32.0
Level of Service		C		C	B		A		B			C
Approach Delay (s)		20.9			15.7			6.1			32.0	
Approach LOS		C			B			A			C	

Intersection Summary			
HCM 2000 Control Delay	16.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	67.1	Sum of lost time (s)	33.6
Intersection Capacity Utilization	33.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	8	4	134	10	14	160
Future Volume (vph)	8	4	134	10	14	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	11.0		11.2		4.2	4.2
Lane Util. Factor	1.00		0.95		1.00	1.00
Frpb, ped/bikes	1.00		1.00		1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00	1.00
Frt	0.95		0.99		1.00	1.00
Flt Protected	0.97		1.00		0.95	1.00
Satd. Flow (prot)	1739		3527		1787	1881
Flt Permitted	0.97		1.00		0.95	1.00
Satd. Flow (perm)	1739		3527		1787	1881
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	10	5	163	12	17	195
RTOR Reduction (vph)	5	0	5	0	0	0
Lane Group Flow (vph)	10	0	170	0	17	195
Confl. Peds. (#/hr)				11		
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Turn Type	Prot		NA		Split	NA
Protected Phases	4		3		10	10
Permitted Phases						
Actuated Green, G (s)	0.7		7.7		32.3	32.3
Effective Green, g (s)	0.7		7.7		32.3	32.3
Actuated g/C Ratio	0.01		0.11		0.48	0.48
Clearance Time (s)	11.0		11.2		4.2	4.2
Vehicle Extension (s)	2.0		2.0		2.0	2.0
Lane Grp Cap (vph)	18		404		860	905
v/s Ratio Prot	c0.01		c0.05		0.01	c0.10
v/s Ratio Perm						
v/c Ratio	0.56		0.42		0.02	0.22
Uniform Delay, d1	33.0		27.6		9.1	10.1
Progression Factor	1.00		1.00		0.06	0.07
Incremental Delay, d2	19.6		0.3		0.0	0.0
Delay (s)	52.6		27.9		0.6	0.8
Level of Service	D		C		A	A
Approach Delay (s)	52.6		27.9			0.8
Approach LOS	D		C			A

Intersection Summary			
HCM 2000 Control Delay	14.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	67.1	Sum of lost time (s)	36.6
Intersection Capacity Utilization	28.8%	ICU Level of Service	A
Analysis Period (min)	15		

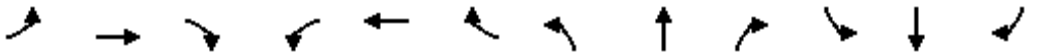
c Critical Lane Group

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	24	29	19	37	14	46	4	72	18	32	45	10
Future Vol, veh/h	24	29	19	37	14	46	4	72	18	32	45	10
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	1	1	1	1	1	1	0	0	0	4	4	4
Mvmt Flow	27	33	21	42	16	52	4	81	20	36	51	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.9	7.9	8	8.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	33%	38%	37%
Vol Thru, %	77%	40%	14%	52%
Vol Right, %	19%	26%	47%	11%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	94	72	97	87
LT Vol	4	24	37	32
Through Vol	72	29	14	45
RT Vol	18	19	46	10
Lane Flow Rate	106	81	109	98
Geometry Grp	1	1	1	1
Degree of Util (X)	0.127	0.099	0.129	0.123
Departure Headway (Hd)	4.33	4.408	4.263	4.513
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	830	814	842	796
Service Time	2.347	2.428	2.282	2.531
HCM Lane V/C Ratio	0.128	0.1	0.129	0.123
HCM Control Delay	8	7.9	7.9	8.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.3	0.4	0.4



