APPENDIX A

Air Quality Analysis

Covina Banna Crossings - Revised

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	1.00	Acre	1.00	2,500.00	0
City Park	2.00	Acre	2.00	5,228.00	0
Single Family Housing	63.00	Dwelling Unit	5.15	169,479.00	191

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 63 single-family homes on 5.15 acres and 169,479 sq ft of building space. 2 acres of Park with 5,228 sq ft of painting. Assumed 1 acre of Other Asphalt Surfaces with 2,500 sq ft of street painting.

Construction Phase - Modified

Trips and VMT - 6 vendor truck trips/day added to Demolition, Site Preparation and Grading to account for water truck emissions. Demo total haul trips = 428

Demolition - 27,000 sq ft of buildings to demolished or 2,460 tons plus 1,813 tons of pavement demolished for a total of 4,273 tons.

Grading - Modified

Architectural Coating - Residential Exterior VOC set to 50 grams/Liter per SCAQMD Rule 1113 VOC limits.

Vehicle Trips - Single family housing trip rate set to 9.52 daily trips per home based on TIA.

Woodstoves - 63 Natural Gas Only Fireplaces

Area Coating - Modifed per Rule 1113

Construction Off-road Equipment Mitigation - Per Rule 403, Water Exposed Area 3x per day, Unpaved Roads - Moisture min 12% and vehicle speed 15 mph, replace ground cover. Per Rule 1186 clean paved roads

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	100.00	50.00
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	61
tblConstructionPhase	NumDays	20.00	282.00
tblConstructionPhase	NumDays	230.00	349.00
tblConstructionPhase	NumDays	20.00	30.00
tblConstructionPhase	PhaseEndDate	11/20/2018	11/20/2017
tblConstructionPhase	PhaseStartDate	10/21/2017	10/21/2016
tblFireplaces	NumberGas	53.55	63.00
tblFireplaces	NumberNoFireplace	6.30	0.00
tblFireplaces	NumberWood	3.15	0.00
tblGrading	AcresOfGrading	15.00	8.15
tblLandUse	LandUseSquareFeet	43,560.00	2,500.00
tblLandUse	LandUseSquareFeet	87,120.00	5,228.00
tblLandUse	LandUseSquareFeet	113,400.00	169,479.00
tblLandUse	LotAcreage	20.45	5.15
tblLandUse	Population	180.00	191.00
tblProjectCharacteristics	OperationalYear	2014	2018
tblTripsAndVMT	HaulingTripNumber	423.00	428.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblVehicleTrips	ST_TR	10.08	9.52
tblVehicleTrips	SU_TR	8.77	9.52
tblVehicleTrips	WD_TR	9.57	9.52

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					
2016	8.3883	55.2824	43.0204	0.0592	18.3049	2.9489	21.2538	9.9947	2.7130	12.7077	0.0000	6,001.2872	6,001.2872	1.2392	0.0000	6,027.3102
2017	8.0268	29.4188	22.7586	0.0358	0.3964	1.9675	2.3640	0.1061	1.8583	1.9644	0.0000	3,439.2999	3,439.2999	0.6999	0.0000	3,453.9972
Total	**16.4151**	**84.7013**	**65.7790**	**0.0950**	**18.7013**	**4.9164**	**23.6177**	**10.1008**	**4.5712**	**14.6720**	**0.0000**	**9,440.5871**	**9,440.5871**	**1.9391**	**0.0000**	**9,481.3074**

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					
2016	8.3883	55.2824	43.0204	0.0592	2.9865	2.9489	5.9354	1.5745	2.7130	4.2874	0.0000	6,001.2872	6,001.2872	1.2392	0.0000	6,027.3102
2017	8.0268	29.4188	22.7586	0.0358	0.3964	1.9675	2.3640	0.1061	1.8583	1.9644	0.0000	3,439.2999	3,439.2999	0.6999	0.0000	3,453.9972
Total	**16.4151**	**84.7013**	**65.7790**	**0.0950**	**3.3829**	**4.9164**	**8.2993**	**1.6806**	**4.5712**	**6.2518**	**0.0000**	**9,440.5871**	**9,440.5871**	**1.9391**	**0.0000**	**9,481.3074**

	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**	**81.91**	**0.00**	**64.86**	**83.36**	**0.00**	**57.39**	**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	5.9049	0.3127	20.6827	0.0507		2.6321	2.6321		2.6312	2.6312	371.8032	1,343.4771	1,715.2803	1.7730	0.0245	1,760.0945
Energy	0.0555	0.4740	0.2017	3.0300e-003		0.0383	0.0383		0.0383	0.0383		605.1440	605.1440	0.0116	0.0111	608.8268
Mobile	2.1161	6.3266	24.0337	0.0638	4.3722	0.0936	4.4659	1.1692	0.0863	1.2555		5,290.5612	5,290.5612	0.2100		5,294.9713
Total	**8.0765**	**7.1133**	**44.9181**	**0.1174**	**4.3722**	**2.7640**	**7.1362**	**1.1692**	**2.7558**	**3.9250**	**371.8032**	**7,239.1823**	**7,610.9855**	**1.9946**	**0.0356**	**7,663.8926**

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	5.9049	0.3127	20.6827	0.0507		2.6321	2.6321		2.6312	2.6312	371.8032	1,343.4771	1,715.2803	1.7730	0.0245	1,760.0945
Energy	0.0555	0.4740	0.2017	3.0300e-003		0.0383	0.0383		0.0383	0.0383		605.1440	605.1440	0.0116	0.0111	608.8268
Mobile	2.1161	6.3266	24.0337	0.0638	4.3722	0.0936	4.4659	1.1692	0.0863	1.2555		5,290.5612	5,290.5612	0.2100		5,294.9713
Total	**8.0765**	**7.1133**	**44.9181**	**0.1174**	**4.3722**	**2.7640**	**7.1362**	**1.1692**	**2.7558**	**3.9250**	**371.8032**	**7,239.1823**	**7,610.9855**	**1.9946**	**0.0356**	**7,663.8926**

	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	3/1/2016	3/28/2016	5	20	
2	Site Preparation	Site Preparation	3/29/2016	4/11/2016	5	10	
3	Grading	Grading	4/12/2016	5/23/2016	5	30	
4	Paving	Paving	5/24/2016	6/20/2016	5	20	
5	Building Construction	Building Construction	6/21/2016	10/20/2017	5	349	
6	Architectural Coating	Architectural Coating	10/21/2016	11/20/2017	5	282	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 8.15

Acres of Paving: 0

Residential Indoor: 343,195; Residential Outdoor: 114,398; Non-Residential Indoor: 11,592; Non-Residential Outdoor: 3,864 (Architectural

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	6.00	428.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	26.00	8.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	14.70	6.90	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

3.2 Demolition - 2016

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					4.5719	0.0000	4.5719	0.6922	0.0000	0.6922			0.0000			0.0000
Off-Road	4.2876	45.6559	35.0303	0.0399		2.2921	2.2921		2.1365	2.1365		4,089.2841	4,089.2841	1.1121		4,112.6374
Total	**4.2876**	**45.6559**	**35.0303**	**0.0399**	**4.5719**	**2.2921**	**6.8640**	**0.6922**	**2.1365**	**2.8288**		**4,089.2841**	**4,089.2841**	**1.1121**		**4,112.6374**

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	0.3992	6.2098	4.9342	0.0160	0.3727	0.0890	0.4617	0.1020	0.0819	0.1839		1,606.9632	1,606.9632	0.0121		1,607.2165
Vendor	0.0558	0.5382	0.7427	1.3100e-003	0.0374	8.3000e-003	0.0457	0.0107	7.6300e-003	0.0183		131.0353	131.0353	1.0000e-003		131.0562
Worker	0.0695	0.0932	0.9771	2.0600e-003	0.1677	1.5900e-003	0.1693	0.0445	1.4600e-003	0.0459		174.0047	174.0047	0.0100		174.2154
Total	**0.5244**	**6.8413**	**6.6539**	**0.0193**	**0.5777**	**0.0989**	**0.6767**	**0.1572**	**0.0910**	**0.2481**		**1,912.0032**	**1,912.0032**	**0.0231**		**1,912.4881**

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					0.6954	0.0000	0.6954	0.1053	0.0000	0.1053			0.0000			0.0000
Off-Road	4.2876	45.6559	35.0303	0.0399		2.2921	2.2921		2.1365	2.1365	0.0000	4,089.2841	4,089.2841	1.1121		4,112.6374
Total	**4.2876**	**45.6559**	**35.0303**	**0.0399**	**0.6954**	**2.2921**	**2.9875**	**0.1053**	**2.1365**	**2.2418**	**0.0000**	**4,089.2841**	**4,089.2841**	**1.1121**		**4,112.6374**

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	0.3992	6.2098	4.9342	0.0160	0.3727	0.0890	0.4617	0.1020	0.0819	0.1839		1,606.9632	1,606.9632	0.0121		1,607.2165
Vendor	0.0558	0.5382	0.7427	1.3100e-003	0.0374	8.3000e-003	0.0457	0.0107	7.6300e-003	0.0183		131.0353	131.0353	1.0000e-003		131.0562
Worker	0.0695	0.0932	0.9771	2.0600e-003	0.1677	1.5900e-003	0.1693	0.0445	1.4600e-003	0.0459		174.0047	174.0047	0.0100		174.2154
Total	**0.5244**	**6.8413**	**6.6539**	**0.0193**	**0.5777**	**0.0989**	**0.6767**	**0.1572**	**0.0910**	**0.2481**		**1,912.0032**	**1,912.0032**	**0.0231**		**1,912.4881**

3.3 Site Preparation - 2016

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.0771	54.6323	41.1053	0.0391		2.9387	2.9387		2.7036	2.7036		4,065.0053	4,065.0053	1.2262		4,090.7544
Total	**5.0771**	**54.6323**	**41.1053**	**0.0391**	**18.0663**	**2.9387**	**21.0049**	**9.9307**	**2.7036**	**12.6343**		**4,065.0053**	**4,065.0053**	**1.2262**		**4,090.7544**

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	0.0558	0.5382	0.7427	1.3100e-003	0.0374	8.3000e-003	0.0457	0.0107	7.6300e-003	0.0183		131.0353	131.0353	1.0000e-003		131.0562
Worker	0.0834	0.1119	1.1725	2.4700e-003	0.2012	1.9000e-003	0.2031	0.0534	1.7500e-003	0.0551		208.8056	208.8056	0.0120		209.0585
Total	**0.1392**	**0.6501**	**1.9152**	**3.7800e-003**	**0.2386**	**0.0102**	**0.2488**	**0.0640**	**9.3800e-003**	**0.0734**		**339.8409**	**339.8409**	**0.0130**		**340.1147**

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					2.7479	0.0000	2.7479	1.5105	0.0000	1.5105			0.0000			0.0000
Off-Road	5.0771	54.6323	41.1053	0.0391		2.9387	2.9387		2.7036	2.7036	0.0000	4,065.0053	4,065.0053	1.2262		4,090.7544
Total	**5.0771**	**54.6323**	**41.1053**	**0.0391**	**2.7479**	**2.9387**	**5.6866**	**1.5105**	**2.7036**	**4.2140**	**0.0000**	**4,065.0053**	**4,065.0053**	**1.2262**		**4,090.7544**

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	0.0558	0.5382	0.7427	1.3100e-003	0.0374	8.3000e-003	0.0457	0.0107	7.6300e-003	0.0183		131.0353	131.0353	1.0000e-003		131.0562
Worker	0.0834	0.1119	1.1725	2.4700e-003	0.2012	1.9000e-003	0.2031	0.0534	1.7500e-003	0.0551		208.8056	208.8056	0.0120		209.0585
Total	**0.1392**	**0.6501**	**1.9152**	**3.7800e-003**	**0.2386**	**0.0102**	**0.2488**	**0.0640**	**9.3800e-003**	**0.0734**		**339.8409**	**339.8409**	**0.0130**		**340.1147**

3.4 Grading - 2016

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					6.3102	0.0000	6.3102	3.3413	0.0000	3.3413			0.0000			0.0000
Off-Road	3.6669	38.4466	26.0787	0.0298		2.1984	2.1984		2.0225	2.0225		3,093.7889	3,093.7889	0.9332		3,113.3860
Total	**3.6669**	**38.4466**	**26.0787**	**0.0298**	**6.3102**	**2.1984**	**8.5086**	**3.3413**	**2.0225**	**5.3639**		**3,093.7889**	**3,093.7889**	**0.9332**		**3,113.3860**

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	0.0558	0.5382	0.7427	1.3100e-003	0.0374	8.3000e-003	0.0457	0.0107	7.6300e-003	0.0183		131.0353	131.0353	1.0000e-003		131.0562
Worker	0.0695	0.0932	0.9771	2.0600e-003	0.1677	1.5900e-003	0.1693	0.0445	1.4600e-003	0.0459		174.0047	174.0047	0.0100		174.2154
Total	**0.1253**	**0.6315**	**1.7198**	**3.3700e-003**	**0.2051**	**9.8900e-003**	**0.2150**	**0.0551**	**9.0900e-003**	**0.0642**		**305.0399**	**305.0399**	**0.0110**		**305.2716**

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					0.9598	0.0000	0.9598	0.5082	0.0000	0.5082			0.0000			0.0000
Off-Road	3.6669	38.4466	26.0787	0.0298		2.1984	2.1984		2.0225	2.0225	0.0000	3,093.7889	3,093.7889	0.9332		3,113.3860
Total	**3.6669**	**38.4466**	**26.0787**	**0.0298**	**0.9598**	**2.1984**	**3.1582**	**0.5082**	**2.0225**	**2.5308**	**0.0000**	**3,093.7889**	**3,093.7889**	**0.9332**		**3,113.3860**

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	0.0558	0.5382	0.7427	1.3100e-003	0.0374	8.3000e-003	0.0457	0.0107	7.6300e-003	0.0183		131.0353	131.0353	1.0000e-003		131.0562
Worker	0.0695	0.0932	0.9771	2.0600e-003	0.1677	1.5900e-003	0.1693	0.0445	1.4600e-003	0.0459		174.0047	174.0047	0.0100		174.2154
Total	**0.1253**	**0.6315**	**1.7198**	**3.3700e-003**	**0.2051**	**9.8900e-003**	**0.2150**	**0.0551**	**9.0900e-003**	**0.0642**		**305.0399**	**305.0399**	**0.0110**		**305.2716**

3.5 Paving - 2016

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	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601		2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.1310					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.2208**	**22.3859**	**14.8176**	**0.0223**		**1.2610**	**1.2610**		**1.1601**	**1.1601**		**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

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	0.0695	0.0932	0.9771	2.0600e-003	0.1677	1.5900e-003	0.1693	0.0445	1.4600e-003	0.0459		174.0047	174.0047	0.0100		174.2154
Total	**0.0695**	**0.0932**	**0.9771**	**2.0600e-003**	**0.1677**	**1.5900e-003**	**0.1693**	**0.0445**	**1.4600e-003**	**0.0459**		**174.0047**	**174.0047**	**0.0100**		**174.2154**

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	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601	0.0000	2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.1310					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.2208**	**22.3859**	**14.8176**	**0.0223**		**1.2610**	**1.2610**		**1.1601**	**1.1601**	**0.0000**	**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

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	0.0695	0.0932	0.9771	2.0600e-003	0.1677	1.5900e-003	0.1693	0.0445	1.4600e-003	0.0459		174.0047	174.0047	0.0100		174.2154
Total	**0.0695**	**0.0932**	**0.9771**	**2.0600e-003**	**0.1677**	**1.5900e-003**	**0.1693**	**0.0445**	**1.4600e-003**	**0.0459**		**174.0047**	**174.0047**	**0.0100**		**174.2154**

3.6 Building Construction - 2016

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	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485		2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**		**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

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	0.0744	0.7177	0.9903	1.7500e-003	0.0499	0.0111	0.0610	0.0142	0.0102	0.0244		174.7137	174.7137	1.3300e-003		174.7416
Worker	0.1205	0.1616	1.6936	3.5700e-003	0.2906	2.7500e-003	0.2934	0.0771	2.5300e-003	0.0796		301.6081	301.6081	0.0174		301.9734
Total	**0.1948**	**0.8793**	**2.6838**	**5.3200e-003**	**0.3405**	**0.0138**	**0.3543**	**0.0913**	**0.0127**	**0.1040**		**476.3218**	**476.3218**	**0.0187**		**476.7150**

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	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485	0.0000	2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**	**0.0000**	**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

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	0.0744	0.7177	0.9903	1.7500e-003	0.0499	0.0111	0.0610	0.0142	0.0102	0.0244		174.7137	174.7137	1.3300e-003		174.7416
Worker	0.1205	0.1616	1.6936	3.5700e-003	0.2906	2.7500e-003	0.2934	0.0771	2.5300e-003	0.0796		301.6081	301.6081	0.0174		301.9734
Total	**0.1948**	**0.8793**	**2.6838**	**5.3200e-003**	**0.3405**	**0.0138**	**0.3543**	**0.0913**	**0.0127**	**0.1040**		**476.3218**	**476.3218**	**0.0187**		**476.7150**

3.6 Building Construction - 2017

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	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**		**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

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	0.0677	0.6539	0.9393	1.7400e-003	0.0499	9.8500e-003	0.0598	0.0142	9.0600e-003	0.0233		171.9205	171.9205	1.2900e-003		171.9476
Worker	0.1080	0.1462	1.5282	3.5600e-003	0.2906	2.6300e-003	0.2933	0.0771	2.4300e-003	0.0795		290.2992	290.2992	0.0161		290.6368
Total	**0.1757**	**0.8001**	**2.4675**	**5.3000e-003**	**0.3405**	**0.0125**	**0.3530**	**0.0913**	**0.0115**	**0.1028**		**462.2197**	**462.2197**	**0.0174**		**462.5844**

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	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	0.0000	2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**	**0.0000**	**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

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	0.0677	0.6539	0.9393	1.7400e-003	0.0499	9.8500e-003	0.0598	0.0142	9.0600e-003	0.0233		171.9205	171.9205	1.2900e-003		171.9476
Worker	0.1080	0.1462	1.5282	3.5600e-003	0.2906	2.6300e-003	0.2933	0.0771	2.4300e-003	0.0795		290.2992	290.2992	0.0161		290.6368
Total	**0.1757**	**0.8001**	**2.4675**	**5.3000e-003**	**0.3405**	**0.0125**	**0.3530**	**0.0913**	**0.0115**	**0.1028**		**462.2197**	**462.2197**	**0.0174**		**462.5844**

3.7 Architectural Coating - 2016

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	4.3956					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449
Total	**4.7641**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

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	0.0232	0.0311	0.3257	6.9000e-004	0.0559	5.3000e-004	0.0564	0.0148	4.9000e-004	0.0153		58.0016	58.0016	3.3500e-003		58.0718
Total	**0.0232**	**0.0311**	**0.3257**	**6.9000e-004**	**0.0559**	**5.3000e-004**	**0.0564**	**0.0148**	**4.9000e-004**	**0.0153**		**58.0016**	**58.0016**	**3.3500e-003**		**58.0718**

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	4.3956					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**4.7641**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

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	0.0232	0.0311	0.3257	6.9000e-004	0.0559	5.3000e-004	0.0564	0.0148	4.9000e-004	0.0153		58.0016	58.0016	3.3500e-003		58.0718
Total	**0.0232**	**0.0311**	**0.3257**	**6.9000e-004**	**0.0559**	**5.3000e-004**	**0.0564**	**0.0148**	**4.9000e-004**	**0.0153**		**58.0016**	**58.0016**	**3.3500e-003**		**58.0718**

3.7 Architectural Coating - 2017

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	4.3956					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721
Total	**4.7279**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**		**281.4481**	**281.4481**	**0.0297**		**282.0721**

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	0.0208	0.0281	0.2939	6.9000e-004	0.0559	5.1000e-004	0.0564	0.0148	4.7000e-004	0.0153		55.8268	55.8268	3.0900e-003		55.8917
Total	**0.0208**	**0.0281**	**0.2939**	**6.9000e-004**	**0.0559**	**5.1000e-004**	**0.0564**	**0.0148**	**4.7000e-004**	**0.0153**		**55.8268**	**55.8268**	**3.0900e-003**		**55.8917**

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	4.3956					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.0721
Total	**4.7279**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**	**0.0000**	**281.4481**	**281.4481**	**0.0297**		**282.0721**

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	0.0208	0.0281	0.2939	6.9000e-004	0.0559	5.1000e-004	0.0564	0.0148	4.7000e-004	0.0153		55.8268	55.8268	3.0900e-003		55.8917
Total	**0.0208**	**0.0281**	**0.2939**	**6.9000e-004**	**0.0559**	**5.1000e-004**	**0.0564**	**0.0148**	**4.7000e-004**	**0.0153**		**55.8268**	**55.8268**	**3.0900e-003**		**55.8917**

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	2.1161	6.3266	24.0337	0.0638	4.3722	0.0936	4.4659	1.1692	0.0863	1.2555		5,290.5612	5,290.5612	0.2100		5,294.9713
Unmitigated	2.1161	6.3266	24.0337	0.0638	4.3722	0.0936	4.4659	1.1692	0.0863	1.2555		5,290.5612	5,290.5612	0.2100		5,294.9713

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	3.18	3.18	3.18	9,151	9,151
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	599.76	599.76	599.76	2,049,471	2,049,471
Total	602.94	602.94	602.94	2,058,622	2,058,622

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.531767	0.058060	0.178534	0.124864	0.038964	0.006284	0.016861	0.033134	0.002486	0.003151	0.003685	0.000540	0.001671

5.0 Energy Detail

Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0555	0.4740	0.2017	3.0300e-003		0.0383	0.0383		0.0383	0.0383		605.1440	605.1440	0.0116	0.0111	608.8268
NaturalGas Unmitigated	0.0555	0.4740	0.2017	3.0300e-003		0.0383	0.0383		0.0383	0.0383		605.1440	605.1440	0.0116	0.0111	608.8268

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					
Other Asphalt Surfaces	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
Single Family Housing	5143.72	0.0555	0.4740	0.2017	3.0300e-003		0.0383	0.0383		0.0383	0.0383		605.1440	605.1440	0.0116	0.0111	608.8268
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0555**	**0.4740**	**0.2017**	**3.0300e-003**		**0.0383**	**0.0383**		**0.0383**	**0.0383**		**605.1440**	**605.1440**	**0.0116**	**0.0111**	**608.8268**

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					
Other Asphalt Surfaces	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
Single Family Housing	5.14372	0.0555	0.4740	0.2017	3.0300e-003		0.0383	0.0383		0.0383	0.0383		605.1440	605.1440	0.0116	0.0111	608.8268
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0555**	**0.4740**	**0.2017**	**3.0300e-003**		**0.0383**	**0.0383**		**0.0383**	**0.0383**		**605.1440**	**605.1440**	**0.0116**	**0.0111**	**608.8268**

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	5.9049	0.3127	20.6827	0.0507		2.6321	2.6321		2.6312	2.6312	371.8032	1,343.4771	1,715.2803	1.7730	0.0245	1,760.0945
Unmitigated	5.9049	0.3127	20.6827	0.0507		2.6321	2.6321		2.6312	2.6312	371.8032	1,343.4771	1,715.2803	1.7730	0.0245	1,760.0945

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	0.4122					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.5087					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.8226	0.2519	15.4481	0.0504		2.6035	2.6035		2.6026	2.6026	371.8032	1,334.1177	1,705.9209	1.7637	0.0245	1,750.5403
Landscaping	0.1614	0.0608	5.2347	2.7000e-004		0.0286	0.0286		0.0286	0.0286		9.3595	9.3595	9.2800e-003		9.5543
Total	**5.9049**	**0.3127**	**20.6827**	**0.0507**		**2.6321**	**2.6321**		**2.6312**	**2.6312**	**371.8032**	**1,343.4771**	**1,715.2803**	**1.7730**	**0.0245**	**1,760.0945**

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	0.4122					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.5087					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.8226	0.2519	15.4481	0.0504		2.6035	2.6035		2.6026	2.6026	371.8032	1,334.1177	1,705.9209	1.7637	0.0245	1,750.5403
Landscaping	0.1614	0.0608	5.2347	2.7000e-004		0.0286	0.0286		0.0286	0.0286		9.3595	9.3595	9.2800e-003		9.5543
Total	**5.9049**	**0.3127**	**20.6827**	**0.0507**		**2.6321**	**2.6321**		**2.6312**	**2.6312**	**371.8032**	**1,343.4771**	**1,715.2803**	**1.7730**	**0.0245**	**1,760.0945**

Covina Banna Crossings - Revised

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	1.00	Acre	1.00	2,500.00	0
City Park	2.00	Acre	2.00	5,228.00	0
Single Family Housing	63.00	Dwelling Unit	5.15	169,479.00	191

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 63 single-family homes on 5.15 acres and 169,479 sq ft of building space. 2 acres of Park with 5,228 sq ft of painting. Assumed 1 acre of Other Asphalt Surfaces with 2,500 sq ft of street painting.

Construction Phase - Modified

Trips and VMT - 6 vendor truck trips/day added to Demolition, Site Preparation and Grading to account for water truck emissions. Demo total haul trips = 428

Demolition - 27,000 sq ft of buildings to demolished or 2,460 tons plus 1,813 tons of pavement demolished for a total of 4,273 tons.

Grading - Modified

Architectural Coating - Residential Exterior VOC set to 50 grams/Liter per SCAQMD Rule 1113 VOC limits.

Vehicle Trips - Single family housing trip rate set to 9.52 daily trips per home based on TIA.

Woodstoves - 63 Natural Gas Only Fireplaces

Area Coating - Modifed per Rule 1113

Construction Off-road Equipment Mitigation - Per Rule 403, Water Exposed Area 3x per day, Unpaved Roads - Moisture min 12% and vehicle speed 15 mph, replace ground cover. Per Rule 1186 clean paved roads

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	100.00	50.00
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	61
tblConstructionPhase	NumDays	20.00	282.00
tblConstructionPhase	NumDays	230.00	349.00
tblConstructionPhase	NumDays	20.00	30.00
tblConstructionPhase	PhaseEndDate	11/20/2018	11/20/2017
tblConstructionPhase	PhaseStartDate	10/21/2017	10/21/2016
tblFireplaces	NumberGas	53.55	63.00
tblFireplaces	NumberNoFireplace	6.30	0.00
tblFireplaces	NumberWood	3.15	0.00
tblGrading	AcresOfGrading	15.00	8.15
tblLandUse	LandUseSquareFeet	43,560.00	2,500.00
tblLandUse	LandUseSquareFeet	87,120.00	5,228.00
tblLandUse	LandUseSquareFeet	113,400.00	169,479.00
tblLandUse	LotAcreage	20.45	5.15
tblLandUse	Population	180.00	191.00
tblProjectCharacteristics	OperationalYear	2014	2018
tblTripsAndVMT	HaulingTripNumber	423.00	428.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblVehicleTrips	ST_TR	10.08	9.52
tblVehicleTrips	SU_TR	8.77	9.52
tblVehicleTrips	WD_TR	9.57	9.52

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					
2016	8.3758	55.2583	42.9639	0.0594	18.3049	2.9488	21.2537	9.9947	2.7129	12.7076	0.0000	6,016.5143	6,016.5143	1.2392	0.0000	6,042.5367
2017	8.0160	29.3861	22.7092	0.0360	0.3964	1.9674	2.3639	0.1061	1.8582	1.9643	0.0000	3,461.3551	3,461.3551	0.6998	0.0000	3,476.0516
Total	**16.3918**	**84.6443**	**65.6732**	**0.0954**	**18.7013**	**4.9162**	**23.6175**	**10.1008**	**4.5711**	**14.6718**	**0.0000**	**9,477.8693**	**9,477.8693**	**1.9390**	**0.0000**	**9,518.5883**

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					
2016	8.3758	55.2583	42.9639	0.0594	2.9865	2.9488	5.9353	1.5745	2.7129	4.2873	0.0000	6,016.5143	6,016.5143	1.2392	0.0000	6,042.5367
2017	8.0160	29.3861	22.7092	0.0360	0.3964	1.9674	2.3639	0.1061	1.8582	1.9643	0.0000	3,461.3551	3,461.3551	0.6998	0.0000	3,476.0516
Total	**16.3918**	**84.6443**	**65.6732**	**0.0954**	**3.3829**	**4.9162**	**8.2991**	**1.6806**	**4.5711**	**6.2516**	**0.0000**	**9,477.8693**	**9,477.8693**	**1.9390**	**0.0000**	**9,518.5882**

	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**	**81.91**	**0.00**	**64.86**	**83.36**	**0.00**	**57.39**	**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	5.9049	0.3127	20.6827	0.0507		2.6321	2.6321		2.6312	2.6312	371.8032	1,343.4771	1,715.2803	1.7730	0.0245	1,760.0945
Energy	0.0555	0.4740	0.2017	3.0300e-003		0.0383	0.0383		0.0383	0.0383		605.1440	605.1440	0.0116	0.0111	608.8268
Mobile	2.0249	6.0048	24.0914	0.0668	4.3722	0.0933	4.4655	1.1692	0.0860	1.2552		5,529.7072	5,529.7072	0.2098		5,534.1135
Total	**7.9853**	**6.7915**	**44.9759**	**0.1205**	**4.3722**	**2.7637**	**7.1359**	**1.1692**	**2.7555**	**3.9247**	**371.8032**	**7,478.3282**	**7,850.1315**	**1.9944**	**0.0356**	**7,903.0348**

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	5.9049	0.3127	20.6827	0.0507		2.6321	2.6321		2.6312	2.6312	371.8032	1,343.4771	1,715.2803	1.7730	0.0245	1,760.0945
Energy	0.0555	0.4740	0.2017	3.0300e-003		0.0383	0.0383		0.0383	0.0383		605.1440	605.1440	0.0116	0.0111	608.8268
Mobile	2.0249	6.0048	24.0914	0.0668	4.3722	0.0933	4.4655	1.1692	0.0860	1.2552		5,529.7072	5,529.7072	0.2098		5,534.1135
Total	**7.9853**	**6.7915**	**44.9759**	**0.1205**	**4.3722**	**2.7637**	**7.1359**	**1.1692**	**2.7555**	**3.9247**	**371.8032**	**7,478.3282**	**7,850.1315**	**1.9944**	**0.0356**	**7,903.0348**

	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	3/1/2016	3/28/2016	5	20	
2	Site Preparation	Site Preparation	3/29/2016	4/11/2016	5	10	
3	Grading	Grading	4/12/2016	5/23/2016	5	30	
4	Paving	Paving	5/24/2016	6/20/2016	5	20	
5	Building Construction	Building Construction	6/21/2016	10/20/2017	5	349	
6	Architectural Coating	Architectural Coating	10/21/2016	11/20/2017	5	282	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 8.15

Acres of Paving: 0

Residential Indoor: 343,195; Residential Outdoor: 114,398; Non-Residential Indoor: 11,592; Non-Residential Outdoor: 3,864 (Architectural

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	6.00	428.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	26.00	8.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	14.70	6.90	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

3.2 Demolition - 2016

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					4.5719	0.0000	4.5719	0.6922	0.0000	0.6922			0.0000			0.0000
Off-Road	4.2876	45.6559	35.0303	0.0399		2.2921	2.2921		2.1365	2.1365		4,089.2841	4,089.2841	1.1121		4,112.6374
Total	**4.2876**	**45.6559**	**35.0303**	**0.0399**	**4.5719**	**2.2921**	**6.8640**	**0.6922**	**2.1365**	**2.8288**		**4,089.2841**	**4,089.2841**	**1.1121**		**4,112.6374**

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	0.3769	5.9989	4.2571	0.0160	0.3727	0.0888	0.4615	0.1020	0.0817	0.1837		1,610.7446	1,610.7446	0.0119		1,610.9948
Vendor	0.0506	0.5251	0.6100	1.3200e-003	0.0374	8.2100e-003	0.0456	0.0107	7.5500e-003	0.0182		132.1324	132.1324	9.7000e-004		132.1527
Worker	0.0668	0.0841	1.0406	2.1800e-003	0.1677	1.5900e-003	0.1693	0.0445	1.4600e-003	0.0459		184.3532	184.3532	0.0100		184.5639
Total	**0.4943**	**6.6080**	**5.9076**	**0.0195**	**0.5777**	**0.0986**	**0.6764**	**0.1572**	**0.0907**	**0.2479**		**1,927.2302**	**1,927.2302**	**0.0229**		**1,927.7114**

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					0.6954	0.0000	0.6954	0.1053	0.0000	0.1053			0.0000			0.0000
Off-Road	4.2876	45.6559	35.0303	0.0399		2.2921	2.2921		2.1365	2.1365	0.0000	4,089.2841	4,089.2841	1.1121		4,112.6374
Total	**4.2876**	**45.6559**	**35.0303**	**0.0399**	**0.6954**	**2.2921**	**2.9875**	**0.1053**	**2.1365**	**2.2418**	**0.0000**	**4,089.2841**	**4,089.2841**	**1.1121**		**4,112.6374**

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	0.3769	5.9989	4.2571	0.0160	0.3727	0.0888	0.4615	0.1020	0.0817	0.1837		1,610.7446	1,610.7446	0.0119		1,610.9948
Vendor	0.0506	0.5251	0.6100	1.3200e-003	0.0374	8.2100e-003	0.0456	0.0107	7.5500e-003	0.0182		132.1324	132.1324	9.7000e-004		132.1527
Worker	0.0668	0.0841	1.0406	2.1800e-003	0.1677	1.5900e-003	0.1693	0.0445	1.4600e-003	0.0459		184.3532	184.3532	0.0100		184.5639
Total	**0.4943**	**6.6080**	**5.9076**	**0.0195**	**0.5777**	**0.0986**	**0.6764**	**0.1572**	**0.0907**	**0.2479**		**1,927.2302**	**1,927.2302**	**0.0229**		**1,927.7114**

3.3 Site Preparation - 2016

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.0771	54.6323	41.1053	0.0391		2.9387	2.9387		2.7036	2.7036		4,065.0053	4,065.0053	1.2262		4,090.7544
Total	**5.0771**	**54.6323**	**41.1053**	**0.0391**	**18.0663**	**2.9387**	**21.0049**	**9.9307**	**2.7036**	**12.6343**		**4,065.0053**	**4,065.0053**	**1.2262**		**4,090.7544**

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	0.0506	0.5251	0.6100	1.3200e-003	0.0374	8.2100e-003	0.0456	0.0107	7.5500e-003	0.0182		132.1324	132.1324	9.7000e-004		132.1527
Worker	0.0802	0.1009	1.2487	2.6200e-003	0.2012	1.9000e-003	0.2031	0.0534	1.7500e-003	0.0551		221.2238	221.2238	0.0120		221.4767
Total	**0.1307**	**0.6260**	**1.8587**	**3.9400e-003**	**0.2386**	**0.0101**	**0.2487**	**0.0640**	**9.3000e-003**	**0.0733**		**353.3562**	**353.3562**	**0.0130**		**353.6295**

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					2.7479	0.0000	2.7479	1.5105	0.0000	1.5105			0.0000			0.0000
Off-Road	5.0771	54.6323	41.1053	0.0391		2.9387	2.9387		2.7036	2.7036	0.0000	4,065.0053	4,065.0053	1.2262		4,090.7544
Total	**5.0771**	**54.6323**	**41.1053**	**0.0391**	**2.7479**	**2.9387**	**5.6866**	**1.5105**	**2.7036**	**4.2140**	**0.0000**	**4,065.0053**	**4,065.0053**	**1.2262**		**4,090.7544**

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	0.0506	0.5251	0.6100	1.3200e-003	0.0374	8.2100e-003	0.0456	0.0107	7.5500e-003	0.0182		132.1324	132.1324	9.7000e-004		132.1527
Worker	0.0802	0.1009	1.2487	2.6200e-003	0.2012	1.9000e-003	0.2031	0.0534	1.7500e-003	0.0551		221.2238	221.2238	0.0120		221.4767
Total	**0.1307**	**0.6260**	**1.8587**	**3.9400e-003**	**0.2386**	**0.0101**	**0.2487**	**0.0640**	**9.3000e-003**	**0.0733**		**353.3562**	**353.3562**	**0.0130**		**353.6295**

3.4 Grading - 2016

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					6.3102	0.0000	6.3102	3.3413	0.0000	3.3413			0.0000			0.0000
Off-Road	3.6669	38.4466	26.0787	0.0298		2.1984	2.1984		2.0225	2.0225		3,093.7889	3,093.7889	0.9332		3,113.3860
Total	**3.6669**	**38.4466**	**26.0787**	**0.0298**	**6.3102**	**2.1984**	**8.5086**	**3.3413**	**2.0225**	**5.3639**		**3,093.7889**	**3,093.7889**	**0.9332**		**3,113.3860**

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	0.0506	0.5251	0.6100	1.3200e-003	0.0374	8.2100e-003	0.0456	0.0107	7.5500e-003	0.0182		132.1324	132.1324	9.7000e-004		132.1527
Worker	0.0668	0.0841	1.0406	2.1800e-003	0.1677	1.5900e-003	0.1693	0.0445	1.4600e-003	0.0459		184.3532	184.3532	0.0100		184.5639
Total	**0.1174**	**0.6091**	**1.6506**	**3.5000e-003**	**0.2051**	**9.8000e-003**	**0.2149**	**0.0551**	**9.0100e-003**	**0.0641**		**316.4856**	**316.4856**	**0.0110**		**316.7167**

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					0.9598	0.0000	0.9598	0.5082	0.0000	0.5082			0.0000			0.0000
Off-Road	3.6669	38.4466	26.0787	0.0298		2.1984	2.1984		2.0225	2.0225	0.0000	3,093.7889	3,093.7889	0.9332		3,113.3860
Total	**3.6669**	**38.4466**	**26.0787**	**0.0298**	**0.9598**	**2.1984**	**3.1582**	**0.5082**	**2.0225**	**2.5308**	**0.0000**	**3,093.7889**	**3,093.7889**	**0.9332**		**3,113.3860**

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	0.0506	0.5251	0.6100	1.3200e-003	0.0374	8.2100e-003	0.0456	0.0107	7.5500e-003	0.0182		132.1324	132.1324	9.7000e-004		132.1527
Worker	0.0668	0.0841	1.0406	2.1800e-003	0.1677	1.5900e-003	0.1693	0.0445	1.4600e-003	0.0459		184.3532	184.3532	0.0100		184.5639
Total	**0.1174**	**0.6091**	**1.6506**	**3.5000e-003**	**0.2051**	**9.8000e-003**	**0.2149**	**0.0551**	**9.0100e-003**	**0.0641**		**316.4856**	**316.4856**	**0.0110**		**316.7167**

3.5 Paving - 2016

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	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601		2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.1310					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.2208**	**22.3859**	**14.8176**	**0.0223**		**1.2610**	**1.2610**		**1.1601**	**1.1601**		**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

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	0.0668	0.0841	1.0406	2.1800e-003	0.1677	1.5900e-003	0.1693	0.0445	1.4600e-003	0.0459		184.3532	184.3532	0.0100		184.5639
Total	**0.0668**	**0.0841**	**1.0406**	**2.1800e-003**	**0.1677**	**1.5900e-003**	**0.1693**	**0.0445**	**1.4600e-003**	**0.0459**		**184.3532**	**184.3532**	**0.0100**		**184.5639**

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	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601	0.0000	2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.1310					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.2208**	**22.3859**	**14.8176**	**0.0223**		**1.2610**	**1.2610**		**1.1601**	**1.1601**	**0.0000**	**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

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	0.0668	0.0841	1.0406	2.1800e-003	0.1677	1.5900e-003	0.1693	0.0445	1.4600e-003	0.0459		184.3532	184.3532	0.0100		184.5639
Total	**0.0668**	**0.0841**	**1.0406**	**2.1800e-003**	**0.1677**	**1.5900e-003**	**0.1693**	**0.0445**	**1.4600e-003**	**0.0459**		**184.3532**	**184.3532**	**0.0100**		**184.5639**

3.6 Building Construction - 2016

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	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485		2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**		**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

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	0.0674	0.7001	0.8133	1.7600e-003	0.0499	0.0109	0.0608	0.0142	0.0101	0.0243		176.1765	176.1765	1.2900e-003		176.2037
Worker	0.1158	0.1457	1.8036	3.7800e-003	0.2906	2.7500e-003	0.2934	0.0771	2.5300e-003	0.0796		319.5455	319.5455	0.0174		319.9108
Total	**0.1832**	**0.8458**	**2.6170**	**5.5400e-003**	**0.3405**	**0.0137**	**0.3542**	**0.0913**	**0.0126**	**0.1039**		**495.7220**	**495.7220**	**0.0187**		**496.1145**

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	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485	0.0000	2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**	**0.0000**	**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

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	0.0674	0.7001	0.8133	1.7600e-003	0.0499	0.0109	0.0608	0.0142	0.0101	0.0243		176.1765	176.1765	1.2900e-003		176.2037
Worker	0.1158	0.1457	1.8036	3.7800e-003	0.2906	2.7500e-003	0.2934	0.0771	2.5300e-003	0.0796		319.5455	319.5455	0.0174		319.9108
Total	**0.1832**	**0.8458**	**2.6170**	**5.5400e-003**	**0.3405**	**0.0137**	**0.3542**	**0.0913**	**0.0126**	**0.1039**		**495.7220**	**495.7220**	**0.0187**		**496.1145**

3.6 Building Construction - 2017

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	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**		**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

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	0.0616	0.6382	0.7636	1.7600e-003	0.0499	9.7500e-003	0.0597	0.0142	8.9700e-003	0.0232		173.3631	173.3631	1.2500e-003		173.3894
Worker	0.1041	0.1318	1.6341	3.7800e-003	0.2906	2.6300e-003	0.2933	0.0771	2.4300e-003	0.0795		307.5872	307.5872	0.0161		307.9248
Total	**0.1657**	**0.7700**	**2.3978**	**5.5400e-003**	**0.3405**	**0.0124**	**0.3529**	**0.0913**	**0.0114**	**0.1027**		**480.9503**	**480.9503**	**0.0173**		**481.3142**

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	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	0.0000	2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**	**0.0000**	**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

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	0.0616	0.6382	0.7636	1.7600e-003	0.0499	9.7500e-003	0.0597	0.0142	8.9700e-003	0.0232		173.3631	173.3631	1.2500e-003		173.3894
Worker	0.1041	0.1318	1.6341	3.7800e-003	0.2906	2.6300e-003	0.2933	0.0771	2.4300e-003	0.0795		307.5872	307.5872	0.0161		307.9248
Total	**0.1657**	**0.7700**	**2.3978**	**5.5400e-003**	**0.3405**	**0.0124**	**0.3529**	**0.0913**	**0.0114**	**0.1027**		**480.9503**	**480.9503**	**0.0173**		**481.3142**

3.7 Architectural Coating - 2016

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	4.3956					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449
Total	**4.7641**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

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	0.0223	0.0280	0.3469	7.3000e-004	0.0559	5.3000e-004	0.0564	0.0148	4.9000e-004	0.0153		61.4511	61.4511	3.3500e-003		61.5213
Total	**0.0223**	**0.0280**	**0.3469**	**7.3000e-004**	**0.0559**	**5.3000e-004**	**0.0564**	**0.0148**	**4.9000e-004**	**0.0153**		**61.4511**	**61.4511**	**3.3500e-003**		**61.5213**

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	4.3956					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**4.7641**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

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	0.0223	0.0280	0.3469	7.3000e-004	0.0559	5.3000e-004	0.0564	0.0148	4.9000e-004	0.0153		61.4511	61.4511	3.3500e-003		61.5213
Total	**0.0223**	**0.0280**	**0.3469**	**7.3000e-004**	**0.0559**	**5.3000e-004**	**0.0564**	**0.0148**	**4.9000e-004**	**0.0153**		**61.4511**	**61.4511**	**3.3500e-003**		**61.5213**

3.7 Architectural Coating - 2017

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	4.3956					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721
Total	**4.7279**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**		**281.4481**	**281.4481**	**0.0297**		**282.0721**

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	0.0200	0.0254	0.3143	7.3000e-004	0.0559	5.1000e-004	0.0564	0.0148	4.7000e-004	0.0153		59.1514	59.1514	3.0900e-003		59.2163
Total	**0.0200**	**0.0254**	**0.3143**	**7.3000e-004**	**0.0559**	**5.1000e-004**	**0.0564**	**0.0148**	**4.7000e-004**	**0.0153**		**59.1514**	**59.1514**	**3.0900e-003**		**59.2163**

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	4.3956					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.0721
Total	**4.7279**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**	**0.0000**	**281.4481**	**281.4481**	**0.0297**		**282.0721**

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	0.0200	0.0254	0.3143	7.3000e-004	0.0559	5.1000e-004	0.0564	0.0148	4.7000e-004	0.0153		59.1514	59.1514	3.0900e-003		59.2163
Total	**0.0200**	**0.0254**	**0.3143**	**7.3000e-004**	**0.0559**	**5.1000e-004**	**0.0564**	**0.0148**	**4.7000e-004**	**0.0153**		**59.1514**	**59.1514**	**3.0900e-003**		**59.2163**

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	2.0249	6.0048	24.0914	0.0668	4.3722	0.0933	4.4655	1.1692	0.0860	1.2552		5,529.7072	5,529.7072	0.2098		5,534.1135
Unmitigated	2.0249	6.0048	24.0914	0.0668	4.3722	0.0933	4.4655	1.1692	0.0860	1.2552		5,529.7072	5,529.7072	0.2098		5,534.1135

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	3.18	3.18	3.18	9,151	9,151
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	599.76	599.76	599.76	2,049,471	2,049,471
Total	602.94	602.94	602.94	2,058,622	2,058,622

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.531767	0.058060	0.178534	0.124864	0.038964	0.006284	0.016861	0.033134	0.002486	0.003151	0.003685	0.000540	0.001671

5.0 Energy Detail

Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0555	0.4740	0.2017	3.0300e-003		0.0383	0.0383		0.0383	0.0383		605.1440	605.1440	0.0116	0.0111	608.8268
NaturalGas Unmitigated	0.0555	0.4740	0.2017	3.0300e-003		0.0383	0.0383		0.0383	0.0383		605.1440	605.1440	0.0116	0.0111	608.8268

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					
Other Asphalt Surfaces	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
Single Family Housing	5143.72	0.0555	0.4740	0.2017	3.0300e-003		0.0383	0.0383		0.0383	0.0383		605.1440	605.1440	0.0116	0.0111	608.8268
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0555**	**0.4740**	**0.2017**	**3.0300e-003**		**0.0383**	**0.0383**		**0.0383**	**0.0383**		**605.1440**	**605.1440**	**0.0116**	**0.0111**	**608.8268**

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					
Single Family Housing	5.14372	0.0555	0.4740	0.2017	3.0300e-003		0.0383	0.0383		0.0383	0.0383		605.1440	605.1440	0.0116	0.0111	608.8268
City Park	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
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0555**	**0.4740**	**0.2017**	**3.0300e-003**		**0.0383**	**0.0383**		**0.0383**	**0.0383**		**605.1440**	**605.1440**	**0.0116**	**0.0111**	**608.8268**

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	5.9049	0.3127	20.6827	0.0507		2.6321	2.6321		2.6312	2.6312	371.8032	1,343.4771	1,715.2803	1.7730	0.0245	1,760.0945
Unmitigated	5.9049	0.3127	20.6827	0.0507		2.6321	2.6321		2.6312	2.6312	371.8032	1,343.4771	1,715.2803	1.7730	0.0245	1,760.0945

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	0.4122					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.5087					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.8226	0.2519	15.4481	0.0504		2.6035	2.6035		2.6026	2.6026	371.8032	1,334.1177	1,705.9209	1.7637	0.0245	1,750.5403
Landscaping	0.1614	0.0608	5.2347	2.7000e-004		0.0286	0.0286		0.0286	0.0286		9.3595	9.3595	9.2800e-003		9.5543
Total	**5.9049**	**0.3127**	**20.6827**	**0.0507**		**2.6321**	**2.6321**		**2.6312**	**2.6312**	**371.8032**	**1,343.4771**	**1,715.2803**	**1.7730**	**0.0245**	**1,760.0945**

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	0.4122					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.5087					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.8226	0.2519	15.4481	0.0504		2.6035	2.6035		2.6026	2.6026	371.8032	1,334.1177	1,705.9209	1.7637	0.0245	1,750.5403
Landscaping	0.1614	0.0608	5.2347	2.7000e-004		0.0286	0.0286		0.0286	0.0286		9.3595	9.3595	9.2800e-003		9.5543
Total	**5.9049**	**0.3127**	**20.6827**	**0.0507**		**2.6321**	**2.6321**		**2.6312**	**2.6312**	**371.8032**	**1,343.4771**	**1,715.2803**	**1.7730**	**0.0245**	**1,760.0945**

Covina Banna Crossings - Revised

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	1.00	Acre	1.00	2,500.00	0
City Park	2.00	Acre	2.00	5,228.00	0
Single Family Housing	63.00	Dwelling Unit	5.15	169,479.00	191

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 63 single-family homes on 5.15 acres and 169,479 sq ft of building space. 2 acres of Park with 5,228 sq ft of painting. Assumed 1 acre of Other Asphalt Surfaces with 2,500 sq ft of street painting.

Construction Phase - Modified

Trips and VMT - 6 vendor truck trips/day added to Demolition, Site Preparation and Grading to account for water truck emissions. Demo total haul trips = 428

Demolition - 27,000 sq ft of buildings to demolished or 2,460 tons plus 1,813 tons of pavement demolished for a total of 4,273 tons.

Grading - Modified

Architectural Coating - Residential Exterior VOC set to 50 grams/Liter per SCAQMD Rule 1113 VOC limits.

Vehicle Trips - Single family housing trip rate set to 9.52 daily trips per home based on TIA.

Woodstoves - 63 Natural Gas Only Fireplaces

Area Coating - Modifed per Rule 1113

Construction Off-road Equipment Mitigation - Per Rule 403, Water Exposed Area 3x per day, Unpaved Roads - Moisture min 12% and vehicle speed 15 mph, replace ground cover. Per Rule 1186 clean paved roads

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	100.00	50.00
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	61
tblConstructionPhase	NumDays	20.00	282.00
tblConstructionPhase	NumDays	230.00	349.00
tblConstructionPhase	NumDays	20.00	30.00
tblConstructionPhase	PhaseEndDate	11/20/2018	11/20/2017
tblConstructionPhase	PhaseStartDate	10/21/2017	10/21/2016
tblFireplaces	NumberGas	53.55	63.00
tblFireplaces	NumberNoFireplace	6.30	0.00
tblFireplaces	NumberWood	3.15	0.00
tblGrading	AcresOfGrading	15.00	8.15
tblLandUse	LandUseSquareFeet	43,560.00	2,500.00
tblLandUse	LandUseSquareFeet	87,120.00	5,228.00
tblLandUse	LandUseSquareFeet	113,400.00	169,479.00
tblLandUse	LotAcreage	20.45	5.15
tblLandUse	Population	180.00	191.00
tblProjectCharacteristics	OperationalYear	2014	2018
tblTripsAndVMT	HaulingTripNumber	423.00	428.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblVehicleTrips	ST_TR	10.08	9.52
tblVehicleTrips	SU_TR	8.77	9.52
tblVehicleTrips	WD_TR	9.57	9.52

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					
2016	0.5254	3.7188	2.7344	3.8800e-003	0.2668	0.2271	0.4939	0.1164	0.2123	0.3287	0.0000	349.9687	349.9687	0.0790	0.0000	351.6269
2017	0.8917	3.1141	2.4125	3.8000e-003	0.0414	0.2084	0.2498	0.0111	0.1969	0.2080	0.0000	331.4401	331.4401	0.0670	0.0000	332.8466
Total	**1.4170**	**6.8328**	**5.1469**	**7.6800e-003**	**0.3082**	**0.4355**	**0.7437**	**0.1275**	**0.4092**	**0.5367**	**0.0000**	**681.4088**	**681.4088**	**0.1459**	**0.0000**	**684.4735**

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					
2016	0.5254	3.7188	2.7344	3.8800e-003	0.0712	0.2271	0.2983	0.0259	0.2123	0.2382	0.0000	349.9684	349.9684	0.0790	0.0000	351.6266
2017	0.8917	3.1141	2.4125	3.8000e-003	0.0414	0.2084	0.2498	0.0111	0.1969	0.2080	0.0000	331.4398	331.4398	0.0670	0.0000	332.8463
Total	**1.4170**	**6.8328**	**5.1469**	**7.6800e-003**	**0.1126**	**0.4355**	**0.5481**	**0.0370**	**0.4092**	**0.4463**	**0.0000**	**681.4081**	**681.4081**	**0.1459**	**0.0000**	**684.4728**

	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**	**63.47**	**0.00**	**26.30**	**70.95**	**0.00**	**16.86**	**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	tons/yr										MT/yr					
Area	0.7585	0.0107	0.8474	6.6000e-004		0.0361	0.0361		0.0361	0.0361	4.2162	16.1900	20.4062	0.0211	2.8000e-004	20.9342
Energy	0.0101	0.0865	0.0368	5.5000e-004		6.9900e-003	6.9900e-003		6.9900e-003	6.9900e-003	0.0000	231.7019	231.7019	7.9700e-003	3.0900e-003	232.8263
Mobile	0.3663	1.1735	4.3952	0.0117	0.7804	0.0170	0.7974	0.2090	0.0157	0.2247	0.0000	883.4191	883.4191	0.0346	0.0000	884.1460
Waste						0.0000	0.0000		0.0000	0.0000	15.9307	0.0000	15.9307	0.9415	0.0000	35.7018
Water						0.0000	0.0000		0.0000	0.0000	1.3022	31.0983	32.4005	0.1352	3.4500e-003	36.3101
Total	**1.1349**	**1.2708**	**5.2794**	**0.0130**	**0.7804**	**0.0601**	**0.8405**	**0.2090**	**0.0587**	**0.2678**	**21.4491**	**1,162.4093**	**1,183.8584**	**1.1403**	**6.8200e-003**	**1,209.9184**

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	0.7585	0.0107	0.8474	6.6000e-004		0.0361	0.0361		0.0361	0.0361	4.2162	16.1900	20.4062	0.0211	2.8000e-004	20.9342
Energy	0.0101	0.0865	0.0368	5.5000e-004		6.9900e-003	6.9900e-003		6.9900e-003	6.9900e-003	0.0000	231.7019	231.7019	7.9700e-003	3.0900e-003	232.8263
Mobile	0.3663	1.1735	4.3952	0.0117	0.7804	0.0170	0.7974	0.2090	0.0157	0.2247	0.0000	883.4191	883.4191	0.0346	0.0000	884.1460
Waste						0.0000	0.0000		0.0000	0.0000	15.9307	0.0000	15.9307	0.9415	0.0000	35.7018
Water						0.0000	0.0000		0.0000	0.0000	1.3022	31.0983	32.4005	0.1352	3.4500e-003	36.3080
Total	**1.1349**	**1.2708**	**5.2794**	**0.0130**	**0.7804**	**0.0601**	**0.8405**	**0.2090**	**0.0587**	**0.2678**	**21.4491**	**1,162.4093**	**1,183.8584**	**1.1403**	**6.8200e-003**	**1,209.9163**

	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	3/1/2016	3/28/2016	5	20	
2	Site Preparation	Site Preparation	3/29/2016	4/11/2016	5	10	
3	Grading	Grading	4/12/2016	5/23/2016	5	30	
4	Paving	Paving	5/24/2016	6/20/2016	5	20	
5	Building Construction	Building Construction	6/21/2016	10/20/2017	5	349	
6	Architectural Coating	Architectural Coating	10/21/2016	11/20/2017	5	282	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 8.15

Acres of Paving: 0

Residential Indoor: 343,195; Residential Outdoor: 114,398; Non-Residential Indoor: 11,592; Non-Residential Outdoor: 3,864 (Architectural

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	6.00	428.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	26.00	8.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	14.70	6.90	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

3.2 Demolition - 2016

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					0.0457	0.0000	0.0457	6.9200e-003	0.0000	6.9200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0429	0.4566	0.3503	4.0000e-004		0.0229	0.0229		0.0214	0.0214	0.0000	37.0974	37.0974	0.0101	0.0000	37.3092
Total	**0.0429**	**0.4566**	**0.3503**	**4.0000e-004**	**0.0457**	**0.0229**	**0.0686**	**6.9200e-003**	**0.0214**	**0.0283**	**0.0000**	**37.0974**	**37.0974**	**0.0101**	**0.0000**	**37.3092**

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	3.9200e-003	0.0632	0.0479	1.6000e-004	3.6600e-003	8.9000e-004	4.5500e-003	1.0000e-003	8.2000e-004	1.8200e-003	0.0000	14.5980	14.5980	1.1000e-004	0.0000	14.6003
Vendor	5.4000e-004	5.4900e-003	7.1300e-003	1.0000e-005	3.7000e-004	8.0000e-005	4.5000e-004	1.0000e-004	8.0000e-005	1.8000e-004	0.0000	1.1945	1.1945	1.0000e-005	0.0000	1.1947
Worker	6.6000e-004	9.6000e-004	9.9800e-003	2.0000e-005	1.6400e-003	2.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.6039	1.6039	9.0000e-005	0.0000	1.6058
Total	**5.1200e-003**	**0.0697**	**0.0650**	**1.9000e-004**	**5.6700e-003**	**9.9000e-004**	**6.6600e-003**	**1.5400e-003**	**9.1000e-004**	**2.4500e-003**	**0.0000**	**17.3964**	**17.3964**	**2.1000e-004**	**0.0000**	**17.4008**

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					6.9500e-003	0.0000	6.9500e-003	1.0500e-003	0.0000	1.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0429	0.4566	0.3503	4.0000e-004		0.0229	0.0229		0.0214	0.0214	0.0000	37.0973	37.0973	0.0101	0.0000	37.3092
Total	**0.0429**	**0.4566**	**0.3503**	**4.0000e-004**	**6.9500e-003**	**0.0229**	**0.0299**	**1.0500e-003**	**0.0214**	**0.0224**	**0.0000**	**37.0973**	**37.0973**	**0.0101**	**0.0000**	**37.3092**

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	3.9200e-003	0.0632	0.0479	1.6000e-004	3.6600e-003	8.9000e-004	4.5500e-003	1.0000e-003	8.2000e-004	1.8200e-003	0.0000	14.5980	14.5980	1.1000e-004	0.0000	14.6003
Vendor	5.4000e-004	5.4900e-003	7.1300e-003	1.0000e-005	3.7000e-004	8.0000e-005	4.5000e-004	1.0000e-004	8.0000e-005	1.8000e-004	0.0000	1.1945	1.1945	1.0000e-005	0.0000	1.1947
Worker	6.6000e-004	9.6000e-004	9.9800e-003	2.0000e-005	1.6400e-003	2.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.6039	1.6039	9.0000e-005	0.0000	1.6058
Total	**5.1200e-003**	**0.0697**	**0.0650**	**1.9000e-004**	**5.6700e-003**	**9.9000e-004**	**6.6600e-003**	**1.5400e-003**	**9.1000e-004**	**2.4500e-003**	**0.0000**	**17.3964**	**17.3964**	**2.1000e-004**	**0.0000**	**17.4008**

3.3 Site Preparation - 2016

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					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0254	0.2732	0.2055	2.0000e-004		0.0147	0.0147		0.0135	0.0135	0.0000	18.4386	18.4386	5.5600e-003	0.0000	18.5554
Total	**0.0254**	**0.2732**	**0.2055**	**2.0000e-004**	**0.0903**	**0.0147**	**0.1050**	**0.0497**	**0.0135**	**0.0632**	**0.0000**	**18.4386**	**18.4386**	**5.5600e-003**	**0.0000**	**18.5554**

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	2.7000e-004	2.7400e-003	3.5700e-003	1.0000e-005	1.8000e-004	4.0000e-005	2.3000e-004	5.0000e-005	4.0000e-005	9.0000e-005	0.0000	0.5973	0.5973	0.0000	0.0000	0.5974
Worker	3.9000e-004	5.7000e-004	5.9900e-003	1.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.9624	0.9624	5.0000e-005	0.0000	0.9635
Total	**6.6000e-004**	**3.3100e-003**	**9.5600e-003**	**2.0000e-005**	**1.1700e-003**	**5.0000e-005**	**1.2300e-003**	**3.1000e-004**	**5.0000e-005**	**3.6000e-004**	**0.0000**	**1.5596**	**1.5596**	**5.0000e-005**	**0.0000**	**1.5609**

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					0.0137	0.0000	0.0137	7.5500e-003	0.0000	7.5500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0254	0.2732	0.2055	2.0000e-004		0.0147	0.0147		0.0135	0.0135	0.0000	18.4385	18.4385	5.5600e-003	0.0000	18.5553
Total	**0.0254**	**0.2732**	**0.2055**	**2.0000e-004**	**0.0137**	**0.0147**	**0.0284**	**7.5500e-003**	**0.0135**	**0.0211**	**0.0000**	**18.4385**	**18.4385**	**5.5600e-003**	**0.0000**	**18.5553**

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	2.7000e-004	2.7400e-003	3.5700e-003	1.0000e-005	1.8000e-004	4.0000e-005	2.3000e-004	5.0000e-005	4.0000e-005	9.0000e-005	0.0000	0.5973	0.5973	0.0000	0.0000	0.5974
Worker	3.9000e-004	5.7000e-004	5.9900e-003	1.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.9624	0.9624	5.0000e-005	0.0000	0.9635
Total	**6.6000e-004**	**3.3100e-003**	**9.5600e-003**	**2.0000e-005**	**1.1700e-003**	**5.0000e-005**	**1.2300e-003**	**3.1000e-004**	**5.0000e-005**	**3.6000e-004**	**0.0000**	**1.5596**	**1.5596**	**5.0000e-005**	**0.0000**	**1.5609**

3.4 Grading - 2016

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					0.0947	0.0000	0.0947	0.0501	0.0000	0.0501	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0550	0.5767	0.3912	4.5000e-004		0.0330	0.0330		0.0303	0.0303	0.0000	42.0996	42.0996	0.0127	0.0000	42.3662
Total	**0.0550**	**0.5767**	**0.3912**	**4.5000e-004**	**0.0947**	**0.0330**	**0.1276**	**0.0501**	**0.0303**	**0.0805**	**0.0000**	**42.0996**	**42.0996**	**0.0127**	**0.0000**	**42.3662**

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	8.1000e-004	8.2300e-003	0.0107	2.0000e-005	5.5000e-004	1.2000e-004	6.8000e-004	1.6000e-004	1.1000e-004	2.7000e-004	0.0000	1.7918	1.7918	1.0000e-005	0.0000	1.7920
Worker	9.8000e-004	1.4400e-003	0.0150	3.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.8000e-004	0.0000	2.4059	2.4059	1.4000e-004	0.0000	2.4088
Total	**1.7900e-003**	**9.6700e-003**	**0.0257**	**5.0000e-005**	**3.0200e-003**	**1.4000e-004**	**3.1700e-003**	**8.1000e-004**	**1.3000e-004**	**9.5000e-004**	**0.0000**	**4.1976**	**4.1976**	**1.5000e-004**	**0.0000**	**4.2008**

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					0.0144	0.0000	0.0144	7.6200e-003	0.0000	7.6200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0550	0.5767	0.3912	4.5000e-004		0.0330	0.0330		0.0303	0.0303	0.0000	42.0995	42.0995	0.0127	0.0000	42.3662
Total	**0.0550**	**0.5767**	**0.3912**	**4.5000e-004**	**0.0144**	**0.0330**	**0.0474**	**7.6200e-003**	**0.0303**	**0.0380**	**0.0000**	**42.0995**	**42.0995**	**0.0127**	**0.0000**	**42.3662**

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	8.1000e-004	8.2300e-003	0.0107	2.0000e-005	5.5000e-004	1.2000e-004	6.8000e-004	1.6000e-004	1.1000e-004	2.7000e-004	0.0000	1.7918	1.7918	1.0000e-005	0.0000	1.7920
Worker	9.8000e-004	1.4400e-003	0.0150	3.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.8000e-004	0.0000	2.4059	2.4059	1.4000e-004	0.0000	2.4088
Total	**1.7900e-003**	**9.6700e-003**	**0.0257**	**5.0000e-005**	**3.0200e-003**	**1.4000e-004**	**3.1700e-003**	**8.1000e-004**	**1.3000e-004**	**9.5000e-004**	**0.0000**	**4.1976**	**4.1976**	**1.5000e-004**	**0.0000**	**4.2008**

3.5 Paving - 2016

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	0.0209	0.2239	0.1482	2.2000e-004		0.0126	0.0126		0.0116	0.0116	0.0000	21.0138	21.0138	6.3400e-003	0.0000	21.1469
Paving	1.3100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0222**	**0.2239**	**0.1482**	**2.2000e-004**		**0.0126**	**0.0126**		**0.0116**	**0.0116**	**0.0000**	**21.0138**	**21.0138**	**6.3400e-003**	**0.0000**	**21.1469**

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	6.6000e-004	9.6000e-004	9.9800e-003	2.0000e-005	1.6400e-003	2.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.6039	1.6039	9.0000e-005	0.0000	1.6058
Total	**6.6000e-004**	**9.6000e-004**	**9.9800e-003**	**2.0000e-005**	**1.6400e-003**	**2.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.6039**	**1.6039**	**9.0000e-005**	**0.0000**	**1.6058**

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	0.0209	0.2239	0.1482	2.2000e-004		0.0126	0.0126		0.0116	0.0116	0.0000	21.0138	21.0138	6.3400e-003	0.0000	21.1469
Paving	1.3100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0222**	**0.2239**	**0.1482**	**2.2000e-004**		**0.0126**	**0.0126**		**0.0116**	**0.0116**	**0.0000**	**21.0138**	**21.0138**	**6.3400e-003**	**0.0000**	**21.1469**

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	6.6000e-004	9.6000e-004	9.9800e-003	2.0000e-005	1.6400e-003	2.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.6039	1.6039	9.0000e-005	0.0000	1.6058
Total	**6.6000e-004**	**9.6000e-004**	**9.9800e-003**	**2.0000e-005**	**1.6400e-003**	**2.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.6039**	**1.6039**	**9.0000e-005**	**0.0000**	**1.6058**

3.6 Building Construction - 2016

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	0.2367	1.9812	1.2862	1.8600e-003		0.1367	0.1367		0.1285	0.1285	0.0000	168.2967	168.2967	0.0417	0.0000	169.1733
Total	**0.2367**	**1.9812**	**1.2862**	**1.8600e-003**		**0.1367**	**0.1367**		**0.1285**	**0.1285**	**0.0000**	**168.2967**	**168.2967**	**0.0417**	**0.0000**	**169.1733**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.0000e-003	0.0509	0.0661	1.2000e-004	3.4100e-003	7.6000e-004	4.1700e-003	9.7000e-004	7.0000e-004	1.6800e-003	0.0000	11.0691	11.0691	8.0000e-005	0.0000	11.0708
Worker	7.8900e-003	0.0115	0.1202	2.5000e-004	0.0198	1.9000e-004	0.0200	5.2600e-003	1.8000e-004	5.4300e-003	0.0000	19.3219	19.3219	1.1000e-003	0.0000	19.3449
Total	**0.0129**	**0.0624**	**0.1863**	**3.7000e-004**	**0.0232**	**9.5000e-004**	**0.0242**	**6.2300e-003**	**8.8000e-004**	**7.1100e-003**	**0.0000**	**30.3910**	**30.3910**	**1.1800e-003**	**0.0000**	**30.4157**

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	0.2367	1.9812	1.2862	1.8600e-003		0.1367	0.1367		0.1285	0.1285	0.0000	168.2965	168.2965	0.0417	0.0000	169.1731
Total	**0.2367**	**1.9812**	**1.2862**	**1.8600e-003**		**0.1367**	**0.1367**		**0.1285**	**0.1285**	**0.0000**	**168.2965**	**168.2965**	**0.0417**	**0.0000**	**169.1731**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.0000e-003	0.0509	0.0661	1.2000e-004	3.4100e-003	7.6000e-004	4.1700e-003	9.7000e-004	7.0000e-004	1.6800e-003	0.0000	11.0691	11.0691	8.0000e-005	0.0000	11.0708
Worker	7.8900e-003	0.0115	0.1202	2.5000e-004	0.0198	1.9000e-004	0.0200	5.2600e-003	1.8000e-004	5.4300e-003	0.0000	19.3219	19.3219	1.1000e-003	0.0000	19.3449
Total	**0.0129**	**0.0624**	**0.1863**	**3.7000e-004**	**0.0232**	**9.5000e-004**	**0.0242**	**6.2300e-003**	**8.8000e-004**	**7.1100e-003**	**0.0000**	**30.3910**	**30.3910**	**1.1800e-003**	**0.0000**	**30.4157**

3.6 Building Construction - 2017

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	0.3258	2.7726	1.9036	2.8100e-003		0.1870	0.1870		0.1757	0.1757	0.0000	251.4531	251.4531	0.0619	0.0000	252.7527
Total	**0.3258**	**2.7726**	**1.9036**	**2.8100e-003**		**0.1870**	**0.1870**		**0.1757**	**0.1757**	**0.0000**	**251.4531**	**251.4531**	**0.0619**	**0.0000**	**252.7527**

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	6.8900e-003	0.0700	0.0945	1.8000e-004	5.1500e-003	1.0300e-003	6.1800e-003	1.4700e-003	9.5000e-004	2.4200e-003	0.0000	16.4559	16.4559	1.2000e-004	0.0000	16.4584
Worker	0.0107	0.0158	0.1640	3.8000e-004	0.0299	2.8000e-004	0.0302	7.9500e-003	2.5000e-004	8.2000e-003	0.0000	28.0974	28.0974	1.5300e-003	0.0000	28.1295
Total	**0.0176**	**0.0858**	**0.2585**	**5.6000e-004**	**0.0351**	**1.3100e-003**	**0.0364**	**9.4200e-003**	**1.2000e-003**	**0.0106**	**0.0000**	**44.5533**	**44.5533**	**1.6500e-003**	**0.0000**	**44.5880**

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	0.3258	2.7726	1.9036	2.8100e-003		0.1870	0.1870		0.1757	0.1757	0.0000	251.4528	251.4528	0.0619	0.0000	252.7524
Total	**0.3258**	**2.7726**	**1.9036**	**2.8100e-003**		**0.1870**	**0.1870**		**0.1757**	**0.1757**	**0.0000**	**251.4528**	**251.4528**	**0.0619**	**0.0000**	**252.7524**

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	6.8900e-003	0.0700	0.0945	1.8000e-004	5.1500e-003	1.0300e-003	6.1800e-003	1.4700e-003	9.5000e-004	2.4200e-003	0.0000	16.4559	16.4559	1.2000e-004	0.0000	16.4584
Worker	0.0107	0.0158	0.1640	3.8000e-004	0.0299	2.8000e-004	0.0302	7.9500e-003	2.5000e-004	8.2000e-003	0.0000	28.0974	28.0974	1.5300e-003	0.0000	28.1295
Total	**0.0176**	**0.0858**	**0.2585**	**5.6000e-004**	**0.0351**	**1.3100e-003**	**0.0364**	**9.4200e-003**	**1.2000e-003**	**0.0106**	**0.0000**	**44.5533**	**44.5533**	**1.6500e-003**	**0.0000**	**44.5880**

3.7 Architectural Coating - 2016

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	0.1121					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.4000e-003	0.0605	0.0480	8.0000e-005		5.0100e-003	5.0100e-003		5.0100e-003	5.0100e-003	0.0000	6.5108	6.5108	7.7000e-004	0.0000	6.5269
Total	**0.1215**	**0.0605**	**0.0480**	**8.0000e-005**		**5.0100e-003**	**5.0100e-003**		**5.0100e-003**	**5.0100e-003**	**0.0000**	**6.5108**	**6.5108**	**7.7000e-004**	**0.0000**	**6.5269**

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	5.6000e-004	8.1000e-004	8.4800e-003	2.0000e-005	1.4000e-003	1.0000e-005	1.4100e-003	3.7000e-004	1.0000e-005	3.8000e-004	0.0000	1.3633	1.3633	8.0000e-005	0.0000	1.3650
Total	**5.6000e-004**	**8.1000e-004**	**8.4800e-003**	**2.0000e-005**	**1.4000e-003**	**1.0000e-005**	**1.4100e-003**	**3.7000e-004**	**1.0000e-005**	**3.8000e-004**	**0.0000**	**1.3633**	**1.3633**	**8.0000e-005**	**0.0000**	**1.3650**

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	0.1121					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.4000e-003	0.0605	0.0480	8.0000e-005		5.0100e-003	5.0100e-003		5.0100e-003	5.0100e-003	0.0000	6.5108	6.5108	7.7000e-004	0.0000	6.5269
Total	**0.1215**	**0.0605**	**0.0480**	**8.0000e-005**		**5.0100e-003**	**5.0100e-003**		**5.0100e-003**	**5.0100e-003**	**0.0000**	**6.5108**	**6.5108**	**7.7000e-004**	**0.0000**	**6.5269**

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	5.6000e-004	8.1000e-004	8.4800e-003	2.0000e-005	1.4000e-003	1.0000e-005	1.4100e-003	3.7000e-004	1.0000e-005	3.8000e-004	0.0000	1.3633	1.3633	8.0000e-005	0.0000	1.3650
Total	**5.6000e-004**	**8.1000e-004**	**8.4800e-003**	**2.0000e-005**	**1.4000e-003**	**1.0000e-005**	**1.4100e-003**	**3.7000e-004**	**1.0000e-005**	**3.8000e-004**	**0.0000**	**1.3633**	**1.3633**	**8.0000e-005**	**0.0000**	**1.3650**

3.7 Architectural Coating - 2017

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	0.5077					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0384	0.2524	0.2158	3.4000e-004		0.0200	0.0200		0.0200	0.0200	0.0000	29.4901	29.4901	3.1100e-003	0.0000	29.5555
Total	**0.5461**	**0.2524**	**0.2158**	**3.4000e-004**		**0.0200**	**0.0200**		**0.0200**	**0.0200**	**0.0000**	**29.4901**	**29.4901**	**3.1100e-003**	**0.0000**	**29.5555**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2600e-003	3.3300e-003	0.0347	8.0000e-005	6.3300e-003	6.0000e-005	6.3900e-003	1.6800e-003	5.0000e-005	1.7300e-003	0.0000	5.9437	5.9437	3.2000e-004	0.0000	5.9505
Total	**2.2600e-003**	**3.3300e-003**	**0.0347**	**8.0000e-005**	**6.3300e-003**	**6.0000e-005**	**6.3900e-003**	**1.6800e-003**	**5.0000e-005**	**1.7300e-003**	**0.0000**	**5.9437**	**5.9437**	**3.2000e-004**	**0.0000**	**5.9505**

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	0.5077					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0384	0.2524	0.2158	3.4000e-004		0.0200	0.0200		0.0200	0.0200	0.0000	29.4901	29.4901	3.1100e-003	0.0000	29.5554
Total	**0.5461**	**0.2524**	**0.2158**	**3.4000e-004**		**0.0200**	**0.0200**		**0.0200**	**0.0200**	**0.0000**	**29.4901**	**29.4901**	**3.1100e-003**	**0.0000**	**29.5554**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2600e-003	3.3300e-003	0.0347	8.0000e-005	6.3300e-003	6.0000e-005	6.3900e-003	1.6800e-003	5.0000e-005	1.7300e-003	0.0000	5.9437	5.9437	3.2000e-004	0.0000	5.9505
Total	**2.2600e-003**	**3.3300e-003**	**0.0347**	**8.0000e-005**	**6.3300e-003**	**6.0000e-005**	**6.3900e-003**	**1.6800e-003**	**5.0000e-005**	**1.7300e-003**	**0.0000**	**5.9437**	**5.9437**	**3.2000e-004**	**0.0000**	**5.9505**

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	0.3663	1.1735	4.3952	0.0117	0.7804	0.0170	0.7974	0.2090	0.0157	0.2247	0.0000	883.4191	883.4191	0.0346	0.0000	884.1460
Unmitigated	0.3663	1.1735	4.3952	0.0117	0.7804	0.0170	0.7974	0.2090	0.0157	0.2247	0.0000	883.4191	883.4191	0.0346	0.0000	884.1460

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	3.18	3.18	3.18	9,151	9,151
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	599.76	599.76	599.76	2,049,471	2,049,471
Total	602.94	602.94	602.94	2,058,622	2,058,622

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.531767	0.058060	0.178534	0.124864	0.038964	0.006284	0.016861	0.033134	0.002486	0.003151	0.003685	0.000540	0.001671

5.0 Energy Detail

Fleet Mix

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	131.5135	131.5135	6.0500e-003	1.2500e-003	132.0282
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	131.5135	131.5135	6.0500e-003	1.2500e-003	132.0282
NaturalGas Mitigated	0.0101	0.0865	0.0368	5.5000e-004		6.9900e-003	6.9900e-003		6.9900e-003	6.9900e-003	0.0000	100.1884	100.1884	1.9200e-003	1.8400e-003	100.7981
NaturalGas Unmitigated	0.0101	0.0865	0.0368	5.5000e-004		6.9900e-003	6.9900e-003		6.9900e-003	6.9900e-003	0.0000	100.1884	100.1884	1.9200e-003	1.8400e-003	100.7981

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					
Other Asphalt Surfaces	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
Single Family Housing	1.87746e+006	0.0101	0.0865	0.0368	5.5000e-004		6.9900e-003	6.9900e-003		6.9900e-003	6.9900e-003	0.0000	100.1884	100.1884	1.9200e-003	1.8400e-003	100.7981
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0101**	**0.0865**	**0.0368**	**5.5000e-004**		**6.9900e-003**	**6.9900e-003**		**6.9900e-003**	**6.9900e-003**	**0.0000**	**100.1884**	**100.1884**	**1.9200e-003**	**1.8400e-003**	**100.7981**

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					
Other Asphalt Surfaces	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
Single Family Housing	1.87746e+006	0.0101	0.0865	0.0368	5.5000e-004		6.9900e-003	6.9900e-003		6.9900e-003	6.9900e-003	0.0000	100.1884	100.1884	1.9200e-003	1.8400e-003	100.7981
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0101**	**0.0865**	**0.0368**	**5.5000e-004**		**6.9900e-003**	**6.9900e-003**		**6.9900e-003**	**6.9900e-003**	**0.0000**	**100.1884**	**100.1884**	**1.9200e-003**	**1.8400e-003**	**100.7981**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	459569	131.5135	6.0500e-003	1.2500e-003	132.0282
Total		**131.5135**	**6.0500e-003**	**1.2500e-003**	**132.0282**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	459569	131.5135	6.0500e-003	1.2500e-003	132.0282
Total		**131.5135**	**6.0500e-003**	**1.2500e-003**	**132.0282**

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	0.7585	0.0107	0.8474	6.6000e-004		0.0361	0.0361		0.0361	0.0361	4.2162	16.1900	20.4062	0.0211	2.8000e-004	20.9342
Unmitigated	0.7585	0.0107	0.8474	6.6000e-004		0.0361	0.0361		0.0361	0.0361	4.2162	16.1900	20.4062	0.0211	2.8000e-004	20.9342

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	0.0752					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6403					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0228	3.1500e-003	0.1931	6.3000e-004		0.0325	0.0325		0.0325	0.0325	4.2162	15.1286	19.3448	0.0200	2.8000e-004	19.8508
Landscaping	0.0202	7.5900e-003	0.6543	3.0000e-005		3.5700e-003	3.5700e-003		3.5700e-003	3.5700e-003	0.0000	1.0613	1.0613	1.0500e-003	0.0000	1.0834
Total	**0.7585**	**0.0107**	**0.8474**	**6.6000e-004**		**0.0361**	**0.0361**		**0.0361**	**0.0361**	**4.2162**	**16.1900**	**20.4062**	**0.0211**	**2.8000e-004**	**20.9342**

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	0.0752					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6403					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0228	3.1500e-003	0.1931	6.3000e-004		0.0325	0.0325		0.0325	0.0325	4.2162	15.1286	19.3448	0.0200	2.8000e-004	19.8508
Landscaping	0.0202	7.5900e-003	0.6543	3.0000e-005		3.5700e-003	3.5700e-003		3.5700e-003	3.5700e-003	0.0000	1.0613	1.0613	1.0500e-003	0.0000	1.0834
Total	**0.7585**	**0.0107**	**0.8474**	**6.6000e-004**		**0.0361**	**0.0361**		**0.0361**	**0.0361**	**4.2162**	**16.1900**	**20.4062**	**0.0211**	**2.8000e-004**	**20.9342**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	32.4005	0.1352	3.4500e-003	36.3080
Unmitigated	32.4005	0.1352	3.4500e-003	36.3101

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 2.38296	7.5762	3.5000e-004	7.0000e-005	7.6058
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	4.1047 / 2.58775	24.8244	0.1348	3.3800e-003	28.7042
Total		**32.4006**	**0.1352**	**3.4500e-003**	**36.3101**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 2.38296	7.5762	3.5000e-004	7.0000e-005	7.6058
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	4.1047 / 2.58775	24.8244	0.1348	3.3800e-003	28.7022
Total		**32.4006**	**0.1352**	**3.4500e-003**	**36.3080**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	15.9307	0.9415	0.0000	35.7018
Unmitigated	15.9307	0.9415	0.0000	35.7018

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.17	0.0345	2.0400e-003	0.0000	0.0773
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	78.31	15.8962	0.9394	0.0000	35.6245
Total		**15.9307**	**0.9415**	**0.0000**	**35.7018**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.17	0.0345	2.0400e-003	0.0000	0.0773
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	78.31	15.8962	0.9394	0.0000	35.6245
Total		**15.9307**	**0.9415**	**0.0000**	**35.7018**

One Charter Oak Residential Development Project: LST Calculations

Proposed Project Construction Schedule
Demolition: 3/1/16-3/28/16
Site Preparation: 3/29/16-4/11/16
Grading: 4/12/16-5/23/16
Paving: 5/24/16-6/20/16
Building Construction: 6/21/16-10/20/17
Architectural Coating: 10/21/16-11/20/17

Overlap
10/21/16: Building Construction and Architectural Coating

NO2:
Demolition: 45.66
Site Preparation: 54.63
Grading: 38.45
Paving: 22.39
Building Construction: 28.51 + Architectural Coating: 2.37 = 30.88

CO:
Demolition: 35.03
Site Preparation: 41.11
Grading: 26.08
Paving: 14.82
Building Construction: 18.51 + Architectural Coating: 1.88 =20.39

PM10:
Demolition: 2.99
Site Preparation: 5.69
Grading: 3.16
Paving: 1.26
Building Construction: 1.97 + Architectural Coating: 0.20 = 2.17

PM2.5:
Demolition: 2.24
Site Preparation: 4.21
Grading: 2.53
Paving: 1.16
Building Construction: 1.85 + Architectural Coating: 0.20 = 2.05

APPENDIX B

California Natural Diversity Database Search Results

Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: County is (Los Angeles) and Quad is (San Dimas (3411717) or Baldwin Park (3411718))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
American badger *Taxidea taxus*	AMAJF04010	None	None	G5	S3	SSC
arroyo chub *Gila orcuttii*	AFCJB13120	None	None	G2	S2	SSC
bank swallow *Riparia riparia*	ABPAU08010	None	Threatened	G5	S2	
big free-tailed bat *Nyctinomops macrotis*	AMACD04020	None	None	G5	S3	SSC
Brand's star phacelia *Phacelia stellaris*	PDHYD0C510	None	None	G1	S1	1B.1
California Walnut Woodland *California Walnut Woodland*	CTT71210CA	None	None	G2	S2.1	
chaparral ragwort *Senecio aphanactis*	PDAST8H060	None	None	G3?	S2	2B.2
coast horned lizard *Phrynosoma blainvillii*	ARACF12100	None	None	G3G4	S3S4	SSC
coastal California gnatcatcher *Polioptila californica californica*	ABPBJ08081	Threatened	None	G3T2	S2	SSC
coastal whiptail *Aspidoscelis tigris stejnegeri*	ARACJ02143	None	None	G5T3T4	S2S3	
Cooper's hawk *Accipiter cooperii*	ABNKC12040	None	None	G5	S4	WL
hoary bat *Lasiurus cinereus*	AMACC05030	None	None	G5	S4	
intermediate mariposa-lily *Calochortus weedii var. intermedius*	PMLIL0D1J1	None	None	G3G4T2	S2	1B.2
least Bell's vireo *Vireo bellii pusillus*	ABPBW01114	Endangered	Endangered	G5T2	S2	
many-stemmed dudleya *Dudleya multicaulis*	PDCRA040H0	None	None	G2	S2	1B.2
merlin *Falco columbarius*	ABNKD06030	None	None	G5	S3S4	WL
mesa horkelia *Horkelia cuneata var. puberula*	PDROS0W045	None	None	G4T1	S1	1B.1
pallid bat *Antrozous pallidus*	AMACC10010	None	None	G5	S3	SSC
Plummer's mariposa-lily *Calochortus plummerae*	PMLIL0D150	None	None	G4	S4	4.2
pocketed free-tailed bat *Nyctinomops femorosaccus*	AMACD04010	None	None	G4	S3	SSC

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Riversidian Alluvial Fan Sage Scrub *Riversidian Alluvial Fan Sage Scrub*	CTT32720CA	None	None	G1	S1.1	
Robinson's pepper-grass *Lepidium virginicum var. robinsonii*	PDBRA1M114	None	None	G5T3	S3	4.3
round-leaved filaree *California macrophylla*	PDGER01070	None	None	G2	S2	1B.1
San Bernardino aster *Symphyotrichum defoliatum*	PDASTE80C0	None	None	G2	S2	1B.2
San Diego black-tailed jackrabbit *Lepus californicus bennettii*	AMAEB03051	None	None	G5T3T4	S3S4	SSC
southern California rufous-crowned sparrow *Aimophila ruficeps canescens*	ABPBX91091	None	None	G5T3	S2S3	WL
Walnut Forest *Walnut Forest*	CTT81600CA	None	None	G1	S1.1	
western mastiff bat *Eumops perotis californicus*	AMACD02011	None	None	G5T4	S3S4	SSC
western yellow bat *Lasiurus xanthinus*	AMACC05070	None	None	G5	S3	SSC
western yellow-billed cuckoo *Coccyzus americanus occidentalis*	ABNRB02022	Threatened	Endangered	G5T3Q	S1	
yellow-breasted chat *Icteria virens*	ABPBX24010	None	None	G5	S3	SSC

Record Count: 31

APPENDIX C

Tree Survey

West Coast Arborists, Inc.

800 N. Banna Avenue Tree Log

NO.	SPECIES
1	Maple tree
2	Maple tree
3	Sycamore tree
4	Sycamore tree
5	Sycamore tree
6	Sycamore tree
7	Ash tree
8	Ash tree
9	Ash tree
10	Ash tree
11	Pepper tree
12	Pepper tree
13	Ash tree
14	Pine tree
15	Maple tree
16	Maple tree
17	Ash tree
18	Ash tree
19	Ash tree
20	Ash tree
21	Ash tree
22	Carrotwood tree
23	Carrotwood tree
24	Carrotwood tree
25	Jacaranda tree
26	Jacaranda tree
27	Juniper tree
28	Juniper tree
29	Ash tree
30	Ash tree
31	Ash tree
32	Ash tree

E Cypress St
E Cypress St
E Cypress
N Kidder Ave
N Bar Ave
E Colver Pl
E Colver Pl
Colver Pl
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Imagery ©2015 Google, Map data ©201

APPENDIX D1

Cultural Resources

cogstone
PALEONTOLOGY - ARCHAEOLOGY - HISTORY

March 20, 2015 Cogstone 3330

To: Josh Haskins, Principal, Environmental Advisors
From: Megan Wilson, Archaeologist

RE: CONFIDENTIAL Cultural Resources Records Search for the Banna Crossing Homes, City of Covina, Los Angeles County.

Dear Mr. Haskins:

The following letter report details the methods and results of the cultural resource records search for the Banna Crossing Homes Project located in the City of Covina, Los Angeles County. This records search includes a cultural resources study of the eight and a half acre Project Area including a one-mile radius around the Project Area.

The Project Area, hereinafter referred to as PA, is located in the City Of Covina, bordered by Cypress Street to the north, Clover Street to the south, Banna Avenue to the west, and Kidder Avenue to the east. Specifically, the PA is located on the U.S. Geological Survey (USGS) San Dimas 7.5-Minute quadrangle map within Section 7 of Township 1 South, Range 7 West (Figure 1).

The Cogstone records search was conducted at the South Central Coastal Information Center on March 19, 2015. The record search covered a one-mile radius around the PA (Figure 2). The CHRIS search included a review of the National Register of Historic Places, the California Register of Historical Resources, the list of California Points of Historical Interest, the list of California Historical Landmarks, the Archaeological Determinations of Eligibility list, and the California State Historic Resources Inventory list. One resource, P-19-187085 or "The Mojave Road", located one-half mile from the PA is a registered as a California Registered Historical Landmark (CRHL No. 693)

Fifteen prior studies were previously conducted within the search radius. No studies were located within the boundaries of the PA (Table 1). One study was located within a quarter-mile radius and one was located within a half-mile radius. The remaining 13 studies were located within a one-mile radius of the PA.

Four previously recorded cultural resources are located within a one-mile radius of the PA (Table 2; Figure 3). Of the four resources, none are located within the PA. Two prehistoric sites and one California Registered Historical Landmark (The Mojave Road) are located within a half-mile radius of the PA. One historic church is located within a one-mile radius of the PA.

The finding of this study is No Historic Properties Affected pursuant to Section 106 of the National Historic Preservation Act of 1966, and its implementing regulations (36 CFR 800.4) with respect to the identification and preservation of historic resources.

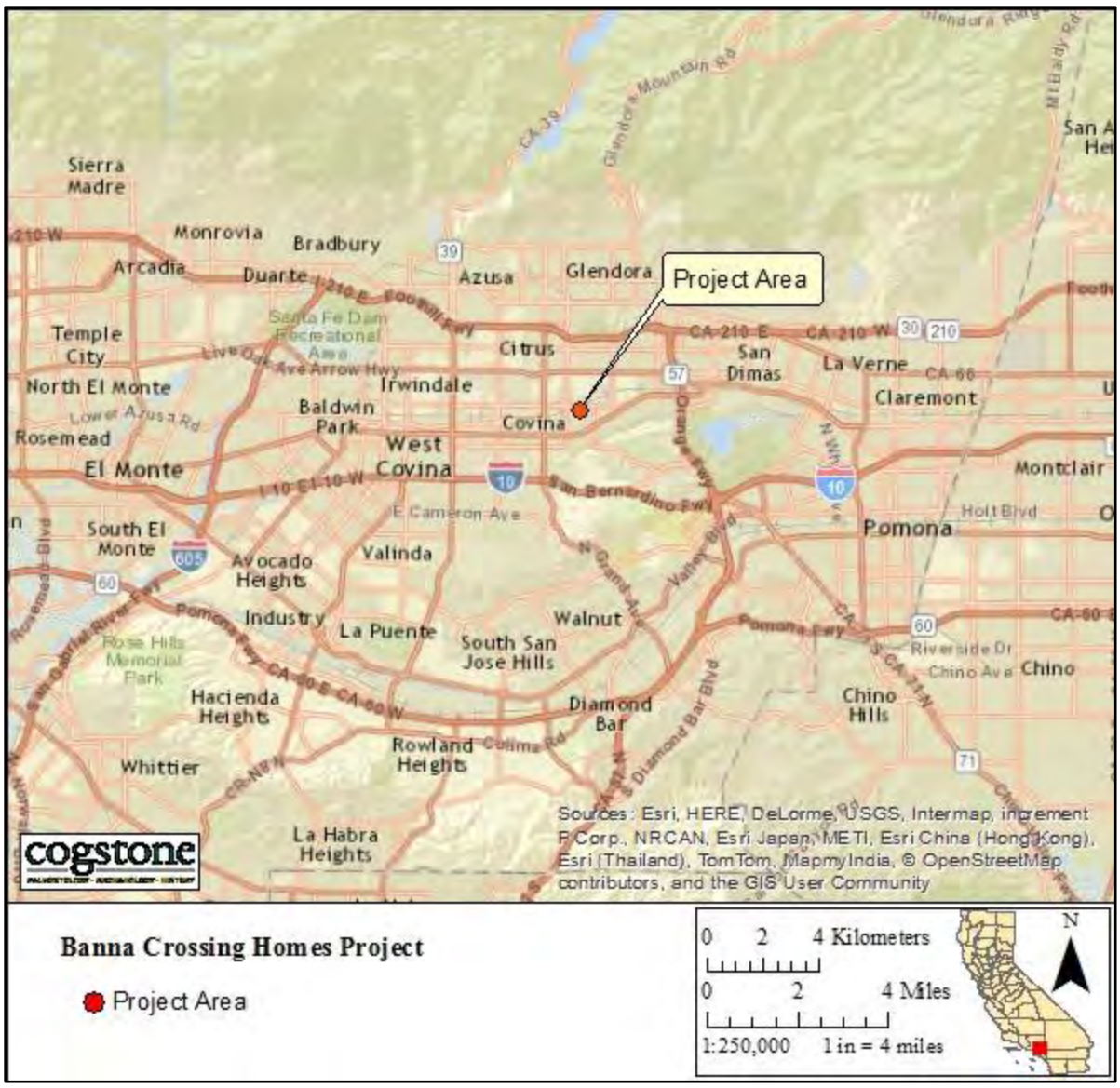


Figure 1. Project Vicinity

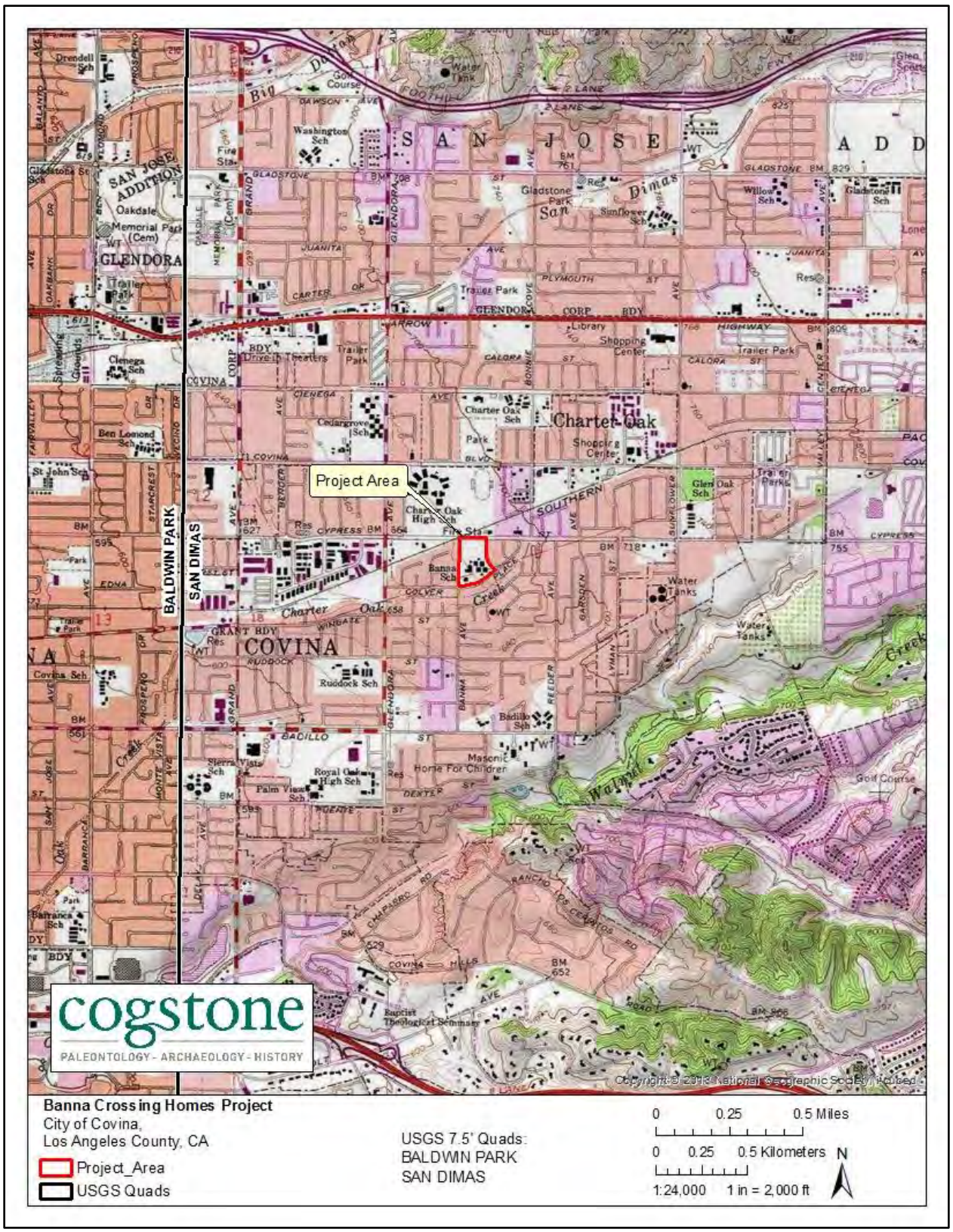


Figure 2. Project Location

Table 1. Previously Recorded Cultural Resources Studies within 1 mile of the PA

Report No. (LA)	Date	Author	Report Title	Distance from PA
1033	1981	Van Horn, David M. and William A Sawyer	Archaeological Survey Report: A 5 Acre Archaeological Associates, Parcel Located in La Canada/Flintridge in Los Angeles County, California	1 mi
1320	1984	Colby, Susan M. and Richard Aycock	An Archaeological Resource Survey and Impact Assessment of Roadway Improvements and Bridge Reconstruction on Walnut Creek in the Vicinity of Covina and San Dimas in Los Angeles County, California	1 mi
2589	1982	McKenna, Jeanette A.	Phase I Cultural Resources Investigations of the Proposed Crossroads Business Park, City of Industry, Los Angeles County, California	1 mi
2665	1985	Cottrell, Marie G., James N. Hill, Stephen Van Wormer, and John Cooper	Cultural Resource Overview and Survey for the Los Angeles County Drainage Area Review Study	1 mi
3508	1985	Van Wormer, Stephen R.	Historical Resource Overview and Survey for the Los Angeles County Drainage Area Review Study	1 mi
4958	2001	Duke, Curt	Cultural Resource Assessment Cingular Wireless Facility No. Vy 060-01 Los Angeles County, California	1 mi
5725	2001	Duke, Curt	Cultural Resources Assessment Cingular Wireless Facility No. Vy 095-01 Los Angeles County, California	
5924	2000	Bonner, Wayne H.	Records Search for Attws Site C826, Located at 984 Badillo Street, Covina, Los Angeles County, California. San Dimas Quadrangle	1 mi
7923	2006	Bonner, Wayne H.	Cultural Resources Records Search Results 3019318 (5014-69) (Charter Oaks), 1066 East Edna Place, Covina, Los Angeles County, California	1 mi
8052	2005	Bonner, Wayne H.	Cultural Resources Records Search Results Michael Brandman and Site Visit for T-Mobile Candidate le05395c (sc395 Suburban Plant 115), 20500 Block of Rancho La Floresta Road, Covina, Los Angeles County, California	1 mi
8829	2007		Cultural Resources Records Search and Site Visit Results for Royal Street Communications, Lie Candidate La0413b (Sunflower Revenge), 21008 East Arrow Highway, Covina, Los Angeles County, California	1 mi
10653	2010	Schmidt, June	Maybell 12 kV Deteriorated Pole Replacement Project (WO 6026-4800; K-4805), Near Covina, Los Angeles County, California	1 mi
10641	2010	Tang, Bai "Tom"	Preliminary Historical/Archaeological Resources Study, San Bernardino Positive Train Control Project, Southern California Regional Rail Authority, Counties of Los Angeles and San Bernardino	1 mi
11394	2011	Martorana, Dean	Verizon Wireless- Larkin, 20300 East Cienega Avenue, Covina, CA	.5 mi
11538	2010	Linn, Robert	Covina Baptist- T-Mobile Facility 1288 N. Bonnie Cove Avenue City of Covina, Los Angeles County	1 mi

Table 2. Previously Recorded Cultural Resources within .5 miles of the APE

Primary No. (P-19-)	Trinomial (CA-LAN-)	Date	Description	Distance from PA
000329	329	1966	Prehistoric site, groundstone scatter. Site completely destroyed, artifacts are in possession of the Palm View Elementary School.	.5 mi
001014	1014	1979	Prehistoric site on bluff, groundstone scatter.	1 mi
190299	N/A	2012	Historic, one-two story, asymmetrical, irregular shaped, Modern style church.	.5 mi
187085	N/A	Unkown	The Mojave Road. A roughly 300 mile road that runs from the Los Angeles Harbor to the Nevada State Line, following a former Mojave Indian trail.	.5 mi

Figure 3. Banna Crossing Homes Project Records Search Map Record Search Map (confidential)

STATE OF CALIFORNIA Edmund G. Brown, Jr., Governor

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd., ROOM 100
West SACRAMENTO, CA 95691
(916) 373-3710
Fax (916) 373-5471

April 6, 2015

Planning Division
City of Covina
APR 1 8 2015
125 E. College Street
(626) 858-7243

Nancy Fong
City of Covina
125 East College Street
Covina, CA 91723-2199

RE: SB 18 Consultation, General Plan Amendment 15-001 and Zone Change 15-001, Banner Crossing Project, Los Angeles County.

Dear Ms. Fong,

Government Code §65352.3 requires local governments to consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose of protecting, and/or mitigating impacts to cultural places in creating or amending general plans, including specific plans. Attached is a consultation list of tribes with traditional lands or cultural places located within the boundaries of the above project.

As a part of consultation, the NAHC recommends that local governments conduct record searches through the NAHC and California Historic Resources Information System (CHRIS) to determine if any cultural places are located within the area(s) affected by the proposed action. A *Sacred Lands File* search was not completed. Local governments should be aware that records maintained by the NAHC and CHRIS are not exhaustive, and a negative response to these searches does not preclude the existence of a cultural place. A tribe may be the only source of information regarding the existence of a cultural place.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance we are able to assure that our consultation list contains current information.

If you have any questions, please contact me at my email address: Katy.Sanchez@nahc.ca.gov.

Sincerely,

Katy Sanchez

Katy Sanchez
Associate Government Program Analyst

Native American Tribal Government Consultation List
Los Angeles County
April 6, 2015

San Manuel Band of Mission Indians
Lynn Valbuena, Chairwoman
26569 Community Center — Serrano
Highland , CA 92346
(909) 864-8933

Coastal Band of the Chumash Nation
Michael Cordero, Chairperson
P.O. Box 4464 — Chumash
Santa Barbara , CA 93140
CbcnTRIBALCHAIR@gmail.com
(805) 689-9528

Barbareno/Ventureno Band of Mission Indians
Julie Lynn Tumamait-Stennslie, Chair
365 North Poli Ave — Chumash
Ojai , CA 93023
jtumamait@hotmail.com
(805) 646-6214

Kern Valley Indian Council
Robert Robinson, Co-Chairperson
P.O. Box 401 — Tubatulabal
Weldon , CA 93283 — Kawaiisu
brobinson@iwvisp.com — Koso
(760) 378-4575 Home — Yokuts
(760) 549-2131 Work

Kitanemuk & Yowlumne Tejon Indians
Delia Dominguez, Chairperson
115 Radio Street — Yowlumne
Bakersfield , CA 93305 — Kitanemuk
deedominguez@juno.com
(626) 339-6785

Gabrielino-Tongva Tribe
Linda Candelaria, Co-Chairperson
1999 Avenue of the Stars, Suite 1100
Los Angeles , CA 90067
Gabrielino
(626) 676-1184 Cell

San Fernando Band of Mission Indians
John Valenzuela, Chairperson
P.O. Box 221838 — Fernandeño
Newhall , CA 91322 — Tataviam
tsen2u@hotmail.com — Serrano
(661) 753-9833 Office — Vanyume
(760) 885-0955 Cell — Kitanemuk

Gabrieleno Band of Mission Indians - Kizi Nation
Andrew Salas, Chairperson
P.O. Box 393
Covina , CA 91723
gabrielenoindians@yahoo.com — Gabrielino
(626) 926-4131

Gabrieleno/Tongva San Gabriel Band of Mission Indians
Anthony Morales, Chairperson
P.O. Box 693 — Gabrielino Tongva
San Gabriel , CA 91778
GTTribalcouncil@aol.com
(626) 483-3564 Cell

Gabrielino /Tongva Nation
Sam Dunlap, Cultural Resources Director
P.O. Box 86908 — Gabrielino Tongva
Los Angeles , CA 90086
samdunlap@earthlink.net
(909) 262-9351

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is applicable only for consultation with Native American tribes under Government Code Section 65352.3 and 65362.4. et seq.

Sacred Lands File & Native American Contacts List Request

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
(916) 373-3710
(916) 373-5471 – Fax
nahc@nahc.ca.gov

Information Below is Required for a Sacred Lands File Search

Project: One Charter Oak Residential Development Project

County: Los Angeles

USGS Quadrangle Name: San Dimas, CA

Township: 1 North **Range:** 9 West **Section(s):** 7

Company/Firm/Agency: Dudek

Contact Person: Samantha Murray, M.A., RPA

Street Address: 38 N. Marengo Avenue

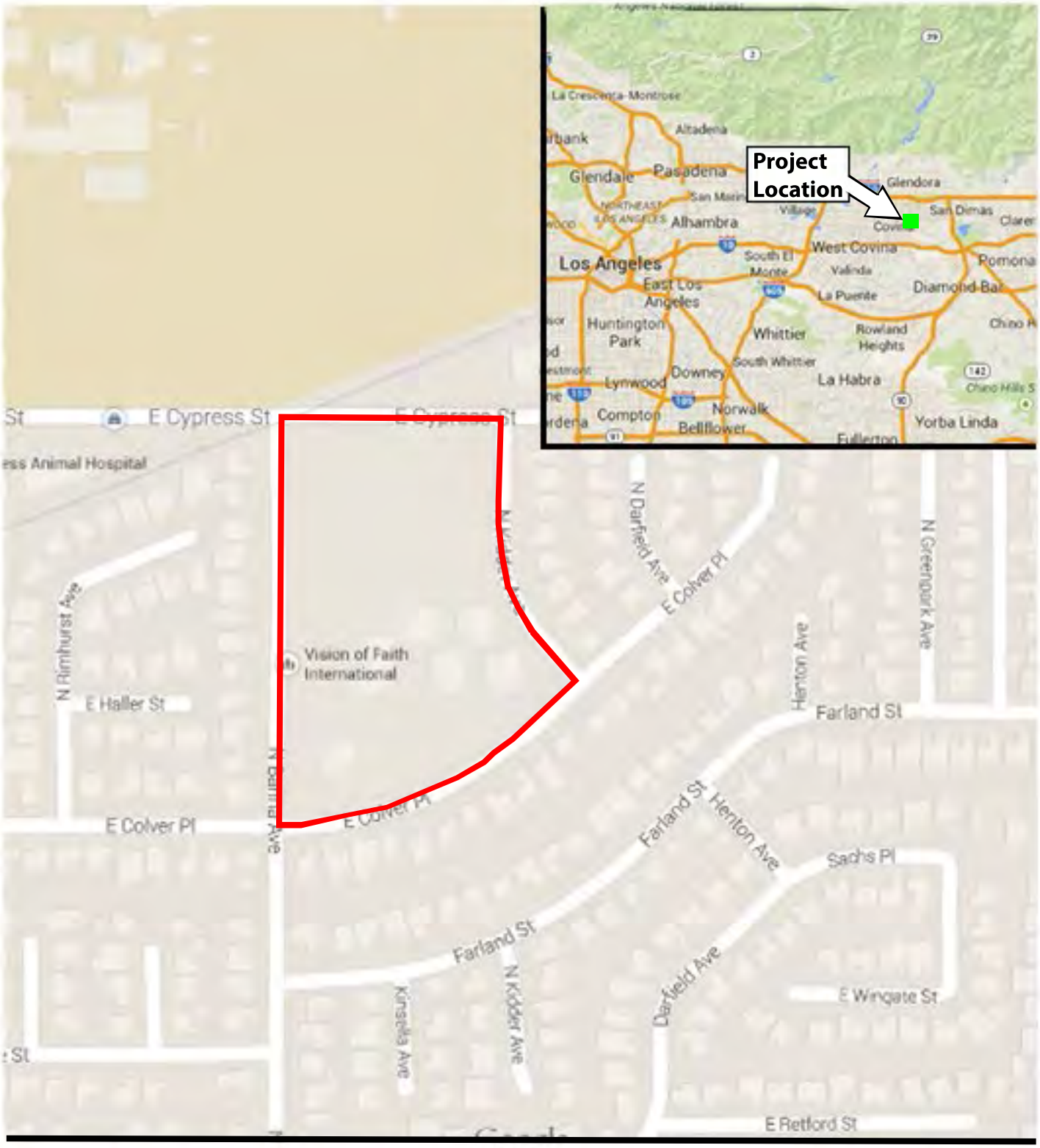
City: Pasadena **Zip:** 91101

Phone: 626-204-9826 **Fax:** 626-204-9834

Email: smurray@dudek.com

Project Description: The proposed project would involve construction of single-family residences and establishment of a City park at an 8.57-acre site that was originally developed as an elementary school. The site is located in the City of Covina at 800 North Banna Avenue. The site has not been used as a school for approximately 15 years and is currently leased to a church.

(See attached Project Location Map)



Legend:

Project

N

Figure 1: Project Location and Boundary Map

STATE OF CALIFORNIA Edmund G. Brown, Jr., Governor

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd., ROOM 100
West SACRAMENTO, CA 95691
(916) 373-3710
Fax (916) 373-5471

October 5, 2015

Samantha Murray
Dudek
38 N. Marengo Avenue
Pasadena, CA 91101

Sent by E-mail: smurray@dudek.com
Number of Pages: 3

Re.: Project One Charter Oak Residential Development, Los Angeles County

Dear Ms. Murray:

A record search of the Native American Heritage Commission (NAHC) *Sacred Lands File* was completed for your project area with negative results, based on the USGS quadrangle information you provided. Please note that the absence of specific site information in the *Sacred Lands File* does not indicate the absence of Native American cultural resources in any APE. Other sources of cultural resources information should be contacted regarding known and recorded sites.

Please contact all of the people on the attached list. The list should provide a starting place to locate areas of potential adverse impact within the APE. I suggest you contact all of those listed, if they cannot supply information, they might recommend others with specific knowledge. By contacting all those on the list, your organization will be better able to respond to claims of failure to consult. If a response has not been received within two weeks of notification, the NAHC requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at my email address: rw_nahc@pacbell.net.

Sincerely,

C Daylon
for

Rob Wood
Associate Governmental Program Analyst

Native American Contact List
Los Angeles County
October 5, 2015

Tongva Ancestral Territorial Tribal Nation
John Tommy Rosas, Tribal Admin.
Gabrielino Tongva
tattnlaw@gmail.com
(310) 570-6567

Gabrielino-Tongva Tribe
Bernie Acuna, Co-Chairperson
1999 Avenue of the Stars, Suite 1100 Gabrielino
Los Angeles , CA 90067
(310) 428-5690 Cell

Gabrieleno/Tongva San Gabriel Band of Mission Indian
Anthony Morales, Chairperson
P.O. Box 693 Gabrielino Tongva
San Gabriel , CA 91778
GTTribalcouncil@aol.com
(626) 483-3564 Cell
(626) 286-1262 Fax

Gabrielino-Tongva Tribe
Linda Candelaria, Co-Chairperson
1999 Avenue of the Stars, Suite 1100 Gabrielino
Los Angeles , CA 90067
(626) 676-1184 Cell

Gabrielino /Tongva Nation
Sandonne Goad, Chairperson
106 1/2 Judge Jo†hn Aiso Gabrielino Tongva
Los Angeles , CA 90012
sgoad@gabrielino-tongva.com
(951) 807-0479

Gabrieleno Band of Mission Indians - Kizh Nation
Andrew Salas, Chairperson
P.O. Box 393 Gabrielino
Covina , CA 91723
gabrielenoindians@yahoo.
(626) 926-4131

Gabrielino Tongva Indians of California Tribal Council
Robert F. Dorame, Tribal Chair/Cultural Resources
P.O. Box 490 Gabrielino Tongva
Bellflower , CA 90707
gtongva@verizon.net
(562) 761-6417 Voice/Fax

Gabrielino-Tongva Tribe
Conrad Acuna
1999 Avenue of the Stars, Suite 1100 Gabrielino
Los Angeles , CA 90067

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed Project One Charter Oak Residential Development, Los Angeles County.

Native American Contact List
Los Angeles County
October 5, 2015

Gabrielino /Tongva Nation
Sam Dunlap, Cultural Resources Director
P.O. Box 86908 Gabrielino Tongva
Los Angeles , CA 90086
samdunlap@earthlink.net
(909) 262-9351

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed Project One Charter Oak Residential Development, Los Angeles County.

Natural History Museum
of Los Angeles County
900 Exposition Boulevard
Los Angeles, CA 90007

tel 213.763.DINO
www.nhm.org

Vertebrate Paleontology Section
Telephone: (213) 763-3325
Fax: (213) 746-7431
e-mail: smcleod@nhm.org

21 May 2015

Cogstone Resource Management, Inc.
1518 West Taft Avenue
Orange, CA 92865-4157

Attn: Megan Wilson, Archaeologist and GIS Technician

re: Vertebrate Paleontology Records Check for paleontological resources for the proposed Banna Crossing Homes Project, Cogstone Project # 3330, in the City of Covina, Los Angeles County, project area

Dear Megan:

I have conducted a thorough search of our paleontology collection records for the locality and specimen data for the proposed Banna Crossing Homes Project, Cogstone Project # 3330, in the City of Covina, Los Angeles County, project area as outlined on the portion of the San Dimas USGS topographic quadrangle map that you sent to me via e-mail on 6 May 2015. We do not have any vertebrate fossil localities that lie directly within the proposed project area, but we do have a vertebrate fossil locality relatively nearby from sedimentary deposits somewhat similar to those that occur in the proposed project area.

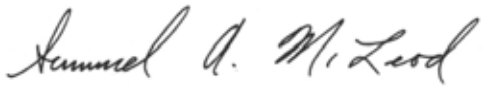
Surface deposits in most of the proposed project area consist of older Quaternary Alluvium, derived as alluvial fan deposits from the San Gabriel Mountains to the north and possibly from the San Jose Hills just to the south. In the northwestern portion of the proposed project area there are surface deposits of younger Quaternary Alluvium, derived from the San Gabriel Mountains to the north via San Dimas Creek to the north and Charter Oak Creek adjacent to the south. The younger Quaternary Alluvium typically does not contain significant vertebrate fossils, at least in the uppermost layers, but is usually underlain by older Quaternary deposits in the area. Our closest vertebrate fossil locality in older Quaternary deposits is LACM 1728, situated in English Canyon southwest of the City of Chino south-southeast of the proposed

project area. Specimens of fossil horse, *Equus*, and camel, *Camelops*, were recovered from locality LACM 1728 at a depth of 15 to 20 feet below the surface.

Surface grading or very shallow excavations in the younger Quaternary Alluvium exposed in northwestern portion of the proposed project area probably will not encounter any significant vertebrate fossil remains. Deeper excavations there that extend down into older Quaternary deposits, or any excavations in the exposures of older Quaternary Alluvium in the southern portion of the proposed project area, however, may well uncover significant fossil vertebrate remains. Any substantial excavations in the sedimentary deposits in the proposed project area, therefore, should be monitored closely to quickly and professionally recover any fossil remains discovered while not impeding development. Sediment samples should also be collected and processed to determine the small fossil potential in the proposed project area. Any fossils recovered during mitigation should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations.

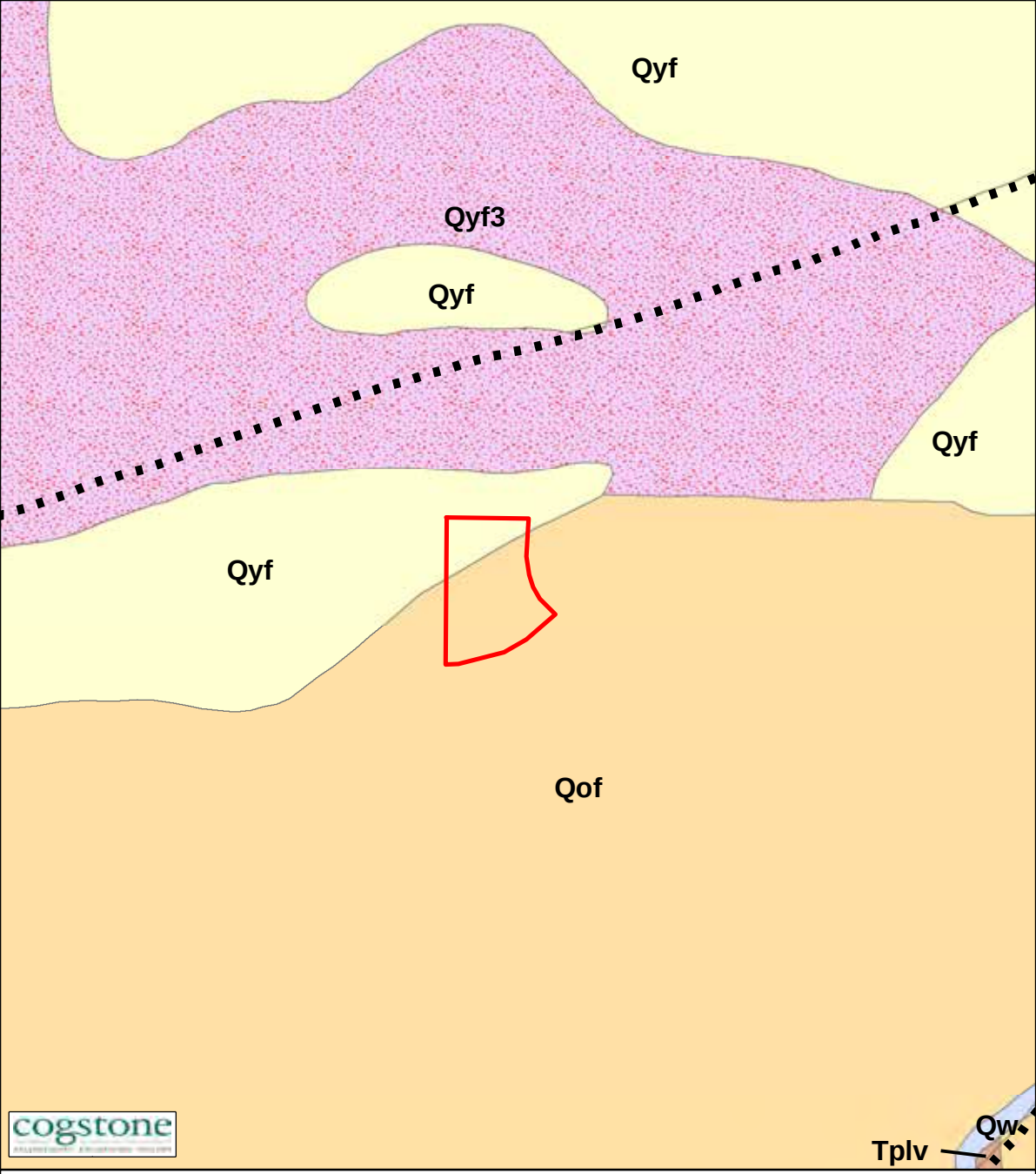
This records search covers only the vertebrate paleontology records of the Natural History Museum of Los Angeles County. It is not intended to be a thorough paleontological survey of the proposed project area covering other institutional records, a literature survey, or any potential on-site survey.

Sincerely,



Samuel A. McLeod, Ph.D.
Vertebrate Paleontology

enclosure: invoice



Banna Crossing Homes Project
City of Covina,
Los Angeles County, CA

0 500 1,000 Feet
0 100 200 Meters
N
1:12,000 1 in = 1,000 ft

Project Area
Fault

Geology Legend: Morton & Miller, 2006
- Qw: very young wash deposits (late Holocene)
- Qyf: young alluvial-fan deposits (Holocene and latest Pleistocene)
- Qyf3: young alluvial-fan deposits, unit 3 (late and middle Holocene)
- Qof: old alluvial-fan deposits (late to middle Pleistocene)
- Tplv: Puente Formation, La Vida member (Miocene)

APPENDIX D2

Historic Resources Assessment

HISTORIC RESOURCES ASSESSMENT
BANNA STREET SCHOOL SITE
800 N. BANNA AVENUE
COVINA, CA 91724

April 2015

Completed by:
CWHPC
703 N. Lemon Street
Anaheim, CA 92805

HISTORIC RESOURCES ASSESSMENT
BANNA STREET SCHOOL SITE
800 N. BANNA AVENUE COVINA, CA 91724

CONTENTS

Introduction

Background

Setting and Context

History of Ownership and Occupancy

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CA DPR 523 forms
Office of Historic Preservation

DPR 523A Primary Record

DPR 523L Continuation Legal Description

DPR 523B Building, Structure, Object

DPR 523I Photographic Record

Source Materials

HISTORIC RESOURCES ASSESSMENT
BANNA SCHOOL SITE
800 N. BANNA AVENUE COVINA CA 91724

APRIL 2015

Introduction:

This Historic Resources Assessment has been completed by Architectural Historian Teri Vaughn and Preservation Consultant Cynthia Ward, for CWHPC, in an effort to document the institutional resources related to the Banna School Site of Covina CA. This property is identified by Assessor's Parcel Number 8427-003-901 and by the legal description included in Appendix A.

In April 2015, Ms. Vaughn conducted a field inspection of the property for condition, setting, and context, as well as capturing a photographic record of the site to determine current conditions and integrity. Historic research conducted by Ward and Vaughn has been combined with previous efforts to document and record conditions of the site for compliance with State CEQA requirements. These previous efforts include an Initial Mitigated Negative Declaration by the City of Covina as well as academic research and peer reviewed study which documented the progressive movement in educational theories of the early 20th century and its effect on architectural form and interior design as they related to the classroom setting.

Together these resource materials and first person study and documentation offer an assessment of the potential historical significance of the property. Evaluation of the school site has been based on the criteria set by the Secretary of the Interior's Standards for the Treatment of Historic Properties.

HISTORIC RESOURCES ASSESSMENT
BANNA SCHOOL SITE
800 N. BANNA AVENUE COVINA CA 91724

APRIL 2015

Background:

Date stamped As Built drawings provided by Charter Oak Unified School District Dated 1963 confirm date of construction.

Previous requests by Partner Engineering for a MND report on the property revealed a lack of building permits to otherwise confirm the date of construction or name of Builder/Contractor.

"Name of Agency: City of Covina Building Department (CBD) and City Clerk/Records Management
Point of Contact: Records Coordinator
Agency Address: 125 East College Street, Covina, CA 91723
Agency Phone Number: (626) 384-5430
Date of Contact: February 27, 2015
Method of Communication: Faxed Request
Summary of Communication:
Building permits for the subject property were not available at the City of Covina or CBD. The City of Covina referred Partner to the Charter Oak School District (COSD). Available records indicated that the subject property is zoned as the Sunrise Christian School.
Partner contacted the COSD for information regarding original building permits for the existing school. As of the date of this report, (March 27, 2015) Partner has not received a response from the COSD for inclusion in this report."

Previous requests by Partner Engineering for a MND report on the property revealed a lack of Sanborn Maps of the property.

February 16, 2015
"Certified Sanborn Map Report on behalf of Partner Engineering
Certification # 0F73-434A-A287
UNMAPPED PROPERTY
This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found."

Previous requests by Partner Engineering for an MND report on the property revealed a lack of historic resources on the site, as reported to SCCIC database.

"Covina Mitigated Negative Declaration
A records search covering the project site and a one-mile radius around the project was conducted at the South Central Coastal Information Center on March 19, 2015 by Megan Wilson of Cogstone. The results of the records search are included as Appendix D of this document. The California Historical Resources Information System search included a review of the National Register of Historic Places, the California Register of Historical Resources, the list of California Points of Historical Interest, the list of California Historical Landmarks, the Archaeological Determinations of Eligibility list, and the California State Historic Resources Inventory list.

The records search found that fifteen prior studies were previously conducted within the search radius. No studies were located within the boundaries of the project site. One study was located within a quarter-mile radius and one was located within a half-mile radius. The remaining 13 studies were located within a one-mile radius of the project site.

According to the records search four previously recorded cultural resources are located within a one-mile radius of the project site. Of the four resources, none are located within the project site. Two prehistoric sites and one California Registered Historical Landmark (CRHL No. 693 – The Mojave Road) are located within a half-mile

radius of the project site. One historic church is located within a one-mile radius of the project site.

Based on the results of the records search, there are no historical resources located with the project site."

HISTORIC RESOURCES ASSESSMENT
BANNA SCHOOL SITE
800 N. BANNA AVENUE COVINA CA 91724

APRIL 2015

Setting and Context:

As Amy F. Ogata reports in *"Building for Learning in Postwar Elementary Schools,"* Journal of the Society of Architectural Historians 67 (December 2008): 562-91 the landscape of school development in the early decades of the 20th century created opportunity and motivation to remake the entire design theory of institutional architecture as it related to educational theory. Nowhere else in the world of design did "form follows function" speak more clearly than the changing vision for school construction, with a new focus on student centered learning modalities that turned away from the rigid teacher-centric designs that had driven educational architecture for several centuries. Traditional schools had been little more than any sizable interior space sufficient to house the number of students enrolled. Blackboards had often been little more than painted surfaces, often on rough lumber. Reports of overturned wooden produce crates serving as both seating and desk surfaces for students were common in the years leading up to the Post-War housing boom of the 20th century that completely reimagined the school setting, as a factory for learning, complete with its own specifically designed equipment and furniture.

Early 20th century schoolhouses had followed the architectural mandate of quasi-governmental design which dictated buildings of very formal orders, with Greek Revival or classical architecture Neo-Gothic or Colonial Revival multi-story edifices to rival the Courthouse which anchored the town center. Interior classroom design of these early institutions of learning showed an emphasis on order, desk work, discipline and rote memory.

High prices and scarcity of materials during the Depression years and World War 2 left little opportunity to repair aging school sites, certainly no materials were available for new or replacement facilities,

and crowded conditions unsuited to children were common across the United States as the nation left behind the Victorian and Edwardian norm of adult centric design for a more child centered focus on education.

No longer seen as miniature versions of adults, educational theory began examining the learning patterns of children, including the role that emotional well being and a sense of security played in the child's ability to learn and excel in the classroom setting.
This new focus on holistic learning modalities extended to the physical setting in which students were asked to learn, and architects and interior designers began working with lighting specialists and experts in chromotherapy as well as chiropractic and osteopathic medicine in order to devise the optimum setting for early childhood education.

Out of this intensive study came a new design theory for school site construction, adopting John Dewey's theories of democracy, and learning through theory and activity, with child-centered classrooms taking the place of traditional teacher-centered designs of earlier centuries. Movable furniture, group activities, hand's on experiential learning. which focused on group activity centers using portable classroom furniture in place of heavy desks bolted to the floors in uniformity, nature-based curriculums facilitiated by indoor/outdoor learning spaces, and broad expanses of glass perfectly shaded to control light, reduce glare, and improve morale. Wall paint was selected to engage areas of the brain known to be activated and engaged by specific hues and tones of light and color spectrum. The classroom setting of the one-room schoolhouse in which all grades learned together was traded for a segregated population sorted by age and grade level, with individual "units" of architectural independence separated from other age populations, and outdoor play spaces integrated to the classroom modules by grade and physical size and ability of the students.

European trained architects working in the US during the 1930s and 40s offered design reflective of small, intimate, and home-like settings intended to welcome children rather than intimidate them. Ceiling heights were lowered, and even fireplaces became integrated into public spaces within administrative units of the buildings. The nature based educational theories which focused on a child's inate sense of wonder and curiosity regarding the world around them began to drive designs incorporating expansive windows, with window seats beneath the fenstration bands to encourage independent reading in natural lighting conditions. Schools increasingly offered floor to ceiling glass or full span sliding glss doors with deep overhangs, which permitted indoor-outdoor teaching spaces. including the opportunity for outdoor activity in inclement weather, while also shading the direct sunlight to offer muted daylight to reduce the distractions of glare.

Richard Neutra, set an early tone alongside Howe and Lescaze, modeled in part by Amsterdam's Open Air School by Johannes Duiker. Saarinen's Crow Island School in Winnetka offered the first of the "finger schools" arranged in a pinwheel that accessed the central administrative block building, with the various age and grade groupings representing the fingers of each building unit. Units functioned as independent modular operations, in settings designed for age appropriate activity. Thus the Pre-K Kindergarten unit may be surrounded by hands on gardens, with emphasis on touch and smell and taste. Units for upper grades would offer landscape settings with a focus on more physical activities and sporting opportunities, as well as visually attractive viewsheds to spark artistic interests.

A finding by the *National Council on Schoolhouse Construction* declared multi-storied structures with bottle-neck staircases dangerous and too difficult to evacuate, a fear that continued from World War 2 into the Cold War. The burgeoning steel industry transitioning from wartime manufacturing to a post-war economy quickly understood the advantages of promoting use of their product in school construction, aiding architects in designing open truss lightweight framing using steel.

From 1942 to 1946. MoMA, offered a traveling display of innovative school design to encourage progessive architectural settings.

“Schoolroom Progress USA,” offered by the Henry Ford Museum/ Greenfield Village and Encyclopedia Americana, traveled the nation in two railroad cars, and continued to introduce educational theory through environment well into the late 1950s, exposing even the most rural of school district trustees to the idea that where students learn has as much impact as what they learned.

William Wayne Caudill adapted the progressive movement’s design for the harsh Texas landscape in his 1941 study “*Space for Teaching.”*

In California, the long spans of glass original to the designs of Saarinen and Neutra in eastern and mid-west construction were adapted into long parallel outdoor corridors, open to the elements, with eave overhangs and louvered shades to reduce and control glare.

“Finger Plan” schools transitioned to “Cluster Plans” in California, with “age neighborhoods” separating younger students from upper grades, while turning the units inward toward a central courtyard as a reminder of the group or community relationship.

This focus on design theory coincided at a time when new school construction was at its peak. In 1955, Architectural Forum reported, *“every 15 minutes enough babies are born to fill another classroom and we are already 250,000 classrooms behind.”*

1949-50 enrollment in public schools was reportedly 25.1 million and increased by at least 11 million from 1959-1960. Student enrollment peaked in 1971, at 46 million children.

Western migration of America’s workforce in previously unheard of numbers strained the capacity of California’s existing school facilities. The task of providing the funding for new or renovated facilities was the responsibility of local school districts, who were reluctant to issue bonds payable by their constituents, and even more reluctant to accept funding from Federal sources, fearing loss of local control with Federal educational mandates. Thus construction began greatly lagging behind the need for new facilities.

The 1957 Sputnik crisis changed the views of both local school boards and Federal funding, as a “race to the classroom” rivaled the space race, and all of America recognized the vital importance of educating a future workforce in math and sciences previously lacking focus in educational theory. Fears of losing local control took a back seat to fears of the “Russian menace” in Cold War America, and Federal funding was openly accepted by local school districts in unprecedented amounts, driving construction of new school facilities.

New residential developments of the “post war boom” incorporating formulaic plans of “tract housing” also sought a method for developing formulaic plans for school sites, which could be constructed quickly and economically in coordination with development of the housing where these new students would reside. Many of California’s larger, more prominent architectural firms on the cutting edge of educational design theory were tapped to provide standard designs to be used district-wide. Thus a review of individual school districts in California reflecting significant growth patterns in the years of 1945 through 1970s often reflect mirror image construction of school sites, indistinguishable from one another beyond orientation for sun and light patterns and egress for automobile traffic. In the speed of construction, design theory was lost, and the examples of school facilities constructed post-1957 often reflect formulaic imitations of “Crow Island idealism”, with few examples considered today as significant resources.

A study by LAUSD on the historic significance of campus architecture shares the following, which appears applicable to a review of the Banna school site;

“CONTEXT: PUBLIC AND PRIVATE INSTITUTIONAL DEVELOPMENT | EDUCATION
THEME: LAUSD | EDUCATING THE BABY BOOM: THE POSTWAR MODERN FUNCTIONALIST SCHOOL PLANT, 1945–1969
By the 1950s, many of the design ideas considered experimental in the 1930s had matured and become the national standard for schools. Stylistically, schools might include some historicist detailing reflecting popular styles (such as Colonial Revival). However, overall, a unified campus design, building types and plans that accommodated a high degree of indoor-outdoor integration, ample

outdoor spaces, and sheltered corridors marked the typology as the mature version of the functionalist school plant. The priority remained the creation of a domestic scale for schools. Campuses displayed a one-story massing for elementary schools, and up to two stories for middle and high schools. Site plans, which often featured a decentralized, pavilion–like layout, lacked the formality and monumentality that characterized earlier eras of school design. School types expressive of these ideals include the finger-plan (1940s through 1950s) and cluster-plan (1950s), and variations on their basic themes. Combinations of these basic forms, which flexed according to available lot size and school enrollment, are also evident.

For LAUSD, the postwar years brought another round of reform as well as unprecedented expansion. Given the postwar classroom shortage, many campuses were constructed quickly, from standardized plans used district-wide, in designs that convey some of these ideas. The most intact and well-designed campuses among these, though, uniquely represent this era of reform and the midcentury modern school."

"Building for Learning in Postwar Elementary Schools," Journal of the Society of Architectural Historians 67 (December 2008): 562-91
Amy F. Ogata

Weisser, Amy S., "'Little Red School House, What Now?' Two centuries of American Public School Architecture," Journal of Planning History 5 (August 2006): 196-217

HISTORIC RESOURCES ASSESSMENT
BANNA SCHOOL SITE
800 N. BANNA AVENUE COVINA CA 91724

APRIL 2015

History of Ownership and Occupancy:
Approx. 1920s through 1950s, the property was owned by longtime Covina residents Charles and Una Deeter, who used the land as a remote site for agriculture but did not reside on the property. Their residence located at 151 E. Navilla Place still stands today in an intact neighborhood of homes dating from the turn of the century to the Depression era.

Following the deaths of Charles and Una, the children transferred ownership of the land to the Charter Oak School District, either by sale or gift, the gift being possibly the result of Una's early career as a school teacher prior to marriage.

In 1963, Charles Mann of the architecture firm Daniel, Mann, Johnson and Mendenhall submitted a site design for the property, for use as an elementary school. The Charter Oak District has owned the property since that time. Approx. 15 years ago the Banna School closed to the public, and the site has been leased to a local church.

Title Report June 6, 2014 reflects the following documents
.

April 1887
Subdivision of the Rancho San Jose and a portion of the Rancho San Jose

1895 map
Partition of Hollenbeck Ranch

1894, 1904
Topographic Map
The subject property and immediately surrounding area are depicted

as being located in an area northeast of Covina, California.
Various improved roads and railroad lines are shown throughout the surrounding area. No structures are depicted on the subject property.

1927 Ownership of Deeter family
Topographic Map
The subject property and adjacent properties are agriculturally developed (citrus groves).
Cypress Street and North Banna Avenue are located adjacent to the north and west of the
subject property.

1928 Ownership of Deeter family
Aerial Photograph
The subject property and adjacent properties are agriculturally developed (citrus groves).
Individual farm houses are visible throughout the site vicinity. The Southern Pacific Railroad is located adjacent to the northwest of the of the subject property. Charter Oak Creek located adjacent to the south-southeast.

Recording Date: **August 22, 1932 Ownership of Deeter family**
Recording No: in Book 11776, Page 71, Official Records
Agreement between Charles C. Deeter and wife Una.
Purpose: A reservation of an interest in that certain pipe line, with the right of way of carriage of water for irrigation purposes

1938 Ownership of Deeter family
Aerial Photograph
The subject property and adjacent properties are agriculturally developed (citrus groves).
Individual farm houses are visible throughout the site vicinity. The Southern Pacific Railroad
is located adjacent to the northwest of the of the subject property. Charter Oak Creek
located adjacent to the south-southeast.

1948 Ownership of Deeter family
Aerial Photograph

The subject property and adjacent properties are agriculturally developed (citrus groves).
Individual farm houses are visible throughout the site vicinity. The Southern Pacific Railroad is located adjacent to the northwest of the of the subject property. Charter Oak Creek located adjacent to the south-southeast.

September 26, 1952 Covina Argus newspaper obituary
"Charles Deeter Services Held"
Age 79 resident of Covina for more than 30 years
Pallbearers:
Ralph Chambers, Will Colver, Percy Jackson, Elmer McKinnon, Stuart Neely, Gerald Thursby

1953 Ownership of Deeter family
Aerial Photograph
The subject property and adjacent properties are agriculturally developed (citrus groves).
Individual farm houses are visible throughout the site vicinity. The Southern Pacific Railroad
is located adjacent to the northwest of the of the subject property. Charter Oak Creek
located adjacent to the south-southeast.

1954 Ownership of Deeter family
Topographic Map
The subject property and adjacent properties are agriculturally developed (citrus groves).
Cypress Street and North Banna Avenue are located adjacent to the north and west of the subject property.

May 24, 1956 Covina Argus newspaper obituary
"Mrs. Una Deeter Services Held"
Age 78 burial at Rose Hills Memorial Park
Died early Monday at home 151 E. Navilla Place
Survived by daughters Mrs. Frances Thursby of Rosemead, Mrs. Elmer McKinnon (Elizabeth) of Covina, Mrs. Stewart (Virginia) Neely of Coronado and four granddaughters.

December 19, 1956 subdivision for residential tract 23473
Quintus Properties subdivided and developed the surrounding residential properties.
J. Weiss
R.L. Weiss

May 4, 1959 Grant deed document # 1785 book 454 pages 501, 502, 503, 504, 505 transferring the ownership to the School District

July 1, 1960 ownership transfers from Charter Oak School District to Charter Oak Unified School District

http://www.smartviewonline.net/smartbind/?OrderDocument_GUID=df62199a-a03e-49bd-9a79-2860254ebb46
City of Covina
Purpose: Easement for road and highway
Recording Date: September 14, 1961
Recording No: 3553, Official Records

1964, 1966,
1972, 1974,
1981, 1989,
1995, 2002,
2006, 2009,
2010, 2012
Aerial Photograph

1966, 1972,
1981
Topographic map
The subject property appears developed with the existing school buildings and grounds.
Residential properties are located adjacent to the west, south, and east beyond North Banna Avenue, East Colver Place, and North Kidder Avenue. Charter Oak High School and the Los Angeles County Fire Station #153 and located to the north beyond Cypress Street.

1985 City Directory
Banna Special Education

2013 City Directory
Iglesia International Vision De Fe, Quest Academy, Serenity Living LLC

HISTORIC RESOURCES ASSESSMENT
BANNA SCHOOL SITE
800 N. BANNA AVENUE COVINA CA 91724

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Findings:

As built drawings dated February 1963, provided by the Charter Oak School District indicate a design of the Banna Avenue School by Daniel, Mann, Johnson, and Mendenhall, known affectionately to mid-century enthusiasts as ‘dimjim.” If the school site had been designed as a custom commission of note, unquestionably the connection to DMJM would offer at least potential to qualify the site as significant in its relationship to a designer of note. However, it appears that the Banna Avenue school was the result of mass produced construction based on a generic plan designed by DMJM but not intended to be site specific. The same formulaic plans can be found throughout Southern California, from just south of Santa Barbara to well into San Diego county. The cumulative effect of such a broad range of geographic prevalence indicates loss of individual resources lacking notable design are not considered negative impacts to the inventory of resources worthy of consideration for preservation, a position shared by the LAUSD in the school site inventory of similar designs, also offered by DMJM. A similar approach to the selective preservation of midcentury architectural resources has been taken by the State of California in their review of residential construction of the same period.

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Significance:

The Banna school site can be compared to those campuses recently surveyed by Sapphos Environmental, Inc. on behalf of LAUSD. Shapphos reports as follows;

"In advance of campus-wide redevelopment, LAUSD contracted with Sapphos Environmental, Inc. to provide historic resource consulting services to inform master planning efforts and environmental review pursuant to the California Environmental Quality Act (CEQA). The scope of work is three-fold:

1. Preparation of a comprehensive LAUSD Historic Context Statement;

2. Historic resource surveys of 55 campuses; and

3. Updating the LAUSD Historic Resources Inventory database.
The 55 campuses surveyed included school plants that have not yet been subject to historic resource evaluations due to age (i.e., schools built primarily between 1955 and 1969) and schools that were previously identified as warranting re-evaluation once they reached 45 years of age. These included: (1) 10 high schools; (2) 22 schools identified in the 2002
"Phase 2" Getty survey as warranting re-evaluation; and (3) 23 elementary and junior high schools. Historic Resources and CEQA
In addition to helping inform master planning efforts for LAUSD, this Historic Resources Survey and report are designed to facilitate compliance with CEQA, which requires lead agencies to consider the potential effects of proposed projects on historic resources as defined by CEQA. CEQA identifies a historic resource as a property that is listed in—or is eligible for listing in—the NRHP, CRHR, or local

registers. NRHP-listed properties are automatically included in the CRHR. The criteria for both are similar and described below, with the NRHP letter (A, B, C, and D) followed by the corresponding CRHR number (1, 2, 3, and 4). In keeping with the 2001–2004 LAUSD Historic Resources Surveys, local criteria were not included."

"CONTEXT: PUBLIC AND PRIVATE INSTITUTIONAL DEVELOPMENT | EDUCATION
THEME: LAUSD | EDUCATING THE BABY BOOM: THE POSTWAR MODERN FUNCTIONALIST SCHOOL PLANT, 1945–1969
By the 1950s, many of the design ideas considered experimental in the 1930s had matured and become the national standard for schools. Stylistically, schools might include some historicist detailing reflecting popular styles (such as Colonial Revival). However, overall, a unified campus design, building types and plans that accommodated a high degree of indoor-outdoor integration, ample outdoor spaces, and sheltered corridors marked the typology as the mature version of the functionalist school plant. The priority remained the creation of a domestic scale for schools. Campuses displayed a one-story massing for elementary schools, and up to two stories for middle and high schools. Site plans, which often featured a decentralized, pavilion–like layout, lacked the formality and monumentality that characterized earlier eras of school design.

School types expressive of these ideals include the finger-plan (1940s through 1950s) and cluster-plan (1950s), and variations on their basic themes. Combinations of these basic forms, which flexed according to available lot size and school enrollment, are also evident.

For LAUSD, the postwar years brought another round of reform as well as unprecedented expansion. Given the postwar classroom shortage, many campuses were constructed quickly, from standardized plans used district-wide, in designs that convey some of these ideas. The most intact and well-designed campuses among these, though, uniquely represent this era of reform and the midcentury modern school."

Criteria for Evaluation:

21084.1. Historical Resources Guidelines. A project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. For purposes of this section, an historical resource is a resource listed in, or determined to be eligible for listing in, the California Register of Historical Resources. Historical resources included in a local register of historical resources, as defined in subdivision (k) of Section 5020.1, or deemed significant pursuant to criteria set forth in subdivision (g) of Section 5024.1, are presumed to be historically or culturally significant for purposes of this section, unless the preponderance of the evidence demonstrates that the resource is not historically or culturally significant. The fact that a resource is not listed in, or determined to be eligible for listing in, the California Register of Historical Resources, not included in a local register of historical resources, or not deemed significant pursuant to criteria set forth in subdivision (g) of Section 5024.1 shall not preclude a lead agency from determining whether the resource may be an historical resource for purposes of this section.

15064.5. Determining the Significance of Impacts to Archeological and Historical Resources

(a) For purposes of this section, the term "historical resources" shall include the following:

(1) A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Pub. Res. Code SS5024.1, Title 14 CCR, Section 4850 et seq.).

(2) A resource included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

(3) Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of

Historical Resources (Pub. Res. Code SS5024.1, Title 14 CCR, Section 4852) including the following:

(A) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

(B) Is associated with the lives of persons important in our past;

(C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

(D) Has yielded, or may be likely to yield, information important in prehistory or history. (4) The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resources Code) does not

preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code sections 5020.1(j) or 5024.1. (b) A project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.

(1) Substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.

(2) The significance of an historical resource is materially impaired when a project:

(A) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources; or

(B) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or

(C) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA. (3) Generally, a project that follows the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings or the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (1995), Weeks and Grimmer, shall be considered as mitigated to a level of less than a significant impact on the historical

resource. (4) A lead agency shall identify potentially feasible measures to mitigate significant adverse changes in the significance of an historical resource. The lead agency shall ensure that any adopted measures to mitigate or avoid significant adverse changes are fully enforceable through permit conditions, agreements, or other measures.

Integrity

Integrity is the authenticity of an historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance. Historical resources eligible for listing in the California Register must meet one of the criteria of significance described above and retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. Historical resources that have been rehabilitated or restored may be evaluated for listing. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association. It must also be judged with reference to the particular criteria under which a resource is proposed for eligibility. Alterations over time to a resource or historic changes in its use may themselves have historical, cultural, or architectural significance. It is possible that historical resources may not retain sufficient integrity to meet the criteria for listing in the National Register, but they may still be eligible for listing in the California Register. A resource that has lost its historic character or appearance may still have sufficient integrity for the California Register if it maintains the potential to yield significant scientific or historical information or specific data.

The firm of DMJM produced prolific designs for quasi-governmental or institutional use, and many have been recognized for their significance in mid-century design theory, as seen in the LAUSD survey, which called out the Narbonne Senior High School by the firm as a location of note. However, design attributed to the firm is not solely the contributing factor to determining significance, and the Banna School site must be evaluated in the context of DMJM's body of work as a whole.

While the Banna School site appears to retain a majority of its original materials, the design itself has lost in the translation much of the initial intent of progressive educational theory practiced by the early masters, Saarinen, Neutra, and others. In the context of the original designs the Banna site appears a “cheap copy” of a master work, and an ironic result was a formulaic approach to a design theory once rooted in helping students find their individuality.

The broad expanses of glass called for by the progressive educational theories earlier in the 20th century have been reduced to miserly bands of awning-casements in the Banna School design, while the wide overhangs intended to provide indoor-outdoor learning spaces have been limited in this design to simple eaves offering little protection from the elements, and little to no architectural interest.

HISTORIC RESOURCES ASSESSMENT
BANNA SCHOOL SITE
800 N. BANNA AVENUE COVINA CA 91724

APRIL 2015

Summary:

The Banna School site appears “Not eligible” as a resource of historic or architectural significance; its design is very typical of the period but not an outstanding example of educational institutional design ideals of the era. The compound appears to be drawn from one of the standardized plans for schools during this period. Research does not indicate the site has been associated with any significant event or representative of a significant pattern of development. While likely attributed to a design studio of some significance to the Southern California region, this particular design does not appear to be an outstanding example of architectural design or the representative work of a master architect.

In addition, while outside the scope of this report, a cursory review of the surrounding residential neighborhood does not indicate the likelihood of future listing as a “historic district” of any kind, despite its period of construction easily meeting or approaching the 45-50 year age of significance as defined by NRHP or CRHP standards. Thus the context and setting of the school site does not offer increased significance as part of a whole. Nor does development of the school site appear to impact a residential neighborhood of historic significance as defined by CEQA. For more information regarding significance of residential neighborhoods of “mid-century” period and design, see CalTrans study.

Tract Housing in California, 1945-1973: A Context for National Register Evaluation
Prepared by The California Department of Transportation Sacramento, California 2011
Available as a pdf here:
http://www.dot.ca.gov/ser/downloads/cultural/tract_housing_in_ca_1945-1973.pdf

State of California C The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code Reviewer Date

Page 1 **of** 9 ***Resource Name or #:** (Assigned by recorder) Banna School Site
P1. Other Identifier: 800 N. Banna Avenue Covina CA

***P2. Location:** **Not for Publication** √ **Unrestricted**
***a. County** Los Angeles **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5' Quad** ____ **Date** ____ **T** __; **R** __; __ **of** __ **of Sec** __; ____ **B.M.**
c. Address 800 N. Banna City Covina Zip 91724
d. UTM: (Give more than one for large and/or linear resources) Zone __, ____ mE/ ____ mN
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate)
APN: 8427-003-901 see continuation page 2 of 9 for full legal description

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The Banna school is located in a residential development of detached, single family homes constructed within the period of 1957-1965. The single story homes relate to the period of significance for the school site, which was constructed in 1963. The site includes 6 one-story stucco-clad institutional buildings and two cinderblock restroom buildings on a 9.18 acre site. The school's entrance faces North Banna Avenue to the west, and the property boundaries include Cypress Street to the north, Kidder Avenue to the east, and Colver Place on the southern boundary.

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)

***P3b. Resource Attributes:** (List attributes and codes) 6Z: Does not appear eligible for the NRHP or the CRHR, in the opinion of the surveyor.
***P4. Resources Present:** √ Building Structure Object Site District Element of District Other (Isolates, etc.)
P5b. Description of Photo: (view, date, accession #) Front elevation, west facing, photographer facing east into campus from Banna Avenue April 2015
***P6. Date Constructed/Age and Source:** √ Historic Prehistoric Both
1963 per site plans by Arthur Mann

***P7. Owner and Address:**
Charter Oak Unified School District
20240 E. Cienega Avenue
Covina, CA 91724
***P8. Recorded by:** (Name, affiliation, and address) Cynthia Ward and Teri Vaughn CWHPC 703 N. Lemon Street Anaheim, CA 92805
***P9. Date Recorded:** April 2015

***P10. Survey Type:** (Describe) Intensive
***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") Initial Study/MND. Original 1963 building plans and 2009 tenant improvement plans obtained from school district business officer, Kathy Perkins.
***Attachments:** NONE √Location Map √Continuation Sheet √Building, Structure, and Object Record
Archaeological Record District Record Linear Feature Record Milling Station Record Rock Art Record
Artifact Record √Photograph Record Other (List): ____

LEGAL DESCRIPTION EXHIBIT "A"
THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF COVINA, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

A PORTION OF THE FRACTIONAL SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 7, TOWNSHIP 1 SOUTH, RANGE 9 WEST, IN THE RANCHO ADDITION TO SAN JOSE, IN THE CITY OF COVINA, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, PER MAP OF THE SUBDIVISION OF THE RANCHO ADDITION TO SAN JOSE AND A. PORTION OF THE RANCHO SAN JOSE, RECORDED IN BOOK 22 PAGE 21 ET SEQ., OF MISCELLANEOUS RECORDS, IN THE OFFICE OF THE COUNTY RECORDER OF LOS ANGELES COUNTY; AND PORTIONS OF LOTS 1 AND 6 IN BLOCK 3, AS SHOWN ON A MAP OF PARTITION OF THE HOLLENBECK RANCH, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 2 PAGE 39 OF RECORD OF SURVEYS, OF SAID COUNTY, DESCRIBED AS A WHOLE AS FOLLOWS: BEGINNING AT A POINT ON THE CENTER LINE OF BANNA AVENUE, AS SHOWN ON A MAP OF TRACT 23473, RECORDED IN BOOK 610 PAGE 36 OF MAP RECORDS OF LOS ANGELES COUNTY, SAID POINT BEING SHOWN AS THE NORTHWEST CORNER OF LOT 1, BLOCK 3, PARTITION OF THE ROLLENBECK RANCH; THENCE NORTH 0° 15' 33" EAST 699.16 FEET ALONG THE PROPOSED CENTER LINE OF BANNA AVENUE, AS SHOWN ON SAID MAP OF TRACT 23473, TO A POINT IN THE SOUTHERLY LINE OF CYPRESS AVENUE, 60 FEET WIDE; THENCE NORTH 89° 59' 30" EAST 502.38 FEET ALONG THE SOUTHERLY LINE OF CYPRESS AVENUE, AS SHOWN ON SAID MAP OF TRACT 23473; THENCE SOUTH 0° 00' 30" EAST AT RIGHT ANGLES 219.87 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE NORTHEASTERLY, SAID CURVE HAVING A RADIUS OF 370.00 FEET, A CENTRAL ANGLE OF 42° 51' 13" AND A LENGTH OF 276.74 FEET; THENCE ALONG SAID CURVE SOUTHERLY AND SOUTHEASTERLY, A DISTANCE OF 276.74 FEET TO A POINT, A RADIAL LINE TO SAID POINT BEARING SOUTH 47° 08' 17" WEST; THENCE SOUTH 41° 51' 43" EAST, TANGENT TO SAID CURVE 100.00 FEET; THENCE SOUTH 47° 08' 17" WEST 178.67 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE NORTHWESTERLY, SAID CURVE HAVING A RADIUS OF 700.00 FEET, A CENTRAL ANGLE OF 42° 39' 09" AND A LENGTH OF 521.10 FEET; THENCE ALONG SAID CURVE, SOUTH-WESTERLY AND WESTERLY, A DISTANCE OF 521.10 FEET TO A POINT, A RADIAL LINE TO SAID POINT BEARING SOUTH 0° 12' 34" EAST; THENCE SOUTH 89° 47' 26" WEST TANGENT TO SAID CURVE 47.27 FEET, TO A POINT IN A LINE PARALLEL TO AND 20 FEET EASTERLY OF THE CENTER LINE OF BANNA AVENUE, AS SHOWN ON SAID MAP OF TRACT NO. 23473; THENCE NORTH 0° 12' 07" WEST ALONG SAID LINE PARALLEL TO AND 20 FEET EASTERLY OF SAID CENTER LINE OF BANNA AVENUE, 160.17 FEET TO A POINT IN THE SOUTHEASTERLY BOUNDARY LINE OF THE SUBDIVISION OF THE RANCHO ADDITION TO SAN JOSE AND A PORTION OF THE RANCHO SAN JOSE, AS SHOWN ON SAID MAP OF TRACT 23473; THENCE SOUTH 73° 20' 16" WEST ALONG SAID SOUTHEASTERLY BOUNDARY LINE OR ITS PROLONGATION 20.86 FEET TO THE POINT OF BEGINNING.

BUILDING, STRUCTURE, AND OBJECT RECORD

B1. Historic Name: Banna School Site
B2. Common Name: 800 N. Banna Avenue, Covina CA
B3. Original Use: Institutional (Educational Facility)
B4. Present Use: Institutional (Religious)
***B5. Architectural Style:** Mid-Century Modern Influenced
***B6. Construction History:** (Construction date, alterations, and date of alterations)
February 1963 per site plans filed with Charter Oak Unified School District. Tenant improvements represent recent interior alterations, not applicable to the scope of this study.

***B7. Moved?** XX **No** **Yes** **Unknown** **Date:** _____ **Original Location:** _____
***B8. Related Features:**

B9a. Architect: Arthur E. Mann of Daniel, Mann, Johnson and Mendenhall b. Builder: Unknown
***B10. Significance: Theme** Institutional, Educational Facility **Area** City of Covina, Charter Oak Unified School District
Period of Significance 1963 Mid-century expansion of residential and institutional development in Southern California postwar "boom" **Property Type** Institutional Educational Facility
Applicable Criteria 6Z does not appear eligible
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

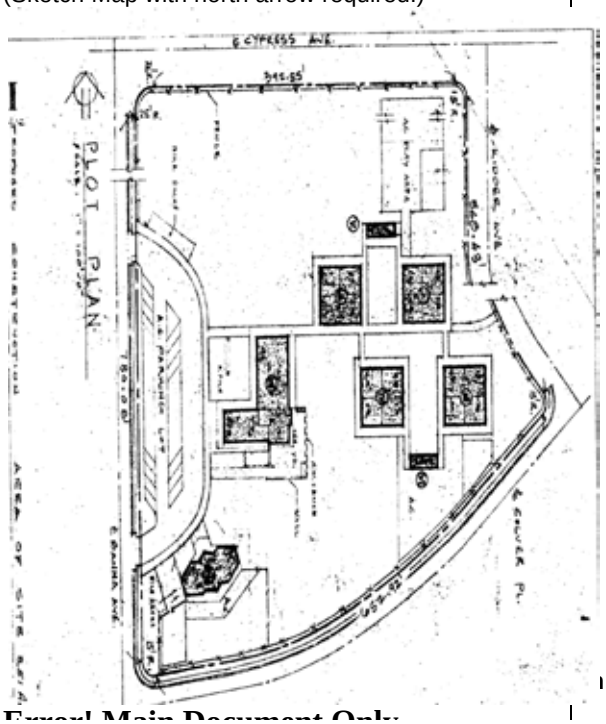
Not eligible. This campus has many of the character-defining features of a postwar finger-plan school but not all the eligibility standards required under Criteria A/1 as an exemplification of progressive design ideals for postwar schools. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, this campus was designed by master architect Arthur E. Mann of Daniel, Mann, Johnson and Mendenhall, however, the school plan and design overall do not stand out as an outstanding exemplar of the firm's work.

B11. Additional Resource Attributes: (List attributes and codes) N/A
***B12. References: Title Report, Site Plans provided by District, LAUSD assessment 2014, Covina Argus newspaper archives, Grant Deeds and Easements, Amy Ogata's report on Postwar**

B13. Remarks:

***B14. Evaluator:** Cynthia Ward and Teri Vaughn, CWHPC
***Date of Evaluation:** April 2015

(Sketch Map with north arrow required.)



(This space reserved for official comments.)

Physical description cont'd from page 1

The school site located at 800 N. Banna Avenue appears to have been constructed from standardized plans drafted for the specific purpose of mass producing multiple school campuses with great speed and economic efficiency during a significant period of growth in residential development in Southern California. The site consists of a series of stucco clad single-story rectilinear buildings, whose form orients toward the exterior of the structures, in contrast to designs of earlier school buildings which oriented toward the interior of the building through the use of a central hallway. Fenestration consists of horizontal bands of windows, using awning style casements for ventilation. Flat or shallow pitched rooflines extend to wide eaves, which cover the facades to filter light and provide protection from inclement weather. The eaves transition into covered walkways, which are supported by simple steel beams. The layout of the campus provides a grid pattern of buildings, with cinderblock restrooms anchoring the transition between play space and classroom space. Windows are simple, single pane, in linear bands along the length of the structures, and doors are single panel, without ornamentation.

Overall condition of the campus is fair to poor with deferred maintenance apparent, consistent with the relative vacancy of the campus for the last 15 years.

Criteria for consideration: Architect Arthur E. Mann

Architecture Firm Daniel, Mann, Johnson, Mendenhall

Active 1946-2000

Organized in 1946, Daniel Mann Johnson and Mendenhall was one of the first combined architecture and engineering firms in the Western U.S. By 1970, DMJM had 14 offices across the US, including those in Los Angeles, CA, Honolulu, HI, Portland, OR, Redwood City, CA, Washington, D.C., Las Vegas, NV, and in 1970; at this time, other Partners in DMJM in 1970 included the noted designers Anthony Lumsden and Cesar Pelli. in 1978, Louis C. Milani served as Manager of the DMJM construction management division, Technical Management Services, Incorporated. IIn 1984, Ashland Oil, Incorporated, of Covington, KY, purchased DMJM and held it for six years. It sold the company back to its employees, who formed the firm AECOM in 1990. AECOM grew dramatically by further acquisitions and, because of its now far-flung construction, construction management, and engineering operations reorganized its subsidiaries in 2000. Portions of DMJM became parts of two AECOM companies: DMJMH Harris and DMJM Holmes and Narver. DMJM Harris became based in New York, NY, with several West Coast branch offices, focused on transportation and infrastructure design and construction projects. DMJM Holmes and Narver remained based in Los Angeles, and had a general design focus working for mainly institutional, corporate and governmental clients. In 2006, AECOM had 1,171 employees in its DMJM-branded subsidiaries.

While the architect is one of note, the school site at Banna Avenue is not to be considered masterful work, and is among the lesser commission of the firm, likely a pattern followed for multiple sites.

Photograph Record:

Front elevation, west facing, photographer facing east from Banna Avenue. April 2015

Side Elevation, North Facing, Photographer Facing South from Cypress

Side Elevation, South Facing, Photographer Facing North from Colver

Rear Elevation, east Facing, Photographer Facing West from Kidder

HISTORIC RESOURCES ASSESSMENT
BANNA STREET SCHOOL SITE
800 N. BANNA AVENUE
COVINA, CA 91724

SOURCE MATERIALS

Title Report
First National Title dated June 6, 2014 1-15

Site plan and maps February 1963
Architect Arthur E. Mann 16-24

Phase 1 Environmental Site Assessment Report
Partner Engineering and Science Inc. March 2015 25- 222

List of Ineligible Campuses
Historic Resources Survey Report
LAUSD Inventory June 2014
Sapphos Enviornmental 223-243

DMJM Commissions 244

Fidelity National Title Company

AMENDED PRELIMINARY REPORT

In response to the application for a policy of title insurance referenced herein, ***Fidelity National Title Company*** *hereby reports that it is prepared to issue, or cause to be issued, as of the date hereof, a policy or policies of title insurance describing the land and the estate or interest therein hereinafter set forth, insuring against loss which may be sustained by reason of any defect, lien or encumbrance not shown or referred to as an exception herein or not excluded from coverage pursuant to the printed Schedules, Conditions and Stipulations or Conditions of said policy forms.*

The printed Exceptions and Exclusions from the coverage and Limitations on Covered Risks of said policy or policies are set forth in Attachment One. The policy to be issued may contain an arbitration clause. When the Amount of Insurance is less than that set forth in the arbitration clause, all arbitrable matters shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties. Limitations on Covered Risks applicable to the CLTA and ALTA Homeowner's Policies of Title Insurance which establish a Deductible Amount and a Maximum Dollar Limit of Liability for certain coverages are also set forth in Attachment One. Copies of the policy forms should be read. They are available from the office which issued this report.

This report (and any supplements or amendments hereto) is issued solely for the purpose of facilitating the issuance of a policy of title insurance and no liability is assumed hereby. If it is desired that liability be assumed prior to the issuance of a policy of title insurance, a Binder or Commitment should be requested.

The policy(s) of title insurance to be issued hereunder will be policy(s) of Fidelity National Title Insurance Company, a California Corporation.

Please read the exceptions shown or referred to herein and the exceptions and exclusions set forth in Attachment One of this report carefully. The exceptions and exclusions are meant to provide you with notice of matters which are not covered under the terms of the title insurance policy and should be carefully considered.

It is important to note that this preliminary report is not a written representation as to the condition of title and may not list all liens, defects and encumbrances affecting title to the land.

Countersigned by:

Authorized Signature

SEAL

BY President

ATTEST Secretary

Authorized Signature

Fidelity National Title Company
1300 Dove Street, Suite 310, Newport Beach, CA 92660
Phone: (949) 622-5000• Fax: (949) 477-6813

PRELIMINARY REPORT

Amended

Title Officer: Patti Porter (MA) Order No.: 997-**23039942**-A-PP2

TO:
Tierra Development Advisors
901 Dove Street, Suite 140
Newport Beach, CA 92660

ATTN: .**Brandon Johnson**
YOUR REFERENCE: **BANNA SCHOOL SITE**

PROPERTY ADDRESS: No Situs, Covina, CA

EFFECTIVE DATE: June 6, 2014 at 7:30 a.m.

The form of policy or policies of title insurance contemplated by this report is:

CLTA Std. Owner's

1. THE ESTATE OR INTEREST IN THE LAND HEREINAFTER DESCRIBED OR REFERRED TO COVERED BY THIS REPORT IS:

   A FEE

2. TITLE TO SAID ESTATE OR INTEREST AT THE DATE HEREOF IS VESTED IN:

   CHARTER OAK UNIFIED SCHOOL DISTRICT

3. THE LAND REFERRED TO IN THIS REPORT IS DESCRIBED AS FOLLOWS:

   See Exhibit A attached hereto and made a part hereof.

/ng 12/13/13

LEGAL DESCRIPTION

EXHIBIT "A"

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF COVINA, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

A PORTION OF THE FRACTIONAL SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 7, TOWNSHIP 1 SOUTH, RANGE 9 WEST, IN THE RANCHO ADDITION TO SAN JOSE, IN THE CITY OF COVINA, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, PER MAP OF THE SUBDIVISION OF THE RANCHO ADDITION TO SAN JOSE AND A. PORTION OF THE RANCHO SAN JOSE, RECORDED IN BOOK 22 PAGE 21 ET SEQ., OF MISCELLANEOUS RECORDS, IN THE OFFICE OF THE COUNTY RECORDER OF LOS ANGELES COUNTY; AND PORTIONS OF LOTS 1 AND 6 IN BLOCK 3, AS SHOWN ON A MAP OF PARTITION OF THE HOLLENBECK RANCH, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 2 PAGE 39 OF RECORD OF SURVEYS, OF SAID COUNTY, DESCRIBED AS A WHOLE AS FOLLOWS:

BEGINNING AT A POINT ON THE CENTER LINE OF BANNA AVENUE, AS SHOWN ON A MAP OF TRACT 23473, RECORDED IN BOOK 610 PAGE 36 OF MAP RECORDS OF LOS ANGELES COUNTY, SAID POINT BEING SHOWN AS THE NORTHWEST CORNER OF LOT 1, BLOCK 3, PARTITION OF THE ROLLENBECK RANCH; THENCE NORTH 0° 15' 33" EAST 699.16 FEET ALONG THE PROPOSED CENTER LINE OF BANNA AVENUE, AS SHOWN ON SAID MAP OF TRACT 23473, TO A POINT IN THE SOUTHERLY LINE OF CYPRESS AVENUE, 60 FEET WIDE; THENCE NORTH 89° 59' 30" EAST 502.38 FEET ALONG THE SOUTHERLY LINE OF CYPRESS AVENUE, AS SHOWN ON SAID MAP OF TRACT 23473; THENCE SOUTH 0° 00' 30" EAST AT RIGHT ANGLES 219.87 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE NORTHEASTERLY, SAID CURVE HAVING A RADIUS OF 370.00 FEET, A CENTRAL ANGLE OF 42° 51' 13" AND A LENGTH OF 276.74 FEET; THENCE ALONG SAID CURVE SOUTHERLY AND SOUTHEASTERLY, A DISTANCE OF 276.74 FEET TO A POINT, A RADIAL LINE TO SAID POINT BEARING SOUTH 47° 08' 17" WEST; THENCE SOUTH 41° 51' 43" EAST, TANGENT TO SAID CURVE 100.00 FEET; THENCE SOUTH 47° 08' 17" WEST 178.67 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE NORTHWESTERLY, SAID CURVE HAVING A RADIUS OF 700.00 FEET, A CENTRAL ANGLE OF 42° 39' 09" AND A LENGTH OF 521.10 FEET; THENCE ALONG SAID CURVE, SOUTH-WESTERLY AND WESTERLY, A DISTANCE OF 521.10 FEET TO A POINT, A RADIAL LINE TO SAID POINT BEARING SOUTH 0° 12' 34" EAST; THENCE SOUTH 89° 47' 26" WEST TANGENT TO SAID CURVE 47.27 FEET, TO A POINT IN A LINE PARALLEL TO AND 20 FEET EASTERLY OF THE CENTER LINE OF BANNA AVENUE, AS SHOWN ON SAID MAP OF TRACT NO. 23473; THENCE NORTH 0° 12' 07" WEST ALONG SAID LINE PARALLEL TO AND 20 FEET EASTERLY OF SAID CENTER LINE OF BANNA AVENUE, 160.17 FEET TO A POINT IN THE SOUTHEASTERLY BOUNDARY LINE OF THE SUBDIVISION OF THE RANCHO ADDITION TO SAN JOSE AND A PORTION OF THE RANCHO SAN JOSE, AS SHOWN ON SAID MAP OF TRACT 23473; THENCE SOUTH 73° 20' 16" WEST ALONG SAID SOUTHEASTERLY BOUNDARY LINE OR ITS PROLONGATION 20.86 FEET TO THE POINT OF BEGINNING.

APN: 8427-003-901

AT THE DATE HEREOF, ITEMS TO BE CONSIDERED AND EXCEPTIONS TO COVERAGE IN ADDITION TO THE PRINTED EXCEPTIONS AND EXCLUSIONS IN SAID POLICY FORM WOULD BE AS FOLLOWS:

1. General and Special City and/or County Taxes, Bonds, or Assessments which may become due on said land, if when title to said land is no longer vested in a governmental or quasigovernmental agency. Tax parcel for said land is currently shown as @ 8427-003-901.

2. The lien of supplemental taxes, if any, assessed pursuant to the provisions of Chapter 3.5 (Commencing with Section 75) of the Revenue and Taxation Code of the State of California.

3. Water rights, claims or title to water, whether or not disclosed by the public records.

4. Right to lay pipes and make ditches wherever necessary over said land as provided in deeds recorded prior to February 15, 1950, in Book 658, Page 100 of Deeds, and in Book 817 Page 34 of Deeds.

5. Covenants, conditions and restrictions but omitting any covenants or restrictions, if any, including, but not limited to those based upon race, color, religion, sex, sexual orientation, familial status, marital status, disability, handicap, national origin, ancestry, source of income, gender, gender identity, gender expression, medical condition or genetic information, as set forth in applicable state or federal laws, except to the extent that said covenant or restriction is permitted by applicable laws, as set forth in the document referred to in the numbered item last above shown.

6. Right of way affecting land in Block 3, for the construction and maintenance of such pipe lines and laterals as may be necessary to convey water for irrigation and domestic use by deed recorded in Book 1010 Page 223 of Deeds, and re-recorded in Book 1023, Page 81 of Deeds.

7. Easement(s) for the purpose(s) shown below and rights incidental thereto as reserved in a document;

Reserved by:	Charles C. Deeter
Purpose:	A reservation of an interest in that certain pipe line, with the right of way of carriage of water for irrigation purposes
Recording Date:	August 22, 1932
Recording No:	in Book 11776, Page 71, Official Records
Affects:	Portions of the Land, the exact location of which can be determined by examination of the above-mentioned instrument, which contains a complete legal description of the affected portions of said Land.

8. Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:

Granted to:	Charles C. Deeter
Purpose:	A right of way for irrigation pipe lines
Recording No:	in Book 7137, Page 38, Official Records
Affects:	Portions of the Land, the exact location of which can be determined by examination of the above-mentioned instrument, which contains a complete legal description of the affected portions of said Land.

9. Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:

Granted to:	City of Covina
Purpose:	Easement for road and highway
Recording Date:	September 14, 1961
Recording No:	3553, Official Records

Affects: Portions of the Land, the exact location of which can be determined by examination of the above-mentioned instrument, which contains a complete legal description of the affected portions of said Land.

10. Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:

Granted to: City of Covina
Purpose: Public road and highway
Recording Date: December 26, 1978
Recording No: 78-1430313, Official Records

Affects: Portions of the Land, the exact location of which can be determined by examination of the above-mentioned instrument, which contains a complete legal description of the affected portions of said Land.

11. Acceptance of Terms, Covenants and Conditions

Recording Date: February 16, 1995
Recording No.: 95 262294, Official Records

12. Any rights of the parties in possession of a portion of, or all of, said Land, which rights are not disclosed by the public records.

The Company will require, for review, a full and complete copy of any unrecorded agreement, contract, license and/or lease, together with all supplements, assignments and amendments thereto, before issuing any policy of title insurance without excepting this item from coverage.

The Company reserves the right to except additional items and/or make additional requirements after reviewing said documents.

13. Matters which may be disclosed by an inspection and/or by a correct ALTA/ACSM Land Title Survey of said Land that is satisfactory to the Company, and/or by inquiry of the parties in possession thereof.

14. Please be advised that our search did not disclose any open Deeds of Trust of record. If you should have knowledge of any outstanding obligation, please contact the Title Department immediately for further review prior to closing.

15. The Company will require the following documents for review prior to the issuance of any title assurance predicated upon a conveyance or encumbrance by the corporation named below:

Name of Corporation: Charter Oak Unified School District

a) A Copy of the corporation By-laws and Articles of Incorporation

b) An original or certified copy of a resolution authorizing the transaction contemplated herein

c) If the Articles and/or By-laws require approval by a ‘parent’ organization, a copy of the Articles and By-laws of the parent

The Company reserves the right to add additional items or make further requirements after review of the requested documentation.

16. Unrecorded matters which may be disclosed by an Owner's Affidavit or Declaration. A form of the Owner's Affidavit/Declaration is attached to this Preliminary Report/Commitment. This Affidavit/Declaration is to be completed by the record owner of the land and submitted for review prior to the closing of this transaction. Your prompt attention to this requirement will help avoid delays in the closing of this transaction. Thank you.

    The Company reserves the right to add additional items or make further requirements after review of the requested Affidavit/Declaration.

END OF ITEMS

NOTES

Note: There are NO conveyances affecting said Land recorded within 24 months of the date of this report.

END OF NOTES

OWNER'S DECLARATION

The undersigned hereby declares as follows:

1. (Fill in the applicable paragraph and strike the other)

   a. Declarant ("Owner") is the owner or lessee, as the case may be, of certain premises located at _____, further described as follows: See Preliminary Report/Commitment No. 997-**23039942**-A-PP2 for full legal description (the "Land").

   b. Declarant is the _____ of _____ ("Owner"), which is the owner or lessee, as the case may be, of certain premises located at _____, further described as follows: See Preliminary Report/Commitment No. 997-**23039942**-A-PP2 for full legal description (the "Land").

2. (Fill in the applicable paragraph and strike the other)

   a. During the period of six months immediately preceding the date of this declaration no work has been done, no surveys or architectural or engineering plans have been prepared, and no materials have been furnished in connection with the erection, equipment, repair, protection or removal of any building or other structure on the Land or in connection with the improvement of the Land in any manner whatsoever.

   b. During the period of six months immediately preceding the date of this declaration certain work has been done and materials furnished in connection with _____ upon the Land in the approximate total sum of $_____, but no work whatever remains to be done and no materials remain to be furnished to complete the construction in full compliance with the plans and specifications, nor are there any unpaid bills incurred for labor and materials used in making such improvements or repairs upon the Land, or for the services of architects, surveyors or engineers, except as follows: _____. Owner, by the undersigned Declarant, agrees to and does hereby indemnify and hold harmless Fidelity National Title Insurance Company against any and all claims arising therefrom.

3. Owner has not previously conveyed the Land; is not a debtor in bankruptcy (and if a partnership, the general partner thereof is not a debtor in bankruptcy); and has not received notice of any pending court action affecting the title to the Land.

4. Except as shown in the above-referenced Preliminary Report/Commitment, there are no unpaid or unsatisfied mortgages, deeds of trust, Uniform Commercial Code financing statements, claims of lien, special assessments, or taxes that constitute a lien against the Land or that affect the Land but have not been recorded in the public records.

5. The Land is currently in use as _____; _____occupy/occupies the Land; and the following are all of the leases or other occupancy rights affecting the Land:

   _____

6. There are no other persons or entities that assert an ownership interest in the Land, nor are there unrecorded easements, claims of easement, or boundary disputes that affect the Land.

7. There are no outstanding options to purchase or rights of first refusal affecting the Land.

This declaration is made with the intention that Fidelity National Title Insurance Company (the "Company") and its policy issuing agents will rely upon it in issuing their title insurance policies and endorsements. Owner, by the undersigned Declarant, agrees to indemnify the Company against loss or damage (including attorneys fees, expenses, and costs) incurred by the Company as a result of any untrue statement made herein.

I declare under penalty of perjury that the foregoing is true and correct and that this declaration was executed on ____ at _____.

Signature: _____

Fidelity National Financial, Inc.
Privacy Statement

Fidelity National Financial, Inc. and its subsidiaries ("FNF") respect the privacy and security of your non-public personal information ("Personal Information") and protecting your Personal Information is one of our top priorities. This Privacy Statement explains FNF's privacy practices, including how we use the Personal Information we receive from you and from other specified sources, and to whom it may be disclosed. FNF follows the privacy practices described in this Privacy Statement and, depending on the business performed, FNF companies may share information as described herein.

Personal Information Collected
We may collect Personal Information about you from the following sources:

- Information we receive from you on applications or other forms, such as your name, address, social security number, tax identification number, asset information, and income information;
- Information we receive from you through our Internet websites, such as your name, address, email address, Internet Protocol address, the website links you used to get to our websites, and your activity while using or reviewing our websites;
- Information about your transactions with or services performed by us, our affiliates, or others, such as information concerning your policy, premiums, payment history, information about your home or other real property, information from lenders and other third parties involved in such transaction, account balances, and credit card information; and
- Information we receive from consumer or other reporting agencies and publicly recorded documents.

Disclosure of Personal Information
We may provide your Personal Information (excluding information we receive from consumer or other credit reporting agencies) to various individuals and companies, as permitted by law, without obtaining your prior authorization. Such laws do not allow consumers to restrict these disclosures. Disclosures may include, without limitation, the following:

- To insurance agents, brokers, representatives, support organizations, or others to provide you with services you have requested, and to enable us to detect or prevent criminal activity, fraud, material misrepresentation, or nondisclosure in connection with an insurance transaction;
- To third-party contractors or service providers for the purpose of determining your eligibility for an insurance benefit or payment and/or providing you with services you have requested;
- To an insurance regulatory authority, or a law enforcement or other governmental authority, in a civil action, in connection with a subpoena or a governmental investigation;
- To companies that perform marketing services on our behalf or to other financial institutions with which we have joint marketing agreements and/or
- To lenders, lien holders, judgment creditors, or other parties claiming an encumbrance or an interest in title whose claim or interest must be determined, settled, paid or released prior to a title or escrow closing.

We may also disclose your Personal Information to others when we believe, in good faith, that such disclosure is reasonably necessary to comply with the law or to protect the safety of our customers, employees, or property and/or to comply with a judicial proceeding, court order or legal process.

Disclosure to Affiliated Companies – We are permitted by law to share your name, address and facts about your transaction with other FNF companies, such as insurance companies, agents, and other real estate service providers to provide you with services you have requested, for marketing or product development research, or to market products or services to you. We do not, however, disclose information we collect from consumer or credit reporting agencies with our affiliates or others without your consent, in conformity with applicable law, unless such disclosure is otherwise permitted by law.

Disclosure to Nonaffiliated Third Parties – We do not disclose Personal Information about our customers or former customers to nonaffiliated third parties, except as outlined herein or as otherwise permitted by law.

Confidentiality and Security of Personal Information
We restrict access to Personal Information about you to those employees who need to know that information to provide products or services to you. We maintain physical, electronic, and procedural safeguards that comply with federal regulations to guard Personal Information.

Access to Personal Information/Requests for Correction, Amendment, or Deletion of Personal Information
As required by applicable law, we will afford you the right to access your Personal Information, under certain circumstances to find out to whom your Personal Information has been disclosed, and request correction or deletion of your Personal Information. However, FNF's current policy is to maintain customers' Personal Information for no less than your state's required record retention requirements for the purpose of handling future coverage claims.

For your protection, all requests made under this section must be in writing and must include your notarized signature to establish your identity. Where permitted by law, we may charge a reasonable fee to cover the costs incurred in responding to such requests. Please send requests to:

Chief Privacy Officer
Fidelity National Financial, Inc.
601 Riverside Avenue
Jacksonville, FL 32204

Changes to this Privacy Statement
This Privacy Statement may be amended from time to time consistent with applicable privacy laws. When we amend this Privacy Statement, we will post a notice of such changes on our website. The effective date of this Privacy Statement, as stated above, indicates the last time this Privacy Statement was revised or materially changed.

Privacy Policy Effective Date: 5/1/2008

Notice of Available Discounts

Pursuant to Section 2355.3 in Title 10 of the California Code of Regulations Fidelity National Financial, Inc. and its subsidiaries ("FNF") must deliver a notice of each discount available under our current rate filing along with the delivery of escrow instructions, a preliminary report or commitment. Please be aware that the provision of this notice does not constitute a waiver of the consumer's right to be charged the field rate. As such, your transaction may not qualify for the below discounts.

You are encouraged to discuss the applicability of one or more of the below discounts with a Company representative. These discounts are generally described below; consult the rate manual for a full description of the terms, conditions and requirements for each discount. These discounts only apply to transaction involving services rendered by the FNF Family of Companies. This notice only applies to transactions involving property improved with a one-to-four family residential dwelling.

FNF Underwritten Title Company
FNTC - Fidelity National Title Company
FNTCCA –Fidelity National Title Company of California

FNF Underwriter
FNTIC - Fidelity National Title Insurance Company

Available Discounts

CREDIT FOR PRELIMINARY REPORTS AND/OR COMMITMENTS ON SUBSEQUENT POLICIES (FNTIC)
Where no major change in the title has occurred since the issuance of the original report or commitment, the order may be reopened within 12 or 36 months and all or a portion of the charge previously paid for the report or commitment may be credited on a subsequent policy charge.

FEE REDUCTION SETTLEMENT PROGRAM (FNTC, FNTCCA and FNTIC)
Eligible customers shall receive $20.00 reduction in their title and/or escrow fees charged by the Company for each eligible transaction in accordance with the terms of the Final Judgments entered in *The People of the State of California et al. v. Fidelity National Title Insurance Company et al., Sacramento Superior Court Case No. 99AS02793, and related cases*.

DISASTER LOANS (FNTIC)
The charge for a lender's Policy (Standard or Extended coverage) covering the financing or refinancing by an owner of record, within 24 months of the date of a declaration of a disaster area by the government of the United States or the State of California on any land located in said area, which was partially or totally destroyed in the disaster, will be 50% of the appropriate title insurance rate.

CHURCHES OR CHARITABLE NON-PROFIT ORGANIZATIONS (FNTIC)
On properties used as a church or for charitable purposes within the scope of the normal activities of such entities, provided said charge is normally the church's obligation the charge for an owner's policy shall be 50% to 70% of the appropriate title insurance rate, depending on the type of coverage selected. The charge for a lender's policy shall be 40% to 50% of the appropriate title insurance rate, depending on the type of coverage selected.

Notice

You may be entitled to receive a $20.00 discount on escrow services if you purchased, sold or refinanced residential property in California between May 19,1995 and November 1, 2002. If you had more than one qualifying transaction, you may be entitled to multiple discounts.

If your previous transaction involved the same property that is the subject of your current transaction, you do not have to do anything; the Company will provide the discount, provided you are paying for escrow or title services in this transaction.

If your previous transaction involved property different from the property that is the subject of your current transaction, you must inform the Company of the earlier transaction, provide the address of the property involved in the previous transaction, and the date or approximate date that the escrow closed to be eligible for the discount.

Unless you inform the Company of the prior transaction on property that is not the subject of this transaction, the Company has no obligation to conduct an investigation to determine if you qualify for a discount. If you provided the Company information concerning a prior transaction, the Company is required to determine if you qualify for a discount.

Effective through November 1, 2014

ATTACHMENT ONE (Revised 06-03-11)

CALIFORNIA LAND TITLE ASSOCIATION
STANDARD COVERAGE POLICY – 1990

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance or governmental regulation (including but not limited to building or zoning laws, ordinances, or regulations) restricting, regulating, prohibiting or relating (i) the occupancy, use, or enjoyment of the land; (ii) the character, dimensions or location of any improvement now or hereafter erected on the land; (iii) a separation in ownership or a change in the dimensions or area of the land or any parcel of which the land is or was a part; or (iv) environmental protection, or the effect of any violation of these laws, ordinances or governmental regulations, except to the extent that a notice of the enforcement thereof or a notice of a defect, lien, or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
   (b) Any governmental police power not excluded by (a) above, except to the extent that a notice of the exercise thereof or notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
2. Rights of eminent domain unless notice of the exercise thereof has been recorded in the public records at Date of Policy, but not excluding from coverage any taking which has occurred prior to Date of Policy which would be binding on the rights of a purchaser for value without knowledge.
3. Defects, liens, encumbrances, adverse claims or other matters:
   (a) whether or not recorded in the public records at Date of Policy, but created, suffered, assumed or agreed to by the insured claimant;
   (b) not known to the Company, not recorded in the public records at Date of Policy, but known to the insured claimant and not disclosed in writing to the Company by the insured claimant prior to the date the insured claimant became an insured under this policy;
   (c) resulting in no loss or damage to the insured claimant;
   (d) attaching or created subsequent to Date of Policy; or
   (e) resulting in loss or damage which would not have been sustained if the insured claimant had paid value for the insured mortgage or for the estate or interest insured by this policy.
4. Unenforceability of the lien of the insured mortgage because of the inability or failure of the insured at Date of Policy, or the inability or failure of any subsequent owner of the indebtedness, to comply with the applicable doing business laws of the state in which the land is situated.
5. Invalidity or unenforceability of the lien of the insured mortgage, or claim thereof, which arises out of the transaction evidenced by the insured mortgage and is based upon usury or any consumer credit protection or truth in lending law.
6. Any claim, which arises out of the transaction vesting in the insured the estate of interest insured by this policy or the transaction creating the interest of the insured lender, by reason of the operation of federal bankruptcy, state insolvency or similar creditors' rights laws.

EXCEPTIONS FROM COVERAGE - SCHEDULE B, PART I

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) which arise by reason of:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records.
   Proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the public records.
2. Any facts, rights, interests, or claims which are not shown by the public records but which could be ascertained by an inspection of the land or which may be asserted by persons in possession thereof.
3. Easements, liens or encumbrances, or claims thereof, not shown by the public records.
4. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by the public records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b) or (c) are shown by the public records.
6. Any lien or right to a lien for services, labor or material not shown by the public records.

CLTA HOMEOWNER'S POLICY OF TITLE INSURANCE (02-03-10)
ALTA HOMEOWNER'S POLICY OF TITLE INSURANCE

EXCLUSIONS

In addition to the Exceptions in Schedule B, You are not insured against loss, costs, attorneys' fees, and expenses resulting from:

1. Governmental police power, and the existence or violation of those portions of any law or government regulation concerning:
   a. building;
   b. zoning;
   c. land use;
   d. improvements on the Land;
   e. land division; and
   f. environmental protection.
   This Exclusion does not limit the coverage described in Covered Risk 8.a., 14, 15, 16, 18, 19, 20, 23 or 27.
2. The failure of Your existing structures, or any part of them, to be constructed in accordance with applicable building codes. This Exclusion does not limit the coverage described in Covered Risk 14 or 15.
3. The right to take the Land by condemning it. This Exclusion does not limit the coverage described in Covered Risk 17.
4. Risks:
   a. that are created, allowed, or agreed to by You, whether or not they are recorded in the Public Records;
   b. that are Known to You at the Policy Date, but not to Us, unless they are recorded in the Public Records at the Policy Date;

c. that result in no loss to You; or
d. that first occur after the Policy Date - this does not limit the coverage described in Covered Risk 7, 8.e., 25, 26, 27 or 28.

5. Failure to pay value for Your Title.
6. Lack of a right:
   a. to any land outside the area specifically described and referred to in paragraph 3 of Schedule A; and
   b. in streets, alleys, or waterways that touch the Land.

   This Exclusion does not limit the coverage described in Covered Risk 11 or 21.
7. The transfer of the Title to You is invalid as a preferential transfer or as a fraudulent transfer or conveyance under federal bankruptcy, state insolvency, or similar creditors' rights laws.

LIMITATIONS ON COVERED RISKS

Your insurance for the following Covered Risks is limited on the Owner's Coverage Statement as follows:

- For Covered Risk 16, 18, 19, and 21 Your Deductible Amount and Our Maximum Dollar Limit of Liability shown in Schedule A.

The deductible amounts and maximum dollar limits shown on Schedule A are as follows:

	Your Deductible Amount	Our Maximum Dollar Limit of Liability
Covered Risk 16:	1.00% of Policy Amount Shown in Schedule A or $2,500.00 (whichever is less)	$10,000.00
Covered Risk 18:	1.00% of Policy Amount Shown in Schedule A or $5,000.00 (whichever is less)	$25,000.00
Covered Risk 19:	1.00% of Policy Amount Shown in Schedule A or $5,000.00 (whichever is less)	$25,000.00
Covered Risk 21:	1.00% of Policy Amount Shown in Schedule A or $2,500.00 (whichever is less)	$5000.00

AMERICAN LAND TITLE ASSOCIATION
RESIDENTIAL TITLE INSURANCE POLICY (6-1-87)

EXCLUSIONS

In addition to the Exceptions in Schedule B, you are not insured against loss, costs, attorneys' fees, and expenses resulting from:

1. Governmental police power, and the existence or violation of any law or government regulation. This includes building and zoning ordinances and also laws and regulations concerning:

* land use
* improvements on the land
* land division
* environmental protection

This exclusion does not apply to violations or the enforcement of these matters which appear in the public records at Policy Date.
This exclusion does not limit the zoning coverage described in Items 12 and 13 of Covered Title Risks.

2. The right to take the land by condemning it, unless:

* a notice of exercising the right appears in the public records
* on the Policy Date
* the taking happened prior to the Policy Date and is binding on you if you bought the land without knowing of the taking

3. Title Risks:

* that are created, allowed, or agreed to by you
* that are known to you, but not to us, on the Policy Date – unless they appeared in the public records
* that result in no loss to you
* that first affect your title after the Policy Date – this does not limit the labor and material lien coverage in Item 8 of Covered Title Risks

4. Failure to pay value for your title.
5. Lack of a right:

* to any land outside the area specifically described and referred to in Item 3 of Schedule A
  OR
* in streets, alleys, or waterways that touch your land

This exclusion does not limit the access coverage in Item 5 of Covered Title Risks.

2006 ALTA LOAN POLICY (06-17-06)
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
   (i) the occupancy, use, or enjoyment of the Land;
   (ii) the character, dimensions, or location of any improvement erected on the Land;
   (iii) the subdivision of land; or
   (iv) environmental protection;
   or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
   (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
   (a) created, suffered, assumed, or agreed to by the Insured Claimant;
   (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
   (c) resulting in no loss or damage to the Insured Claimant;
   (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 13 or 14); or
   (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing business laws of the state where the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury or any consumer credit protection or truth-in-lending law.
6. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
   (a) a fraudulent conveyance or fraudulent transfer, or
   (b) a preferential transfer for any reason not stated in Covered Risk 13(b) of this policy.
7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the Insured Mortgage in the Public Records. This Exclusion does not modify or limit the coverage provided under Covered Risk 11(b).

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) that arise by reason of:

1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.
6. Any lien or right to a lien for services, labor or material not shown by the Public Records.

2006 ALTA OWNER'S POLICY (06-17-06)
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
   (i) the occupancy, use, or enjoyment of the Land;
   (ii) the character, dimensions, or location of any improvement erected on the Land;
   (iii) the subdivision of land; or
   (iv) environmental protection;
   or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
   (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
   (a) created, suffered, assumed, or agreed to by the Insured Claimant;
   (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
   (c) resulting in no loss or damage to the Insured Claimant;
   (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 9 and 10); or
   (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Title.

4. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction vesting the Title as shown in Schedule A, is
   (a) a fraudulent conveyance or fraudulent transfer; or
   (b) a preferential transfer for any reason not stated in Covered Risk 9 of this policy.
5. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the deed or other instrument of transfer in the Public Records that vests Title as shown in Schedule A.