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	268	37	119	231	10	21	10	113	34	162	103
Future Volume (veh/h)	22	268	37	119	231	10	21	10	113	34	162	103
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	25	308	43	137	266	11	24	11	130	39	186	118
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	1	1	1
Cap, veh/h	32	883	122	213	1334	55	276	103	415	141	422	411
Arrive On Green	0.02	0.28	0.28	0.12	0.38	0.38	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1795	3157	436	1795	3505	144	529	395	1593	174	1623	1581
Grp Volume(v), veh/h	25	173	178	137	135	142	35	0	130	225	0	118
Grp Sat Flow(s),veh/h/ln	1795	1791	1803	1795	1791	1858	924	0	1593	1797	0	1581
Q Serve(g_s), s	0.6	3.4	3.5	3.2	2.2	2.2	0.1	0.0	2.9	0.0	0.0	2.6
Cycle Q Clear(g_c), s	0.6	3.4	3.5	3.2	2.2	2.2	4.5	0.0	2.9	4.4	0.0	2.6
Prop In Lane	1.00		0.24	1.00		0.08	0.69		1.00	0.17		1.00
Lane Grp Cap(c), veh/h	32	501	504	213	681	707	378	0	415	564	0	411
V/C Ratio(X)	0.78	0.35	0.35	0.64	0.20	0.20	0.09	0.00	0.31	0.40	0.00	0.29
Avail Cap(c_a), veh/h	1021	1019	1026	1021	1019	1057	766	0	907	1098	0	899
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.5	12.6	12.6	18.5	9.1	9.1	12.4	0.0	13.1	13.7	0.0	13.0
Incr Delay (d2), s/veh	83.2	1.5	1.5	11.2	0.5	0.5	0.4	0.0	1.6	1.7	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	1.3	1.4	1.8	0.8	0.8	0.3	0.0	1.0	1.8	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	104.7	14.1	14.2	29.6	9.6	9.6	12.8	0.0	14.6	15.3	0.0	14.4
LnGrp LOS	F	B	B	C	A	A	B	A	B	B	A	B
Approach Vol, veh/h		376			414			165			343	
Approach Delay, s/veh		20.2			16.3			14.2			15.0	
Approach LOS		C			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.2	17.3		16.4	5.8	21.7		16.4				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	25.0	25.0		25.0	25.0	25.0		25.0				
Max Q Clear Time (g_c+I1), s	5.2	5.5		6.5	2.6	4.2		6.4				
Green Ext Time (p_c), s	1.2	3.6		1.6	0.1	2.8		3.5				

Intersection Summary			
HCM 6th Ctrl Delay		16.8	
HCM 6th LOS		B	

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	36	0	17	0	0	2	18	112	4	6	153	118
Future Vol, veh/h	36	0	17	0	0	2	18	112	4	6	153	118
Conflicting Peds, #/hr	5	0	2	2	0	5	4	0	6	6	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	1	1	1
Mvmt Flow	39	0	18	0	0	2	19	120	4	6	165	127

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	411	413	235	418	474	133	296	0	0	130	0	0
Stage 1	245	245	-	166	166	-	-	-	-	-	-	-
Stage 2	166	168	-	252	308	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.11	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.209	-	-
Pot Cap-1 Maneuver	555	532	809	549	492	922	1277	-	-	1462	-	-
Stage 1	763	707	-	841	765	-	-	-	-	-	-	-
Stage 2	841	763	-	757	664	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	540	516	804	524	477	912	1272	-	-	1454	-	-
Mov Cap-2 Maneuver	540	516	-	524	477	-	-	-	-	-	-	-
Stage 1	748	701	-	822	748	-	-	-	-	-	-	-
Stage 2	822	746	-	735	658	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.6	9	1.1	0.2
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1272	-	-	604	912	1454	-	-
HCM Lane V/C Ratio	0.015	-	-	0.094	0.002	0.004	-	-
HCM Control Delay (s)	7.9	0	-	11.6	9	7.5	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0	0	-	-

Intersection	
Int Delay, s/veh	2.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	46	98	51	76	92
Future Vol, veh/h	0	46	98	51	76	92
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	64	136	71	106	128

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	172	0	0	207	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	4.12	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	0	872	-	-	1364	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	872	-	-	1364	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.5	0	3.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	872	1364	-
HCM Lane V/C Ratio	-	-	0.073	0.077	-
HCM Control Delay (s)	-	-	9.5	7.9	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.3	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	9	61	86	12	8	8
Future Vol, veh/h	9	61	86	12	8	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	69	98	14	9	9

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	112	0	-	0	194	105
Stage 1	-	-	-	-	105	-
Stage 2	-	-	-	-	89	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1478	-	-	-	795	949
Stage 1	-	-	-	-	919	-
Stage 2	-	-	-	-	934	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1478	-	-	-	789	949
Mov Cap-2 Maneuver	-	-	-	-	789	-
Stage 1	-	-	-	-	913	-
Stage 2	-	-	-	-	934	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	9.3
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1478	-	-	-	862
HCM Lane V/C Ratio	0.007	-	-	-	0.021
HCM Control Delay (s)	7.5	0	-	-	9.3
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

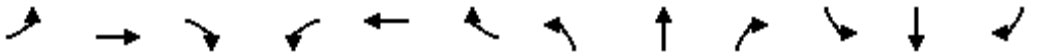
Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	69	87	6	1	10
Future Vol, veh/h	10	69	87	6	1	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	76	96	7	1	11

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	103	0	-	0	198	100
Stage 1	-	-	-	-	100	-
Stage 2	-	-	-	-	98	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1489	-	-	-	791	956
Stage 1	-	-	-	-	924	-
Stage 2	-	-	-	-	926	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1489	-	-	-	785	956
Mov Cap-2 Maneuver	-	-	-	-	785	-
Stage 1	-	-	-	-	917	-
Stage 2	-	-	-	-	926	-

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1489	-	-	-	937
HCM Lane V/C Ratio	0.007	-	-	-	0.013
HCM Control Delay (s)	7.4	0	-	-	8.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	315	58	48	377	0	109	0	91	0	0	12
Future Volume (vph)	0	315	58	48	377	0	109	0	91	0	0	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		8.9		2.5	3.9		3.2		3.2			2.5
Lane Util. Factor		0.95		1.00	0.95		1.00		1.00			1.00
Frpb, ped/bikes		1.00		1.00	1.00		1.00		1.00			1.00
Flpb, ped/bikes		1.00		1.00	1.00		1.00		1.00			1.00
Frt		0.98		1.00	1.00		1.00		0.85			0.86
Flt Protected		1.00		0.95	1.00		0.95		1.00			1.00
Satd. Flow (prot)		3479		1787	3574		1787		1599			1644
Flt Permitted		1.00		0.95	1.00		0.95		1.00			1.00
Satd. Flow (perm)		3479		1787	3574		1787		1599			1644
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	0	366	67	56	438	0	127	0	106	0	0	14
RTOR Reduction (vph)	0	13	0	0	0	0	0	0	59	0	0	14
Lane Group Flow (vph)	0	420	0	56	438	0	127	0	47	0	0	0
Confl. Peds. (#/hr)			9	9			7		15			7
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	0%	0%	0%
Turn Type		NA		Prot	NA		Prot		Prot			Prot
Protected Phases		2		1	6		9		9			5
Permitted Phases												
Actuated Green, G (s)		15.3		3.9	24.6		28.4		28.4			0.6
Effective Green, g (s)		17.3		4.9	25.6		29.4		29.4			1.6
Actuated g/C Ratio		0.26		0.07	0.39		0.44		0.44			0.02
Clearance Time (s)		10.9		3.5	4.9		4.2		4.2			3.5
Vehicle Extension (s)		3.0		2.0	3.0		2.0		2.0			2.0
Lane Grp Cap (vph)		909		132	1382		793		710			39
v/s Ratio Prot		c0.12		c0.03	0.12		c0.07		0.03			0.00
v/s Ratio Perm												
v/c Ratio		0.46		0.42	0.32		0.16		0.07			0.01
Uniform Delay, d1		20.5		29.3	14.2		11.0		10.5			31.5
Progression Factor		1.00		1.00	1.00		0.06		0.19			1.00
Incremental Delay, d2		0.4		0.8	0.1		0.0		0.0			0.0
Delay (s)		20.9		30.1	14.3		0.7		2.1			31.6
Level of Service		C		C	B		A		A			C
Approach Delay (s)		20.9			16.1			1.3			31.6	
Approach LOS		C			B			A			C	