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) that arise by reason of:

1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown in the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and that are not shown by the Public Records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.
6. Any lien or right to a lien for services, labor or material not shown by the Public Records.

ALTA EXPANDED COVERAGE RESIDENTIAL LOAN POLICY (07-26-10)
EXCLUSIONS FROM COVERAGE

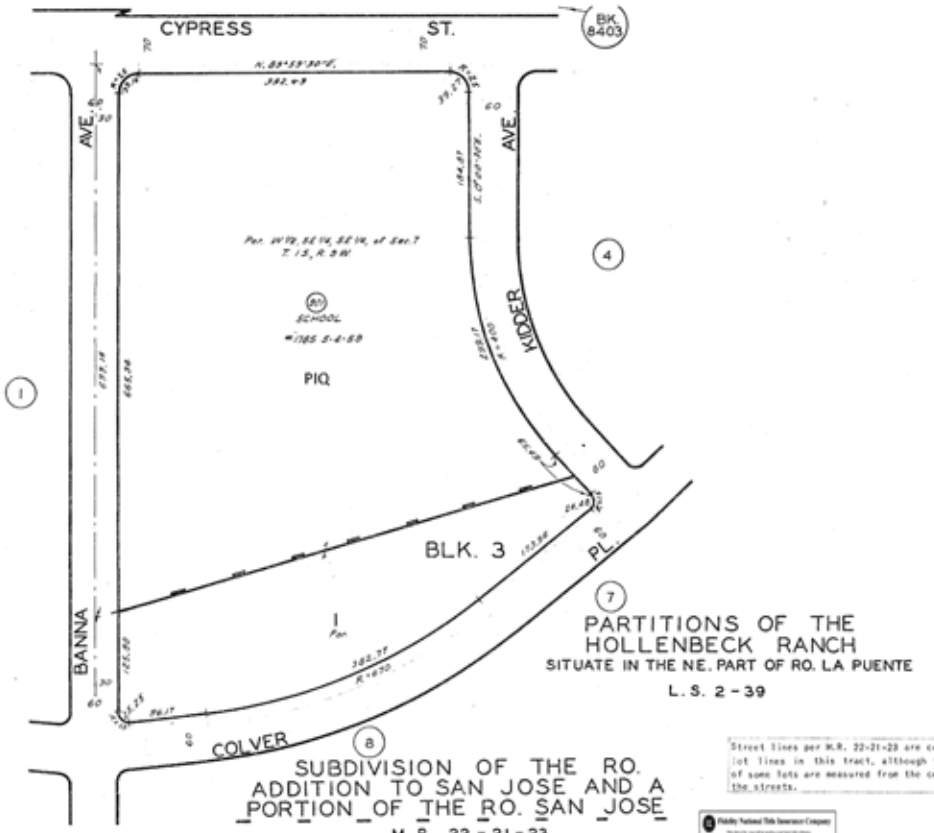
The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
      (i) the occupancy, use, or enjoyment of the Land;
      (ii) the character, dimensions, or location of any improvement erected on the Land;
      (iii) the subdivision of land; or
      (iv) environmental protection;

   or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5, 6, 13(c), 13(d), 14 or 16.
   (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 5, 6, 13(c),13(d), 14 or 16.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
   (a) created, suffered, assumed, or agreed to by the Insured Claimant;
   (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
   (c) resulting in no loss or damage to the Insured Claimant;
   (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 16, 17, 18, 19, 20, 21, 22, 23, 24, 27 or 28); or
   (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing business laws of the state where the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury, or any consumer credit protection or truth-in-lending law. This Exclusion does not modify or limit the coverage provided in Covered Risk 26.
6. Any claim of invalidity, unenforceability or lack of priority of the lien of the Insured Mortgage as to Advances or modifications made after the Insured has Knowledge that the vestee shown in Schedule A is no longer the owner of the estate or interest covered by this policy. This Exclusion does not modify or limit the coverage provided in Covered Risk 11.
7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching subsequent to Date of Policy. This Exclusion does not modify or limit the coverage provided in Covered Risk 11(b) or 25.
8. The failure of the residential structure, or any portion of it, to have been constructed before, on or after Date of Policy in accordance with applicable building codes. This Exclusion does not modify or limit the coverage provided in Covered Risk 5 or 6.
9. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
   (a) a fraudulent conveyance or fraudulent transfer, or
   (b) a preferential transfer for any reason not stated in Covered Risk 27(b) of this policy.

8427 | 3

SCALE 1" = 100'



PARTITIONS OF THE HOLLENBECK RANCH

SITUATE IN THE NE. PART OF RO. LA PUENTE

L. S. 2 - 39

SUBDIVISION OF THE RO. ADDITION TO SAN JOSE AND A PORTION OF THE RO. SAN JOSE

M. R. 22 - 21 - 23

Street lines per M.R. 22-21-23 are considered the lot lines in this tract, although the divisions of some lots are measured from the centerlines of the streets.

CODE 2671

FOR PREV. ASSM'T. SEE: 8424 - 14

Fidelity National Title Insurance Company

ASSESSOR'S MAP

COUNTY OF LOS ANGELES, CALIF.

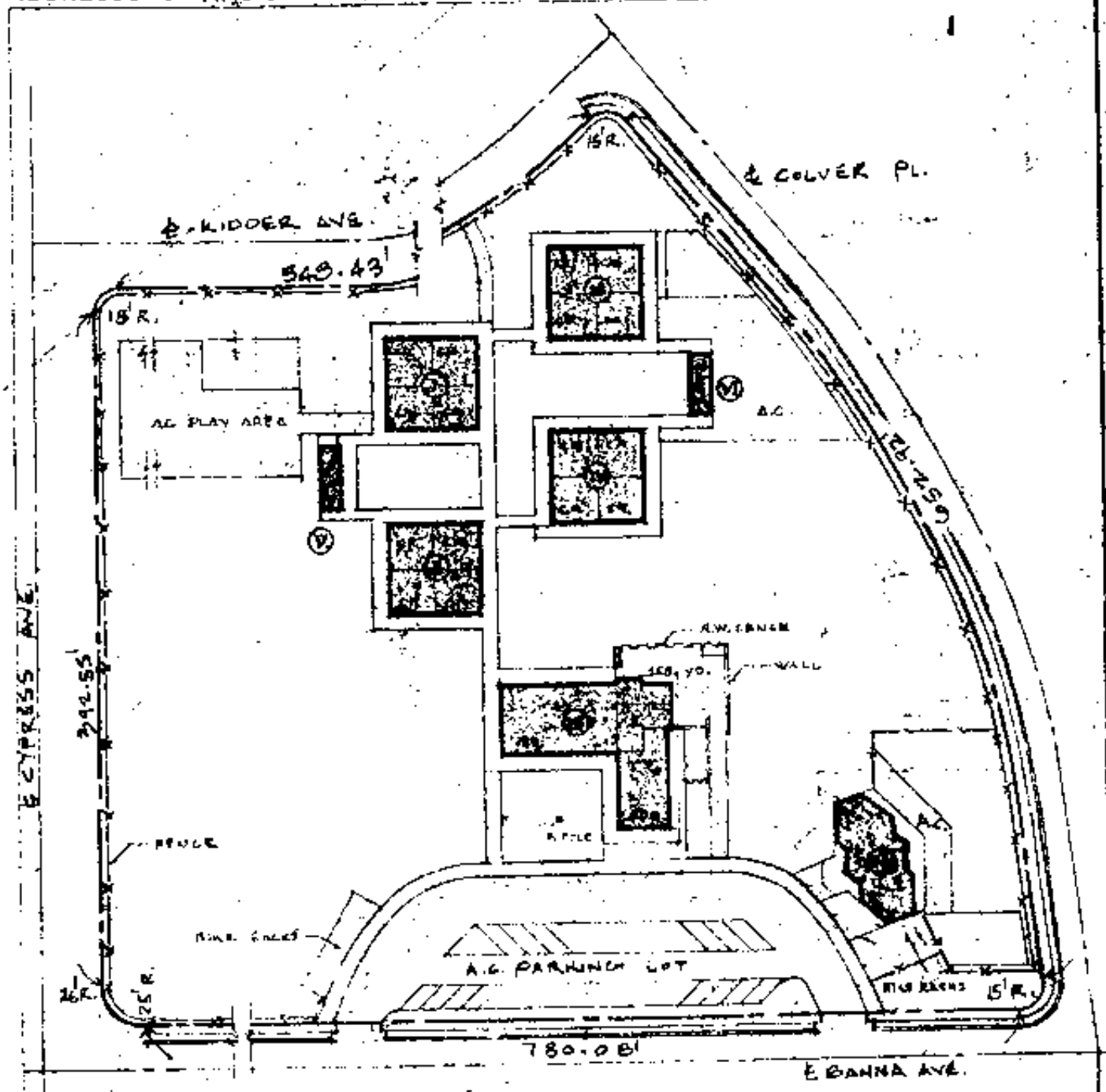
PROJECT BANNA SCHOOL

DIAGRAM OF BUILDING AREAS

CHARTER OAK UNIFIED SCH. DISTRICT

ADDRESS LOS ANGELES COUNTY, CALIFORNIA.

☒ EXISTING (1A)
☐ BASIC PLANS (2A)
☐ FINAL PLANS (3A)



PLOT PLAN

SCALE: 1" = 100'-0"

PROPOSED CONSTRUCTION

AREA OF SITE 8.51 Ac.

Above is measured in accordance with Art. 2022, Subchapter 8 Title 5 Calif. Administrative Code.

ARCHITECT

DATE 2-20-63 SHT. 1 OF 8 SHTS.

OFFICE OF SCHOOL PLANNING

CALIF. DEPT. OF EDUCATION

21-10-1

PROJECT

DIAGRAM OF BUILDING AREAS

☒ EXISTING (1-A)
☐ BASIC PLANS (2-A)
☐ FINAL PLANS (3-A)

BANNA SCHOOL CHARTER OAK SCH. DISTRICT

ADDRESS LOS ANGELES COUNTY, CALIF.

SUMMARY

KIND OF SPACE	UNIT I	UNIT II	UNIT III	UNIT IV	UNIT V	UNIT VI	UNIT VII	UNIT VIII	TOTAL
STANDARD CLASSROOMS	3779	3779	3779	3779				3253	15116
KINDERGARTENS							2808		2808
MULTI-USE							473		473
PLATFORM							121		121
KITCHEN							285		285
TEACHERS DINING							480		480
ADMINISTRATION					484	466	173		1105
TOILET ROOMS	65	65	65	65	107	107	520		994
MECH., CUST., STORE							82		82
ENCLOSED CORRIDOR									
SUB-TOTAL	3844	3844	3844	3844	573	573	6942	3253	26717
OPEN CORRIDOR	1312	1300	1149	1128	398	450	1503	571	7811
TOTAL	5156	5144	4993	4972	971	1023	8445	3824	34528

Above is measured in accordance with Art. 2022, Subchapter 8, Title 5 Calif. Administrative Code.

ARCHITECT

DATE SHT. OF 8 SHTS.

OFFICE OF SCHOOL PLANNING
CALIF. DEPT. OF EDUCATION

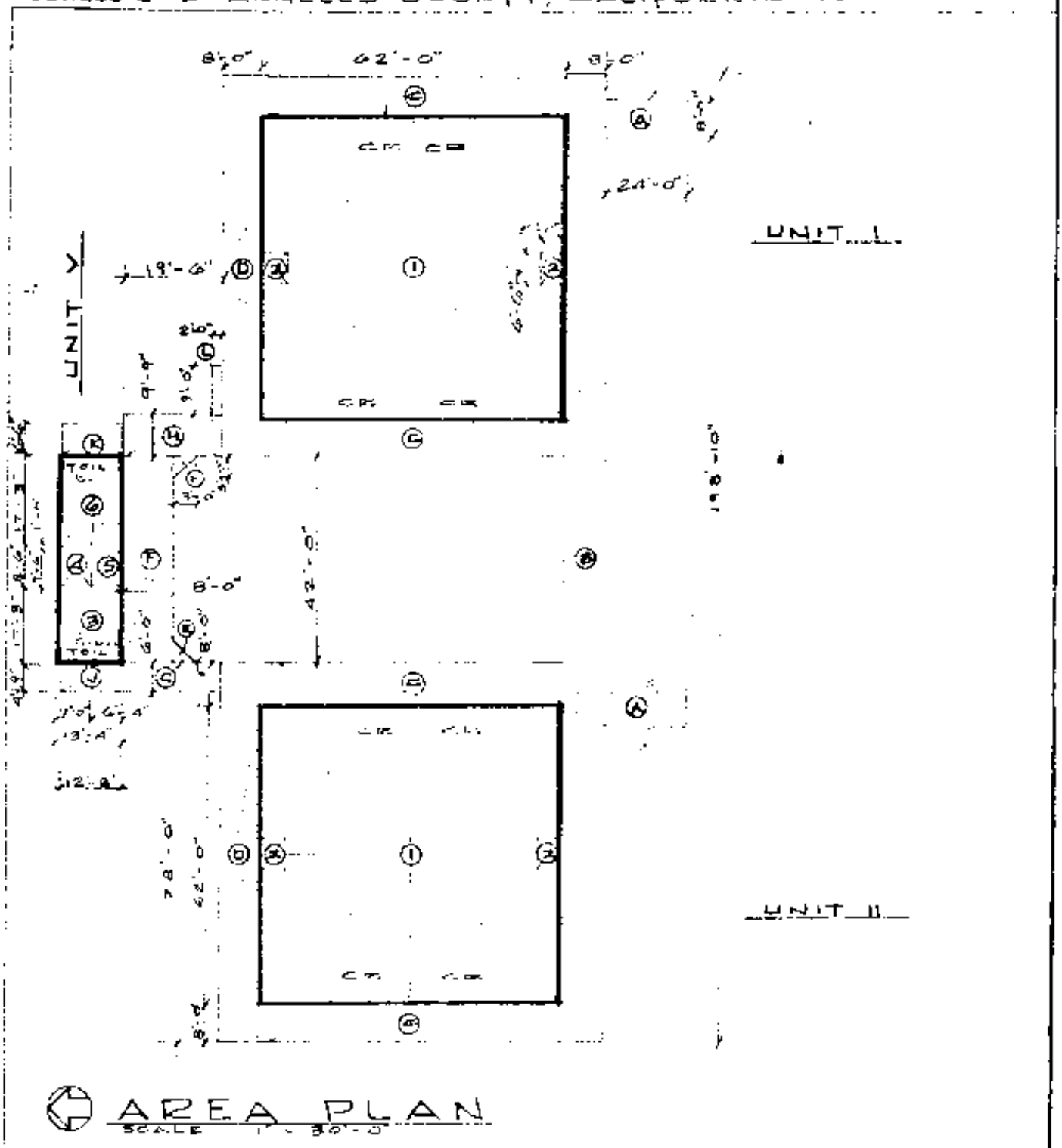
PROJECT

DIAGRAM OF BUILDING AREAS

[X] EXISTING (1-A)
[ ] BASIC PLANS (2-A)
[ ] FINAL PLANS (3-A)

BANNA SCHOOL CHARTER OAK SCH. DISTRICT

ADDRESS LOS ANGELES COUNTY, CALIFORNIA



SEE SHEET 5 OF 8 FOR AREA CALCS

Above is measured in accordance with Art. 2022, Subchapter 8 Title 5 Calif. Administrative Code.

ARCHITECT

DATE SHT. 3 OF 8 SHTS.
OFFICE OF SCHOOL PLANNING
CALIF. DEPT. OF EDUCATION

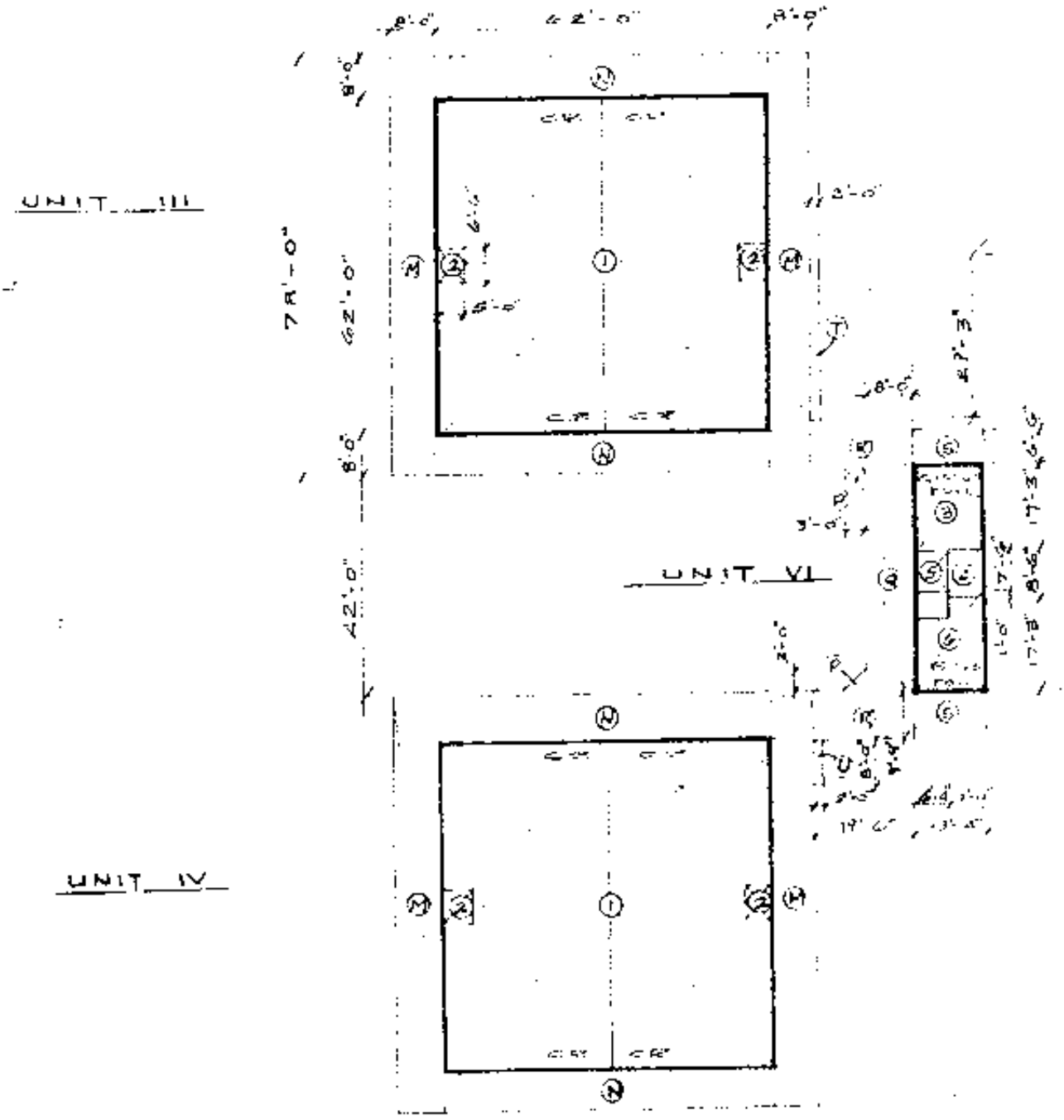
PROJECT

DIAGRAM OF BUILDING AREAS

☒ EXISTING (1-A)
☐ BASIC PLANS (2-A)
☐ FINAL PLANS (3-A)

BANNA SCHOOL CHARTER OAK SCH. DISTRICT

ADDRESS LOS ANGELES COUNTY, CALIFORNIA



AREA PLAN
SCALE 1" = 30'-0"

SEE SHEET 5 OF 8 FOR AREA CALC'D

Above is measured in accordance with Art. 2022, Subchapter 8 Title 5 Calif. Administrative Code.

ARCHITECT

DATE 2-20-63 SHT. 4 OF 8 SHTS.
OFFICE OF SCHOOL PLANNING
CALIF. DEPT. OF EDUCATION

PROJECT

BANNA

ADDRESS LOS ANGELES COUNTY, CALIFORNIA

DIAGRAM OF BUILDING AREAS

SCHOOL CHARTER OAK SCH. DISTRICT

☒ EXISTING (1-A)
☐ BASIC PLANS (2-A)
☐ FINAL PLANS (3-A)

AREA CALCS FOR UNITS I, II, III, IV, V & VI

PORTION	SIZE	AREA (SQ.FT.)	
① FOUR CLASSRMS	62'-0" x 62'-0" - ②	3779	
② MECH. ROOMS	6'-6" x 5'-0" x 2	65	
TOTAL UNIT I			3844
UNIT II - SAME AS UNIT I			3844
UNIT III - " " " I			3844
UNIT IV - " " " I			3844
③ GIRLS TOILET	17'-3" x 13'-4"	230	
4 FIELD STORAGE	8'-6" x 7'-0"	60	
5 CUSTODIAL RM	7'-6" x 6'-4"	47	
6 BOY'S TOILET	17'-3" x 13'-4" + 6'-4" x 1'-0"	236	
TOTAL UNIT V			573
UNIT VI - SAME AS UNIT V			573
(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)(M)(N)(O)(P) COVERED PASSAGE/2	24'-0" x 8'-0" x 2	192	
" "	198'-10" x 8'-0"	795	
" "	62'-0" x 8'-0" x 4	992	
" "	78'-0" x 8'-0" x 2	624	
" "	3'-0" x 3'-0" x 1/2 x 2	5	
" " 1	42'-0" x 8'-0"	168	
" "	19'-6" x 6'-0"	59	
" "	19'-6" x 9'-9"	95	
" "	12'-8" x 4'-7"	30	
" " 1/2	12'-8" x 6'-6"	41	
" "	9'-0" x 2'-0"	9	
" "	18'-0" x 8'-0" x 4	1248	
" "	62'-0" x 8'-0" x 4	992	
" "	3'-0" x 3'-0" x 1/2 x 2	5	
" "	42'-0" x 8'-0"	168	
" "	19'-6" x 9'-9" x 2	190	
" "	13'-4" x 6'-6" x 2	87	
" "	29'-3" x 2'-0"	29	
" "	8'-0" x 2'-0"	8	
TOTAL COVERED PASS/2			5737
			22,259

Above is measured in accordance with Art. 2022, Subchapter 8, Title 5 Calif. Administrative Code.

ARCHITECT

DATE SHT. 5 OF 8 SHTS.

OFFICE OF SCHOOL PLANNING
CALIF. DEPT. OF EDUCATION

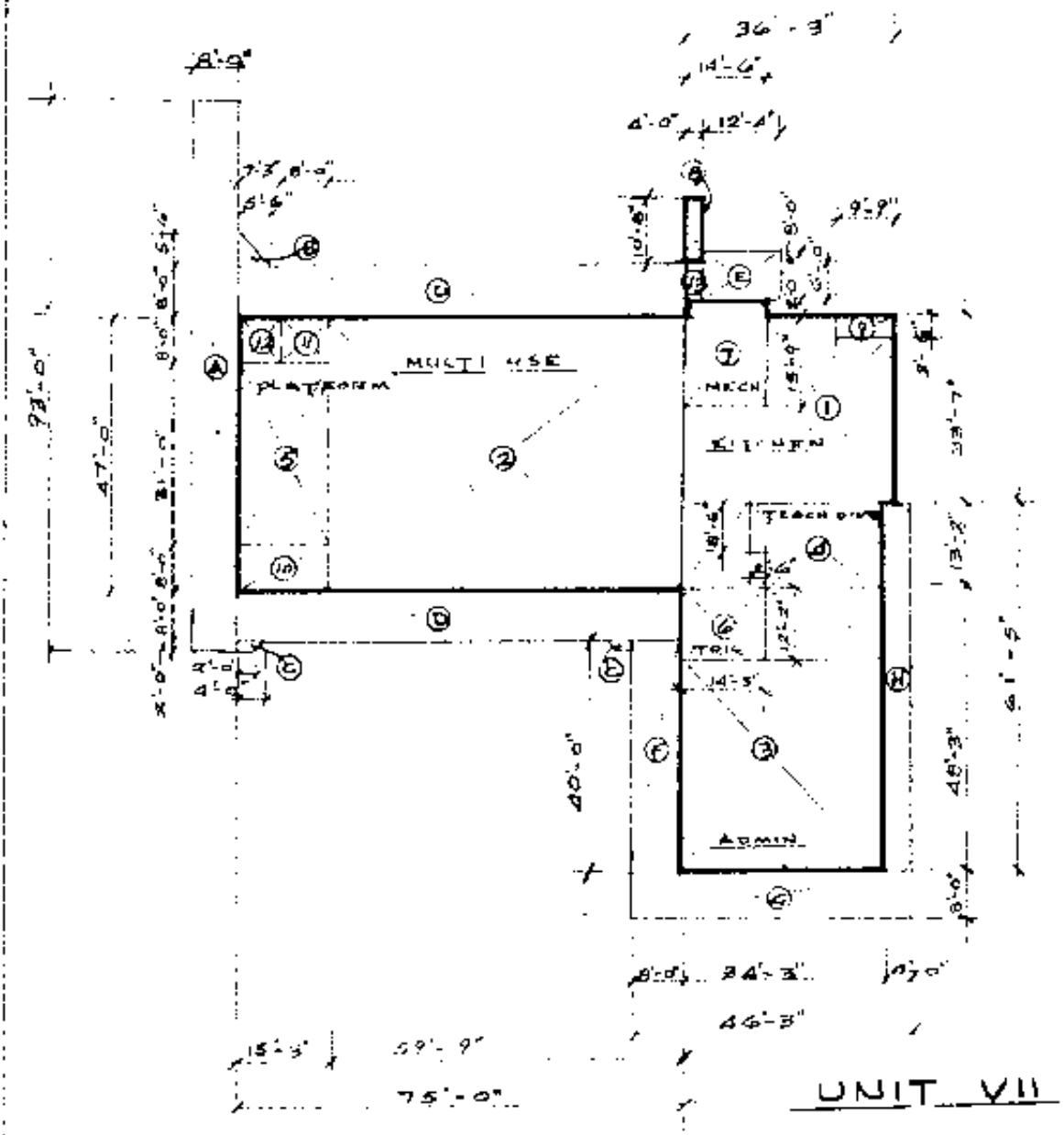
PROJECT BANNA

DIAGRAM OF BUILDING AREAS

SCHOOL CHARTER OAK SCH. DISTRICT

ADDRESS LOS ANGELES COUNTY, CALIFORNIA

[X] EXISTING (1-A)
[ ] BASIC PLANS (2-A)
[ ] FINAL PLANS (3-A)



AREA PLAN

SCALE 1" = 30'-0"

SEE SHEET 7 OF 8 FOR AREA CALCS.

Above is measured in accordance with Art. 2022, Subchapter 8 Title 5 Calif. Administrative Code.

ARCHITECT

DATE 2-20-63 SHT. 6 OF 8 SHTS.

OFFICE OF SCHOOL PLANNING
CALIF. DEPT. OF EDUCATION

PROJECT BANNA

DIAGRAM OF BUILDING AREAS

SCHOOL CHARTER OAK UNIFIED SCH. DISTRICT

ADDRESS LOS ANGELES COUNTY, CALIF

☒ EXISTING (1-A)
☐ BASIC PLANS (2-A)
☐ FINAL PLANS (3-A)

MULTI-USE UNIT VII AREA CALCS

AREA	SPACE	DIMENSIONS		SQ. FT.
1	KITCHEN	36.25(33.58)+8.5(11.75)+4.67(14.25)-14.5(15.75)-3.5(9.75)		1121
2	MULTI-USE	47 x 59.75		2808
3	ADMIN.	34.25 x 48.25 - 12.17 x 14.25		1480
4	TEACHERS' DINING	17.17 x 2[illegible] + 2.5 x 8.5		285
5	PLATFORM	31 x 15.25		473
6	TOILETS	12.17 x 14.25		173
7	MECHANICAL	14.5 x 17.75	257	
8	MECHANICAL	4.00 x 10.67	43	
9	MECHANICAL	3.5 x 9.75	34	
10	STORAGE	8 x 15.25	122	
11	STORAGE	8 x 8	64	
	MECHANICAL TRACE			520
12	BULLETIN BOARD	7.25 x 8		58
13	ENCLOSED [illegible]	6 x 4.00		24
				6,942
A	OPEN CORRIDOR	93.00 x 8.00 x 1/2		372
B	" "	5.50 x 5.50 x 1/2 x 1/2		8
C	" "	(4.0+2.0/2) x 2.00 x 2 x 1/2		6
D	" "	75.00 x 8.00 x 1/2 x 2		600
E	" "	12.33 x 8.00 x 1/2		49
F	" "	40.00 x 8.00 x 1/2		160
G	" "	46.25 x 8.00 x 1/2		185
H	" "	61.42 x 4.00 x 1/2		123
				1,503

Above is measured in accordance with Art. 2022, Subchapter 8, Title 5 Calif. Administrative Code.

ARCHITECT

DATE 2-20-63 SHT. 7 OF 8 SHTS.
OFFICE OF SCHOOL PLANNING
CALIF. DEPT. OF EDUCATION

PROJECT
BANNA

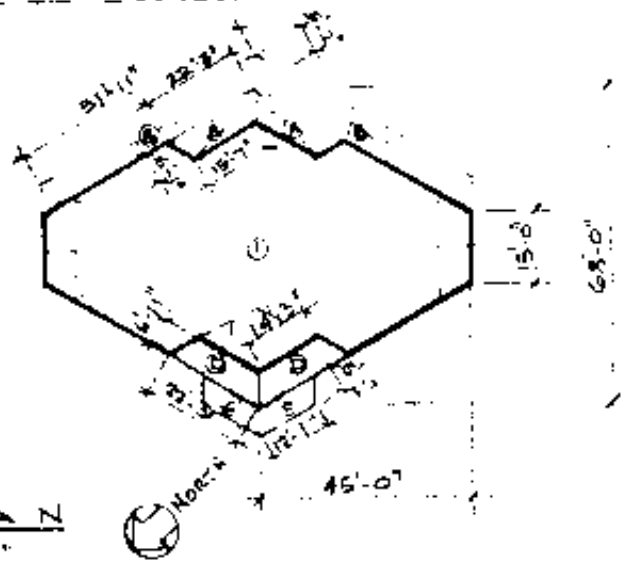
DIAGRAM OF BUILDING AREAS

SCHOOL CHARTER OAK UNIFIED SCH. DISTRICT

ADDRESS LOS ANGELES COUNTY, CALIFORNIA

☒ EXISTING (1-A)
☐ BASIC PLANS (2-A)
☐ FINAL PLANS (3-A)

UNIT VIII-KINDERGARTEN



AREA PLAN
SCALE 1" = 40'-0"

	PORTION	SIZE		AREA
①	CLASS. (2)-KINDER	[illegible]		3,263
		TOTAL		3,263
②	COV. PASSAGE	2(15'1" x 22'2" x 6'11")	1/2	118
		2(51'11" x 5'2")		268
		2(12'1" x 5'2")		62
		2(24'8" x 22'3" x 6'11")		126
		TOTAL		574

Above is measured in accordance with Art. 2022, Subchapter 8, Title 5 Calif. Administrative Code.

ARCHITECT

DATE 8-20-63 SHT. 8 OF 8 SHTS.
OFFICE OF SCHOOL PLANNING
CALIF. DEPT. OF EDUCATION

Please see Appendix F for the Phase I Environmental Site Assessment, which was used as a source for this report.

INELIGIBLE CAMPUSES: OVERVIEW

School Name: 122nd Street Elementary School
Address: 405 East 122nd Street, Los Angeles
Date(s) of Construction: 1963
Architect/Designer: Unknown

Notes: Not eligible. In terms of the context of institutional architecture/educational facilities in Los Angeles, this campus is a typical but not outstanding example of a postwar LAUSD campus. Additionally, under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criterion 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: 153rd Street Elementary School
Address: 1605 W 153rd Street, Gardena
Date(s) of Construction: 1957–1958
Architect/Designer: Ain, Johnson & Day

Notes: Not eligible. This campus has many of the character-defining features of a postwar finger-plan school but not all the eligibility standards required under Criteria A/1 as an exemplification of LAUSD design ideals for postwar schools. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, this campus was designed by master architects Ain, Johnson & Day; however, the school plan and design overall do not stand out as an outstanding exemplar of the firm's work.

School Name: 186th Street Elementary School
Address: 1581 West 186th Street, Gardena
Date(s) of Construction: 1955–1962
Architect/Designer: John Kewell & Associates

Notes: Not eligible. Not typical of LAUSD design principles of the era; site design does not exhibit an exceptionally unified plan. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect. Displays some characteristics of Mid-Century Modern design, but the design does not rise to the level required for eligibility for either the NRHP or CRHR.

School Name: 232nd Place Elementary School
Address: 23240 Archibald Avenue, Carson
Date(s) of Construction: 1957–1968
Architect/Designer: A. Quincy Jones and Frederick E. Emmons & Associates; landscape architect Curtis Dixon Anderson

Notes: Not eligible. Campus and its classroom wings and buildings represent typical but not outstanding examples of a postwar finger-plan school. Lack of indoor-outdoor integration in campus plan; arcades are replaced with tunnel-like corridors. Represents the work of master architects A. Quincy Jones and Frederick E. Emmons & Associates, but is not an exceptional example of their many buildings throughout Southern California. The campus is not eligible under other applicable criteria.

School Name: Ambler Avenue Elementary School
Address: 319 East Sherman Drive, Carson
Date(s) of Construction: 1966
Architect/Designer: Unknown

Notes: Not eligible. Campus plan and buildings have many of the typical character-defining features of postwar LAUSD schools. However, the school does not qualify as an outstanding exemplification of postwar LAUSD design ideas. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Amestoy Elementary School
Address: 1048 West 149th Street, Gardena
Date(s) of Construction: 1949–1957
Architect/Designer: Unknown

Notes: Not eligible. Not typical of LAUSD design principles of the era; site design does not exhibit an exceptionally unified plan. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Annalee Avenue Elementary School
Address: 19410 South Annalee Avenue, Los Angeles
Date(s) of Construction: 1966–1967
Architect/Designer: Unknown

Notes: Not eligible. The school campus and buildings represent a typical but not exemplary embodiment of LAUSD design principles of the era. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Avalon Gardens Elementary School
Address: 13940 South San Pedro Street, Los Angeles
Date(s) of Construction: 1948–1955
Architect/Designer: Unknown

Notes: Not eligible. This campus has many of the character-defining features of a postwar finger-plan school, but the range of construction dates, from 1948 to 1955, produced a campus plan that is not sufficiently unified to qualify under Criteria A/1 as an exemplification of LAUSD design ideals for postwar schools (under the context of institutional architecture/educational facilities in Los Angeles). In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Banneker Special Education Center
Address: 14024 South San Pedro Street, Los Angeles
Date(s) of Construction: 1972–1978
Architect/Designer: Unknown

Notes: Not eligible. In terms of the context of institutional architecture/educational facilities in Los Angeles, the campus is not representative of LAUSD design principles of the era. Additionally, under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Bonita Street Elementary School
Address: 21929 Bonita Street, Carson
Date(s) of Construction: 1958
Architect/Designer: Unknown

Notes: Not eligible. Campus plan and buildings have many of the typical character-defining features of postwar LAUSD schools. However, taken as a whole, the campus is a common but not outstanding exemplification of postwar LAUSD design ideas. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Broadacres Elementary School
Address: 19424 South Broadacres Avenue, Carson
Date(s) of Construction: 1967
Architect/Designer: Unknown

Notes: Not eligible. In terms of the context of institutional architecture/educational facilities, the campus does not represent an outstanding example of LAUSD design principles of the era. Additionally, under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Brooklyn Avenue Elementary School
Address: 4620 Cesar Chavez Avenue, Los Angeles
Date(s) of Construction: 1960–1975
Architect/Designer: Unknown

Notes: Not eligible. In terms of the context of institutional architecture/educational facilities in Los Angeles, the campus is not representative of LAUSD design principles of the era. Additionally, under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Carnegie Middle School
Address: 21820 Bonita Street, Carson
Date(s) of Construction: 1965
Architect/Designer: Unknown

Notes: Not eligible. The campus overall is not typical of LAUSD design principles of the era. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Caroldale Learning Community
Address: 22424 Caroldale Avenue, Carson
Date(s) of Construction: 1960–1969
Architect/Designer: Unknown

Notes: Not eligible. The campus overall is not typical of LAUSD design principles of the era. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Carson Senior High School
Address: 22328 South Main Street, Carson
Date(s) of Construction: 1962–1969
Architect/Designer: Austin, Field, and Fry

Notes: Not eligible. Campus plan and buildings have many of the typical character-defining features of postwar LAUSD schools. However, taken as a whole, the campus is a common but not outstanding exemplification of postwar LAUSD design ideas. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Century Park Elementary School
Address: 10935 South Spinning Avenue, Inglewood
Date(s) of Construction: 1948–1959
Architect/Designer: Unknown

Notes: Not eligible. Not typical of LAUSD design principles of the era; all of the original classrooms in addition to the auditorium are located in a single building; classrooms on double-loaded interior corridor. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Chandler Elementary School
Address: 14030 Weddington Street, Van Nuys
Date(s) of Construction: 1949–1956
Architect/Designer: Unknown

Notes: Not eligible. Campus plan and buildings have many of the typical character-defining features of postwar LAUSD schools. However, taken as a whole, the campus is a common but not outstanding exemplification of postwar LAUSD design ideas. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Cimarron Elementary School
Address: 11559 Cimarron Avenue, Los Angeles
Date(s) of Construction: 1953–1957
Architect/Designer: Unknown

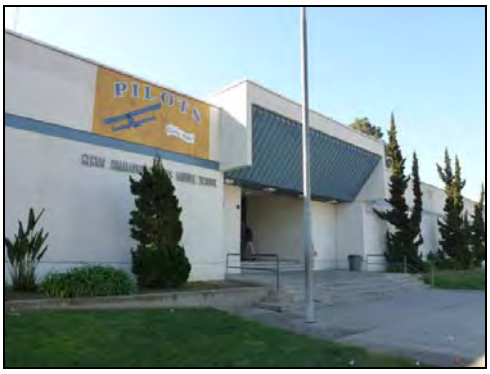
Notes: Not eligible. The school campus and buildings represent a typical but not exemplary embodiment of LAUSD design principles of the era. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Cowan Avenue Elementary School
Address: 7615 Cowan Avenue, Los Angeles
Date(s) of Construction: 1953–1958
Architect/Designer: Unknown

Notes: Not eligible. Campus plan and buildings have many of the typical character-defining features of postwar LAUSD schools. However, taken as a whole, the campus is a common but not outstanding exemplification of postwar LAUSD design ideas. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Crenshaw Senior High School
Address: 5010 11th Avenue, Los Angeles
Date(s) of Construction: 1968
Architect/Designer: Unknown

Notes: Not eligible. Not typical of LAUSD design principles of the era. In terms of eligibility under Criteria A/1, research showed that construction of Crenshaw High School reflected post-Watts Riots investment in South Los Angeles schools. Research conducted within the parameters of the current scope, however, did not identify a broader, contextual pattern to justify eligibility under Criteria A/1 on this basis. In addition, research did not show that this campus was the site of a significant event. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.



School Name: Curtiss Middle School
Address: 1254 East Helmick Street, Carson, Los Angeles
Date(s) of Construction: 1969
Architect/Designer: Unknown

Notes: Not eligible. The school campus and buildings represent a typical but not exemplary embodiment of LAUSD design principles of the era. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or work of a master architect.

School Name: Dixie Canyon Avenue Elementary School
Address: 4220 Dixie Canyon Avenue, Sherman Oaks
Date(s) of Construction: 1949–1961
Architect/Designer: Unknown

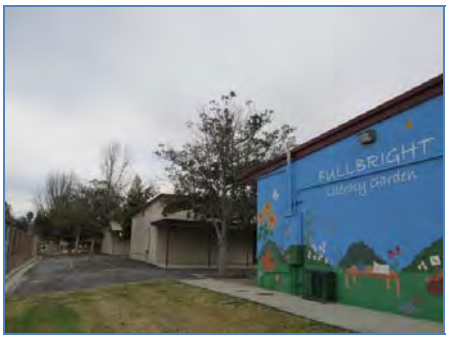
Notes: Not eligible. Campus plan and buildings have many of the typical character-defining features of postwar LAUSD schools. However, taken as a whole, the campus is a common but not outstanding exemplification of postwar LAUSD design ideas. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Encino Elementary School
Address: 16941 Addison Street, Encino, Los Angeles
Date(s) of Construction: 1949–1961
Architect/Designer: Unknown

Notes: Not eligible. Campus plan and buildings have many of the typical character-defining features of postwar LAUSD schools. However, taken as a whole, the campus is a common but not outstanding exemplification of postwar LAUSD design ideas. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Francis Polytechnic Senior High School
Address: 12431 Roscoe Boulevard, Sun Valley
Date(s) of Construction: 1957
Architect/Designer: Austin, Field, and Fry

Notes: Not eligible. Campus plan and buildings have many of the typical character-defining features of postwar LAUSD schools. However, taken as a whole, the campus is a common but not outstanding exemplification of postwar LAUSD design ideas. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.



School Name: Fullbright Avenue Elementary School
Address: 6940 Fullbright Avenue, Canoga Park
Date(s) of Construction: 1954
Architect/Designer: Unknown

Notes: Not eligible. Campus plan and buildings have many of the typical character-defining features of postwar LAUSD schools. However, taken as a whole, the campus is a common but not outstanding exemplification of postwar LAUSD design ideas. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Grant Senior High School
Address: 13000 Oxnard Street, Valley Glen
Date(s) of Construction: 1958–1964
Architect/Designer: J. E. Stanton and William F. Stockwell

Notes: Not eligible. Campus plan and buildings have many of the typical character-defining features of postwar LAUSD schools. However, taken as a whole, the campus is a common but not outstanding exemplification of postwar LAUSD design ideas. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design. Designed by prominent architectural firm, Stanton & Stockwell (J.E. Stanton & William F. Stockwell), but the school is not the most representative or intact example of the firm's work.

School Name: Haskell Avenue Elementary School
Address: 15850 Tulsa Street, Granada Hills
Date(s) of Construction: 1953–1965
Architect/Designer: Unknown

Notes: Not eligible. In terms of the context of institutional architecture/educational facilities in Los Angeles, this campus exhibits most of the character-defining features of the indoor-outdoor, finger-plan school constructed throughout LAUSD in the postwar period. However, due to alterations (primarily in-filled windows, altered window and door openings), the campus does not retain sufficient integrity to convey its period of significance.

School Name: Hawaiian Avenue Elementary School
Address: 540 Hawaiian Avenue, Wilmington
Date(s) of Construction: 1948–1966
Architect/Designer: Unknown

Notes: Not eligible. The campus overall is not typical of LAUSD design principles of the era. The 1948 Administration Building is noteworthy, but due to alterations (replaced windows), it does not retain integrity. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation.

In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Marianna Elementary School
Address: 4215 East Gleason Street, Los Angeles
Date(s) of Construction: 1958–1964
Architect/Designer: Unknown

Notes: Not eligible. In terms of the context of institutional architecture/educational facilities in Los Angeles, this campus is a typical but not outstanding example of a postwar LAUSD campus. Additionally, under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Monroe Senior High School
Address: 9229 North Haskell Avenue, North Hills
Date(s) of Construction: 1957
Architect/Designer: Heitschmidt and Thompson

Notes: Not eligible. Campus plan and buildings have many of the typical character-defining features of postwar LAUSD schools. However, taken as a whole, the campus is a common but not outstanding exemplification of postwar LAUSD design ideas. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Park Avenue Elementary School
Address: 8020 Park Avenue, Cudahy
Date(s) of Construction: 1968
Architect/Designer: Unknown

Notes: Not eligible. In terms of the context of institutional architecture/educational facilities in Los Angeles, the campus is a common but not outstanding example of LAUSD design principles of the era. Additionally, under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Purche Elementary School
Address: 13210 Purche Avenue, Gardena
Date(s) of Construction: 1957
Architect/Designer: Unknown

Notes: Not eligible. The school campus and buildings represent a typical but not exemplary embodiment of LAUSD design principles of the era. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Sellery Special Education Center
Address: 15804 South Budlong Avenue, Gardena
Date(s) of Construction: 1961–1963
Architect/Designer: Unknown

Notes: This school was custom-built to serve a special needs population of children with severe handicaps. As such, the plan and building types vary from typical LAUSD plan typologies. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect. The school displays many character-defining features of the Mid-Century Modern architectural style. However, the school is not an outstanding or distinctive example of the Mid-Century Modern architectural style and does not qualify under Criteria C/3.

School Name: Sherman Oaks Elementary School
Address: 14755 Greenleaf Street, Sherman Oaks
Date(s) of Construction: 1948–1976
Architect/Designer: Unknown

Notes: Not eligible. Campus plan and buildings have many of the typical character-defining features of postwar LAUSD schools. However, taken as a whole, the campus is a common but not outstanding exemplification of postwar LAUSD design ideas. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Stagg Street Elementary School
Address: 7839 Amestoy Avenue, Van Nuys
Date(s) of Construction: 1954–1958
Architect/Designer: Unknown

Notes: Not eligible. In terms of the context of institutional architecture/educational facilities in Los Angeles, this campus exhibits most of the character-defining features of the indoor-outdoor, finger-plan school constructed throughout LAUSD in the postwar period. However, due to alterations (primarily in-filled windows, altered window and door openings), the campus does not retain sufficient integrity to convey its period of significance.

School Name: Towne Avenue Elementary School
Address: 18924 Towne Avenue, Carson
Date(s) of Construction: 1958
Architect/Designer: Unknown

Notes: Not eligible. In terms of the context of institutional architecture/educational facilities in Los Angeles, this campus is a typical but not outstanding example of a postwar LAUSD campus. Additionally, under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Van Deene Elementary School
Address: 826 West Javelin Street, Torrance
Date(s) of Construction: 1960–1965
Architect/Designer: Unknown

Notes: Not eligible; very typical but not outstanding example of LAUSD design ideals of the era. Appears to be drawn from one of the standardized plans for schools during this period. Not the site of significant event or representative of a significant pattern of development. Not an outstanding example of architectural design or the work of a master architect.

School Name: Vintage Street Elementary School (Vintage Street Fundamental Magnet School)
Address: 15848 Stare Street, North Hills
Date(s) of Construction: 1953
Architect/Designer: Unknown

Notes: Not eligible. In terms of the context of institutional architecture/educational facilities in Los Angeles, this campus exhibits most of the character-defining features of the indoor-outdoor, finger-plan school constructed throughout LAUSD in the postwar period. However, due to alterations (primarily in-filled windows, altered window and door openings, and changes to the design configuration of the entrance and auditorium), the campus does not retain sufficient integrity to convey its period of significance.

School Name: White Middle School
Address: 22102 South Figueroa Street, Carson
Date(s) of Construction: 1956
Architect/Designer: Unknown

Notes: Not eligible. Campus plan and buildings have many of the typical character-defining features of postwar LAUSD schools. However, taken as a whole, the campus is a common but not outstanding exemplification of postwar LAUSD design ideas. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Wilmington II Middle School
Address: 1700 Gulf Avenue, Wilmington
Date(s) of Construction: 1951–1962
Architect/Designer: Unknown

Notes: Not eligible. The campus overall is not typical of LAUSD design principles of the era. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Wilson Senior High School
Address: 4500 Multnomah Street, Los Angeles
Date(s) of Construction: 1970
Architect/Designer: Unknown

Notes: Not eligible. The campus overall is not typical of LAUSD design principles of the era. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

APPENDIX E

Preliminary Geotechnical Investigation

ALBUS-KEEFE & ASSOCIATES, INC.
GEOTECHNICAL CONSULTANTS

October 14, 2015
J.N.: 2345.00

Mr. Steve Sheldon
Sheldon Development, LLC
901 Dove Street, Suite 140
Newport Beach, California 92660

Subject: Preliminary Geotechnical Investigation, Tentative Tract No. 73455 - Proposed Residential Development, 800 Banna Avenue, City of Covina, California.

Dear Mr. Sheldon,

Pursuant to your request, ***Albus-Keefe & Associates, Inc***. is pleased to present to you our preliminary geotechnical investigation report for the proposed residential development at the subject site. This report presents the results of our review of the referenced literature and aerial photographs for the site and surrounding areas, subsurface exploration, laboratory testing, and engineering/geologic analyses. Geotechnical conclusions and recommendations pertaining to the proposed site development are also provided herein.

We appreciate this opportunity to be of service to you. If you should have any questions regarding the contents of this report, please do not hesitate to call.

Sincerely,

ALBUS-KEEFE & ASSOCIATES, INC.

Patrick M. Keefe
Principal Engineering Geologist

1011 North Armando Street, Anaheim CA 92806-2606 (714) 630-1626 FAX (714) 630-1916

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1.0 INTRODUCTION

1.1 PURPOSE AND SCOPE

The purposes of our investigation were to evaluate geotechnical conditions within the project area and to provide conclusions and recommendations relevant to the design and construction of the proposed residential development at the subject site. The scope of this investigation included the following:

- Review of the referenced geologic and seismic data for the site and surrounding area
- Review of aerial photographs contained in our library for the site and surrounding area
- Review of the referenced Conceptual Site Plan
- Exploratory drilling and soil sampling
- Laboratory testing of selected soil samples
- Engineering analyses of data obtained from our review, exploration, and laboratory testing
- Evaluation of site seismicity, liquefaction potential, and settlement potential
- Preparation of this report

1.2 SITE LOCATION AND DESCRIPTION

The site is located at 800 North Banna Avenue within the city of Covina, California. The property is bordered by East Cypress Street to the north, North Banna Avenue to the west, North Kidder Avenue to the east, and East Colver Place to the south. The location of the site and its relationship to the surrounding areas is shown on Figure 1, Site Location Map.

The site is currently occupied by a former elementary school which includes six single-story classroom and administration buildings. Additional smaller structures, as well as playground facilities, are also present within the property. A few portions of the site are covered with asphaltic concrete for parking and/or playground areas with the vast majority of the site being open space covered with grass. Pathways associated with buildings are paved with concrete and are generally within the cluster of buildings on the site. Some mature and moderate-sized trees, as well as smaller landscaping vegetation, exist on the site. Chain-link fencing runs the perimeter of the entire site. Topography on site varies from approximately 680 feet to 690 feet above sea level with the low end in the southwestern corner and the high end along the eastern boundary.

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SITE LOCATION MAP

Sheldon Development, LLC
Proposed Residential Development
Tentative Tract No. 73455
800 North Banna Avenue
Covina, California

NOT TO SCALE

FIGURE 1

1.3 PROPOSED DEVELOPMENT

We understand the site will be redeveloped for construction of 63, two-story detached homes, interior streets, parking stalls, open space areas and associated underground improvements. We anticipate the proposed residences will be wood-framed, slab-on-grade structures yielding relatively light foundations loads. No grading or structural plans were available in preparing this report. However, we anticipate that minor rough grading of the site will be required to achieve future surface configurations.

2.0 INVESTIGATION

2.1 RESEARCH

We have reviewed the referenced geologic publications and maps for the site and nearby vicinity (see references). Data from these sources were utilized to development some of our findings and conclusions presented in this report. We have also reviewed the referenced aerial photos for the site and surrounding areas. Our review indicates the subject property was utilized for agricultural purposes (groves) since at least 1953. By 1965, the property had been cleared of all trees and constructed as a school facility. The site does not appear to be significantly altered since it was originally developed.

2.2 SUBSURFACE INVESTIGATION

Subsurface exploration for this investigation was conducted on December 8, 2014. Our exploration consisted of drilling nine (9) exploratory borings to depths of about 11.0 to 31.5 feet below the existing ground surface utilizing a truck-mounted, hollow-stem-auger drill rig. Representatives of *Albus-Keefe & Associates, In*c. logged the exploratory excavation. Visual and tactile identifications were made of the materials encountered, and their descriptions are presented in the Exploration Logs in Appendix A. The approximate locations of the exploratory excavations completed by this firm are shown on the enclosed Geotechnical Map, Plate 1.

Bulk, relatively undisturbed and Standard Penetration Test (SPT) samples were obtained at selected depths within the exploratory borings for subsequent laboratory testing. Relatively undisturbed samples were obtained using a 3-inch O.D., 2.5-inch I.D., California split-spoon soil sampler lined with brass rings. SPT samples were obtained from the borings using a standard, unlined SPT soil sampler. During each sampling interval, the sampler was driven 12 or 18 inches with successive drops of a 140-pound automatic hammer falling 30 inches. The number of blows required to advance the sampler was recorded for each six inches of advancement. The total blow count for the lower 12 inches of advancement per soil sample is recorded on the exploration log. Samples were placed in sealed containers or plastic bags and transported to our laboratory for analyses. The borings were backfilled with auger cuttings upon completion of sampling.

2.3 LABORATORY TESTING

Selected samples of representative earth materials from the subsurface explorations were returned to our laboratory for testing. Tests consisted of in-situ moisture content and dry density, maximum dry density and optimum moisture content, expansion index, soluble sulfate, consolidation/collapse, grain-size analysis, soluble sulfate content and Atterberg limits. Descriptions of laboratory test criteria and a summary of the test results are presented in Appendix B and on the exploration logs in Appendix A.

3.0 SUBSURFACE CONDITIONS

3.1 SOIL CONDITIONS

Descriptions of the earth materials encountered during our investigation are summarized below and are presented in detail on the Exploration Logs presented in Appendix A.

Soil materials encountered at the site consisted mainly of Quaternary alluvium with a thin topsoil layer associated with landscaping on site. The topsoil predominately consists of sandy silts and silty sands that are brown to dark brown, moist to very moist, and loose. The alluvium predominantly consists of sands, silty sands, gravelly sands, and sandy gravels. These materials were light brown and reddish brown, dry to damp and medium dense to very dense. Visible porosity was noted in many of the borings within the upper 4 to 6 feet. Practical refusal was encountered in Borings B-2 and B-6 at 14 feet and 17 feet, respectively. Refusal was likely occurring on a lenticular layer of dense gravel or cobbles. A layer of silty clay was encountered at 20 feet within B-3 and may be present as relatively thin lenticular layers elsewhere within the site at or near this depth. Although not identified through our subsurface exploration, undocumented artificial fill materials are anticipated to exist beneath the site, particularly in areas of structures and as backfill in utility trenches.

3.2 GROUNDWATER

Groundwater was not encountered during this firm’s subsurface exploration to a maximum depth of 31.5 feet below the existing ground surface. A review of the CDMG Seismic Hazard Zone Report 032 indicates that historical high groundwater levels for the general site area is approximately 175 feet below the existing ground surface.

3.3 FAULTING

Geologic literature and field exploration do not indicate the presence of active faulting within the site. The site does not lie within an "Earthquake Fault Zone" as defined by the State of California in the Alquist-Priolo Earthquake Fault Zoning Act. Table 3.1 presents a summary of all the known active faults within 10 miles of the site.

TABLE 3.1
Summary of Faults

Name	Distance (miles)	Slip Rate (mm/yr.)	Preferred Dip (degrees)	Slip Sense	Rupture Top (km)	Fault Length (km)
San Jose	2.62	0.5	74	strike slip	0	20
Sierra Madre Connected	3.49	2	51	reverse	0	76
Sierra Madre	3.49	2	53	reverse	0	57
Chino, alt 2	7.73	1	65	strike slip	0	29
Cucamonga	7.74	5	45	thrust	0	28
Chino, alt 1	7.82	1	50	strike slip	0	24
Raymond	8.9	1.5	79	strike slip	0	22
Clamshell-Sawpit	8.92	0.5	50	reverse	0	16

4.0 ANALYSES

4.1 SEISMICITY

We have performed probabilistic seismic analyses utilizing computer program OpenSHA developed by Field, E.H., T.H. Jordan, and C.A. Cornell (2003). OpenSHA is an open-source, Java-based platform for conducting seismic hazard analysis. As an object-oriented framework, OpenSHA can accommodate arbitrarily complex (e.g., physics based) earthquake rupture forecasts (ERFs), ground-motion models, and engineering-response models.

The computer program OpenSHA predicts the peak ground acceleration (PGA) having a 10 percent chance of being exceeded in 50 years is approximately 0.50g when averages of three attenuation relationships are used ((Campbell & Bozorgnia 2008, Boore & Atkinson 2008 and Choi & Youngs 2008). The program also predicts the PGA having a 2 percent chance of being exceeded in 50 years is approximately 0.85g when averages of three attenuation relationships are used ((Campbell & Bozorgnia 2008, Boore & Atkinson 2008 and Choi & Youngs 2008).

4.2 STATIC SETTLEMENT

Results of our subsurface exploration indicate the alluvium materials in the upper 4 to 6 feet typically contain appreciable fractions of silts and exhibit visible porosity. Results of laboratory testing of these materials indicate they have significant potential for hydrocollapse. Review of consolidation test results indicate the potential generally ranges from 5.5% to 8.5% at a normal stress of 1,600 psf. An analyses was performed to estimate the total settlement potential of a typical shallow footing supported by the soils in their natural state. The footing was assumed to be 15 inches wide, 12 inches deep, and carry a wall load of 2,000 psf. Based on this model, we estimate a typical spread footing underlain by 6 feet of these materials would undergo a total settlement of approximately 3.3 inches if the soils became significantly wetted after the foundation is in place and loaded.

5.0 CONCLUSIONS

5.1 FEASIBILITY OF PROPOSED DEVELOPMENT

From a geotechnical point of view, the proposed site development is considered feasible provided the development is designed and constructed in accordance with the recommendations presented in this report.

5.2 SEISMIC HAZARDS

5.2.1 Ground Rupture

No active faults are known to project through the site nor does the site lie within the bounds of an "Earthquake Fault Zone" as defined by the State of California in the Alquist-Priolo Earthquake Fault Zoning Act. As such, the potential for ground rupture due to a fault displacement beneath the site is considered very low.

5.2.2 Ground Shaking

The site is situated in a seismically active area that has historically been affected by generally moderate to occasionally high levels of ground motion. The site lies in relative close proximity to several active faults; therefore, during the life of the proposed improvements, the property will probably experience similar moderate to occasionally high ground shaking from these fault zones, as well as some background shaking from other seismically active areas of the Southern California region. Potential ground accelerations have been estimated for the site and are presented in Section 4.1 of this report. Design and construction in accordance with the current California Building Code (CBC) requirements is anticipated to address the issues related to potential ground shaking.

5.2.3 Landsliding

Geologic hazards associated with landsliding are not anticipated at the site. Furthermore, the site is not located within an area identified by the California Geologic Survey (CGS) as having potential for seismic slope instability.

5.2.4 Liquefaction

Engineering research of soil liquefaction potential (Youd, et al., 2001) indicates that generally three basic factors must exist concurrently in order for liquefaction to occur. These factors include:

- A source of ground shaking, such as an earthquake, capable of generating soil mass distortions.
- A relatively loose silty and/or sandy soil.
- A relative shallow groundwater table (within approximately 50 feet below ground surface) or completely saturated soil conditions that will allow positive pore pressure generation.

The liquefaction susceptibility of the onsite subsurface soils was evaluated by analyzing the potential concurrent occurrence of the above-mentioned three basic factors. The liquefaction evaluation for this site was completed under the guidance of Special Publication 117A: Guidelines for Evaluating and Mitigating Seismic Hazards in California (CDMG, 2008).

Groundwater is anticipated to be greater than 150 feet below the ground surface of the site. Therefore, the potential for liquefaction at the site is very low. In addition, the site is not located within a mapped California Geologic Survey liquefaction hazard zone.

5.2.5 Seiches and Tsunami

The site is elevated more than 680 feet above sea level and is located a substantial distance from a significant body of water within an enclosed basin. As such, the potential for hazards related to seiches and tsunami are considered very low.

5.3 STATIC SETTLEMENT

As indicated in Section 4.2, the upper site soils are compressible and prone to significant hydrocollapse (consolidation upon wetting). Foundations supported by these soils would be subject to excessive settlement from future wetting due primarily to irrigation. This condition can be mitigated by removal and recompaction of these materials to a denser condition. Assuming the upper 4 to 6 feet of unsuitable soils are recompacted as engineered fill, total and differential settlement due to compression of these materials under the weight of anticipated residential structures is anticipated to be less than 1 inch and ½ inch over 30 feet.

5.4 MATERIAL CHARACTERISTICS

The native alluvium is anticipated to be relatively easy to excavate with conventional heavy earthmoving equipment to a depth of 8 feet. Excavations below a depth of about 8 feet from existing grade may encounter dense sandy gravels. These lower soils are anticipated to require moderate effort to excavate with a backhoe. Very localized zones of cobbles may be encountered in this layer as well. Materials are generally below the optimum moisture content and therefore will require the addition of water to achieve proper compaction. Materials located below a depth of about 8 feet are relatively cohesionless and will be prone to sloughing and caving. Recommendations for temporary excavation slopes are provided in Section 6.1.7 of this report to address this condition.

5.5 SHRINKAGE AND SUBSIDENCE

Volumetric changes in earth quantities will occur when excavated onsite soil materials are replaced as properly compacted fill. We estimate the upper 4 to 6 feet of surficial soils will shrink approximately 18 to 22 percent. Reprocessing of removal bottoms are anticipated to result in a general subsidence of approximately 0.1 foot. The estimates of shrinkage and subsidence are intended as an aid for project engineers in determining earthwork quantities. However, these estimates should be used with some caution since they are not absolute values. Contingencies should be made for balancing earthwork quantities based on actual shrinkage and subsidence that occurs during the grading process.

6.0 RECOMMENDATIONS

6.1 EARTHWORK

6.1.1 General Earthwork and Grading Specifications

All earthwork and grading should be performed in accordance with applicable requirements of Cal/OSHA, applicable specifications of the Grading Codes of the City of Covina, California in addition to the recommendations presented herein.

6.1.2 Pre-Grade Meeting and Geotechnical Observation

Prior to commencement of grading, we recommend a meeting be held between the developer, City Inspector, grading contractor, civil engineer, and geotechnical consultant to discuss the proposed grading and construction logistics. We also recommend a geotechnical consultant be retained to provide soil engineering and engineering geologic services during site grading and foundation construction. This is to observe compliance with the design specifications and recommendations and to allow for design changes in the event that subsurface conditions differ from those anticipated. If conditions are encountered that appear to be different than those indicated in this report, the project geotechnical consultant should be notified immediately. Design and construction revisions may be required.

6.1.3 Site Clearing

Vegetation, concrete slabs and foundations, underground improvements to be abandoned and deleterious materials should be removed from the site. Onsite disposal systems consisting of septic tank and seepage pits are not anticipated but may be presented at the site. If onsite disposal system were encountered during site development, the septic tank should be completed removed from the site and seepage pits should be properly abandoned in accordance with the requirements established by the government agencies.

The project geotechnical consultant should be notified at the appropriate times to provide observation services during clearing operations to verify compliance with the above recommendations. Voids created by clearing and excavation should be left open for observation by the geotechnical consultant. Should any unusual soil conditions or subsurface structures be encountered during site clearing or grading that are not described or anticipated herein, these conditions should be brought to the immediate attention of the project geotechnical consultant for corrective recommendations as needed.

Temporary construction equipment (office trailers, power poles, etc.) should be positioned to allow adequate room for clearing and recommended ground preparation to be performed for proposed structures, pavements, and hardscapes.

6.1.4 Ground Preparation

Within structural building pads and beneath future retaining walls, existing soils within the upper 5 feet should be excavated and replaced as compacted engineered fill. The remedial earthwork should extend laterally a distance of at least 5 feet beyond the limits of the residential structures in order to provide a 1 to 1 projection down and away from the bottom of the footings. Remedial earthwork for

retaining walls may be limited to 3 feet horizontally beyond the edge of the foundations. Where future streets and other paved surfaces require fill placement, remedial earthwork should extend to a depth of 2.5 feet below the original ground surface and extend laterally a distance of 3 feet beyond the pavement. If these removals are restricted due to the presence of existing features such as property lines, additional considerations may be required in the design and construction of site improvements affected by these limitations.

Following removals/remedial excavations, the exposed grade should first be scarified to a depth of 8 inches, brought to at least 110 percent of the optimum moisture content, and then compacted to at least 90 percent of the laboratory standard.

6.1.5 Fill Placement

In general, materials excavated from the site may be used as fill provided they are free of deleterious materials and particles greater than 4 inches in maximum dimension. Fill materials should be placed in loose lifts no greater than approximately 8 inches in thickness. Each lift should be watered or air-dried as necessary to achieve at least 110 percent of the optimum moisture content, and then compacted in place to at least 90 percent of the laboratory standard. The laboratory standard for maximum dry density and optimum moisture content for each soil type should be determined in accordance with ASTM D 1557-07. Each lift should be treated in a similar manner. Subsequent lifts should not be placed until the project geotechnical consultant has tested the preceding lift. Lifts should be maintained relatively level and should not exceed a gradient of 20:1 (H:V).

6.1.6 Import Materials

If import materials are required to achieve the proposed finish grades, the proposed import soil should have an Expansion Index (EI) less than 21 and be non-corrosive to concrete and ferrous metals. The geotechnical consultant should be informed of import sources prior to hauling the materials to the site so that appropriate testing and evaluation of the proposed import material can be performed in advance.

6.1.7 Temporary Excavations

Temporary construction slopes in site materials that are not surcharged may be cut vertically up to a height of 4 feet. Temporary excavations greater than 4 feet but no greater than 10 feet in height that are not surcharged and do not expose friable sands and gravels should be laid back at a maximum gradient of 1:1 (H:V) or properly shored. Slopes that expose friable soils should be laid back to a maximum gradient of 1.5:1 (H:V) or flatter if deemed appropriate by the geotechnical consultant. Temporary excavations greater than 10 feet in height or any excavations that will be surcharged should be reviewed by the geotechnical consultant for specific recommendations.

Excavations should not be left open for prolonged periods of time. The project geotechnical consultant should observe all temporary cuts to confirm anticipated conditions and to provide alternate recommendations if conditions dictate. All excavations should conform to the requirements of Cal/OSHA. Where insufficient room exists for recommended lay back cuts, shoring or slot cutting methods may be required. Additional recommendations for such conditions will be provided at that time.

The grading contractor should take appropriate measures when excavating adjacent existing improvements to avoid disturbing or compromising support of existing structures.

6.2 SEISMIC DESIGN PARAMETERS

For design of the project in accordance with Chapter 16 of the 2013 CBC, the following table presents the seismic design factors:

TABLE 6.1
2013 CBC Seismic Design Parameters

Parameter	Value
Site Class	D
Mapped MCE_R Spectral Response Acceleration, short periods, S_S	2.227
Mapped MCE_R Spectral Response Acceleration, at 1-sec. period, S_1	0.801
Adjusted MCE_R Spectral Response Acceleration, short periods, S_{MS}	2.227
Adjusted MCE_R Spectral Response Acceleration, at 1-sec. period, S_{M1}	1.201
Design Spectral Response Acceleration, short periods, S_{DS}	1.485
Design Spectral Response Acceleration, at 1-sec. period, S_{D1}	0.801

MCE_R = Risk-Targeted Maximum Considered Earthquake

6.3 CONVENTIONAL FOUNDATION DESIGN RECOMMENDATIONS

6.3.1 General

The following recommendations are presented for preliminary design and estimating purposes. These recommendations have been based on typical site materials encountered during our subsurface investigation. Final recommendations should be provided by the project geotechnical consultant following observation and testing of site materials during grading. Depending upon actual site conditions and foundation loads, the recommendations contained herein may require modification.

6.3.2 Soil Expansion

The recommendations presented herein are based on soils with a **Very Low** expansion potential (EI<21). Following site grading, additional testing of site soils should be performed by the project geotechnical consultant to confirm the basis of these recommendations. If site soils with higher expansion potentials are encountered or imported to the site, the recommendations contained herein may require modification.

6.3.3 Settlement

Foundations should be designed for total and differential settlement up to 1 inch and ½-inch over 30 feet, respectively. These estimated magnitudes of settlement should be considered by the structural engineer in design of the proposed structures at the site.

6.3.4 Allowable Bearing Value

Provided site grading is performed as recommended herein, a bearing value of 2,000 pounds per square foot (psf) may be used for continuous and isolated footings founded at a minimum depth of 12 inches below the lowest adjacent grade and having a minimum width of 12 inches and 24 inches, respectively. The bearing value may be increased by 250 psf and 500 psf for each additional foot in width and depth, respectively, up to a maximum value of 3000 psf. Recommended allowable bearing values include both dead and live loads, and may be increased by one-third for wind and seismic forces.

6.3.5 Lateral Resistance

Provided site grading is performed as recommended herein, a passive earth pressure of 300 pounds per square foot per foot of depth up to a maximum value of 1000 pounds per square foot may be used to determine lateral bearing for footings. This value may be increased by one-third when designing for wind and seismic forces. A coefficient of friction of 0.37 times the dead load forces may also be used between concrete and the supporting soils to determine lateral sliding resistance. No increase in the coefficient of friction should be used when designing for wind and seismic forces.

The above values are based on footings placed directly against compacted fill. In the case where footing sides are formed, all backfill against the footings should be compacted to at least 90 percent of the laboratory standard (ASTM D 1557-07).

6.3.6 Footings and Slabs-on-grade

Exterior continuous building footings should be founded at a minimum depth of 12 inches. Interior bearing wall footings should be founded at a minimum depth of 12 inches below the lowest adjacent finish grade. Continuous footings should be reinforced with a minimum of two No. 4 bars, one (1) near the top and one (1) near the bottom. The structural engineer may require different reinforcement and should dictate if greater than the recommendations presented herein.

Exterior isolated pad footings should be a minimum of 18 inches square and founded at a minimum depth of 12 inches below the lowest adjacent final grade. Interior isolated pad footings should be a minimum of 18 inches square and founded at a minimum depth of 12 inches below the lowest adjacent finish grade.

Interior concrete slabs constructed on grade should have a nominal thickness of 4 inches and should be reinforced with No. 3 bars spaced 30 inches both ways or 6-inch by 6-inch W2.9 by W2.9 welded wire mesh. Care should be taken to ensure the placement of reinforcement at mid-slab height. The structural engineer may recommend a greater slab thickness and reinforcement based on proposed use and loading conditions and such recommendations should govern if greater than the recommendations presented herein. For heavy point loads, design of the slab may be based on a modulus of subgrade reaction equal to 150 pci.

Concrete floor slabs in areas to receive carpet, tile, or other moisture sensitive coverings should be underlain with a minimum of 10-mil moisture vapor retarder conforming to ASTM E 1745, Class A. The membrane should be properly lapped, sealed, and underlain with at least 2 inches of sand having a sand equivalent (SE) no less than 30. This vapor retarder system is anticipated to be suitable for

most flooring finishes that can accommodate some vapor emissions. However, this system may emit more than 4 pounds of water per 1000 sq. ft. and therefore, may not be suitable for all flooring finishes. Additional steps should be taken if such vapor emission levels are too high for anticipated flooring finishes. Where a methane gas membrane is provided under the floor slabs, moisture vapor barrier is deemed not necessary.

Special consideration should be given to slabs in areas to receive ceramic tile or other rigid, crack-sensitive floor coverings. Design and construction should mitigate hairline cracking through the use of additional reinforcing and careful control of concrete slump.

Block-outs should be provided around interior columns to permit relative movement and mitigate distress to the floor slabs due to differential settlement that will occur between column footings and adjacent floor subgrade soils as loads are applied.

Prior to placing concrete, subgrade soils below slab-on-grade areas should be thoroughly moistened to at least 110 percent of optimum moisture content to a depth of 12 inches.

6.3.7 Foundation Observations

Foundation excavations should be observed by the project geotechnical consultant to verify that they have been excavated into competent bearing soils and to the minimum embedment recommended above. These observations should be performed prior to placement of forms or reinforcement. The excavations should be trimmed neat, level and square. Loose, sloughed or moisture-softened materials and debris should be removed prior to placing concrete.

6.4 RETAINING AND SCREENING WALLS

6.4.1 General

The following preliminary design and construction recommendations are provided for general retaining and screen walls supported by engineered compacted fill. Final wall designs specific to the site development should be provided for review once completed. The structural engineer and architect should provide appropriate recommendations for sealing at all joints and applying moisture-proofing material on the back of the walls.

6.4.2 Allowable Bearing Value and Lateral Resistance

Design of retaining and screen walls may utilize the bearing and lateral resistance values provided in Section 6.3.4 and 6.3.5.

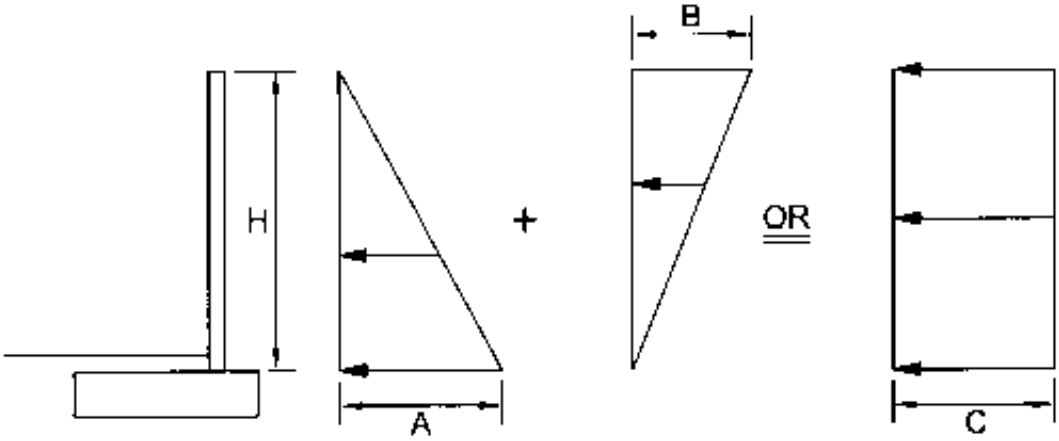
6.4.3 Active Earth Pressures

Static and seismic earth pressures for level and 2:1 (H:V) backfill conditions are provided in the Table 6.2. Seismic earth pressures provided herein are based on the method provided by Seed & Whitman (1970) using a peak ground acceleration (PGA) of 0.5g. This acceleration is based on a 10% probability of exceedance in 50 years. Based on the 2013 CBC, walls that retain less than 6 feet need not be designed for seismic earth pressures. The values provided in the following table are based on typical site materials on drained backfill conditions and do not consider hydrostatic

pressure. Retaining walls should be designed to support adjacent surcharge loads imposed by other nearby footings or traffic loads in addition to the earth pressure.

TABLE 6.2
SEISMIC EARTH PRESSURES

Pressure Diagram



Static Component | Seismic Component | Total Force

Pressure Values
Walls Up To 10 Feet in Height

Value	Backfill Condition	
	Level	**2H:1V Slope**
A	36.0H	63.0H
B	15.0H	15.0H
C	25.5H	39.0H

Note:
H is in feet and resulting pressure is in psf. Design may utilize either the sum of the static component and the seismic component force diagrams or the total force diagram above. SEAOSC has suggested using a load factor of 1.7 for the static component and 1.0 for the seismic component. The actual load factors should be determined by the structural engineer.

6.4.4 Drainage and Moisture-Proofing

Retaining walls should be constructed with a perforated pipe and gravel subdrain to prevent entrapment of water in the backfill. The perforated pipe should consist of 4-inch-diameter, ABS SDR-35 or PVC Schedule 40 with the perforations laid down. The pipe should be embedded in ¾- to 1½-inch open-graded gravel wrapped in filter fabric. The gravel should be at least one foot wide and extend at least one foot up the wall above the footing and drainage outlet. Drainage gravel and

piping should not be placed below outlets and weepholes. Filter fabric should consist of Mirafi 140N, or equal. Outlet pipes should be directed to positive drainage devices.

The use of weepholes may be considered in locations where aesthetic issues from potential nuisance water are not a concern. Weepholes should be 2 inches in diameter and provided at least every 6 feet on center. Where weepholes are used, perforated pipe may be omitted from the gravel subdrain.

Retaining walls supporting backfill should also be coated with a moisture-proofing compound or covered with such material to inhibit infiltration of moisture through the walls. Moisture-proofing material should cover any portion of the back of wall that will be in contact with soil and should lap over and cover the top of footing. The top of footing should be finished smooth with a trowel to inhibit the infiltration of water through the wall. The project structural engineer should provide specific recommendations for moisture-proofing, water stops, and joint details.

6.4.5 Footing Reinforcement and Wall Jointing

All continuous footings should be reinforced with a minimum of two No. 4 bars, one top and one bottom. Walls should be provided with cold joints spaced no more than 40 feet apart. The structural engineer may require different reinforcement or jointing and should dictate if greater than the recommendations provided herein. Where recommended removals are limited due to space restrictions, greater reinforcement and closer jointing may be recommended. Specific recommendations should be provided by the geotechnical consultant during grading based on as-built conditions exposed in the field.

6.4.6 Footing Observations

Footing excavations should be observed by the project geotechnical consultant to verify that they have been excavated into competent bearing soils and to the minimum embedment recommended herein. These observations should be performed prior to placement of forms or reinforcement. The excavations should be trimmed neat, level, and square. Loose, sloughed or moisture-softened materials and debris should be removed prior to placing concrete.

6.4.7 Retaining Wall Backfill

Onsite soils may generally be used for backfill of retaining walls. The project geotechnical consultant should approve all backfill used for retaining walls. Wall backfill should be moisture-conditioned to slightly over the optimum moisture content; placed in lifts no greater than 12 inches in thickness, and then mechanically compacted with appropriate equipment to at least 90 percent of the laboratory standard. Hand-operated compaction equipment should be used to compact the backfill placed immediately adjacent the wall to avoid damage to the wall. Flooding or jetting of backfill material is not recommended.

6.5 EXTERIOR FLATWORK

Exterior flatwork should have a nominal thickness of 4 inches. Cold joints or saw cuts should be provided at least every 15 feet in each direction. Special jointing detail should be provided in areas of block-outs, notches, or other irregularities to avoid cracking at points of high stress. Subgrade soils below flatwork should be thoroughly moistened to a moisture content of at least 110 percent of

the optimum moisture content to a depth of 12 inches. Moistening should be accomplished by lightly spraying the area just prior to placing concrete.

Drainage from flatwork areas should be directed to local area drains or other appropriate collection devices designed to carry runoff water to the street or other approved drainage structures.

6.6 CONCRETE MIX DESIGN

Laboratory testing of on-site soils indicates soluble sulfate content less than 0.1%. We recommend following the procedures provided in ACI 318, Section 4.3, Table 4.3.1 for **negligible** sulfate exposure. Upon completion of rough grading, an evaluation of as-graded conditions and further laboratory testing should be completed for the site to confirm or modify the recommendations provided in this section.

6.7 PRELIMINARY PAVEMENT DESIGN

6.7.1 Subgrade Preparation

Prior to placement of pavement elements, subgrade soils should be moisture-conditioned to at least 110 percent of the optimum moisture content then compacted to at least 90 percent of the laboratory determined maximum dry density. Areas observed to pump or yield under vehicle traffic should be removed and replaced with firm and unyielding compacted soil or aggregate base materials.

6.7.2 Preliminary Pavement Structural Sections

Based on an assumed R-Value of 30 and estimated traffic volume, preliminary pavement sections are provided in the following table. The sections provided herein are for planning purposes only and should be re-evaluated subsequent to site grading. Final pavement sections should be based on actual R-value testing of in-place soils and analysis of anticipated traffic.

TABLE 6.3
Preliminary Pavement Structural Sections

Location	Traffic Index	Asphaltic Concrete (inches)	Aggregate Base (inches)
Entrance and Loop Street	6.0	3.0 3.5 4.0	9.0 8.0 7.0
Secondary Alleys	5.0	3.0 3.5 4.0	6.0 5.0 4.0
Parking Stalls	N/A	3.0	4.0

Aggregate base materials should be Crushed Aggregate Base or Crushed Miscellaneous Base conforming to Section 200-2 of the Standard Specification for Public Works Construction (Greenbook) or Class 2 Aggregate Base conforming to the Caltrans' Standard Specifications. The

materials should be moisture conditioned to slightly over the optimum moisture content then compacted to at least 95 percent of ASTM D 1557-07.

Paving asphalt should be PG 64-10. Asphalt concrete materials should conform to Section 203-6 and construction should conform to Section 302 of the Greenbook.

6.8 STORM WATER INFILTRATION

Results and recommendations for the proposed storm water infiltration system are provided in a separate report.

6.9 POST GRADING CONSIDERATIONS

6.9.1 Site Drainage and Irrigation

The ground immediately adjacent to foundations should be provided with positive drainage away from the structures in accordance with 2013 CBC, Section 1804.3. However, the minimum gradient may be reduced to 2% for soil and climatic reasons. No rain or excess water should be allowed to pond against structures such as walls, foundations, flatwork, etc.

Excessive irrigation water can be detrimental to the performance of the proposed site development. Water applied in excess of the needs of vegetation will tend to percolate into the ground. Such percolation can lead to nuisance seepage and shallow perched groundwater. Seepage can form on slope faces, on the faces of retaining walls, in streets, or other low-lying areas. These conditions could lead to adverse effects such as the formation of stagnant water that breeds insects, distress or damage of trees, surface erosion, slope instability, discoloration and salt buildup on wall faces, and premature failure of pavement. Excessive watering can also lead to elevated vapor emissions within buildings that can damage flooring finishes or lead to mold growth inside the home.

Key factors that can help mitigate the potential for adverse effects of overwatering include the judicious use of water for irrigation, use of irrigation systems that are appropriate for the type of vegetation and geometric configuration of the planted area, the use of soil amendments to enhance moisture retention, use of low-water demand vegetation, regular use of appropriate fertilizers, and seasonal adjustments of irrigation systems to match the water requirements of vegetation. Specific recommendations should be provided by a landscape architect or other knowledgeable professional.

6.9.2 Utility Trenches

Trench excavations should be constructed in accordance with the recommendations contained in Section 6.1.7 of this report. Trench excavations must also conform to the requirements of Cal/OSHA.

Trench backfill materials and compaction criteria should conform to the requirements of the local municipalities. As a minimum, utility trench backfill should be compacted to at least 90 percent of the laboratory standard. Trench backfill should be brought to moisture content slightly over optimum, placed in lifts no greater than 12 inches in thickness, and then mechanically compacted with appropriate equipment to at least 90 percent of the laboratory standard. The project

geotechnical consultant should perform density testing, along with probing, to test compaction. Site conditions are generally not suitable for jetting of trench backfill and jetting should not be completed without prior approval from the project geotechnical consultant.

Within shallow trenches (less than 18 inches deep) where pipes may be damaged by heavy compaction equipment, imported clean sand having a SE of 30 or greater may be utilized. The sand should be placed in the trench, thoroughly watered, and then compacted with a vibratory compactor. For utility trenches located below a 1:1 (H:V) plane projecting downward from the outside edge of the adjacent footing base or crossing footing trenches, concrete or slurry should be used as trench backfill.

6.10 PLAN REVIEW AND CONSTRUCTION SERVICES

We recommend *Albus-Keefe & Associates, Inc*. be engaged to review any future development plans, including civil plans (grading plans), foundation plans, and proposed structural loads, prior to construction. This is to verify that the assumptions of this report are valid and that the preliminary conclusions and recommendations contained in this report have been properly interpreted and are incorporated into the project plans and specifications. If we are not provided the opportunity to review these documents, we take no responsibility for misinterpretation of our preliminary conclusions and recommendations.

We recommend that a geotechnical consultant be retained to provide soil engineering services during construction of the project. These services are to observe compliance with the design, specifications or recommendations, and to allow design changes in the event that subsurface conditions differ from those anticipated prior to the start of construction.

If the project plans change significantly from the assumed development described herein, the project geotechnical consultant should review our preliminary design recommendations and their applicability to the revised construction. If conditions are encountered during construction that appear to be different than those indicated in this report or subsequent design reports, the project geotechnical consultant should be notified immediately. Design and construction revisions may be required.

7.0 LIMITATIONS

This report is based on the proposed development and geotechnical data as described herein. The materials encountered on the project site and utilized in our laboratory testing for this investigation are believed representative of the total project area, and the conclusions and recommendations contained in this report are presented on that basis. However, soil and bedrock materials can vary in characteristics between points of exploration, both laterally and vertically, and those variations could affect the conclusions and recommendations contained herein. As such, observation and testing by a geotechnical consultant during the grading and construction phases of the project are essential to confirming the basis of this report.

This report has been prepared consistent with that level of care being provided by other professionals providing similar services at the same locale and time period. The contents of this report are professional opinions and as such, are not to be considered a guaranty or warranty.

This report should be reviewed and updated after a period of one year or if the site ownership or project concept changes from that described herein.

This report has been prepared for the exclusive use of **Sheldon Development, LLC** and their project consultants in the planning and design of the proposed development. This report has not been prepared for use by parties or projects other than those named or described herein. This report may not contain sufficient information for other parties or other purposes.

This report is subject to review by the controlling governmental agency.

Respectfully submitted,

ALBUS-KEEFE & ASSOCIATES, INC.

David E. Albus
Principal Engineer
G.E. 2455

REFERENCES

Publications

California Geologic Survey, Special Publication 117A, Guidelines for Evaluating and Mitigating Seismic Hazards in California, (2008).

California Department of Conservation, Division of Mines and Geology, Seismic Hazard Report 032, "Seismic Hazard Zone Report for the San Dimas 7.5-Minute Quadrangles, Los Angeles County, California", 1998.

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REFERENCES (cont.)

Plan

Tentative Tract Map, Tentative Tract No. 73455, 800 Banna Avenue, Covina, California, prepared by IDS Group, Sheet 3.0, Dated September 10, 2015.

Aerial Photographs

Photo Source	Date Flown	Flight No.	Photo No.
Continental Aerial Photo, Inc.	1-2-53	AXJ-9K	79
Continental Aerial Photo, Inc.	3-29-60	311-2	63-18
Continental Aerial Photo, Inc.	5-8-65	65200	208
Continental Aerial Photo, Inc.	1-3-70	60-2	46

TENTATIVE TRACT NO. 73455

CITY OF COVINA, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

EXPLANATION
(Locations Approximate)

B-5 - Exploratory Boring and Percolation Well

B-9 - Exploratory Boring

LEGEND:

- PROPERTY LINE
- RIGHT OF WAY
- BLOCK WALL
- VINYL FENCE
- EASEMENT LINE
- CENTER LINE
- FLOW LINE
- RL RIDGE LINE
- SS PROPOSED SEWER
- W PROPOSED WATER
- SD PROPOSED STORM DRAIN
- OF PROPOSED OVERFLOW
- (E) EXISTING ELECTRICAL
- (G) EXISTING GAS
- (SD) EXISTING STORM DRAIN
- (SS) EXISTING SANITARY SEWER
- (T) EXISTING TELEPHONE
- (W) EXISTING WATER
- LANDSCAPE
- CONCRETE
- ASPHALT
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- PROPOSED WATER METER
- PROPOSED DRYWELL
- PROPOSED SEWER CLEANOUT
- PROPOSED INLET DRAIN
- GFF GARAGE FINISH FLOOR
- HFF HOUSE FINISH FLOOR

GRAPHIC SCALE

30 0 15 30 60 90

(IN FEET)
1 inch = 30 ft.