Intersection Summary			
HCM 2000 Control Delay	15.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	66.2	Sum of lost time (s)	33.6
Intersection Capacity Utilization	34.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	9	10	190	10	19	87
Future Volume (vph)	9	10	190	10	19	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	11.0		11.2		4.2	4.2
Lane Util. Factor	1.00		0.95		1.00	1.00
Frpb, ped/bikes	1.00		1.00		1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00	1.00
Frt	0.93		0.99		1.00	1.00
Flt Protected	0.98		1.00		0.95	1.00
Satd. Flow (prot)	1708		3539		1787	1881
Flt Permitted	0.98		1.00		0.95	1.00
Satd. Flow (perm)	1708		3539		1787	1881
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	11	12	224	12	22	102
RTOR Reduction (vph)	12	0	3	0	0	0
Lane Group Flow (vph)	11	0	233	0	22	102
Confl. Peds. (#/hr)				11		
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Turn Type	Prot		NA		Split	NA
Protected Phases	4		3		10	10
Permitted Phases						
Actuated Green, G (s)	1.5		8.9		29.4	29.4
Effective Green, g (s)	1.5		8.9		29.4	29.4
Actuated g/C Ratio	0.02		0.13		0.44	0.44
Clearance Time (s)	11.0		11.2		4.2	4.2
Vehicle Extension (s)	2.0		2.0		2.0	2.0
Lane Grp Cap (vph)	38		475		793	835
v/s Ratio Prot	c0.01		c0.07		0.01	c0.05
v/s Ratio Perm						
v/c Ratio	0.30		0.49		0.03	0.12
Uniform Delay, d1	31.8		26.5		10.4	10.8
Progression Factor	1.00		1.00		0.03	0.03
Incremental Delay, d2	1.6		0.3		0.0	0.0
Delay (s)	33.4		26.8		0.3	0.3
Level of Service	C		C		A	A
Approach Delay (s)	33.4		26.8			0.3
Approach LOS	C		C			A

Intersection Summary			
HCM 2000 Control Delay	18.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.28		
Actuated Cycle Length (s)	66.2	Sum of lost time (s)	36.6
Intersection Capacity Utilization	31.8%	ICU Level of Service	A
Analysis Period (min)	15		

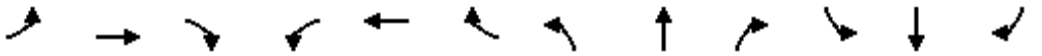
c Critical Lane Group

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	32	11	17	27	55	4	36	25	32	33	14
Future Vol, veh/h	12	32	11	17	27	55	4	36	25	32	33	14
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles, %	2	2	2	0	0	0	0	0	0	0	0	0
Mvmt Flow	15	41	14	22	35	71	5	46	32	41	42	18
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.8	7.8	7.7	8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	22%	17%	41%
Vol Thru, %	55%	58%	27%	42%
Vol Right, %	38%	20%	56%	18%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	65	55	99	79
LT Vol	4	12	17	32
Through Vol	36	32	27	33
RT Vol	25	11	55	14
Lane Flow Rate	83	71	127	101
Geometry Grp	1	1	1	1
Degree of Util (X)	0.098	0.086	0.144	0.124
Departure Headway (Hd)	4.224	4.402	4.092	4.395
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	850	816	878	818
Service Time	2.24	2.42	2.107	2.409
HCM Lane V/C Ratio	0.098	0.087	0.145	0.123
HCM Control Delay	7.7	7.8	7.8	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.3	0.5	0.4



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	360	65	84	259	10	56	17	205	36	100	83
Future Volume (veh/h)	22	360	65	84	259	10	56	17	205	36	100	83
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1870	1870	1870	1841	1841	1841	1885	1885	1885
Adj Flow Rate, veh/h	24	396	71	92	285	11	62	19	225	40	110	91
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	2	2	2	4	4	4	1	1	1
Cap, veh/h	31	876	156	136	1205	46	369	94	447	183	419	458
Arrive On Green	0.02	0.29	0.29	0.08	0.35	0.35	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1810	3057	543	1781	3488	134	763	323	1537	267	1441	1575
Grp Volume(v), veh/h	24	232	235	92	145	151	81	0	225	150	0	91
Grp Sat Flow(s),veh/h/ln	1810	1805	1795	1781	1777	1845	1086	0	1537	1708	0	1575
Q Serve(g_s), s	0.6	4.6	4.6	2.2	2.5	2.5	1.3	0.0	5.3	0.0	0.0	1.9
Cycle Q Clear(g_c), s	0.6	4.6	4.6	2.2	2.5	2.5	4.0	0.0	5.3	2.7	0.0	1.9
Prop In Lane	1.00		0.30	1.00		0.07	0.77		1.00	0.27		1.00
Lane Grp Cap(c), veh/h	31	517	515	136	614	637	463	0	447	602	0	458
V/C Ratio(X)	0.76	0.45	0.46	0.68	0.24	0.24	0.18	0.00	0.50	0.25	0.00	0.20
Avail Cap(c_a), veh/h	1044	1041	1036	1027	1025	1064	823	0	887	1060	0	908
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.2	12.7	12.7	19.5	10.1	10.1	12.4	0.0	12.8	11.8	0.0	11.6
Incr Delay (d2), s/veh	82.1	2.2	2.3	19.3	0.7	0.7	0.6	0.0	3.2	0.8	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.8	1.9	1.5	0.9	0.9	0.6	0.0	1.9	1.1	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	103.3	14.9	15.0	38.8	10.8	10.8	13.1	0.0	15.9	12.6	0.0	12.3
LnGrp LOS	F	B	B	D	B	B	B	A	B	B	A	B
Approach Vol, veh/h		491			388			306			241	
Approach Delay, s/veh		19.2			17.5			15.2			12.5	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.3	17.4		17.6	5.8	20.0		17.6				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	25.0	25.0		25.0	25.0	25.0		25.0				
Max Q Clear Time (g_c+I1), s	4.2	6.6		7.3	2.6	4.5		4.7				
Green Ext Time (p_c), s	0.8	4.8		3.2	0.1	3.0		2.5				

Intersection Summary			
HCM 6th Ctrl Delay		16.7	
HCM 6th LOS		B	

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	110	1	24	4	2	21	23	108	4	18	115	88
Future Vol, veh/h	110	1	24	4	2	21	23	108	4	18	115	88
Conflicting Peds, #/hr	1	0	7	7	0	1	3	0	18	18	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	5	5	5	0	0	0	3	3	3	1	1	1
Mvmt Flow	116	1	25	4	2	22	24	114	4	19	121	93

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	386	393	178	408	437	135	217	0	0	136	0	0
Stage 1	209	209	-	182	182	-	-	-	-	-	-	-
Stage 2	177	184	-	226	255	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.1	6.5	6.2	4.13	-	-	4.11	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.5	4	3.3	2.227	-	-	2.209	-	-
Pot Cap-1 Maneuver	567	539	857	557	516	919	1347	-	-	1454	-	-
Stage 1	786	724	-	824	753	-	-	-	-	-	-	-
Stage 2	818	742	-	781	700	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	535	510	849	513	489	902	1343	-	-	1429	-	-
Mov Cap-2 Maneuver	535	510	-	513	489	-	-	-	-	-	-	-
Stage 1	769	711	-	794	726	-	-	-	-	-	-	-
Stage 2	780	715	-	740	687	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.4	9.9	1.3	0.6
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1343	-	-	572	768	1429	-	-
HCM Lane V/C Ratio	0.018	-	-	0.248	0.037	0.013	-	-
HCM Control Delay (s)	7.7	0	-	13.4	9.9	7.6	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1	0.1	0	-	-

Intersection	
Int Delay, s/veh	4.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	130	70	7	28	68
Future Vol, veh/h	0	130	70	7	28	68
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	0	151	81	8	33	79