EASEMENT NOTES:

(A) AN EASEMENT FOR ROAD AND HIGHWAY PURPOSES AND RIGHTS INCIDENTAL THERETO, IN FAVOR OF THE CITY OF COVINA, AS GRANTED IN A DOCUMENT RECORDED SEPTEMBER 14, 1961 AS 3553, OF OFFICIAL RECORDS

(B) AN EASEMENT FOR ROAD AND HIGHWAY PURPOSES AND RIGHTS INCIDENTAL THERETO, IN FAVOR OF THE CITY OF COVINA, AS GRANTED IN A DOCUMENT RECORDED DECEMBER 26, 1978 AS INSTRUMENT NO. 78-1430313, OF OFFICIAL RECORDS

LOT AREA TABLE		
LOT NO.	AREA (SF)	AREA (AC)
1	3753.63	0.09
2	3744.59	0.09
3	3744.59	0.09
4	3744.59	0.09
5	3744.59	0.09
6	3744.59	0.09
7	3744.59	0.09
8	3744.83	0.09
9	3865.48	0.09
10	4126.22	0.09
11	4109.10	0.09
12	4531.74	0.10
13	4219.21	0.10
14	4069.24	0.09
15	3816.46	0.09

LOT AREA TABLE		
LOT NO.	AREA (SF)	AREA (AC)
16	4050.66	0.09
17	3800.05	0.09
18	3867.51	0.09
19	3825.61	0.09
20	3829.20	0.09
21	3832.68	0.09
22	3834.43	0.09
23	3840.85	0.09
24	3842.29	0.09
25	3702.57	0.08
26	4361.63	0.10
27	4173.04	0.10
28	3991.99	0.09
29	3837.83	0.09
30	3832.63	0.09

LOT AREA TABLE		
LOT NO.	AREA (SF)	AREA (AC)
31	3962.62	0.09
32	3652.66	0.08
33	3652.66	0.08
34	3815.00	0.09
35	3733.83	0.09
36	3733.83	0.09
37	3727.54	0.09
38	3649.53	0.08
39	3648.68	0.08
40	3901.00	0.09
41	3642.04	0.08
42	3901.00	0.09
43	3621.41	0.08
44	4982.64	0.11
45	5022.71	0.12

LOT AREA TABLE		
LOT NO.	AREA (SF)	AREA (AC)
46	3414.14	0.08
47	3623.32	0.08
48	3631.58	0.08
49	3627.87	0.08
50	3622.48	0.08
51	3865.54	0.09
52	4945.25	0.11
53	4730.22	0.11
54	3473.68	0.08
55	3480.00	0.08
56	3600.00	0.08
57	3480.00	0.08
58	5227.32	0.12
59	5056.19	0.12
60	3772.08	0.09

LOT AREA TABLE		
LOT NO.	AREA (SF)	AREA (AC)
61	3520.00	0.08
62	3520.00	0.08
63	3445.17	0.08

LOT AREA TABLE		
LOT NO.	AREA (SF)	AREA (AC)
LOT A	39612.85	0.91

ALBUS-KEEFE & ASSOCIATES, INC.
GEOTECHNICAL CONSULTANTS

GEOTECHNICAL MAP

Job No.: 2345.00 | Date: 10/10/15 | Plate: 1

BASIS OF BEARINGS
THE CENTERLINE OF CYPRESS STREET BEING N89° 59' 30"E PER TRACT NO. 23473 MAP BOOK 610 PAGE 24-36

NO.	DATE	REVISION DESCRIPTION

OWNER/DEVELOPER:
SHELDON DEVELOPMENT
901 DOVE STREET, SUITE 230
NEWPORT BEACH, CA 92660

REGISTERED PROFESSIONAL ENGINEER & LAND SURVEYOR
C 55577
Exp. 12/31/16
STATE OF CALIFORNIA
DATE: 09/10/2015

ENGINEER:
IDS Group
1 PETERS CANYON ROAD, SUITE 130
IRVINE, CA. 92606
TEL: 949-387-8500, FAX: 949-387-0800

PROJECT:
TENTATIVE TRACT NO. 73455
800 BANNA AVE
COVINA, CA 91724

TENTATIVE TRACT MAP

JOB NO. 15C005.00
DRAWN BY: PS/TG/JK
CHECKED BY: DD/PG
DATE: 09 / 10 / 2015

C3.0
SHEET 3 OF 6

PRELIMINARY-NOT FOR CONSTRUCTION

APPENDIX A

EXPLORATION LOGS

EXPLORATION LOG

Project: Preliminary Geotechnical Investigation and Percolation Study		Location: Legend
Address: 800 North Banna Avenue, Covina, CA 91724		Elevation:
Job Number: 2345.00	Client: Sheldon Development, LLC	Date:
Drill Method:	Driving Weight:	Logged By:

Depth (feet)	Lith-ology	Material Description	Water	Samples: Blows Per Foot	Samples: Core	Samples: Bulk	Laboratory Tests: Moisture Content (%)	Laboratory Tests: Dry Density (pcf)	Laboratory Tests: Other Lab Tests
		EXPLANATION							
		Solid lines separate geologic units and/or material types.							
		Dashed lines indicate unknown depth of geologic unit change or material type change.							
5		**Solid black rectangle** in Core column represents California Split Spoon sampler (2.5in ID, 3in OD).			■				
		Double triangle in core column represents SPT sampler.			⧗				
10		**Solid black rectangle** in Bulk column respresents large bag sample.				■			
		Other Laboratory Tests:							
		Max = Maximum Dry Density/Optimum Moisture Content							
		EI = Expansion Index							
		SO4 = Soluble Sulfate Content							
15		DSR = Direct Shear, Remolded							
		DS = Direct Shear, Undisturbed							
		SA = Sieve Analysis (1" through #200 sieve)							
		Hydro = Particle Size Analysis (SA with Hydrometer)							
		200 = Percent Passing #200 Sieve							
		Consol = Consolidation							
		SE = Sand Equivalent							
20		Rval = R-Value							
		ATT = Atterberg Limits							

EXPLORATION LOG

Project: Preliminary Geotechnical Investigation and Percolation Study		Location: B-1
Address: 800 North Banna Avenue, Covina, CA 91724		Elevation: 684.1
Job Number: 2345.00	Client: Sheldon Development, LLC	Date: 12/8/2014
Drill Method: Hollow-Stem Auger	Driving Weight: 140 lbs / 30 in	Logged By: DDA

Depth (feet)	Lith-ology	Material Description	Water	Samples: Blows Per Foot	Samples: Core	Samples: Bulk	Laboratory Tests: Moisture Content (%)	Laboratory Tests: Dry Density (pcf)	Laboratory Tests: Other Lab Tests
		TOP SOIL Sandy Silt (ML): Dark brown, very moist, fine grained sand, organics present							
		ALLUVIUM (Qal) Silty Sand with Trace to Some Clay and Some Gravel (SM): Light brown, damp, loose to medium dense, fine grained sand, significant fines, some pinhole pores and root hairs		13	■		4.9	93.5	Consol
				25	■		3.9	99.1	
5				35	■		3.1	Dist.	
		Gravelly Sand / Sandy Gravel with Trace Silt (SP/GP): Reddish brown, moist, very dense, fine to coarse grained sand							
10				48	■		2.5	106.4	
15		@ 15', more fines, trace clay		50/ 4"	■		3.2	109.9	SA
		Silty Sand / Sandy Silt (SM/ML): Reddish brown, moist, medium dense / stiff, very fine grained sand, some pinhole pores							
20				15	■		20.9	99.7	
		Total Depth 21 feet No Ground Water Boring backfilled with soil cuttings							

EXPLORATION LOG

Project: Preliminary Geotechnical Investigation and Percolation Study		Location: B-2
Address: 800 North Banna Avenue, Covina, CA 91724		Elevation: 681.5
Job Number: 2345.00	Client: Sheldon Development, LLC	Date: 12/8/2014
Drill Method: Hollow-Stem Auger	Driving Weight: 140 lbs / 30 in	Logged By: DDA

Depth (feet)	Lith-ology	Material Description	Water	Samples: Blows Per Foot	Samples: Core	Samples: Bulk	Laboratory Tests: Moisture Content (%)	Laboratory Tests: Dry Density (pcf)	Laboratory Tests: Other Lab Tests
		TOP SOIL Sandy Silt (ML): Dark brown, very moist, fine grained sand, organics							Max EI SO4 ATT
		ALLUVIUM (Qal) Silty Sand (SM): Light brown, damp, medium dense, fine grained sand, significant fines, some pinhole pores and root hairs		14			4.6	98.9	Consol
5		@ 4', less fines, some gravel		16			4	Dist.	
		Silty Sand with Gravel (SM): Light brown to reddish brown, damp, very dense, fine to coarse grained sand		47			1.6	Dist.	
10		Sandy Gravel with Trace Silt (GP): Light brown to reddish brown, damp to moist, very dense, fine to coarse grained sand		50/ 6"			1.7	Dist.	SA
15		Total Depth 14 feet Refusal at 14 feet No Ground Water Boring backfilled with soil cuttings Percolation Well: 8' offset 8' of 3" perforated pipe with filter sock 0-8' #3 sand							

EXPLORATION LOG

Project: Preliminary Geotechnical Investigation and Percolation Study		Location: B-3
Address: 800 North Banna Avenue, Covina, CA 91724		Elevation: 682.2
Job Number: 2345.00	Client: Sheldon Development, LLC	Date: 12/8/2014
Drill Method: Hollow-Stem Auger	Driving Weight: 140 lbs / 30 in	Logged By: DDA

Depth (feet)	Lith-ology	Material Description	Water	Samples: Blows Per Foot	Samples: Core	Samples: Bulk	Laboratory Tests: Moisture Content (%)	Laboratory Tests: Dry Density (pcf)	Laboratory Tests: Other Lab Tests
		TOP SOIL Sandy Silt (ML): Dark brown, very moist, fine grained sand, organics							
		ALLUVIUM (Qal) Silty Sand (SM): Light brown, damp, dense, fine grained sand, significant fines, some pinhole pores and root hairs		39	■		4.1	100.8	
5		@ 4', becomes medium dense, less fines, some gravel, moderate pinhole pores and roots		19	■		4.2	96.9	Consol
		Gravelly Sand with Silt (SP): Light reddish brown, dry to damp, very dense, fine to coarse grained sand		49	■		1.8	Dist.	SA Hydro
10		Sandy Gravel with Trace Silt (GP): Light reddish brown, dry to damp, very dense, fine to coarse grained sand		50/ 5"	■			Dist.	SA
15		@ 15', moderate fines		78	■		3.2	116.3	
20		Silty Clay with Some Sand and Gravel (CL): Reddish brown, moist, stiff, fine to medium grained sand		14	■		28.5	93.9	
		Silty Sand with Gravel (SM): Reddish brown, moist, very dense, fine to coarse grained sand, moderate fines							

EXPLORATION LOG

Project: Preliminary Geotechnical Investigation and Percolation Study		Location: B-3
Address: 800 North Banna Avenue, Covina, CA 91724		Elevation: 682.2
Job Number: 2345.00	Client: Sheldon Development, LLC	Date: 12/8/2014
Drill Method: Hollow-Stem Auger	Driving Weight: 140 lbs / 30 in	Logged By: DDA

Depth (feet)	Lith-ology	Material Description	Water	Samples: Blows Per Foot	Samples: Core	Samples: Bulk	Laboratory Tests: Moisture Content (%)	Laboratory Tests: Dry Density (pcf)	Laboratory Tests: Other Lab Tests
				83/ 11"	X				SA Hydro
		Sand with Some Silt and Gravel (SP): Light reddish brown, moist, very dense, fine to coarse grained sand							
30				94/ 11"	X				
		Total Depth 31 feet No Ground Water Boring backfilled with soil cuttings Percolation Well: offset 10' 10' of 3" perforated pipe with filter sock 0-10' #3 sand							

EXPLORATION LOG

Project: Preliminary Geotechnical Investigation and Percolation Study		Location: B-4
Address: 800 North Banna Avenue, Covina, CA 91724		Elevation: 682.9
Job Number: 2345.00	Client: Sheldon Development, LLC	Date: 12/8/2014
Drill Method: Hollow-Stem Auger	Driving Weight: 140 lbs / 30 in	Logged By: DDA

Depth (feet)	Lith-ology	Material Description	Water	Samples: Blows Per Foot	Samples: Core	Samples: Bulk	Laboratory Tests: Moisture Content (%)	Laboratory Tests: Dry Density (pcf)	Laboratory Tests: Other Lab Tests
		TOP SOIL Sandy Silt (ML): Dark brown, very moist, fine grained sand, organics							
		ALLUVIUM (Qal) Silty Sand / Sandy Silt (SM/ML): Light brown, damp, medium dense / stiff, fine grained sand, some pinhole pores and roots		17	■		12.9	114.1	
5		Silty Sand (SM): Light brown, moist, dense, fine grained sand, moderate fines, some pinhole pores and roots		28	■		3.8	107.1	Consol
		Silty Sand with Gravel (SM): Light reddish brown, damp, dense, fine to coarse grained sand		36	■		2.3	112.2	
10		Gravelly Sand (SP): Light reddish brown, damp, very dense, fine to coarse grained sand		73	■		3.8	118.7	
		Total Depth 11 feet No Ground Water Boring backfilled with soil cuttings Percolation Well: 10' of perforated pipe with filter sock 0-10' #3 sand							

EXPLORATION LOG

Project: Preliminary Geotechnical Investigation and Percolation Study		Location: B-5
Address: 800 North Banna Avenue, Covina, CA 91724		Elevation: 682.6
Job Number: 2345.00	Client: Sheldon Development, LLC	Date: 12/8/2014
Drill Method: Hollow-Stem Auger	Driving Weight: 140 lbs / 30 in	Logged By: DDA

Depth (feet)	Lith-ology	Material Description	Water	Samples: Blows Per Foot	Samples: Core	Samples: Bulk	Laboratory Tests: Moisture Content (%)	Laboratory Tests: Dry Density (pcf)	Laboratory Tests: Other Lab Tests
		TOP SOIL Sandy Silt (ML): Dark brown, very moist, fine grained sand, organics							
		ALLUVIUM (Qal) Silty Sand (SM): Light brown to light reddish brown, damp, loose, fine grained sand, significant fines		11	■		5.2	103.7	
5				28	■		3.3	99.4	Consol
		Silty Sand with Gravel (SM): Light reddish brown, damp, very dense, fine to coarse grained sand		55	■		0.9	Dist.	
		Gravelly Sand (SP): Light reddish brown, damp, very dense, fine to coarse grained sand							
10				69	■		2.1	Dist.	
15				50/ 4"	■		2.8	Dist.	
20		@ 20', becomes very moist, less gravel		84	■		5.2	106	
		Silty Sand with Some Gravel (SM): Light reddish brown to reddish brown, moist, very dense, fine grained sand, significant fines							

EXPLORATION LOG

Project: Preliminary Geotechnical Investigation and Percolation Study		Location: B-5
Address: 800 North Banna Avenue, Covina, CA 91724		Elevation: 682.6
Job Number: 2345.00	Client: Sheldon Development, LLC	Date: 12/8/2014
Drill Method: Hollow-Stem Auger	Driving Weight: 140 lbs / 30 in	Logged By: DDA

Depth (feet)	Lith-ology	Material Description	Water	Samples: Blows Per Foot	Samples: Core	Samples: Bulk	Laboratory Tests: Moisture Content (%)	Laboratory Tests: Dry Density (pcf)	Laboratory Tests: Other Lab Tests
				50					
		Sand with Some Gravel and Silt (SP): Reddish brown, moist, very dense, fine to medium grained sand							
30				82					
		Total Depth 31.5 feet No Ground Water Boring backfilled with soil cuttings							

EXPLORATION LOG

Project: Preliminary Geotechnical Investigation and Percolation Study		Location: B-6
Address: 800 North Banna Avenue, Covina, CA 91724		Elevation: 685.8
Job Number: 2345.00	Client: Sheldon Development, LLC	Date: 12/8/2014
Drill Method: Hollow-Stem Auger	Driving Weight: 140 lbs / 30 in	Logged By: DDA

Depth (feet)	Lith-ology	Material Description	Water	Samples: Blows Per Foot	Samples: Core	Samples: Bulk	Laboratory Tests: Moisture Content (%)	Laboratory Tests: Dry Density (pcf)	Laboratory Tests: Other Lab Tests
		TOP SOIL Sandy Silt (ML): Dark brown, very moist, fine grained sand, organics				■			Max SO4
		ALLUVIUM (Qal) Silty Sand with Some Gravel (SM): Light brown, moist, loose, fine to medium grained sand		8	■	■	4.3	108	
5		Sand with Some Gravel (SP): Reddish brown, moist, medium dense, fine to coarse grained sand		21	■	■	3.5	120	
		@ 6', becomes very dense		47	■		3.3	110.6	
10				55	■		1.6	Dist.	
15		@ 15', trace to some clay, more fines		92/ 11"	■		5.9	114.2	
		Total Depth 17 feet Refusal at 17 feet No Ground Water Boring backfilled with soil cuttings							

EXPLORATION LOG

Project: Preliminary Geotechnical Investigation and Percolation Study		Location: B-7
Address: 800 North Banna Avenue, Covina, CA 91724		Elevation: 683.2
Job Number: 2345.00	Client: Sheldon Development, LLC	Date: 12/8/2014
Drill Method: Hollow-Stem Auger	Driving Weight: 140 lbs / 30 in	Logged By: DDA

Depth (feet)	Lith-ology	Material Description	Water	Samples: Blows Per Foot	Samples: Core	Samples: Bulk	Laboratory Tests: Moisture Content (%)	Laboratory Tests: Dry Density (pcf)	Laboratory Tests: Other Lab Tests
		TOP SOIL Silty Sand / Sandy Silt (SM/ML): Brown, moist to very moist, fine grained sand, some roots		16	■		7.9	105.3	Consol
		ALLUVIUM (Qal) Silty Sand (SM): Light brown, dry to damp, medium dense, fine grained sand, significant fines		15	■		1.6	Dist.	
5		Silty Sand with Gravel (SM): Light brown, damp, medium dense, fine to coarse grained sand, moderate fines		34	■		2.2	Dist.	
		Gravelly Sand (SP): Light reddish brown, dry to damp, very dense, fine to coarse grained sand							
10				73/ 10"	■		1.5	Dist.	
15				74	■		3.1	115.2	
20				43	■		4.4	109.6	
		Total Depth 21 feet No Ground Water Boring backfilled with soil cuttings							

EXPLORATION LOG

Project: Preliminary Geotechnical Investigation and Percolation Study		Location: B-8
Address: 800 North Banna Avenue, Covina, CA 91724		Elevation: 683.3
Job Number: 2345.00	Client: Sheldon Development, LLC	Date: 12/8/2014
Drill Method: Hollow-Stem Auger	Driving Weight: 140 lbs / 30 in	Logged By: DDA

Depth (feet)	Lith-ology	Material Description	Water	Samples: Blows Per Foot	Samples: Core	Samples: Bulk	Laboratory Tests: Moisture Content (%)	Laboratory Tests: Dry Density (pcf)	Laboratory Tests: Other Lab Tests
		TOP SOIL Sandy Silt (ML): Brown, moist to very moist, fine grained sand							
		ALLUVIUM (Qal) Silty Sand / Sandy Silt (SM/ML): Light brown, dry, dense / stiff, fine grained sand, some pinhole pores and roots		23	■		2.1	99.6	
5		@ 4', some gravel, loose to medium dense / stiff		13	■		2.4	98	
		Gravelly Sand (SP): Light reddish brown, damp, dense, fine to coarse grained sand		29	■		2.1	Dist.	
10		@ 10', becomes very dense		66	■		2.1	Dist.	
15		@ 15', more fines		56	■				
		Silty Sand with Gravel (SM): Light reddish brown, moist, very dense, fine to coarse grained sand							
20				50/5"	■		4.2	119.9	
		Total Depth 21 feet No Ground Water Boring backfilled with soil cuttings							

EXPLORATION LOG

Project: Preliminary Geotechnical Investigation and Percolation Study		Location: B-9
Address: 800 North Banna Avenue, Covina, CA 91724		Elevation: 685.2
Job Number: 2345.00	Client: Sheldon Development, LLC	Date: 12/8/2014
Drill Method: Hollow-Stem Auger	Driving Weight: 140 lbs / 30 in	Logged By: DDA

Depth (feet)	Lith-ology	Material Description	Water	Samples: Blows Per Foot	Samples: Core	Samples: Bulk	Laboratory Tests: Moisture Content (%)	Laboratory Tests: Dry Density (pcf)	Laboratory Tests: Other Lab Tests
		TOP SOIL Sandy Silt (ML): Brown, moist, fine grained sand							
		ALLUVIUM (Qal) Silty Sand / Sandy Silt (SM/ML): Light brown, dry to damp, loose to medium dense / stiff, fine grained sand		13	■				
5		Silty Sand with Gravel (SM): Light brown, dry, very dense, fine to coarse grained sand		67	■			Dist.	
				60	■			Dist.	
10				72	■			Dist.	
15				80/ 8"	■				
		Total Depth 17 feet No Ground Water Boring backfilled with soil cuttings							

APPENDIX B

LABORATORY TESTING PROGRAM

LABORATORY TESTING PROGRAM

Soil Classification

Soils encountered within the exploratory borings and trenches were initially classified in the field in general accordance with the visual-manual procedures of the Unified Soil Classification System (ASTM D 2488-06). The samples were re-examined in the laboratory and classifications reviewed and then revised where appropriate. The assigned group symbols are presented on the logs provided in Appendix A.

In-Situ Moisture Content and Dry Density

Moisture content and dry density of in-place soil materials were determined in representative strata. Test data are presented on the Exploration Logs provided in Appendix A.

Maximum Dry Density and Optimum Moisture Content

Maximum dry density and optimum moisture content of onsite soils were determined for a selected sample in general accordance with Method B and C of ASTM D 1557-07. Pertinent test values are given on Table B.

Expansion Potential

An Expansion Index test was performed on a selected sample in accordance with Uniform Building Code Standard 18-2. The expansion potential classification was determined from U.B.C. Table 18-I-B on the basis of the expansion index value. The test result and expansion potential are presented on Table B-1.

Soluble Sulfate Content

A chemical analysis was performed on a selected soil sample to determine soluble sulfate content. The test was performed in accordance with California Test Method (CTM) 417. The test result is included in Table B.

Grain Size Analysis

Grain size analysis was performed on a selected sample to verify visual classifications performed in the field. The test was performed in accordance with ASTM D 422-63. Test results are graphically presented on Plate B-1 through B-5.

Consolidation

Consolidation tests were performed for selected soil samples in general conformance with ASTM D 2435-04. Axial loads were applied in several increments to a laterally restrained 1-inch-high sample. Loads were applied in geometric progression by doubling the previous load, and the resulting deformations were recorded at selected time intervals. The test samples were inundated at a selected load to evaluate the effects of a sudden increase in moisture content (hydro-consolidation potential). Results of the tests are graphically presented on Plates B-6 to B-11.

Atterberg Limits

Atterberg Limits (Liquid Limit, Plastic Limit, and Plasticity Index) were performed in accordance with Test Method ASTM D-4318-93. Pertinent test values are presented within Table B-1.

TABLE B
Summary of Laboratory Test Results

Boring No.	Sample Depth (ft.)	Soil Description	Test Results	
B-1	15	Sand with Gravel (SP)	Passing #200 Sieve	3%
B-1	0-5	Sandy Silt (ML)	Maximum Dry Density: Optimum Moisture Content: Expansion Index: Expansion Potential: Soluble Sulfate Content: Sulfate Exposure: Liquid Limit: Plastic Index:	131.0 pcf 10.5% 17 Very Low 0.001% Negligible 24.1 4.5
B-2	10	Silty Sand with Gravel (SM)	Passing #200 Sieve	3%
B-3	6	Silty Sand with Gravel (SM)	Passing #200 Sieve	3%
B-3	10	Silty Sand with Gravel (SM)	Passing #200 Sieve	2%
B-3	25	Silty Sand (SM)	Passing #200 Sieve	30%
B-1	0-5	Silty Sand with Gravel (SM)	Maximum Dry Density: Optimum Moisture Content: Soluble Sulfate Content: Sulfate Exposure:	132.0 pcf 8.0% 0.002% Negligible

Note: Additional laboratory test results are provided on the boring logs provided in Appendix A.

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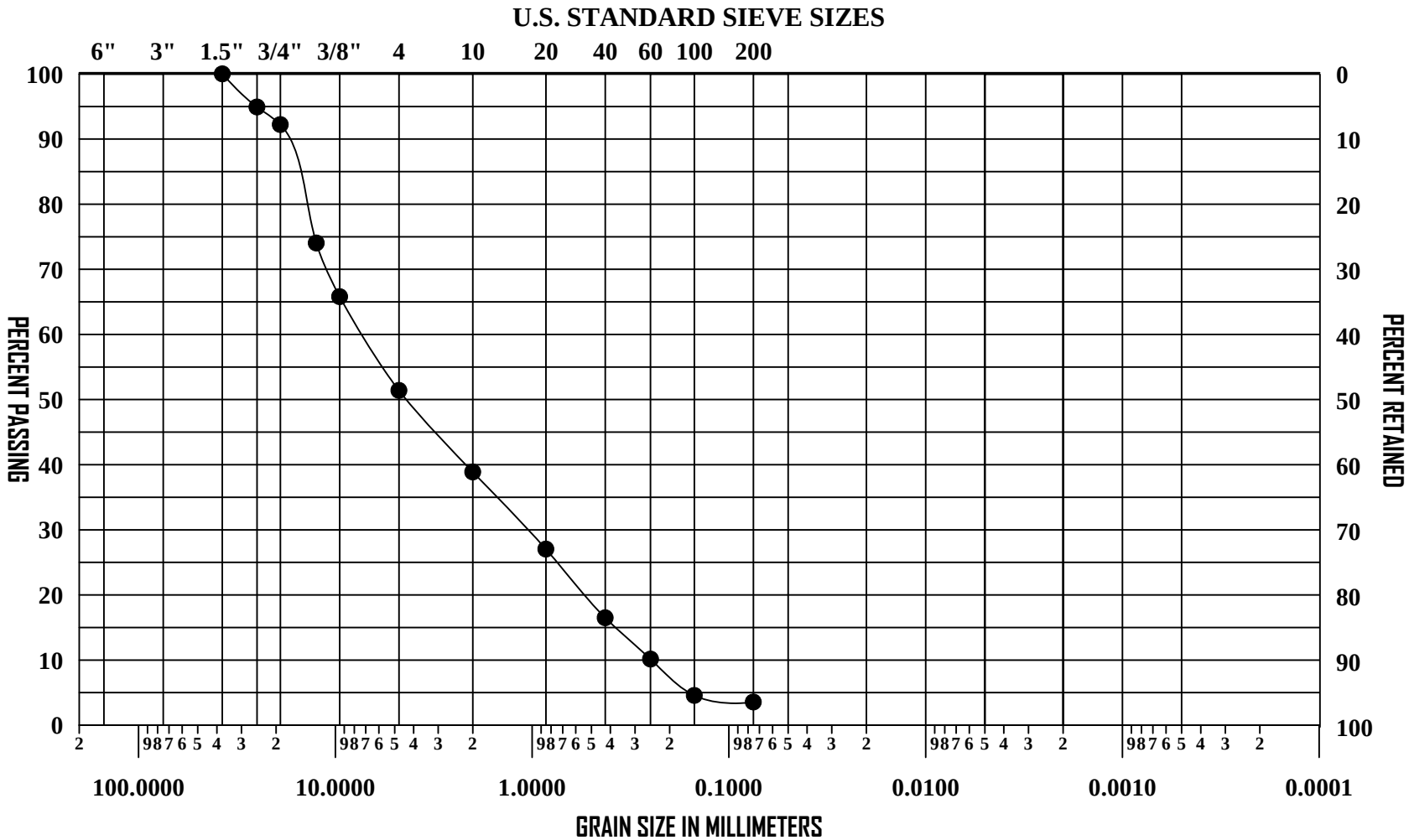
GEOTECHNICAL CONSULTANTS

GRAIN SIZE DISTRIBUTION

UNIFIED SOIL CLASSIFICATION

COBBLES	GRAVEL		SAND			SILT AND CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	



LOCATION	DEPTH	SYMBOL	LL	PI	CLASSIFICATION
B-1	15'	●——●			Porly graded sand w /gravel (SP)
		■- - - -■			
		▲—— - - ▲			
		◆— · — ◆			

Job No: 2345.00

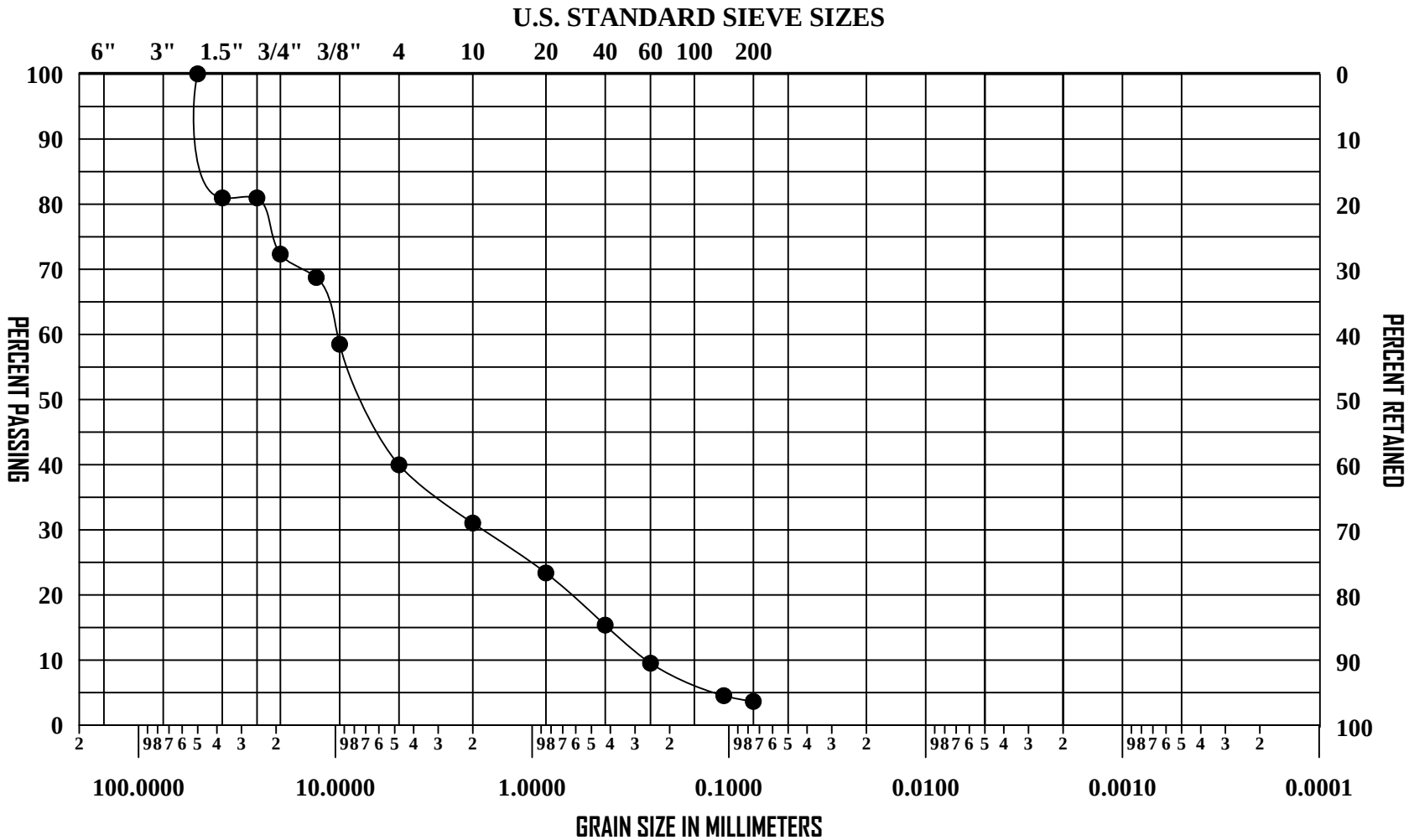
Plate No: B-1

ALBUS-KEEFE & ASSOCIATES, INC.
GEOTECHNICAL CONSULTANTS

GRAIN SIZE DISTRIBUTION

UNIFIED SOIL CLASSIFICATION

COBBLES	GRAVEL		SAND			SILT AND CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	



LOCATION	DEPTH	SYMBOL	LL	PI	CLASSIFICATION
B-2	10'	●——●			Porly graded gravel w / sand (GP)
		■- - - -■			
		▲——- -▲			
		◆—·—◆			

Job No: 2345.00

Plate No: B-2

ALBUS-KEEFE & ASSOCIATES, INC.
GEOTECHNICAL CONSULTANTS

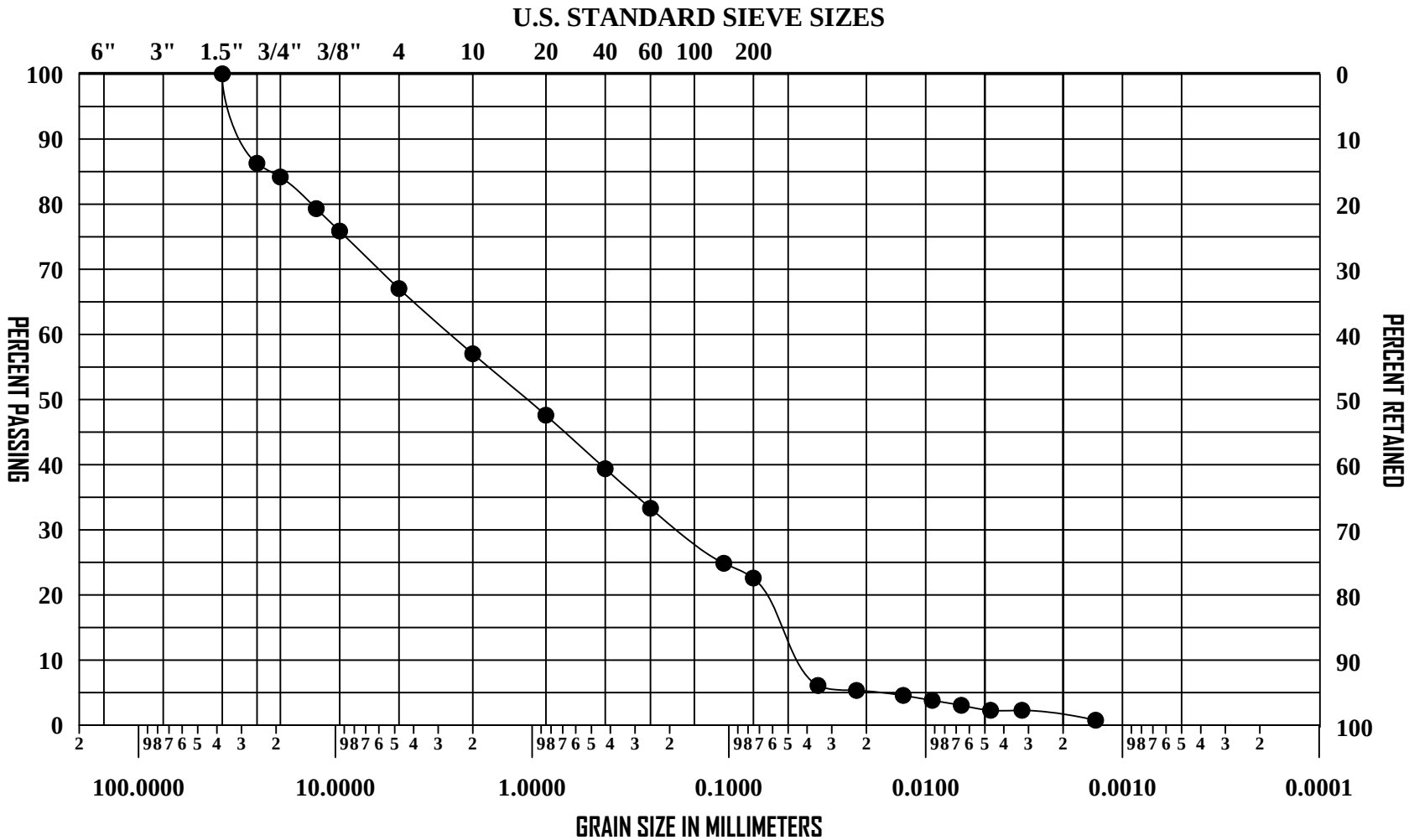
GRAIN SIZE DISTRIBUTION

Job No: 2345.00

Plate No: B-3

UNIFIED SOIL CLASSIFICATION

COBBLES	GRAVEL		SAND			SILT AND CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	



LOCATION	DEPTH	SYMBOL	LL	PI	CLASSIFICATION
B-3	6'				Poorly Graded Sand w / gravel (SM)

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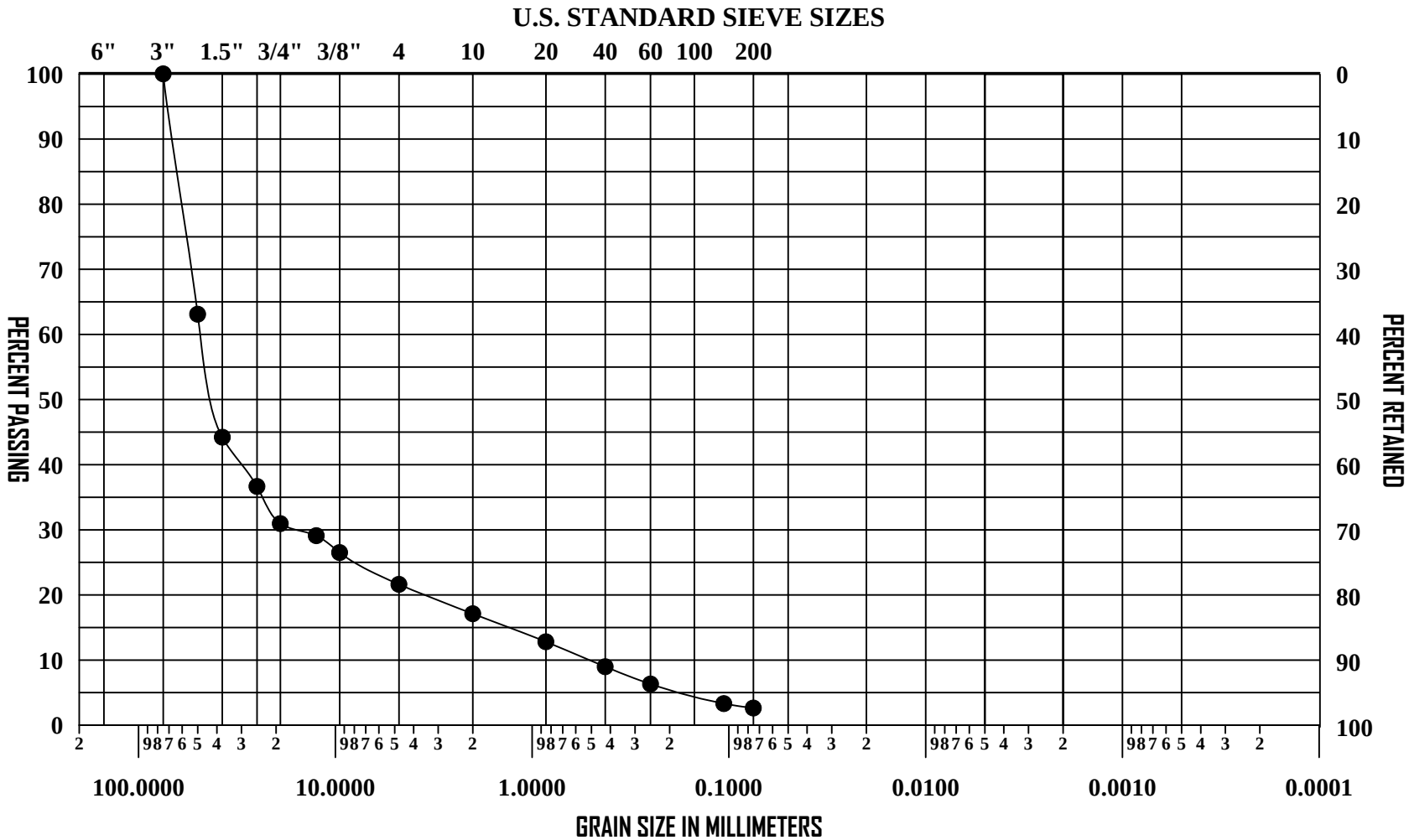
GEOTECHNICAL CONSULTANTS

GRAIN SIZE DISTRIBUTION

UNIFIED SOIL CLASSIFICATION

COBBLES	GRAVEL		SAND			SILT AND CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	



LOCATION	DEPTH	SYMBOL	LL	PI	CLASSIFICATION
B-3	10'	●——●			Poorly graded gravel w / sand (GP)
		■- - - -■			
		▲——- -▲			
		◆—·—◆			

Job No: 2345.00

Plate No: B-4

ALBUS-KEEFE & ASSOCIATES, INC.
GEOTECHNICAL CONSULTANTS

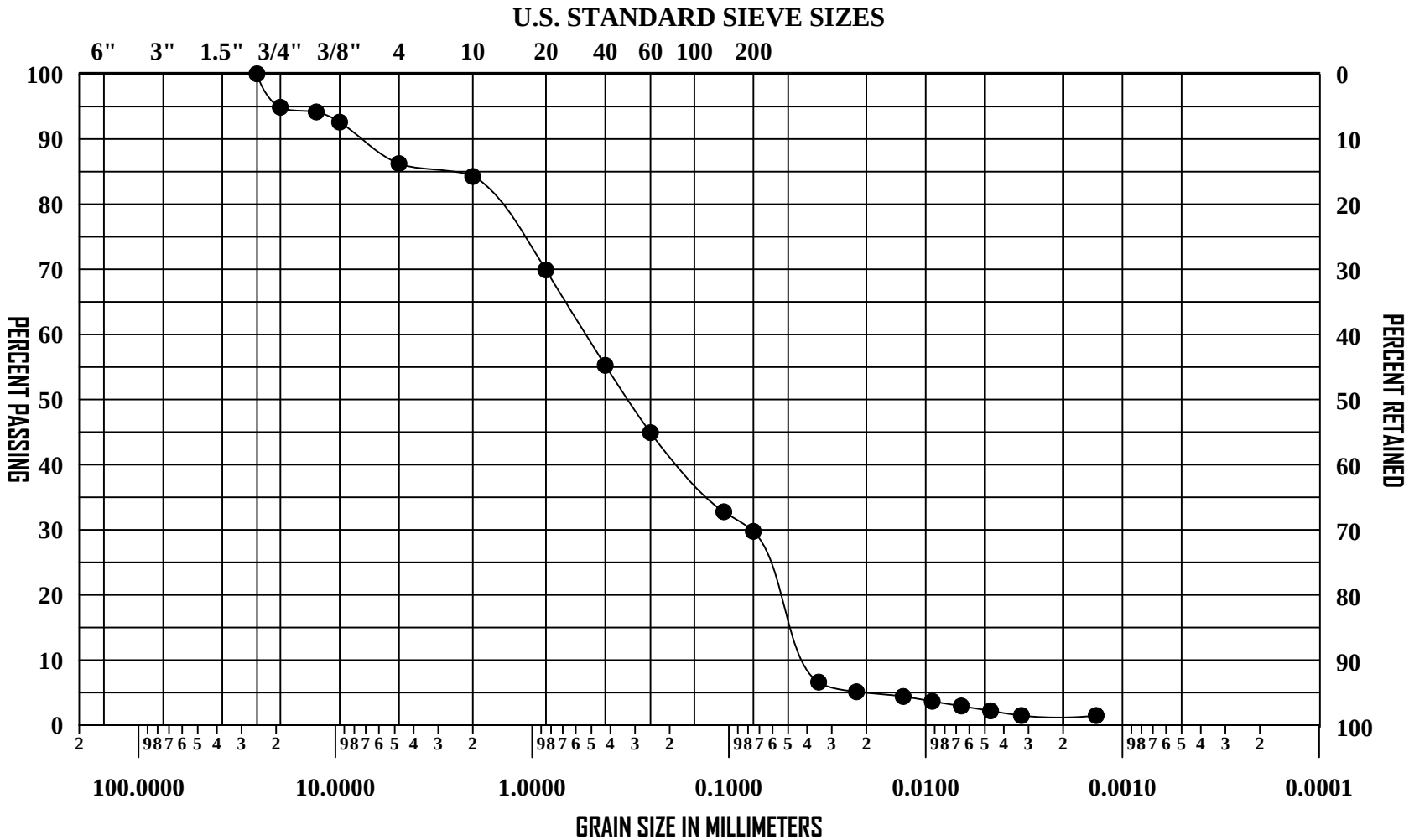
GRAIN SIZE DISTRIBUTION

Job No: 2345.00

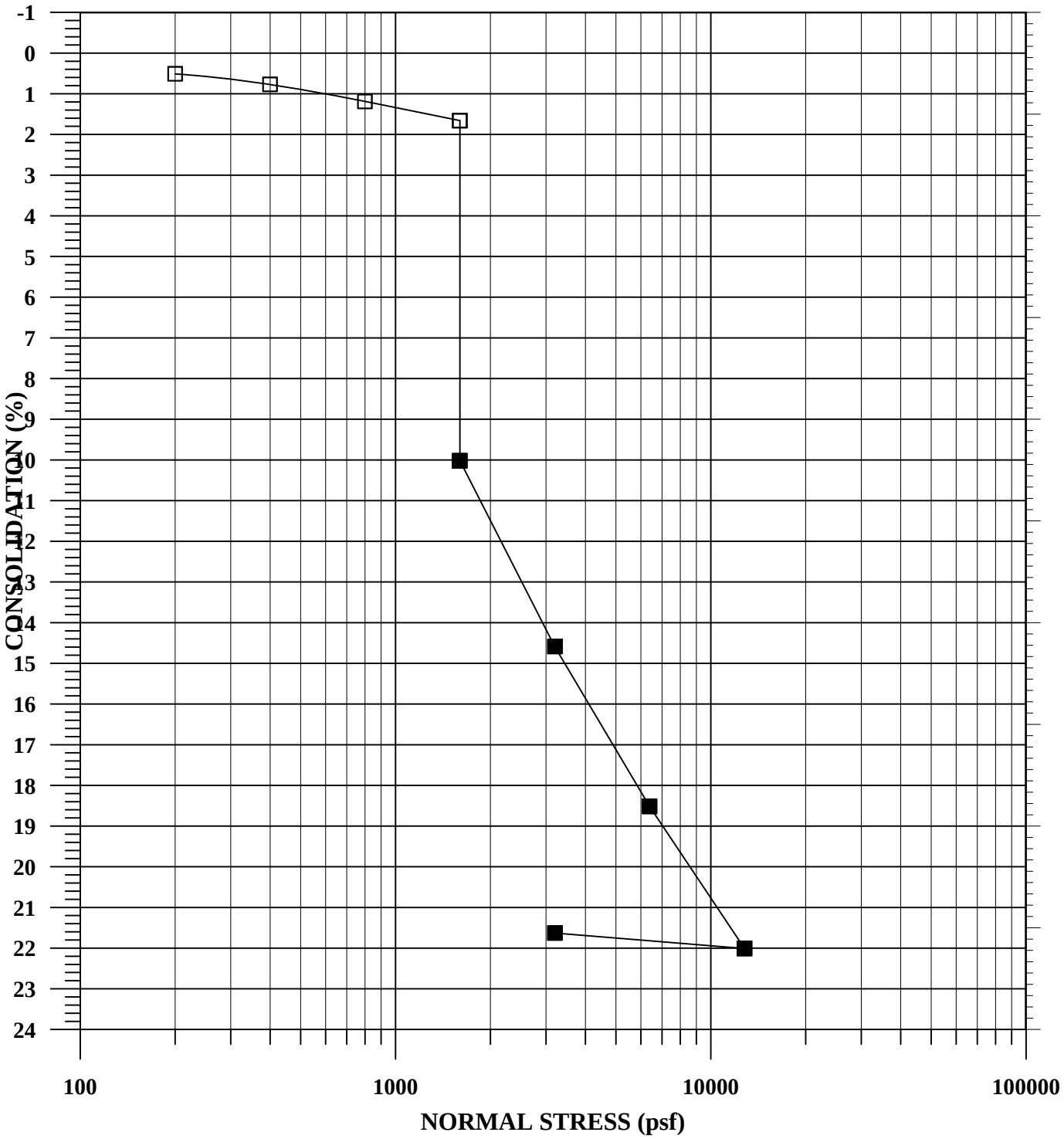
Plate No: B-5

UNIFIED SOIL CLASSIFICATION

COBBLES	GRAVEL		SAND			SILT AND CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

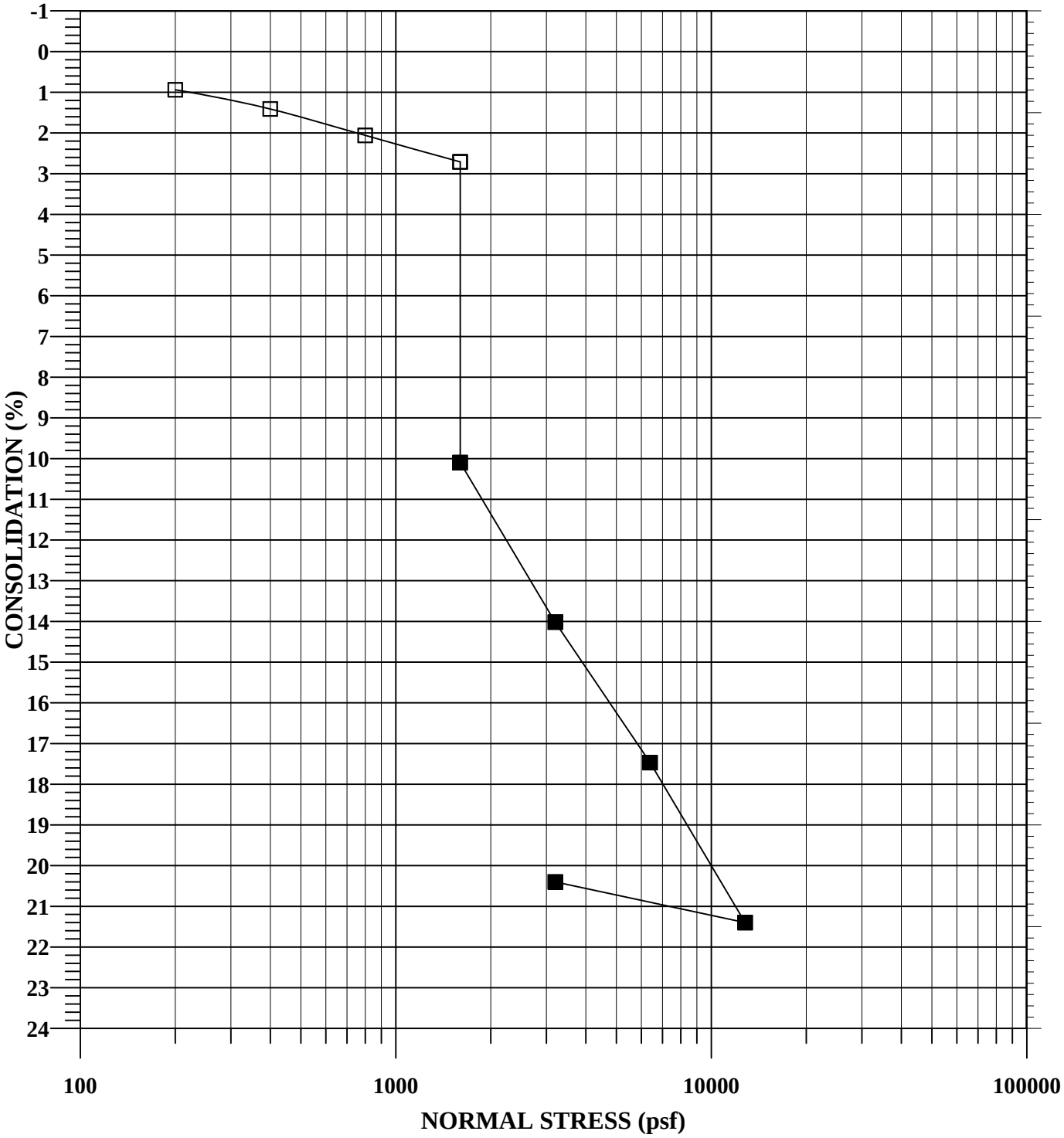


LOCATION	DEPTH	SYMBOL	LL	PI	CLASSIFICATION
B-3	25'	●——●			Poorly Graded Sand (SM)
		■- - - -■			
		▲—— - - ▲			
		◆— · — ◆			



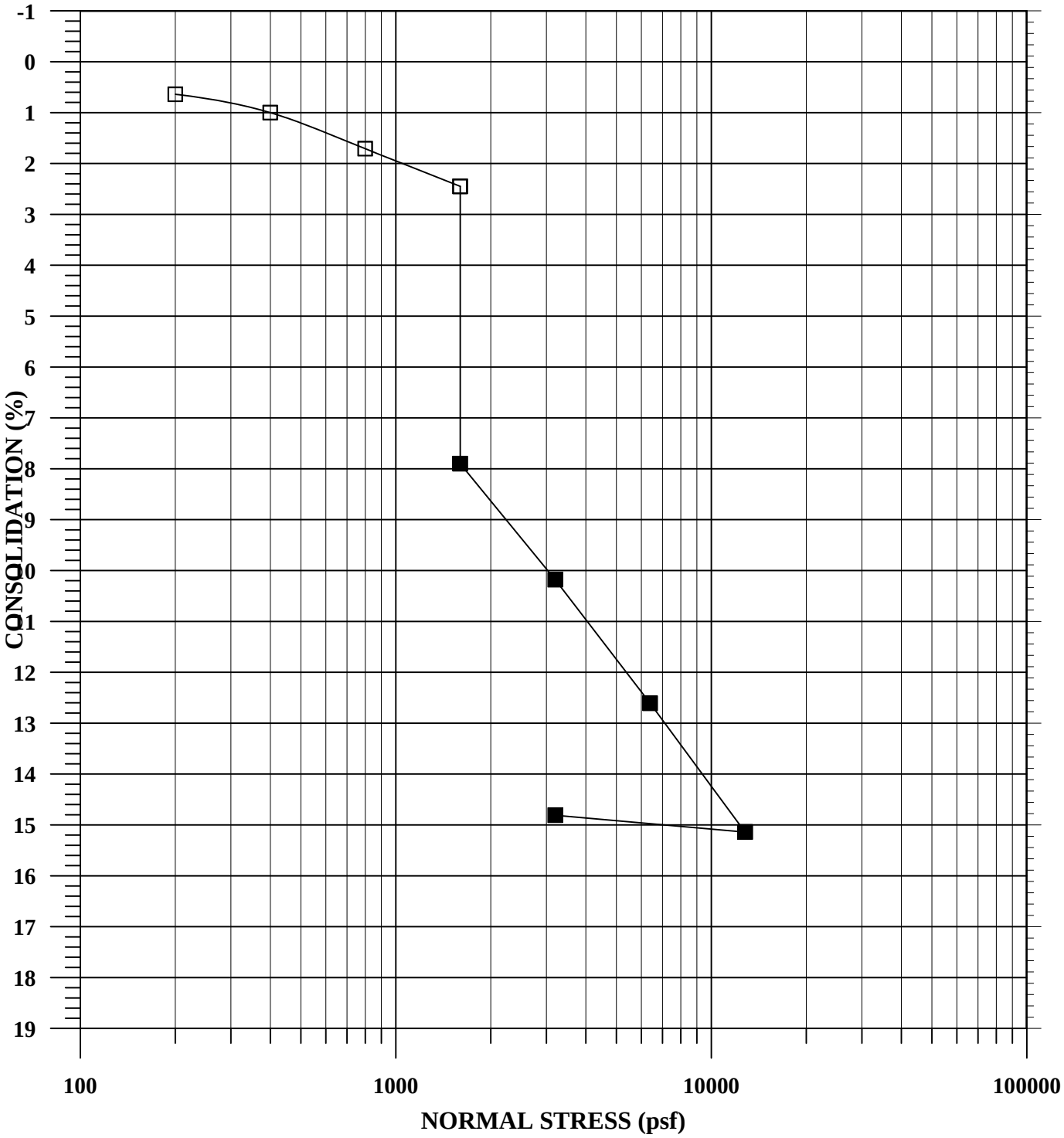
Sample Location:	B-1	Initial Dry Density (pcf):	93.5	
Sample Depth:	2'	Initial Moisure Content (%):	4.9	**Legend**
Classification:	ML	Final Moisture Content (%):	27.7	□ □ □ Field Moisture ■—■—■ Saturated

ALBUS-KEEFE & ASSOCIATES, INC. GEOTECHNICAL CONSULTANTS	CONSOLIDATION TEST RESULTS	Job No: 2345.00 Plate No: B-6



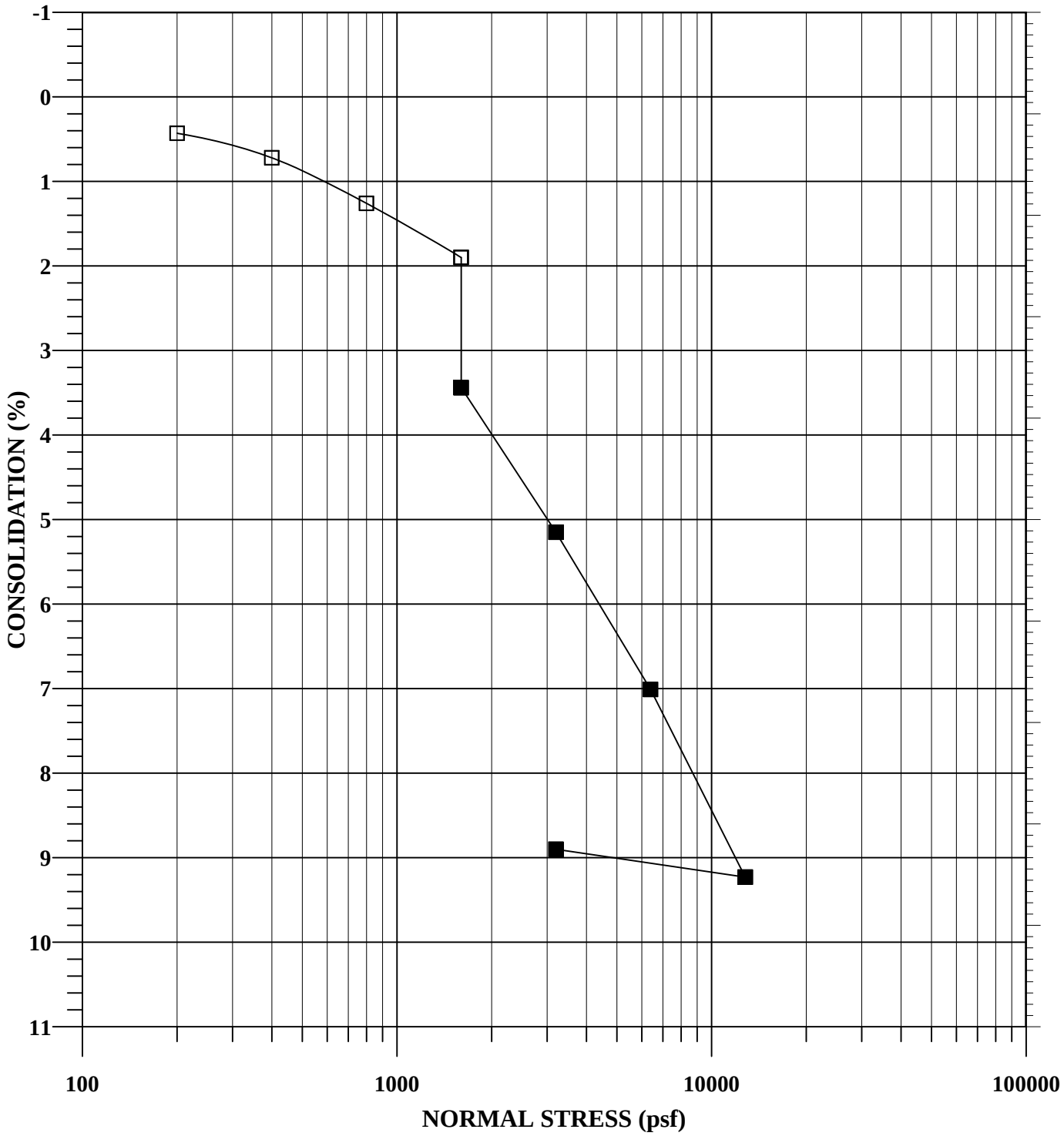
Sample Location:	B-2	Initial Dry Density (pcf):	93.0	
Sample Depth:	2'	Initial Moisure Content (%):	4.6	**Legend**
Classification:	SM - ML	Final Moisture Content (%):	32.9	Field Moisture Saturated

ALBUS-KEEFE & ASSOCIATES, INC. GEOTECHNICAL CONSULTANTS	CONSOLIDATION TEST RESULTS	Job No: 2345.00 Plate No: B-7



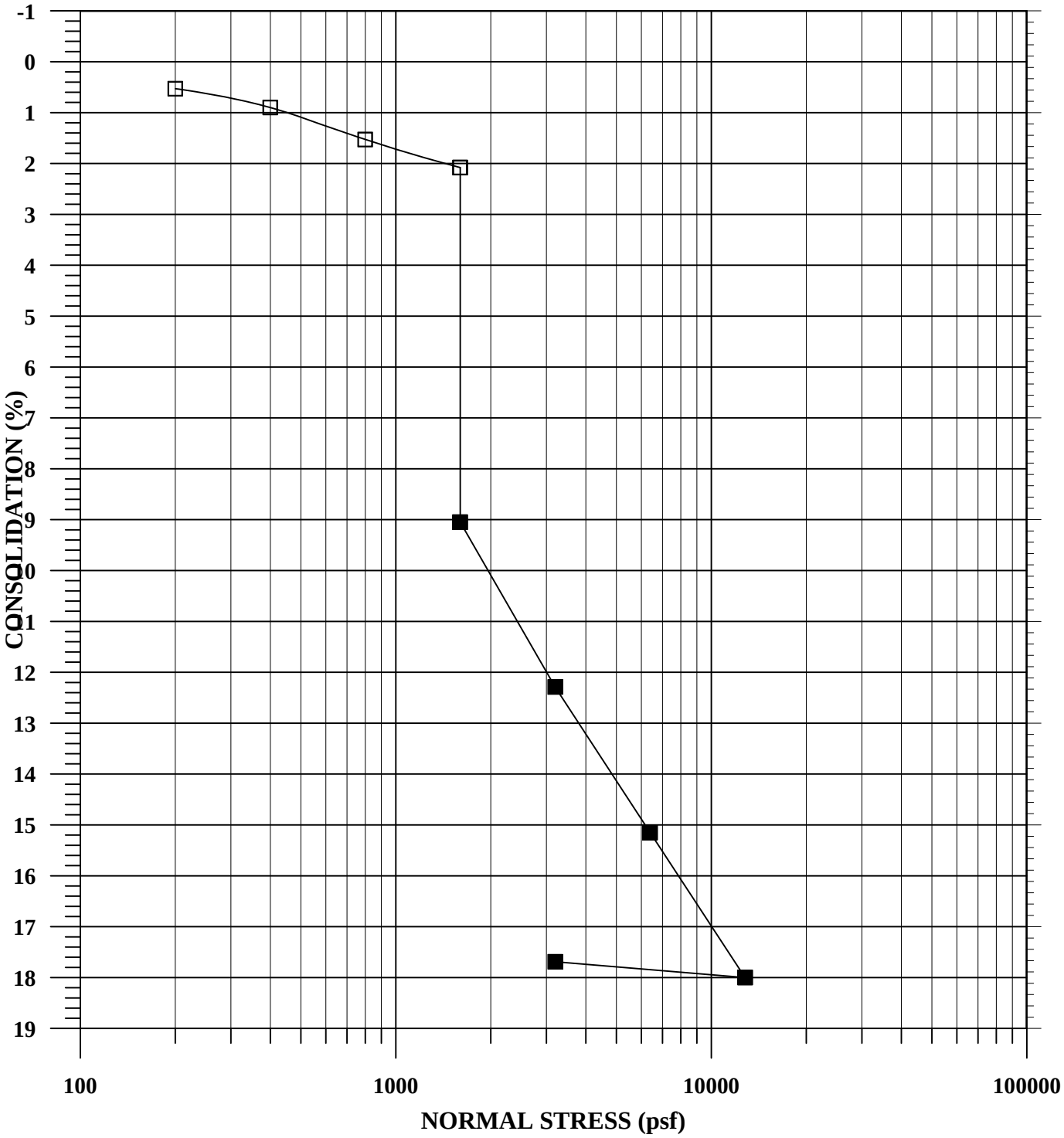
Sample Location:	B-3	Initial Dry Density (pcf):	102.3	
Sample Depth:	4'	Initial Moisure Content (%):	4.2	**Legend**
Classification:	ML	Final Moisture Content (%):	24.2	Field Moisture Saturated

ALBUS-KEEFE & ASSOCIATES, INC. GEOTECHNICAL CONSULTANTS	CONSOLIDATION TEST RESULTS	Job No: 2345.00 Plate No: B-8



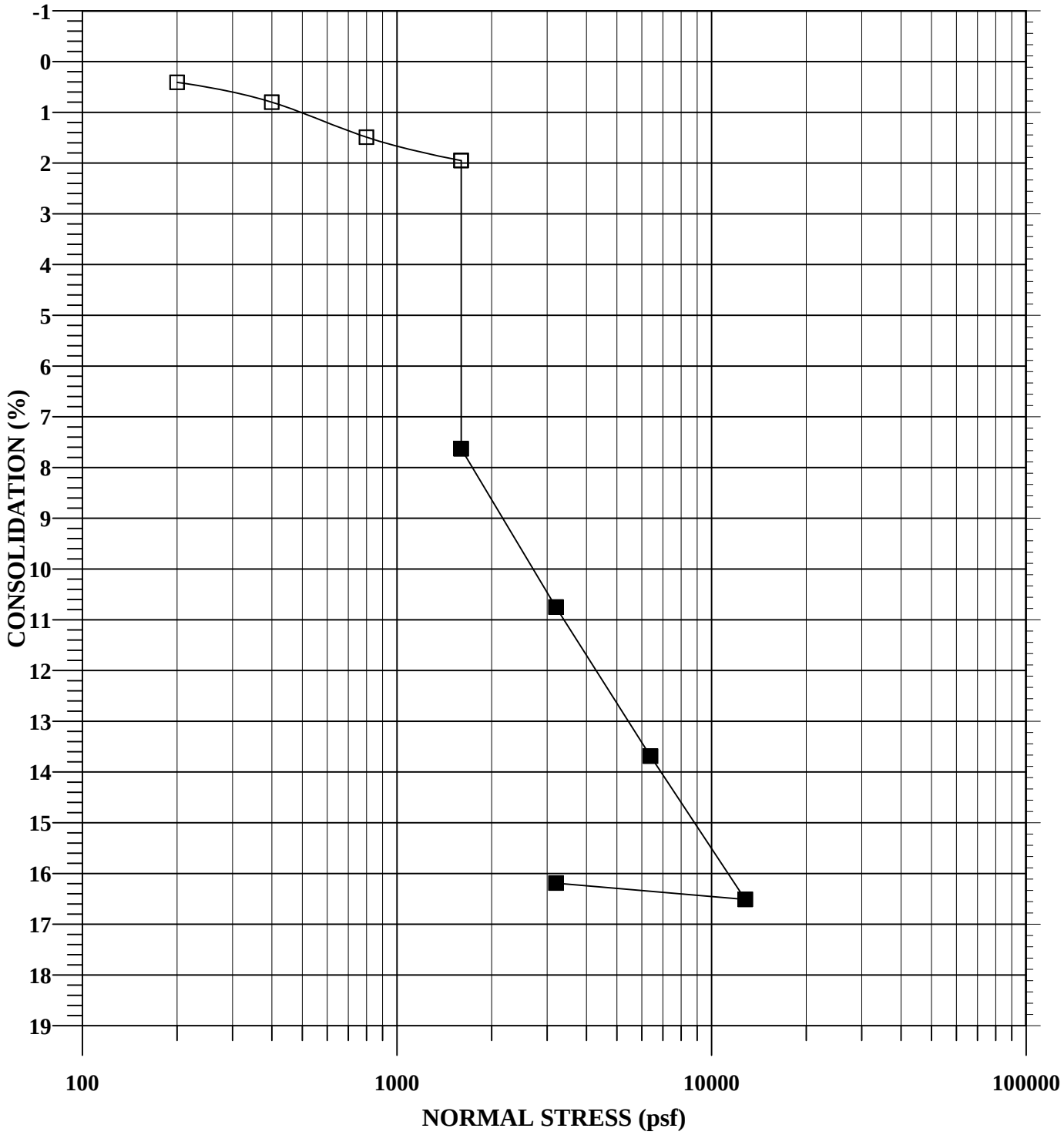
Sample Location:	B-4	Initial Dry Density (pcf):	112.4	
Sample Depth:	4'	Initial Moisure Content (%):	3.8	**Legend**
Classification:	SM - ML	Final Moisture Content (%):	24.0	Field Moisture Saturated

ALBUS-KEEFE & ASSOCIATES, INC. GEOTECHNICAL CONSULTANTS	CONSOLIDATION TEST RESULTS	Job No: 2345.00 Plate No: B-9



Sample Location:	B-5	Initial Dry Density (pcf):	97.9	
Sample Depth:	4'	Initial Moisure Content (%):	3.3	**Legend**
Classification:	SM - ML	Final Moisture Content (%):	27.5	□ □ □ Field Moisture ■—■—■ Saturated

ALBUS-KEEFE & ASSOCIATES, INC. GEOTECHNICAL CONSULTANTS	CONSOLIDATION TEST RESULTS	Job No: 2345.00 Plate No: B-10



Sample Location:	B-7	Initial Dry Density (pcf):	99.2	
Sample Depth:	2'	Initial Moisure Content (%):	7.9	**Legend**
Classification:	ML	Final Moisture Content (%):	25.2	Field Moisture Saturated

ALBUS-KEEFE & ASSOCIATES, INC. GEOTECHNICAL CONSULTANTS	CONSOLIDATION TEST RESULTS	Job No: 2345.00 Plate No: B-11

APPENDIX F

Phase I Environmental Site Assessment

PARTNER
Engineering and Science, Inc.®

PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT

BANNA CROSSINGS
800 North Banna Avenue
Covina, California 91724

March 27, 2015
Partner Project No. 14-126352.1

Prepared for:

Sheldon Development, LLC
901 Dove Street, Suite140
Newport Beach, California 92660

March 27, 2015

Mr. Steve Sheldon, CEO
Sheldon Development, LLC
901 Dove Street, Suite140
Newport Beach, California 92660
steve@sheldongrp.com

Subject: Phase I Environmental Site Assessment
Banna Crossings
800 North Banna Avenue
Covina, California 91724
Proposal Number: 14-126352.1

Dear Mr. Sheldon:

Partner Engineering and Science, Inc. (Partner) is pleased to provide the results of the *Phase I Environmental Site Assessment* (Phase I ESA) report of the abovementioned address (the "subject property"). This assessment was performed in general conformance with the scope and limitations as detailed in the ASTM Practice E1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.

The Phase I Environmental Site Assessment is designed to provide Sheldon Development, LLC with an assessment concerning environmental conditions (limited to those issues identified in the report) as they exist at the subject property. This assessment included a site reconnaissance as well as research and interviews with representatives of the public, property ownership, site manager, and regulatory agencies. An assessment was made, conclusions stated, and recommendations outlined.

We appreciate the opportunity to provide environmental services to Sheldon Development, LLC. If you have any questions concerning this report, or if we can assist you in any other matter, please contact me at (310) 622-8855.

Sincerely,

DB Stott

Debbie Stott, P.G.
Senior Project Manager

EXECUTIVE SUMMARY

Partner Engineering and Science, Inc. (Partner) has performed a Phase I Environmental Site Assessment (ESA) in general accordance with the scope of work and limitations of ASTM Standard Practice E1527-13, the Environmental Protection Agency Standards and Practices for All Appropriate Inquiries (AAI) (40 CFR Part 312) for the property located at 800 North Banna Avenue in the City of Covina, Los Angeles County, California 91724 (the "subject property"). The Scope of Services performed is in accordance with the contract between Sheldon Development, LLC and Partner dated September 9, 2014.

Property Description

The subject property is located on the east side of North Banna Avenue, south of Cypress Street, within a residential area of Covina, California. Please refer to the table below for further description of the subject property:

Subject Property Data	
Address:	800 North Banna Avenue, Covina, California 91724
Property Use:	Church (former Sunrise Christian Charter School)
Land Acreage (Ac):	9.18 Ac
Number of Buildings:	8 (6 school buildings and 2 restroom buildings)
Number of Floors:	1
Gross Building Area (SF):	85,000 SF (estimated)
Date of Construction:	Late 1950s/early 1960s
Assessor's Parcel Number (APN):	8427-003-901
Type of Construction:	Wood-frame
Current Tenants:	Vision De Fe Calvary Chapel
Site Assessment Performed By:	Heather Hodgetts of Partner
Site Assessment Conducted On:	February 26, 2015

The subject property consists of a total of 9.18 acres of land. The subject property is improved with six 1-story school buildings and two restroom buildings, a parking lot, playground and field areas surrounded by a fence. The subject property was originally developed as the Sunrise Christian Charter School, an elementary school, in the late 1950s/early 1960s. The subject property has not been used as a school for approximately 15 years. The subject property is currently occupied by Vision De Fe Calvary Chapel, a church. Access to the subject property is via driveways located along North Banna Avenue.

At the time of the site visit, small quantities of hazardous materials including cleaning products and other general maintenance products were observed at the subject property. Hazardous materials observed at the subject property appeared to be stored properly with no evidence of spills or leaks. Based on the good housekeeping practices observed, and lack of stains or spills, the hazardous materials are not expected to represent a significant environmental concern. Partner did not observe indications of hazardous waste generation or storage onsite during the site reconnaissance. No evidence of aboveground storage tanks (ASTs) or underground storage tanks (USTs) such as fill ports, piping, or vent pipes was observed or reported onsite.

According to review of available historical data, it appears that the subject property was agriculturally developed land (citrus groves) from at least 1928 until the construction of the existing school buildings and grounds in the in the late 1950s/early 1960s.

The agency database report obtained from Environmental Data Resources, Inc. (EDR) identified the subject property as:

- Vision of Faith International (1), listed at 800 North Banna Avenue, is identified in the HAZNET database. This facility is listed in the HAZNAT database for generating state-regulated wastes including "asbestos-containing wastes" that was manifested for off-site disposal in 2008. Based on the regulatory status and lack of listings in other databases indicating violations and/or a release, these listings are not considered to have created an environmental concern to the subject property.

No potential vapor intrusion concerns were identified onsite nor from offsite facilities.

The immediately surrounding properties consist of Cypress Street, followed by the Southern Pacific Railroad, Charter Oak High School (1430 East Covina Boulevard), and the Los Angeles County Fire Station #153 (1577 Cypress Street) to the north; East Colver Place, followed by residential properties to the south; North Kidder Avenue, followed by residential properties to the east; and North Banna Avenue, followed by residential properties and the Southern Pacific Railroad to the west.

Information specific to the subject property regarding the depth to groundwater and direction of groundwater flow was not available for the subject site. According to topographic map interpretation, groundwater in the vicinity of the subject property is inferred to flow towards the southwest. According to the Los Angeles Department of Public Works (LADPW), Hydrologic Records Division, the nearest public well to the site is Well No. 4349B, located at Live Oak Avenue, approximately 0.75-miles north of the subject property. On June 18, 2009, groundwater was measured at approximately 174.8 feet below ground surface (bgs).

Findings

A *REC* refers to the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: due to release to the environment; under conditions indicative of a release to the environment; or under conditions that pose a material threat of a future release to the environment.

- Partner did not identify recognized environmental conditions during the course of this assessment.

A *CREC* refers to a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls. The following was identified during the course of this assessment:

- Partner did not identify controlled recognized environmental conditions during the course of this assessment.

A *HREC* refers to a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory

authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls. The following was identified during the course of this assessment:

- Partner did not identify historical recognized environmental conditions during the course of this assessment.

An *environmental issue* refers to environmental concerns identified by Partner, which do not qualify as RECs; however, warrant further discussion. The following was identified during the course of this assessment:

- Due to the age of the subject property buildings, there is a potential that asbestos-containing material (ACM) and/or lead-based paint (LBP) are present. Overall, all suspect ACMs and painted surfaces were observed in fair condition. Damaged materials should be replaced. Suspect ACMs would need to be sampled to confirm the presence or absence of asbestos prior to any renovation or demolition activities that would impact them to prevent potential exposure to workers and/or building occupants.

Conclusions, Opinions and Recommendations

Partner has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-13 of 800 North Banna Avenue in the City of Covina, Los Angeles County, California 91724 (the "subject property"). Any exceptions to, or deletions from, this practice are described in Section 1.5 of this report.

This assessment has revealed no evidence of recognized environmental conditions in connection with the subject property. Environmental issues were identified as described above. Based on the conclusions of this assessment, Partner recommends that asbestos surveys and potential abatement be completed prior to demolition of the existing buildings.

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1.0 INTRODUCTION

Partner Engineering and Science, Inc. (Partner) has performed a Phase I Environmental Site Assessment (ESA) in general conformance with the scope and limitations of ASTM Standard Practice E1527-13 and the Environmental Protection Agency Standards and Practices for All Appropriate Inquiries (AAI) (40 CFR Part 312) for the property located at 800 North Banna Avenue in the City of Covina, Los Angeles County, California 91724 (the "subject property"). Any exceptions to, or deletions from, this scope of work are described in the report.

1.1 Purpose

The purpose of this ESA is to identify existing or potential Recognized Environmental Conditions (as defined by ASTM Standard E-1527-13) affecting the subject property that: 1) constitute or result in a material violation or a potential material violation of any applicable environmental law; 2) impose any material constraints on the operation of the subject property or require a material change in the use thereof; 3) require clean-up, remedial action or other response with respect to Hazardous Substances or Petroleum Products on or affecting the subject property under any applicable environmental law; 4) may affect the value of the subject property; and 5) may require specific actions to be performed with regard to such conditions and circumstances.

This ESA was performed to permit the User to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations on scope of Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. §9601) liability (hereinafter, the "landowner liability protections," or "LLPs"). ASTM Standard E-1527-05 constitutes "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice" as defined at 42 U.S.C. §9601(35)(B).

In order to qualify for one of the *LLPs* offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the *Brownfields Amendments*), the *User* must provide the following information (if available) to the *environmental professional*. Failure to provide this information could result in a determination that *all appropriate inquiry* is not complete. The user is asked to provide information or knowledge of the following:

- Environmental cleanup liens that are filed or recorded against the site.
- Activity and land use limitations that are in place on the site or that have been filed or recorded in a registry.
- Specialized knowledge or experience of the person seeking to qualify for the LLPs.
- Relationship of the purchase price to the fair market value of the *property* if it were not contaminated.
- Commonly known or *reasonably ascertainable* information about the *property*.
- The degree of obviousness of the presence or likely presence of contamination at the *property*, and the ability to detect the contamination by appropriate assessment.
- The reason for preparation of this Phase I ESA.

Fulfillment of these user responsibilities is key to qualification for the identified defenses to CERCLA liability. Partner requested our Client to provide information to satisfy User Responsibilities as identified in Section 6 of the ASTM guidance.

1.2 Scope of Work

The scope of work for this ESA is in general accordance with the requirements of ASTM Standard E 1527-13 and the contract between Sheldon Development, LLC and Partner dated September 9, 2014.

This assessment included: 1) a property and adjacent site reconnaissance; 2) interviews with key personnel; 3) a review of historical sources; 4) a review of regulatory agency records; and 5) a review of a regulatory database report provided by a third-party vendor. Partner contacted local agencies, such as environmental health departments, fire departments and building departments in order to request for review current and/or former hazardous substances usage, storage and/or releases of hazardous substances on the subject property.

Partner researched information on the presence of activity and use limitations (AULs) at the appropriate agencies. As defined by ASTM E1527-13, AULs are the legal or physical restrictions or limitations on the use of, or access to, a site or facility: 1) to reduce or eliminate potential exposure to hazardous substances or petroleum products in the soil or groundwater on the subject property; or 2) to prevent activities that could interfere with the effectiveness of a response action, in order to ensure maintenance of a condition of no significant risk to public health or the environment. These legal or physical restrictions, which may include institutional and/or engineering controls (IC/ECs), are intended to prevent adverse impacts to individuals or populations that may be exposed to hazardous substances and petroleum products in the soil or groundwater on the property.

If requested by Client, this report may also include the identification, discussion of, and/or limited sampling of asbestos-containing materials (ACMs), lead-based paint (LBP), mold, and/or radon.

1.3 Limitations

Partner warrants that the findings and conclusions contained herein were accomplished in accordance with the methodologies set forth in the Scope of Work. These methodologies are described as representing good commercial and customary practice for conducting an ESA of a property for the purpose of identifying recognized environmental conditions. There is a possibility that even with the proper application of these methodologies there may exist on the subject property conditions that could not be identified within the scope of the assessment or which were not reasonably identifiable from the available information. Partner believes that the information obtained from the record review and the interviews concerning the subject property is reliable. However, Partner cannot and does not warrant or guarantee that the information provided by these other sources is accurate or complete. The conclusions and findings set forth in this report are strictly limited in time and scope to the date of the evaluations. The conclusions presented in the report are based solely on the services described therein, and not on scientific tasks or procedures beyond the scope of agreed-upon services or the time and budgeting restraints imposed by the Client. No other warranties are implied or expressed.

Some of the information provided in this report is based upon personal interviews, and research of available documents, records, and maps held by the appropriate government and private agencies. This report is subject to the limitations of historical documentation, availability, and accuracy of pertinent records, and the personal recollections of those persons contacted.

This practice does not address requirements of any state or local laws or of any federal laws other than the all appropriate inquiry provisions of the LLPs. Further, this report does not intend to address all of the safety concerns, if any, associated with the subject property.

Environmental concerns, which are beyond the scope of a Phase I ESA as defined by ASTM include the following: ACMs, LBP, radon, and lead in drinking water. These issues may affect environmental risk at the subject property and may warrant discussion and/or assessment; however, are considered non-scope issues. If specifically requested by the Client, these non-scope issues are discussed in Section 6.3.

1.4 User Reliance

Sheldon Development, LLC engaged Partner to perform this assessment in accordance with an agreement governing the nature, scope and purpose of the work as well as other matters critical to the engagement. All reports, both verbal and written, are for the sole use and benefit of Sheldon Development, LLC. Either verbally or in writing, third parties may come into possession of this report or all or part of the information generated as a result of this work. In the absence of a written agreement with Partner granting such rights, no third parties shall have rights of recourse or recovery whatsoever under any course of action against Partner, its officers, employees, vendors, successors or assigns. Any such unauthorized user shall be responsible to protect, indemnify and hold Partner, Client and their respective officers, employees, vendors, successors and assigns harmless from any and all claims, damages, losses, liabilities, expenses (including reasonable attorneys' fees) and costs attributable to such Use. Unauthorized use of this report shall constitute acceptance of and commitment to these responsibilities, which shall be irrevocable and shall apply regardless of the cause of action or legal theory pled or asserted. Additional legal penalties may apply.

1.5 Limiting Conditions

The findings and conclusions contain all of the limitations inherent in these methodologies that are referred to in ASTM E1527-13.

Specific limitations and exceptions to this ESA are more specifically set forth below:

- Interviews with past owners, operators and occupants were not reasonably ascertainable and thus constitute a data gap. Based on information obtained from other historical sources (as discussed in Section 3.0), this data gap is not expected to alter the findings of this assessment.

- Partner submitted Freedom of Information Act (FOIA) requests to the Charter Oak School District (COSD) for information pertaining to building permits for the subject property. As of this writing, the COSD has not responded to Partner's request. Based on information obtained from other historical sources, this limitation is not expected to alter the overall findings of this assessment.

2.0 SITE DESCRIPTION

2.1 Site Location and Legal Description

The subject property is located on the east side of North Banna Avenue, south of Cypress Street, within a residential area of Covina, California. The subject property was inspected by Ms. Heather Hodgetts of Partner on February 26, 2015. The weather at the time of the site visit was sunny and in the low 70s (degrees Fahrenheit). Please refer to the table below for further description of the subject property.

Based on information provided by the Los Angeles County Office of the Assessor (LACOA), the description for the subject property is: LOT BD W BY BANNA AVE N BY CYPRESS ST E AND NE BY KIDDER AVE AND SE BY COLVER PL POR OF LOT 1 BLK 3 PARTITIONS OF THE HOLLENBECK RO IN RO LA PUENTE.

Please refer to Figure 1: Site Location Map, Figure 2: Topographic Map, Figure 3: Site Plan, and Appendix A: Site Photographs for the location and site characteristics of the subject property.

2.2 Current Property Use

The subject property consists of a total of 9.18 acres of land. The subject property is improved with six 1-story school buildings and two restroom buildings, a parking lot, playground and field areas surrounded by a fence. The subject property was originally developed as the Sunrise Christian Charter School, an elementary school, in the late 1950s/early 1960s. The subject property has not been used as a school for approximately 15 years. The subject property is currently occupied by Vision De Fe Calvary Chapel, a church. Access to the subject property is via driveways located along North Banna Avenue.

The subject property is zoned as the Sunrise Christian School by the City of Covina.

The subject property was identified as a Hazardous Waste Information System (HAZNET) site in the regulatory database report, as further discussed in Section 4.2.

2.3 Current Use of Adjacent Properties

The subject property is located within a residential area. During the vicinity reconnaissance, Partner observed the following land use on properties in the vicinity.

Immediately Surrounding Properties	
North:	Cypress Street, followed by the Southern Pacific Railroad, Charter Oak High School (1430 East Covina Boulevard), and the Los Angeles County Fire Station #153 (1577 Cypress Street).
South:	East Colver Place, followed by residential properties,
East:	North Kidder Avenue, followed by residential properties.
West:	North Banna Avenue, followed by residential properties and the Southern Pacific Railroad.

No adjacent properties were identified in the regulatory database report of Section 4.2.

2.4 Physical Setting Sources

2.4.1 Topography

Topographic map coverage is provided by the U.S. Geological Survey (USGS), 7.5-minute "San Dimas, California" quadrangle map dated 1981. The subject property lies at an approximate elevation of 686 feet above mean sea level (msl) with a local topographic gradient toward the southwest.

Please refer to Figure 2: Topographic Map.

2.4.2 Hydrology

Information specific to the subject property regarding the depth to groundwater and direction of groundwater flow was not available for the subject site. According to topographic map interpretation, groundwater in the vicinity of the subject property is inferred to flow towards the southwest.

According to the Los Angeles Department of Public Works (LADPW), Hydrologic Records Division, the nearest public well to the site is Well No. 4349B, located at Live Oak Avenue, approximately 0.75-miles north of the subject property. On June 18, 2009, groundwater was measured at approximately 174.8 feet bgs.

The closest surface water is the Charter Oak Creek located approximately 0.05-miles south-southeast of the subject property. No settling ponds, lagoons, surface impoundments, wetlands or natural catch basins were observed at the subject property during this assessment.

2.4.3 Geology/Soils

The site is located in the Peninsular Ranges geomorphic province. The Peninsular Ranges are a northwest-southwest oriented complex of blocks separated by similarly trending faults. They extend from the Transverse Ranges and the Los Angeles Basin south to the Mexican border and beyond to the tip of Baja California and are bounded on the east by the Colorado Desert and the Gulf of California. The Peninsular Ranges contain minor Jurassic and extensive Cretaceous igneous rocks associated with the Nevadan plutonism. Marine Cretaceous sedimentary rocks are well represented and post-Cretaceous rocks form a restricted veneer of volcanic, marine, and nonmarine sediments.

The subject property is located within the San Gabriel Valley. The shallow soil beneath the site consists of alluvial deposits derived from the San Gabriel Mountains and consists of sandy gravel and cobbles.

2.4.4 Flood Zone Information

Partner performed a review of the Flood Insurance Rate Map, published by the Federal Emergency Management Agency. According to Community Panel Number 06037C1725F, dated September 26, 2008, the subject property appears to be located in Zone X, an area located outside of the 100-year and 500-year flood plains.

3.0 HISTORICAL INFORMATION

Partner obtained historical use information about the subject property from a variety of sources. Information regarding past land use was obtained by a review of historical aerial photographs, historical Sanborn Fire Insurance maps, city directories, historical topographic maps, and previous reports of the subject property and surrounding area obtained from Environmental Data Resources (EDR). Copies of the historical resources are included in Appendix B. EDR reported that Sanborn™ Fire Insurance Maps were not available for the subject property. A chronological listing of the historical data found is summarized in the table below.

Date	Scale or Address	Source	Summary
1894, 1904	1:62,500	Topographic Map	The subject property and immediately surrounding area are depicted as being located in an area northeast of Covina, California. Various improved roads and railroad lines are shown throughout the surrounding area. No structures are depicted on the subject property.
1927, 1954	1:24,000	Topographic Map	The subject property and adjacent properties are agriculturally developed (citrus groves). Cypress Street and North Banna Avenue are located adjacent to the north and west of the subject property.
1928, 1938, 1948, 1953	1"=500'	Aerial Photograph	The subject property and adjacent properties are agriculturally developed (citrus groves). Individual farm houses are visible throughout the site vicinity. The Southern Pacific Railroad is located adjacent to the northwest of the of the subject property. Charter Oak Creek located adjacent to the south-southeast.
1964, 1966, 1972, 1974, 1981, 1989, 1995, 2002, 2006, 2009, 2010, 2012 1966, 1972, 1981	1"=500' 1:24,000	Aerial Photograph Topographic map	The subject property appears developed with the existing school buildings and grounds. Residential properties are located adjacent to the west, south, and east beyond North Banna Avenue, East Colver Place, and North Kidder Avenue. Charter Oak High School and the Los Angeles County Fire Station #153 and located to the north beyond Cypress Street.

Date	Scale or Address	Source	Summary
1985	800 N. Banna Ave.	City Directory	Banna Special Education
2013	800 N. Banna Ave.	City Directory	Iglesia International Vision De Fe, Quest Academy, Serenity Living LLC

According to review of available historical data, it appears that the subject property was agriculturally developed land (citrus groves) from at least 1928 until the construction of the existing school buildings and grounds in the in the late 1950s/early 1960s.

Common agricultural practices can result in residual concentrations of fertilizers, pesticides or herbicides in near-surface soil, though not generally at concentrations that pose a significant health risk. It is Partner's opinion that, since the site has been redeveloped, remaining pesticide or herbicide residues, if any, are likely to have been dispersed during these construction activities and therefore are unlikely to impact human health or the environment. Based on the development plan which requires that the top 4 feet of soil across the entire property be over-excavated, mixed and re-compacted, agricultural pesticide and herbicide residue (if present) would be reduced to non-detectable concentrations. Further assessment is not warranted.

4.0 REGULATORY RECORDS REVIEW

4.1 Regulatory Agencies

4.1.1 Public Works

Regulatory Agency Data	
Name of Agency:	Los Angeles County Department of Public Works (LACDPW)
Point of Contact:	Records Coordinator
Agency Address:	900 South Fremont Avenue, Alhambra, CA 91803
Agency Phone Number:	(626) 458-3517
Date of Contact:	February 16, 2015
Method of Communication:	Faxed Request

Summary of Communication:

The subject property address was not identified on the LACDPW online database for industrial waste and underground storage tank (UST) records.

4.1.2 Health Department

Regulatory Agency Data	
Name of Agency:	Los Angeles County Health Department (PHI)
Point of Contact:	Online
Agency Address:	5555 Ferguson Drive, Suite 120-04, Commerce, California 90022
Agency Phone Number:	(323)890-7806
Date of Contact:	Los Angeles County Health Department (PHI)
Method of Communication:	Faxed Response

Summary of Communication:

Partner received a reply on March 3, 2015 from the PHI stating they have no records for the subject property address.

4.1.3 Air Pollution Control Agency

Regulatory Agency Data	
Name of Agency:	South Coast Air Quality Management District (SCAQMD)
Point of Contact:	N/A
Agency Address:	21865 Copley Drive, Diamond Bar, California 91765
Agency Phone Number:	(909) 396-2000
Date of Contact:	February 16, 2015
Method of Communication:	Online Database Query

Summary of Communication:

Partner researched the South Coast Air Quality Management District (SCAQMD) online database for information regarding any Permits to Operate (PTO), Notices of Violation (NOV), or Notices to Comply (NTC) records for the subject property related to air emission equipment.

No PTOs, NOVs, NTCs or the presence of AULs were on file for the subject property address with the SCAQMD.

4.1.4 Regional Water Quality Agency

Regulatory Agency Data	
Name of Agency:	Regional Water Quality Control Board (RWQCB)
Point of Contact:	N/A
Agency Address:	320 W 4th St #200, Los Angeles, CA 90013
Agency Phone Number:	(213) 576-6600
Date of Contact:	February 25, 2015
Method of Communication:	Online Database Query and Records Request

Summary of Communication:

The subject property address was not identified on the RWQCB GeoTracker online database. Partner received a reply on March 4, 2015 from the RWQCB stating they have no records for the subject property address.

4.1.5 Department of Toxic Substances Control

Regulatory Agency Data	
Name of Agency:	California Department of Toxic Substances Control (DTSC)
Point of Contact:	N/A
Agency Address:	1001 I Street, Sacramento, California 95814
Agency Phone Number:	(800) 728-6942
Date of Contact:	February 25, 2015
Method of Communication:	October 2014

Summary of Communication:

The subject property address was not identified in the online DTSC Envirostor database.

According to a review of available DTSC Hazardous Waste Tracking System records, the following records were found for the subject property address:

ID Number	Facility Name/Address	Status	Inactive Date	Waste
CAC002628723	Vision of Faith International/800 N. Banna Avenue	Inactive	October 1, 2008	The facility was listed as a generator of the following hazardous waste in 2008: "other asbestos-containing waste."

4.1.5 Industrial Wastewater

Regulatory Agency Data	
Name of Agency:	Los Angeles County Sanitation District (LACSD)
Point of Contact:	N/A
Agency Address:	1955 Workman Mill Road, Whittier, CA 90607-4998
Agency Phone Number:	(562) 908-4288
Date of Contact:	January 19, 2014
Method of Communication:	Faxed Request

Summary of Communication:

Partner received a reply on February 25, 2015 from the LACSD stating they have no records for the subject property address.

4.1.6 Building Department

Regulatory Agency Data	
Name of Agency:	City of Covina Building Department (CBD) and City Clerk/Records Management
Point of Contact:	Records Coordinator
Agency Address:	125 East College Street, Covina, CA 91723
Agency Phone Number:	(626) 384-5430
Date of Contact:	February 27, 2015
Method of Communication:	Faxed Request

Summary of Communication:

Building permits for the subject property were not available at the City of Covina or CBD. The City of Covina referred Partner to the Charter Oak School District (COSD). Available records indicated that the subject property is zoned as the Sunrise Christian School.

Partner contacted the COSD for information regarding original building permits for the existing school. As of the date of this report, Partner has not received a response from the COSD for inclusion in this report.

4.1.7 Oil & Gas Exploration

Regulatory Agency Data	
Name of Agency:	California Division of Oil, Gas and Geothermal Resources (DOGGR)
Point of Contact:	N/A
Agency Address:	N/A
Agency Phone Number:	N/A

Date of Contact:	February 25, 2015
Method of Communication:	Online Query

Summary of Communication:

According to DOGGR, no oil or gas wells are located on or adjacent to the subject property.

4.1.8 Assessor's Office

Regulatory Agency Data	
Name of Agency:	Los Angeles County Office of the Assessor (LACOA)
Point of Contact:	Not Applicable
Agency Address:	Not Applicable
Agency Phone Number:	Not Applicable
Date of Contact:	February 25, 2015
Method of Communication:	Online Database Query

Summary of Communication:

According to records reviewed, the subject property is identified by Assessor Parcel Numbers (APN) 8427-003-901 (9.18 acres).

4.2 Mapped Database Records Search

Information from standard federal, state, county, and city environmental record sources was provided by Environmental Data Resources, Inc. (EDR). Data from governmental agency lists are updated and integrated into one database, which is updated as these data are released. The information contained in this report was compiled from publicly available sources and the locations of the sites are plotted utilizing a geographic information system, which geocodes the site addresses. The accuracy of the geocoded locations is approximately +/-300 feet. Using the ASTM definition of migration, Partner considers the migration of hazardous substances or petroleum products in any form onto the subject property during the evaluation of each site listed on the radius report, which includes solid, liquid, and vapor.

4.2.1 Regulatory Database Summary

Federal NPL or Delisted NPL Site	1.00	N	N	N
Federal CERCLIS Site	0.50	N	N	N
Federal CERCLIS-NFRAP Site	0.50	N	N	N
Federal RCRA CORRACTS Facility	1.00	N	N	N
Federal RCRA TSDF Facility	0.50	N	N	N
Federal RCRA Generators Site (LQG, SQG, CESQG)	0.25	N	N	N
Federal IC/EC Registries	0.50	N	N	N
Federal ERNS Site	Subject Property	N		
State/Tribal Equivalent NPL	1.00	N	N	N
State/Tribal Equivalent CERCLIS	1.00	N	N	N

State/Tribal Landfill/Solid Waste Disposal Site	0.50	N	N	N
State/Tribal Leaking Storage Tank Site	0.50	N	N	N
State/Tribal Registered Storage Tank Sites (UST/AST)	0.25	N	N	N
State/Tribal Voluntary Cleanup Sites (VCP)	0.50	N	N	N
State/Tribal Spills	0.50	N	N	N
Federal Brownfield Sites	0.50	N	N	N
State Brownfield Sites	0.50	N	N	N
HAZNET	Subject Property	**Y**		
EDR MGP	Varies	N	N	N
EDR US Hist Auto Station	Varies	N	N	N
EDR US Hist Cleaners	Varies	N	N	N

4.2.2 Subject Property

The agency database report obtained from EDR identified the following listings the subject property:

- Vision of Faith International (1), listed at 800 North Banna Avenue, is identified in the HAZNET database. This facility is listed in the HAZNAT database for generating state-regulated wastes including "asbestos-containing wastes" that was manifested for off-site disposal in 2008. Based on the regulatory status and lack of listings in other databases indicating violations and/or a release, this listing is not considered to have created an environmental concern to the subject property.

4.2.3 Adjacent Property Listings

The adjacent properties are not identified in the regulatory database report.

4.2.4 Site Vicinity

Partner's criteria for further evaluating the potential impact of a listed offsite facility are summarized below:

- The listed offsite facility is documented or assumed to be hydrogeologically up-gradient and a likely pathway exists for known releases of environmentally mobile contaminants to reach the subject property; or, contaminants from the listed offsite facility can reach the subject through other pathways (i.e., surface runoff); and,
- The offsite facility is listed as an open case on one of the following databases: Federal NPL, Federal CORRACTS, Federal CERCLIS, Federal ERNS, and State-Specific lists including, but not limited to State Hazardous Waste Sites, State SCL, State LUST, State Deed Restrictions, State Toxic Pits, Landfill (excluding transfer stations); or
- The facility is a known or suspected concern based on Partner's experience or observations made during the site reconnaissance. (i.e., Dry-cleaning operations that may or may not be listed as RCRA-SQG or a non-adjacent UST site that appears to have a remediation system in place).

Partner did not identify any facilities that, using the criteria discussed above, appeared to be a potential concern.

4.2.5 Unmapped Sites

Partner reviewed EDR's Orphan Summary, which is a listing of sites that have not been geocoded based on lack of sufficient data regarding their exact location within the general area. The subject property was not identified as an Unmapped Site. None of the Unmapped Sites identified on the Orphan Summary appear to be located within the ASTM-designated radii of the subject property, and therefore, Partner has no reason to believe that these sites had an impact on the subject property.

A copy of the regulatory database report is included in Appendix C of this report.

4.3 Vapor Intrusion Screening

As part of this ESA, Partner conducted a Tier 1 Vapor Intrusion Screening, in general accordance with the procedures included in ASTM E2600-10, *Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions*. The purpose of the vapor intrusion screening was to evaluate whether a potential vapor intrusion condition (pVIC) exists on the subject property. This screening was undertaken through the use of applicable information collected during the ESA, including existing/planned use of the site, type of structures on the site, surrounding property description, regulatory database review, man-made and natural conduits that can provide a potential path for vapor migration, use information, historical and physical records review, and a visual non-invasive reconnaissance of the site and observation of adjoining properties from publicly accessible rights of way. Limiting conditions, ASTM deviations, and significant gaps, if any, are discussed in Sections 1.3 and 1.5.

Based on a review of agency records and current site observations, no onsite sources with the potential to have created a vapor intrusion concern to the subject property were identified.

Based on Partner's review of the agency database report obtained from EDR, no offsite properties with the potential to have created a vapor intrusion concern to the subject property were found. No offsite properties with a documented open release of petroleum hydrocarbons were identified within 528-feet (1/10-mile) upgradient, 165-feet cross-gradient, or 100-feet down-gradient of the subject property in the EDR Report. No offsite properties with a documented release of other chemicals such chlorinated VOCs were identified within 1,760-feet (⅓-mile) upgradient, 365-feet cross-gradient, or 100-feet down-gradient of the subject property in the EDR Report.

Based on the physical setting of the subject property, the current and planned use of the subject property, and the findings from historical and regulatory records review, pVICs were not identified in association with the subject property and further assessment is not warranted at this time (Appendix C).

5.0 USER PROVIDED INFORMATION AND INTERVIEWS

In order to qualify for one of the Landowner Liability Protections (LLPs) offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the Brownfields Amendments), the User must provide the following information (if available) to the environmental professional. Failure to provide this information could result in a determination that all appropriate inquiry is not complete. The user is asked to provide information or knowledge of the following:

- Environmental cleanup liens that are filed or recorded against the site.
- Activity and land use limitations that are in place on the site or that have been filed or recorded in a registry.
- Specialized knowledge or experience of the person seeking to qualify for the LLPs.
- Relationship of the purchase price to the fair market value of the *property* if it were not contaminated.
- Commonly known or *reasonably ascertainable* information about the *property*.
- The degree of obviousness of the presence or likely presence of contamination at the *property*, and the ability to detect the contamination by appropriate assessment.
- The reason for preparation of this Phase I ESA.

Fulfillment of these user responsibilities is key to qualification for the identified defenses to CERCLA liability. Partner requested our Client to provide information to satisfy User Responsibilities as identified in Section 6 of the ASTM guidance.

Pursuant to ASTM E1527-13, Partner received the following site information from Sheldon Development, LLC (User of this report).

If the User has not completed the questionnaire by the time the report is due for review, phone the User and verbally go over the questions for inclusion in the report. We do not need to receive a completed questionnaire; it's just a guide. The main objective is to answer the questions. Once the completed questionnaire is returned and/or an interview is conducted, be sure to update the table below appropriately.

5.1 Interviews

5.1.1 Interview with Owner

The owner of the subject property was not interviewed at the time of the assessment.

5.1.2 Interview with Report User

Mr. Steve Sheldon with Sheldon Development, LLC completed a questionnaire for the subject property.

Mr. Sheldon, report user, was not aware of any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the subject property; any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the subject property; or any notices from a governmental entity regarding any possible

violation of environmental laws or possible liability relating to hazardous substances or petroleum products.