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	85	0	0	89	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.21	-	-	4.11	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.309	-	-	2.209	-
Pot Cap-1 Maneuver	0	977	-	-	1513	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	977	-	-	1513	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	2.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	977	1513	-
HCM Lane V/C Ratio	-	-	0.155	0.022	-
HCM Control Delay (s)	-	-	9.4	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0.1	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	86	83	10	15	10
Future Vol, veh/h	5	86	83	10	15	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	65	65	65	65	65	65
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	132	128	15	23	15

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	143	0	-	0	284	136
Stage 1	-	-	-	-	136	-
Stage 2	-	-	-	-	148	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1440	-	-	-	706	913
Stage 1	-	-	-	-	890	-
Stage 2	-	-	-	-	880	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1440	-	-	-	702	913
Mov Cap-2 Maneuver	-	-	-	-	702	-
Stage 1	-	-	-	-	885	-
Stage 2	-	-	-	-	880	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1440	-	-	-	774
HCM Lane V/C Ratio	0.005	-	-	-	0.05
HCM Control Delay (s)	7.5	0	-	-	9.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	84	83	10	7	16
Future Vol, veh/h	5	84	83	10	7	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	69	69	69	69	69	69
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	122	120	14	10	23

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	134	0	-	0	263	127
Stage 1	-	-	-	-	127	-
Stage 2	-	-	-	-	136	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1451	-	-	-	726	923
Stage 1	-	-	-	-	899	-
Stage 2	-	-	-	-	890	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1451	-	-	-	722	923
Mov Cap-2 Maneuver	-	-	-	-	722	-
Stage 1	-	-	-	-	895	-
Stage 2	-	-	-	-	890	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	9.4
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1451	-	-	-	851
HCM Lane V/C Ratio	0.005	-	-	-	0.039
HCM Control Delay (s)	7.5	0	-	-	9.4
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Salinas - SVMH TMCs and Driveways
10/30/2018
IDAX Data Solutions

Location 8 - Breschini Energy Lot															
Vehicles												Pedestrians		Bikes	
Time	IN			Out							Time	Crossing			
	EBL	WBR	NBT	SBL	SBR	SBT	In	Out	Total	Hour		EB	WB	EB	WB
6:00 AM		1	0	0	0	0	1	0	1			1	0	0	0
6:15 AM	1	1	0	0	0	0	2	0	2			0	0	0	0
6:30 AM	3	0	0	0	0	0	3	0	3			0	0	0	0
6:45 AM	2	1	0	0	4	0	3	4	7	13		5	0	0	0
7:00 AM	0	0	0	0	1	0	0	1	1	13		2	0	0	0
7:15 AM	2	0	0	1	3	0	2	4	6	17		0	0	0	0
7:30 AM	1	0	0	0	1	0	1	1	2	16		0	0	0	0
7:45 AM	1	0	0	0	4	0	1	4	5	14		1	2	0	0
8:00 AM	0	0	0	0	1	0	0	1	1	14		10	6	0	0
8:15 AM	0	1	0	0	1	0	1	1	2	10		1	1	0	0
8:30 AM	2	0	0	0	1	0	2	1	3	11		2	0	0	0
8:45 AM	1	3	0	4	2	0	4	6	10	16		1	0	0	0
3:00 PM	0	0	0	0	6	0	0	6	6			3	3	0	0
3:15 PM	1	0	0	1	0	0	1	1	2			0	7	0	0
3:30 PM	1	0	0	0	7	0	1	7	8			0	7	0	0
3:45 PM	2	0	0	0	0	0	2	0	2	18		4	2	0	0
4:00 PM	0	0	0	3	1	0	0	4	4	16		0	0	0	0
4:15 PM	0	0	0	0	1	0	0	1	1	15		1	4	0	0
4:30 PM	1	0	0	0	2	0	1	2	3	10		0	5	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	8		3	0	0	0
5:00 PM	0	0	0	1	2	0	0	3	3	7		3	5	0	0
5:15 PM	0	0	0	0	1	0	0	1	1	7		0	1	0	0
5:30 PM	1	0	0	0	2	0	1	2	3	7		0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	7		0	0	0	0
AM Total	13	7	0	5	18	0					AM Total	23	9	0	0
PM Total	6	0	0	5	22	0					PM Total	14	34	0	0
Daily	19	7	0	10	40	0					Daily	37	43	0	0

Salinas - SVMH TMCs and Driveways
10/30/2018
IDAX Data Solutions

Location 7 - DRC Parking Lot Entrance															
Vehicles												Pedestrians		Bikes	
Time	IN			Out							Time	Crossing			
	NBR	SBL	EBT	WBL	WBR	WBT	In	Out	Total	Hour		NB	SB	NB	SB
6:00 AM	1	8	0	0	1	0	9	1	10			0	0	0	0
6:15 AM	3	15	0	0	1	0	18	1	19			2	0	0	0
6:30 AM	11	35	0	0	0	0	46	0	46			2	1	0	0
6:45 AM	15	52	0	1	0	0	67	1	68	143		2	0	0	0
7:00 AM	10	16	0	0	2	0	26	2	28	161		3	0	0	0
7:15 AM	19	11	0	1	7	0	30	8	38	180		7	1	0	0
7:30 AM	13	25	0	5	33	0	38	38	76	210		5	6	0	1
7:45 AM	18	29	0	1	17	0	47	18	65	207		13	3	0	0
8:00 AM	11	18	0	1	15	1	29	17	46	225		12	11	0	0
8:15 AM	14	20	0	1	5	0	34	6	40	227		8	0	0	0
8:30 AM	13	16	0	1	7	1	29	9	38	189		5	7	0	0
8:45 AM	14	24	0	0	8	0	38	8	46	170		4	3	0	0
3:00 PM	4	5	0	1	20	0	9	21	30			15	7	0	0
3:15 PM	5	8	0	1	21	0	13	22	35			12	4	0	0
3:30 PM	3	13	0	6	52	0	16	58	74			2	8	0	0
3:45 PM	0	9	0	4	21	0	9	25	34	173		8	8	0	0
4:00 PM	2	4	0	6	22	0	6	28	34	177		2	8	0	0
4:15 PM	3	5	0	7	23	0	8	30	38	180		5	5	0	0
4:30 PM	2	7	0	7	31	1	9	39	48	154		3	12	0	0
4:45 PM	3	3	0	2	26	0	6	28	34	154		2	1	0	0
5:00 PM	1	7	0	4	24	0	8	28	36	156		10	5	0	0
5:15 PM	4	5	0	7	19	0	9	26	35	153		6	8	0	0
5:30 PM	3	7	0	8	17	0	10	25	35	140		5	3	0	0
5:45 PM	2	7	0	7	7	0	9	14	23	129		7	3	0	0
AM Total	142	269	0	11	96	2					AM Total	63	32	0	1
PM Total	32	80	0	60	283	1					PM Total	77	72	0	0
Daily	174	349	0	71	379	3					Daily	140	104	0	1