Please refer to Section 5.2 below for information requested from the Report User.

5.1.3 Interview with Key Site Manager

A key site manager was not available to be interviewed at the time of this assessment.

5.1.4 Interviews with Past Owners, Operators and Occupants

Interviews with past owners, operators and occupants were not reasonably ascertainable and thus constitute a data gap.

5.1.5 Interview with Others

As the subject property is not an abandoned property as defined in ASTM 1527-13, interview with others were not performed.

5.2 User Provided Information

5.2.1 Title Records, Environmental Liens, and AULs

The owner stated that to the best of their knowledge there are no environmental liens or AULs associated with the subject property. No Superfund liens or AULs were listed in the EDR database nor with the City of Covina. Review of a preliminary title report prepared by Fidelity National Title Company did not indicate environmental liens or AULs for the subject property. Title is vested in Charter Oak Unified School District.

5.2.2 Specialized Knowledge

No specialized knowledge of environmental conditions associated with the subject property was provided by the User at the time of the assessment.

5.2.3 Actual Knowledge of the User

No actual knowledge of any environmental lien or AULs encumbering the subject property or in connection with the subject property was provided by the User at the time of the assessment.

5.2.4 Valuation Reduction for Environmental Issues

No knowledge of valuation reductions associated with the subject property was provided by the User at the time of the assessment.

5.2.5 Commonly Known or Reasonably Ascertainable Information

The User did not provide information that is commonly known or *reasonably ascertainable* within the local community about the subject property at the time of the assessment.

5.2.6 Previous Reports and Other Provided Documentation

No previous reports or other pertinent documentation was provided to Partner for review during the course of this assessment.

6.0 SITE RECONNAISSANCE

The weather at the time of the site visit was sunny and clear. Refer to Section 1.5 for limitations encountered during the field reconnaissance and Sections 2.1 and 2.2 for subject property operations. The table below provides the site assessment details:

Site Assessment Data	
Site Assessment Performed By:	Heather Hodgetts
Site Assessment Conducted On:	February 26, 2015

A key site manager was not available to be interviewed at the time of this assessment. Partner was not accompanied Partner during the field reconnaissance activities.

No potential environmental concerns were identified during the onsite reconnaissance.

6.1 General Site Characteristics

6.1.1 Solid Waste Disposal

Solid waste generated at the subject property is disposed into a commercial dumpster located in the maintenance enclosure on the south side of the office (Building 1). An independent solid waste disposal contractor removes the waste from the subject property.

6.1.2 Sewage Discharge and Disposal

Sanitary discharges on the subject property are directed into the municipal sanitary sewer system operated by the City of Covina. No wastewater treatment facilities or septic systems are observed or reported on the subject property.

6.1.3 Surface Water Drainage

Storm water is removed from the subject property primarily by sheet flow action across the paved surfaces towards storm water drains located throughout the subject property and in the public right of way. Site storm water from roofs, landscaped areas, and paved areas is directed to on-site concrete swales, which drain to the public right of way, and to on-site storm water drains. The subject property is connected to a municipal owned and maintained sewer system.

The subject property does not appear to be a designated wetland area, based on information obtained from the United States Department of Agriculture. A comprehensive wetlands survey would be required in order to formally determine actual wetlands on the subject property. No surface impoundments, wetlands, natural catch basins, settling ponds, or lagoons are located on the subject property. No drywells were identified on the subject property.

6.1.4 Source of Heating and Cooling

Heating and cooling systems as well as domestic hot water equipment are fueled by electricity and natural gas provided by Southern California Edison (SCE) and the Southern California Gas Company. Heating and

cooling is only provided in the buildings by individual HVAC Units. Hot water is provided by electric hot water heaters.

6.1.5 Wells and Cisterns

No aboveground evidence of wells or cisterns was observed during the site reconnaissance.

6.1.6 Wastewater

Domestic wastewater generated at the subject property is disposed by means of the sanitary sewer system.

6.1.7 Septic Systems

No septic systems were observed or reported on the subject property.

6.1.8 Additional Site Observations

No additional general site characteristics were observed during the site reconnaissance.

6.2 Potential Environmental Hazards

6.2.1 Hazardous Materials and Petroleum Products Used or Stored at the Site

At the time of the site visit, small quantities of hazardous materials including cleaning products and other general maintenance products were observed at the subject property. Hazardous materials observed at the subject property appeared to be stored properly with no evidence of spills or leaks. Based on the good housekeeping practices observed, and lack of stains or spills, the hazardous materials are not expected to represent a significant environmental concern.

Partner did not observe other indications of hazardous waste generation or storage onsite during the site reconnaissance.

6.2.2 Aboveground & Underground Hazardous Substance or Petroleum Product Storage Tanks (ASTs/USTs)

No evidence of aboveground storage tanks (ASTs) or underground storage tanks (USTs) such as fill ports, piping, or vent pipes was observed or reported onsite.

6.2.3 Evidence of Releases

No spills, stains or other indications that a surficial release has occurred at the subject property were observed.

6.2.4 Polychlorinated Biphenyls (PCBs)

Older transformers and other electrical equipment could contain polychlorinated biphenyls (PCBs) at a level that subjects them to regulation by the U.S. EPA. PCBs in electrical equipment are controlled by United States Environmental Protection Agency regulations 40 CFR, Part 761. Under the regulations, there are three categories into which electrical equipment can be classified: 1) Less than 50 parts per million (ppm) of PCBs – "*Non-PCB;*" 2) 50 ppm-500 ppm – "*PCB-Contaminated;*" and, 3) Greater than 500 ppm – "*PCB-Containing.*" The manufacture, process, or distribution in commerce or use of any PCB in any manner other than in a totally enclosed manner was prohibited after January 1, 1977.

The on-site reconnaissance addressed indoor and outdoor transformers that may contain PCBs. One pole mounted utility owned transformer is located west of the parking lot along Banna Avenue. Electrical service is provided to the site by SCE, which retains responsibility for maintenance and clean-up of leaks or spills associated with the transformer.

No other potential PCB-containing equipment (interior transformers, oil-filled switches, hoists, lifts, dock levelers, hydraulic elevators, bailers, etc.) was observed on the subject property during Partner's reconnaissance.

6.2.5 Strong, Pungent or Noxious Odors

No strong, pungent or noxious odors were evident during the site reconnaissance.

6.2.6 Pools of Liquid

No pools of liquid were observed on the subject property.

6.2.7 Drains, Sumps and Clarifiers

No drains, sumps, or clarifiers, other than those associated with storm water removal, were observed on the subject property during the site reconnaissance.

6.2.8 Pits, Ponds and Lagoons

No pits, ponds or lagoons were observed on the subject property.

6.2.9 Stressed Vegetation

No stressed vegetation was observed on the subject property.

6.2.10 Additional Potential Environmental Hazards

No additional environmental hazards, including landfill activities or radiological hazards, were observed.

6.3 Non-ASTM Services

6.3.1 Asbestos-Containing Materials (ACMs)

The Occupational Safety and Health Administration (OSHA) regulation 29 CFR 1926.1101 requires certain construction materials to be *presumed* to contain asbestos, for purposes of this regulation. All thermal system insulation (TSI), surfacing material, and asphalt/vinyl flooring that are present in a building constructed prior to 1980 and have not been appropriately tested are "presumed asbestos-containing material" (PACM).

Based on the date of construction, asbestos is likely to be present in the subject property building. Suspect ACMs would need to be sampled to confirm the presence or absence of asbestos prior to any renovation or demolition activities that would impact them to prevent potential exposure to workers and/or building occupants.

6.3.2 Lead-Based Paint (LBP)

Lead is a highly toxic metal that affects virtually every system of the body. LBP is defined under US HUD regulations as any paint, varnish, stain, or other applied coating that has 1 mg/cm^2 (or 5,000 ug/g or 0.5% by weight) or more of lead. Congress passed the Residential Lead-Based Paint Hazard Reduction Act of 1992, also known as "Title X", to protect families from exposure to lead from paint, dust, and soil. Under Section 1017 of Title X, intact LBP on most walls and ceilings is not considered a "hazard," although the condition of the paint should be monitored and maintained to ensure that it does not become deteriorated. Further, Section 1018 of this law directed the Housing and Urban Development (HUD) and the US EPA to require the disclosure of known information on LBP and LBP hazards before the sale or lease of most housing built before 1978. OSHA regulations define LBP as any paint which contains lead at a level above the analytical detection limit.

Based on the age of the subject property buildings (pre-1978), there is a potential that LBP is present. Interior and exterior painted surfaces were observed in good condition and therefore not expected to represent a "hazard," although the condition of the paint should be monitored and maintained to ensure that it does not become deteriorated.

6.3.3 Radon

Radon is a colorless, odorless, naturally occurring, radioactive, inert, gaseous element formed by radioactive decay of radium (Ra) atoms. The US EPA has prepared a map to assist National, State, and local organizations to target their resources and to implement radon-resistant building codes. The map divides the country into three Radon Zones; Zone 1 being those areas with the average predicted indoor radon concentration in residential dwellings exceeding the US EPA Action Limit of 4.0 picoCuries per Liter (pCi/L).

Review of the US EPA Map of Radon Zones places the subject property in Zone 2, where average predicted radon levels are between 2.0 and 4.0 pCi/L.

Based upon the radon zone classification and type of property use, radon is not considered to be a significant environmental concern, and no sampling is recommended.

6.3.4 Lead in Drinking Water

According to available information, a public water system operated by City of Covina Water Division (CCWD) serves the subject property vicinity. According to the CCWD website, the sources of public water for the City of Covina are from the Covina Irrigating Company (CIC) and the Metropolitan Water District (MWD) of Southern California. CIC's sources of water come from the main San Gabriel Groundwater Basin and the San Gabriel River. MWD's sources of water come from either the Colorado River of Northern California.

According the 2013 Water Quality Report, water supplied to the subject property is in compliance with all State and Federal regulations pertaining to drinking water standards, including lead and copper. Water sampling was not conducted to verify water quality.

6.3.5 Mold

Molds are microscopic organisms found virtually everywhere, indoors and outdoors. Mold will grow and multiply under the right conditions, needing only sufficient moisture (e.g.in the form of very high humidity, condensation, or water from a leaking pipe, etc.) and organic material (e.g., ceiling tile, drywall, paper, or natural fiber carpet padding). Mold growths often appear as discoloration, staining, or fuzzy growth on building materials or furnishings and are varied colors of white, gray, brow, black, yellow, and green. In large quantities, molds can cause allergic symptoms when inhaled or through the toxins the molds emit.

Partner observed accessible, interior areas for the subject property building for significant evidence of mold growth; however, this ESA should not be used as a mold survey or inspection. Additionally, this inspection was not designed to assess all areas of potential mold growth that may be affected by mold growth on the subject property. Rather, it is intended to give the client an indication as to whether or not conspicuous (based on observed areas) mold growth is present at the subject property. This evaluation did not include a review of pipe chases, mechanical systems, or areas behind enclosed walls and ceilings.

No obvious indications of water damage or mold growth were observed during Partner's visual inspection.

7.0 FINDINGS AND CONCLUSIONS

A *REC* refers to the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: due to release to the environment; under conditions indicative of a release to the environment; or under conditions that pose a material threat of a future release to the environment.

- Partner did not identify recognized environmental conditions during the course of this assessment.

A *CREC* refers to a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls. The following was identified during the course of this assessment:

- Partner did not identify controlled recognized environmental conditions during the course of this assessment.

A *HREC* refers to a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls. The following was identified during the course of this assessment:

- Partner did not identify historical recognized environmental conditions during the course of this assessment.

An *environmental issue* refers to environmental concerns identified by Partner, which do not qualify as RECs; however, warrant further discussion. The following was identified during the course of this assessment:

- Due to the age of the subject property buildings, there is a potential that asbestos-containing material (ACM) and/or lead-based paint (LBP) are present. Overall, all suspect ACMs and painted surfaces were observed in fair condition. Damaged materials should be replaced. Suspect ACMs would need to be sampled to confirm the presence or absence of asbestos prior to any renovation or demolition activities that would impact them to prevent potential exposure to workers and/or building occupants.

Conclusions, Opinions and Recommendations

Partner has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-13 of 800 North Banna Avenue in the City of Covina, Los Angeles County, California 91724 (the "subject property"). Any exceptions to, or deletions from, this practice are described in Section 1.5 of this report.

This assessment has revealed no evidence of recognized environmental conditions in connection with the subject property. Environmental issues were identified as described above. Based on the conclusions of

this assessment, Partner recommends that asbestos surveys and potential abatement be completed prior to demolition of the existing buildings.

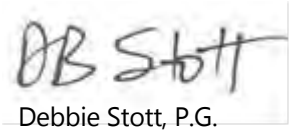
8.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

Partner has performed a Phase I Environmental Site Assessment of the property located at 800 North Banna Avenue in the City of Covina, Los Angeles County, California 91724 in general conformance with the scope and limitations of the protocol and the limitations stated earlier in this report. Exceptions to or deletions from this protocol are discussed earlier in this report.

By signing below, Partner declares that, to the best of our professional knowledge and belief, we meet the definition of *Environmental Professional* as defined in §312.10 of 40 CFR §312. Partner has the specific qualifications based on education, training, and experience to assess a *property* of the nature, history, and setting of the subject *property*. Partner has developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Copies of the resumes of those involved in the preparation of this report are provided in Appendix D.

This report has been prepared, under the responsible charge of the Environmental Professional identified below, by:



Debbie Stott, P.G.
Senior Project Manager

Prepared By:

Heather Hodgetts
Senior Scientist

9.0 REFERENCES

American Society for Testing and Materials, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, ASTM Designation: E 1527-05.

California Department of Conservation, Division of Oil, Gas, and Geothermal (DOGGR) Online Mapping System (DOMS). http://maps.conservation.ca.gov/doms/index.html.

California Department of Toxic Substances Control (DTSC), ENVIROSTOR Database, http://www.envirostor.dtsc.ca.gov/public/.

California State Water Resources Control Board (SWRCB), GeoTracker Database, http://geotracker.swrcb.ca.gov/.

Environmental Data Resources, Inc. (EDR), EDR Radius Map™ Report, February 2015.

EDR, EDR Aerial Photo Decade Package, February 2015.

EDR, EDR Certified Sanborn Map ®, February 2015.

EDR, EDR Historical Topographic Map Report, February 2015.

EDR, EDR-City Directory Abstract, February 2015.

Federal Emergency Management Agency, Federal Insurance Administration, National Flood Insurance Program, Flood Insurance Map, accessed via internet, February 2015.

United States Environmental Protection Agency, EPA Map of Radon Zones (Document EPA-402-R-93-071), accessed via the Internet February 2015.

United States Geological Survey Topographic Map 1981, 7.5 minute series, *San Dimas, California*, scale 1:24,000.

FIGURES

1 SITE LOCATION MAP

2 SITE PLAN

3 TOPOGRAPHIC MAP

PARTNER

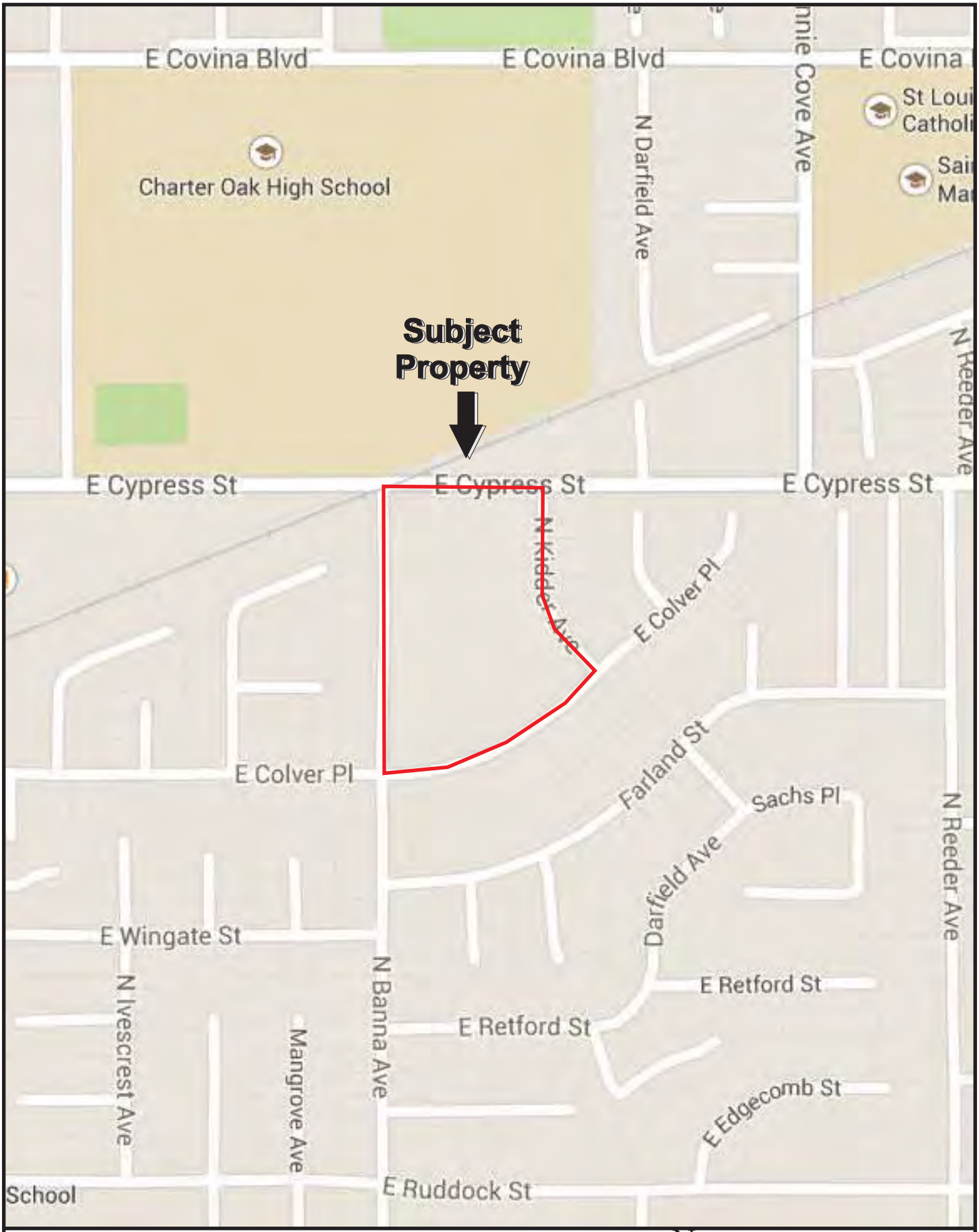


FIGURE 1: SITE LOCATION MAP

Project No. 14-126352.1

Drawing Not To Scale

N

PARTNER

KEY: Subject Site

GROUNDWATER FLOW

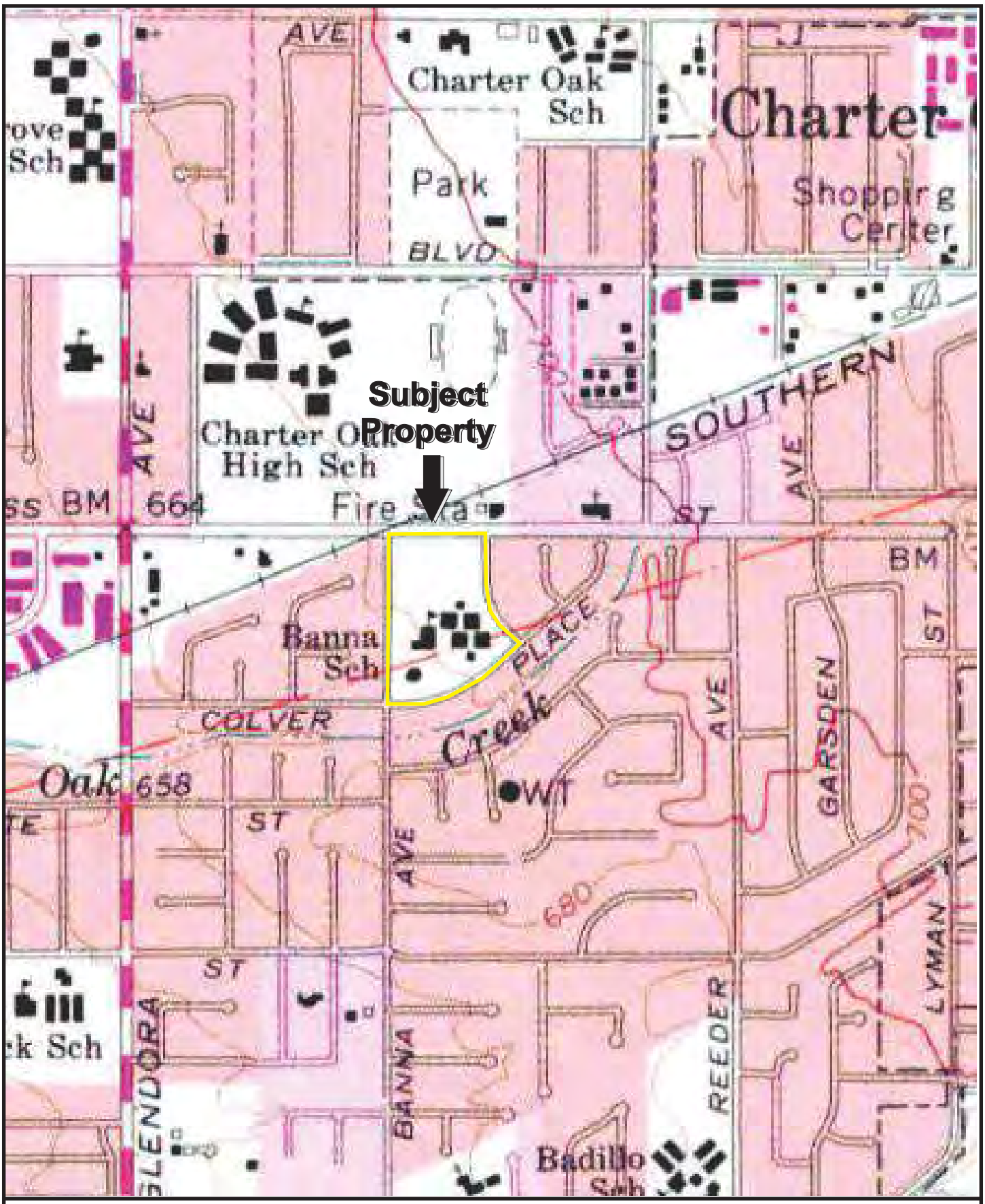
FIGURE 2: SITE PLAN

Project No.14-126352.1

Drawing Not To Scale

N

PARTNER



USGS 7.5 Minute *San Dimas, CA* Quadrangle

Created: 1966/Revised: 1981

FIGURE 3: TOPOGRAPHIC MAP

Project No. 14-126352.1

N

PARTNER

APPENDIX A: SITE PHOTOGRAPHS

1. View of the office (Building 1) and parking lot on the west side of the subject property, view facing north-east.

2. View of the office (Building 6) and parking lot on the west side of the subject property, view facing south.

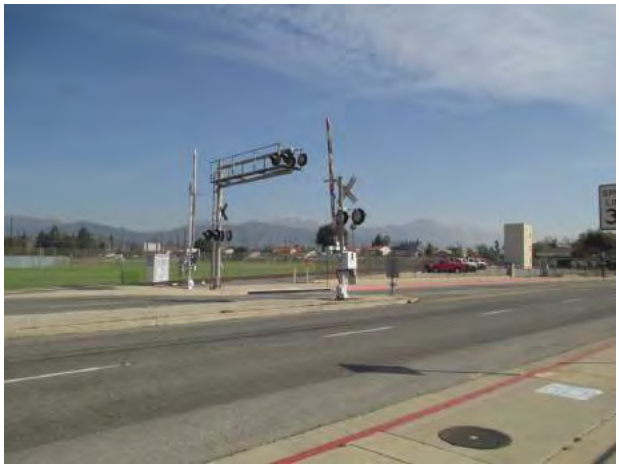
3. View of the northern portion of the subject property fro the northwest corner of the site, view facing east.

4. View of the northern portion of the subject property fro the northwest corner of the site, view facing south-east.

5. View of the northern portion of the subject property fro the northwest corner of the site, view facing south.

6. View of North Banna Avenue and the adjacent residential properties located to the west of the subject property, view facing southwest.

7. View of Cypress Street and the adjacent high school located to the north of the subject property, view facing southwest.



8. View of Cypress Street and the adjacent high school located to the north of the subject property, view facing southwest.

9. View of Cypress Street, view facing west.

10. View of the northern portion of the subject property fro the northeast corner of the site, view facing west.

11. View of the northeastern portion of the subject property fro the northeast corner of the site, view facing south.

12. View of North Kidder Avenue and the adjacent residential properties located to the east of the subject property, view facing southeast.

13. View of Cypress Street and the fire station located to the northeast of the subject property, view facing northeast.

14. View of one of the restroom buildings.

15. View of Buildings 2, 3, and 4, view facing south-east.

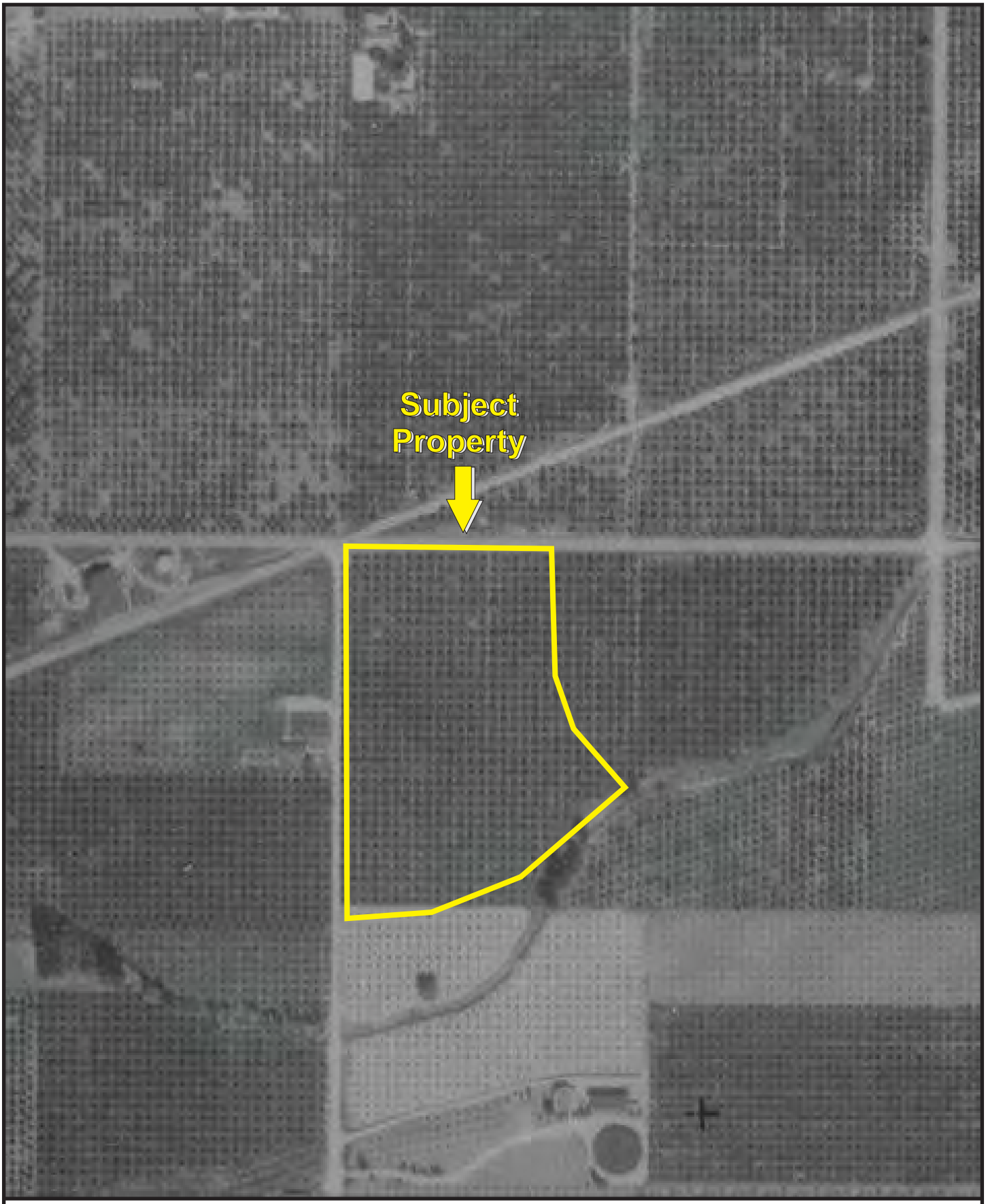
16. View of the maintenance enclosure on the south side of the office (Building 1), view facing west.

17. View of the playground located on the southeast corner of the subject property, view facing west.

18. View of the dumpster located in the maintenance enclosure on the south side of the office (Building 1).

APPENDIX B: HISTORICAL/REGULATORY DOCUMENTATION

PARTNER

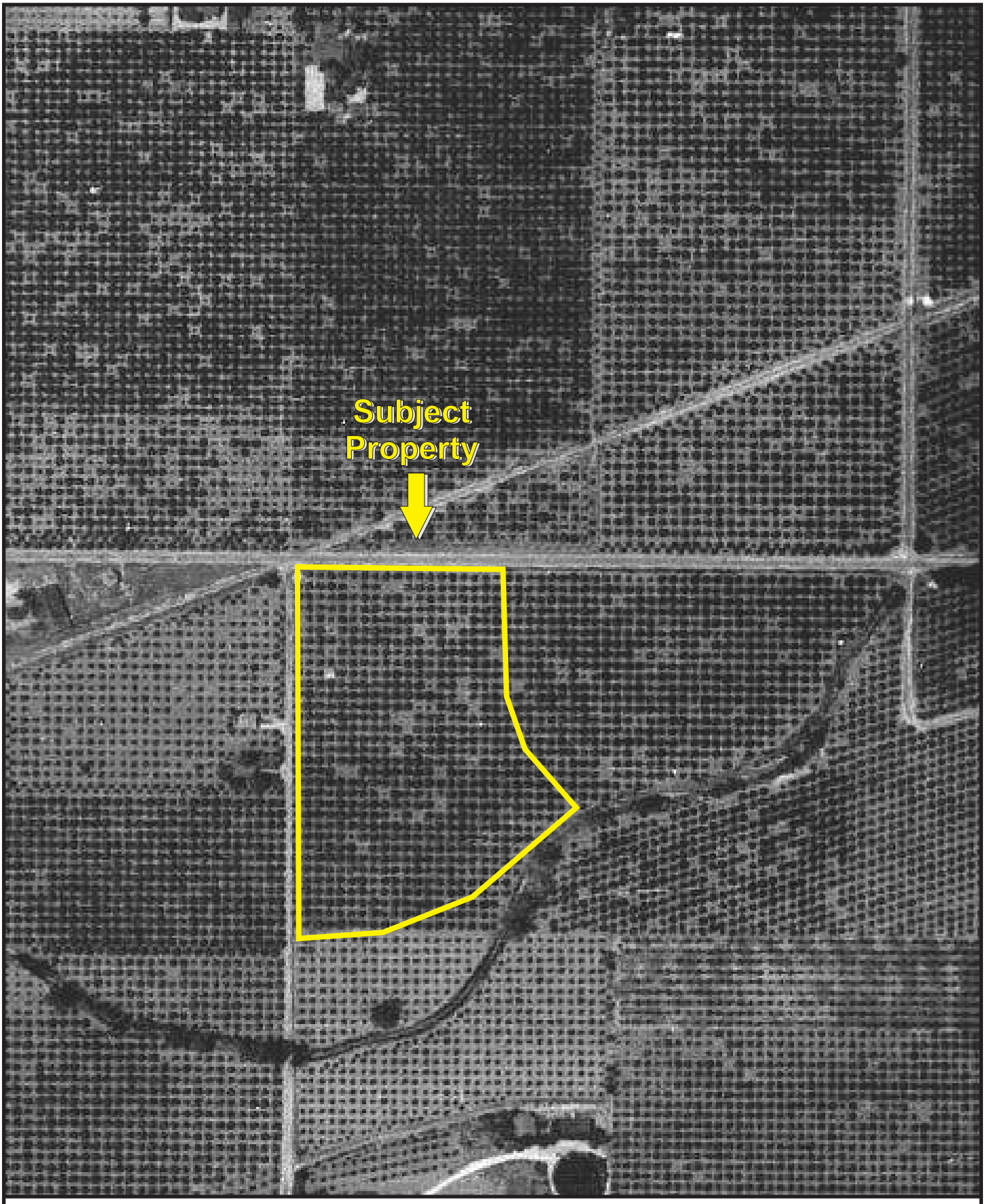


Date: 1928

APPENDIX B: AERIAL PHOTOGRAPHS

Project No. 14-126352.1

PARTNER

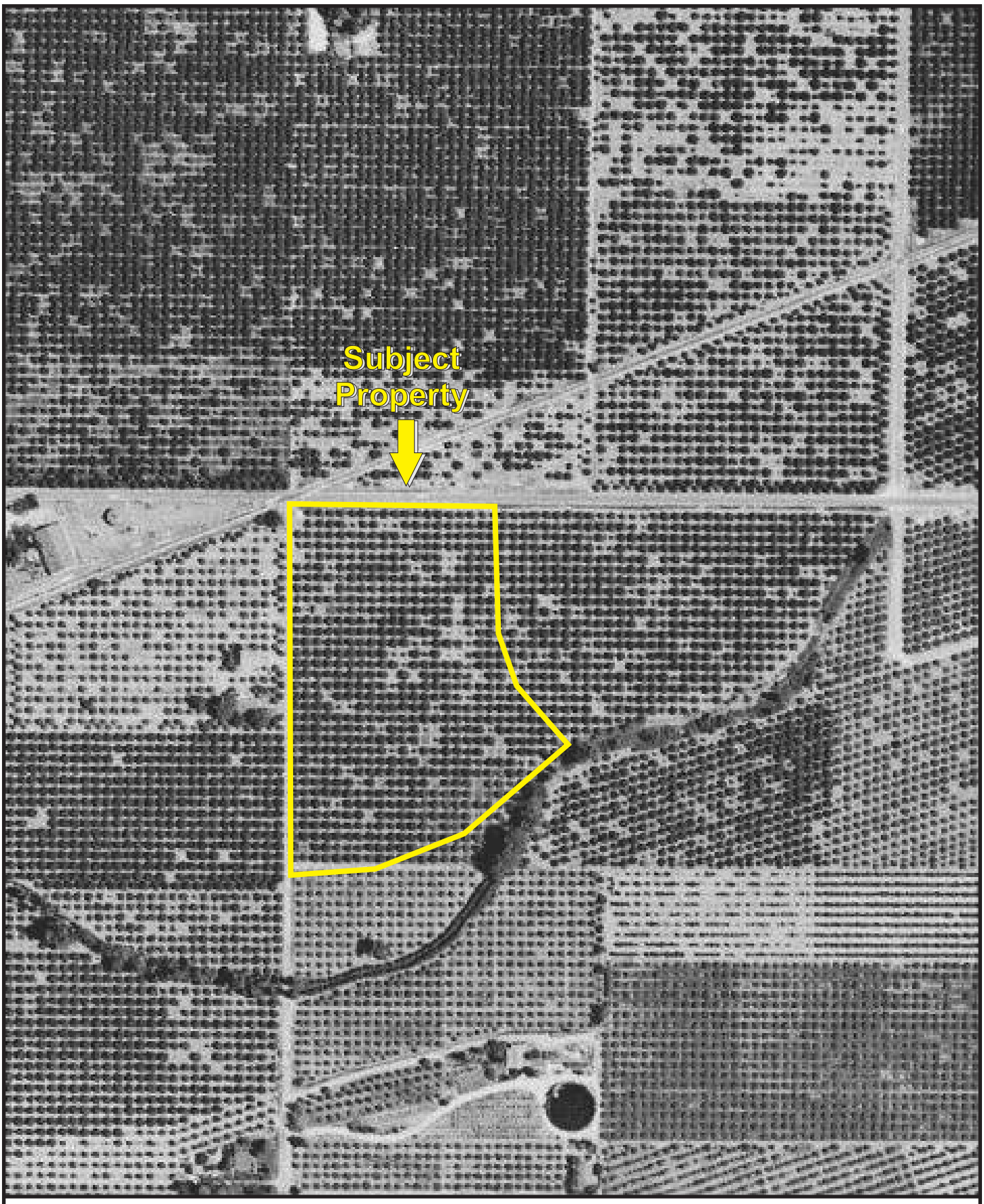


Date: 1938

APPENDIX B: AERIAL PHOTOGRAPHS

Project No.14-126352.1

PARTNER

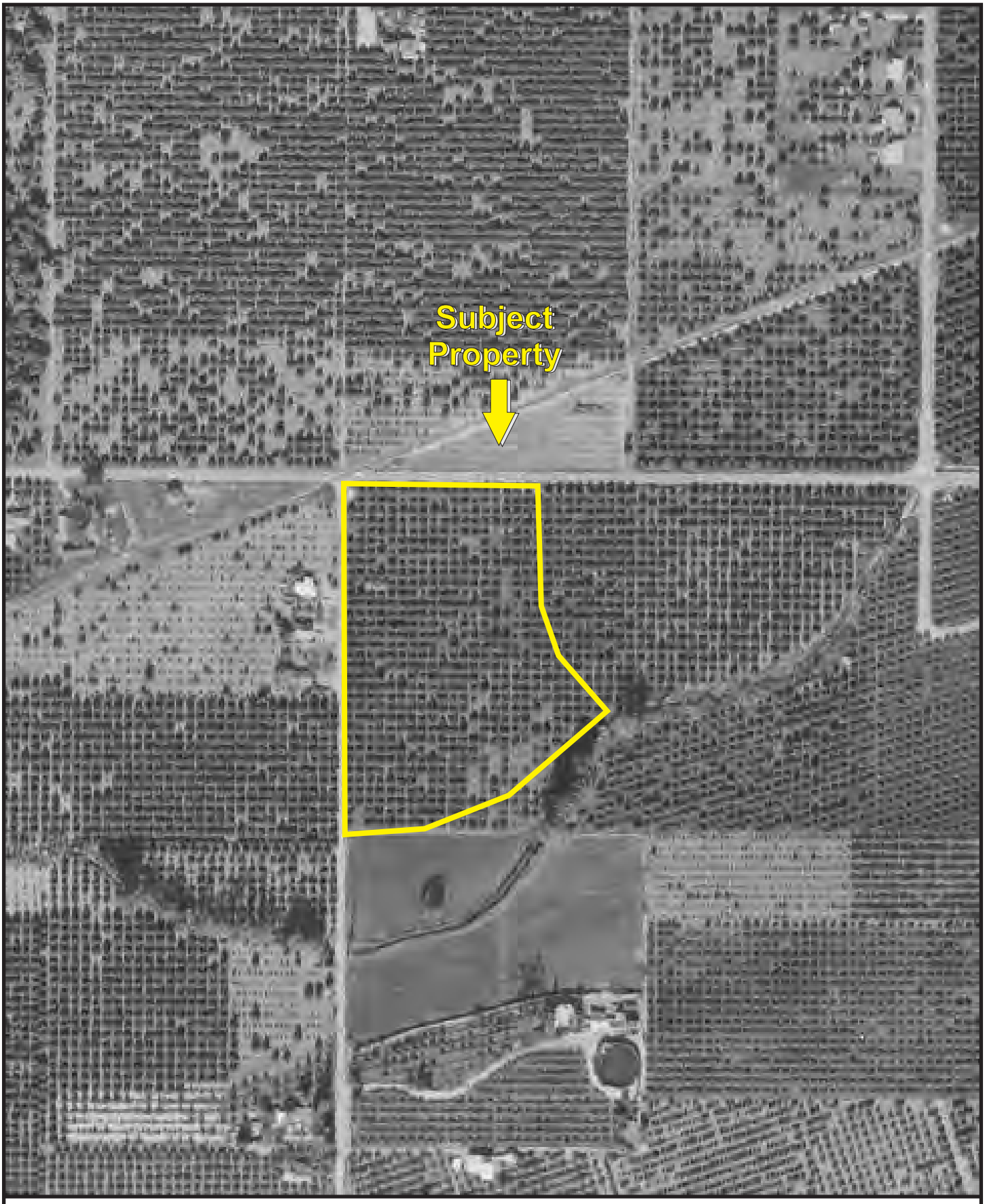


Date: 1948

APPENDIX B: AERIAL PHOTOGRAPHS

Project No. 14-126352.1

PARTNER

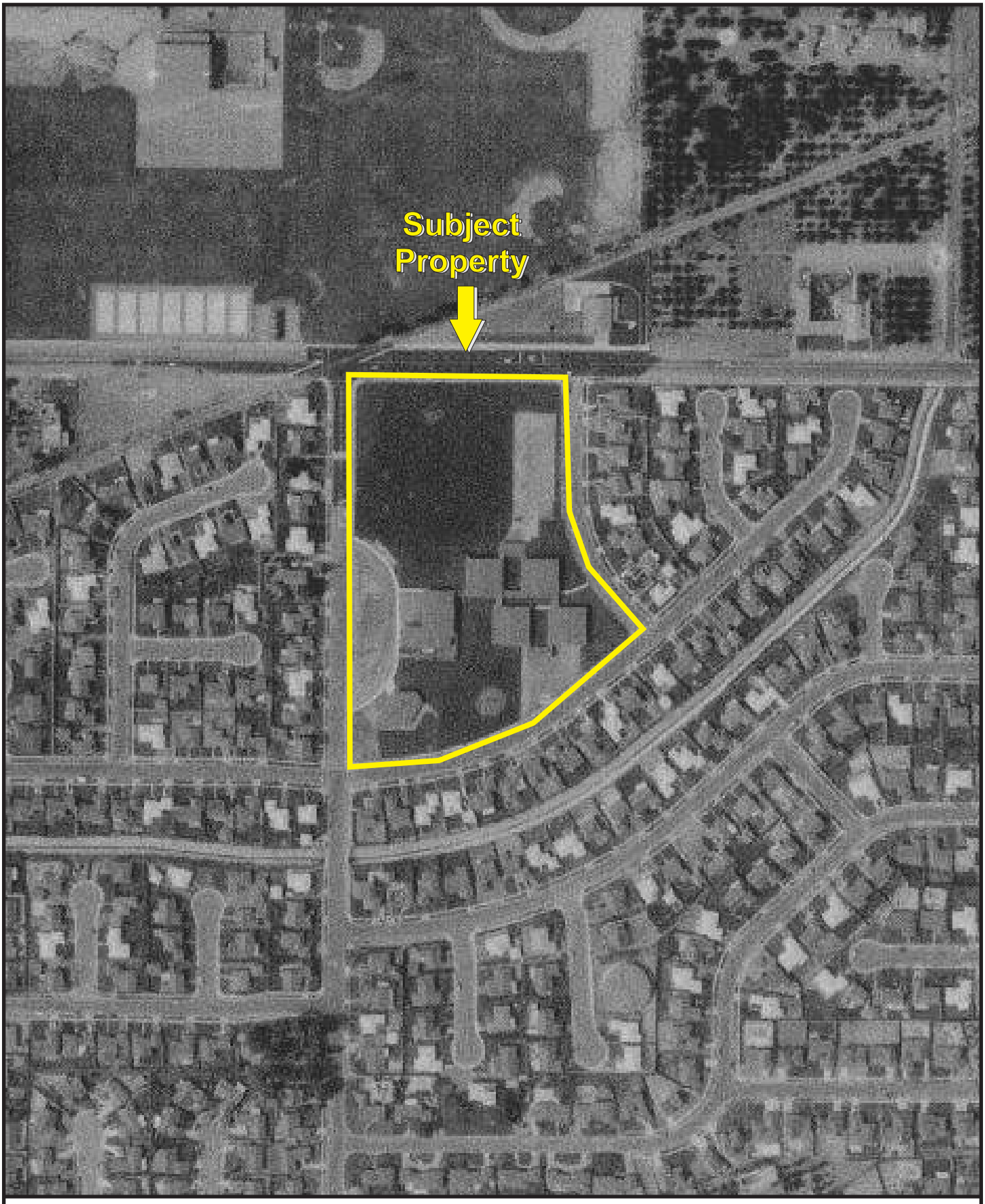


Date: 1953

APPENDIX B: AERIAL PHOTOGRAPHS

Project No. 14-126352.1

PARTNER



Date: 1964

APPENDIX B: AERIAL PHOTOGRAPHS

Project No. 14-126352.1

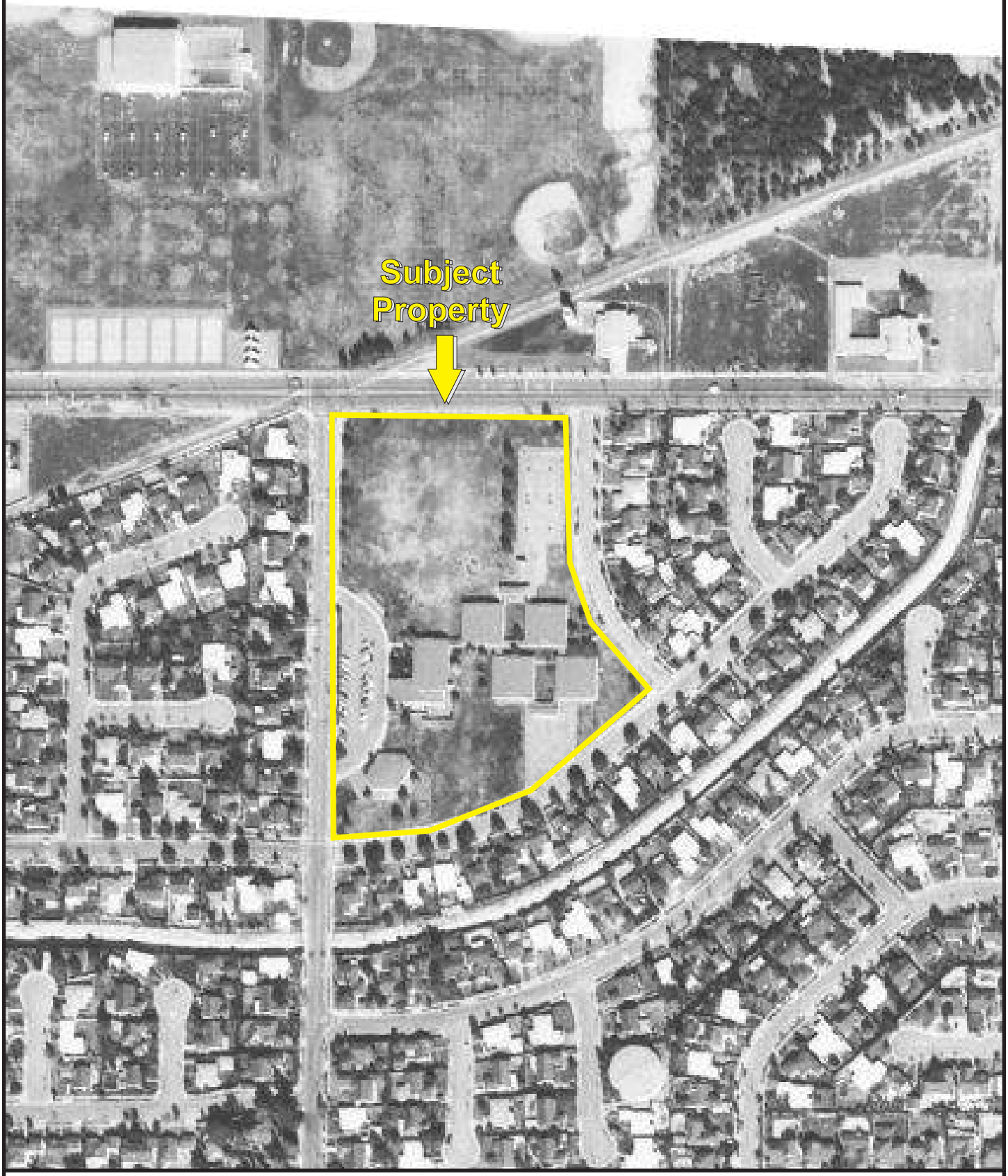
PARTNER

Date: 1966

APPENDIX B: AERIAL PHOTOGRAPHS

Project No. 14-126352.1

PARTNER

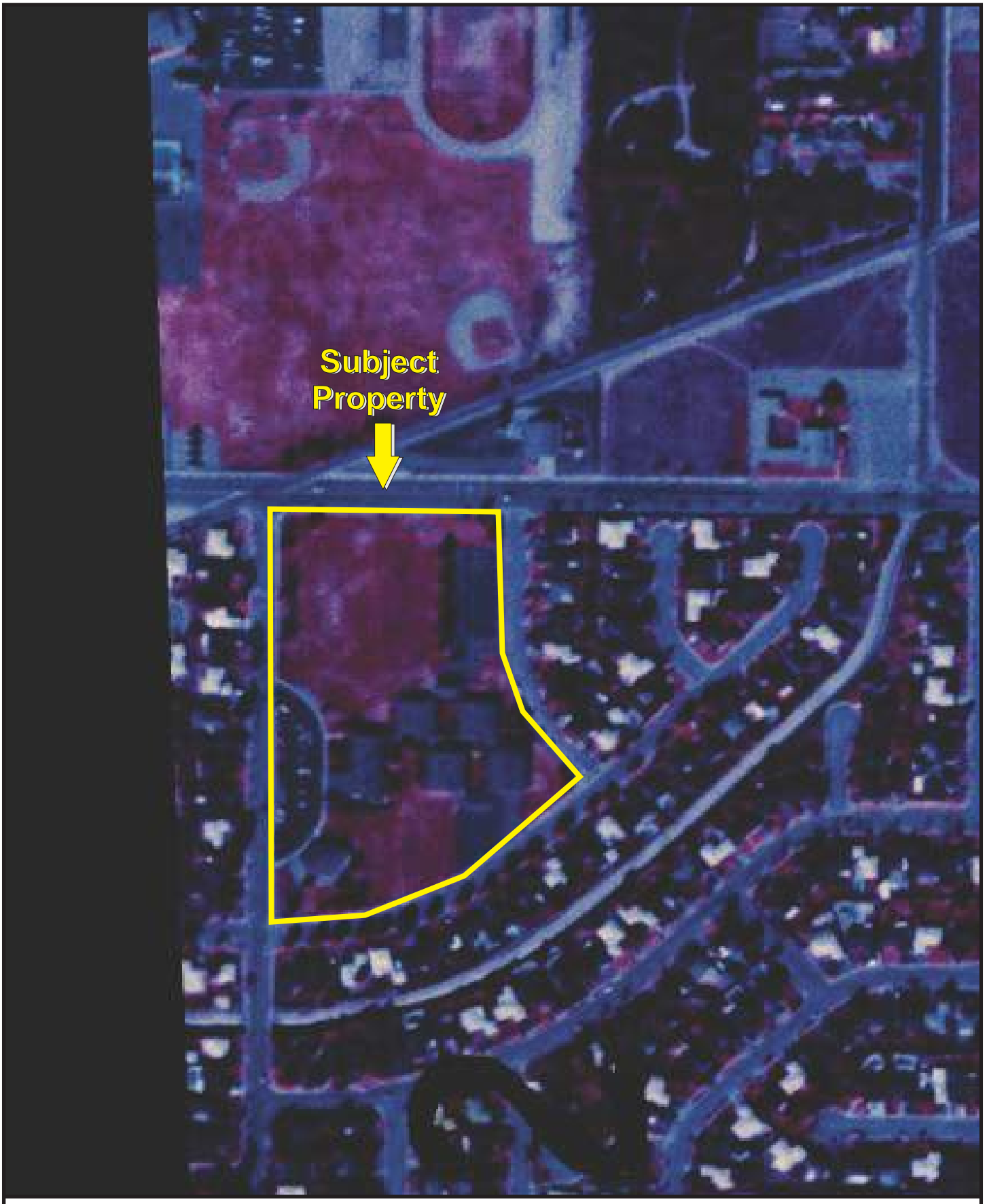


Date: 1972

APPENDIX B: AERIAL PHOTOGRAPHS

Project No. 14-126352.1

PARTNER



Date: 1974

APPENDIX B: AERIAL PHOTOGRAPHS

Project No. 14-126352.1

PARTNER

Date: 1981

APPENDIX B: AERIAL PHOTOGRAPHS

Project No. 14-126352.1

PARTNER

Date: 1989

APPENDIX B: AERIAL PHOTOGRAPHS

Project No. 14-126352.1

PARTNER

Date: 1995

APPENDIX B: AERIAL PHOTOGRAPHS

Project No. 14-126352.1

PARTNER

Date: 2002

APPENDIX B: AERIAL PHOTOGRAPHS

Project No. 14-126352.1

PARTNER

Date: 2006

APPENDIX B: AERIAL PHOTOGRAPHS

Project No. 14-126352.1

PARTNER

Date: 2009

APPENDIX B: AERIAL PHOTOGRAPHS

Project No. 14-126352.1

PARTNER

Date: 2010

APPENDIX B: AERIAL PHOTOGRAPHS

Project No. 14-126352.1

PARTNER

Date: 2012

APPENDIX B: AERIAL PHOTOGRAPHS

Project No. 14-126352.1

PARTNER

Banna Crossings
800 North Banna Avenue
Covina, CA 91724

Inquiry Number: 4208365.3
February 16, 2015

Certified Sanborn® Map Report

6 Armstrong Road, 4th Floor
Shelton, Connecticut 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

2/16/15

Site Name:	**Client Name:**
Banna Crossings	Partner Engineering and
800 North Banna Avenue	2154 Torrance Blvd, Suite 200
Covina, CA 91724	Torrance, CA 90501-0000
EDR Inquiry # 4208365.3	Contact: Marco Acosta

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The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Site Name:	Banna Crossings
Address:	800 North Banna Avenue
City, State, Zip:	Covina, CA 91724
Cross Street:	
P.O. #	NA
Project:	14-126352.1
Certification #	0F73-434A-A287

UNMAPPED PROPERTY

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Sanborn® Library search results
Certification # 0F73-434A-A287

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ✔ Library of Congress
- ✔ University Publications of America
- ✔ EDR Private Collection

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Banna Crossings
800 North Banna Avenue
Covina, CA 91724

Inquiry Number: 4208365.6
February 16, 2015

The EDR-City Directory Abstract

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

City Directory Images

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Please contact EDR at 1-800-352-0050
with any questions or comments.

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This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OR DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction orforecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1920 through 2013. This report compiles information gathered in this review by geocoding the latitude and longitude of properties identified and gathering information about properties within 660 feet of the target property.

A summary of the information obtained is provided in the text of this report.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

Year	Source	TP	Adjoining	Text Abstract	Source Image
2013	Cole Information Services	X	-	X	-
2008	Cole Information Services	-	X	X	-
2006	Haines Company	-	-	-	-
2004	Haines Company	-	-	-	-
2003	Haines & Company	X	X	X	-
2001	Haines Company, Inc.	-	-	-	-
2000	Haines	-	-	-	-
1999	Haines Company	-	-	-	-
1996	GTE	-	-	-	-
1995	Pacific Bell	-	X	X	-
1992	PACIFIC BELL WHITE PAGES	-	-	-	-
1991	Pacific Bell	-	X	X	-
1990	PACIFIC BELL WHITE PAGES	-	-	-	-
1986	Pacific Bell	-	-	-	-
1985	Pacific Bell	X	X	X	-
1981	Pacific Telephone	-	-	-	-
1980	Pacific Telephone	-	X	X	-
1976	R.L. Polk & Co Publishers	-	-	-	-
1975	Pacific Telephone	-	X	X	-
1972	R. L. Polk & Co.	-	-	-	-
1971	R. L. Polk & Co.	-	-	-	-
1970	Pacific Telephone	-	-	-	-
1969	Pacific Telephone	-	-	-	-
1967	R. L. Polk & Co.	-	-	-	-
1966	Pacific Telephone	-	X	X	-

EXECUTIVE SUMMARY

Year	Source	TP	Adjoining	Text Abstract	Source Image
1965	GTE	-	-	-	-
1964	Pacific Telephone	-	-	-	-
1963	Pacific Telephone	-	-	-	-
1962	Pacific Telephone	-	-	-	-
1961	R. L. Polk & Co.	-	-	-	-
1960	Pacific Telephone	-	-	-	-
1958	Pacific Telephone	-	X	X	-
1957	Pacific Telephone	-	-	-	-
1956	Pacific Telephone	-	-	-	-
1955	R. L. Polk & Co.	-	-	-	-
1954	R. L. Polk & Co.	-	-	-	-
1952	Los Angeles Directory Co.	-	-	-	-
1951	Los Angeles Directory Co.	-	-	-	-
1950	Pacific Telephone	-	X	X	-
1949	Los Angeles Directory Co.	-	-	-	-
1948	Associated Telephone Company, Ltd.	-	-	-	-
1947	Pacific Directory Co.	-	-	-	-
1946	Southern California Telephone Co	-	-	-	-
1945	R. L. Polk & Co.	-	-	-	-
1944	R. L. Polk & Co.	-	-	-	-
1942	Los Angeles Directory Co.	-	-	-	-
1940	Los Angeles Directory Co.	-	-	-	-
1939	Los Angeles Directory Co.	-	-	-	-
1938	Los Angeles Directory Company Publishers	-	-	-	-
1937	Los Angeles Directory Co.	-	-	-	-
1936	Los Angeles Directory Co.	-	-	-	-
1935	Los Angeles Directory Co.	-	-	-	-
1934	Los Angeles Directory Co.	-	-	-	-
1933	Los Angeles Directory Co.	-	-	-	-
1932	Los Angeles Directory Co.	-	-	-	-
1931	TRIBUNE-NEWS PUBLISHING CO.	-	-	-	-
1930	Los Angeles Directory Co.	-	-	-	-
1929	Los Angeles Directory Co.	-	-	-	-
1928	Los Angeles Directory Co.	-	-	-	-
1927	Los Angeles Directory Co.	-	-	-	-
1926	Los Angeles Directory Co.	-	-	-	-
1925	Los Angeles Directory Co.	-	-	-	-
1924	Los Angeles Directory Co.	-	-	-	-
1923	Los Angeles Directory Co.	-	-	-	-
1921	Los Angeles Directory Co.	-	-	-	-
1920	Los Angeles Directory Co.	-	-	-	-

FINDINGS

TARGET PROPERTY INFORMATION

ADDRESS

800 North Banna Avenue
Covina, CA 91724

FINDINGS DETAIL

Target Property research detail.

N BANNA AVE

800 N BANNA AVE

Year	*Uses*	*Source*
2013	IGLESIA INTL VISION DE FE	Cole Information Services
	QUEST ACADEMY	Cole Information Services
	SERENITY LIVING LLC	Cole Information Services
2003	XXXX	Haines & Company
1985	BANNA SPECIAL EDUCATION	Pacific Bell

FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

BANNA AVE

839 BANNA AVE

Year	Uses	Source
1966	WILSON LEE ROY MRS	Pacific Telephone

E CLOVER PL

1384 E CLOVER PL

Year	Uses	Source
1985	SCHWACOFER HERBERT S	Pacific Bell
1975	SCHWACOFER HERBERT S	Pacific Telephone

1406 E CLOVER PL

Year	Uses	Source
1985	KING CARL W	Pacific Bell
1966	SOMMERSTEDT ORVAL R	Pacific Telephone

1424 E CLOVER PL

Year	Uses	Source
1966	HARRIS FRANK E	Pacific Telephone

1426 E CLOVER PL

Year	Uses	Source
1975	WEINSTEIN LOUIS	Pacific Telephone

1435 E CLOVER PL

Year	Uses	Source
1975	BOYD DONALD W	Pacific Telephone
1966	BOYD DONALD W	Pacific Telephone

1445 E CLOVER PL

Year	Uses	Source
1975	FAGERSTROM WAYNE REV	Pacific Telephone

FINDINGS

1451 E CLOVER PL

Year	Uses	Source
1985	ARCADIPANE FREDERICK	Pacific Bell

1452 E CLOVER PL

Year	Uses	Source
1975	SARKIN FRANCIS	Pacific Telephone
	ARCADIPANE FREDERICK	Pacific Telephone
1966	AMARAL EDWIN	Pacific Telephone

1460 E CLOVER PL

Year	Uses	Source
1975	PARKS ROBT W	Pacific Telephone

1462 E CLOVER PL

Year	Uses	Source
1985	HIGHTOWER J B	Pacific Bell
	DEESE JOAN L	Pacific Bell
1975	HIGHTOWER J B	Pacific Telephone

1463 E CLOVER PL

Year	Uses	Source
1966	MILLER JOS J	Pacific Telephone

1470 E CLOVER PL

Year	Uses	Source
1985	CALLISON J C	Pacific Bell
1975	CALLISON J C	Pacific Telephone

1480 E CLOVER PL

Year	Uses	Source
1985	SYKES VIOLET	Pacific Bell
1975	SYKES VIOLET	Pacific Telephone
1966	SYKES WALTER C	Pacific Telephone

1512 E CLOVER PL

Year	Uses	Source
1975	RHOTEN MILTON W	Pacific Telephone

1526 E CLOVER PL

Year	Uses	Source
1985	DEAN JULIUS	Pacific Bell

FINDINGS

1534 E CLOVER PL

Year	Uses	Source
1975	REYNOLDS G H	Pacific Telephone
1966	BRIGGLE ZELLE	Pacific Telephone

1542 E CLOVER PL

Year	Uses	Source
1985	KOTOWSKI STEVE	Pacific Bell
1975	BAKER FRED R	Pacific Telephone

1548 E CLOVER PL

Year	Uses	Source
1985	DELGADO ANTONIO	Pacific Bell
1975	DELGADO ANTONIO	Pacific Telephone

1558 E CLOVER PL

Year	Uses	Source
1966	CONNELL DONALD PATRICK	Pacific Telephone

1562 E CLOVER PL

Year	Uses	Source
1975	CONNER GARY J	Pacific Telephone
1966	CONNER GARY J	Pacific Telephone

1570 E CLOVER PL

Year	Uses	Source
1985	VENEGAS JESUS	Pacific Bell

1576 E CLOVER PL

Year	Uses	Source
1985	DAVIS J	Pacific Bell

E COLVER PL

1384 E COLVER PL

Year	Uses	Source
2003	OTTEJoe	Haines & Company
1995	Otte John Gary	Pacific Bell
	Otteo Joe	Pacific Bell

FINDINGS

1406 E COLVER PL

Year	Uses	Source
2003	KINGCand W	Haines & Company
1995	King Carol Soucek Enterprises	Pacific Bell
	King Carl W	Pacific Bell
	King Carrie Azu	Pacific Bell

1426 E COLVER PL

Year	Uses	Source
2003	SCHMID Frank	Haines & Company

1435 E COLVER PL

Year	Uses	Source
2003	BROWN Murdls	Haines & Company
	BROWN Gaey	Haines & Company
1995	Brown Gary & Muriel	Pacific Bell

1436 E COLVER PL

Year	Uses	Source
2003	OZAKI Gleann	Haines & Company
1995	! OBakilill Cov	Pacific Bell
	I Ozaki Glenn	Pacific Bell

1445 E COLVER PL

Year	Uses	Source
2003	ORNELASMarcela	Haines & Company
	ORNELASMarcela	Haines & Company

1446 E COLVER PL

Year	Uses	Source
2003	SALASEdward	Haines & Company

1451 E COLVER PL

Year	Uses	Source
2003	RAMOSLorie	Haines & Company

1463 E COLVER PL

Year	Uses	Source
2003	OLECHAdela	Haines & Company

FINDINGS

1470 E COLVER PL

Year	Uses	Source
2003	CALLISON JC	Haines & Company
1995	Callison J C	Pacific Bell

1480 E COLVER PL

Year	Uses	Source
2003	THOMPSON Violet	Haines & Company
1995	Thompson Violet	Pacific Bell

1492 E COLVER PL

Year	Uses	Source
2003	PEREZ Roque	Haines & Company

1502 E COLVER PL

Year	Uses	Source
2003	LANCASTER William	Haines & Company

1512 E COLVER PL

Year	Uses	Source
2003	PRINGLEMichelle	Haines & Company

1520 E COLVER PL

Year	Uses	Source
2003	REFUERZOGeolyn	Haines & Company

1526 E COLVER PL

Year	Uses	Source
2003	MILLER Steven	Haines & Company

1534 E COLVER PL

Year	Uses	Source
2003	PENATE Oscar	Haines & Company
1995	Penate Patricia	Pacific Bell

1542 E COLVER PL

Year	Uses	Source
2003	WEBB Tracy	Haines & Company
1995	Webb Tracy	Pacific Bell

FINDINGS

1548 E COLVER PL

Year	Uses	Source
2003	DELGADOEmma	Haines & Company
1995	Delgado Antonio	Pacific Bell

1558 E COLVER PL

Year	Uses	Source
2003	CONVERSE Michaael	Haines & Company

1570 E COLVER PL

Year	Uses	Source
2003	VENEGAS Jesus	Haines & Company

1576 E COLVER PL

Year	Uses	Source
2003	DAVIS George	Haines & Company

1584 E COLVER PL

Year	Uses	Source
2003	BETTIS Rodney	Haines & Company

E CYPRESS AVE

10115 E CYPRESS AVE

Year	Uses	Source
1991	Roth Henry M	Pacific Bell

E CYPRESS ST

1577 E CYPRESS ST

Year	Uses	Source
2003	HOUSEFUNDSTATION	Haines & Company

8931 E CYPRESS ST

Year	Uses	Source
1958	Knapp Robt D	Pacific Telephone

8988 E CYPRESS ST

Year	Uses	Source
1958	Fletcher K M	Pacific Telephone

FINDINGS

E FARLAND ST

1503 E FARLAND ST

Year	Uses	Source
2003	ROMERO Elizabeth	Haines & Company
1985	VAN PETER ALLEN M	Pacific Bell
1975	MLEKUSH DANNY COVINA	Pacific Telephone
1966	SLATER SAM	Pacific Telephone

1513 E FARLAND ST

Year	Uses	Source
2003	OMILLER Donna	Haines & Company
1980	VAN FRANK RICHARD E FARLAND ST COVINA	Pacific Telephone
1975	VAN FRANK RICHARD	Pacific Telephone
1966	VAN FRANK RICHARD	Pacific Telephone

1521 E FARLAND ST

Year	Uses	Source
2003	SAVIO Joseph	Haines & Company

1531 E FARLAND ST

Year	Uses	Source
2003	MEDINATdo	Haines & Company

1543 E FARLAND ST

Year	Uses	Source
2003	CALDERON Lorenzo	Haines & Company

1549 E FARLAND ST

Year	Uses	Source
2003	ESTRADA Primi	Haines & Company
1995	Estrada Primi	Pacific Bell
	Estrada R Whit	Pacific Bell
	Estrada R La Pnte	Pacific Bell
	Estrada R Cov	Pacific Bell
	Estrada R W Cov	Pacific Bell
1985	ESTRADA PRIMI	Pacific Bell
1980	ESTRADA PRIMI E FARLAND ST COVINA	Pacific Telephone
1975	ESTRADA PRIMI	Pacific Telephone
1966	ESTRADA PRIMI	Pacific Telephone

FINDINGS

1557 E FARLAND ST

Year	Uses	Source
2003	ALLEN Ann	Haines & Company
1985	ALLEN CHAS	Pacific Bell
1980	ALLEN CHAS E FARLAND ST COVINA	Pacific Telephone
1975	ALLEN CHAS	Pacific Telephone
1966	ALLEN CHAS	Pacific Telephone

1567 E FARLAND ST

Year	Uses	Source
2003	CLARK Wm R	Haines & Company
1985	CLARK WM R	Pacific Bell
1980	CLARK WM R E FARLAND ST COVINA	Pacific Telephone
1975	CLARK WM R	Pacific Telephone
1966	CLARK WM R	Pacific Telephone

1573 E FARLAND ST

Year	Uses	Source
2003	OSHUTTLEWORTH Dean	Haines & Company
1975	RUSSELL JOHN W	Pacific Telephone
1966	RUSSELL JOHN W	Pacific Telephone

1578 E FARLAND ST

Year	Uses	Source
2003	LEHNKERING H	Haines & Company
	LEHNKERING Dian	Haines & Company
1995	Leihnkering H A & Diana	Pacific Bell
1985	LEHNKERING H A & DIANA	Pacific Bell
1980	LEHNKERING H A & DIANA E FARLAND ST COVINA	Pacific Telephone
1975	LEHNKERING HENDRIK A	Pacific Telephone
1966	LEHNKERING HENDRIK A	Pacific Telephone

1579 E FARLAND ST

Year	Uses	Source
2003	OTREADWELL Elaine	Haines & Company
1985	TREADWELL JAS R	Pacific Bell
1980	TREADWELL JAS R E FARLAND ST COVINA	Pacific Telephone
1975	KARNOSKI FRED J	Pacific Telephone

FINDINGS

E HALLER ST

1432 E HALLER ST

Year	Uses	Source
2003	DUSCHClaudia J	Haines & Company

1433 E HALLER ST

Year	Uses	Source
2003	FORMANC	Haines & Company
1985	FORMAN GLENN R	Pacific Bell
1980	FORMAN GLENN R E HALLER ST COVINA	Pacific Telephone
1975	FORMAN GLENN R	Pacific Telephone
1966	VIOLETT LOUIS E	Pacific Telephone

1442 E HALLER ST

Year	Uses	Source
2003	a NUNEZJennifer	Haines & Company
1980	VANBLANKENSTEIN CORNELIUS L & MELISSA E HALLER ST COVINA	Pacific Telephone
1966	JOHNSON MARY S	Pacific Telephone

1445 E HALLER ST

Year	Uses	Source
2003	ALVAREZ Hugo	Haines & Company
1995	Alvarez Marion	Pacific Bell
	Alvarez Mario	Pacific Bell
1985	YOUNG P P	Pacific Bell
1980	YOUNG P E HALLER ST COVINA	Pacific Telephone
1975	YOUNG LOGAN	Pacific Telephone
1966	YOUNG LOGAN	Pacific Telephone

1452 E HALLER ST

Year	Uses	Source
2003	GOMEZ Robert	Haines & Company
1985	GOMEZ ROBT G	Pacific Bell
1980	GOMEZ ROBT G E HALLER ST COVINA	Pacific Telephone
1966	BETTS JAS D	Pacific Telephone

1453 E HALLER ST

Year	Uses	Source
2003	OBLEICK Terry R	Haines & Company

FINDINGS

Year	Uses	Source
1995	s Bleick Terry R	Pacific Bell
1985	BLEICK TERRY R	Pacific Bell
1980	BLEICK TERRY R E HALLER ST COVINA	Pacific Telephone
1975	BLEICK TERRY R	Pacific Telephone
1966	MEYER HARVEY J F	Pacific Telephone

1461 E HALLER ST

Year	Uses	Source
2003	OZOH Angela	Haines & Company
	CHUKWUAda	Haines & Company
1985	TRACZEK JOS J	Pacific Bell
1966	TRACZEK JOS J	Pacific Telephone

1462 E HALLER ST

Year	Uses	Source
2003	MARTINEZJose	Haines & Company
1995	Better Day Builders	Pacific Bell
1975	JOHNSON SKEET	Pacific Telephone
1966	PLUNKETT JOHN F	Pacific Telephone

1471 E HALLER ST

Year	Uses	Source
1975	SPOONER WM A	Pacific Telephone

FARLAND ST

1503 FARLAND ST

Year	Uses	Source
1980	PELLETIER DALE FARLAND ST COVINA	Pacific Telephone

1531 FARLAND ST

Year	Uses	Source
1966	CONNER JOAN	Pacific Telephone

1579 FARLAND ST

Year	Uses	Source
1966	KARNOSKL FRED J	Pacific Telephone

FINDINGS

MANGROVE AVE

615 MANGROVE AVE

Year	Uses	Source
1966	YOUNG CHAS E	Pacific Telephone

N BANNA AVE

630 N BANNA AVE

Year	Uses	Source
2008	RUPERT	Cole Information Services
2003	RUPERT Margaret	Haines & Company

637 N BANNA AVE

Year	Uses	Source
1985	SCHWEINSBERG ROBT	Pacific Bell

645 N BANNA AVE

Year	Uses	Source
2003	OCHOAMax	Haines & Company
1985	OCHOA MAX	Pacific Bell
1980	OCHOA MAX N BANNA AVE COVINA	Pacific Telephone
1975	OCHOA MAX	Pacific Telephone
1966	OCHOA MAX	Pacific Telephone

653 N BANNA AVE

Year	Uses	Source
2003	HOLT Michael	Haines & Company

741 N BANNA AVE

Year	Uses	Source
2003	MORA Danny	Haines & Company
1950	CHAMBERS R S	Pacific Telephone

751 N BANNA AVE

Year	Uses	Source
2003	MOXHAM Rab I F	Haines & Company
1995	Moxham Robt F	Pacific Bell
1985	MOXHAM ROBT F	Pacific Bell
1980	MOXHAM ROBT F N BANNA AVE COVINA	Pacific Telephone
1975	MOXHAM ROBT F	Pacific Telephone

FINDINGS

759 N BANNA AVE

Year	Uses	Source
2003	RAZAVI Mohammad	Haines & Company
1995	Tapia V	Pacific Bell
	Tapia V	Pacific Bell
1985	LEE SEN-HAO	Pacific Bell
1980	BARTON BRUCE ANDREW N BANNA AVE COVINA	Pacific Telephone
1975	GRIGGS B	Pacific Telephone
1966	BARTON BRUCE	Pacific Telephone

767 N BANNA AVE

Year	Uses	Source
2003	HILL Dale	Haines & Company
1995	L Hill Dana	Pacific Bell
	Hill Dale	Pacific Bell
1985	HILL DALE	Pacific Bell
1980	HILL DALE N BANNA AVE COVINA	Pacific Telephone
1975	HILL DALE	Pacific Telephone
1966	KUSAYANAGI SHIG	Pacific Telephone

803 N BANNA AVE

Year	Uses	Source
2003	NIETO Rafael O	Haines & Company
	WEISSV	Haines & Company
1975	MATA ARMANDO	Pacific Telephone
1966	NEIMEYER JAS	Pacific Telephone

807 N BANNA AVE

Year	Uses	Source
2003	OBUNTEN John	Haines & Company

809 N BANNA AVE

Year	Uses	Source
2003	RIVERARaiael	Haines & Company
1975	CHAMBERS RALPH S	Pacific Telephone
1966	CHAMBERS R S	Pacific Telephone

815 N BANNA AVE

Year	Uses	Source
1950	CHICK JAS E	Pacific Telephone

FINDINGS

816 N BANNA AVE

Year	Uses	Source
1950	SCHISSLER SIDNEY R	Pacific Telephone

823 N BANNA AVE

Year	Uses	Source
2003	ABESAMIS Pablo	Haines & Company
1995	Abesamis Lilian	Pacific Bell

831 N BANNA AVE

Year	Uses	Source
1980	TAYLOR JOS CHAS N BANNA AVE COVINA	Pacific Telephone
1975	MC DONALD LAWRENCE	Pacific Telephone

839 N BANNA AVE

Year	Uses	Source
2003	HOXIE Seward	Haines & Company
1985	LEWIS ELOUISE MRS	Pacific Bell
1980	LEWIS ELOUISE MRS N BANNA AVE COVINA	Pacific Telephone

851 N BANNA AVE

Year	Uses	Source
2003	THOMPSON Rob	Haines & Company
1980	BEATTY CHAS H N BANNA AVE COVINA	Pacific Telephone
1966	ASA JAS	Pacific Telephone

861 N BANNA AVE

Year	Uses	Source
2003	OMICHELDonalda	Haines & Company
1966	MICHEL GERHARD C	Pacific Telephone

N KIDDER AVE

808 N KIDDER AVE

Year	Uses	Source
2003	FOSTER Paul	Haines & Company
1975	GILMAN CHAS	Pacific Telephone
1966	MATHEWSON DOYLE E	Pacific Telephone

FINDINGS

814 N KIDDER AVE

Year	Uses	Source
2003	AVERY Diane	Haines & Company
1980	OVERMAN DANL R N KIDDER AVE COVINA	Pacific Telephone
1975	OWENS JAS E	Pacific Telephone
1966	LARSON THOS F	Pacific Telephone

822 N KIDDER AVE

Year	Uses	Source
2003	GROSS Stanley	Haines & Company
1985	NICHOLSON LONNIE	Pacific Bell
1966	SLINGO CHAS F	Pacific Telephone

832 N KIDDER AVE

Year	Uses	Source
2003	WINKLER Horace	Haines & Company
1995	Cheng Shui	Pacific Bell
	CHENG SHUI	Pacific Bell
1985	NICHOLSON LYLE A	Pacific Bell
1980	NICHOLSON LYLE A N KIDDER AVE COVINA	Pacific Telephone
1975	NICHOLSON LYIE A COVINA	Pacific Telephone
1966	COLOMO LAWRENCE	Pacific Telephone

842 N KIDDER AVE

Year	Uses	Source
1966	BANKSON SAML	Pacific Telephone

850 N KIDDER AVE

Year	Uses	Source
2003	OGONZALEZ Poncho	Haines & Company
1985	MULLER STUART	Pacific Bell
1980	MULLER STUART N KIDDER AVE COVINA	Pacific Telephone
1966	KANIGOWSKI EUGENE	Pacific Telephone

858 N KIDDER AVE

Year	Uses	Source
2003	LOVELL W	Haines & Company
1975	HERNANDEZ LUIS A JR	Pacific Telephone
1966	HUPP WM G	Pacific Telephone

FINDINGS

868 N KIDDER AVE

Year	Uses	Source
2008	WORLD CHARTER INC	Cole Information Services
2003	0 FRAZIER Richard	Haines & Company

N MANGROVE AVE

603 N MANGROVE AVE

Year	Uses	Source
2003	NICHOLASKatly	Haines & Company
1985	WINTLE CLIFFORD W	Pacific Bell
1975	WINTLE CLIFFORD W	Pacific Telephone
1966	WINTLE CLIFFORD W	Pacific Telephone

604 N MANGROVE AVE

Year	Uses	Source
2003	REILLY Owen	Haines & Company

611 N MANGROVE AVE

Year	Uses	Source
1985	FABIAN DONNA M	Pacific Bell

614 N MANGROVE AVE

Year	Uses	Source
2003	TRUAXDavid	Haines & Company
1966	CASE L T JR	Pacific Telephone

615 N MANGROVE AVE

Year	Uses	Source
2003	CARINO Conrad	Haines & Company
1980	HAPPINESS FACTORY THE N MANGROVE AVE COVINA	Pacific Telephone
	CALDWELL KRIS N MANGROVE AVE COVINA	Pacific Telephone
	CALDWELL KEN N MANGROVE AVE COVINA	Pacific Telephone

622 N MANGROVE AVE

Year	Uses	Source
2003	JONES Keith	Haines & Company
1975	RICE V E	Pacific Telephone
1966	RICE STANLEY H	Pacific Telephone

FINDINGS

625 N MANGROVE AVE

Year	Uses	Source
2003	OTOOR Amanirajit	Haines & Company

630 N MANGROVE AVE

Year	Uses	Source
2003	BARNETTJOhn	Haines & Company
1975	DABBS WM	Pacific Telephone
1966	DABBS WM	Pacific Telephone

633 N MANGROVE AVE

Year	Uses	Source
2003	HYNESTimnothy	Haines & Company
1980	KREYKES ROBT E N MANGROVE AVE COVINA	Pacific Telephone

N RIMHRST AVE

743 N RIMHRST AVE

Year	Uses	Source
1995	BURTON PAUL	Pacific Bell
	LONG RAYMOND	Pacific Bell
1985	BURTON PAUL	Pacific Bell
	LONG RAYMOND	Pacific Bell
1975	ROSONE JOS A COVINA	Pacific Telephone

759 N RIMHRST AVE

Year	Uses	Source
1995	WILLIAMS GERALD R	Pacific Bell
1985	WILLIAMS GERALD R	Pacific Bell
1975	WILLIAMS GERALD R	Pacific Telephone

767 N RIMHRST AVE

Year	Uses	Source
1966	WREN RICHARD B DDS	Pacific Telephone

803 N RIMHRST AVE

Year	Uses	Source
1985	KRAHLING EARL E	Pacific Bell
1975	KRAHLING EARL E	Pacific Telephone

FINDINGS

809 N RIMHRST AVE

Year	Uses	Source
1995	RAASCH CONSTRUCTION & DEVELOPMENT	Pacific Bell
1975	RAASCH JOHN M	Pacific Telephone
1966	RAASCH JOHN M	Pacific Telephone

817 N RIMHRST AVE

Year	Uses	Source
1975	HIXSON RONDAL H	Pacific Telephone

827 N RIMHRST AVE

Year	Uses	Source
1985	HAFEN HERBERT	Pacific Bell
1975	HAFEN HERBERT	Pacific Telephone

831 N RIMHRST AVE

Year	Uses	Source
1975	GONZALES PETER A JR	Pacific Telephone

832 N RIMHRST AVE

Year	Uses	Source
1966	BARON ELLIS D	Pacific Telephone

835 N RIMHRST AVE

Year	Uses	Source
1995	MUNOZ GEO A	Pacific Bell
1985	MUNOZ GEO A	Pacific Bell
1975	MUNOZ GEO A	Pacific Telephone

836 N RIMHRST AVE

Year	Uses	Source
1995	HUNT JOEL & VALERIE	Pacific Bell
1985	WORDEN MICHAEL	Pacific Bell
1975	LONDAGIN LEON	Pacific Telephone

839 N RIMHRST AVE

Year	Uses	Source
1995	CHEN JOHN	Pacific Bell
1975	JACQUES MICHAEL A	Pacific Telephone
1966	DONN JAS	Pacific Telephone

FINDINGS

840 N RIMHRST AVE

Year	Uses	Source
1975	WALBOURNE R C	Pacific Telephone

843 N RIMHRST AVE

Year	Uses	Source
1995	VEILLON PAT	Pacific Bell
1985	VEILLON PAT	Pacific Bell
1975	VEILLON JOHN M	Pacific Telephone
1966	HUM THOS	Pacific Telephone

847 N RIMHRST AVE

Year	Uses	Source
1995	BROWN JAS L	Pacific Bell
1985	BROWN JAS L	Pacific Bell
1975	BROWN JAS L	Pacific Telephone

848 N RIMHRST AVE

Year	Uses	Source
1995	CONGER RONALD L	Pacific Bell
1975	CONGER RONALD L COVINA	Pacific Telephone
1966	TANAKA ROY H	Pacific Telephone

851 N RIMHRST AVE

Year	Uses	Source
1985	ARAKELIAN ARAM	Pacific Bell
1975	DETTBARN HERBERT E	Pacific Telephone

N RIMHURST AVE

743 N RIMHURST AVE

Year	Uses	Source
2003	LONG Raymond	Haines & Company
1995	Long Richard	Pacific Bell
	Long Raymond	Pacific Bell

751 N RIMHURST AVE

Year	Uses	Source
2003	CONTRERAS Uarbara	Haines & Company

FINDINGS

759 N RIMHURST AVE

Year	Uses	Source
2003	WILLIAMS Gerald R	Haines & Company
1995	Williams Gladys	Pacific Bell
	Williams Gerald R	Pacific Bell

767 N RIMHURST AVE

Year	Uses	Source
2003	RODRIGUEZ Ben	Haines & Company
1995	Rodriguez Benito Whit	Pacific Bell
	Rodriguez Ben	Pacific Bell

803 N RIMHURST AVE

Year	Uses	Source
2003	FLORES Ennque	Haines & Company

809 N RIMHURST AVE

Year	Uses	Source
2003	AMBRIZManuel 00 a	Haines & Company
1995	Raasch Construction & Development	Pacific Bell

817 N RIMHURST AVE

Year	Uses	Source
2003	HIXSON Rondal	Haines & Company

827 N RIMHURST AVE

Year	Uses	Source
2003	DOHNERThomas	Haines & Company

831 N RIMHURST AVE

Year	Uses	Source
2003	ZIMMER James	Haines & Company

832 N RIMHURST AVE

Year	Uses	Source
2003	HICKEY Lanetle	Haines & Company

835 N RIMHURST AVE

Year	Uses	Source
2003	MUNOZ George	Haines & Company
1995	Munoz Geo A	Pacific Bell

FINDINGS

836 N RIMHURST AVE

Year	Uses	Source
2003	BURGOS Julie	Haines & Company
1995	Hunt Joel & Valerie	Pacific Bell
	Hunt John	Pacific Bell

839 N RIMHURST AVE

Year	Uses	Source
2003	DUNN Alan	Haines & Company
1995	Chen John	Pacific Bell

840 N RIMHURST AVE

Year	Uses	Source
2003	IRACHETA Hilda	Haines & Company
1966	WALBOURNE R G	Pacific Telephone

843 N RIMHURST AVE

Year	Uses	Source
2003	RAMIREZ Maria	Haines & Company
1995	Veillon Pat	Pacific Bell

844 N RIMHURST AVE

Year	Uses	Source
2003	OLIVERJoleen	Haines & Company

847 N RIMHURST AVE

Year	Uses	Source
2003	BROWN Jas L	Haines & Company
	RIMHURSTAV N 91724 CONT	Haines & Company
1995	Brown Jas L	Pacific Bell

848 N RIMHURST AVE

Year	Uses	Source
2003	OZMANT	Haines & Company
1995	Conger Ronald L	Pacific Bell

851 N RIMHURST AVE

Year	Uses	Source
2003	MONICA Mata	Haines & Company
	MATA Lucy	Haines & Company

FINDINGS

RIMHURST AVE

751 RIMHURST AVE

Year	*Uses*	*Source*
1966	SALITO SAM W JR	Pacific Telephone

836 RIMHURST AVE

Year	*Uses*	*Source*
1966	LONDAGIN LEON	Pacific Telephone

FINDINGS

TARGET PROPERTY: ADDRESS NOT IDENTIFIED IN RESEARCH SOURCE

The following Target Property addresses were researched for this report, and the addresses were not identified in the research source.

Address Researched	Address Not Identified in Research Source
800 North Banna Avenue	2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

ADJOINING PROPERTY: ADDRESSES NOT IDENTIFIED IN RESEARCH SOURCE

The following Adjoining Property addresses were researched for this report, and the addresses were not identified in research source.

Address Researched	Address Not Identified in Research Source
10115 E CYPRESS AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1384 E CLOVER PL	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1384 E COLVER PL	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1406 E CLOVER PL	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1406 E COLVER PL	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1424 E CLOVER PL	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1426 E CLOVER PL	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
1426 E COLVER PL	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1432 E HALLER ST	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1433 E HALLER ST	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1976, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1435 E CLOVER PL	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1435 E COLVER PL	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1436 E COLVER PL	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1442 E HALLER ST	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1445 E CLOVER PL	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1445 E COLVER PL	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1445 E HALLER ST	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1981, 1976, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1446 E COLVER PL	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
1451 E CLOVER PL	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1451 E COLVER PL	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1452 E CLOVER PL	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1452 E HALLER ST	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1453 E HALLER ST	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1981, 1976, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1460 E CLOVER PL	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1461 E HALLER ST	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1462 E CLOVER PL	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1462 E HALLER ST	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1463 E CLOVER PL	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1463 E COLVER PL	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
1470 E CLOVER PL	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1470 E COLVER PL	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1471 E HALLER ST	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1480 E CLOVER PL	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1480 E COLVER PL	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1492 E COLVER PL	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1502 E COLVER PL	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1503 E FARLAND ST	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1503 FARLAND ST	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1512 E CLOVER PL	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1512 E COLVER PL	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
1513 E FARLAND ST	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1520 E COLVER PL	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1521 E FARLAND ST	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1526 E CLOVER PL	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1526 E COLVER PL	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1531 E FARLAND ST	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1531 FARLAND ST	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1534 E CLOVER PL	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1534 E COLVER PL	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1542 E CLOVER PL	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1542 E COLVER PL	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

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Address Researched	Address Not Identified in Research Source
1543 E FARLAND ST	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1548 E CLOVER PL	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1548 E COLVER PL	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1549 E FARLAND ST	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1981, 1976, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1557 E FARLAND ST	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1976, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1558 E CLOVER PL	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1558 E COLVER PL	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1562 E CLOVER PL	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1567 E FARLAND ST	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1976, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1570 E CLOVER PL	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1570 E COLVER PL	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

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Address Researched	Address Not Identified in Research Source
1573 E FARLAND ST	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1576 E CLOVER PL	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1576 E COLVER PL	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1577 E CYPRESS ST	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1578 E FARLAND ST	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1981, 1976, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1579 E FARLAND ST	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1579 FARLAND ST	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1584 E COLVER PL	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
603 N MANGROVE AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
604 N MANGROVE AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
611 N MANGROVE AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
614 N MANGROVE AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
615 MANGROVE AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
615 N MANGROVE AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
622 N MANGROVE AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
625 N MANGROVE AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
630 N BANNA AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
630 N BANNA AVE	2013, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
630 N MANGROVE AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
633 N MANGROVE AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
637 N BANNA AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
645 N BANNA AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1976, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

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Address Researched	Address Not Identified in Research Source
653 N BANNA AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
741 N BANNA AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
743 N RIMHRST AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
743 N RIMHURST AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
751 N BANNA AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1981, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
751 N RIMHURST AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
751 RIMHURST AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
759 N BANNA AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1981, 1976, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
759 N RIMHRST AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
759 N RIMHURST AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
767 N BANNA AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1981, 1976, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

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Address Researched	Address Not Identified in Research Source
767 N RIMHRST AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
767 N RIMHURST AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
803 N BANNA AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
803 N RIMHRST AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
803 N RIMHURST AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
807 N BANNA AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
808 N KIDDER AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
809 N BANNA AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
809 N RIMHRST AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
809 N RIMHURST AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
814 N KIDDER AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

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Address Researched	Address Not Identified in Research Source
815 N BANNA AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
816 N BANNA AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
817 N RIMHRST AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
817 N RIMHURST AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
822 N KIDDER AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
823 N BANNA AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
827 N RIMHRST AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
827 N RIMHURST AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
831 N BANNA AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
831 N RIMHRST AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
831 N RIMHURST AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

FINDINGS

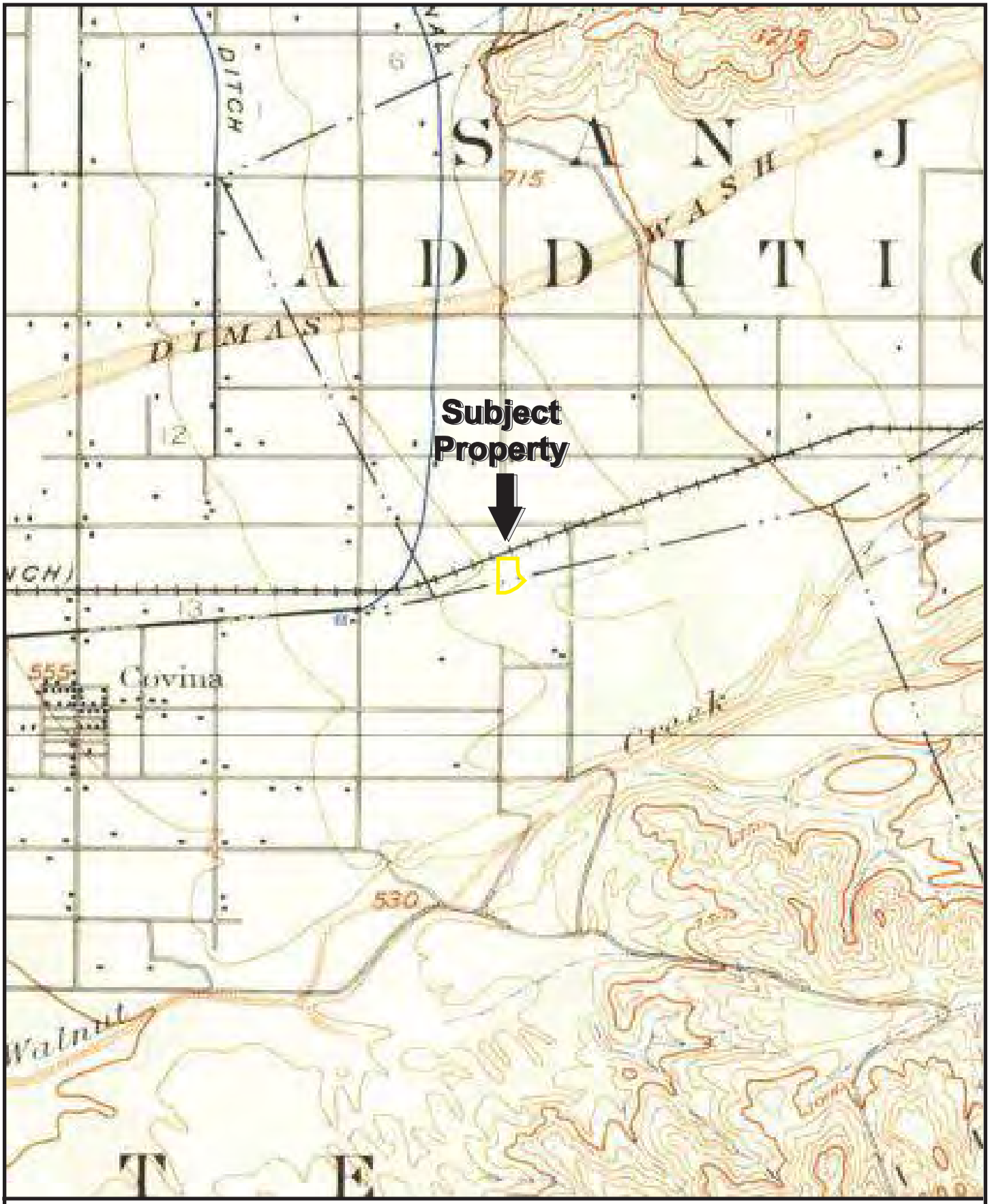
Address Researched	Address Not Identified in Research Source
832 N KIDDER AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1981, 1976, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
832 N RIMHRST AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
832 N RIMHURST AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
835 N RIMHRST AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
835 N RIMHURST AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
836 N RIMHRST AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
836 N RIMHURST AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
836 RIMHURST AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
839 BANNA AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
839 N BANNA AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
839 N RIMHRST AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
839 N RIMHURST AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
840 N RIMHRST AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
840 N RIMHURST AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
842 N KIDDER AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
843 N RIMHRST AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
843 N RIMHURST AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
844 N RIMHURST AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
847 N RIMHRST AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
847 N RIMHURST AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
848 N RIMHRST AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
848 N RIMHURST AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
850 N KIDDER AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
851 N BANNA AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
851 N RIMHRST AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
851 N RIMHURST AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
858 N KIDDER AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
861 N BANNA AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
868 N KIDDER AVE	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
868 N KIDDER AVE	2013, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
8931 E CYPRESS ST	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
8988 E CYPRESS ST	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

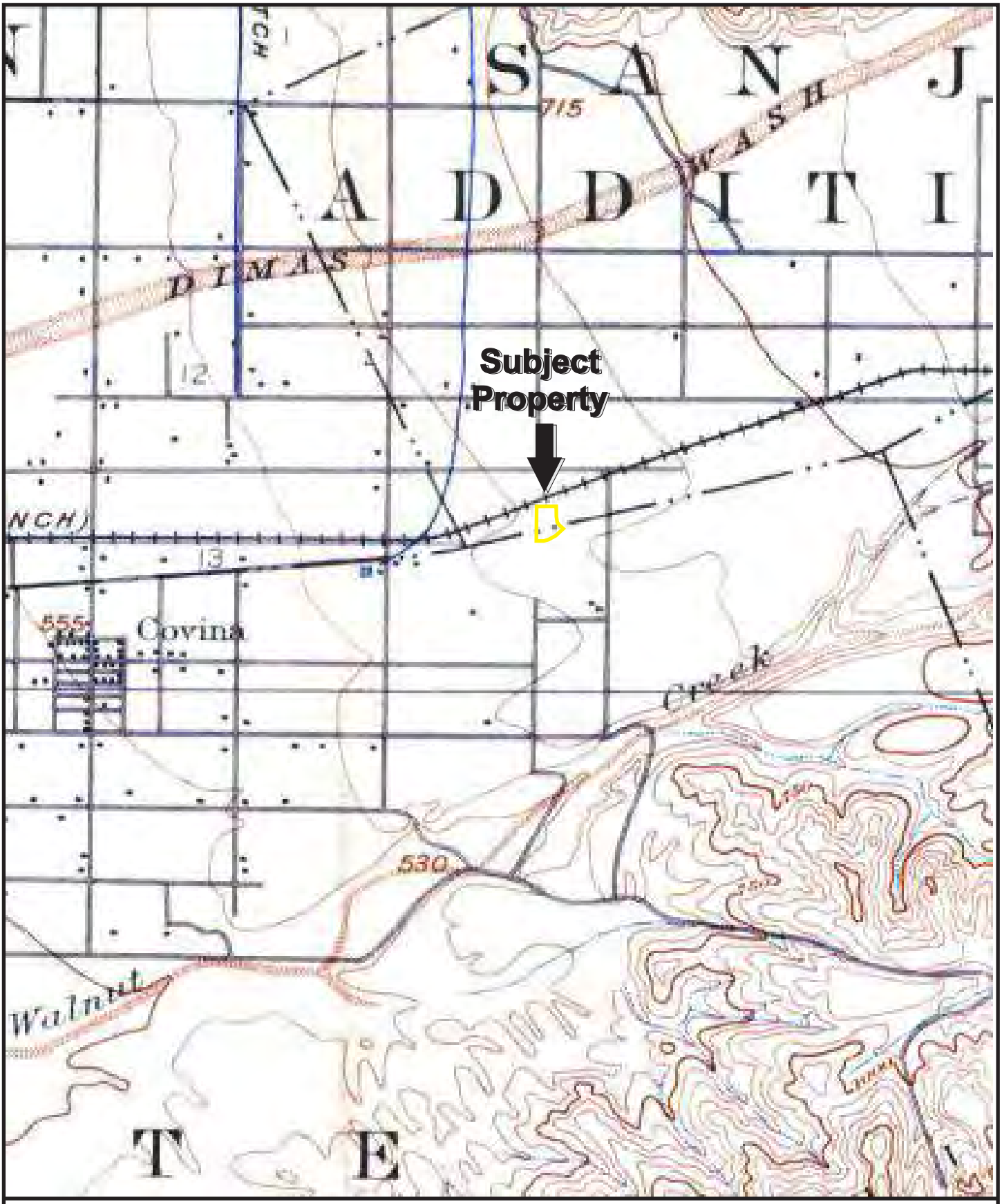


USGS 15 Minute *Pomona, CA* Quadrangle Created: 1894

APPENDIX B: HISTORIC TOPOGRAPHIC MAPS

Project No. 14-126352.1

PARTNER

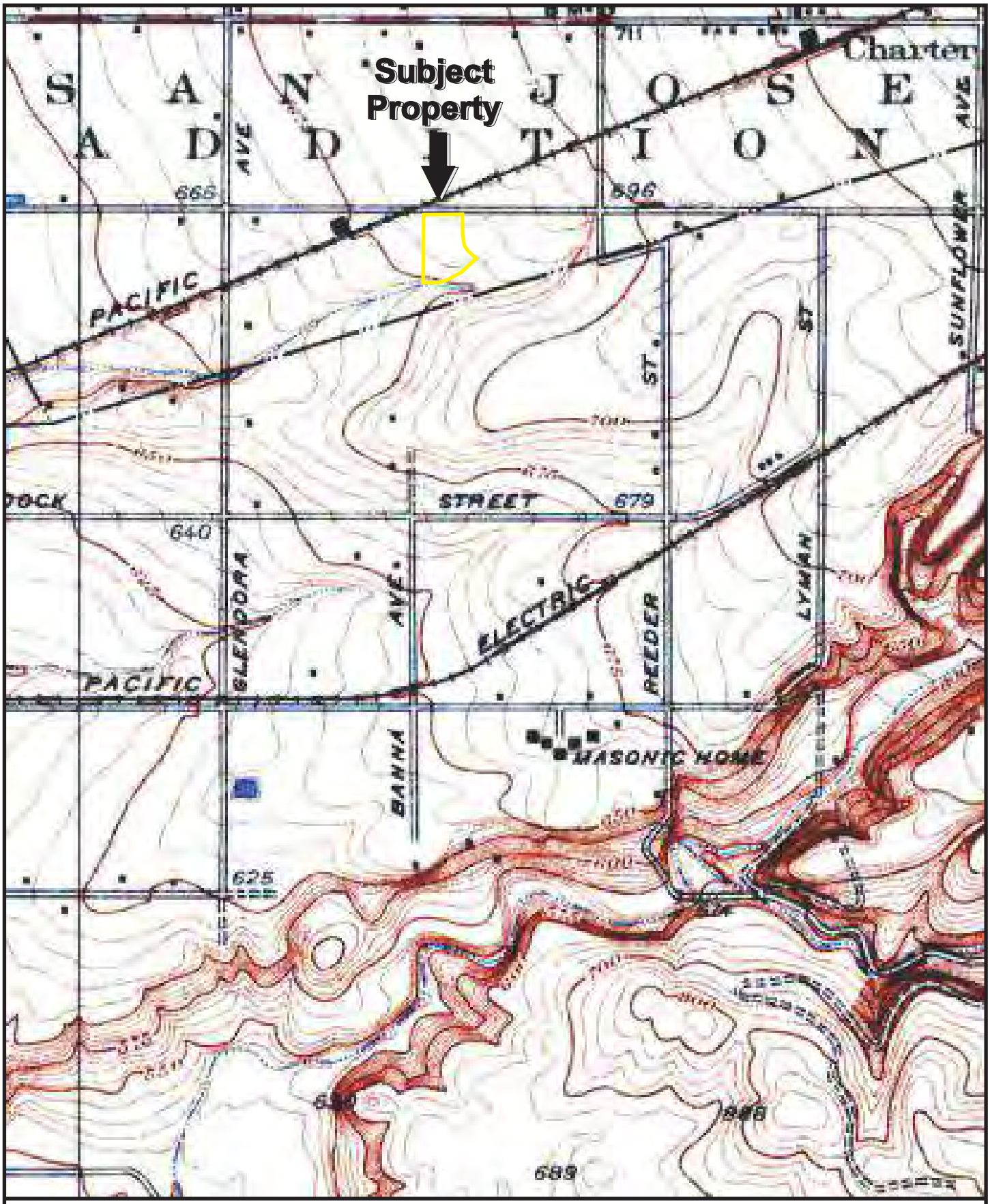


USGS 15 Minute *Pomona, CA* Quadrangle Created: 1904

APPENDIX B: HISTORIC TOPOGRAPHIC MAPS

Project No. 14-126352.1

PARTNER



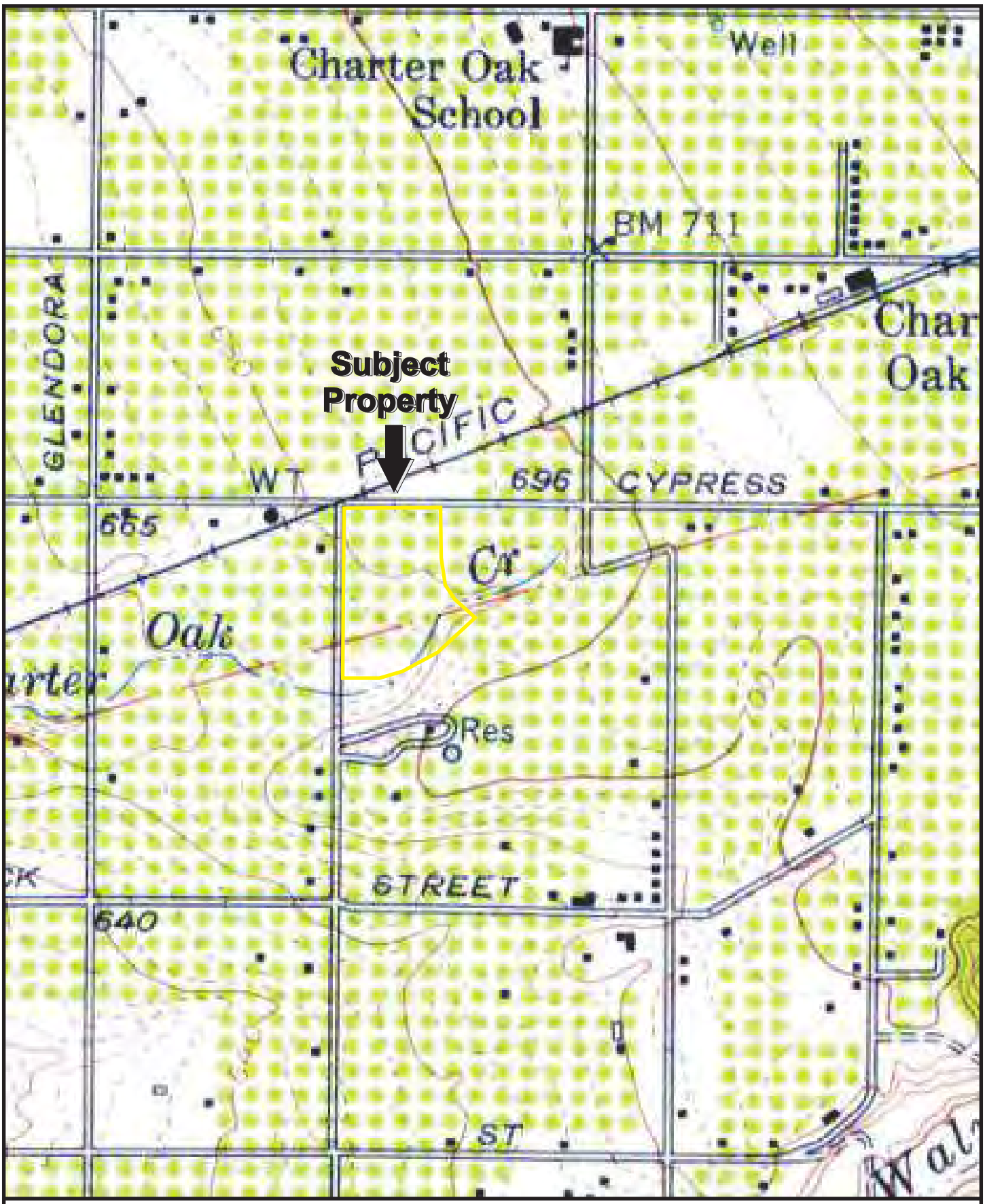
USGS 6 Minute *Covina, CA* Quadrangle

Created: 1927

APPENDIX B: HISTORIC TOPOGRAPHIC MAPS

Project No. 14-126352.1

PARTNER

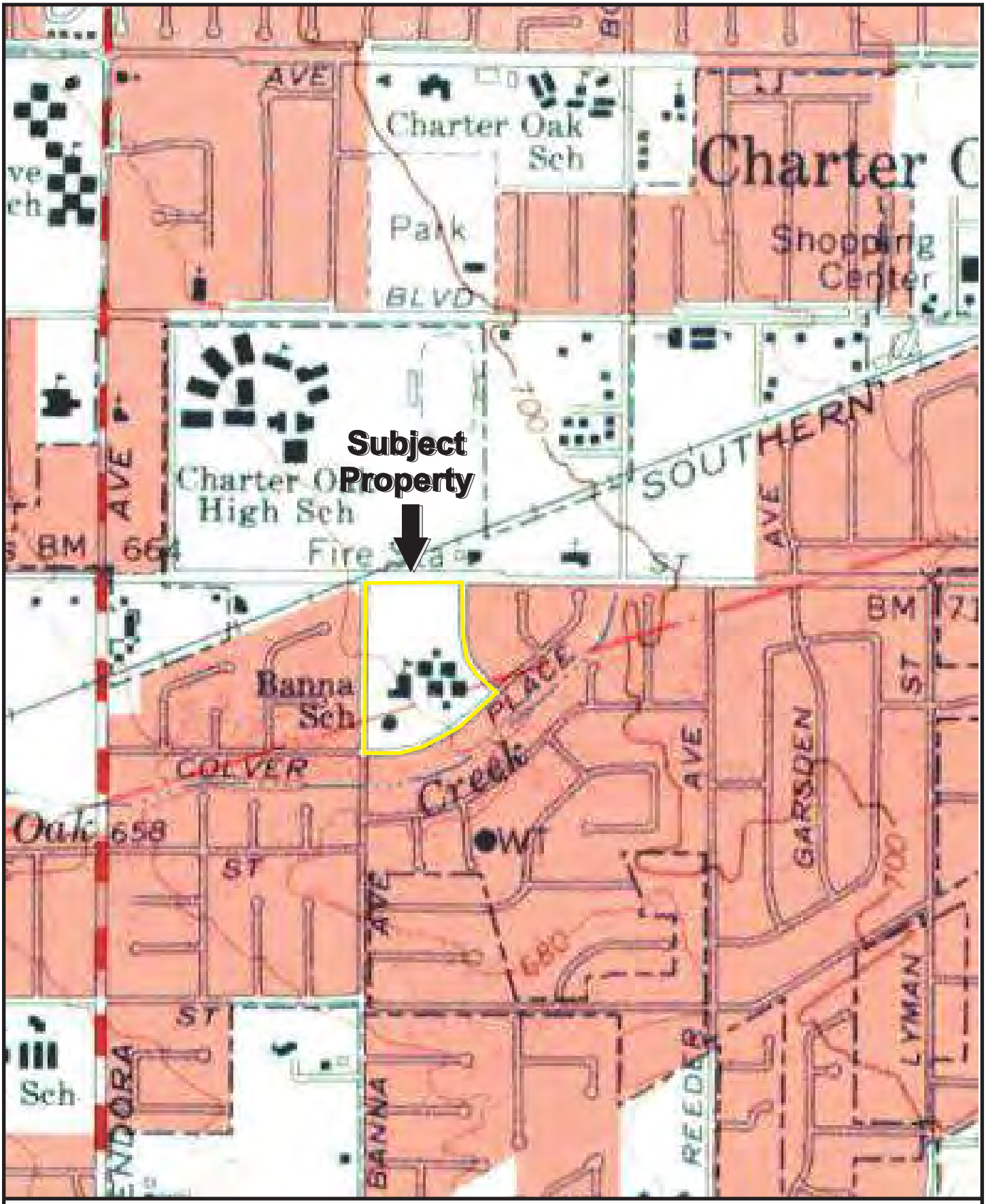


USGS 7.5 Minute *San Dimas, CA* Quadrangle Created: 1954

APPENDIX B: HISTORIC TOPOGRAPHIC MAPS

Project No. 14-126352.1

PARTNER

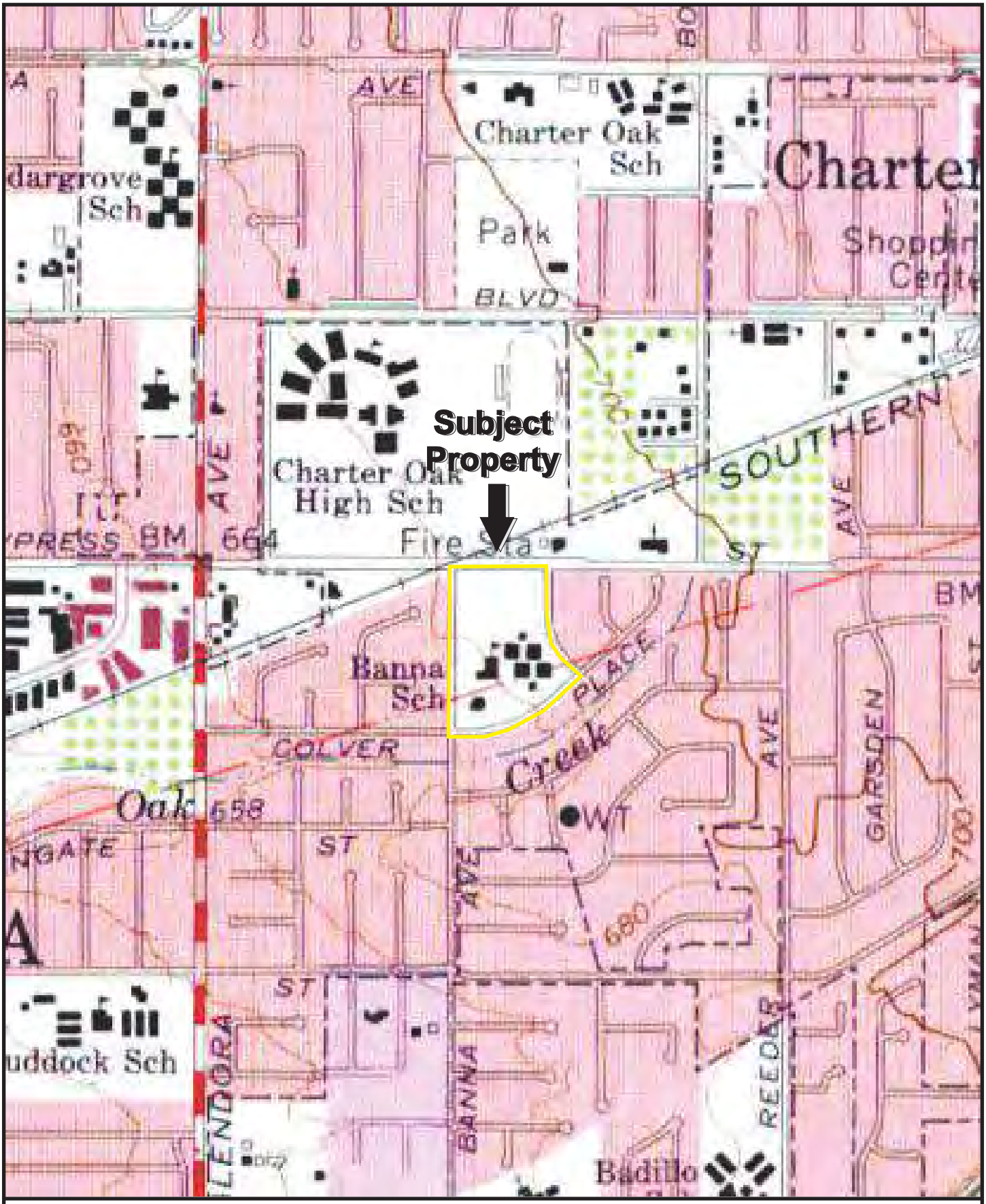


USGS 7.5 Minute *San Dimas*, *CA* Quadrangle Created: 1966

APPENDIX B: HISTORIC TOPOGRAPHIC MAPS

Project No. 14-126352.1

PARTNER



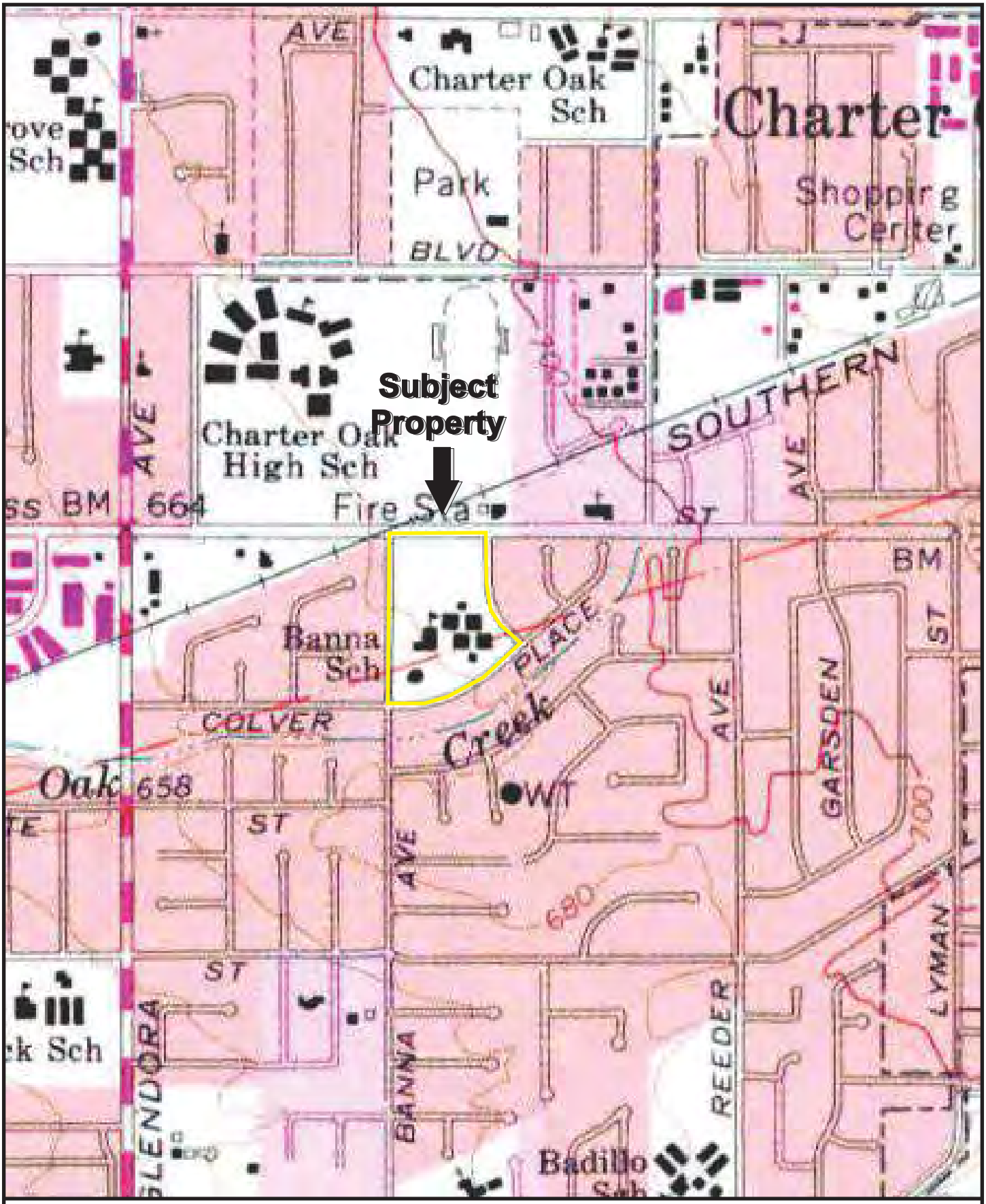
USGS 7.5 Minute *San Dimas*, *CA* Quadrangle

Created: 1966/Revised: 1972

APPENDIX B: HISTORIC TOPOGRAPHIC MAPS

Project No. 14-126352.1

PARTNER



USGS 7.5 Minute *San Dimas*, *CA* Quadrangle

Created: 1966/Revised: 1981

APPENDIX B: HISTORIC TOPOGRAPHIC MAPS

Project No. 14-126352.1

PARTNER

Department of Conservation

Division of Oil, Gas & Geothermal Resources Well Finder

Lat: 34.0^323,

Find By Location

Find My Current Location

or

Street: 800 n banna ave

City: covina

Zip: Find

Display a 1500ft buffer

Find By API

Find By Lat / Long

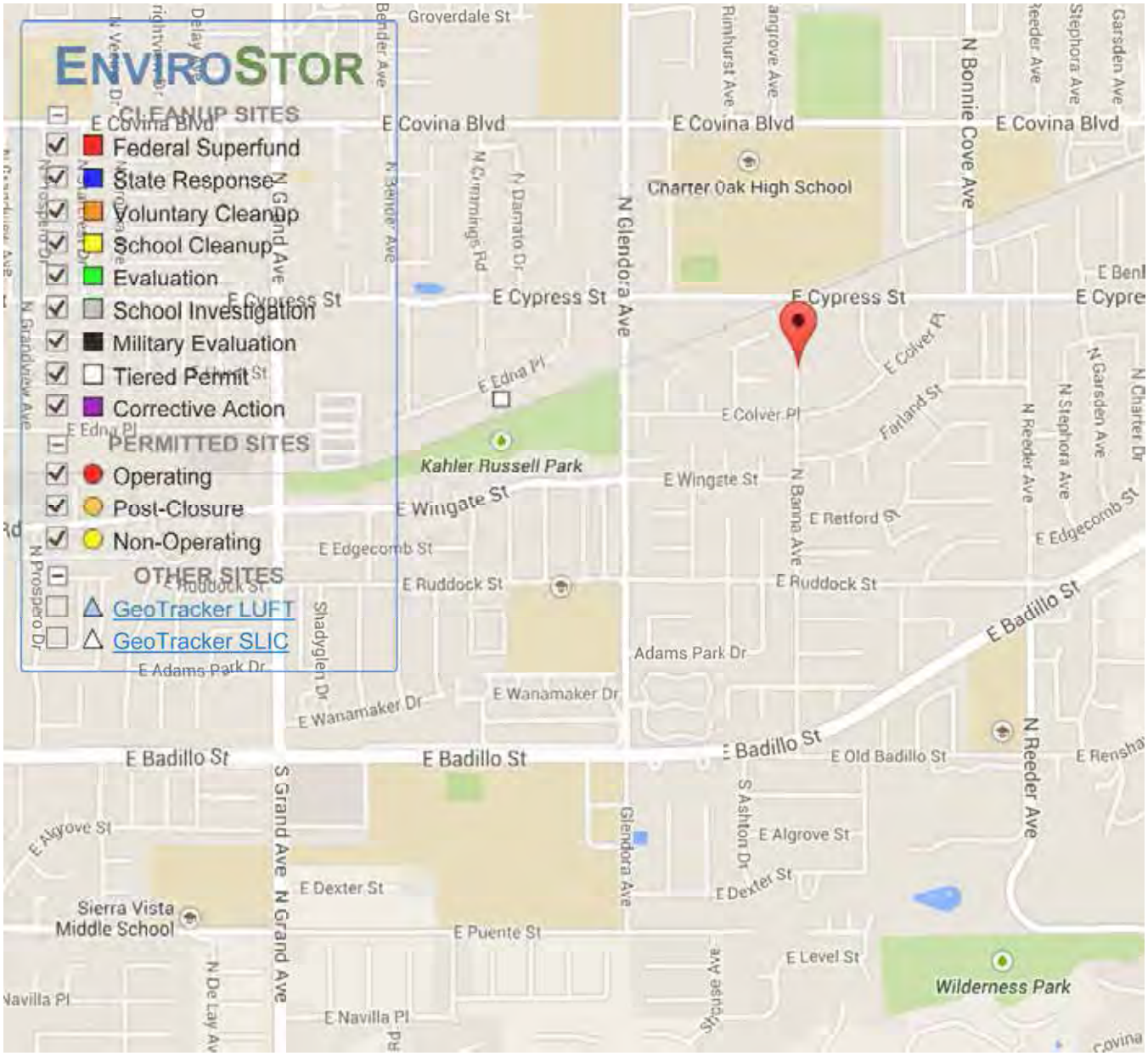
Find By PLSS

Find By Oil/Gas Field

Data (Layers):

Notice & Permit

DOGGR Well



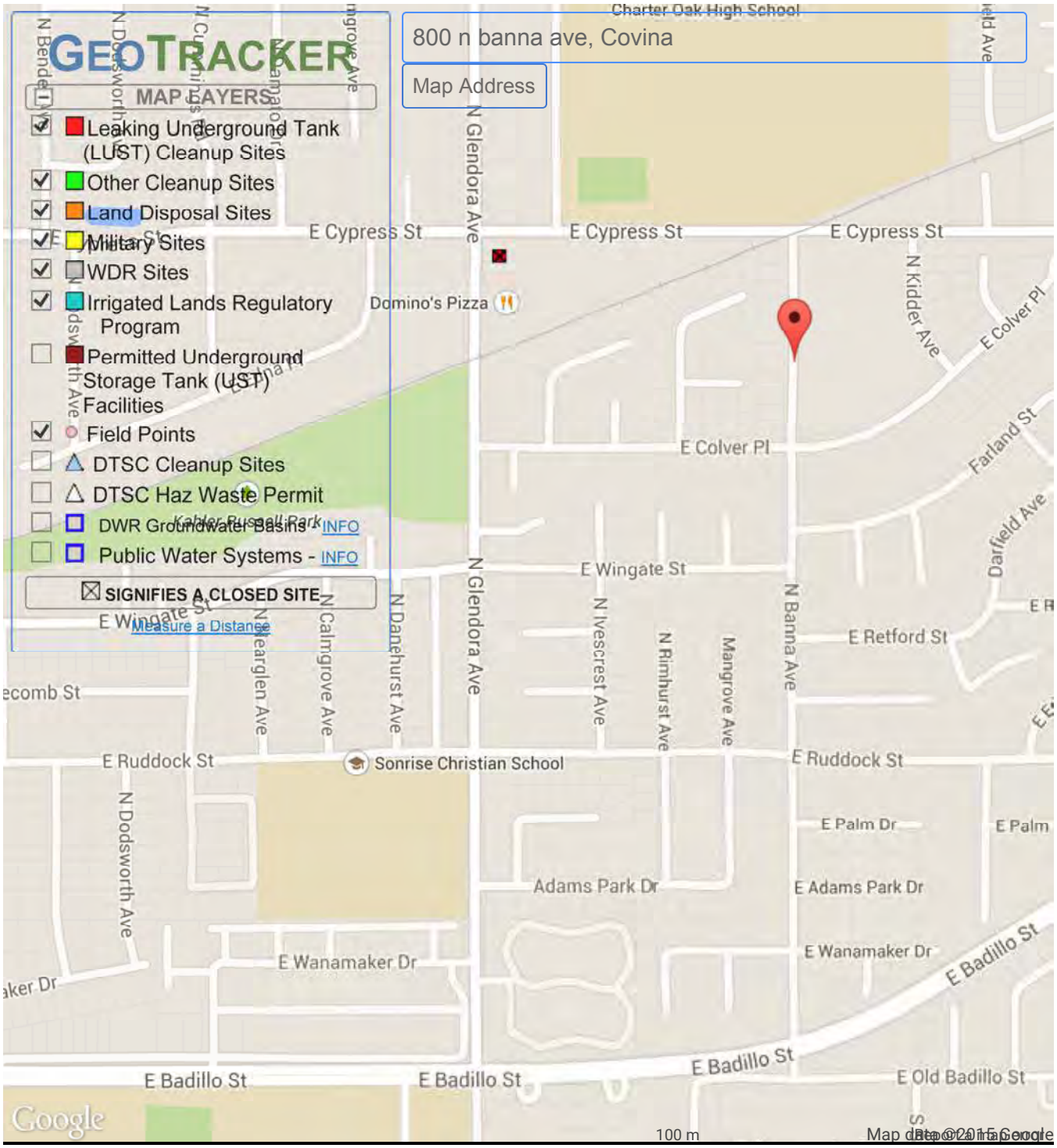
MAP AN ADDRESS: 800 n banna ave, Covina Go!

SHOW SITES WITHIN 1000 FEET OF THE FOLLOWING ADDRESS: Go

Map data ©2015 Google 200 m

SITES CURRENTLY VISIBLE ON MAP 1 SITES LISTED EXPORT THIS LIST TO EXCEL

PROJECT NAME	STATUS	PROJECT TYPE	ADDRESS	CITY
STABILE PLATING CO., INC.	REFER: OTHER AGENCY	TIERED PERMIT	1150 E. EDNA PLACE	COVINA



SITES CURRENTLY VISIBLE ON MAP — 1 SITES LISTED — EXPORT THIS LIST TO EXCEL

SITE NAME	GLOBAL ID	STATUS	ADDRESS	CITY
76 PRODUCTS STATION #5012	T0603703605	COMPLETED - CASE CLOSED	856 GLENDORA AVE N	COVINA

Department of Toxic Substances Control

Matthew Rodriquez
Secretary for
Environmental Protection

Barbara A. Lee, Director
1001 I Street
P.O. Box 806
Sacramento, California 95812-0806

Edmund G. Brown Jr
Governor

Facility Search Results

Search Criteria:

Street: BANNA
City: COVINA
Sorted By: EPAID,NAME

ID's Listed: 2

Address used in the search and displayed below is the Physical Address.

ID Number	Name	Address	City	Zip
CAC002628723	VISION OF FAITH INTERNATIONAL	800 N BANNA AVE	COVINA	917242532
CAC002695752	MILDRED MOXHAM	751 N BANNA AVE	COVINA	91724

The Department of Toxics Substances Control (DTSC) takes every precaution to ensure the accuracy of data in the Hazardous Waste Tracking System (HWTS). However, because of the large number of manifests handled, inaccuracies in the submitted data, limitations of the manifest system and the technical limitations of the database, DTSC cannot guarantee that the data accurately reflect what was actually transported or produced.

Department of Toxic Substances Control

Matthew Rodriquez
Secretary for Environmental Protection

Barbara A. Lee, Director
1001 I Street
P.O. Box 806
Sacramento, California 95812-0806

Edmund G. Brown Jr.
Governor

EPA ID PROFILE

Map

ID Number: **CAC002628723** **Name :** VISION OF FAITH INTERNATIONAL

Status: INACTIVE **Inactive Date:** 10/01/2008 **Record Entered:** 04/03/2008 **Last Updated:** 10/21/2008

County: LOS ANGELES **NAICS:** **SIC:**

	Name	Address	City	State	Zip Code	Phone
Location	VISION OF FAITH INTERNATIONAL	800 N BANNA AVE 34.094028 -117.859314	COVINA	CA	917242532	
Mailing		800 N BANNA AVE	COVINA	CA	917242532	
Owner	VISION OF FAITH INTERNATIONAL	800 N BANNA AVE	COVINA	CA	917242532	6269381049
Operator/ Contact	BLANCA GARCIA	800 N BANNA AVE	COVINA	CA	917242532	6269381049

Based ONLY upon ID Number **CAC002628723**

Calif. Manifests ?	Non Calif. Manifests ?	Transporter Registration ?
YES	NO	NO

California and Non California Manifest Tonnage Total and Waste Code by Year Matrix by Entity Type (if available) are on the next page

The Department of Toxics Substances Control (DTSC) takes every precaution to ensure the accuracy of data in the Hazardous Waste Tracking System (HWTS). However, because of the large number of manifests handled, inaccuracies in the submitted data, limitations of the manifest system and the technical limitations of the database, DTSC cannot guarantee that the data accurately reflect what was actually transported or produced.

Calif. Manifest Counts and Total Tonnage

Top line represents Manifest Count and Bottom line represents Total Tonnage

	GENERATOR
2008	1 0.4000

Non California Manifest Total Tonnage

Waste Code By Year By Entity Matrix Report
(based on California Manifests only)

Calif.	Generator	Transporter 1	Transporter 2	TSDF	Alt. TSDF
RCRA	Generator	Transporter 1	Transporter 2	TSDF	Alt. TSDF

California Waste Code By Year Matrix

ID Number: CAC002628723

Entity Type : GENERATOR

Weight (in Tons)

Ship Years

Calif. Code	Description	2008
151	ASBESTOS-CONTAINING WASTE	0.4000
	Grand Total	**0.4000**

RCRA Waste Code By Year Matrix Report

ID Number: CAC002628723

Entity Type: GENERATOR

Weight (in Tons)

RCRA Code	Description	Ship Years 2008
	Blank/Unknown	0.4000
	Grand Total	**0.4000**

Industrial Waste / Underground Storage Tanks / Stormwater

Back

You searched the following address:

Street Number: 800 Street Name: banna

Our office does not have any records (related to industrial waste/underground storage tanks/stormwater) for the requested site address.

Please double check the spelling of the street name or search a different address. Both street number and street name must be exact and spelled correctly as they appear for the facility on file. Do not include street direction prefix (i.e. N, S, E, W, etc...) or suffix (i.e. ST, AVE, RD, BLVD, etc...) unless they appear in the street name (i.e. AVENUE K, AVENIDA CESAR CHAVEZ, 10TH ST EAST, CROSSROADS PKWY N, etc...). Do not include any extra spaces after the street number or after the street name.

Back

Hodgetts, Heather

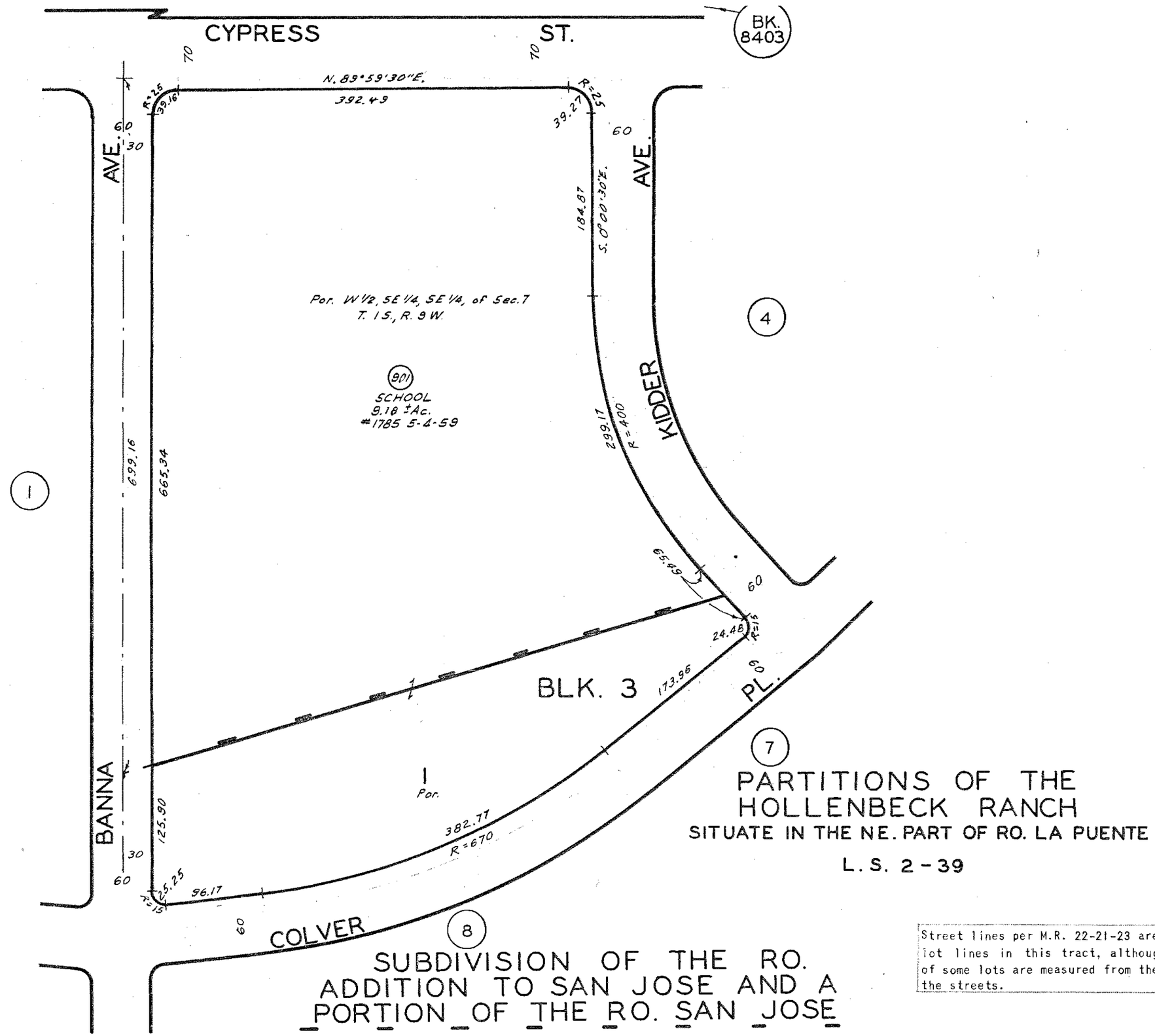
From: Hamilton, Charlene [CHamilton@lacsd.org]
Sent: Wednesday, February 25, 2015 9:02 AM
To: Hodgetts, Heather
Subject: File review

No records found for 800 N Banna, Covina

Charlene Hamilton
Phone-(562) 908-4288 Ext 2929
Fax -(562) 908-4224
E-Mail –chamilton@lacsd.org

8427	3
CALE 1" =	100'

REVISED
3-17-61
10-17-61
71070620
750214
790425110



CODE
2671

Street lines per M.R. 22-21-23 are considered the lot lines in this tract, although the divisions of some lots are measured from the centerlines of the streets.

FOR PREV. ASSM'T. SEE:
8424 - 14

ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.

CYNTHIA A. HARDING, M.P.H.
Interim Director

JEFFREY D. GUNZENHAUSER, M.D., M.P.H.
Interim Health Officer

Public Health Investigation Administration
LEOLA MERCADEL
Chief, Public Health Investigation

5555 Ferguson Drive, Suite 120-04
Commerce, California 90022
TEL (323) 890-7801 • FAX (323) 728-0217

www.publichealth.lacounty.gov

BOARD OF SUPERVISORS

Hilda Solis
First District

Mark Ridley-Thomas
Second District

Sheila Kuehl
Third District

Don Knabe
Fourth District

Michael D. Antonovich
Fifth District

March 03, 2015

PARTNER
HEATHER HODGETTS
5454 CAMINITO BAYO
LA JOLLA, CA 92037

RE: 800 N. BANNA AVE., COVINA, CA 91724

I, the undersigned, being the Custodian or the Keeper of Records, certify that a thorough search for the records you requested was carried out under my direction and control.

This search revealed no records.

It should be understood that this does not mean that the records you requested do not exist. It is possible that such records may be misfiled; exist under another spelling, another name, or under another classification. However, with the information furnished to our office, and to the best of our knowledge, no records were located.

If you have any questions regarding your request, please contact our office at (323) 890-7806.

Sincerely,

Robert Flora, Deputy Health Officer
Public Health Investigation

COR ID No.151091

Hodgetts, Heather

From: Gallardo, Laura@Waterboards [Laura.Gallardo@waterboards.ca.gov] on behalf of WB-RB4-PublicRecords [RB4-PublicRecords@waterboards.ca.gov]
Sent: Wednesday, March 04, 2015 2:29 PM
To: Hodgetts, Heather
Cc: Gallardo, Laura@Waterboards
Subject: RE: Records request - Covina, CA/Tracking No 2015022416

********* Please submit future file review requests to the LARWQCB via e-mail to RB4-publicrecords@waterboards.ca.gov.*********

The Regional Board has reviewed its files and has concluded that it does not have any records that are responsive to your request.

From: Hodgetts, Heather [mailto:HHodgetts@partneresi.com]
Sent: Tuesday, February 24, 2015 8:35 AM
To: WB-RB4-PublicRecords
Subject: Records request - Covina, CA

I am conducting an environmental site assessment on the following property:

- 800 North Banna Avenue, Covina, CA 91724

As part of the investigation, I would like to review any and all records you have for the above-referenced property pertaining to the following:

Current or historical use of hazardous materials and/or hazardous waste; Current or historical underground/aboveground storage tanks; Current or historical clarifiers ; and Violations or Notices to Comply

Heather Hodgetts
Senior Scientist

PARTNER ENGINEERING AND SCIENCE, INC.
11839 SORRENTO VALLEY ROAD, SUITE 906, SAN DIEGO, CALIFORNIA 92121
M: (858) 790-9327 | T: 619-878-9620 | F: 619-684-3660

SOUTH COAST AQMD

Facility INformation Detail (FIND)

Facility INformation Detail provides consolidated access to public information about facilities in the AQMD basin. If you have a Facility ID, Application Number, Notice Number and/or Case Number, you can access detail information directly, OR you can utilize the Facility Search feature as your facility information gateway. Regularly scheduled updates are made to this data at least once per week.

Click here for a detailed map search.

Search

◉ Find a Facility

Facility Name:

Street Name: 800 banna

City: covina

Zip Code:

○ Select Facility ID:

○ Select Application Nbr:

○ Select NOV or NC:

○ Select Hearing Board Case: -

☐ RECLAIM

☐ TITLE V

Search Reset

There are no facilities that match your search criteria. If you think this result is incorrect, call the number below.

If you are having trouble finding a facility, please Click Here for Instructions

For further information or if you have any questions about the data returned by FIND, email: webinquiry@aqmd.gov

V1.52

ENVIRONMENTAL SITE ASSESSMENT QUESTIONNAIRE

Please complete to the best of your knowledge. For those questions that are not applicable, please respond with an "N/A". For those questions that are unknown, please respond with "unknown".

1. PROPERTY INFORMATION:

Property Name:	Former Elementary School Site
Property Address:	900 N. Banna
City	Covina
State CA	CA
Zip	91724
Assessor's Parcel Number	8427-003-901
Property Owner & Contact Information:	Charter Oak Unified School District
Date Property Owner Purchased:	
Key Site Manager & Contact Information:	

2. COMPLETED BY

Signature	Stephen R. Shelby
Date	February 25, 2015
Printed Name	Manager, Shelby Development, LLC
Relation to Subject Property	Under contract to purchase

3. PREVIOUS INVESTIGATIONS

Have any previous environmental investigations been performed at the property, including Phase I ESAs, Phase II Subsurface Investigations, Remediation, Asbestos or Lead-Based Paint surveys? _____ (If yes, please provide copies)

4. PROPERTY DESCRIPTION

Property Size: 8.51 Number of Building(s): 5

Size of Building(s): 851000

Date of Construction: _____

Property Type: (please circle)

Multi-Family Hotel Mobile Home Park Retail/Commercial Industrial Office

Other: Institutional

Please provide Rent Roll if Applicable.

Historical Use of Property: _____

PARTNER

5. Surrounding Property Uses

Direction	Use
North	Banna High school
South	Single Family Residences
East	Single Family Residences
West	Single Family Residences

Are you aware of any potential environmental concerns associated with surrounding properties?

_____ YES ✓ NO

If yes, please describe: _____

6. Utilities & Services

Please provide the name of the utility or contractor providing the following:

Electric	So CA Edison	Bio-hazardous Waste	N/A
Gas	The Gas Company	Elevator Maintenance	N/A
Potable Water	Golden State Water	Used Grease	N/A
Sanitary Sewer	LA County Sanitation District	Hazardous Waste	N/A

7. On Site Operations

Are you aware of any of the following conditions, either past or present, on the property?

Condition	Response	If yes, please describe
1. Stored Chemicals	Yes ☑ No	
2. Underground Storage Tanks	Yes ✓ No	
3. Aboveground Storage Tanks	☐ Yes ☑ No	
4. Spills or Releases	Yes ✓ No	
5. Dump Areas/Landfills	☐ Yes ✓ No	
6. Waste Treatment Systems	Yes ✓ No	
7. Clarifiers/Separators	Yes ☑ No	
8. Vents/Odors	Yes ✓ No	
9. Floor Drains/Sumps	☐ Yes ✓ No	
10. Stained Soil	Yes ✓ No	
11. Electrical Transformers	Yes ✓ No	
12. Hydraulic Lifts/Elevators	Yes ✓ No	
13. Dry Cleaning Operations	Yes ✓ No	
14. Oil/Gas/Water/Monitoring Wells	Yes ☑ No	
15. Environmental Permits	Yes ✓ No	

PARTNER

PHASE I ENVIRONMENTAL SITE ASSESSMENT QUESTIONNAIRE

The following questionnaire is required by the ASTM Standard E 1527-13, which adheres to the All Appropriate Inquiries (AAI) Rule (United States Environmental Protection Agency) (40 CFR 312).

As defined by ASTM, the User of the report is the *"party seeking to use Practice E 1527 to complete an environmental site assessment of the property. A user may include, without limitation, a potential purchaser of property, a potential tenant of property, an owner of property, a lender, or a property manager. The user has specific obligations for completing a successful application of this practice."*

PROPERTY ADDRESS:	300 N. Banna
PROPERTY CITY, STATE ZIP:	Covina, CA 91724

1. **Environmental liens that are filed or recorded against the property (40 CFR 312.25)**

   Did a search of recorded land title records (or judicial records) identify any environmental liens filed or recorded against the property under federal, tribal, state or local law?

   ☐ YES ☑ NO

2. **Activity and use limitations (AULs) that are in place on the property or that have been filed or records against the property (40 CFR 312.26(a)(1)(v) and (vi))**

   Did a search of recorded land title records (or judicial records) identify any AULs, such as engineering controls, land use restrictions or institutional controls that are in place at the property and/or have been filed or recorded against the property under federal, tribal, state or local law?

   ☐ YES ☑ NO

3. **Specialized knowledge or experience of the person seeking to qualify for the LLP (40 CFR 312.28)**

   Do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?

   ☐ YES ☑ NO

PARTNER

4. **Relationship of the purchase price to the fair market value of the property if it were not contaminated (40 CFR 312.29)**
Does the purchase price being paid for this property reasonably reflect the fair market value of the property? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property?

☑ YES ☐ NO

5. **Commonly known or reasonably ascertainable information about the Property (40 CFR 312.30)**
Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases?

☑ YES ☐ NO

a. Do you know the past uses of the property?

☑ YES ☐ NO

b. Do you know of specific chemicals that are present or once were present at the property?

☐ YES ☑ NO

c. Do you know of spills or other chemical releases that have taken place at the property?

☐ YES ☑ NO

d. Do you know of any environmental cleanups that have taken place at the property?

☐ YES ☑ NO

e. Do you have any prior knowledge that the property was developed as a gas station, dry cleaner, manufacturing/industrial facility in the past?

☐ YES ☑ NO

f. Are you aware of historical use of hazardous materials or petroleum products used or present on the property?

☐ YES ☑ NO

PARTNER

g. Do you know if the property is currently or was formerly equipped with underground storage tanks (USTs) or septic tanks?

☐ YES ☑ NO

h. Do you know of any past, threatened or pending lawsuits or administrative proceedings concerning a release or threatened release of any hazardous substance or petroleum products involving the property by any owner or occupant of the property?

☐ YES ☑ NO

6. The degree of obviousness of the presence or likely presence of contamination at the property, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31)

Based on your knowledge and experience related to the property are there any obvious indicators that point to the presence or likely presence of releases at the property?

☐ YES ☑ NO

Signature of User/Person Interviewed: [signature] Manager, Shella Development

Name of User/Person Interviewed: Steve Sheldon

Title/Relationship to Property: Under contract to purchase

Phone Number/Email: (949) 777-9400

Date: February 25, 2015

Contact for additional information:

Name: Steve Sheldon

Relationship to Property: Under contract to purchase

Phone Number/Email: (949) 777-9400
steve@sheldongrp.com

PARTNER

APPENDIX C: REGULATORY DATABASE REPORT

PARTNER

Banna Crossings
800 North Banna Avenue
Covina, CA 91724

Inquiry Number: 4208365.2s
February 16, 2015

The EDR Radius Map™ Report

EDR® Environmental Data Resources Inc

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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GEOCHECK ADDENDUM

GeoCheck - Not Requested

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

800 NORTH BANNA AVENUE
LOS ANGELES County, CA 91724

COORDINATES

Latitude (North):	34.0946000 - 34 5' 40.56''
Longitude (West):	117.8584000 - 117 51' 30.24''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	420813.7
UTM Y (Meters):	3772783.0
Elevation:	686 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	34117-A7 SAN DIMAS, CA
Most Recent Revision:	1981
West Map:	34117-A8 BALDWIN PARK, CA
Most Recent Revision:	1981

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20120505
Source:	USDA

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 8 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
VISION OF FAITH INTERNATIONAL 800 N BANNA AVE COVINA, CA 91724	HAZNET	N/A

EXECUTIVE SUMMARY

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ..... National Priority List
Proposed NPL ..... Proposed National Priority List Sites
NPL LIENS ..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ..... National Priority List Deletions

Federal CERCLIS list

CERCLIS ..... Comprehensive Environmental Response, Compensation, and Liability Information System
FEDERAL FACILITY ..... Federal Facility Site Information listing

Federal CERCLIS NFRAP site List

CERC-NFRAP ..... CERCLIS No Further Remedial Action Planned

Federal RCRA CORRACTS facilities list

CORRACTS ..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG ..... RCRA - Large Quantity Generators
RCRA-SQG ..... RCRA - Small Quantity Generators
RCRA-CESQG ..... RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

US ENG CONTROLS ..... Engineering Controls Sites List
US INST CONTROL ..... Sites with Institutional Controls
LUCIS ..... Land Use Control Information System

Federal ERNS list

ERNS ..... Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE ..... State Response Sites

EXECUTIVE SUMMARY

State and tribal landfill and/or solid waste disposal site lists

SWF/LF ..... Solid Waste Information System

State and tribal leaking storage tank lists

SLIC ..... Statewide SLIC Cases
INDIAN LUST ..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

UST ..... Active UST Facilities
AST ..... Aboveground Petroleum Storage Tank Facilities
INDIAN UST ..... Underground Storage Tanks on Indian Land
FEMA UST ..... Underground Storage Tank Listing

State and tribal voluntary cleanup sites

INDIAN VCP ..... Voluntary Cleanup Priority Listing
VCP ..... Voluntary Cleanup Program Properties

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

ODI ..... Open Dump Inventory
DEBRIS REGION 9 ..... Torres Martinez Reservation Illegal Dump Site Locations
SWRCY ..... Recycler Database
HAULERS ..... Registered Waste Tire Haulers Listing
INDIAN ODI ..... Report on the Status of Open Dumps on Indian Lands
WMUDS/SWAT ..... Waste Management Unit Database

Local Lists of Hazardous waste / Contaminated Sites

US CDL ..... Clandestine Drug Labs
HIST Cal-Sites ..... Historical Calsites Database
SCH ..... School Property Evaluation Program
Toxic Pits ..... Toxic Pits Cleanup Act Sites
AOCONCERN ..... San Gabriel Valley Areas of Concern
CDL ..... Clandestine Drug Labs
US HIST CDL ..... National Clandestine Laboratory Register

Local Lists of Registered Storage Tanks

CA FID UST ..... Facility Inventory Database
HIST UST ..... Hazardous Substance Storage Container Database
SWEEPS UST ..... SWEEPS UST Listing

Local Land Records

LIENS 2 ..... CERCLA Lien Information

LIENS	Environmental Liens Listing
DEED	Deed Restriction Listing

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
CHMIRS	California Hazardous Material Incident Report System
LDS	Land Disposal Sites Listing
MCS	Military Cleanup Sites Listing
SPILLS 90	SPILLS 90 data from FirstSearch

Other Ascertainable Records

DOT OPS	Incident and Accident Data
DOD	Department of Defense Sites
FUDS	Formerly Used Defense Sites
CONSENT	Superfund (CERCLA) Consent Decrees
ROD	Records Of Decision
UMTRA	Uranium Mill Tailings Sites
US MINES	Mines Master Index File
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
SSTS	Section 7 Tracking Systems
ICIS	Integrated Compliance Information System
PADS	PCB Activity Database System
MLTS	Material Licensing Tracking System
RADINFO	Radiation Information Database
FINDS	Facility Index System/Facility Registry System
RAATS	RCRA Administrative Action Tracking System
RMP	Risk Management Plans
CA BOND EXP. PLAN	Bond Expenditure Plan
UIC	UIC Listing
NPDES	NPDES Permits Listing
Cortese	"Cortese" Hazardous Waste & Substances Sites List
CUPA Listings	CUPA Resources List
Notify 65	Proposition 65 Records
LA Co. Site Mitigation	Site Mitigation List
DRYCLEANERS	Cleaner Facilities
LOS ANGELES CO. HMS	HMS: Street Number List
WIP	Well Investigation Program Case List
ENF	Enforcement Action Listing
EMI	Emissions Inventory Data
INDIAN RESERV	Indian Reservations
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
LEAD SMELTERS	Lead Smelter Sites
MWMP	Medical Waste Management Program Listing
US AIRS	Aerometric Information Retrieval System Facility Subsystem
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
Financial Assurance	Financial Assurance Information Listing
PROC	Certified Processors Database
HWP	EnviroStor Permitted Facilities Listing

EXECUTIVE SUMMARY

WDS..... Waste Discharge System
COAL ASH EPA..... Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER..... PCB Transformer Registration Database
2020 COR ACTION..... 2020 Corrective Action Program List
PRP..... Potentially Responsible Parties
COAL ASH DOE..... Steam-Electric Plant Operation Data

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP..... EDR Proprietary Manufactured Gas Plants
EDR US Hist Auto Stat..... EDR Exclusive Historic Gas Stations
EDR US Hist Cleaners..... EDR Exclusive Historic Dry Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF..... Recovered Government Archive Solid Waste Facilities List
RGA LUST..... Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 11/03/2014 has revealed that there is

1 ENVIROSTOR site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
STABILE PLATING CO INC	***1150 E EDNA PL***	***W 1/4 - 1/2 (0.490 mi.)***	***5***	***12***
Status: Refer: Other Agency				

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the LUST list, as provided by EDR, and dated 01/20/2015 has revealed that there is 1 LUST site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
76 PRODUCTS STATION #5012	***856 GLENDORA AVE N***	***W 1/4 - 1/2 (0.314 mi.)***	***4***	***9***
Status: Completed - Case Closed				

ADDITIONAL ENVIRONMENTAL RECORDS

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 12/09/2014 has revealed that there is 1 RCRA NonGen / NLR site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ALVAREZ TRUCKING	857 GREENPARK AVE	E 1/8 - 1/4 (0.211 mi.)	A3	8

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there is 1 HIST CORTESE site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
76 PRODUCTS STATION #5012	***856 GLENDORA AVE N***	***W 1/4 - 1/2 (0.314 mi.)***	***4***	***9***

EXECUTIVE SUMMARY

HWT: A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

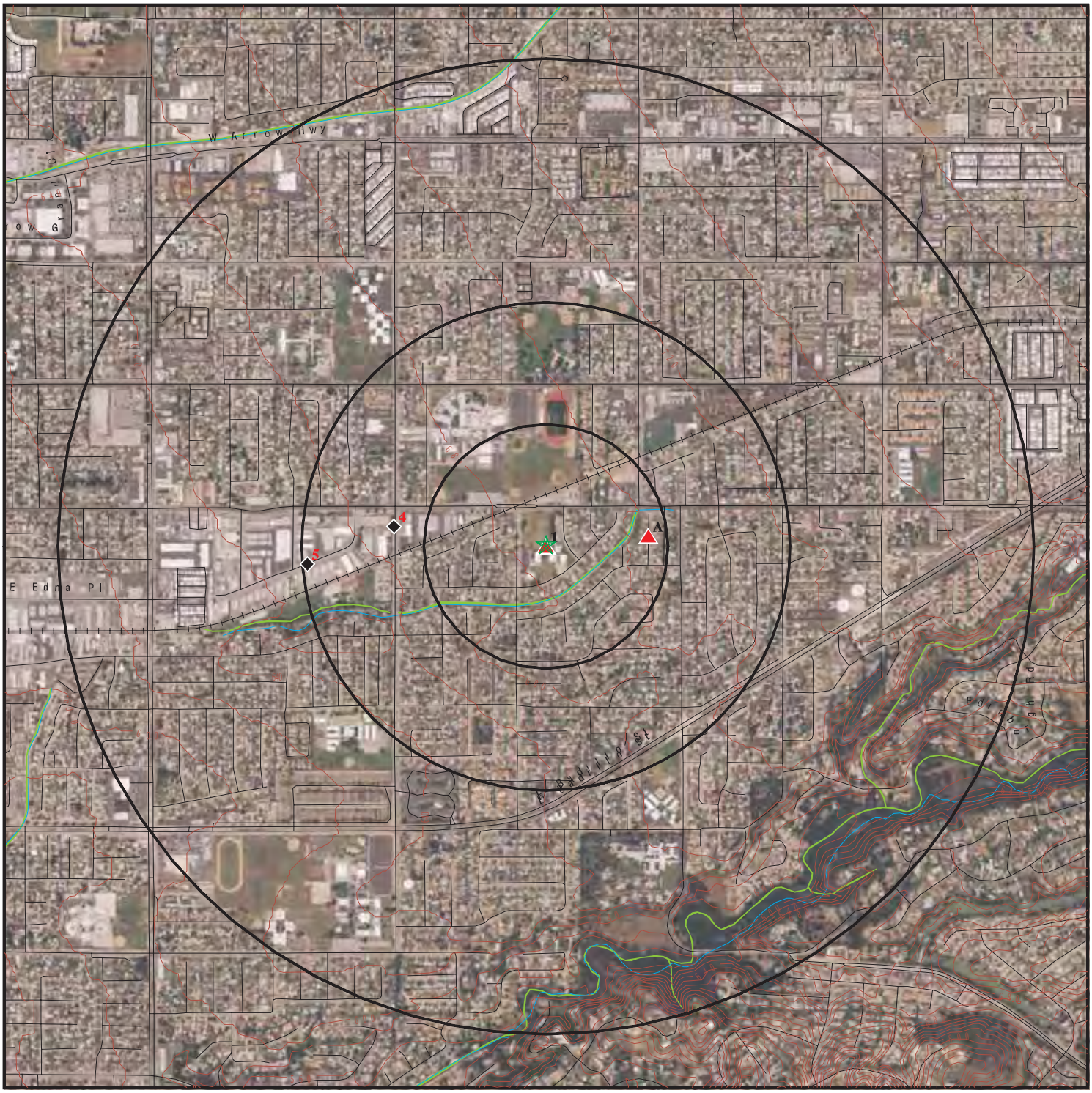
A review of the HWT list, as provided by EDR, and dated 01/12/2015 has revealed that there is 1 HWT site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ALVAREZ TRUCKING	857 GREENPARK AVENUE	E 1/8 - 1/4 (0.211 mi.)	A2	8

EXECUTIVE SUMMARY

There were no unmapped sites in this report.

OVERVIEW MAP - 4208365.2S



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites

0 1/4 1/2 1 Miles

- Indian Reservations BIA
- Oil & Gas pipelines from USGS
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Banna Crossings	CLIENT: Partner Engineering and Science, Inc.
ADDRESS: 800 North Banna Avenue Covina CA 91724	CONTACT: Marco Acosta
LAT/LONG: 34.0946 / 117.8584	INQUIRY #: 4208365.2s
	DATE: February 16, 2015 10:58 am

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DETAIL MAP - 4208365.2S

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites

0 1/16 1/8 1/4 Miles

- Indian Reservations BIA
- Oil & Gas pipelines from USGS
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Banna Crossings	CLIENT: Partner Engineering and Science, Inc.
ADDRESS: 800 North Banna Avenue Covina CA 91724	CONTACT: Marco Acosta INQUIRY #: 4208365.2s
LAT/LONG: 34.0946 / 117.8584	DATE: February 16, 2015 11:00 am

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	TP		NR	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
CERCLIS	0.500		0	0	0	NR	NR	0
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site List								
CERC-NFRAP	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
LUCIS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		0	0	1	0	NR	1
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		0	0	1	NR	NR	1

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
SLIC	0.500		0	0	0	NR	NR	0
INDIAN LUST	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
FEMA UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	TP		NR	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US CDL	TP		NR	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
AOCONCERN	1.000		0	0	0	0	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
US HIST CDL	TP		NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
CA FID UST	0.250		0	0	NR	NR	NR	0
HIST UST	0.250		0	0	NR	NR	NR	0
SWEEPS UST	0.250		0	0	NR	NR	NR	0
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
LIENS	TP		NR	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
CHMIRS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LDS	TP		NR	NR	NR	NR	NR	0
MCS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	1	NR	NR	NR	1
DOT OPS	TP		NR	NR	NR	NR	NR	0
DOD	1.000		0	0	0	0	NR	0
FUDS	1.000		0	0	0	0	NR	0
CONSENT	1.000		0	0	0	0	NR	0
ROD	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
Cortese	0.500		0	0	0	NR	NR	0
HIST CORTESE	0.500		0	0	1	NR	NR	1
CUPA Listings	0.250		0	0	NR	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
LA Co. Site Mitigation	TP		NR	NR	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
LOS ANGELES CO. HMS	TP		NR	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
ENF	TP		NR	NR	NR	NR	NR	0
HAZNET	TP	1	NR	NR	NR	NR	NR	1
EMI	TP		NR	NR	NR	NR	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
HWT	0.250		0	1	NR	NR	NR	1
HWP	1.000		0	0	0	0	NR	0
WDS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR US Hist Auto Stat	0.250		0	0	NR	NR	NR	0
EDR US Hist Cleaners	0.250		0	0	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	TP		NR	NR	NR	NR	NR	0
RGA LUST	TP		NR	NR	NR	NR	NR	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

1
Target
Property

Actual:
686 ft.

VISION OF FAITH INTERNATIONAL — **HAZNET** — **S112969149**
800 N BANNA AVE — **N/A**
COVINA, CA 91724

HAZNET:

envid:	S112969149
Year:	2008
GEPAID:	CAC002628723
Contact:	BLANCA GARCIA
Telephone:	6269381049
Mailing Name:	Not reported
Mailing Address:	800 N BANNA AVE
Mailing City,St,Zip:	COVINA, CA 917242532
Gen County:	Not reported
TSD EPA ID:	AZC950823111
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.4
Facility County:	Los Angeles

A2
East
1/8-1/4
0.211 mi.
1113 ft.

Site 1 of 2 in cluster A

Relative:
Higher

Actual:
703 ft.

ALVAREZ TRUCKING — **HWT** — **S109466483**
857 GREENPARK AVENUE — **N/A**
COVINA, CA 91724

HWT:

Reg Num:	4140
Expiration Date:	03/31/2015

A3
East
1/8-1/4
0.211 mi.
1113 ft.

Site 2 of 2 in cluster A

Relative:
Higher

Actual:
703 ft.

ALVAREZ TRUCKING — **RCRA NonGen / NLR** — **1012176160**
857 GREENPARK AVE — **CAR000200204**
COVINA, CA 91724

RCRA NonGen / NLR:

Date form received by agency:	05/01/2009
Facility name:	ALVAREZ TRUCKING
Facility address:	857 GREENPARK AVE COVINA, CA 91724
EPA ID:	CAR000200204
Contact:	MARTIN ALVAREZ
Contact address:	857 GREENPARK AVE COVINA, CA 91724
Contact country:	US
Contact telephone:	626-523-2085
Contact email:	Not reported
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	MARTIN ALVAREZ
Owner/operator address:	857 GREENPARK AVE COVINA, CA 91724

ALVAREZ TRUCKING (Continued) **1012176160**

Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1995
Owner/Op end date: Not reported

Owner/operator name: MARTIN ALVAREZ
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/01/1995
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: Yes
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

4
West
1/4-1/2
0.314 mi.
1657 ft.

76 PRODUCTS STATION #5012 **HIST CORTESE** **S102590659**
856 GLENDORA AVE N **LUST** **N/A**
COVINA, CA 91722

Relative:
Lower

Actual:
666 ft.

HIST CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: I-10313

LUST:
Region: STATE
Global Id: T0603703605
Latitude: 34.09551
Longitude: -117.863451
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 06/18/1991
Lead Agency: LOS ANGELES COUNTY
Case Worker: JOA

76 PRODUCTS STATION #5012 (Continued) **S102590659**

Local Agency:	LOS ANGELES COUNTY
RB Case Number:	I-10313
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603703605
Contact Type:	Regional Board Caseworker
Contact Name:	YUE RONG
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	Los Angeles
Email:	yrong@waterboards.ca.gov
Phone Number:	Not reported

Global Id:	T0603703605
Contact Type:	Local Agency Caseworker
Contact Name:	JOHN AWUJO
Organization Name:	LOS ANGELES COUNTY
Address:	900 S FREMONT AVE
City:	ALHAMBRA
Email:	jawujo@dpw.lacounty.gov
Phone Number:	6264583507

Status History:

Global Id:	T0603703605
Status:	Completed - Case Closed
Status Date:	06/18/1991

Global Id:	T0603703605
Status:	Open - Case Begin Date
Status Date:	03/16/1990

Regulatory Activities:

Global Id:	T0603703605
Action Type:	Other
Date:	03/16/1990
Action:	Leak Reported

LUST REG 4:

Region:	4
Regional Board:	04
County:	Los Angeles
Facility Id:	I-10313
Status:	Case Closed
Substance:	Gasoline
Substance Quantity:	Not reported
Local Case No:	Not reported
Case Type:	Soil
Abatement Method Used at the Site:	Not reported

76 PRODUCTS STATION #5012 (Continued) **S102590659**

Global ID:	T0603703605	
W Global ID:	Not reported	
Staff:	UNK	
Local Agency:	19000	
Cross Street:	Not reported	
Enforcement Type:	Not reported	
Date Leak Discovered:	Not reported	
Date Leak First Reported:		3/16/1990
Date Leak Record Entered:	5/15/1990	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		4/26/2000
Date the Case was Closed:		6/18/1991
How Leak Discovered:	Not reported	
How Leak Stopped:	Not reported	
Cause of Leak:	Not reported	
Leak Source:	Not reported	
Operator:	Not reported	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		4382.5377226592516721917916783
Source of Cleanup Funding:		F
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		Not reported
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		Not reported
Hist Max MTBE Conc in Groundwater:		Not reported
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Not reported
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	TOSCO/76 PRODUCTS TEAM	
RP Address:	555 ANTON, COSTA MESA, CA 92626	
Program:	LUST	
Lat/Long:	34.095096 / -1	
Local Agency Staff:	Not reported	
Beneficial Use:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	
Assigned Name:	Not reported	
Summary:	Not reported	

5 West 1/4-1/2 0.490 mi. 2585 ft. | **STABILE PLATING CO INC**
1150 E EDNA PL
COVINA, CA 91724 | **NPDES** **EMI** **ENVIROSTOR** | **S100945688** **N/A**

Relative: Lower

Actual: 647 ft.

NPDES:

Npdes Number:	CAS000001
Facility Status:	Active
Agency Id:	0
Region:	4
Regulatory Measure Id:	189818
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	4 19I009518
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	11/27/1992
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Stabile Plating
Discharge Address:	1150 E Edna Pl
Discharge City:	Covina
Discharge State:	California
Discharge Zip:	91724

EMI:

Year:	1990
County Code:	19
Air Basin:	SC
Facility ID:	5743
Air District Name:	SC
SIC Code:	3471
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	2
Part. Matter 10 Micrometers & Smllr Tons/Yr:	1

ENVIROSTOR:

Facility ID:	71002539
Status:	Refer: Other Agency
Status Date:	Not reported
Site Code:	Not reported
Site Type:	Tiered Permit
Site Type Detailed:	Tiered Permit
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	Not reported

STABILE PLATING CO INC (Continued) **S100945688**

Division Branch:	Cleanup Chatsworth
Assembly:	48
Senate:	24
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not reported
Latitude:	34.09366
Longitude:	-117.8669
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	CAD067729731
Alias Type:	EPA Identification Number
Alias Name:	110002143001
Alias Type:	EPA (FRS #)
Alias Name:	71002539
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Inspections/Visit (Non LUR)
Completed Date:	12/30/1999
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

Count: 0 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
		NO SITES FOUND			

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 12/16/2014
Date Data Arrived at EDR: 01/08/2015
Date Made Active in Reports: 02/09/2015
Number of Days to Update: 32

Source: EPA
Telephone: N/A
Last EDR Contact: 01/08/2015
Next Scheduled EDR Contact: 04/20/2015
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 12/16/2014
Date Data Arrived at EDR: 01/08/2015
Date Made Active in Reports: 02/09/2015
Number of Days to Update: 32

Source: EPA
Telephone: N/A
Last EDR Contact: 01/08/2015
Next Scheduled EDR Contact: 04/20/2015
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 12/16/2014	Source: EPA
Date Data Arrived at EDR: 01/08/2015	Telephone: N/A
Date Made Active in Reports: 02/09/2015	Last EDR Contact: 01/08/2015
Number of Days to Update: 32	Next Scheduled EDR Contact: 04/20/2015
	Data Release Frequency: Quarterly

Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 11/11/2013	Telephone: 703-412-9810
Date Made Active in Reports: 02/13/2014	Last EDR Contact: 01/09/2015
Number of Days to Update: 94	Next Scheduled EDR Contact: 03/09/2015
	Data Release Frequency: Quarterly

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 07/21/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 10/07/2014	Telephone: 703-603-8704
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 01/09/2015
Number of Days to Update: 13	Next Scheduled EDR Contact: 04/20/2015
	Data Release Frequency: Varies

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 11/11/2013	Telephone: 703-412-9810
Date Made Active in Reports: 02/13/2014	Last EDR Contact: 01/09/2015
Number of Days to Update: 94	Next Scheduled EDR Contact: 03/09/2015
	Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/09/2014
Date Data Arrived at EDR: 12/29/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 31

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 12/29/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 12/09/2014
Date Data Arrived at EDR: 12/29/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/29/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/09/2014
Date Data Arrived at EDR: 12/29/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/29/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 12/09/2014
Date Data Arrived at EDR: 12/29/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/29/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/09/2014
Date Data Arrived at EDR: 12/29/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/29/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 09/18/2014
Date Data Arrived at EDR: 09/19/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 12/03/2014
Next Scheduled EDR Contact: 03/16/2015
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 09/18/2014
Date Data Arrived at EDR: 09/19/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 12/03/2014
Next Scheduled EDR Contact: 03/16/2015
Data Release Frequency: Varies

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/03/2014
Date Data Arrived at EDR: 12/12/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 48

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 11/17/2014
Next Scheduled EDR Contact: 03/02/2015
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/29/2014
Date Data Arrived at EDR: 09/30/2014
Date Made Active in Reports: 11/06/2014
Number of Days to Update: 37

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 12/29/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Annually

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 11/03/2014
Date Data Arrived at EDR: 11/04/2014
Date Made Active in Reports: 12/12/2014
Number of Days to Update: 38

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/03/2015
Next Scheduled EDR Contact: 05/18/2015
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 11/03/2014
Date Data Arrived at EDR: 11/04/2014
Date Made Active in Reports: 12/12/2014
Number of Days to Update: 38

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/03/2015
Next Scheduled EDR Contact: 05/18/2015
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 11/17/2014
Date Data Arrived at EDR: 11/19/2014
Date Made Active in Reports: 12/24/2014
Number of Days to Update: 35

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 11/19/2014
Next Scheduled EDR Contact: 03/02/2015
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Varies

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST: Geotracker's Leaking Underground Fuel Tank Report
Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 01/20/2015
Date Data Arrived at EDR: 01/21/2015
Date Made Active in Reports: 02/05/2015
Number of Days to Update: 15

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 01/21/2015
Next Scheduled EDR Contact: 03/30/2015
Data Release Frequency: Quarterly

LUST REG 5: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 9: Leaking Underground Storage Tank Report
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC: Statewide SLIC Cases
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 01/20/2015
Date Data Arrived at EDR: 01/21/2015
Date Made Active in Reports: 02/05/2015
Number of Days to Update: 15

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 01/21/2015
Next Scheduled EDR Contact: 03/30/2015
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 11/10/2014
Date Data Arrived at EDR: 11/14/2014
Date Made Active in Reports: 02/09/2015
Number of Days to Update: 87

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Quarterly

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 11/04/2014
Date Data Arrived at EDR: 11/07/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 10

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Quarterly

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 11/03/2014
Date Data Arrived at EDR: 11/05/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 12

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 02/01/2013
Date Data Arrived at EDR: 05/01/2013
Date Made Active in Reports: 11/01/2013
Number of Days to Update: 184

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/30/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 09/23/2014
Date Data Arrived at EDR: 11/25/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 65

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 10/06/2014
Date Data Arrived at EDR: 10/29/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 19

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 07/30/2014
Date Data Arrived at EDR: 08/12/2014
Date Made Active in Reports: 08/22/2014
Number of Days to Update: 10

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Semi-Annually

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 01/08/2015
Date Data Arrived at EDR: 01/08/2015
Date Made Active in Reports: 02/09/2015
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 01/08/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Quarterly

State and tribal registered storage tank lists

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 01/20/2015
Date Data Arrived at EDR: 01/21/2015
Date Made Active in Reports: 01/27/2015
Number of Days to Update: 6

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 01/21/2015
Next Scheduled EDR Contact: 03/30/2015
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 08/01/2009
Date Data Arrived at EDR: 09/10/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 21

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 12/23/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Quarterly

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 02/01/2013
Date Data Arrived at EDR: 05/01/2013
Date Made Active in Reports: 01/27/2014
Number of Days to Update: 271

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/30/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 07/30/2014
Date Data Arrived at EDR: 08/12/2014
Date Made Active in Reports: 08/22/2014
Number of Days to Update: 10

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 11/03/2014
Date Data Arrived at EDR: 11/05/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 12

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 10/06/2014
Date Data Arrived at EDR: 10/29/2014
Date Made Active in Reports: 11/06/2014
Number of Days to Update: 8

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Semi-Annually

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 09/23/2014
Date Data Arrived at EDR: 11/25/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 65

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 11/04/2014
Date Data Arrived at EDR: 11/07/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 10

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 11/13/2014
Date Data Arrived at EDR: 11/18/2014
Date Made Active in Reports: 02/09/2015
Number of Days to Update: 83

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 11/10/2014
Date Data Arrived at EDR: 11/14/2014
Date Made Active in Reports: 02/09/2015
Number of Days to Update: 87

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Quarterly

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 01/12/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

VCP: Voluntary Cleanup Program Properties
Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 11/03/2014
Date Data Arrived at EDR: 11/04/2014
Date Made Active in Reports: 12/12/2014
Number of Days to Update: 38

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/03/2015
Next Scheduled EDR Contact: 05/18/2015
Data Release Frequency: Quarterly

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 09/29/2014
Date Data Arrived at EDR: 10/01/2014
Date Made Active in Reports: 11/06/2014
Number of Days to Update: 36

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 12/31/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 12/22/2014
Date Data Arrived at EDR: 12/22/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 38

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 12/22/2014
Next Scheduled EDR Contact: 04/06/2015
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 12/15/2014
Date Data Arrived at EDR: 12/15/2014
Date Made Active in Reports: 01/26/2015
Number of Days to Update: 42

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 12/15/2014
Next Scheduled EDR Contact: 03/30/2015
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 12/01/2014
Date Data Arrived at EDR: 12/01/2014
Date Made Active in Reports: 01/23/2015
Number of Days to Update: 53

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 11/12/2014
Next Scheduled EDR Contact: 03/02/2015
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 02/02/2015
Next Scheduled EDR Contact: 05/18/2015
Data Release Frequency: Varies

WMUDS/SWAT: Waste Management Unit Database
Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 02/09/2015
Next Scheduled EDR Contact: 05/25/2015
Data Release Frequency: No Update Planned

Local Lists of Hazardous waste / Contaminated Sites

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 11/10/2014
Date Data Arrived at EDR: 12/01/2014
Date Made Active in Reports: 02/09/2015
Number of Days to Update: 70

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/25/2014
Next Scheduled EDR Contact: 03/16/2015
Data Release Frequency: Quarterly

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 11/03/2014
Date Data Arrived at EDR: 11/04/2014
Date Made Active in Reports: 12/12/2014
Number of Days to Update: 38

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/03/2015
Next Scheduled EDR Contact: 05/18/2015
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 06/30/2014
Date Data Arrived at EDR: 09/02/2014
Date Made Active in Reports: 09/24/2014
Number of Days to Update: 22

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 01/12/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: Varies

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 11/10/2014
Date Data Arrived at EDR: 12/01/2014
Date Made Active in Reports: 02/09/2015
Number of Days to Update: 70

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/25/2014
Next Scheduled EDR Contact: 03/16/2015
Data Release Frequency: No Update Planned

Local Lists of Registered Storage Tanks

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 09/23/2009
Date Data Arrived at EDR: 09/23/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 8

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 12/24/2014
Next Scheduled EDR Contact: 03/16/2015
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/18/2014
Date Data Arrived at EDR: 03/18/2014
Date Made Active in Reports: 04/24/2014
Number of Days to Update: 37

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 01/30/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Varies

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 12/15/2014
Date Data Arrived at EDR: 12/18/2014
Date Made Active in Reports: 01/23/2015
Number of Days to Update: 36

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 12/05/2014
Next Scheduled EDR Contact: 03/23/2015
Data Release Frequency: Varies

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 12/08/2014
Date Data Arrived at EDR: 12/09/2014
Date Made Active in Reports: 01/23/2015
Number of Days to Update: 45

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 12/09/2014
Next Scheduled EDR Contact: 03/23/2015
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 09/30/2014
Date Data Arrived at EDR: 10/01/2014
Date Made Active in Reports: 11/06/2014
Number of Days to Update: 36

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 12/30/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Annually

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 10/27/2014
Date Data Arrived at EDR: 10/29/2014
Date Made Active in Reports: 12/10/2014
Number of Days to Update: 42

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 01/28/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing

The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units.

Date of Government Version: 01/20/2015
Date Data Arrived at EDR: 01/21/2015
Date Made Active in Reports: 02/05/2015
Number of Days to Update: 15

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 01/21/2015
Next Scheduled EDR Contact: 03/30/2015
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing

The State Water Resources Control Board and nine Regional Water Quality Control Boards partner with the Department of Defense (DoD) through the Defense and State Memorandum of Agreement (DSMOA) to oversee the investigation and remediation of water quality issues at military facilities.

Date of Government Version: 01/20/2015
Date Data Arrived at EDR: 01/21/2015
Date Made Active in Reports: 02/05/2015
Number of Days to Update: 15

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 01/21/2015
Next Scheduled EDR Contact: 03/30/2015
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 12/09/2014
Date Data Arrived at EDR: 12/29/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/29/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Varies

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 02/03/2015
Next Scheduled EDR Contact: 05/18/2015
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 01/15/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 06/06/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 09/18/2014
Number of Days to Update: 8

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 12/12/2014
Next Scheduled EDR Contact: 03/23/2015
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 01/24/2014
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 31

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 12/24/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013
Date Data Arrived at EDR: 12/12/2013
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 74

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 12/12/2014
Next Scheduled EDR Contact: 03/23/2015
Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010
Date Data Arrived at EDR: 10/07/2011
Date Made Active in Reports: 03/01/2012
Number of Days to Update: 146

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 11/26/2014
Next Scheduled EDR Contact: 03/09/2015
Data Release Frequency: Varies

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 12/30/2014
Date Data Arrived at EDR: 12/31/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 29

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 12/30/2014
Next Scheduled EDR Contact: 03/16/2015
Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 07/31/2013
Date Made Active in Reports: 09/13/2013
Number of Days to Update: 44

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 01/29/2015
Next Scheduled EDR Contact: 03/09/2015
Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 01/15/2015
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 14

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 12/22/2014
Next Scheduled EDR Contact: 04/06/2015
Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 11/19/2014
Next Scheduled EDR Contact: 03/09/2015
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 11/19/2014
Next Scheduled EDR Contact: 03/09/2015
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems
Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 07/31/2014
Date Data Arrived at EDR: 10/29/2014
Date Made Active in Reports: 11/06/2014
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 01/09/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 10/15/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 33

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 01/16/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 12/29/2014
Date Data Arrived at EDR: 01/08/2015
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 21

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 12/04/2014
Next Scheduled EDR Contact: 03/23/2015
Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 10/07/2014
Date Data Arrived at EDR: 10/08/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 12

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 01/08/2015
Next Scheduled EDR Contact: 04/20/2015
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 08/16/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 12/09/2014
Next Scheduled EDR Contact: 03/23/2015
Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 08/01/2014
Date Data Arrived at EDR: 08/12/2014
Date Made Active in Reports: 11/06/2014
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 04/19/2013
Number of Days to Update: 52

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 11/26/2014
Next Scheduled EDR Contact: 03/09/2015
Data Release Frequency: Biennially

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 11/17/2014
Date Data Arrived at EDR: 11/19/2014
Date Made Active in Reports: 12/29/2014
Number of Days to Update: 40

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 11/19/2014
Next Scheduled EDR Contact: 03/02/2015
Data Release Frequency: Quarterly

UIC: UIC Listing
A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 11/19/2014
Date Data Arrived at EDR: 12/15/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 45

Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 12/15/2014
Next Scheduled EDR Contact: 03/30/2015
Data Release Frequency: Varies

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 12/29/2014
Date Data Arrived at EDR: 12/29/2014
Date Made Active in Reports: 02/03/2015
Number of Days to Update: 36

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 12/29/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List
The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 10/21/1993
Date Data Arrived at EDR: 11/01/1993
Date Made Active in Reports: 11/19/1993
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 12/18/2014
Next Scheduled EDR Contact: 04/06/2015
Data Release Frequency: No Update Planned

DRYCLEANERS: Cleaner Facilities
A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 06/28/2014
Date Data Arrived at EDR: 07/03/2014
Date Made Active in Reports: 08/21/2014
Number of Days to Update: 49

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 12/22/2014
Next Scheduled EDR Contact: 03/23/2015
Data Release Frequency: Annually

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 12/23/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 11/10/2014
Date Data Arrived at EDR: 11/12/2014
Date Made Active in Reports: 12/12/2014
Number of Days to Update: 30

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 10/15/2014
Date Made Active in Reports: 11/19/2014
Number of Days to Update: 35

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 01/16/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 03/25/2014
Date Made Active in Reports: 04/28/2014
Number of Days to Update: 34

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 12/24/2014
Next Scheduled EDR Contact: 04/06/2015
Data Release Frequency: Varies

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 01/15/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: Semi-Annually

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 11/18/2014
Next Scheduled EDR Contact: 02/02/2015
Data Release Frequency: Varies

PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 12/15/2014
Date Data Arrived at EDR: 12/15/2014
Date Made Active in Reports: 01/26/2015
Number of Days to Update: 42

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 12/15/2014
Next Scheduled EDR Contact: 03/30/2015
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 02/09/2015
Next Scheduled EDR Contact: 05/25/2015
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 11/11/2011
Date Data Arrived at EDR: 05/18/2012
Date Made Active in Reports: 05/25/2012
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 02/13/2015
Next Scheduled EDR Contact: 05/25/2015
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 11/25/2014
Date Data Arrived at EDR: 11/26/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 64

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 01/05/2015
Next Scheduled EDR Contact: 04/20/2015
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 10/17/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 3

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 02/13/2015
Next Scheduled EDR Contact: 05/25/2015
Data Release Frequency: Quarterly

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 11/19/2014
Next Scheduled EDR Contact: 03/09/2015
Data Release Frequency: Quarterly

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 01/15/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: N/A

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/16/2014
Date Data Arrived at EDR: 10/31/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 17

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 02/06/2015
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/16/2014
Date Data Arrived at EDR: 10/31/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 17

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 02/06/2015
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Annually

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 12/12/2014
Next Scheduled EDR Contact: 03/23/2015
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 83

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 01/30/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Varies

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 11/13/2014
Date Data Arrived at EDR: 12/09/2014
Date Made Active in Reports: 01/26/2015
Number of Days to Update: 48

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 12/09/2014
Next Scheduled EDR Contact: 03/23/2015
Data Release Frequency: Varies

COAL ASH DOE: Sleam-Electric Plan Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 01/15/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: Varies

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 01/12/2015
Date Data Arrived at EDR: 01/13/2015
Date Made Active in Reports: 02/03/2015
Number of Days to Update: 21

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 01/13/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: Quarterly

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 11/24/2014
Date Data Arrived at EDR: 11/25/2014
Date Made Active in Reports: 12/30/2014
Number of Days to Update: 35

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/25/2014
Next Scheduled EDR Contact: 03/09/2015
Data Release Frequency: Quarterly

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 11/19/2014
Date Data Arrived at EDR: 11/21/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 69

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 11/11/2014
Next Scheduled EDR Contact: 03/02/2015
Data Release Frequency: Quarterly

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 11/17/2014
Date Data Arrived at EDR: 11/18/2014
Date Made Active in Reports: 12/29/2014
Number of Days to Update: 41

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 11/26/2014
Next Scheduled EDR Contact: 03/02/2015
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 10/28/2014
Date Data Arrived at EDR: 10/30/2014
Date Made Active in Reports: 12/10/2014
Number of Days to Update: 41

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR US Hist Auto Stat: EDR Exclusive Historic Gas Stations
EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR US Hist Cleaners: EDR Exclusive Historic Dry Cleaners
EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List
The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank
The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites
A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 10/21/2014
Date Data Arrived at EDR: 11/07/2014
Date Made Active in Reports: 12/12/2014
Number of Days to Update: 35

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 12/29/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Semi-Annually

Underground Tanks
Underground storage tank sites located in Alameda county.

Date of Government Version: 10/21/2014
Date Data Arrived at EDR: 11/07/2014
Date Made Active in Reports: 12/15/2014
Number of Days to Update: 38

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 12/29/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA Facility List
Cupa Facility List

Date of Government Version: 12/08/2014
Date Data Arrived at EDR: 12/11/2014
Date Made Active in Reports: 01/23/2015
Number of Days to Update: 43

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 12/05/2014
Next Scheduled EDR Contact: 03/23/2015
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA Facility Listing
Cupa facility list.

Date of Government Version: 11/20/2014
Date Data Arrived at EDR: 11/24/2014
Date Made Active in Reports: 01/07/2015
Number of Days to Update: 44

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 02/09/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 10/06/2014
Date Data Arrived at EDR: 10/07/2014
Date Made Active in Reports: 11/19/2014
Number of Days to Update: 43

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 01/12/2015
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 06/11/2014
Date Data Arrived at EDR: 06/13/2014
Date Made Active in Reports: 07/07/2014
Number of Days to Update: 24

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 02/09/2015
Next Scheduled EDR Contact: 05/25/2015
Data Release Frequency: Varies

CONTRA COSTA COUNTY:

Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 11/17/2014
Date Data Arrived at EDR: 11/19/2014
Date Made Active in Reports: 01/06/2015
Number of Days to Update: 48

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 02/02/2015
Next Scheduled EDR Contact: 05/18/2015
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List
Cupa Facility list

Date of Government Version: 11/03/2014
Date Data Arrived at EDR: 11/04/2014
Date Made Active in Reports: 12/12/2014
Number of Days to Update: 38

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 02/02/2015
Next Scheduled EDR Contact: 05/18/2015
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 11/19/2014
Date Data Arrived at EDR: 11/21/2014
Date Made Active in Reports: 12/29/2014
Number of Days to Update: 38

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 02/02/2015
Next Scheduled EDR Contact: 05/18/2015
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 01/16/2015
Date Made Active in Reports: 02/05/2015
Number of Days to Update: 20

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 01/05/2015
Next Scheduled EDR Contact: 04/20/2015
Data Release Frequency: Semi-Annually

HUMBOLDT COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 12/11/2014
Date Data Arrived at EDR: 12/15/2014
Date Made Active in Reports: 01/23/2015
Number of Days to Update: 39

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 11/26/2014
Next Scheduled EDR Contact: 03/09/2015
Data Release Frequency: Varies

IMPERIAL COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 11/03/2014
Date Data Arrived at EDR: 11/04/2014
Date Made Active in Reports: 12/12/2014
Number of Days to Update: 38

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 02/09/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 09/11/2013
Date Made Active in Reports: 10/14/2013
Number of Days to Update: 33

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 11/19/2014
Next Scheduled EDR Contact: 03/09/2015
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 07/22/2014
Date Data Arrived at EDR: 11/12/2014
Date Made Active in Reports: 12/19/2014
Number of Days to Update: 37

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 02/09/2015
Next Scheduled EDR Contact: 05/25/2015
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 11/21/2014
Date Data Arrived at EDR: 11/25/2014
Date Made Active in Reports: 12/30/2014
Number of Days to Update: 35

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 11/21/2014
Next Scheduled EDR Contact: 03/09/2015
Data Release Frequency: Varies

LAKE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 01/20/2015
Date Data Arrived at EDR: 01/21/2015
Date Made Active in Reports: 02/05/2015
Number of Days to Update: 15

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 01/19/2015
Next Scheduled EDR Contact: 05/04/2015
Data Release Frequency: Varies

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 12/18/2014
Next Scheduled EDR Contact: 04/06/2015
Data Release Frequency: No Update Planned

HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 03/31/2014
Date Data Arrived at EDR: 06/06/2014
Date Made Active in Reports: 07/17/2014
Number of Days to Update: 41

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 01/12/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 01/19/2015
Date Data Arrived at EDR: 01/20/2015
Date Made Active in Reports: 02/05/2015
Number of Days to Update: 16

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 01/20/2015
Next Scheduled EDR Contact: 05/04/2015
Data Release Frequency: Varies

City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 03/05/2009
Date Data Arrived at EDR: 03/10/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 29

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 01/19/2015
Next Scheduled EDR Contact: 05/04/2015
Data Release Frequency: Varies

Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 01/07/2014
Date Data Arrived at EDR: 02/25/2014
Date Made Active in Reports: 03/25/2014
Number of Days to Update: 28

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 01/19/2015
Next Scheduled EDR Contact: 05/04/2015
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 10/20/2014
Date Data Arrived at EDR: 10/22/2014
Date Made Active in Reports: 12/15/2014
Number of Days to Update: 54

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 02/02/2015
Next Scheduled EDR Contact: 05/04/2015
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 12/01/2014
Date Data Arrived at EDR: 12/11/2014
Date Made Active in Reports: 01/27/2015
Number of Days to Update: 47

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Annually

City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 01/08/2015
Date Data Arrived at EDR: 01/15/2015
Date Made Active in Reports: 01/27/2015
Number of Days to Update: 12

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 01/12/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 10/02/2014
Date Data Arrived at EDR: 10/03/2014
Date Made Active in Reports: 11/20/2014
Number of Days to Update: 48

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 11/26/2014
Next Scheduled EDR Contact: 03/09/2015
Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 10/08/2014
Date Data Arrived at EDR: 10/22/2014
Date Made Active in Reports: 12/15/2014
Number of Days to Update: 54

Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 01/05/2015
Next Scheduled EDR Contact: 04/20/2015
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 11/25/2014
Date Data Arrived at EDR: 11/26/2014
Date Made Active in Reports: 12/29/2014
Number of Days to Update: 33

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 11/21/2014
Next Scheduled EDR Contact: 03/09/2015
Data Release Frequency: Varies

MONO COUNTY:

CUPA Facility List
CUPA Facility List

Date of Government Version: 12/01/2014
Date Data Arrived at EDR: 12/05/2014
Date Made Active in Reports: 01/23/2015
Number of Days to Update: 49

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 11/26/2014
Next Scheduled EDR Contact: 03/16/2015
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 12/18/2014
Date Data Arrived at EDR: 12/19/2014
Date Made Active in Reports: 01/23/2015
Number of Days to Update: 35

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 11/26/2014
Next Scheduled EDR Contact: 03/09/2015
Data Release Frequency: Varies

NAPA COUNTY:

Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 12/05/2011
Date Data Arrived at EDR: 12/06/2011
Date Made Active in Reports: 02/07/2012
Number of Days to Update: 63

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 11/25/2014
Next Scheduled EDR Contact: 03/16/2015
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 11/25/2014
Next Scheduled EDR Contact: 03/16/2015
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 09/16/2014
Date Data Arrived at EDR: 09/18/2014
Date Made Active in Reports: 09/25/2014
Number of Days to Update: 7

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 02/06/2015
Next Scheduled EDR Contact: 05/18/2015
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 11/01/2014
Date Data Arrived at EDR: 11/12/2014
Date Made Active in Reports: 12/12/2014
Number of Days to Update: 30

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/09/2015
Next Scheduled EDR Contact: 05/25/2015
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 11/01/2014
Date Data Arrived at EDR: 11/12/2014
Date Made Active in Reports: 12/12/2014
Number of Days to Update: 30

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/09/2015
Next Scheduled EDR Contact: 05/25/2015
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 11/01/2014
Date Data Arrived at EDR: 11/10/2014
Date Made Active in Reports: 12/15/2014
Number of Days to Update: 35

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/09/2015
Next Scheduled EDR Contact: 05/25/2015
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 12/08/2014
Date Data Arrived at EDR: 12/09/2014
Date Made Active in Reports: 01/26/2015
Number of Days to Update: 48

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 12/05/2014
Next Scheduled EDR Contact: 03/23/2015
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 10/08/2014
Date Data Arrived at EDR: 10/10/2014
Date Made Active in Reports: 11/20/2014
Number of Days to Update: 41

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/22/2014
Next Scheduled EDR Contact: 01/05/2015
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 10/08/2014
Date Data Arrived at EDR: 10/10/2014
Date Made Active in Reports: 11/25/2014
Number of Days to Update: 46

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/22/2014
Next Scheduled EDR Contact: 04/06/2015
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 11/03/2014
Date Data Arrived at EDR: 01/07/2015
Date Made Active in Reports: 02/03/2015
Number of Days to Update: 27

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/07/2015
Next Scheduled EDR Contact: 04/20/2015
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 11/03/2014
Date Data Arrived at EDR: 01/09/2015
Date Made Active in Reports: 02/03/2015
Number of Days to Update: 25

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/05/2015
Next Scheduled EDR Contact: 04/20/2015
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 12/02/2014
Date Data Arrived at EDR: 12/04/2014
Date Made Active in Reports: 01/26/2015
Number of Days to Update: 53

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 02/09/2015
Next Scheduled EDR Contact: 05/25/2015
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 09/23/2013
Date Data Arrived at EDR: 09/24/2013
Date Made Active in Reports: 10/17/2013
Number of Days to Update: 23

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 12/04/2014
Next Scheduled EDR Contact: 03/23/2015
Data Release Frequency: Quarterly

Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2014
Date Data Arrived at EDR: 11/21/2014
Date Made Active in Reports: 12/29/2014
Number of Days to Update: 38

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Varies

Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 12/04/2014
Next Scheduled EDR Contact: 03/23/2015
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversite Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 02/09/2015
Next Scheduled EDR Contact: 05/25/2015
Data Release Frequency: Quarterly

Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/29/2010
Date Data Arrived at EDR: 03/10/2011
Date Made Active in Reports: 03/15/2011
Number of Days to Update: 5

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 02/09/2015
Next Scheduled EDR Contact: 05/25/2015
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 01/08/2015
Date Data Arrived at EDR: 01/12/2015
Date Made Active in Reports: 01/27/2015
Number of Days to Update: 15

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 01/05/2015
Next Scheduled EDR Contact: 04/06/2015
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 11/21/2014
Date Data Arrived at EDR: 11/24/2014
Date Made Active in Reports: 12/30/2014
Number of Days to Update: 36

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 11/21/2014
Next Scheduled EDR Contact: 03/09/2015
Data Release Frequency: Varies

SAN MATEO COUNTY:

Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 01/09/2015
Date Data Arrived at EDR: 01/12/2015
Date Made Active in Reports: 02/03/2015
Number of Days to Update: 22

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 12/15/2014
Next Scheduled EDR Contact: 03/30/2015
Data Release Frequency: Annually

Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 12/15/2014
Date Data Arrived at EDR: 12/18/2014
Date Made Active in Reports: 01/26/2015
Number of Days to Update: 39

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 12/11/2014
Next Scheduled EDR Contact: 03/30/2015
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 11/19/2014
Next Scheduled EDR Contact: 03/09/2015
Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List
Cupa facility list

Date of Government Version: 11/25/2014
Date Data Arrived at EDR: 11/26/2014
Date Made Active in Reports: 12/30/2014
Number of Days to Update: 34

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 11/21/2014
Next Scheduled EDR Contact: 03/09/2015
Data Release Frequency: Varies

HIST LUST - Fuel Leak Site Activity Report

A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LOP Listing

A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 11/25/2014
Next Scheduled EDR Contact: 03/16/2015
Data Release Frequency: Annually

Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 11/10/2014
Date Data Arrived at EDR: 11/10/2014
Date Made Active in Reports: 12/15/2014
Number of Days to Update: 35

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 02/09/2015
Next Scheduled EDR Contact: 05/25/2015
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List

CUPA facility listing.