Salinas - SVMH TMCs and Driveways
10/30/2018
IDAX Data Solutions

Location 10 - ER Lot/San Jose															
Vehicles												Pedestrians		Bikes	
Time	IN			Out							Time	Crossing			
	EBL	WBR	NBT	SBL	SBR	SBT	In	Out	Total	Hour		EB	WB	EB	WB
6:00 AM	0	3	0	1	1	0	3	2	5			0	0	0	0
6:15 AM	2	8	0	3	0	0	10	3	13			0	0	0	0
6:30 AM	0	10	0	1	0	0	10	1	11			0	0	0	0
6:45 AM	2	6	0	1	2	0	8	3	11	40		0	0	0	0
7:00 AM	1	3	0	1	0	0	4	1	5	40		1	0	0	0
7:15 AM	1	4	0	3	2	0	5	5	10	37		0	0	0	0
7:30 AM	0	1	0	3	2	0	1	5	6	32		0	1	0	0
7:45 AM	2	4	0	0	3	0	6	3	9	30		2	1	0	0
8:00 AM	2	4	0	3	1	0	6	4	10	35		7	0	0	0
8:15 AM	0	1	0	2	1	0	1	3	4	29		2	0	0	0
8:30 AM	5	2	0	2	3	0	7	5	12	35		2	0	0	0
8:45 AM	5	7	0	2	4	0	12	6	18	44		1	0	0	0
3:00 PM	1	5	0	3	2	0	6	5	11			2	4	0	0
3:15 PM	3	5	0	2	0	0	8	2	10			0	0	0	0
3:30 PM	3	5	0	7	6	0	8	13	21			2	3	0	0
3:45 PM	2	0	0	4	1	0	2	5	7	49		1	3	0	0
4:00 PM	0	2	0	3	3	0	2	6	8	46		0	1	0	0
4:15 PM	0	2	1	0	0	0	3	0	3	39		0	4	0	0
4:30 PM	1	4	0	1	0	0	5	1	6	24		0	3	0	0
4:45 PM	0	1	0	0	0	0	1	0	1	18		2	0	0	0
5:00 PM	0	3	0	0	1	0	3	1	4	14		1	4	0	0
5:15 PM	0	2	0	2	0	0	2	2	4	15		0	1	0	0
5:30 PM	4	1	0	2	1	0	5	3	8	17		0	1	0	0
5:45 PM	1	1	0	0	1	0	2	1	3	19		0	0	0	0
AM Total	20	53	0	22	19	0					AM Total	15	2	0	0
PM Total	15	31	1	24	15	0					PM Total	8	24	0	0
Daily	35	84	1	46	34	0					Daily	23	26	0	0

Salinas - SVMH TMCs and Driveways
10/30/2018
IDAX Data Solutions

Location 6 - MRI Driveway															
Vehicles												Pedestrians		Bikes	
Time	IN			Out							Time	Crossing			
	NBR	SBL	EBT	WBL	WBR	WBT	In	Out	Total	Hour		NB	SB	NB	SB
6:00 AM	0	0	0	0	1	0	0	1	1			0	0	0	0
6:15 AM	2	0	0	2	0	0	2	2	4			0	0	0	0
6:30 AM	0	1	0	0	0	0	1	0	1			0	0	0	0
6:45 AM	2	3	0	1	1	0	5	2	7	13		0	0	0	0
7:00 AM	1	1	0	0	2	0	2	2	4	16		0	0	0	0
7:15 AM	1	4	0	1	0	0	5	1	6	18		0	1	0	0
7:30 AM	4	3	0	3	0	0	7	3	10	27		0	2	0	0
7:45 AM	3	4	0	3	4	0	7	7	14	34		3	0	0	0
8:00 AM	2	3	0	1	0	0	5	1	6	36		4	1	0	0
8:15 AM	2	5	0	3	3	0	7	6	13	43		2	0	0	0
8:30 AM	3	4	0	4	3	0	7	7	14	47		0	2	0	0
8:45 AM	5	8	0	4	4	0	13	8	21	54		0	2	0	0
3:00 PM	6	4	0	2	2	0	10	4	14			2	1	0	0
3:15 PM	2	6	0	3	3	0	8	6	14			5	2	0	0
3:30 PM	1	5	0	3	4	0	6	7	13			2	3	0	0
3:45 PM	1	4	0	1	1	0	5	2	7	48		1	4	0	0
4:00 PM	2	1	0	0	2	0	3	2	5	39		1	3	0	0
4:15 PM	3	4	0	1	1	0	7	2	9	34		4	2	0	0
4:30 PM	2	5	0	1	1	0	7	2	9	30		0	4	0	0
4:45 PM	1	5	0	1	3	0	6	4	10	33		0	1	0	0
5:00 PM	3	4	0	2	1	0	7	3	10	38		0	2	0	0
5:15 PM	2	4	0	0	5	0	6	5	11	40		1	1	0	0
5:30 PM	3	4	0	2	0	0	7	2	9	40		0	0	0	0
5:45 PM	1	5	0	3	2	0	6	5	11	41		4	2	0	0
AM Total	25	36	0	22	18	0					AM Total	9	8	0	0
PM Total	27	51	0	19	25	0					PM Total	20	25	0	0
Daily	52	87	0	41	43	0					Daily	29	33	0	0