Date of Government Version: 11/24/2014
Date Data Arrived at EDR: 11/25/2014
Date Made Active in Reports: 12/31/2014
Number of Days to Update: 36

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 11/21/2014
Next Scheduled EDR Contact: 03/09/2015
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List

Cupa Facility List.

Date of Government Version: 12/09/2014
Date Data Arrived at EDR: 12/11/2014
Date Made Active in Reports: 01/23/2015
Number of Days to Update: 43

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 11/26/2014
Next Scheduled EDR Contact: 03/09/2015
Data Release Frequency: Varies

SOLANO COUNTY:

Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 11/17/2014
Date Data Arrived at EDR: 11/24/2014
Date Made Active in Reports: 01/05/2015
Number of Days to Update: 42

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 12/11/2014
Next Scheduled EDR Contact: 03/30/2015
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 11/17/2014
Date Data Arrived at EDR: 12/01/2014
Date Made Active in Reports: 01/27/2015
Number of Days to Update: 57

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 12/11/2014
Next Scheduled EDR Contact: 03/30/2015
Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List
Cupa Facility list

Date of Government Version: 01/06/2015
Date Data Arrived at EDR: 01/09/2015
Date Made Active in Reports: 02/05/2015
Number of Days to Update: 27

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 12/29/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Varies

Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 01/02/2015
Date Data Arrived at EDR: 01/06/2015
Date Made Active in Reports: 02/03/2015
Number of Days to Update: 28

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 12/29/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 12/08/2014
Date Data Arrived at EDR: 12/08/2014
Date Made Active in Reports: 01/27/2015
Number of Days to Update: 50

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 12/05/2014
Next Scheduled EDR Contact: 03/23/2015
Data Release Frequency: Semi-Annually

TUOLUMNE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 10/28/2014
Date Data Arrived at EDR: 10/29/2014
Date Made Active in Reports: 12/12/2014
Number of Days to Update: 44

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Varies

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 10/29/2014
Date Data Arrived at EDR: 11/24/2014
Date Made Active in Reports: 12/29/2014
Number of Days to Update: 35

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 11/17/2014
Next Scheduled EDR Contact: 03/02/2015
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites

Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 01/05/2015
Next Scheduled EDR Contact: 04/20/2015
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites

Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 11/17/2014
Next Scheduled EDR Contact: 03/02/2015
Data Release Frequency: Quarterly

Medical Waste Program List

To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 09/26/2014
Date Data Arrived at EDR: 10/29/2014
Date Made Active in Reports: 12/12/2014
Number of Days to Update: 44

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Quarterly

Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 11/26/2014
Date Data Arrived at EDR: 12/15/2014
Date Made Active in Reports: 02/02/2015
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 12/15/2014
Next Scheduled EDR Contact: 03/30/2015
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report

Underground storage tank sites located in Yolo county.

Date of Government Version: 12/18/2014
Date Data Arrived at EDR: 12/23/2014
Date Made Active in Reports: 01/27/2015
Number of Days to Update: 35

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 12/18/2014
Next Scheduled EDR Contact: 04/06/2015
Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 11/17/2014
Date Data Arrived at EDR: 11/18/2014
Date Made Active in Reports: 12/30/2014
Number of Days to Update: 42

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 02/02/2015
Next Scheduled EDR Contact: 05/18/2015
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/30/2013
Date Data Arrived at EDR: 08/19/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 45

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 11/17/2014
Next Scheduled EDR Contact: 03/02/2015
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 07/19/2012
Date Made Active in Reports: 08/28/2012
Number of Days to Update: 40

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 01/12/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 11/01/2014
Date Data Arrived at EDR: 11/05/2014
Date Made Active in Reports: 11/24/2014
Number of Days to Update: 19

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 02/04/2015
Next Scheduled EDR Contact: 05/18/2015
Data Release Frequency: Annually

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 07/21/2014
Date Made Active in Reports: 08/25/2014
Number of Days to Update: 35

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 01/19/2015
Next Scheduled EDR Contact: 05/04/2015
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 07/15/2014
Date Made Active in Reports: 08/13/2014
Number of Days to Update: 29

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 11/26/2014
Next Scheduled EDR Contact: 03/09/2015
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 06/20/2014
Date Made Active in Reports: 08/07/2014
Number of Days to Update: 48

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 12/12/2014
Next Scheduled EDR Contact: 03/30/2015
Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

STREET AND ADDRESS INFORMATION

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APPENDIX D: QUALIFICATIONS

PARTNER

Heather Hodgetts
Staff Professional II

Education
B.A. in Earth Sciences, University of Southern California

Registrations
40-Hour OSHA-approved Health & Safety Training
8-hour OSHA HAZWOPER Annual Refresher

Summary of Professional Experience
Ms. Hodgetts has over 15 years of experience in the real estate due diligence field. She has a strong background in providing environmental due diligence for debt and equity transactions, as well as the performance of Phase I environmental site assessments, Phase II subsurface investigations, soil and groundwater remediation, asbestos surveys, lead-based paint surveys, mold assessments, and indoor air quality studies. She also has extensive portfolio management experience throughout the United States.

Ms. Hodgetts currently serves as a Professional Staff II for Partner Engineering and Science, Inc. providing solutions to clients' due diligence and engineering needs. She is responsible for ensuring consistency, quality, and on-time delivery of due diligence and engineering services provided by Partner. Current day-to-day responsibilities include conducting Phase I Environmental Site Assessments, project oversight, report review, and client management. Sites ranged from vacant lots to commercial and industrial properties. Activities included review of historical documents, aerial photo interpretation, agency lists/files, and hydrogeology, literature, site reconnaissance and inspection, and technical report preparation.

Ms. Hodgetts has been personally involved in the details of hundreds of real estate transactions for various client types and therefore understands the specific needs and scopes of work required for the different parties involved in the transaction. Ms. Hodgetts is familiar with the due diligence requirements of a varied number of reporting standards, including ASTM E1527-05, EPA's All Appropriate Inquiry (AAI), Fannie Mae DUS, Freddie Mac, HUD, and Federal Communications Commission (FCC) 47 CFR Part 1. She also has experience with fulfilling numerous customized client scopes of work.

Previously, Ms. Hodgetts was a Senior Environmental Scientist for a Fortune 500 company and was responsible for managing due diligence projects throughout the United States. Ms. Hodgetts was also responsible for developing report templates to meet the Phase I ESA requirements of federal and private sector clients. Her primary clientele focus included real estate investors, insurance lenders, and real estate equity funds.

Prior to being promoted to Project Manager, Ms. Hodgetts was responsible for managing and completing environmental site assessments, and soil and groundwater contamination assessments associated with storage tanks, drycleaners, and former industrial properties.

Some relevant project experience includes:

- Environmental Regulatory Compliance - Assisted in environmental regulatory compliance audit and ownership transfer activities. The audit included coordinating with local agencies to the transfer environmental permits for air, wastewater, hazardous waste, and medical waste.
- Storage Tank Programs - Completed UST Closure Reports, Limited Site Assessments, Soil Assessment Reports, Soil Closure Reports, and Corrective Action Plans for submittal to regulatory agencies for UST sites owned by various industrial and government entities.
- School District Investigations - Worked in-house for San Diego Unified School District (SDUSD)for 15 months completing the environmental due diligence for Proposition MM, a bond measure passed by voters to fund modernization of 165 existing school and construction of 16 new/rebuilt schools. Activities included conducting Phase I ESAs for proposed school sites, including information relevant to the California Department of Education (CDE) School Site Selection and Approval Guide, submitting Phase I ESAs for EPA Department of Toxic Substances Control review, preparing Public Participations Plans and assisting with public meeting presentations, and submitting site packages to CDE for site approval. In addition to SDUSD, Ms. Hodgetts has also worked on Los Angeles Unified School District, Coronado Unified School District, and Lake Elsinore Unified School District sites.
- Subsurface Investigations - Conducted soil and groundwater assessments at County of San Diego Department of Public Works Road Stations throughout San Diego County. Activities included field oversight of groundwater monitoring well installation using mud-rotary, air-rotary, and hollow-stem augers; soil and groundwater sampling; receptor surveys; and installed monitoring wells and soil borings.
- Cellular Telephone Investigations -Performed environmental assessments for cellular telephone antenna installations for a major cellular operator. Tasks included inspections of numerous buildings, installations, additions, collocations, and vacant land, and asbestos and lead sampling at these facilities throughout southern California.

Finally, Ms. Hodgetts' diversity among residential, industrial, municipal and commercial properties is a major contribution to Partner Engineering and Science's team nationally.

Debra B. Stott, PG
Senior Project Manager

PARTNER
Engineering and Science, Inc.

Education
BA Geology – The Ohio State University

Registrations
California Professional Geologist No. 6221

Training
OSHA, Hazardous Waste Operator (HAZWOPER) 40 hour Certification
Certified Project Manager

Summary of Professional Experience
Ms. Stott has over 25 years of experience in the environmental service industry. She has significant experience in due diligence assessments for a variety of property types fulfilling the needs and requirements of a varied number of reporting standards including: ASTM, EPA's All Appropriate Inquiry (AAI), and customized client formats. Ms. Stott has performed Phase I Environmental Site Assessments, Third Party Reviews, Due Diligence Audits, Record Search and Risk Assessments, Phase II and III Subsurface Investigations, Remedial Investigations, Radon Studies, Mold Assessments, Methane Surveys, Indoor Air Quality Assessments, and Lead-in-water sampling and analysis.

Ms. Stott has served as a geologist, field manager, project manager, reviewer, or senior author on over 2,500 real estate transactions. Her knowledge and ability to manage multiple services associated with real estate due diligence allows Ms. Stott to provide her clients with the comprehensive information and identification of risks in order to make sound financial investments. Ms. Stott's due diligence resume includes experience at all levels, advising lenders and real estate investors through the following product types:

- Phase I Environmental Site Assessments
- Phase II Subsurface Investigations
- Phase III Site Characterizations
- Remedial Investigation/Feasibility Studies
- Environmental Risk Evaluations
- Remedial Action/Remedial Design Studies
- Third Party Environmental Evaluations
- Remedial Cost Estimates
- Remedial Implementation
- Indoor Air Quality
- Property Condition Assessments
- Seismic PML
- Asbestos, Lead Paint, Mold Surveys
- Lead in Drinking Water Surveys

At a previous firm, Ms. Stott was responsible for environmental due diligence services nationwide with emphasis on environmental site assessments related to property transactions, Phase II soil and groundwater investigations, due diligence audits, environmental compliance audits, hazardous waste management, corrective action implementation, and pollution prevention. She also served as project manager or management oversight reviewer with duties that included staff supervision; employee training; report review; and client management.

Finally, Ms. Stott's diversity across residential, industrial, municipal, and commercial environments is a major contribution to Partner Engineering and Science's team across the United States.

Relevant Project Experience

Transaction Due Diligence

Project Manager, Western US and Southern California, LBA Realty - For over 12 years performed due diligence services related to real estate transfers as well as asset refinances for LBA Realty. Closely coordinated with property managers and representatives to provide a smooth process with client and lenders. Services have also included review of third party reports, asbestos surveys, subsurface investigations, and development of soil management plans. Many projects involved multiple locations in several states thus requiring coordination with other offices and client contacts.

Project and Client Manager, Northern and Southern CA, Lincoln Property Company - Conducted and managed multiple due diligence assessments related to potential property transfers. Bundled Property Condition Assessments and Seismic Assessments with the environmental assessment to provide a complete package for the client at many of the projects. Also has assisted Lincoln with environmental review, permitting and soil vapor investigations at their high-profile commercial building project at Playa Vista, CA.

Environmental Lead, West Coast, Cornerstone Real Estate Advisers (CREA) - Environmental due diligence and environmental actions associated with acquisitions, property development, joint venture developments, property divestments and finance group loan transactions. Environmental due diligence includes Phase I ESAs, Phase II ESAs, indoor air quality assessments, mold assessment and mitigation planning, providing third party review, asbestos investigations, asbestos abatement, operation and maintenance plan development, remedial action development and implementation, regulatory correspondence and permitting.

Project and Client Manager, Northern and Southern CA, Regency Centers - Conducted and managed several due diligence assessments for new construction and remodeling of retail shopping centers. The projects included Phase I Environmental Assessments, soil and groundwater sampling, methane surveys, asbestos and lead paint surveys, wetlands evaluations, soil remediation, and NEPA compliance. Each project involves constant client contact and development of relationships with both the financial and construction managers working for the client.

Subsurface Investigations/Vapor Intrusion

Project Manager, Whittier, CA, Confidential Client - Conducted several investigations to evaluate the potential for vapor intrusion associated with contaminated groundwater into client buildings. At one location a horizontal well system was installed to passively vent vapors. Site investigations involved the installation of multiple, multi-depth vapor probes through the property to map the plume and to assist in decision making for potential further investigation. Data collected from both soil vapor and indoor air monitoring was subjected to risk assessment in order to determine if indoor air quality had been negatively impacted and engineering controls needed to protect workers.

Project Manager and Environmental Lead, Berkeley, CA, LBA Realty - Evaluation of potential risks associated with the presence of trichloroethylene (TCE) and breakdown products cis 1,2- dichloroethene (cis 1,2-DCE) and vinyl chloride (VC), and methyl tert butyl ether (MTBE) in groundwater and ambient air at an existing building in Berkeley, CA. Worked with outside counsel to evaluate, summarize, and present the risks and potential risks of continued investment in the property.

Project Manager, Playa Vista, CA, Lincoln Property Company - Managed and completed VOC monitoring for Lincoln's commercial office buildings at Playa Vista. The development is located in a methane zone as well as over groundwater contaminated by the former industrial operations. This involved sampling VOCs from the methane mitigation system over a period of one to two years, creating reports that were reviewed by the client, attorneys, Playa Capital (the master developer), and the RWQCB-Los Angeles region. The goal of allowing tenant occupancy of the buildings by the RWQCB was achieved.

Project Manager, Central Valley, CA, CREA – Took over assessment and oversight of remedial actions for diesel fuel impacted agricultural site in Tulare County, California. Coordinated with remedial engineers to create feasibility study report and implement the remedial actions for impacts to groundwater at depths of 150-160 feet bgs. A Soil Vapor Extraction/Air Sparging system became operational in 2010. Reviewed progress reports and maintained relationship with the RWQCB-Central Valley Region project manager. Regulatory closure was received mid-2013 and the wells and system decommissioned.

Project Manager, Brea, CA, Chevron Land and Development – Starting with a Phase I Assessment and soil sampling to assist Chevron in planning for the redevelopment of the Brea public golf course, led to a long term investigation and remedial effort involving local and federal agencies. A portion of the golf course was identified as historically a part of a former chemical plant. As the golf course redevelopment proceeded, the data indicated a need for more investigation to evaluate potential impacts to soil on the southern portion from former operations and the railroad right of way crossing the property. Helped develop a workplan and a team to work with USEPA to manage the investigations as well as the soil excavations. Follow up soil vapor surveys on the northern portion indicated that ownership of this parcel could be transferred and the property redeveloped as planned.

Municipal/State Contracts

Project Manager, City of Los Angeles, Division of Recreation and Parks - Provided and managed multiple property acquisition and due diligence projects for Recreation and Parks personnel. As Project Manager and main client contact, provided over 15 Phase I ESAs within three months for client's application for a grant to fund pocket parks. Also assisted Recreation and Parks personnel with asbestos and lead paint surveys prior to renovations at various park locations.

Task Manager, California Department of Toxic Substances Control (DTSC) - To assist other project managers, provided review and summaries of historical documents and background information for multiple locations. The historical reviews supplemented existing projects by providing relevant background information related to former onsite operations and locations of concern.

APPENDIX G

Noise Impact Analysis

NOISE IMPACT ANALYSIS
BANNA CROSSINGS PROJECT
CITY OF COVINA

LEAD AGENCY:
CITY OF COVINA

PREPARED BY:
VISTA ENVIRONMENTAL
1021 DIDRIKSON WAY
LAGUNA BEACH, CALIFORNIA 92651
GREG TONKOVICH, INCE
TELEPHONE (949) 510-5355
FACSIMILE (949) 715-3629

PROJECT NO. 14072

SEPTEMBER 4, 2015

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ACRONYMS AND ABBREVIATIONS

ANSI	American National Standards Institute
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
dB	Decibel
dBA	A-weighted decibels
DOT	Department of Transportation
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
EPA	Environmental Protection Agency
Hz	Hertz
Ldn	Day-night average noise level
Leq	Equivalent sound level
Lmax	Maximum noise level
ONAC	Federal Office of Noise Abatement and Control
OSB	Oriented Strand Board
OSHA	Occupational Safety and Health Administration
PPV	Peak particle velocity
RMS	Root mean square
SEL	Single Event Level or Sound Exposure Level
STC	Sound Transmission Class
UMTA	Federal Urban Mass Transit Administration

1.0 INTRODUCTION

1.1 Purpose of Analysis and Study Objectives

This Noise Impact Analysis has been prepared to determine the noise impacts associated with the proposed Banna Crossings Project (proposed project). The following is provided in this report:

- A description of the study area and the proposed project;
- Information regarding the fundamentals of noise;
- Information regarding the fundamentals of vibration;
- A description of the local noise guidelines and standards;
- An evaluation of the current noise environment;
- An analysis of the potential short-term construction-related noise impacts from the proposed project; and,
- An analysis of long-term operations-related noise impacts from the proposed project.

1.2 Site Location and Study Area

The project site is located in the eastern portion of the City of Covina (City). The approximately 8.5 acre project site was previously used for an elementary school and is bounded by Cypress Street, Southern Pacific and Metrolink Railroad, a fire station and Charter Oak High School to the north, Kidder Avenue and single-family homes to the east, Colver Place and single-family homes to the south, and Banna Avenue and single-family homes to the west. The Project Location Map is shown in Figure 1.

Sensitive Receptors in Project Vicinity

The nearest offsite sensitive receptors to the project site consist of single-family homes as near as 80 feet east, south, and west of the project site. The nearest school to the project site is Charter Oak High School that has sports fields as near as 90 feet north of the project site.

1.3 Proposed Project Description

The proposed project would consist of the development of 63 single-family homes and onsite roadways. The northern 2.0 acres of the project site will be purchased by the City and the City plans on utilizing the 2.0 acres for a park or open space. The proposed site plan is shown in Figure 2.

1.4 Standard Noise Regulatory Conditions

The proposed project will be required to comply with the following regulatory conditions from the City of Covina and State of California.

City of Covina Municipal Code

The following lists the City of Covina Municipal Code regulations that are applicable to all development projects in the City.

<u>Chapter 9.40.040 Exterior Noise Level Limits</u>

Chapter 9.40.040 of the City's Municipal Code restricts noise levels to whichever is higher between ambient noise levels or 55 dBA between 7:00 a.m. and 10:00 p.m. and 45 dBA between 10:00 p.m. and

7:00 a.m., at the property line of the proposed homes and nearby existing homes. Compliance with this regulation will reduce construction-related noise impacts to the nearby existing residents as well as operational noise impacts to the future residents of the proposed homes.

Chapter 9.40.060 Interior Exterior Noise Level Limits

Chapter 9.40.060 of the City's Municipal Code restricts noise levels to 45 dBA between 7:00 a.m. and 10:00 p.m. and 35 dBA between 10:00 p.m. and 7:00 a.m., at the interior line of the proposed homes and nearby existing homes. Compliance with this regulation will reduce construction-related noise impacts to the nearby existing residents as well as operational noise impacts to the future residents of the proposed homes.

Chapter 9.40.110 Construction

Chapter 9.40.110 of the City's Municipal Code exempts construction activities that occur between 7:00 a.m. and 10:00 p.m., excluding Sundays and holidays, from the noise level limits provided in Chapter 9.40.040 of the Municipal Code. Compliance with this regulation will reduce construction-related noise impacts to the nearby existing residents.

Chapters 9.40.020 and 9.40.120 Vibration

Chapter 9.40.120(J) of the City's Municipal Code restricts the operation of any device that creates vibration levels that are above the vibration threshold of any average individual at or beyond the property boundaries of the nearby existing homes. Chapter 9.40.020(30) of the Municipal Code defines the vibration threshold as a motion velocity of 0.01 inches per second over the range of one to 100 Hz. Compliance with this regulation will reduce construction-related vibration impacts to the nearby existing residents.

State of California Rules

The following lists the State of California rules that are applicable to all industrial projects in the State.

California Vehicle Code Section 27200-27207 – On-Road Vehicle Noise

California Vehicle Code Section 27200-27207 provides noise limits for vehicles operated in California. For vehicles over 10,000 pounds noise is limited to 88 dB for vehicles manufactured before 1973, 86 dB for vehicles manufactured before 1975, 83 dB for vehicles manufactured before 1988, and 80 dB for vehicles manufactured after 1987. All measurements are based at 50 feet from the vehicle. Compliance with this regulation will reduce the construction noise impacts to the nearby sensitive receptors.

California Vehicle Section 38365-38380 – Off-Road Vehicle Noise

California Vehicle Code Section 38365-38380 provides noise limits for off-highway motor vehicles operated in California. 92 dBA for vehicles manufactured before 1973, 88 dBA for vehicles manufactured before 1975, 86 dBA for vehicles manufactured before 1986, and 82 dBA for vehicles manufactured after December 31, 1985. All measurements are based at 50 feet from the vehicle. Compliance with this regulation will reduce the construction noise impacts to the nearby sensitive receptors.

1.5 Summary of Analysis Results

The following is a summary of the proposed project's impacts with regard to the State CEQA Guidelines noise checklist questions.

Expose persons to noise levels in excess of standards?

Potentially significant impact. Implementation of Mitigation Measure 1 would reduce the impact to less than significant levels.

Expose persons to excessive groundborne vibration?

Less than significant impact.

Result in a substantial permanent increase in ambient noise levels above existing levels without the proposed project?

Less than significant impact.

Result in a substantial temporary increase in ambient noise levels above existing levels without the proposed project?

Less than significant impact.

Expose persons to excessive noise levels from aircraft?

Less than significant impact.

1.6 Project Design Features Required for the Proposed Project

This project applicant has stated that following project design features or best management practices would be adhered to during construction activities in order to minimize noise impacts to the nearby residences:

- All construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers;
- Construction noise reduction methods, such as shutting off idling equipment, maximizing the distance between construction equipment staging areas and occupied sensitive receptor areas, and using electric air compressors and similar power tools rather than diesel equipment.
- During construction, stationary construction equipment shall be placed such that noise is directed away from or shielded from sensitive noise receivers.
- During construction, stockpiling and vehicle staging areas shall be located as far as possible from noise-sensitive receptors;
- Construction activities shall not occur between the hours of 8:00 p.m. on one day until 7:00 a.m. the next day, or at any time on Sundays or public holidays.
- A sign shall be posted at all construction job entrances, which is clearly visible to the nearby residences that details allowable construction hours and workdays as well as the phone number for the job superintendent in order to allow the nearby residents to call if they have a concern or issue with construction activities

1.7 Mitigation Measures Required for the Proposed Project

This analysis found that through adherence to the noise and vibration regulations detailed in Section 1.4 above and through implementation of the following mitigation all noise and vibration impacts would be reduced to less than significant levels.

Mitigation Measure 1:

The project applicant shall provide a "windows closed" condition for each proposed residential unit project. A "windows closed" condition requires a means of mechanical ventilation per Chapter 12, Section 1205 of the Uniform Building Code. This shall be achieved with a standard forced air conditioning and heating system with a filtered outside air intake vent for each residential unit.

SOURCE: Google Earth.

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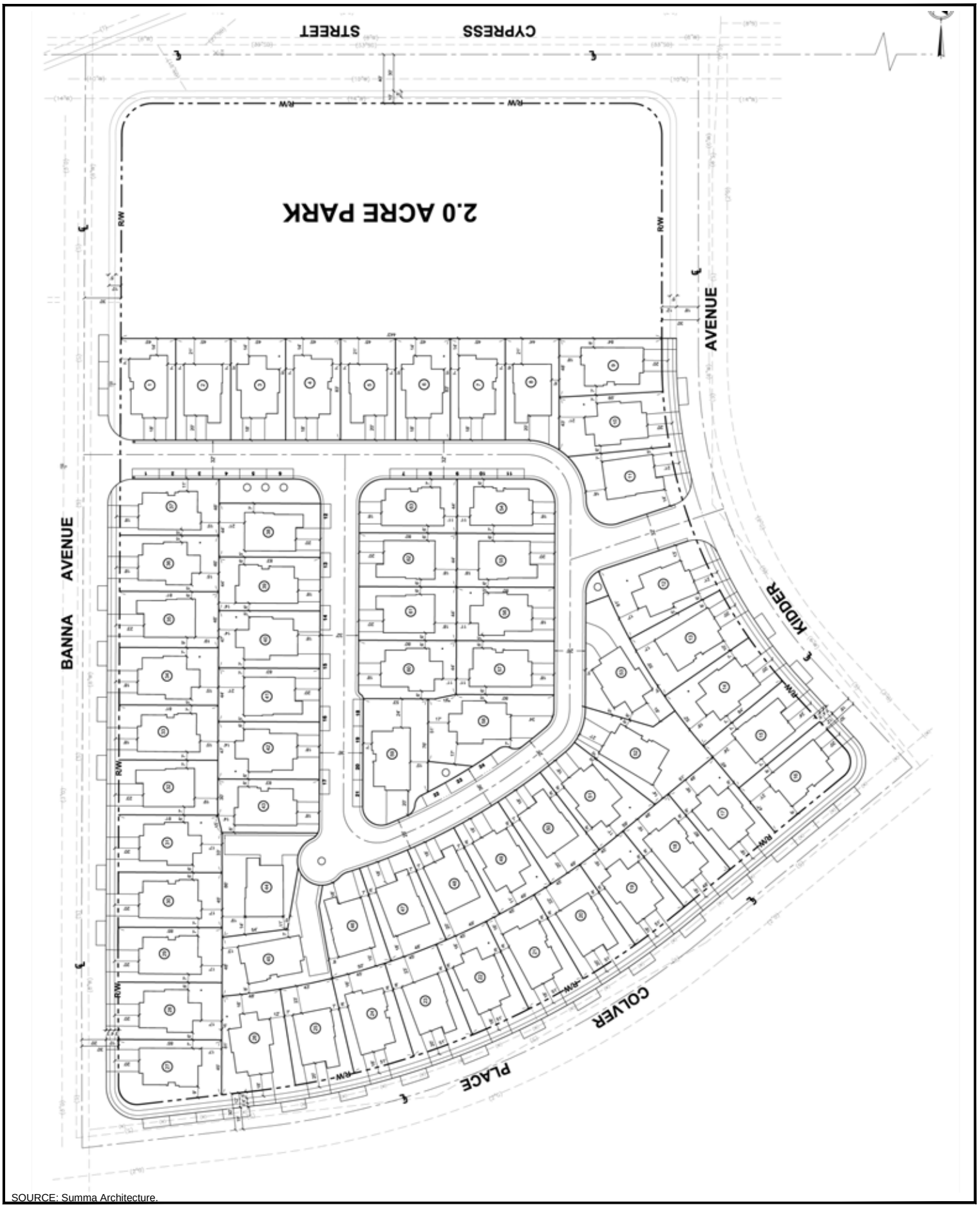
VISTA ENVIRONMENTAL

Figure 1
Project Location Map



SOURCE: Summa Architecture.

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Figure 2
Proposed Site Plan

2.0 NOISE FUNDAMENTALS

Noise is defined as unwanted sound. Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm or when it has adverse effects on health. Sound is produced by the vibration of sound pressure waves in the air. Sound pressure levels are used to measure the intensity of sound and are described in terms of decibels. The decibel (dB) is a logarithmic unit which expresses the ratio of the sound pressure level being measured to a standard reference level. A-weighted decibels (dBA) approximate the subjective response of the human ear to a broad frequency noise source by discriminating against very low and very high frequencies of the audible spectrum. They are adjusted to reflect only those frequencies which are audible to the human ear.

2.1 Noise Descriptors

Noise Equivalent sound levels are not measured directly, but are calculated from sound pressure levels typically measured in A-weighted decibels (dBA). The equivalent sound level (Leq) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. The peak traffic hour Leq is the noise metric used by California Department of Transportation (Caltrans) for all traffic noise impact analyses.

The Day-Night Average Level (Ldn) is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time of day corrections require the addition of ten decibels to sound levels at night between 10 p.m. and 7 a.m. While the Community Noise Equivalent Level (CNEL) is similar to the Ldn, except that it has another addition of 4.77 decibels to sound levels during the evening hours between 7 p.m. and 10 p.m. These additions are made to the sound levels at these time periods because during the evening and nighttime hours, when compared to daytime hours, there is a decrease in the ambient noise levels, which creates an increased sensitivity to sounds. For this reason the sound appears louder in the evening and nighttime hours and is weighted accordingly. The City of Covina relies on the Ldn noise standard to assess transportation-related impacts on noise sensitive land uses.

2.2 Tone Noise

A pure tone noise is a noise produced at a single frequency and laboratory tests have shown that humans are more perceptible to changes in noise levels of a pure tone. For a noise source to contain a "pure tone," there must be a significantly higher A-weighted sound energy in a given frequency band than in the neighboring bands, thereby causing the noise source to "stand out" against other noise sources. A pure tone occurs if the sound pressure level in the one-third octave band with the tone exceeds the average of the sound pressure levels of the two contiguous one-third octave bands by:

- 5 dB for center frequencies of 500 hertz (Hz) and above
- 8 dB for center frequencies between 160 and 400 Hz
- 15 dB for center frequencies of 125 Hz or less

2.3 Noise Propagation

From the noise source to the receiver, noise changes both in level and frequency spectrum. The most obvious is the decrease in noise as the distance from the source increases. The manner in which noise reduces with distance depends on whether the source is a point or line source as well as ground absorption, atmospheric effects and refraction, and shielding by natural and manmade features. Sound from point sources, such as air conditioning condensers, radiate uniformly outward as it travels away

from the source in a spherical pattern. The noise drop-off rate associated with this geometric spreading is 6 dBA per each doubling of the distance (dBA/DD). Transportation noise sources such as roadways are typically analyzed as line sources, since at any given moment the receiver may be impacted by noise from multiple vehicles at various locations along the roadway. Because of the geometry of a line source, the noise drop-off rate associated with the geometric spreading of a line source is 3 dBA/DD.

2.4 Ground Absorption

The sound drop-off rate is highly dependent on the conditions of the land between the noise source and receiver. To account for this ground-effect attenuation (absorption), two types of site conditions are commonly used in traffic noise models, soft-site and hard-site conditions. Soft-site conditions account for the sound propagation loss over natural surfaces such as normal earth and ground vegetation. For point sources, a drop-off rate of 7.5 dBA/DD is typically observed over soft ground with landscaping, as compared with a 6.0 dBA/DD drop-off rate over hard ground such as asphalt, concrete, stone and very hard packed earth. For line sources a 4.5 dBA/DD is typically observed for soft-site conditions compared to the 3.0 dBA/DD drop-off rate for hard-site conditions. Caltrans research has shown that the use of soft-site conditions is more appropriate for the application of the Federal Highway Administration (FHWA) traffic noise prediction model used in this analysis.

3.0 GROUND-BORNE VIBRATION FUNDAMENTALS

Ground-borne vibrations consist of rapidly fluctuating motions within the ground that have an average motion of zero. The effects of ground-borne vibrations typically only cause a nuisance to people, but at extreme vibration levels damage to buildings may occur. Although ground-borne vibration can be felt outdoors, it is typically only an annoyance to people indoors where the associated effects of the shaking of a building can be notable. Ground-borne noise is an effect of ground-borne vibration and only exists indoors, since it is produced from noise radiated from the motion of the walls and floors of a room and may also consist of the rattling of windows or dishes on shelves.

3.1 Vibration Descriptors

There are several different methods that are used to quantify vibration amplitude such as the maximum instantaneous peak in the vibrations velocity, which is known as the peak particle velocity (PPV) or the root mean square (rms) amplitude of the vibration velocity. Due to the typically small amplitudes of vibrations, vibration velocity is often expressed in decibels and is denoted as (L_v) and is based on the rms velocity amplitude. A commonly used abbreviation is "VdB", which in this text, is when L_v is based on the reference quantity of 1 micro inch per second.

3.2 Vibration Perception

Typically, developed areas are continuously affected by vibration velocities of 50 VdB or lower. These continuous vibrations are not noticeable to humans whose threshold of perception is around 65 VdB. Off-site sources that may produce perceptible vibrations are usually caused by construction equipment, steel-wheeled trains, and traffic on rough roads, while smooth roads rarely produce perceptible ground-borne noise or vibration.

3.3 Vibration Propagation

The propagation of ground-borne vibration is not as simple to model as airborne noise. This is due to the fact that noise in the air travels through a relatively uniform median, while ground-borne vibrations travel through the earth which may contain significant geological differences. There are three main types of vibration propagation; surface, compression, and shear waves. Surface waves, or Rayleigh waves, travel along the ground's surface. These waves carry most of their energy along an expanding circular wave front, similar to ripples produced by throwing a rock into a pool of water. P-waves, or compression waves, are body waves that carry their energy along an expanding spherical wave front. The particle motion in these waves is longitudinal (i.e., in a "push-pull" fashion). P-waves are analogous to airborne sound waves. S-waves, or shear waves, are also body waves that carry energy along an expanding spherical wave front. However, unlike P-waves, the particle motion is transverse or "side-to-side and perpendicular to the direction of propagation."

As vibration waves propagate from a source, the vibration energy decreases in a logarithmic nature and the vibration levels typically decrease by 6 VdB per doubling of the distance from the vibration source. As stated above, this drop-off rate can vary greatly depending on the soil but has been shown to be effective enough for screening purposes, in order to identify potential vibration impacts that may need to be studied through actual field tests.

4.0 REGULATORY SETTING

The project site is located in the City of Covina. Noise regulations are addressed through the efforts of various federal, state, and local government agencies. The agencies responsible for regulating noise are discussed below.

4.1 Federal Regulations

The adverse impact of noise was officially recognized by the federal government in the Noise Control Act of 1972, which serves three purposes:

- Promulgating noise emission standards for interstate commerce
- Assisting state and local abatement efforts
- Promoting noise education and research

The Federal Office of Noise Abatement and Control (ONAC) was initially tasked with implementing the Noise Control Act. However, the ONAC has since been eliminated, leaving the development of federal noise policies and programs to other federal agencies and interagency committees. For example, the Occupational Safety and Health Administration (OSHA) agency prohibits exposure of workers to excessive sound levels. The Department of Transportation (DOT) assumed a significant role in noise control through its various operating agencies. The Federal Aviation Administration (FAA) regulates noise of aircraft and airports. Surface transportation system noise is regulated by a host of agencies, including the Federal Transit Administration (FTA). Transit noise is regulated by the federal Urban Mass Transit Administration (UMTA), while freeways that are part of the interstate highway system are regulated by the Federal Highway Administration (FHWA). Finally, the federal government actively advocates that local jurisdictions use their land use regulatory authority to arrange new development in such a way that "noise sensitive" uses are either prohibited from being sited adjacent to a highway or, alternately that the developments are planned and constructed in such a manner that potential noise impacts are minimized.

Although the proposed project is not under the jurisdiction of the FTA, the FTA is the only agency that has defined what constitutes a significant noise impact from implementing a project. The FTA standards are based on extensive studies by the FTA and other governmental agencies on the human effects and reaction to noise and a summary of the FTA findings are provided below in Table A.

Table A – FTA Project Effects on Cumulative Noise Exposure

Existing Noise Exposure (dBA Leq or Ldn)	Allowable Noise Impact Exposure dBA Leq or Ldn		
	Project Only	Combined	Noise Exposure Increase
45	51	52	+7
50	53	55	+5
55	55	58	+3
60	57	62	+2
65	60	66	+1
70	64	71	+1
75	65	75	0

Source: Federal Transit Administration, 2006.

Since the federal government has preempted the setting of standards for noise levels that can be emitted by the transportation sources, the City is restricted to regulating the noise generated by the transportation system through nuisance abatement ordinances and land use planning.

4.2 State Regulations

Noise Standards

California Department of Health Services Office of Noise Control

Established in 1973, the California Department of Health Services Office of Noise Control (ONC) was instrumental in developing regularity tools to control and abate noise for use by local agencies. One significant model is the "Land Use Compatibility for Community Noise Environments Matrix," which allows the local jurisdiction to clearly delineate compatibility of sensitive uses with various incremental levels of noise and which is shown below in Figure 3.

California Noise Insulation Standards

Section 1092 of Title 25, Chapter 1, Subchapter 1, Article 4 of the California Administrative Code (California Noise Insulation Standards) requires noise insulation in new hotels, motels, apartment houses, and dwellings (other than single-family detached housing) that provides an annual average noise level of no more than 45 dBA CNEL. When such structures are located within a 60-dBA CNEL (or greater) noise contour, an acoustical analysis is required to ensure that interior levels do not exceed the 45-dBA CNEL annual threshold. In addition, Title 21, Chapter 6, Article 1 of the California Administrative Code requires that all habitable rooms, hospitals, convalescent homes, and places of worship shall have an interior CNEL of 45 dB or less due to aircraft noise.

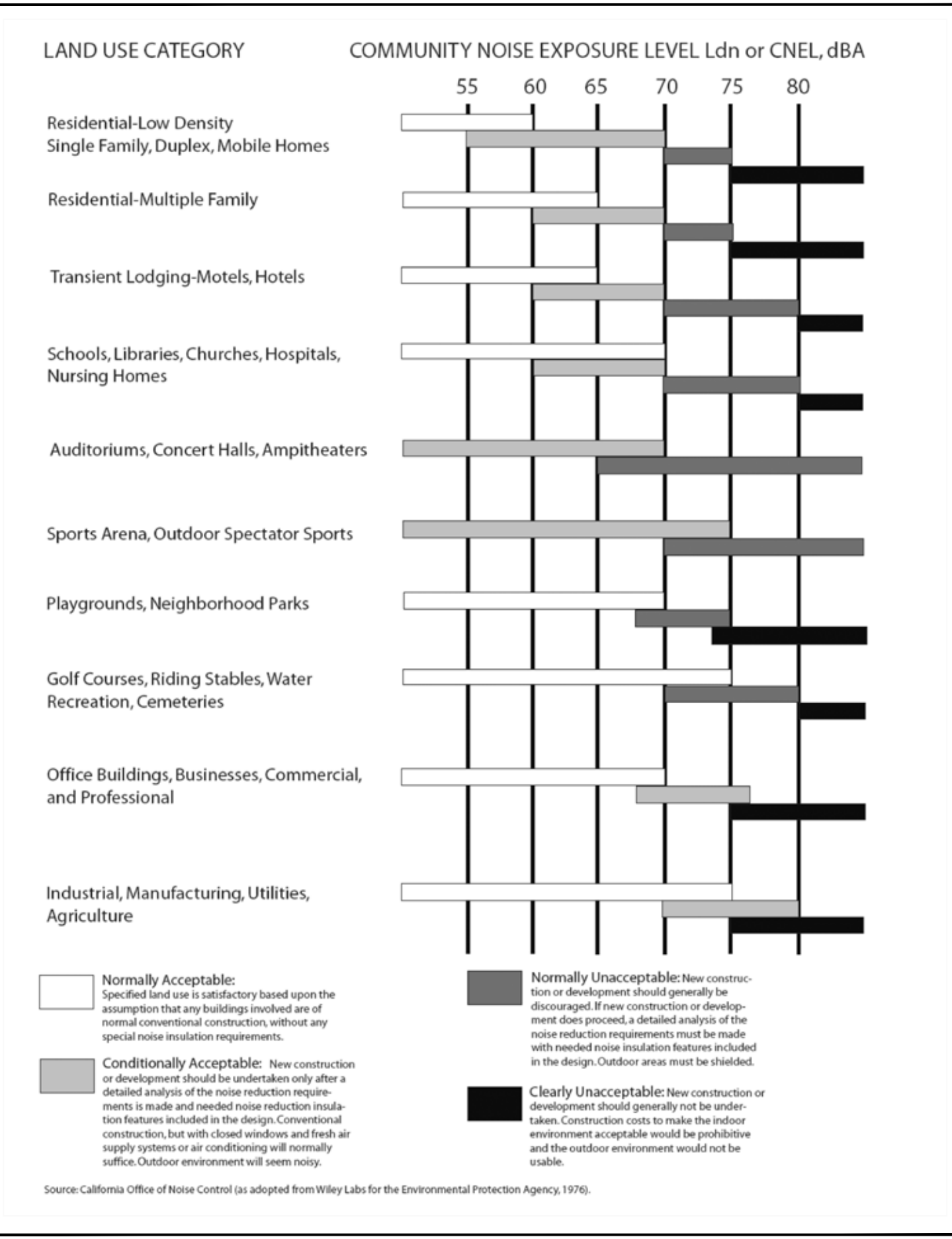
Government Code Section 65302

Government Code Section 65302 mandates that the legislative body of each county and city in California adopt a noise element as part of its comprehensive general plan. The local noise element must recognize the land use compatibility guidelines published by the State Department of Health Services. The guidelines rank noise land use compatibility in terms of normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable.

Vibration Standards

Title 14 of the California Administrative Code Section 15000 requires that all state and local agencies implement the California Environmental Quality Act (CEQA) Guidelines, which requires the analysis of exposure of persons to excessive groundborne vibration. However, no statute has been adopted by the state that quantifies the level at which excessive groundborne vibration occurs.

Caltrans issued the *Transportation- and Construction-Induced Vibration Guidance Manual* in 2004. The manual provides practical guidance to Caltrans engineers, planners, and consultants who must address vibration issues associated with the construction, operation, and maintenance of Caltrans projects. However, this manual is also used as a reference point by many lead agencies and CEQA practitioners throughout California, as it provides numeric thresholds for vibration impacts. Thresholds are established for continuous and transient sources of vibration, which found that the human response becomes distinctly perceptible at 0.25 inch per second PPV for transient sources and 0.04 inch per second PPV for continuous sources.



VISTA ENVIRONMENTAL

Figure 3
Land Use Compatibility Matrix

4.3 Local Regulations

The City of Covina General Plan and Municipal Code establishes the following applicable policies related to noise and vibration.

City of Covina General Plan

C. Policy Area 1 – Transportation Noise Sources.

The City shall:

1) Examine the noise environment of proposed residential or other noise-sensitive uses located within all 60 Ldn noise contours to ensure compatibility and, pertaining to residential activities, adherence to applicable State noise insulation standards.

2) Attempt to mitigate or eliminate the possible noise problems of proposed residential or other noise-sensitive uses located within all 65 Ldn noise contours to ensure compatibility and, pertaining to residential activities, adherence to applicable State noise insulation standards.

3) Consider "noise sensitive uses" to include, but not be limited to, all residential housing types, public and private primary and secondary schools, libraries, parks/recreation areas, hospitals/medical facilities, nursing homes, and churches.

4) Consider establishing acceptable limits of noise levels for various land uses throughout the community, in accordance with State Guidelines, as a means of determining noise-compatible land uses.

6) Require noise-reduction techniques and features in site planning, architectural design, project landscaping, building materials, and/or construction, where necessary or required by law.

14) Require that new or expanded developments minimize the noise impacts of trips that they generate on residential neighborhoods by controlling the location of driveways and parking.

17) Continue to permit higher than normal block walls along the rear property lines of residential parcels that back up to the Metrolink right-of-way to mitigate train-related noises, and consider other appropriate concessions.

E. Policy Area 4 – Construction Noise Sources and General Matters

The City shall:

1) Continue implementing Covina Noise Ordinance to regulate the hours of operation and excessive noise associated with on-site construction activities, particularly activities occurring in or near residential uses, permitting exceptions only under special circumstances.

2) When necessary, require the construction of barriers to shield noise-sensitive uses from intrusive, construction-related noise.

3) Require that construction activities incorporate feasible and practical techniques, measures, and procedures that minimize the noise impacts on all adjacent uses.

4) Consider requiring sound attenuation devices on construction equipment to reduce noises associated with building activities.

8) Observe the requirements imposed by the California Environmental Quality Act (CEQA) when reviewing any public or private proposals, including but not limited to, infrastructure alterations or the development, redevelopment, modification, or expansion/remodeling of properties, to address all applicable potential noise impacts.

City of Covina Municipal Code

The Covina Municipal Code establishes the following applicable standards related to noise.

Chapter 9.40.040 Exterior noise level limits.

The allowable noise level or sound level referred to in CMC 9.40.030 shall be the higher of the following:

A. Actual measured ambient level; or

B. The sound level as determined from the following table:

Table B – City of Covina Exterior Noise Level Limits

Receiving Land Use Category	Time	Sound Level (A-Weighted) Decibels
Residential (estate or agriculture)	7:00 a.m. to 10:00 p.m.	50
	10:00 p.m. to 7:00 a.m.	40
Residential (low density)	7:00 a.m. to 10:00 p.m.	55
	10:00 p.m. to 7:00 a.m.	45
Residential (medium and high density)	7:00 a.m. to 10:00 p.m.	60
	10:00 p.m. to 7:00 a.m.	50
Commercial	7:00 a.m. to 10:00 p.m.	65
	10:00 p.m. to 7:00 a.m.	55
Industrial	7:00 a.m. to 10:00 p.m.	70
	10:00 p.m. to 7:00 a.m.	60

Source: Chapter 9.40.040 of the City of Covina Municipal Code.

Chapter 9.40.060 Interior noise level limits.

A. The interior noise standards for residential dwellings as presented in the following table shall apply, unless otherwise specifically indicated, within all dwellings with windows in their closed configuration unless the unit does not have adequate heating, air conditioning and mechanical ventilation:

Table C – City of Covina Interior Noise Level Limits

Allowable Interior Land Use	Time Interval	Noise Level dB(A)
Residential (all densities)	10:00 p.m. to 7:00 a.m.	35
	7:00 a.m. to 10:00 p.m.	45

Source: Chapter 9.40.060 of the City of Covina Municipal Code.

F. All newly constructed residential dwellings located in areas that are exposed to ambient noise levels in excess of 60 dB(A) Ldn shall be designed and built so that all habitable rooms comply with subsection (A) of this section

Chapter 9.40.110 - Construction

A. It is unlawful for any person within any residential land use category or within a radius of 500 feet therefrom to operate equipment or perform any outside construction or repair work on any building, structure, or project; or to operate any pile driver, steam shovel, pneumatic hammer, electric saw, grinder, steam or electric hoist, or other construction-type equipment or device between the hours of 8:00 p.m. of any one day and 7:00 a.m. of the next day, at any time on Sunday or at any time on any public holiday in such a manner that a reasonable person of normal sensitivity residing in the area is caused discomfort or annoyance, unless beforehand a permit thereof has been duly obtained in accordance with the provisions of subsection (B) of this section. No permit shall be required to perform emergency work.

Chapter 9.40.120 – Loud and/or unusual noises.

The following acts, among other things, are declared to be loud, disturbing and unnecessary noises in violation of CMC 9.40.080, but said enumeration shall not be deemed to be exclusive:

I. Mechanical and Electrical Equipment. All such equipment, including air conditioners, pumps, transformers, antennas, and heating and ventilation systems, shall be located and operated in a manner that does not disturb adjacent uses and activities. The noise level generated from any mechanical or electrical equipment shall not exceed the standards listed in CMC 9.40.030 through 9.40.060. This provision shall not apply to mechanical and electrical equipment owned and operated by utility companies regulated by the California Public Utilities Commission.

J. Vibration. It is unlawful to operate or permit the operation of any device that creates a vibration that is above the vibration perception threshold of an average individual at or beyond the property boundary of the source if on private property or at 150 feet from the source if on a public space or public right-of-way.

5.0 EXISTING NOISE CONDITIONS

To determine the existing noise level environment noise measurements have been taken in the vicinity of the project site. The field survey noted that noise within the proposed project area is generally characterized by trains on the Southern Pacific and Metrolink Railroad and vehicular traffic on Cypress Street and Banna Avenue. The following describes the measurement procedures, measurement locations, noise measurement results, and the modeling of the existing noise environment.

5.1 Noise Measurement Equipment

The noise measurements were taken using three Extech Model 407780 Type 2 integrating sound level meters programmed in "slow" mode to record the sound pressure level at 3-second intervals for approximately 24 hours in "A" weighted form. In addition, the L_{eq} averaged over the entire measuring time and L_{max} were recorded. The sound level meters and microphones were mounted on chain link fences approximately seven feet above the ground and were equipped with a windscreen. The sound level meters were calibrated before and after the monitoring using an Extech calibrator, Model 407766. The noise level measurement equipment meets American National Standards Institute specifications for sound level meters (S1.4-1983 identified in Chapter 19.68.020.AA).

Noise Measurement Location

The noise monitoring locations were selected in order to obtain noise measurements of the current noise levels in the project study area and to provide a baseline for any potential noise impacts that may be created by development of the proposed project. The noise measurement sites were selected to provide a representative sampling of the noise levels created by nearby noise sources. Descriptions of the noise monitoring sites are provided below in Table D. Appendix A includes a photo index of the study area and noise level measurement locations.

Noise Measurement Timing and Climate

The noise measurements were recorded between 1:26 p.m. on Monday May 9, 2015 and 1:39 p.m. on Tuesday, May 10, 2015. When the noise measurements were started the sky was clear, the temperature was 75 degrees Fahrenheit, the humidity was 63 percent, barometric pressure was 29.96 inches of mercury, and the wind was blowing around 5 miles per hour. Overnight the sky was cloudy and the temperature dropped to 48 degrees Fahrenheit. At the conclusion of the noise measurements, the sky was hazy, the temperature was 82 degrees Fahrenheit, the humidity was 32 percent, barometric pressure was 29.99 inches of mercury, and the wind was blowing around 4 miles per hour.

5.2 Noise Measurement Results

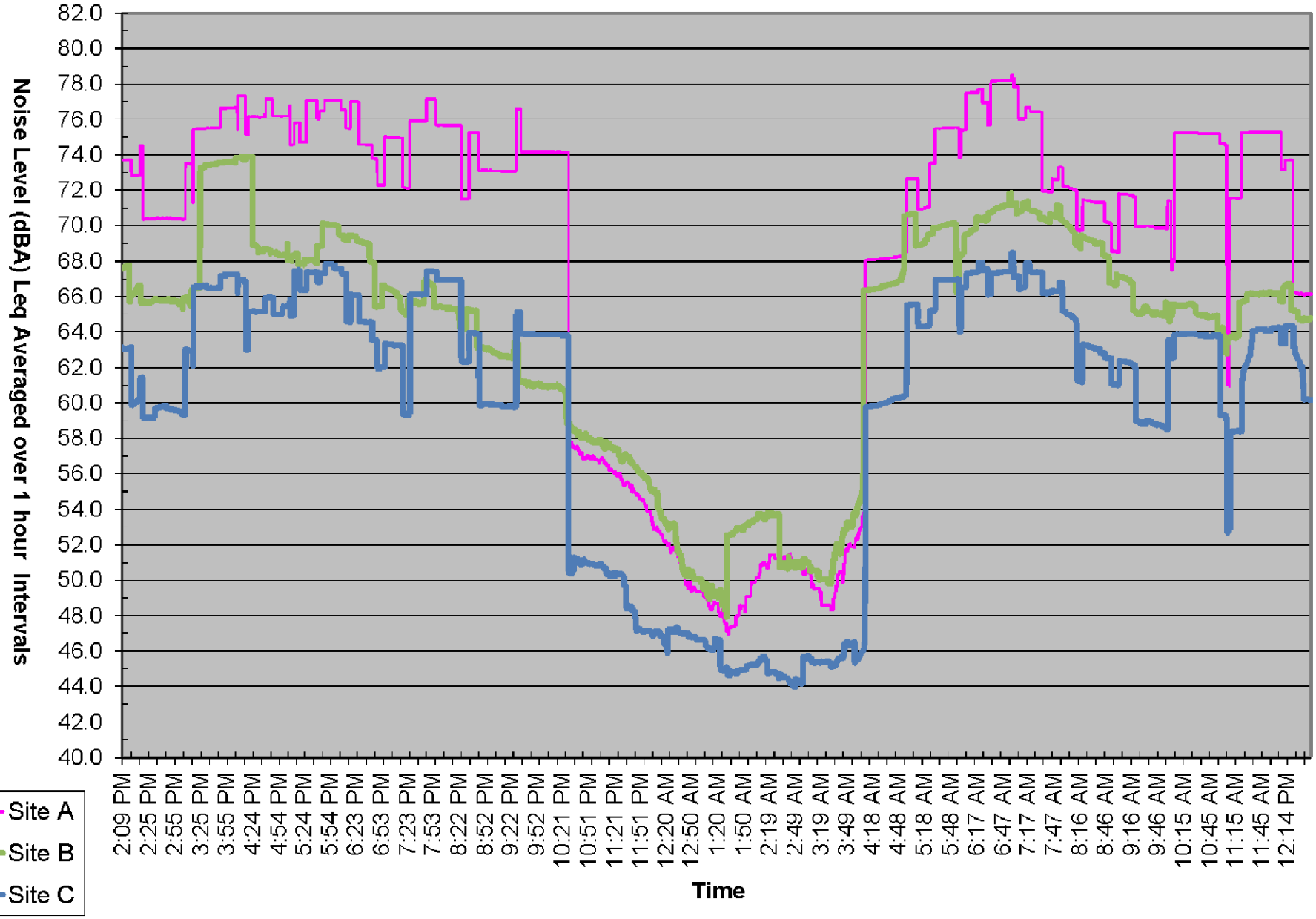
The results of the noise level measurements are presented in Table D. The measured sound pressure levels in dBA have been used to calculate the minimum and maximum L_{eq} averaged over 1-hour intervals. Table D also shows the L_{eq}, L_{max}, and L_{dn}, based on the entire measurement time. The noise monitoring data printouts are included in Appendix B. Figure 4 shows a graph of the 24-hour noise measurements.

Table D – Existing (Ambient) Noise Level Measurements

Site No.	Site Description	Average (dBA L_{eq})	Maximum (dBA L_{max})	Min. 1-Hour Interval (dBA L_{eq}/Time)	Max. 1-Hour Interval (dBA L_{eq}/Time)	Average (dBA L_{dn})
A	Located near the northwest corner of the project site on a soccer cage approximately 60 feet south of Cypress Street centerline and 60 feet east of Banna Avenue centerline.	73.0	104.9	46.9 1:46 AM	78.5 7:11 AM	77.5
B	Located near the northeast corner of the project site on a tree approximately 60 feet south of Cypress Street centerline and 70 feet west of Kidder Avenue centerline.	66.9	101.5	47.9 1:43 AM	73.9 4:23 PM	71.3
C	Located on the western side of the project site on a tree approximately 275 feet south of Cypress Street centerline and 50 feet east of Banna Avenue centerline.	63.2	95.4	44.0 3:01 AM	68.5 7:11 AM	68.0

Source: Noise measurements taken with three Extech Model 407780 Type 2 integrating sound level meters between Monday May 9, 2015 and Tuesday May 10, 2015.

Table D shows that Sites A, B and C currently exceeds the City exterior residential noise standard of 65 dBA Ldn.



SOURCE: Extech Model 407780 Type 2 Integrated Sound Level Meters.

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Figure 4
Field Noise Measurements Graph

6.0 MODELING PARAMETERS AND ASSUMPTIONS

6.1 Construction Noise

The noise impacts from construction of the proposed project have been analyzed through use of the FHWA's Roadway Construction Noise Model (RCNM). The FHWA compiled noise measurement data regarding the noise generating characteristics of several different types of construction equipment used during the Central Artery/Tunnel project in Boston. Table E below provides a list of the construction equipment anticipated to be used for each phase of construction as detailed in *Air Quality and Greenhouse Gas Emissions Impact Analysis Banna Crossings Project*, prepared by Vista Environmental, March 26, 2015.

Table E – Construction Equipment Noise Emissions and Usage Factors

Equipment Description	Number of Equipment	Acoustical Use Factor[1] (percent)	Spec 721.560 Lmax at 50 feet[2] (dBA, slow[3])	Actual Measured Lmax at 50 feet[4] (dBA, slow[3])
Demolition				
Concrete Saw	1	20	90	90
Excavator	3	40	85	81
Dozer	2	40	85	82
Site Preparation				
Dozer	3	40	85	82
Tractor, Loader or Backhoe[5]	4	40	84	N/A
Grading				
Excavator	1	40	85	81
Grader	1	40	85	83
Dozer	1	40	85	82
Tractor, Loader or Backhoe[5]	3	40	84	N/A
Building Construction				
Crane	1	16	85	81
Forklift (Gradall)	3	40	85	83
Generator	1	50	82	81
Welder	1	40	73	74
Tractor, Loader or Backhoe[5]	3	40	84	N/A
Paving				
Paver	2	50	85	77
Paving Equipment	2	50	85	77
Roller	2	20	85	80
Architectural Coating				
Air Compressor	1	40	80	78

Notes:
[1] Acoustical use factor is the percentage of time each piece of equipment is operational during a typical workday.
[2] Spec 721.560 is the equipment noise level utilized by the RCNM program.
[3] The "slow" response averages sound levels over 1-second increments. A "fast" response averages sound levels over 0.125-second increments.
[4] Actual Measured is the average noise level measured of each piece of equipment during the Central Artery/Tunnel project in Boston, Massachusetts primarily during the 1990s.
[5] For the tractor/loader/backhoe, the tractor noise level was utilized, since it is the loudest of the three types of equipment.
Source: Federal Highway Administration, 2006 and CalEEMod default equipment mix.

Table E also shows the associated measured noise emissions for each piece of equipment from the RCNM model and measured percentage of typical equipment use per day. Construction noise impacts to the nearby sensitive receptors have been calculated according to the equipment noise levels and usage factors

listed in Table E and through use of the RCNM. For each phase of construction, the nearest piece of equipment was placed at the shortest distance of the proposed activity to the nearest home and each subsequent piece of equipment was placed an additional 50 feet away

6.2 Operations-Related Noise

The proposed project would result in increases in traffic noise to the nearby roadways as well as introduce new sensitive receptors to the project site. The noise impacts to the proposed homes and offsite sensitive receptors were analyzed separately and the modeling procedures are detailed below.

Onsite Noise

The proposed project would introduce new sensitive receptors to the project site. The exterior and interior noise levels to the proposed single-family residential homes were calculated through use of the SoundPlan Version 7.4 noise modeling software.

SoundPlan Model Assumptions

Since the project vicinity is impacted by multiple roadways and the Southern Pacific and Metrolink Railroad, the SoundPlan Version 7.4 noise modeling software was used. The SoundPlan's road noise algorithms are based on the FHWA Traffic Noise Model (FHWA TNM Model) and the rail noise algorithms are based on France's High-Speed Ground Transportation (HSGT) standards. The SoundPlan Model requires the input of roadways and railroads and the locations of the noise measurement receivers. Stationary noise sources with associated frequency spectrums, sound barriers, terrain contour lines, building placement, and specific ground coverage zones may be incorporated as well. The site plan and aerial photos were used to determine the placement of the offsite roads, BNSF Railroad, and existing structures in the project vicinity. The default temperature of 20 degrees Celsius (68 degrees Fahrenheit) and default humidity of 50 percent, which can vary the propagation of noise, were used in the analysis and represent reasonable assumptions, since they are near the averages experienced in the project vicinity.

Roadway Assumptions

The SoundPlan model analyzed the noise impacts from the nearby roadways onto the project vicinity. All analyzed roadways were based on a single lane equivalent noise source combining both directions of travel. The roadway parameters used for this study are presented in Table F. The roadway classifications are based on the City of Covina General Plan Circulation Element. The roadway speeds are based on the posted speed limits. The average daily traffic volumes for the nearby roads were obtained from *Traffic Impact Analysis Banna Crossing Residential Development* (Traffic Impact Analysis), prepared by Arch Beach Consulting, September, 2015. The existing volumes were utilized to calibrate the model and the Year 2018 with project volumes were utilized to calculate the anticipated worst-case noise impacts to the proposed homes.

Table F – SoundPlan Model Roadway Parameters

				Average Daily Traffic	
Roadway	**General Plan Classification**	**Near-Far Lane Distance (feet)**	**Vehicle Speed (MPH)**	**Existing**	**2018 + Project**
Cypress Street	Secondary	40	35	9,460	9,610
Clover Place	Local	18	25	370	515
Banna Avenue	Local	18	25	1,250	1,509
Kidder Avenue	Local	18	25	430	650

Source: Arch Beach Consulting, 2015; City of Covina, 2000.

The vehicle mixes used in the SoundPlan Model are shown in Table G. The vehicle mixes are based on typical vehicle mixes observed in Southern California.

Table G – Roadway Vehicle Mix

	Traffic Flow Distributions			
Vehicle Type	**Day (7 a.m. to 7 p.m.)**	**Evening (7 p.m. to 10 p.m.)**	**Night (10 p.m. to 7 a.m.)**	**Overall**
Secondary Arterial Roads				
Automobiles	69.50%	12.90%	9.60%	92.00%
Medium Trucks	1.44%	0.06%	1.50%	3.00%
Heavy Trucks	2.40%	0.10%	2.50%	5.00%
Local Roads				
Automobiles	73.60%	13.60%	10.22%	97.42%
Medium Trucks	0.90%	0.90%	0.04%	1.84%
Heavy Trucks	0.35%	0.04%	0.35%	0.74%

Source: Vista Environmental.

Southern Pacific and Metrolink Railroad Assumptions

The SoundPlan model analyzed the noise impacts from the Southern Pacific and Metrolink Railroad that runs near the northwest corner of the project site. According to www.metrolinktrains.com the BNSF Railroad near the project site is used for the San Bernardino Metrolink Line, which has 18 trains per day traveling to Los Angeles and 17 trains per day traveling to San Bernardino, which results in 35 Metrolink trains that pass by the project site each weekday that were modelled in the Sound Plan model. Site observations of the railroad determined that there are approximately are four daily freight trains that pass by the project site that were modelled in the SoundPlan model. A summary of the train parameters entered into the SoundPlan model is shown below in Table H. All trains were modeled as traveling at 35 miles per hour. In addition, a 17 dB penalty was added to the track at the point where it crosses Cypress Street in order to account for the train whistle and crossing guard noises.

Table H – SoundPlan Model Railroad Parameters

	Daily Train Pass Bys		
Type of Train	**Day (7 a.m. to 7 p.m.)**	**Night (10 p.m. to 7 a.m.)**	**Overall**
Freight Train	2	0	2
Passenger Train	29	6	35

Source: www.metrolinktrains.com.

Public Park

The layout and activities for the proposed 2-acre public park on the north side of the project site has not yet been determined. Representative noise measurements were taken of potential activities that may occur at the public park. Table I below provides a summary of potential noise sources that may occur at the open space area of Planning Area B and for comparison purposes all noise measurements were calculated at 100 feet based on an attenuation rate of 7.5 dB per doubling of distance, which is based on a point source drop off rate provided in the TeNS.

Table I – Planning Area B Potential Noise Sources

Noise Source	Measurement Distance (feet)	Noise Levels (dBA)[1]			
		Measured L_{eq}	L_{min}	L_{max}	Calculated L_{eq} at 100 feet[2]
Soccer field and basketball courts[3]	50	62.2	47.1	87.8	54.7
Baseball field[4]	50	57.8	49.4	67.6	50.3
Skate park[5]	50	57.1	48.9	72.7	49.6

Notes:
[1] The duration of each noise measurement was based on Caltrans Technical Noise Supplement Chapter 3.3.2, which states "A measurement may be terminated when the range of fluctuation in displayed Leq is less than 0.5 dBA."
[2] Calculated based on a drop off rate for soft sites of 7.5 dB per doubling of distance.
[3] Noise measurement taken at Lakeside Middle School in Irvine from 11:04 a.m. to 11:24 a.m. on February 23, 2008.
[4] Noise measurement taken at Santa Clarita Park from 4:55 p.m. to 5:10 p.m. on May 5, 2011.
[5] Noise measurement taken at Harvard Park Skate Park in Irvine from 1:52 p.m. to 2:03 p.m. on July 1, 2009.
Source: Noise measurements taken by Vista Environmental.

In order to present a worst-case for stationary noise impacts, the public park has been analyzed as an area source covering all of the public park, that is setback 20 feet from the public park property lines. The area source was calibrated to a noise source level of 54.7 dBA Leq at 100 feet, which is based on the highest potential noise use identified above in Table I. The park activities were limited to daytime hours of 7 a.m. to 7 p.m..

Sound Wall Assumptions

The proposed sound walls were also inputted into the SoundPlan model. Development of the proposed project would include construction of a 6-foot high sound wall along the shared property line between the public park and the proposed homes. The sound wall was modeled based on no reflection.

Modeling Calibration

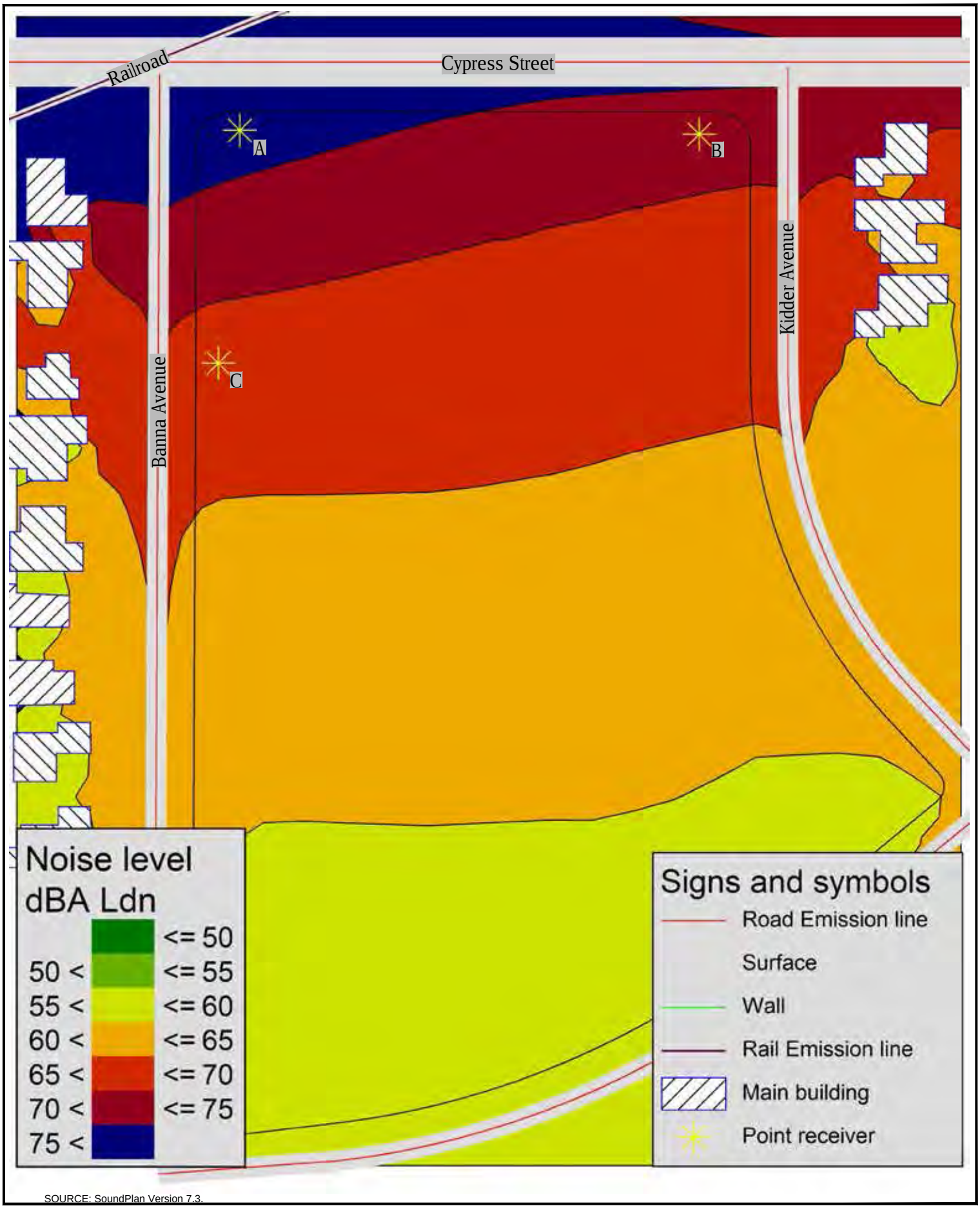
Receivers were placed at the locations of the 24-hour noise measurement sites in order to assist in the calibration of the model as well as to verify the accuracy of the SoundPlan Model. Table G below provides a summary of the calculated results and a comparison to the measured results shown above in Table J. The SoundPlan Model printouts for the model calibration are provided in Appendix C and Figure 5 shows the calculated existing noise contours.

Table J – SoundPlan Model Calibration to Existing Noise Levels

Site No.	Site Description	Calculated Noise Level[1] (dBA Ldn)	Measured Noise Level[2] (dBA Ldn)	Difference
A	Northwest corner of the project site.	77.7	77.5	0.2
B	Northeast corner of the project site.	72.0	71.3	0.7
C	Western side of the project site.	68.3	68.0	0.3

[1] Noise Level Calculated from SoundPlan Version 7.4.
[2] Noise measurements taken on Monday May 9, 2015 and Tuesday May 10, 2015.

Table J above shows that the SoundPlan Model is within 0.7 dBA of the field noise measurements, which is within the range of allowed tolerances as described in Section 5.4.1, Routine Model Calibration, of the TeNS for the multiple range of noise sources impacting the project site. Therefore, based on the field noise measurements, the SoundPlan Model provides an accurate representation of the project area noise levels.



SOURCE: SoundPlan Version 7.3.

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Figure 5
Existing Noise Contours

Offsite Roadway Noise

The project noise impacts to the offsite roadways were analyzed through use of the FHWA Traffic Noise Prediction Model FHWA-RD-77-108 (FHWA Model). The following provides a discussion of the software and modeling input parameters used in this analysis.

FHWA Model Assumptions

In order to quantify the potential noise impacts created by the vehicular traffic generated by the proposed project and compare them to the existing noise levels, the existing roadway noise environment was modeled using the FHWA Model. The FHWA Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). Adjustments are then made to the reference energy mean emission level to account for: the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway), the total average daily traffic (ADT) and the percentage of ADT which flows during the day, evening and night, the travel speed, the vehicle mix on the roadway, which is a percentage of the volume of automobiles, medium trucks and heavy trucks, the roadway grade, the angle of view of the observer exposed to the roadway and site conditions ("hard" or "soft" relates to the absorption of the ground, pavement or landscaping).

FHWA Model Traffic Noise Prediction Model Inputs

The roadway parameters used for this study are presented in Table K. The roadway classifications are based on the City's General Plan Circulation Element. The roadway speeds are based on the posted speed limits. The distances to the nearest sensitive receptors was determined by measuring the distance from the roadway centerline to the nearest residence. Since the study area is located in a suburban environment and landscaping exists along the sides of all analyzed roadways, soft site conditions were modeled. The vehicle mix used in the FHWA model is shown above in Table G.

Table K – FHWA Model Roadway Parameters

Roadway	Segment	General Plan Classification	Vehicle Speed (MPH)	Distance to Nearest Receptor (feet)
Cypress Street	Banna Avenue to Kidder Avenue	Secondary	35	50
Banna Avenue	Cypress Street to Colver Place	Local	25	50
Colver Place	Banna Avenue to Kidder Avenue	Local	25	50
Kidder Avenue	Cypress Street to Colver Place	Local	25	50

Source: Arch Beach Consulting, 2015; and City of Covina, 2000.

The average daily traffic (ADT) volumes on the study area roadways were obtained from the Traffic Impact Analysis. The ADT volumes have been provided for both without project and with project conditions for the existing year and opening year 2018 scenarios. The ADT volumes used in this analysis are shown in Table L.

Table L – Average Daily Traffic Volumes

Roadway	Segment	Average Daily Traffic Volumes			
		Existing	Existing + Project	2016 No Project	2016 + Project
Cypress Street	Banna Avenue to Kidder Avenue	8,960	9,080	9,490	9,610
Banna Avenue	Cypress Street to Colver Place	1,250	1,550	1,290	1,590
Colver Place	Banna Avenue to Kidder Avenue	370	505	380	515
Kidder Avenue	Cypress Street to Colver Place	430	640	440	650

Source: Arch Beach Consulting, 2015.

FHWA Model Source Assumptions

To assess the roadway noise generation in a uniform manner, all vehicles are analyzed at the single lane equivalent acoustic center of the roadway being analyzed. In order to determine the height above the road grade where the noise is being emitted from, each type of vehicle has been analyzed independently with autos at road grade, medium trucks at 2.3 feet above road grade, and heavy trucks at 8 feet above road grade. These elevations were determined through a noise-weighted average of the elevation of the exhaust pipe, tires and mechanical parts in the engine, which are the primary noise emitters from a vehicle.

6.3 Vibration

Construction activity can result in varying degrees of ground vibration, depending on the equipment used on the site. Operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Buildings in the vicinity of the construction site respond to these vibrations with varying results ranging from no perceptible effects at the low levels to slight damage at the highest levels. Table M gives approximate vibration levels for particular construction activities. The data in Table M provides a reasonable estimate for a wide range of soil conditions.

Table M – Vibration Source Levels for Construction Equipment

Equipment		Peak Particle Velocity (inches/second)	Approximate Vibration Level (L_v)at 25 feet
Pile driver (impact)	Upper range	1.518	112
	typical	0.644	104
Pile driver (sonic)	Upper range	0.734	105
	typical	0.170	93
Clam shovel drop (slurry wall)		0.202	94
Vibratory Roller		0.210	94
Hoe Ram		0.089	87
Large bulldozer		0.089	87
Caisson drill		0.089	87
Loaded trucks		0.076	86
Jackhammer		0.035	79
Small bulldozer		0.003	58

Source: Federal Transit Administration, May 2006.

The construction-related and operational vibration impacts have been calculated through the vibration levels shown above in Table M and through typical vibration propagation rates. The equipment assumptions were based on the equipment lists provided above in Table E.

7.0 IMPACT ANALYSIS

7.1 CEQA Thresholds of Significance

Consistent with the California Environmental Quality Act (CEQA) and the State CEQA Guidelines, a significant impact related to noise would occur if a proposed project is determined to result in:

- Exposure of persons to or generation of noise levels in excess of standards established in the local General Plan or noise ordinance, or applicable standards of other agencies;
- Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels;
- A substantial permanent increase in ambient noise levels in the project vicinity above existing levels without the proposed project;
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above noise levels existing without the proposed project; or
- Exposure of persons residing or working in the project area to excessive noise levels from aircraft.

7.2 Generation of Noise Levels in Excess of Standards

The proposed project would not expose persons to or generate noise levels in excess of standards established in the General Plan or Noise Ordinance or applicable standards of other agencies. The following section calculates the potential noise emissions associated with the construction and operations of the proposed project and compares the noise levels to the City standards.

Construction-Related Noise

The construction activities for the proposed project are anticipated to include demolition of the existing school, site preparation and grading of the 8.5 acre project site, building construction of the 63 single-family homes, paving of the onsite roads, and application of architectural coatings. Noise impacts from construction activities associated with the proposed project would be a function of the noise generated by construction equipment, equipment location, sensitivity of nearby land uses, and the timing and duration of the construction activities. The nearest sensitive receptors to the project site are single-family homes as near as 80 feet east, south, and west of the project site. In addition, Charter Oak High School has sports fields as near as 90 feet north of the project site.

Section 9.40.110 of the City's Municipal Code exempts construction noise that occurs between 7:00 a.m. and 8:00 p.m. Monday through Saturday, excluding holidays from the stationary noise standards at the nearby residential and school property lines. Through adherence to the limitation of allowable construction times provided in Section 9.40.110, the construction-related noise levels would not exceed any standards. Impact would be less than significant.

Operational-Related Noise

The proposed project would consist of the development of 63 single-family homes. The proposed development would be adjacent to the public park and near Cypress Street and the Railroad, which may create noise levels in excess of City standards at the proposed residential uses.

Exterior Private Backyard Noise

Each of the proposed 108 single-family homes would have a private outdoor backyard area. Some of the proposed homes would have balconies, however all of the proposed home with balconies would be insulated by at least one row of homes between these homes and the nearby offsite streets, which would reduce the noise impacts to the homes with balconies and therefore the proposed balconies are not anticipated to experience noise levels in excess of any exterior noise standards. Policy Area C (1)(1) of the General Plan Noise Element requires that proposed residential uses that are located within the 60 dBA Ldn noise contour examine the noise impacts to ensure compatibility with the State noise standards. Policy Area C (1) (2) of the General Plan Noise Element requires that proposed residential uses located within the 65 dBA Ldn noise contours attempt to mitigate the noise levels to within the State noise standards, which are shown above in Figure 3 that show that the noise level at the exterior of proposed single-family residential homes is Normally Acceptable at 60 dBA Ldn or below and Conditionally Acceptable between 55 and 70 dBA Ldn. Conditionally Acceptable allows for new construction on the condition that a detailed noise analysis is prepared and noise reduction features are included in the design.

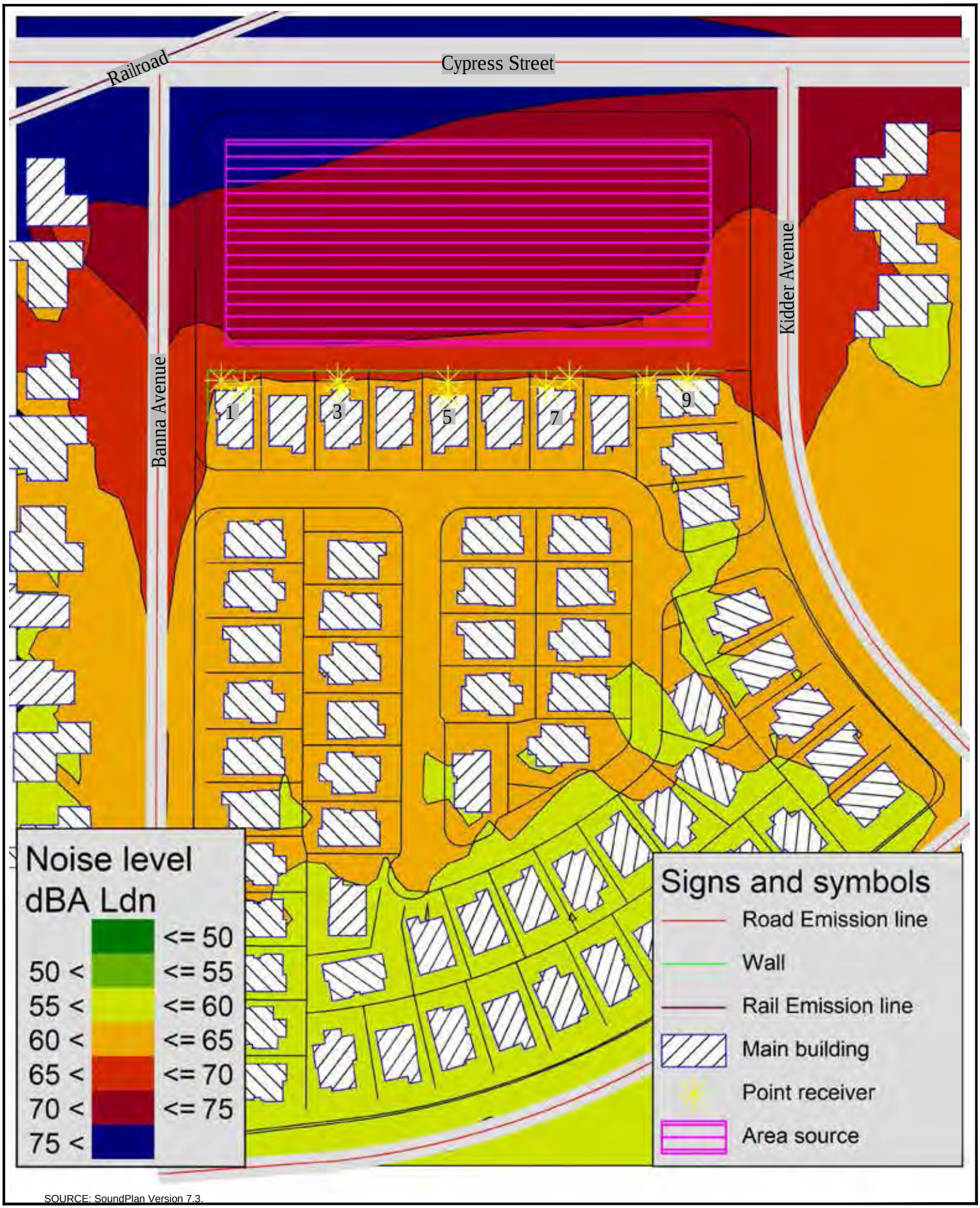
In order to quantify the traffic noise impacts to the private backyards of the proposed single-family homes, receivers were placed in the SoundPlan model 10 feet in from the rear property line or equidistance between house and wall where the backyard is 10 feet or less and 5 feet above ground level on representative backyards that are located on the perimeter of the project site. The placement of the receivers were based on professional experience of where the greatest noise impacts typically occur in backyards. The SoundPlan modeling parameters have been detailed above in Section 6.2. The calculated exterior noise levels at the representative private backyards is shown in Table N and Figure 6 and the SoundPlan printouts are provided in Appendix D.

Table N – Exterior Private Backyard Noise Levels

Lot	Location	Wall Height (Feet)	Exterior Backyard Noise Level (dBA Ldn)
1	Northwest Corner	6	66.2
3	North Side	6	66.4
5	North Side	6	66.5
7	North Side	6	65.6
9	Northeast Corner	6	64.1
State of California Normally Acceptable Noise Standard			**60**
State of California Conditionally Acceptable Noise Standard			**70**

Notes: Exceedance of 70 dBA Ldn noise standard shown in **bold.**
Source: SoundPlan Version 7.3.

Table N shows that the exterior noise levels of the private backyards for Lots 1, 2, 3, 4, 5, 6, 7, 8, and 9 would exceed the State of California Normally Acceptable exterior noise standard of 60 dBA Ldn for single-family homes. Table N also shows that the none of the proposed backyard noise levels would exceed the State of California Conditionally Acceptable exterior noise standard of 70 dBA Ldn for single-family homes. Section 17.26.210 of the Municipal Code limits wall heights to 6 feet and a 6-foot high sound wall is provided as a project design feature at the rear yards of Lots 1 to 9. Therefore, the State of California Condition Acceptable noise standard is the appropriate standards for the proposed project, since all feasible mitigation has been utilized for the backyard noise levels. Impacts would be less than significant.



SOURCE: SoundPlan Version 7.3.

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Figure 6
Year 2018 With Project Noise Contours

Interior Noise

Policy Area C (1)(1) of the General Plan Noise Element requires that proposed residential uses that are located within the 60 dBA Ldn noise contour examine the noise impacts to ensure compatibility with the State noise standards. As detailed above in Section 4.1, the State requires that noise level in all habitable rooms is limit to 45 dBA Ldn.

To assess the interior noise levels related to compliance with the City's 45 dBA Ldn interior criteria, the architectural plans were utilized to calculate the exterior to interior attenuation rates of each unit type that is anticipated to be located where the exterior noise level would exceed 70 dBA Ldn, which consist of the rooms at the rear second floor of Floor Plans 2, 3, and 4. For each room the floor area covered by carpet or linoleum was calculated along with the total square footage of the ceilings and walls, in order to determine the sound absorption rate of the room. The area of exterior walls, windows, and exterior doors were also calculated in order to determine the exterior transmission levels and the corner units were analyzed in order to provide for the worst-case conditions.

The standard attenuation rate was calculated based on standard dual pane windows that have a 26 STC Rating and standard stucco walls that have a 46 STC Rating. Dual pane windows and doors are required due to California's Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations Title 24, Part 6). The exterior to interior noise reduction was then determined by combining the calculated room absorption rate to the exterior to interior transmission calculations. Table O below shows the calculated exterior to interior noise reduction rates and the exterior to interior calculation worksheets are shown in Appendix E.

Table O – Exterior to Interior Noise Reduction Rates Prior to Mitigation

Floor Plan	Room	Exterior to Interior Noise Reduction[1] (dBA)
2	Master Bedroom	34
2	Bedroom 5	30
3	Master Bedroom	32
4	Master Bedroom	31
Minimum Exterior to Interior Noise Reduction		**30**

Notes:
[1] Based on standard dual pane windows with a 26 STC rating, which are required per Title 24 energy saving requirements.
Source: Kinsler, 2000; Harris, 1994.

Table O above shows that the minimum exterior to interior attenuation rate with standard dual pane windows would be 30 dBA.

Receivers were placed in the SoundPlan model at the façade of each floor of representative homes that are anticipated to experience the highest noise levels in order to calculate the anticipated interior noise levels. The exterior noise level at the façade of the first and second floors of the representative homes are shown below in Table P and the SoundPlan model printouts are provided in Appendix D.

Table P – Proposed Residential Interior Noise Levels

Lot	Floor	Exterior Noise Level at Façade (dBA Ldn)	Interior Noise Levels (dBA Ldn)	
			Windows Open[1]	Windows Closed[2]
1	1	66.8	**54.8**	36.8
	2	68.3	**56.3**	38.3
3	1	66.9	**54.9**	36.9
	2	68.3	**56.3**	38.3
5	1	66.5	**54.5**	36.5
	2	67.7	**55.7**	37.7
7	1	66.3	**54.3**	36.3
	2	67.7	**55.7**	37.7
9	1	65.6	**53.6**	35.6
	2	67.3	**55.3**	37.3

Notes:
[1] A minimum 15 dBA noise reduction is assumed with windows open condition.
[2] A minimum 30 dBA noise reduction is assumed with a windows closed condition from Table O.
Exceedance of City 45 dBA Ldn noise standard showed in **bold.**
Source: SoundPlan Model Version 7.4.

Table P shows that the single-family homes on all analyzed lots would exceed the City's 45 dBA CNEL interior noise standard for the windows open condition. This would be considered a significant impact.

Mitigation Measure 1 is provided that would require all proposed homes to be designed for a "windows closed" condition. A "windows closed" condition requires a means of mechanical ventilation per Chapter 12, Section 1205 of the Uniform Building Code. This shall be achieved with a standard forced air conditioning and heating system for each residential unit. Table P shows that with implementation of Mitigation Measure 1, the interior areas of the proposed homes would be mitigated to less than significant levels.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Mitigation Measure 1:

The project applicant shall provide a "windows closed" condition for each proposed residential unit project. A "windows closed" condition requires a means of mechanical ventilation per Chapter 12, Section 1205 of the Uniform Building Code. This shall be achieved with a standard forced air conditioning and heating system with a filtered outside air intake vent for each residential unit.

Level of Significance After Mitigation

Less than significant impact.

7.3 Generation of Excessive Groundborne Vibration

The proposed project would not expose persons to or generation of excessive groundborne vibration or groundborne noise levels. The following section analyzes the potential vibration impacts associated with the construction and operations of the proposed project.

Construction-Related Vibration Impacts

The construction activities for the proposed project are anticipated to include demolition of the existing school, site preparation and grading of the 8.5 acre project site, building construction of the 63 single-family homes, paving of the onsite roads, and application of architectural coatings. Noise impacts from construction activities associated with the proposed project would be a function of the noise generated by construction equipment, equipment location, sensitivity of nearby land uses, and the timing and duration of the construction activities. The nearest sensitive receptors to the project site are single-family homes as near as 80 feet east, south, and west of the project site. In addition, Charter Oak High School has sports fields as near as 90 feet north of the project site.

Chapter 9.40.120 (J) of the City's Municipal Code limits vibration levels created on the project site from being felt at or beyond the property boundary line. Chapter 9.40.020 (30) of the City's Municipal Code defines the vibration perception threshold as motion velocity of 0.01 inches per second over the range of one to 100 Hz.

The primary source of vibration during construction would be from the operation of a bulldozer. From Table M above a large bulldozer would create a vibration level of 0.089 inch per second PPV at 25 feet or 0.052 inch per second root mean squared (RMS) at 25 feet. Based on typical propagation rates, the vibration level at the nearest offsite receptor would be 0.01 inch per second RMS. This vibration level is within the 0.01 inch per second RMS threshold as detailed in Chapters 9.40.120 (J) and 9.40.020 (30) of the City's Municipal Code. Therefore, a less than significant construction-related vibration impact would occur.

Operations-Related Vibration Impacts

The on-going operation of the proposed project would not include the operation of any known vibration sources. Therefore, a less than significant vibration impact is anticipated from the operation of the proposed project.

Level of Significance

Less than significant impact.

7.4 Permanent Noise Level Increase

The ongoing operation of the proposed project may result in a potential substantial permanent increase in ambient noise levels in the project vicinity above existing levels without the proposed project. Potential noise impacts associated with the operations of the proposed project would be from project-generated vehicular traffic on the project vicinity roadways.

Vehicle noise is a combination of the noise produced by the engine, exhaust and tires. The level of traffic noise depends on three primary factors (1) the volume of traffic, (2) the speed of traffic, and (3) the number of trucks in the flow of traffic. The proposed project does not propose any uses that would require a substantial number of truck trips and the proposed project would not alter the speed limit on any existing roadway so the proposed project's potential offsite noise impacts have been focused on the noise impacts associated with the change of volume of traffic that would occur with development of the proposed project.

Policy Area C (1) (14) of the General Plan Noise Element, requires new developments to minimize the noise impacts from trips that they generate on residential neighborhoods. However neither the General Plan nor the CEQA Guidelines define what constitutes a "substantial permanent increase to ambient noise

levels", as such, this impact analysis has utilized guidance from the Federal Transit Administration for a moderate impact that has been detailed above in Table A.

The potential offsite traffic noise impacts created by the on-going operations of the proposed project have been analyzed through utilization of the FHWA model and parameters described above in Section 6.2 and the FHWA model noise calculation spreadsheets are provided in Appendix F. The proposed project's offsite traffic noise impacts have been analyzed for the existing and opening year 2018 conditions and are discussed below.

Existing Conditions

The proposed project's potential offsite noise impacts have been calculated through a comparison of the Existing scenario to the Existing With Project scenario. The results of this comparison are shown in Table Q.

Table Q – Existing Project Traffic Noise Contributions

		dBA Ldn at Nearest Receptor[1]			
Roadway	**Segment**	**Existing**	**Existing Plus Project**	**Project Contribution**	**Increase Threshold[2]**
Cypress Street	Banna Avenue to Kidder Avenue	62.3	62.3	0.0	+2 dBA
Banna Avenue	Cypress Street to Colver Place	48.9	49.8	0.9	+7 dBA
Colver Place	Banna Avenue to Kidder Avenue	43.6	44.9	1.3	+7 dBA
Kidder Avenue	Cypress Street to Colver Place	44.2	45.9	1.7	+7 dBA

Notes:
[1] Distance to nearest residential or school use shown in Table F, does not take into account existing noise barriers.
[2] Increase threshold based on the significance thresholds defined in *Transit Noise and Vibration Impact Assessment,* prepared by Federal Transit Administration, 2006, for a moderate impact.
Source: FHWA Traffic Noise Prediction Model FHWA-RD-77-108.

Table Q shows that for the Existing conditions, the proposed project's permanent noise increases to the nearby homes from the generation of additional vehicular traffic would not exceed the increase thresholds detailed above. Therefore, the proposed project would not result in a substantial permanent increase in ambient noise levels for the existing conditions. Impacts would be less than significant.

Opening Year 2018 Conditions

The proposed project's potential offsite noise impacts have been calculated through a comparison of the year 2018 without project scenario to the year 2018 with project scenario. The results of this comparison are shown in Table R.

Table R – Opening Year 2018 Project Traffic Noise Contributions

		dBA Ldn at Nearest Receptor[1]			
Roadway	**Segment**	**2016 No Project**	**2016 Plus Project**	**Project Contribution**	**Increase Threshold[2]**
Cypress Street	Banna Avenue to Kidder Avenue	62.5	62.6	0.1	+2 dBA
Banna Avenue	Cypress Street to Colver Place	49.0	49.9	0.9	+7 dBA
Colver Place	Banna Avenue to Kidder Avenue	43.7	45.0	1.3	+7 dBA
Kidder Avenue	Cypress Street to Colver Place	44.3	46.0	1.7	+7 dBA

Notes:
[1] Distance to nearest residential or school use shown in Table F, does not take into account existing noise barriers.
[2] Increase threshold based on the significance thresholds defined in *Transit Noise and Vibration Impact Assessment,* prepared by Federal Transit Administration, 2006, for a moderate impact.
Source: FHWA Traffic Noise Prediction Model- FHWA-RD-77-108.

Table R shows that for the opening year 2018 conditions, the proposed project's permanent noise increases to the nearby homes from the generation of additional vehicular traffic would not exceed the increase thresholds detailed above. Therefore, the proposed project would not result in a substantial permanent increase in ambient noise levels for the opening year 2018 conditions. Impacts would be less than significant.

Level of Significance

Less than significant impact.

7.5 Temporary Noise Level Increase

The proposed project may create a substantial temporary or periodic increase in ambient noise levels in the project vicinity above noise levels existing without the proposed project. The construction activities for the proposed project are anticipated to include demolition of the existing school, site preparation and grading of the 8.5 acre project site, building construction of the 108 single-family homes, paving of the onsite roads, and application of architectural coatings. The nearest sensitive receptors to the project site are single-family homes as near as 80 feet east, south, and west of the project site. In addition, Charter Oak High School has sports fields as near as 90 feet north of the project site

Section 9.40.110 of the City's Municipal Code exempts construction noise that occurs between 7:00 a.m. and 8:00 p.m. Monday through Saturday, excluding holidays from the stationary noise standards at the nearby residential and school property lines. The analysis above in Section 7.2 found that the proposed project would conform to the City construction noise standards. However, the City construction noise standards do not provide any limits to the noise levels that may be created during construction activities at the nearby sensitive receptors and even with adherence to the City standards, the resultant construction noise levels may result in a significant substantial temporary noise increase at the nearby sensitive receptors.

In order to determine if the proposed construction activities would create a significant substantial temporary noise increase, the OSHA agency limits for noise exposure have been utilized. The use of a significance threshold using an OSHA standard is considered conservative. The OSHA standard limits noise exposure of workers to 90 dB or less over eight continuous hours or 105 dB or less over one continuous hour and this standard has been utilized to analyze the construction noise impacts to the sensitive receptors located at the nearby offsite residences. According to the project applicant the demolition and grading activities that would occur near the homes would consist of the use of loaders and scrappers that would make several passes over each portion of the project site, which will limit demolition and grading activities near any particular home to less than one hour intervals. However the demolition, building construction, paving and painting activities would have the potential to occur in the proximity of the same home for 8 continuous hours. Therefore, the one hour standard of 105 dB has been utilized as the threshold for site preparation and grading activities and the eight hour standard of 90 dB has been utilized as the threshold for demolition, building construction, paving, and painting activities.

Construction noise impacts to the nearby sensitive receptors have been calculated through use of the RCNM and the parameters and assumptions detailed in Section 6.1 of this report including Table E – Construction Equipment Noise Emissions and Usage Factors. The results are shown below in Table S and the RCNM printouts are provided in Appendix G.

Table S – Worst-Case Construction Noise Levels at Nearest Homes

Construction Phase	Distance to Nearest Home (feet)	Construction Noise Level (dBA Leq)	Threshold[1] (dBA Leq)
Demolition	90	79	90
Site Preparation	80	79	105
Grading	80	77	105
Building Construction	100	76	90
Paving	80	72	90
Painting	100	68	90

Notes:
[1] Threshold for Site Preparation and grading activities based on OSHA one hour standard of 105 dB and threshold for building construction, paving, and painting activities based on OSHA eight hour standard of 90 dB.
Source: RCNM, Federal Highway Administration, 2006

Table S shows that greatest noise impacts would occur during the demolition and site preparation phases of construction, with a noise level as high as 79 dBA Leq at the nearest offsite residential use. Table S also shows that none of the construction phases would exceed the OSHA noise standards for each particular use, which is based on the anticipated duration of each impact. Furthermore, the project applicant has stated that all contractors would be required to adhere to noise reduction best management practices that would include the following conditions:

- All construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers;
- Construction noise reduction methods, such as shutting off idling equipment, maximizing the distance between construction equipment staging areas and occupied sensitive receptor areas, and using electric air compressors and similar power tools rather than diesel equipment.
- During construction, stationary construction equipment shall be placed such that noise is directed away from or shielded from sensitive noise receivers.
- During construction, stockpiling and vehicle staging areas shall be located as far as possible from noise-sensitive receptors;
- Construction activities shall not occur between the hours of 8:00 p.m. on one day until 7:00 a.m. the next day, or at any time on Sundays or public holidays.
- A sign shall be posted at all construction job entrances, which is clearly visible to the nearby residences that details allowable construction hours and workdays as well as the phone number for the job superintendent in order to allow the nearby residents to call if they have a concern or issue with construction activities.

As detailed above the proposed project would not exceed the OSHA noise standards and construction noise impacts at the nearby homes would be further reduced through adherence to the best management practices detailed above. Therefore, construction activities would not cause a substantial temporary increase in ambient noise levels. Impacts would be less than significant.

Level of Significance

Less than significant impact.

7.6 Aircraft Noise

The proposed project would not expose people residing or working in the project area to excessive noise levels from aircraft. The nearest private airport is Brackett Field Airport, located approximately 3.8 miles east of the project site and the nearest public airport is Ontario International Airport, located approximately 13 miles east of the project site. The project site is located outside of the 65 dBA CNEL noise contours of these airports and the site observations during the noise measurements found that although private aircraft noise is occasionally audible at the project site, the noise created by the aircraft is not loud enough to measurably increase the ambient noise levels, which are primarily created by the nearby roads and railroad. Impacts would be less than significant.

Level of Significance

Less than significant impact.

8.0 REFERENCES

Arch Beach Consulting, *Traffic Impact Analysis Banna Crossing Residential Development,* September, 2015.

California Department of Transportation, *2012 Annual Average Daily Truck Traffic on the California State Highway System*, 2014.

California Department of Transportation (Caltrans), *Technical Noise Supplement*, November 2009.

California Department of Transportation, *Transportation- and Construction-Induced Vibration Guidance Manual*, June, 2004

City of Covina, *Covina General Plan,* March 14, 2000.

City of Covina, *Covina Municipal Code,* December 16, 2014.

Federal Transit Administration, *Transit Noise and Vibration Impact Assessment,* May 2006.

Harris, Cyril M., *Noise Control in Buildings*, 1994.

Kinsler, Lawrence E., *Fundamentals of Acoustics 4th Edition,* 2000.

U.S. Department of Transportation, *FHWA Roadway Construction Noise Model User's Guide,* January, 2006.

Vista Environmental, *Air Quality and Greenhouse Gas Emissions Impact Analysis Banna Crossings Project City of Covina,* March 26, 2015.

APPENDIX A

Study Area Photo Index

Noise Measurement Site A - Looking North

Noise Measurement Site A - Looking Northeast

Noise Measurement Site A - Looking East

Noise Measurement Site A - Looking Southeast

Noise Measurement Site A - Looking South

Noise Measurement Site A - Looking Southwest

Noise Measurement Site A - Looking West

Noise Measurement Site A - Looking Northwest

Noise Measurement Site B - Looking North

Noise Measurement Site B - Looking Northeast

Noise Measurement Site B - Looking East

Noise Measurement Site B - Looking Southeast

Noise Measurement Site B - Looking South

Noise Measurement Site B - Looking Southwest

Noise Measurement Site B - Looking West

Noise Measurement Site B - Looking Northwest

Noise Measurement Site C - Looking North

Noise Measurement Site C - Looking Northeast

Noise Measurement Site C - Looking East

Noise Measurement Site C - Looking Southeast

Noise Measurement Site C - Looking South

Noise Measurement Site C - Looking Southwest

Noise Measurement Site C - Looking West

Noise Measurement Site C - Looking Northwest

APPENDIX B

Field Noise Measurement Printouts

Site A - Northwest Corner of Project Site

Date	Time=03/09/15	1:26:00 PM			
Sampling	Time=3	Weighting=A			
Record	Num= 30200	Weighting=Slow	CNEL(24hr)=	78.0	
Leq	73.0 SEL	Value=122.7	Ldn(24hr)=	77.5	
MAX	104.9	Min Leq1hr =	46.9	1:46 AM	
MIN	37.6	Max Leqhr =	78.5	7:11 AM	

Site A - Northwest Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
64.3	13:26:00		64.3	64.3
64.4	13:26:03		64.4	64.4
62	13:26:06		62	62
63.1	13:26:09		63.1	63.1
59	13:26:12		59	59
61.8	13:26:15		61.8	61.8
59.1	13:26:18		59.1	59.1
62.4	13:26:21		62.4	62.4
64.4	13:26:24		64.4	64.4
65.4	13:26:27		65.4	65.4
58.8	13:26:30		58.8	58.8
67	13:26:33		67	67
58	13:26:36		58	58
59	13:26:39		59	59
60.1	13:26:42		60.1	60.1
65.9	13:26:45		65.9	65.9
68.8	13:26:48		68.8	68.8
59.8	13:26:51		59.8	59.8
58.6	13:26:54		58.6	58.6
62.7	13:26:57		62.7	62.7
58.7	13:27:00		58.7	58.7
61.3	13:27:03		61.3	61.3
67.8	13:27:06		67.8	67.8
68.9	13:27:09		68.9	68.9
68.2	13:27:12		68.2	68.2
70.1	13:27:15		70.1	70.1
65.8	13:27:18		65.8	65.8
68.3	13:27:21		68.3	68.3
68.5	13:27:24		68.5	68.5
68.5	13:27:27		68.5	68.5
64.8	13:27:30		64.8	64.8
61.3	13:27:33		61.3	61.3
60.9	13:27:36		60.9	60.9
58.9	13:27:39		58.9	58.9
68.8	13:27:42		68.8	68.8
53.1	13:27:45		53.1	53.1
50.8	13:27:48		50.8	50.8
66.1	13:27:51		66.1	66.1
68.8	13:27:54		68.8	68.8
59.1	13:27:57		59.1	59.1
53.2	13:28:00		53.2	53.2
64.8	13:28:03		64.8	64.8
56	13:28:06		56	56
47.6	13:28:09		47.6	47.6
50.2	13:28:12		50.2	50.2
55.7	13:28:15		55.7	55.7
61	13:28:18		61	61
58.2	13:28:21		58.2	58.2
64.1	13:28:24		64.1	64.1
67.2	13:28:27		67.2	67.2
54.5	13:28:30		54.5	54.5
46.1	13:28:33		46.1	46.1
45	13:28:36		45	45
43.9	13:28:39		43.9	43.9
43.5	13:28:42		43.5	43.5
46.2	13:28:45		46.2	46.2
49.3	13:28:48		49.3	49.3
55.6	13:28:51		55.6	55.6
68.2	13:28:54		68.2	68.2
65.2	13:28:57		65.2	65.2
55.3	13:29:00		55.3	55.3
64.5	13:29:03		64.5	64.5
62.6	13:29:06		62.6	62.6
63.9	13:29:09		63.9	63.9
59	13:29:12		59	59
61.1	13:29:15		61.1	61.1
56	13:29:18		56	56
53.6	13:29:21		53.6	53.6
54.8	13:29:24		54.8	54.8
57.1	13:29:27		57.1	57.1
62.7	13:29:30		62.7	62.7
62.3	13:29:33		62.3	62.3
60.7	13:29:36		60.7	60.7
61.3	13:29:39		61.3	61.3
53.3	13:29:42		53.3	53.3
47.9	13:29:45		47.9	47.9
48.6	13:29:48		48.6	48.6
45.5	13:29:51		45.5	45.5
49.9	13:29:54		49.9	49.9
64.2	13:29:57		64.2	64.2
66.4	13:30:00		66.4	66.4
60.7	13:30:03		60.7	60.7
58.5	13:30:06		58.5	58.5
69.3	13:30:09		69.3	69.3
63.2	13:30:12		63.2	63.2
56.6	13:30:15		56.6	56.6
59.7	13:30:18		59.7	59.7
60.9	13:30:21		60.9	60.9
49.9	13:30:24		49.9	49.9
47.7	13:30:27		47.7	47.7
53.8	13:30:30		53.8	53.8
67.7	13:30:33		67.7	67.7
67.8	13:30:36		67.8	67.8
69	13:30:39		69	69
61.4	13:30:42		61.4	61.4
52.3	13:30:45		52.3	52.3
57.1	13:30:48		57.1	57.1
56.7	13:30:51		56.7	56.7
54.7	13:30:54		54.7	54.7
48.4	13:30:57		48.4	48.4
63	13:31:00		63	63
69.8	13:31:03		69.8	69.8
57.6	13:31:06		57.6	57.6
63.1	13:31:09		63.1	63.1
58	13:31:12		58	58
61.1	13:31:15		61.1	61.1
51.4	13:31:18		51.4	51.4
46.6	13:31:21		46.6	46.6
46.7	13:31:24		46.7	46.7
49.8	13:31:27		49.8	49.8
63.6	13:31:30		63.6	63.6
64.3	13:31:33		64.3	64.3
69.2	13:31:36		69.2	69.2
66.7	13:31:39		66.7	66.7
55.8	13:31:42		55.8	55.8
59.2	13:31:45		59.2	59.2
51	13:31:48		51	51
44.7	13:31:51		44.7	44.7
44.1	13:31:54		44.1	44.1
44.4	13:31:57		44.4	44.4
48.9	13:32:00		48.9	48.9
54.1	13:32:03		54.1	54.1
53.4	13:32:06		53.4	53.4
49	13:32:09		49	49
55.7	13:32:12		55.7	55.7
59	13:32:15		59	59
56.6	13:32:18		56.6	56.6
54.1	13:32:21		54.1	54.1
66.6	13:32:24		66.6	66.6
66.5	13:32:27		66.5	66.5
58.8	13:32:30		58.8	58.8
51.7	13:32:33		51.7	51.7

Site B - Northeast Corner of Project Site

Date	Time=03/09/15	1:29:00 PM			
Sampling	Time=3	Freq Weighting=A			
Record	Num= 30000	Weighting=Slow	CNEL(24hr)=	71.6	
Leq	66.9 SEL	Value=116.8	Ldn(24hr)=	71.3	
MAX	101.5	Min Leq1hr =	47.9	1:43 AM	
MIN	37.5	Max Leqhr =	73.9	4:23 PM	

Site B - Northeast Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
66.2	13:29:00		66.2	66.2
61.9	13:29:03		61.9	61.9
66.2	13:29:06		66.2	66.2
60.7	13:29:09		60.7	60.7
60.1	13:29:12		60.1	60.1
57.2	13:29:15		57.2	57.2
62.5	13:29:18		62.5	62.5
60.4	13:29:21		60.4	60.4
57.9	13:29:24		57.9	57.9
63.7	13:29:27		63.7	63.7
62.5	13:29:30		62.5	62.5
58.7	13:29:33		58.7	58.7
54.2	13:29:36		54.2	54.2
64.6	13:29:39		64.6	64.6
66.1	13:29:42		66.1	66.1
63.3	13:29:45		63.3	63.3
56.4	13:29:48		56.4	56.4
59.9	13:29:51		59.9	59.9
63.5	13:29:54		63.5	63.5
65.5	13:29:57		65.5	65.5
59.3	13:30:00		59.3	59.3
55.8	13:30:03		55.8	55.8
52	13:30:06		52	52
52.5	13:30:09		52.5	52.5
58.1	13:30:12		58.1	58.1
63.5	13:30:15		63.5	63.5
55	13:30:18		55	55
52.8	13:30:21		52.8	52.8
51.8	13:30:24		51.8	51.8
51.8	13:30:27		51.8	51.8
61	13:30:30		61	61
57.7	13:30:33		57.7	57.7
55	13:30:36		55	55
55.2	13:30:39		55.2	55.2
49	13:30:42		49	49
47.5	13:30:45		47.5	47.5
47.7	13:30:48		47.7	47.7
44	13:30:51		44	44
46.1	13:30:54		46.1	46.1
46	13:30:57		46	46
47.3	13:31:00		47.3	47.3
50.1	13:31:03		50.1	50.1
59.8	13:31:06		59.8	59.8
64.1	13:31:09		64.1	64.1
53.5	13:31:12		53.5	53.5
45.5	13:31:15		45.5	45.5
43.1	13:31:18		43.1	43.1
42	13:31:21		42	42
40.8	13:31:24		40.8	40.8
40.5	13:31:27		40.5	40.5
41.2	13:31:30		41.2	41.2
42.1	13:31:33		42.1	42.1
42.7	13:31:36		42.7	42.7
42.2	13:31:39		42.2	42.2
42.4	13:31:42		42.4	42.4
42.5	13:31:45		42.5	42.5
47.2	13:31:48		47.2	47.2
46.3	13:31:51		46.3	46.3
47.9	13:31:54		47.9	47.9
55.4	13:31:57		55.4	55.4
61.9	13:32:00		61.9	61.9
58.4	13:32:03		58.4	58.4
52.3	13:32:06		52.3	52.3
51.3	13:32:09		51.3	51.3
56.3	13:32:12		56.3	56.3
71.6	13:32:15		71.6	71.6
63.7	13:32:18		63.7	63.7
55.7	13:32:21		55.7	55.7
57.9	13:32:24		57.9	57.9
66.9	13:32:27		66.9	66.9
65.5	13:32:30		65.5	65.5
56.3	13:32:33		56.3	56.3
50.2	13:32:36		50.2	50.2
47.4	13:32:39		47.4	47.4
52.7	13:32:42		52.7	52.7
69.1	13:32:45		69.1	69.1
60.8	13:32:48		60.8	60.8
52.2	13:32:51		52.2	52.2
56.1	13:32:54		56.1	56.1
67.7	13:32:57		67.7	67.7
71.9	13:33:00		71.9	71.9
70	13:33:03		70	70
62.2	13:33:06		62.2	62.2
53.2	13:33:09		53.2	53.2
46.4	13:33:12		46.4	46.4
46.3	13:33:15		46.3	46.3
49.7	13:33:18		49.7	49.7
62.2	13:33:21		62.2	62.2
67.5	13:33:24		67.5	67.5
55.8	13:33:27		55.8	55.8
60	13:33:30		60	60
69.5	13:33:33		69.5	69.5
62.6	13:33:36		62.6	62.6
50.1	13:33:39		50.1	50.1
44.3	13:33:42		44.3	44.3
49.3	13:33:45		49.3	49.3
57.8	13:33:48		57.8	57.8
69.2	13:33:51		69.2	69.2
64.7	13:33:54		64.7	64.7
53.5	13:33:57		53.5	53.5
48.8	13:34:00		48.8	48.8
46.3	13:34:03		46.3	46.3
48.6	13:34:06		48.6	48.6
57.9	13:34:09		57.9	57.9
68.9	13:34:12		68.9	68.9
66	13:34:15		66	66
58.3	13:34:18		58.3	58.3
66.6	13:34:21		66.6	66.6
66.3	13:34:24		66.3	66.3
62.9	13:34:27		62.9	62.9
52.7	13:34:30		52.7	52.7
53.4	13:34:33		53.4	53.4
52.1	13:34:36		52.1	52.1
56.8	13:34:39		56.8	56.8
64.5	13:34:42		64.5	64.5
59	13:34:45		59	59
57.7	13:34:48		57.7	57.7
62.6	13:34:51		62.6	62.6
71.9	13:34:54		71.9	71.9
67.8	13:34:57		67.8	67.8
63.8	13:35:00		63.8	63.8
57.1	13:35:03		57.1	57.1
61.4	13:35:06		61.4	61.4
66.7	13:35:09		66.7	66.7
61.3	13:35:12		61.3	61.3
74	13:35:15		74	74
66.6	13:35:18		66.6	66.6
57.4	13:35:21		57.4	57.4
52.9	13:35:24		52.9	52.9
50.1	13:35:27		50.1	50.1
47.2	13:35:30		47.2	47.2
46.4	13:35:33		46.4	46.4

Site C - West side of Project Site

Date	Time=03/09/15	1:39:00 PM			
Sampling	Time=3	Freq Weighting=A			
Record	Num= 30000	Weighting=Slow	CNEL(24h	68.4	
Leq	63.2 SEL	Value=113.3	Ldn(24hr)=	68.0	
MAX	95.4	Min Leq1hr =	44.0	3:01 AM	
MIN	37.9	Max Leqhr =	68.5	7:11 AM	

Site C - West side of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
62.4	13:39:00		62.4	62.4
66.8	13:39:03		66.8	66.8
67.7	13:39:06		67.7	67.7
69.5	13:39:09		69.5	69.5
68.7	13:39:12		68.7	68.7
66.8	13:39:15		66.8	66.8
60.7	13:39:18		60.7	60.7
61.6	13:39:21		61.6	61.6
61.6	13:39:24		61.6	61.6
62.3	13:39:27		62.3	62.3
56.5	13:39:30		56.5	56.5
45.4	13:39:33		45.4	45.4
55.2	13:39:36		55.2	55.2
56.2	13:39:39		56.2	56.2
59	13:39:42		59	59
64.1	13:39:45		64.1	64.1
58.4	13:39:48		58.4	58.4
56.4	13:39:51		56.4	56.4
63.8	13:39:54		63.8	63.8
62.6	13:39:57		62.6	62.6
62.7	13:40:00		62.7	62.7
67.5	13:40:03		67.5	67.5
66.6	13:40:06		66.6	66.6
64.8	13:40:09		64.8	64.8
61.9	13:40:12		61.9	61.9
67	13:40:15		67	67
61	13:40:18		61	61
68.6	13:40:21		68.6	68.6
51	13:40:24		51	51
45.9	13:40:27		45.9	45.9
45.6	13:40:30		45.6	45.6
46.4	13:40:33		46.4	46.4
47.1	13:40:36		47.1	47.1
43.7	13:40:39		43.7	43.7
45.8	13:40:42		45.8	45.8
44.9	13:40:45		44.9	44.9
44.7	13:40:48		44.7	44.7
50.3	13:40:51		50.3	50.3
56.3	13:40:54		56.3	56.3
60.9	13:40:57		60.9	60.9
52.8	13:41:00		52.8	52.8
47.8	13:41:03		47.8	47.8
47	13:41:06		47	47
47.1	13:41:09		47.1	47.1
46.3	13:41:12		46.3	46.3
49.1	13:41:15		49.1	49.1
46.9	13:41:18		46.9	46.9
48.1	13:41:21		48.1	48.1
47.5	13:41:24		47.5	47.5
51.3	13:41:27		51.3	51.3
51.2	13:41:30		51.2	51.2
52.9	13:41:33		52.9	52.9
57.6	13:41:36		57.6	57.6
56.1	13:41:39		56.1	56.1
60.9	13:41:42		60.9	60.9
63.4	13:41:45		63.4	63.4
53	13:41:48		53	53
61.8	13:41:51		61.8	61.8
60.7	13:41:54		60.7	60.7
56.7	13:41:57		56.7	56.7
53	13:42:00		53	53
50.5	13:42:03		50.5	50.5
48.4	13:42:06		48.4	48.4
46.2	13:42:09		46.2	46.2
44.5	13:42:12		44.5	44.5
46.4	13:42:15		46.4	46.4
47	13:42:18		47	47
56.7	13:42:21		56.7	56.7
59.3	13:42:24		59.3	59.3
52	13:42:27		52	52
51	13:42:30		51	51
49.5	13:42:33		49.5	49.5
50.8	13:42:36		50.8	50.8
49.3	13:42:39		49.3	49.3
50	13:42:42		50	50
56.5	13:42:45		56.5	56.5
52.2	13:42:48		52.2	52.2
52.7	13:42:51		52.7	52.7
54.3	13:42:54		54.3	54.3
57	13:42:57		57	57
58	13:43:00		58	58
51.3	13:43:03		51.3	51.3
48.7	13:43:06		48.7	48.7
47.1	13:43:09		47.1	47.1
50.8	13:43:12		50.8	50.8
51.9	13:43:15		51.9	51.9
50	13:43:18		50	50
47.3	13:43:21		47.3	47.3
49.1	13:43:24		49.1	49.1
48.2	13:43:27		48.2	48.2
45.9	13:43:30		45.9	45.9
44.6	13:43:33		44.6	44.6
44.4	13:43:36		44.4	44.4
44.5	13:43:39		44.5	44.5
45	13:43:42		45	45
45.6	13:43:45		45.6	45.6
45.4	13:43:48		45.4	45.4
43.5	13:43:51		43.5	43.5
43.2	13:43:54		43.2	43.2
43.6	13:43:57		43.6	43.6
45.3	13:44:00		45.3	45.3
45.9	13:44:03		45.9	45.9
47.2	13:44:06		47.2	47.2
49	13:44:09		49	49
50.9	13:44:12		50.9	50.9
46.5	13:44:15		46.5	46.5
45.1	13:44:18		45.1	45.1
44.2	13:44:21		44.2	44.2
46	13:44:24		46	46
44.7	13:44:27		44.7	44.7
46.9	13:44:30		46.9	46.9
45.8	13:44:33		45.8	45.8
45.6	13:44:36		45.6	45.6
47.8	13:44:39		47.8	47.8
45.4	13:44:42		45.4	45.4
44.4	13:44:45		44.4	44.4
44.5	13:44:48		44.5	44.5
45.7	13:44:51		45.7	45.7
53	13:44:54		53	53
48.8	13:44:57		48.8	48.8
49.5	13:45:00		49.5	49.5
51.5	13:45:03		51.5	51.5
51.2	13:45:06		51.2	51.2
57.3	13:45:09		57.3	57.3
69.1	13:45:12		69.1	69.1
61.4	13:45:15		61.4	61.4
54.3	13:45:18		54.3	54.3
55.3	13:45:21		55.3	55.3
50.6	13:45:24		50.6	50.6
48.3	13:45:27		48.3	48.3
48.2	13:45:30		48.2	48.2
47.2	13:45:33		47.2	47.2

Site A - Northwest Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
48.5	13:32:36		48.5	48.5
56.8	13:32:39		56.8	56.8
65.1	13:32:42		65.1	65.1
62.9	13:32:45		62.9	62.9
53.3	13:32:48		53.3	53.3
46.9	13:32:51		46.9	46.9
47.5	13:32:54		47.5	47.5
45.1	13:32:57		45.1	45.1
43.7	13:33:00		43.7	43.7
45.2	13:33:03		45.2	45.2
45.3	13:33:06		45.3	45.3
47.3	13:33:09		47.3	47.3
50.2	13:33:12		50.2	50.2
63.4	13:33:15		63.4	63.4
63.7	13:33:18		63.7	63.7
53.7	13:33:21		53.7	53.7
47.8	13:33:24		47.8	47.8
46.1	13:33:27		46.1	46.1
43.8	13:33:30		43.8	43.8
47.8	13:33:33		47.8	47.8
45.6	13:33:36		45.6	45.6
44.6	13:33:39		44.6	44.6
44.3	13:33:42		44.3	44.3
45.1	13:33:45		45.1	45.1
52.9	13:33:48		52.9	52.9
58.5	13:33:51		58.5	58.5
53.4	13:33:54		53.4	53.4
45.1	13:33:57		45.1	45.1
42.5	13:34:00		42.5	42.5
42.1	13:34:03		42.1	42.1
42.1	13:34:06		42.1	42.1
43.4	13:34:09		43.4	43.4
42.5	13:34:12		42.5	42.5
43.7	13:34:15		43.7	43.7
42.3	13:34:18		42.3	42.3
42.3	13:34:21		42.3	42.3
46.5	13:34:24		46.5	46.5
48.8	13:34:27		48.8	48.8
46.7	13:34:30		46.7	46.7
46	13:34:33		46	46
48.9	13:34:36		48.9	48.9
53.8	13:34:39		53.8	53.8
64.5	13:34:42		64.5	64.5
66.5	13:34:45		66.5	66.5
53.5	13:34:48		53.5	53.5
50.9	13:34:51		50.9	50.9
66.7	13:34:54		66.7	66.7
56	13:34:57		56	56
46.2	13:35:00		46.2	46.2
47	13:35:03		47	47
47.8	13:35:06		47.8	47.8
52.3	13:35:09		52.3	52.3
66.8	13:35:12		66.8	66.8
58.3	13:35:15		58.3	58.3
50.6	13:35:18		50.6	50.6
53.6	13:35:21		53.6	53.6
64.5	13:35:24		64.5	64.5
70.7	13:35:27		70.7	70.7
69.7	13:35:30		69.7	69.7
62.4	13:35:33		62.4	62.4
51.2	13:35:36		51.2	51.2
48.2	13:35:39		48.2	48.2
53.9	13:35:42		53.9	53.9
61.3	13:35:45		61.3	61.3
51.3	13:35:48		51.3	51.3
44.5	13:35:51		44.5	44.5
42.9	13:35:54		42.9	42.9
46.3	13:35:57		46.3	46.3
46.3	13:36:00		46.3	46.3
53.3	13:36:03		53.3	53.3
55.7	13:36:06		55.7	55.7
58.1	13:36:09		58.1	58.1
57.2	13:36:12		57.2	57.2
59.7	13:36:15		59.7	59.7
54.5	13:36:18		54.5	54.5
60.2	13:36:21		60.2	60.2
63.9	13:36:24		63.9	63.9
54.5	13:36:27		54.5	54.5
54.2	13:36:30		54.2	54.2
64.8	13:36:33		64.8	64.8
60.8	13:36:36		60.8	60.8
66.9	13:36:39		66.9	66.9
67.3	13:36:42		67.3	67.3
57.8	13:36:45		57.8	57.8
56.8	13:36:48		56.8	56.8
66.8	13:36:51		66.8	66.8
56.1	13:36:54		56.1	56.1
58.1	13:36:57		58.1	58.1
55.5	13:37:00		55.5	55.5
53.6	13:37:03		53.6	53.6
55.7	13:37:06		55.7	55.7
62	13:37:09		62	62
54.7	13:37:12		54.7	54.7
48.7	13:37:15		48.7	48.7
47.4	13:37:18		47.4	47.4
53.7	13:37:21		53.7	53.7
67.8	13:37:24		67.8	67.8
60.5	13:37:27		60.5	60.5
58.3	13:37:30		58.3	58.3
57.5	13:37:33		57.5	57.5
66.6	13:37:36		66.6	66.6
62.8	13:37:39		62.8	62.8
69.5	13:37:42		69.5	69.5
59.3	13:37:45		59.3	59.3
55.7	13:37:48		55.7	55.7
65.1	13:37:51		65.1	65.1
60.8	13:37:54		60.8	60.8
55.5	13:37:57		55.5	55.5
51.9	13:38:00		51.9	51.9
50.9	13:38:03		50.9	50.9
52.3	13:38:06		52.3	52.3
53.6	13:38:09		53.6	53.6
50.2	13:38:12		50.2	50.2
48	13:38:15		48	48
46.3	13:38:18		46.3	46.3
46.2	13:38:21		46.2	46.2
47.8	13:38:24		47.8	47.8
51.1	13:38:27		51.1	51.1
65.6	13:38:30		65.6	65.6
59.1	13:38:33		59.1	59.1
56.4	13:38:36		56.4	56.4
55.4	13:38:39		55.4	55.4
57.8	13:38:42		57.8	57.8
60	13:38:45		60	60
59.1	13:38:48		59.1	59.1
50.5	13:38:51		50.5	50.5
52.9	13:38:54		52.9	52.9
62.1	13:38:57		62.1	62.1
51.2	13:39:00		51.2	51.2
45.2	13:39:03		45.2	45.2
50	13:39:06		50	50
64.9	13:39:09		64.9	64.9
62.1	13:39:12		62.1	62.1
49.3	13:39:15		49.3	49.3
44.7	13:39:18		44.7	44.7
52.3	13:39:21		52.3	52.3
66	13:39:24		66	66
63	13:39:27		63	63
52.8	13:39:30		52.8	52.8
46.4	13:39:33		46.4	46.4
46.4	13:39:36		46.4	46.4
55.3	13:39:39		55.3	55.3
58.3	13:39:42		58.3	58.3

Site B - Northeast Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
44.2	13:35:36		44.2	44.2
45.7	13:35:39		45.7	45.7
47.5	13:35:42		47.5	47.5
55.8	13:35:45		55.8	55.8
63.2	13:35:48		63.2	63.2
62	13:35:51		62	62
64.5	13:35:54		64.5	64.5
53.9	13:35:57		53.9	53.9
59.1	13:36:00		59.1	59.1
68.6	13:36:03		68.6	68.6
62	13:36:06		62	62
54.3	13:36:09		54.3	54.3
60.1	13:36:12		60.1	60.1
65.4	13:36:15		65.4	65.4
55.5	13:36:18		55.5	55.5
46.4	13:36:21		46.4	46.4
43.2	13:36:24		43.2	43.2
43.2	13:36:27		43.2	43.2
42.7	13:36:30		42.7	42.7
42.8	13:36:33		42.8	42.8
43.9	13:36:36		43.9	43.9
48.9	13:36:39		48.9	48.9
56.8	13:36:42		56.8	56.8
55.3	13:36:45		55.3	55.3
54.9	13:36:48		54.9	54.9
51.9	13:36:51		51.9	51.9
55.9	13:36:54		55.9	55.9
70.1	13:36:57		70.1	70.1
63.4	13:37:00		63.4	63.4
56.6	13:37:03		56.6	56.6
48.6	13:37:06		48.6	48.6
44	13:37:09		44	44
43.7	13:37:12		43.7	43.7
42.6	13:37:15		42.6	42.6
42.2	13:37:18		42.2	42.2
41.8	13:37:21		41.8	41.8
43.4	13:37:24		43.4	43.4
48.2	13:37:27		48.2	48.2
60.3	13:37:30		60.3	60.3
68.8	13:37:33		68.8	68.8
64.4	13:37:36		64.4	64.4
53.6	13:37:39		53.6	53.6
54.2	13:37:42		54.2	54.2
61.2	13:37:45		61.2	61.2
58.5	13:37:48		58.5	58.5
48.5	13:37:51		48.5	48.5
60.1	13:37:54		60.1	60.1
66.5	13:37:57		66.5	66.5
61.1	13:38:00		61.1	61.1
60.6	13:38:03		60.6	60.6
67.1	13:38:06		67.1	67.1
64.2	13:38:09		64.2	64.2
62.1	13:38:12		62.1	62.1
54	13:38:15		54	54
49.6	13:38:18		49.6	49.6
57.1	13:38:21		57.1	57.1
66.4	13:38:24		66.4	66.4
69.3	13:38:27		69.3	69.3
61.3	13:38:30		61.3	61.3
62.2	13:38:33		62.2	62.2
58.3	13:38:36		58.3	58.3
51	13:38:39		51	51
55.5	13:38:42		55.5	55.5
61.3	13:38:45		61.3	61.3
60.4	13:38:48		60.4	60.4
49.8	13:38:51		49.8	49.8
46.4	13:38:54		46.4	46.4
46.1	13:38:57		46.1	46.1
49.9	13:39:00		49.9	49.9
53.7	13:39:03		53.7	53.7
60.1	13:39:06		60.1	60.1
71.1	13:39:09		71.1	71.1
77.1	13:39:12		77.1	77.1
69.4	13:39:15		69.4	69.4
62.7	13:39:18		62.7	62.7
63.5	13:39:21		63.5	63.5
63.2	13:39:24		63.2	63.2
56.9	13:39:27		56.9	56.9
57.4	13:39:30		57.4	57.4
53.7	13:39:33		53.7	53.7
54.9	13:39:36		54.9	54.9
64.8	13:39:39		64.8	64.8
63.3	13:39:42		63.3	63.3
68.6	13:39:45		68.6	68.6
62.9	13:39:48		62.9	62.9
63.3	13:39:51		63.3	63.3
60.8	13:39:54		60.8	60.8
63.3	13:39:57		63.3	63.3
67.3	13:40:00		67.3	67.3
61.4	13:40:03		61.4	61.4
52.5	13:40:06		52.5	52.5
48.5	13:40:09		48.5	48.5
48.8	13:40:12		48.8	48.8
58.9	13:40:15		58.9	58.9
66.2	13:40:18		66.2	66.2
56.6	13:40:21		56.6	56.6
48.7	13:40:24		48.7	48.7
49.7	13:40:27		49.7	49.7
65.7	13:40:30		65.7	65.7
63.7	13:40:33		63.7	63.7
53.2	13:40:36		53.2	53.2
50.4	13:40:39		50.4	50.4
63.3	13:40:42		63.3	63.3
66.8	13:40:45		66.8	66.8
61.5	13:40:48		61.5	61.5
51.3	13:40:51		51.3	51.3
44.7	13:40:54		44.7	44.7
42.4	13:40:57		42.4	42.4
43.3	13:41:00		43.3	43.3
46.2	13:41:03		46.2	46.2
55.9	13:41:06		55.9	55.9
63	13:41:09		63	63
65.9	13:41:12		65.9	65.9
60.2	13:41:15		60.2	60.2
48.8	13:41:18		48.8	48.8
44.5	13:41:21		44.5	44.5
43.6	13:41:24		43.6	43.6
43.8	13:41:27		43.8	43.8
42.9	13:41:30		42.9	42.9
46.2	13:41:33		46.2	46.2
55.6	13:41:36		55.6	55.6
65	13:41:39		65	65
63.5	13:41:42		63.5	63.5
53.5	13:41:45		53.5	53.5
51.8	13:41:48		51.8	51.8
52.4	13:41:51		52.4	52.4
50	13:41:54		50	50
52	13:41:57		52	52
58.5	13:42:00		58.5	58.5
65.3	13:42:03		65.3	65.3
59.1	13:42:06		59.1	59.1
68.7	13:42:09		68.7	68.7
75.4	13:42:12		75.4	75.4
65.4	13:42:15		65.4	65.4
66.8	13:42:18		66.8	66.8
65.1	13:42:21		65.1	65.1
66.2	13:42:24		66.2	66.2
58.8	13:42:27		58.8	58.8
67	13:42:30		67	67
70.5	13:42:33		70.5	70.5
70.8	13:42:36		70.8	70.8
68.4	13:42:39		68.4	68.4
61.4	13:42:42		61.4	61.4

Site C - West side of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
48.6	13:45:36		48.6	48.6
46.9	13:45:39		46.9	46.9
47.8	13:45:42		47.8	47.8
51.8	13:45:45		51.8	51.8
47.3	13:45:48		47.3	47.3
51.1	13:45:51		51.1	51.1
49.2	13:45:54		49.2	49.2
49.4	13:45:57		49.4	49.4
50.4	13:46:00		50.4	50.4
50.6	13:46:03		50.6	50.6
51	13:46:06		51	51
48.3	13:46:09		48.3	48.3
48.2	13:46:12		48.2	48.2
51.3	13:46:15		51.3	51.3
50.1	13:46:18		50.1	50.1
47.7	13:46:21		47.7	47.7
52.6	13:46:24		52.6	52.6
49.4	13:46:27		49.4	49.4
51.4	13:46:30		51.4	51.4
52.4	13:46:33		52.4	52.4
45.8	13:46:36		45.8	45.8
46	13:46:39		46	46
45.1	13:46:42		45.1	45.1
48.1	13:46:45		48.1	48.1
46.4	13:46:48		46.4	46.4
45.8	13:46:51		45.8	45.8
46.2	13:46:54		46.2	46.2
46.9	13:46:57		46.9	46.9
45.3	13:47:00		45.3	45.3
53.5	13:47:03		53.5	53.5
55	13:47:06		55	55
50.7	13:47:09		50.7	50.7
51	13:47:12		51	51
50.9	13:47:15		50.9	50.9
47.2	13:47:18		47.2	47.2
45.9	13:47:21		45.9	45.9
48	13:47:24		48	48
48.7	13:47:27		48.7	48.7
49.1	13:47:30		49.1	49.1
49.7	13:47:33		49.7	49.7
48.8	13:47:36		48.8	48.8
60.4	13:47:39		60.4	60.4
56.3	13:47:42		56.3	56.3
51.2	13:47:45		51.2	51.2
51	13:47:48		51	51
52	13:47:51		52	52
52.4	13:47:54		52.4	52.4
48.7	13:47:57		48.7	48.7
48.8	13:48:00		48.8	48.8
47.1	13:48:03		47.1	47.1
47.9	13:48:06		47.9	47.9
49.1	13:48:09		49.1	49.1
53.7	13:48:12		53.7	53.7
49.2	13:48:15		49.2	49.2
53.3	13:48:18		53.3	53.3
55.6	13:48:21		55.6	55.6
61.6	13:48:24		61.6	61.6
55.8	13:48:27		55.8	55.8
50.7	13:48:30		50.7	50.7
55	13:48:33		55	55
50.2	13:48:36		50.2	50.2
52.1	13:48:39		52.1	52.1
47.5	13:48:42		47.5	47.5
48.1	13:48:45		48.1	48.1
46.5	13:48:48		46.5	46.5
45.9	13:48:51		45.9	45.9
47.2	13:48:54		47.2	47.2
46.4	13:48:57		46.4	46.4
50.2	13:49:00		50.2	50.2
52.8	13:49:03		52.8	52.8
52.5	13:49:06		52.5	52.5
50.9	13:49:09		50.9	50.9
50.4	13:49:12		50.4	50.4
49.7	13:49:15		49.7	49.7
50.8	13:49:18		50.8	50.8
49.8	13:49:21		49.8	49.8
50.8	13:49:24		50.8	50.8
50.8	13:49:27		50.8	50.8
51.2	13:49:30		51.2	51.2
60.1	13:49:33		60.1	60.1
69.4	13:49:36		69.4	69.4
80	13:49:39		80	80
89.4	13:49:42		89.4	89.4
84.8	13:49:45		84.8	84.8
71.9	13:49:48		71.9	71.9
72.2	13:49:51		72.2	72.2
64.3	13:49:54		64.3	64.3
63.7	13:49:57		63.7	63.7
61.7	13:50:00		61.7	61.7
57.2	13:50:03		57.2	57.2
54	13:50:06		54	54
52.2	13:50:09		52.2	52.2
54.5	13:50:12		54.5	54.5
55.3	13:50:15		55.3	55.3
55.5	13:50:18		55.5	55.5
53.5	13:50:21		53.5	53.5
55.6	13:50:24		55.6	55.6
53	13:50:27		53	53
55.3	13:50:30		55.3	55.3
58.4	13:50:33		58.4	58.4
57.2	13:50:36		57.2	57.2
58.3	13:50:39		58.3	58.3
56.6	13:50:42		56.6	56.6
56.3	13:50:45		56.3	56.3
56.2	13:50:48		56.2	56.2
53.5	13:50:51		53.5	53.5
53.9	13:50:54		53.9	53.9
55.9	13:50:57		55.9	55.9
56.5	13:51:00		56.5	56.5
52.6	13:51:03		52.6	52.6
49	13:51:06		49	49
52.2	13:51:09		52.2	52.2
49.8	13:51:12		49.8	49.8
47	13:51:15		47	47
47	13:51:18		47	47
49.5	13:51:21		49.5	49.5
47.6	13:51:24		47.6	47.6
44.6	13:51:27		44.6	44.6
47.3	13:51:30		47.3	47.3
48.5	13:51:33		48.5	48.5
45.3	13:51:36		45.3	45.3
47.6	13:51:39		47.6	47.6
58.8	13:51:42		58.8	58.8
62.9	13:51:45		62.9	62.9
55	13:51:48		55	55
52.2	13:51:51		52.2	52.2
60.4	13:51:54		60.4	60.4
54	13:51:57		54	54
49.4	13:52:00		49.4	49.4
52.8	13:52:03		52.8	52.8
49.2	13:52:06		49.2	49.2
47.9	13:52:09		47.9	47.9
46.4	13:52:12		46.4	46.4
50.1	13:52:15		50.1	50.1
52	13:52:18		52	52
59.3	13:52:21		59.3	59.3
62.5	13:52:24		62.5	62.5
55.6	13:52:27		55.6	55.6
50.6	13:52:30		50.6	50.6
51	13:52:33		51	51
49.9	13:52:36		49.9	49.9
52.5	13:52:39		52.5	52.5
48.8	13:52:42		48.8	48.8

Site A - Northwest Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
51.5	13:39:45		51.5	51.5
53.5	13:39:48		53.5	53.5
56	13:39:51		56	56
49.1	13:39:54		49.1	49.1
62	13:39:57		62	62
60.2	13:40:00		60.2	60.2
51.7	13:40:03		51.7	51.7
46.1	13:40:06		46.1	46.1
44.2	13:40:09		44.2	44.2
47.6	13:40:12		47.6	47.6
58	13:40:15		58	58
63.4	13:40:18		63.4	63.4
51.7	13:40:21		51.7	51.7
47.4	13:40:24		47.4	47.4
50.8	13:40:27		50.8	50.8
50.3	13:40:30		50.3	50.3
53.4	13:40:33		53.4	53.4
56.6	13:40:36		56.6	56.6
65.8	13:40:39		65.8	65.8
60.6	13:40:42		60.6	60.6
51.6	13:40:45		51.6	51.6
60.9	13:40:48		60.9	60.9
62.5	13:40:51		62.5	62.5
52.3	13:40:54		52.3	52.3
52.4	13:40:57		52.4	52.4
62.2	13:41:00		62.2	62.2
52.3	13:41:03		52.3	52.3
50.7	13:41:06		50.7	50.7
60.7	13:41:09		60.7	60.7
57.7	13:41:12		57.7	57.7
52.4	13:41:15		52.4	52.4
49.1	13:41:18		49.1	49.1
49	13:41:21		49	49
50	13:41:24		50	50
55.7	13:41:27		55.7	55.7
60.7	13:41:30		60.7	60.7
61.3	13:41:33		61.3	61.3
74.7	13:41:36		74.7	74.7
71.7	13:41:39		71.7	71.7
63.4	13:41:42		63.4	63.4
55.8	13:41:45		55.8	55.8
51.3	13:41:48		51.3	51.3
48.6	13:41:51		48.6	48.6
46.5	13:41:54		46.5	46.5
45.1	13:41:57		45.1	45.1
47	13:42:00		47	47
55.2	13:42:03		55.2	55.2
66.7	13:42:06		66.7	66.7
59.3	13:42:09		59.3	59.3
65.9	13:42:12		65.9	65.9
61.2	13:42:15		61.2	61.2
50.4	13:42:18		50.4	50.4
49.2	13:42:21		49.2	49.2
53.6	13:42:24		53.6	53.6
63	13:42:27		63	63
69.8	13:42:30		69.8	69.8
60.3	13:42:33		60.3	60.3
58.8	13:42:36		58.8	58.8
61.6	13:42:39		61.6	61.6
56.7	13:42:42		56.7	56.7
52.3	13:42:45		52.3	52.3
50.5	13:42:48		50.5	50.5
48.6	13:42:51		48.6	48.6
49.1	13:42:54		49.1	49.1
57.1	13:42:57		57.1	57.1
66.5	13:43:00		66.5	66.5
57.4	13:43:03		57.4	57.4
49.8	13:43:06		49.8	49.8
62.1	13:43:09		62.1	62.1
60.1	13:43:12		60.1	60.1
48	13:43:15		48	48
44.4	13:43:18		44.4	44.4
45.6	13:43:21		45.6	45.6
46.1	13:43:24		46.1	46.1
59	13:43:27		59	59
59.7	13:43:30		59.7	59.7
48.9	13:43:33		48.9	48.9
44.9	13:43:36		44.9	44.9
43.3	13:43:39		43.3	43.3
43.6	13:43:42		43.6	43.6
44.8	13:43:45		44.8	44.8
48.9	13:43:48		48.9	48.9
59.8	13:43:51		59.8	59.8
62.3	13:43:54		62.3	62.3
58.4	13:43:57		58.4	58.4
47.3	13:44:00		47.3	47.3
44.1	13:44:03		44.1	44.1
42.5	13:44:06		42.5	42.5
42.2	13:44:09		42.2	42.2
42.4	13:44:12		42.4	42.4
43.4	13:44:15		43.4	43.4
45.1	13:44:18		45.1	45.1
57.4	13:44:21		57.4	57.4
59.5	13:44:24		59.5	59.5
48.9	13:44:27		48.9	48.9
45.7	13:44:30		45.7	45.7
47.7	13:44:33		47.7	47.7
55.9	13:44:36		55.9	55.9
67.4	13:44:39		67.4	67.4
55.7	13:44:42		55.7	55.7
59.4	13:44:45		59.4	59.4
59	13:44:48		59	59
65.4	13:44:51		65.4	65.4
71.2	13:44:54		71.2	71.2
61.4	13:44:57		61.4	61.4
67.2	13:45:00		67.2	67.2
66.2	13:45:03		66.2	66.2
68.8	13:45:06		68.8	68.8
62.5	13:45:09		62.5	62.5
59.8	13:45:12		59.8	59.8
52	13:45:15		52	52
49.6	13:45:18		49.6	49.6
51.1	13:45:21		51.1	51.1
49.7	13:45:24		49.7	49.7
50.1	13:45:27		50.1	50.1
48.6	13:45:30		48.6	48.6
53.5	13:45:33		53.5	53.5
53.6	13:45:36		53.6	53.6
56.1	13:45:39		56.1	56.1
64.1	13:45:42		64.1	64.1
55.6	13:45:45		55.6	55.6
58.7	13:45:48		58.7	58.7
58.9	13:45:51		58.9	58.9
52	13:45:54		52	52
54.6	13:45:57		54.6	54.6
63.2	13:46:00		63.2	63.2
51.5	13:46:03		51.5	51.5
49.7	13:46:06		49.7	49.7
63.2	13:46:09		63.2	63.2
58.7	13:46:12		58.7	58.7
55.7	13:46:15		55.7	55.7
50.1	13:46:18		50.1	50.1
48.6	13:46:21		48.6	48.6
49	13:46:24		49	49
45.3	13:46:27		45.3	45.3
47	13:46:30		47	47
47.3	13:46:33		47.3	47.3
56.4	13:46:36		56.4	56.4
58.3	13:46:39		58.3	58.3
50.3	13:46:42		50.3	50.3
52.8	13:46:45		52.8	52.8
70.2	13:46:48		70.2	70.2
67.9	13:46:51		67.9	67.9

Site B - Northeast Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
66.6	13:42:45		66.6	66.6
59	13:42:48		59	59
53.3	13:42:51		53.3	53.3
52.9	13:42:54		52.9	52.9
61.2	13:42:57		61.2	61.2
65.7	13:43:00		65.7	65.7
57.1	13:43:03		57.1	57.1
62.7	13:43:06		62.7	62.7
60.3	13:43:09		60.3	60.3
54.3	13:43:12		54.3	54.3
51.3	13:43:15		51.3	51.3
57.9	13:43:18		57.9	57.9
56.9	13:43:21		56.9	56.9
55.8	13:43:24		55.8	55.8
60.9	13:43:27		60.9	60.9
65.1	13:43:30		65.1	65.1
60	13:43:33		60	60
51.4	13:43:36		51.4	51.4
52.8	13:43:39		52.8	52.8
63.1	13:43:42		63.1	63.1
56.7	13:43:45		56.7	56.7
52.4	13:43:48		52.4	52.4
56.8	13:43:51		56.8	56.8
62.8	13:43:54		62.8	62.8
56.6	13:43:57		56.6	56.6
47.4	13:44:00		47.4	47.4
44.4	13:44:03		44.4	44.4
45.9	13:44:06		45.9	45.9
46.5	13:44:09		46.5	46.5
53.2	13:44:12		53.2	53.2
63.7	13:44:15		63.7	63.7
67.5	13:44:18		67.5	67.5
70.6	13:44:21		70.6	70.6
67.2	13:44:24		67.2	67.2
67.9	13:44:27		67.9	67.9
61.8	13:44:30		61.8	61.8
53.5	13:44:33		53.5	53.5
47.5	13:44:36		47.5	47.5
45.9	13:44:39		45.9	45.9
48.4	13:44:42		48.4	48.4
51.5	13:44:45		51.5	51.5
57.8	13:44:48		57.8	57.8
64.4	13:44:51		64.4	64.4
71.9	13:44:54		71.9	71.9
76.3	13:44:57		76.3	76.3
64.1	13:45:00		64.1	64.1
53.9	13:45:03		53.9	53.9
47.2	13:45:06		47.2	47.2
45.4	13:45:09		45.4	45.4
44.9	13:45:12		44.9	44.9
46.2	13:45:15		46.2	46.2
48.3	13:45:18		48.3	48.3
54.1	13:45:21		54.1	54.1
64	13:45:24		64	64
65.2	13:45:27		65.2	65.2
67.6	13:45:30		67.6	67.6
71.4	13:45:33		71.4	71.4
66.4	13:45:36		66.4	66.4
63.2	13:45:39		63.2	63.2
55.9	13:45:42		55.9	55.9
48.5	13:45:45		48.5	48.5
45.4	13:45:48		45.4	45.4
45.1	13:45:51		45.1	45.1
46.7	13:45:54		46.7	46.7
47.1	13:45:57		47.1	47.1
59	13:46:00		59	59
66	13:46:03		66	66
63	13:46:06		63	63
61.6	13:46:09		61.6	61.6
52	13:46:12		52	52
47.8	13:46:15		47.8	47.8
47.3	13:46:18		47.3	47.3
47.6	13:46:21		47.6	47.6
57.7	13:46:24		57.7	57.7
59.4	13:46:27		59.4	59.4
59.2	13:46:30		59.2	59.2
59.6	13:46:33		59.6	59.6
63.6	13:46:36		63.6	63.6
61.3	13:46:39		61.3	61.3
69.8	13:46:42		69.8	69.8
93.6	13:46:45		93.6	93.6
84.6	13:46:48		84.6	84.6
79.5	13:46:51		79.5	79.5
70.9	13:46:54		70.9	70.9
61.6	13:46:57		61.6	61.6
69.1	13:47:00		69.1	69.1
60.5	13:47:03		60.5	60.5
58.6	13:47:06		58.6	58.6
58.4	13:47:09		58.4	58.4
66.4	13:47:12		66.4	66.4
61.2	13:47:15		61.2	61.2
68.3	13:47:18		68.3	68.3
73.9	13:47:21		73.9	73.9
70.3	13:47:24		70.3	70.3
61.4	13:47:27		61.4	61.4
69.6	13:47:30		69.6	69.6
65.6	13:47:33		65.6	65.6
67.9	13:47:36		67.9	67.9
69.8	13:47:39		69.8	69.8
61.6	13:47:42		61.6	61.6
60.6	13:47:45		60.6	60.6
58.1	13:47:48		58.1	58.1
58.1	13:47:51		58.1	58.1
56.3	13:47:54		56.3	56.3
52	13:47:57		52	52
50.8	13:48:00		50.8	50.8
49.4	13:48:03		49.4	49.4
49.7	13:48:06		49.7	49.7
52	13:48:09		52	52
64.8	13:48:12		64.8	64.8
68	13:48:15		68	68
66.1	13:48:18		66.1	66.1
59.3	13:48:21		59.3	59.3
67.2	13:48:24		67.2	67.2
64.1	13:48:27		64.1	64.1
62.8	13:48:30		62.8	62.8
53.5	13:48:33		53.5	53.5
47.8	13:48:36		47.8	47.8
45.1	13:48:39		45.1	45.1
45.2	13:48:42		45.2	45.2
45.2	13:48:45		45.2	45.2
50.7	13:48:48		50.7	50.7
55.7	13:48:51		55.7	55.7
52.2	13:48:54		52.2	52.2
54	13:48:57		54	54
48.7	13:49:00		48.7	48.7
47.9	13:49:03		47.9	47.9
48.3	13:49:06		48.3	48.3
53.8	13:49:09		53.8	53.8
68.3	13:49:12		68.3	68.3
63.2	13:49:15		63.2	63.2
65.7	13:49:18		65.7	65.7
61.4	13:49:21		61.4	61.4
58.4	13:49:24		58.4	58.4
61.6	13:49:27		61.6	61.6
57.4	13:49:30		57.4	57.4
66.2	13:49:33		66.2	66.2
59.7	13:49:36		59.7	59.7
68.2	13:49:39		68.2	68.2
64.7	13:49:42		64.7	64.7
53.2	13:49:45		53.2	53.2
49.5	13:49:48		49.5	49.5
58.2	13:49:51		58.2	58.2

Site C - West side of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
46.3	13:52:45		46.3	46.3
46	13:52:48		46	46
46.2	13:52:51		46.2	46.2
49.4	13:52:54		49.4	49.4
46.9	13:52:57		46.9	46.9
46.1	13:53:00		46.1	46.1
50.8	13:53:03		50.8	50.8
60.5	13:53:06		60.5	60.5
59.2	13:53:09		59.2	59.2
49.6	13:53:12		49.6	49.6
46.9	13:53:15		46.9	46.9
47.9	13:53:18		47.9	47.9
53.6	13:53:21		53.6	53.6
66.7	13:53:24		66.7	66.7
57.2	13:53:27		57.2	57.2
46.7	13:53:30		46.7	46.7
46.7	13:53:33		46.7	46.7
46	13:53:36		46	46
44.7	13:53:39		44.7	44.7
45.4	13:53:42		45.4	45.4
47.2	13:53:45		47.2	47.2
48.6	13:53:48		48.6	48.6
45.9	13:53:51		45.9	45.9
47	13:53:54		47	47
46.9	13:53:57		46.9	46.9
47	13:54:00		47	47
47.1	13:54:03		47.1	47.1
51.2	13:54:06		51.2	51.2
47.9	13:54:09		47.9	47.9
47.1	13:54:12		47.1	47.1
52.7	13:54:15		52.7	52.7
52.5	13:54:18		52.5	52.5
52.3	13:54:21		52.3	52.3
55.6	13:54:24		55.6	55.6
59.7	13:54:27		59.7	59.7
69.1	13:54:30		69.1	69.1
57.1	13:54:33		57.1	57.1
53	13:54:36		53	53
49.4	13:54:39		49.4	49.4
44.5	13:54:42		44.5	44.5
43.3	13:54:45		43.3	43.3
45.8	13:54:48		45.8	45.8
44.6	13:54:51		44.6	44.6
45.9	13:54:54		45.9	45.9
46.2	13:54:57		46.2	46.2
48.1	13:55:00		48.1	48.1
45.4	13:55:03		45.4	45.4
43	13:55:06		43	43
42.7	13:55:09		42.7	42.7
42.6	13:55:12		42.6	42.6
43.1	13:55:15		43.1	43.1
49	13:55:18		49	49
65.6	13:55:21		65.6	65.6
57.5	13:55:24		57.5	57.5
48.2	13:55:27		48.2	48.2
44.2	13:55:30		44.2	44.2
44.2	13:55:33		44.2	44.2
44.6	13:55:36		44.6	44.6
45.8	13:55:39		45.8	45.8
47	13:55:42		47	47
48.4	13:55:45		48.4	48.4
48	13:55:48		48	48
47.5	13:55:51		47.5	47.5
53.4	13:55:54		53.4	53.4
55.6	13:55:57		55.6	55.6
49.2	13:56:00		49.2	49.2
50.5	13:56:03		50.5	50.5
54.9	13:56:06		54.9	54.9
51	13:56:09		51	51
51.8	13:56:12		51.8	51.8
52.5	13:56:15		52.5	52.5
47.8	13:56:18		47.8	47.8
46.1	13:56:21		46.1	46.1
48.2	13:56:24		48.2	48.2
49.8	13:56:27		49.8	49.8
54.4	13:56:30		54.4	54.4
53.6	13:56:33		53.6	53.6
53.5	13:56:36		53.5	53.5
52.1	13:56:39		52.1	52.1
46.6	13:56:42		46.6	46.6
47.4	13:56:45		47.4	47.4
46.9	13:56:48		46.9	46.9
47.9	13:56:51		47.9	47.9
47	13:56:54		47	47
50.8	13:56:57		50.8	50.8
44	13:57:00		44	44
49.9	13:57:03		49.9	49.9
49.7	13:57:06		49.7	49.7
46.7	13:57:09		46.7	46.7
49.8	13:57:12		49.8	49.8
47.7	13:57:15		47.7	47.7
46.1	13:57:18		46.1	46.1
47	13:57:21		47	47
48.8	13:57:24		48.8	48.8
47.5	13:57:27		47.5	47.5
44.1	13:57:30		44.1	44.1
44.2	13:57:33		44.2	44.2
54.3	13:57:36		54.3	54.3
56.4	13:57:39		56.4	56.4
65.9	13:57:42		65.9	65.9
58.6	13:57:45		58.6	58.6
50.7	13:57:48		50.7	50.7
46.1	13:57:51		46.1	46.1
44.8	13:57:54		44.8	44.8
47.4	13:57:57		47.4	47.4
47.1	13:58:00		47.1	47.1
52.4	13:58:03		52.4	52.4
46.8	13:58:06		46.8	46.8
44.2	13:58:09		44.2	44.2
44	13:58:12		44	44
44.6	13:58:15		44.6	44.6
50	13:58:18		50	50
52.9	13:58:21		52.9	52.9
48.8	13:58:24		48.8	48.8
47	13:58:27		47	47
45.8	13:58:30		45.8	45.8
44.3	13:58:33		44.3	44.3
48.5	13:58:36		48.5	48.5
46.5	13:58:39		46.5	46.5
46.2	13:58:42		46.2	46.2
49.9	13:58:45		49.9	49.9
47	13:58:48		47	47
45.5	13:58:51		45.5	45.5
46.2	13:58:54		46.2	46.2
49.2	13:58:57		49.2	49.2
50.2	13:59:00		50.2	50.2
53.8	13:59:03		53.8	53.8
48.9	13:59:06		48.9	48.9
49	13:59:09		49	49
47	13:59:12		47	47
50.5	13:59:15		50.5	50.5
45.1	13:59:18		45.1	45.1
46.7	13:59:21		46.7	46.7
47.4	13:59:24		47.4	47.4
47.6	13:59:27		47.6	47.6
47.3	13:59:30		47.3	47.3
45.2	13:59:33		45.2	45.2
48.3	13:59:36		48.3	48.3
49.9	13:59:39		49.9	49.9
48	13:59:42		48	48
48.8	13:59:45		48.8	48.8
45.8	13:59:48		45.8	45.8
47.1	13:59:51		47.1	47.1

Site A - Northwest Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
62.8	13:46:54		62.8	62.8
64.9	13:46:57		64.9	64.9
59.7	13:47:00		59.7	59.7
55.1	13:47:03		55.1	55.1
49.1	13:47:06		49.1	49.1
60.3	13:47:09		60.3	60.3
63	13:47:12		63	63
55.2	13:47:15		55.2	55.2
56.2	13:47:18		56.2	56.2
60.9	13:47:21		60.9	60.9
78	13:47:24		78	78
68.2	13:47:27		68.2	68.2
57.4	13:47:30		57.4	57.4
60.8	13:47:33		60.8	60.8
65.2	13:47:36		65.2	65.2
57.5	13:47:39		57.5	57.5
49.3	13:47:42		49.3	49.3
47.8	13:47:45		47.8	47.8
50.1	13:47:48		50.1	50.1
64.4	13:47:51		64.4	64.4
60.6	13:47:54		60.6	60.6
68.8	13:47:57		68.8	68.8
61.7	13:48:00		61.7	61.7
65.4	13:48:03		65.4	65.4
53.7	13:48:06		53.7	53.7
52.1	13:48:09		52.1	52.1
54.2	13:48:12		54.2	54.2
62.7	13:48:15		62.7	62.7
62.5	13:48:18		62.5	62.5
63.6	13:48:21		63.6	63.6
60	13:48:24		60	60
50.8	13:48:27		50.8	50.8
46.8	13:48:30		46.8	46.8
44.5	13:48:33		44.5	44.5
44.6	13:48:36		44.6	44.6
45.9	13:48:39		45.9	45.9
54.1	13:48:42		54.1	54.1
67.4	13:48:45		67.4	67.4
66	13:48:48		66	66
63.2	13:48:51		63.2	63.2
61.7	13:48:54		61.7	61.7
61.5	13:48:57		61.5	61.5
61.1	13:49:00		61.1	61.1
61.9	13:49:03		61.9	61.9
61.3	13:49:06		61.3	61.3
62.8	13:49:09		62.8	62.8
62.5	13:49:12		62.5	62.5
61.9	13:49:15		61.9	61.9
62.6	13:49:18		62.6	62.6
77.4	13:49:21		77.4	77.4
94.9	13:49:24		94.9	94.9
92.1	13:49:27		92.1	92.1
86	13:49:30		86	86
72.9	13:49:33		72.9	72.9
73	13:49:36		73	73
71	13:49:39		71	71
70.7	13:49:42		70.7	70.7
71.8	13:49:45		71.8	71.8
72.7	13:49:48		72.7	72.7
70.8	13:49:51		70.8	70.8
62.4	13:49:54		62.4	62.4
67	13:49:57		67	67
65.6	13:50:00		65.6	65.6
67.5	13:50:03		67.5	67.5
64	13:50:06		64	64
66.3	13:50:09		66.3	66.3
56.8	13:50:12		56.8	56.8
54.4	13:50:15		54.4	54.4
58.2	13:50:18		58.2	58.2
57.7	13:50:21		57.7	57.7
58	13:50:24		58	58
56.5	13:50:27		56.5	56.5
53.9	13:50:30		53.9	53.9
53.6	13:50:33		53.6	53.6
53.3	13:50:36		53.3	53.3
56.1	13:50:39		56.1	56.1
69.1	13:50:42		69.1	69.1
66.6	13:50:45		66.6	66.6
55.4	13:50:48		55.4	55.4
60	13:50:51		60	60
55.6	13:50:54		55.6	55.6
52.1	13:50:57		52.1	52.1
48.6	13:51:00		48.6	48.6
46.3	13:51:03		46.3	46.3
47.7	13:51:06		47.7	47.7
48.9	13:51:09		48.9	48.9
56	13:51:12		56	56
57.5	13:51:15		57.5	57.5
48.4	13:51:18		48.4	48.4
45	13:51:21		45	45
45.9	13:51:24		45.9	45.9
48.6	13:51:27		48.6	48.6
53.3	13:51:30		53.3	53.3
53.9	13:51:33		53.9	53.9
51.8	13:51:36		51.8	51.8
55.6	13:51:39		55.6	55.6
66.4	13:51:42		66.4	66.4
62.3	13:51:45		62.3	62.3
62.5	13:51:48		62.5	62.5
55.9	13:51:51		55.9	55.9
51.3	13:51:54		51.3	51.3
48.9	13:51:57		48.9	48.9
53	13:52:00		53	53
53.4	13:52:03		53.4	53.4
51.3	13:52:06		51.3	51.3
54	13:52:09		54	54
59	13:52:12		59	59
64	13:52:15		64	64
55	13:52:18		55	55
55.1	13:52:21		55.1	55.1
50.9	13:52:24		50.9	50.9
50.9	13:52:27		50.9	50.9
47.7	13:52:30		47.7	47.7
49.1	13:52:33		49.1	49.1
60.3	13:52:36		60.3	60.3
57.8	13:52:39		57.8	57.8
51.7	13:52:42		51.7	51.7
55.2	13:52:45		55.2	55.2
55.3	13:52:48		55.3	55.3
49.5	13:52:51		49.5	49.5
49.8	13:52:54		49.8	49.8
51.8	13:52:57		51.8	51.8
57	13:53:00		57	57
62.2	13:53:03		62.2	62.2
61.8	13:53:06		61.8	61.8
57	13:53:09		57	57
55.8	13:53:12		55.8	55.8
56.3	13:53:15		56.3	56.3
57.3	13:53:18		57.3	57.3
54.9	13:53:21		54.9	54.9
53	13:53:24		53	53
59.9	13:53:27		59.9	59.9
61.1	13:53:30		61.1	61.1
54.3	13:53:33		54.3	54.3
50.8	13:53:36		50.8	50.8
60.5	13:53:39		60.5	60.5
60.3	13:53:42		60.3	60.3
52.4	13:53:45		52.4	52.4
66	13:53:48		66	66
64.1	13:53:51		64.1	64.1
53.8	13:53:54		53.8	53.8
55.6	13:53:57		55.6	55.6
67.9	13:54:00		67.9	67.9
64.7	13:54:03		64.7	64.7
62.8	13:54:06		62.8	62.8
61.9	13:54:09		61.9	61.9
56.6	13:54:12		56.6	56.6
55.7	13:54:15		55.7	55.7
54.9	13:54:18		54.9	54.9
52.9	13:54:21		52.9	52.9
54	13:54:24		54	54
51.2	13:54:27		51.2	51.2
46.6	13:54:30		46.6	46.6
44.3	13:54:33		44.3	44.3
48.8	13:54:36		48.8	48.8
59.6	13:54:39		59.6	59.6

Site B - Northeast Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
64.3	13:49:54		64.3	64.3
56.7	13:49:57		56.7	56.7
58.6	13:50:00		58.6	58.6
58.1	13:50:03		58.1	58.1
50.3	13:50:06		50.3	50.3
46.9	13:50:09		46.9	46.9
47.8	13:50:12		47.8	47.8
53.3	13:50:15		53.3	53.3
61.8	13:50:18		61.8	61.8
53.6	13:50:21		53.6	53.6
50	13:50:24		50	50
55.2	13:50:27		55.2	55.2
59.2	13:50:30		59.2	59.2
58.9	13:50:33		58.9	58.9
63.4	13:50:36		63.4	63.4
64	13:50:39		64	64
54.2	13:50:42		54.2	54.2
59.1	13:50:45		59.1	59.1
64.1	13:50:48		64.1	64.1
53.2	13:50:51		53.2	53.2
57.8	13:50:54		57.8	57.8
66.3	13:50:57		66.3	66.3
62.4	13:51:00		62.4	62.4
60.5	13:51:03		60.5	60.5
60.8	13:51:06		60.8	60.8
57.6	13:51:09		57.6	57.6
50.3	13:51:12		50.3	50.3
59.6	13:51:15		59.6	59.6
69.5	13:51:18		69.5	69.5
71	13:51:21		71	71
59.2	13:51:24		59.2	59.2
51.6	13:51:27		51.6	51.6
56	13:51:30		56	56
67	13:51:33		67	67
69.2	13:51:36		69.2	69.2
65.1	13:51:39		65.1	65.1
65.6	13:51:42		65.6	65.6
57.6	13:51:45		57.6	57.6
66	13:51:48		66	66
60.6	13:51:51		60.6	60.6
57.2	13:51:54		57.2	57.2
65.7	13:51:57		65.7	65.7
59.6	13:52:00		59.6	59.6
49.6	13:52:03		49.6	49.6
44.2	13:52:06		44.2	44.2
42.7	13:52:09		42.7	42.7
43.4	13:52:12		43.4	43.4
41.5	13:52:15		41.5	41.5
41.7	13:52:18		41.7	41.7
42.6	13:52:21		42.6	42.6
41.1	13:52:24		41.1	41.1
41	13:52:27		41	41
41.6	13:52:30		41.6	41.6
43.2	13:52:33		43.2	43.2
43.7	13:52:36		43.7	43.7
54.7	13:52:39		54.7	54.7
59.8	13:52:42		59.8	59.8
60.5	13:52:45		60.5	60.5
50	13:52:48		50	50
49.6	13:52:51		49.6	49.6
60.6	13:52:54		60.6	60.6
68.8	13:52:57		68.8	68.8
60.6	13:53:00		60.6	60.6
57.7	13:53:03		57.7	57.7
61.5	13:53:06		61.5	61.5
67	13:53:09		67	67
70.6	13:53:12		70.6	70.6
65.4	13:53:15		65.4	65.4
66.2	13:53:18		66.2	66.2
63.7	13:53:21		63.7	63.7
67.7	13:53:24		67.7	67.7
65.4	13:53:27		65.4	65.4
61.9	13:53:30		61.9	61.9
55.7	13:53:33		55.7	55.7
58.5	13:53:36		58.5	58.5
64.8	13:53:39		64.8	64.8
60.3	13:53:42		60.3	60.3
64.8	13:53:45		64.8	64.8
59.7	13:53:48		59.7	59.7
62.4	13:53:51		62.4	62.4
61.8	13:53:54		61.8	61.8
49.9	13:53:57		49.9	49.9
45.6	13:54:00		45.6	45.6
48.3	13:54:03		48.3	48.3
57	13:54:06		57	57
57.3	13:54:09		57.3	57.3
53.4	13:54:12		53.4	53.4
62.6	13:54:15		62.6	62.6
56.4	13:54:18		56.4	56.4
66	13:54:21		66	66
65.6	13:54:24		65.6	65.6
64.9	13:54:27		64.9	64.9
58.2	13:54:30		58.2	58.2
62.5	13:54:33		62.5	62.5
54.3	13:54:36		54.3	54.3
49.7	13:54:39		49.7	49.7
59.2	13:54:42		59.2	59.2
63.2	13:54:45		63.2	63.2
59.8	13:54:48		59.8	59.8
49.4	13:54:51		49.4	49.4
51	13:54:54		51	51
61.1	13:54:57		61.1	61.1
60.6	13:55:00		60.6	60.6
51.4	13:55:03		51.4	51.4
47.4	13:55:06		47.4	47.4
49.4	13:55:09		49.4	49.4
63.4	13:55:12		63.4	63.4
62.2	13:55:15		62.2	62.2
66.8	13:55:18		66.8	66.8
62.8	13:55:21		62.8	62.8
59.5	13:55:24		59.5	59.5
52.7	13:55:27		52.7	52.7
49.1	13:55:30		49.1	49.1
55.4	13:55:33		55.4	55.4
72.2	13:55:36		72.2	72.2
64.2	13:55:39		64.2	64.2
56.3	13:55:42		56.3	56.3
65	13:55:45		65	65
65.3	13:55:48		65.3	65.3
59.7	13:55:51		59.7	59.7
65.8	13:55:54		65.8	65.8
65.4	13:55:57		65.4	65.4
58.3	13:56:00		58.3	58.3
53	13:56:03		53	53
53.9	13:56:06		53.9	53.9
56.5	13:56:09		56.5	56.5
55.5	13:56:12		55.5	55.5
56.3	13:56:15		56.3	56.3
69.8	13:56:18		69.8	69.8
70	13:56:21		70	70
65.8	13:56:24		65.8	65.8
65.1	13:56:27		65.1	65.1
63.4	13:56:30		63.4	63.4
67.8	13:56:33		67.8	67.8
58.4	13:56:36		58.4	58.4
50.8	13:56:39		50.8	50.8
48.5	13:56:42		48.5	48.5
46.1	13:56:45		46.1	46.1
49.7	13:56:48		49.7	49.7
63.7	13:56:51		63.7	63.7
66.2	13:56:54		66.2	66.2
65.3	13:56:57		65.3	65.3
66.1	13:57:00		66.1	66.1
64.3	13:57:03		64.3	64.3
64.3	13:57:06		64.3	64.3
54	13:57:09		54	54
64.6	13:57:12		64.6	64.6
58.3	13:57:15		58.3	58.3
57.4	13:57:18		57.4	57.4
60.8	13:57:21		60.8	60.8
59.4	13:57:24		59.4	59.4
54.7	13:57:27		54.7	54.7
54.9	13:57:30		54.9	54.9
55	13:57:33		55	55
59.3	13:57:36		59.3	59.3
59	13:57:39		59	59

Site C - West side of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
48.6	13:59:54		48.6	48.6
48.8	13:59:57		48.8	48.8
45.8	14:00:00		45.8	45.8
47	14:00:03		47	47
45.2	14:00:06		45.2	45.2
42.6	14:00:09		42.6	42.6
43	14:00:12		43	43
43.3	14:00:15		43.3	43.3
44.2	14:00:18		44.2	44.2
48.2	14:00:21		48.2	48.2
48.9	14:00:24		48.9	48.9
57.2	14:00:27		57.2	57.2
60.5	14:00:30		60.5	60.5
58.4	14:00:33		58.4	58.4
51.5	14:00:36		51.5	51.5
46.8	14:00:39		46.8	46.8
49.7	14:00:42		49.7	49.7
48	14:00:45		48	48
50.6	14:00:48		50.6	50.6
54.6	14:00:51		54.6	54.6
49.9	14:00:54		49.9	49.9
48.3	14:00:57		48.3	48.3
45.8	14:01:00		45.8	45.8
45.6	14:01:03		45.6	45.6
49.1	14:01:06		49.1	49.1
46.4	14:01:09		46.4	46.4
41.9	14:01:12		41.9	41.9
43	14:01:15		43	43
42.2	14:01:18		42.2	42.2
44.1	14:01:21		44.1	44.1
47.2	14:01:24		47.2	47.2
49.5	14:01:27		49.5	49.5
62.9	14:01:30		62.9	62.9
61.6	14:01:33		61.6	61.6
51.7	14:01:36		51.7	51.7
47	14:01:39		47	47
50.4	14:01:42		50.4	50.4
56.2	14:01:45		56.2	56.2
59.2	14:01:48		59.2	59.2
58.8	14:01:51		58.8	58.8
52.3	14:01:54		52.3	52.3
52.8	14:01:57		52.8	52.8
54.4	14:02:00		54.4	54.4
54.9	14:02:03		54.9	54.9
60.2	14:02:06		60.2	60.2
66.1	14:02:09		66.1	66.1
63.2	14:02:12		63.2	63.2
59.9	14:02:15		59.9	59.9
56.1	14:02:18		56.1	56.1
59.3	14:02:21		59.3	59.3
60.2	14:02:24		60.2	60.2
56.5	14:02:27		56.5	56.5
57.6	14:02:30		57.6	57.6
62.2	14:02:33		62.2	62.2
75.3	14:02:36		75.3	75.3
80	14:02:39		80	80
86.1	14:02:42		86.1	86.1
80.2	14:02:45		80.2	80.2
73.9	14:02:48		73.9	73.9
60	14:02:51		60	60
55.1	14:02:54		55.1	55.1
52.4	14:02:57		52.4	52.4
52.5	14:03:00		52.5	52.5
53.4	14:03:03		53.4	53.4
51.6	14:03:06		51.6	51.6
50.1	14:03:09		50.1	50.1
49.1	14:03:12		49.1	49.1
48.3	14:03:15		48.3	48.3
49.8	14:03:18		49.8	49.8
52.1	14:03:21		52.1	52.1
57.9	14:03:24		57.9	57.9
65	14:03:27		65	65
57.9	14:03:30		57.9	57.9
52.9	14:03:33		52.9	52.9
51.1	14:03:36		51.1	51.1
48.8	14:03:39		48.8	48.8
49.8	14:03:42		49.8	49.8
49	14:03:45		49	49
48.3	14:03:48		48.3	48.3
47.5	14:03:51		47.5	47.5
48.8	14:03:54		48.8	48.8
53.8	14:03:57		53.8	53.8
48.4	14:04:00		48.4	48.4
44.7	14:04:03		44.7	44.7
44	14:04:06		44	44
46.5	14:04:09		46.5	46.5
46.1	14:04:12		46.1	46.1
46.1	14:04:15		46.1	46.1
46.1	14:04:18		46.1	46.1
46.1	14:04:21		46.1	46.1
44.4	14:04:24		44.4	44.4
44.3	14:04:27		44.3	44.3
46.1	14:04:30		46.1	46.1
45.8	14:04:33		45.8	45.8
46.4	14:04:36		46.4	46.4
47.3	14:04:39		47.3	47.3
48	14:04:42		48	48
47.6	14:04:45		47.6	47.6
52	14:04:48		52	52
51.7	14:04:51		51.7	51.7
51	14:04:54		51	51
48.8	14:04:57		48.8	48.8
49	14:05:00		49	49
48.3	14:05:03		48.3	48.3
48.4	14:05:06		48.4	48.4
52.2	14:05:09		52.2	52.2
52.4	14:05:12		52.4	52.4
54.9	14:05:15		54.9	54.9
62.4	14:05:18		62.4	62.4
61.1	14:05:21		61.1	61.1
51.4	14:05:24		51.4	51.4
47.6	14:05:27		47.6	47.6
47.5	14:05:30		47.5	47.5
48.1	14:05:33		48.1	48.1
45.4	14:05:36		45.4	45.4
45.6	14:05:39		45.6	45.6
45.3	14:05:42		45.3	45.3
46.4	14:05:45		46.4	46.4
47.3	14:05:48		47.3	47.3
51	14:05:51		51	51
48.5	14:05:54		48.5	48.5
53.8	14:05:57		53.8	53.8
61.1	14:06:00		61.1	61.1
66.6	14:06:03		66.6	66.6
57.4	14:06:06		57.4	57.4
50.4	14:06:09		50.4	50.4
48.5	14:06:12		48.5	48.5
48.3	14:06:15		48.3	48.3
50.6	14:06:18		50.6	50.6
50	14:06:21		50	50
48.6	14:06:24		48.6	48.6
49	14:06:27		49	49
48.5	14:06:30		48.5	48.5
49.1	14:06:33		49.1	49.1
52.7	14:06:36		52.7	52.7
60.6	14:06:39		60.6	60.6
62.8	14:06:42		62.8	62.8
53.9	14:06:45		53.9	53.9
53.1	14:06:48		53.1	53.1
49.8	14:06:51		49.8	49.8
47.5	14:06:54		47.5	47.5
47.5	14:06:57		47.5	47.5
46.9	14:07:00		46.9	46.9
45.7	14:07:03		45.7	45.7
46.5	14:07:06		46.5	46.5
47.4	14:07:09		47.4	47.4
49	14:07:12		49	49
50.7	14:07:15		50.7	50.7
51.3	14:07:18		51.3	51.3
52.6	14:07:21		52.6	52.6
50.2	14:07:24		50.2	50.2
51.3	14:07:27		51.3	51.3
49.4	14:07:30		49.4	49.4
49.8	14:07:33		49.8	49.8
49.8	14:07:36		49.8	49.8
51	14:07:39		51	51

Site A - Northwest Corner of Project Site					Site B - Northeast Corner of Project Site					Site C - West side of Project Site				
SPL	**Time**	**Leq (1 hour Avg.)**	**Ldn**	**CNEL**	**SPL**	**Time**	**Leq (1 hour Avg.)**	**Ldn**	**CNEL**	**SPL**	**Time**	**Leq (1 hour Avg.)**	**Ldn**	**CNEL**
58.6	13:54:42		58.6	58.6	52.8	13:57:42		52.8	52.8	54.8	14:07:42		54.8	54.8
50.5	13:54:45		50.5	50.5	48.2	13:57:45		48.2	48.2	54.3	14:07:45		54.3	54.3
44.9	13:54:48		44.9	44.9	45.8	13:57:48		45.8	45.8	51.3	14:07:48		51.3	51.3
42.7	13:54:51		42.7	42.7	43.3	13:57:51		43.3	43.3	48.5	14:07:51		48.5	48.5
42.5	13:54:54		42.5	42.5	43.6	13:57:54		43.6	43.6	48.3	14:07:54		48.3	48.3
41.6	13:54:57		41.6	41.6	49.8	13:57:57		49.8	49.8	48.8	14:07:57		48.8	48.8
42.1	13:55:00		42.1	42.1	64.2	13:58:00		64.2	64.2	46.9	14:08:00		46.9	46.9
48.1	13:55:03		48.1	48.1	63.5	13:58:03		63.5	63.5	47.7	14:08:03		47.7	47.7
49.2	13:55:06		49.2	49.2	71.8	13:58:06		71.8	71.8	49	14:08:06		49	49
51.5	13:55:09		51.5	51.5	71.2	13:58:09		71.2	71.2	48.8	14:08:09		48.8	48.8
49.7	13:55:12		49.7	49.7	59.1	13:58:12		59.1	59.1	50.1	14:08:12		50.1	50.1
46.6	13:55:15		46.6	46.6	52.3	13:58:15		52.3	52.3	49.3	14:08:15		49.3	49.3
53.1	13:55:18		53.1	53.1	46.3	13:58:18		46.3	46.3	54.3	14:08:18		54.3	54.3
59.2	13:55:21		59.2	59.2	54.5	13:58:21		54.5	54.5	53.7	14:08:21		53.7	53.7
53.9	13:55:24		53.9	53.9	62.4	13:58:24		62.4	62.4	51.9	14:08:24		51.9	51.9
58	13:55:27		58	58	60	13:58:27		60	60	48.2	14:08:27		48.2	48.2
55.9	13:55:30		55.9	55.9	59.4	13:58:30		59.4	59.4	48.4	14:08:30		48.4	48.4
49.5	13:55:33		49.5	49.5	61.5	13:58:33		61.5	61.5	48	14:08:33		48	48
54.4	13:55:36		54.4	54.4	63	13:58:36		63	63	46.1	14:08:36		46.1	46.1
69.6	13:55:39		69.6	69.6	62.1	13:58:39		62.1	62.1	45.6	14:08:39		45.6	45.6
65.8	13:55:42		65.8	65.8	58.9	13:58:42		58.9	58.9	46.4	14:08:42		46.4	46.4
61.2	13:55:45		61.2	61.2	59.6	13:58:45		59.6	59.6	48.2	14:08:45		48.2	48.2
57.7	13:55:48		57.7	57.7	53.5	13:58:48		53.5	53.5	49.2	14:08:48		49.2	49.2
67.6	13:55:51		67.6	67.6	52.2	13:58:51		52.2	52.2	47.3	14:08:51		47.3	47.3
63.5	13:55:54		63.5	63.5	54.7	13:58:54		54.7	54.7	48.2	14:08:54		48.2	48.2
59	13:55:57		59	59	60.9	13:58:57		60.9	60.9	47.9	14:08:57		47.9	47.9
57.3	13:56:00	73.7	57.3	57.3	69.4	13:59:00	67.4	69.4	69.4	52.6	14:09:00	63.1	52.6	52.6
57.7	13:56:03	73.7	57.7	57.7	65.5	13:59:03	67.4	65.5	65.5	51.4	14:09:03	63.1	51.4	51.4
50.8	13:56:06	73.7	50.8	50.8	66.9	13:59:06	67.4	66.9	66.9	46.9	14:09:06	63.1	46.9	46.9
56.4	13:56:09	73.7	56.4	56.4	67.1	13:59:09	67.4	67.1	67.1	46.1	14:09:09	63.1	46.1	46.1
66	13:56:12	73.7	66	66	61.9	13:59:12	67.4	61.9	61.9	47.1	14:09:12	63.1	47.1	47.1
57.9	13:56:15	73.7	57.9	57.9	54.2	13:59:15	67.4	54.2	54.2	47.3	14:09:15	63.1	47.3	47.3
64.7	13:56:18	73.7	64.7	64.7	54.5	13:59:18	67.4	54.5	54.5	46.3	14:09:18	63.1	46.3	46.3
61.4	13:56:21	73.7	61.4	61.4	64	13:59:21	67.4	64	64	47.3	14:09:21	63.1	47.3	47.3
57	13:56:24	73.7	57	57	63.3	13:59:24	67.4	63.3	63.3	47.6	14:09:24	63.1	47.6	47.6
51.2	13:56:27	73.7	51.2	51.2	59.8	13:59:27	67.4	59.8	59.8	51.3	14:09:27	63.1	51.3	51.3
51.8	13:56:30	73.7	51.8	51.8	62.8	13:59:30	67.4	62.8	62.8	55.9	14:09:30	63.1	55.9	55.9
62	13:56:33	73.7	62	62	63.2	13:59:33	67.4	63.2	63.2	51	14:09:33	63.1	51	51
64.2	13:56:36	73.7	64.2	64.2	61.1	13:59:36	67.4	61.1	61.1	50.9	14:09:36	63.1	50.9	50.9
53.1	13:56:39	73.7	53.1	53.1	57.3	13:59:39	67.4	57.3	57.3	48.2	14:09:39	63.1	48.2	48.2
46.9	13:56:42	73.7	46.9	46.9	60.6	13:59:42	67.4	60.6	60.6	46.4	14:09:42	63.1	46.4	46.4
49.8	13:56:45	73.7	49.8	49.8	64	13:59:45	67.4	64	64	49.6	14:09:45	63.1	49.6	49.6
64.4	13:56:48	73.7	64.4	64.4	69.7	13:59:48	67.4	69.7	69.7	48.1	14:09:48	63.1	48.1	48.1
56.8	13:56:51	73.7	56.8	56.8	75.5	13:59:51	67.4	75.5	75.5	49.8	14:09:51	63.1	49.8	49.8
56.6	13:56:54	73.7	56.6	56.6	81.7	13:59:54	67.4	81.7	81.7	48.3	14:09:54	63.1	48.3	48.3
65.1	13:56:57	73.7	65.1	65.1	89.3	13:59:57	67.4	89.3	89.3	57.6	14:09:57	63.1	57.6	57.6
57.6	13:57:00	73.7	57.6	57.6	75.6	14:00:00	67.4	75.6	75.6	63.9	14:10:00	63.1	63.9	63.9
52.7	13:57:03	73.7	52.7	52.7	70.1	14:00:03	67.4	70.1	70.1	61.6	14:10:03	63.1	61.6	61.6
61.1	13:57:06	73.7	61.1	61.1	65.6	14:00:06	67.4	65.6	65.6	51.3	14:10:06	63.1	51.3	51.3
60.5	13:57:09	73.7	60.5	60.5	60.8	14:00:09	67.4	60.8	60.8	47.9	14:10:09	63.1	47.9	47.9
56.2	13:57:12	73.7	56.2	56.2	59.4	14:00:12	67.4	59.4	59.4	51.4	14:10:12	63.1	51.4	51.4
53.2	13:57:15	73.7	53.2	53.2	63.4	14:00:15	67.4	63.4	63.4	62.5	14:10:15	63.0	62.5	62.5
55.2	13:57:18	73.7	55.2	55.2	66.7	14:00:18	67.4	66.7	66.7	59	14:10:18	63.0	59	59
56.2	13:57:21	73.7	56.2	56.2	69.6	14:00:21	67.4	69.6	69.6	51.6	14:10:21	63.0	51.6	51.6
50.7	13:57:24	73.7	50.7	50.7	65.9	14:00:24	67.4	65.9	65.9	50.4	14:10:24	63.0	50.4	50.4
56.6	13:57:27	73.7	56.6	56.6	64.4	14:00:27	67.4	64.4	64.4	56.2	14:10:27	63.0	56.2	56.2
60.5	13:57:30	73.7	60.5	60.5	67.8	14:00:30	67.4	67.8	67.8	60.6	14:10:30	63.0	60.6	60.6
52.3	13:57:33	73.7	52.3	52.3	61.8	14:00:33	67.4	61.8	61.8	51.1	14:10:33	63.0	51.1	51.1
54.8	13:57:36	73.7	54.8	54.8	63.7	14:00:36	67.4	63.7	63.7	49.4	14:10:36	63.0	49.4	49.4
59.5	13:57:39	73.7	59.5	59.5	64.4	14:00:39	67.4	64.4	64.4	61.5	14:10:39	63.0	61.5	61.5
60.2	13:57:42	73.7	60.2	60.2	64.1	14:00:42	67.4	64.1	64.1	58.9	14:10:42	63.0	58.9	58.9
55.1	13:57:45	73.7	55.1	55.1	61.6	14:00:45	67.4	61.6	61.6	51.7	14:10:45	63.0	51.7	51.7
66.9	13:57:48	73.7	66.9	66.9	67.1	14:00:48	67.4	67.1	67.1	48.8	14:10:48	63.0	48.8	48.8
54.4	13:57:51	73.7	54.4	54.4	61.1	14:00:51	67.4	61.1	61.1	50.4	14:10:51	63.0	50.4	50.4
45.6	13:57:54	73.7	45.6	45.6	57.8	14:00:54	67.4	57.8	57.8	50.3	14:10:54	63.0	50.3	50.3
46.3	13:57:57	73.7	46.3	46.3	64.8	14:00:57	67.4	64.8	64.8	47.5	14:10:57	63.0	47.5	47.5
53	13:58:00	73.7	53	53	57.2	14:01:00	67.4	57.2	57.2	50.1	14:11:00	63.0	50.1	50.1
67.8	13:58:03	73.7	67.8	67.8	51.2	14:01:03	67.4	51.2	51.2	51.7	14:11:03	63.0	51.7	51.7
64.8	13:58:06	73.7	64.8	64.8	47.1	14:01:06	67.4	47.1	47.1	53.4	14:11:06	63.0	53.4	53.4
51.8	13:58:09	73.7	51.8	51.8	47.8	14:01:09	67.4	47.8	47.8	50	14:11:09	63.0	50	50
47.1	13:58:12	73.7	47.1	47.1	57	14:01:12	67.4	57	57	56.2	14:11:12	63.0	56.2	56.2
48.4	13:58:15	73.7	48.4	48.4	64.2	14:01:15	67.4	64.2	64.2	66.4	14:11:15	63.0	66.4	66.4
50.3	13:58:18	73.7	50.3	50.3	63.8	14:01:18	67.4	63.8	63.8	56.4	14:11:18	63.0	56.4	56.4
65.8	13:58:21	73.7	65.8	65.8	61.2	14:01:21	67.4	61.2	61.2	61.9	14:11:21	63.0	61.9	61.9
58.2	13:58:24	73.7	58.2	58.2	50.1	14:01:24	67.4	50.1	50.1	51.2	14:11:24	63.0	51.2	51.2
62.3	13:58:27	73.7	62.3	62.3	45.5	14:01:27	67.4	45.5	45.5	50	14:11:27	63.0	50	50
61.9	13:58:30	73.7	61.9	61.9	43.6	14:01:30	67.4	43.6	43.6	50.3	14:11:30	63.0	50.3	50.3
54.4	13:58:33	73.7	54.4	54.4	44.1	14:01:33	67.4	44.1	44.1	54.2	14:11:33	63.0	54.2	54.2
52.9	13:58:36	73.7	52.9	52.9	44.5	14:01:36	67.4	44.5	44.5	60.2	14:11:36	63.0	60.2	60.2
58.8	13:58:39	73.7	58.8	58.8	45.7	14:01:39	67.4	45.7	45.7	55.4	14:11:39	63.0	55.4	55.4
61.6	13:58:42	73.7	61.6	61.6	44.7	14:01:42	67.4	44.7	44.7	52.2	14:11:42	63.0	52.2	52.2
68.6	13:58:45	73.7	68.6	68.6	44.7	14:01:45	67.4	44.7	44.7	48.8	14:11:45	63.0	48.8	48.8
71.7	13:58:48	73.7	71.7	71.7	43.7	14:01:48	67.5	43.7	43.7	48.2	14:11:48	63.0	48.2	48.2
63.5	13:58:51	73.7	63.5	63.5	45.8	14:01:51	67.5	45.8	45.8	50	14:11:51	63.0	50	50
63.7	13:58:54	73.7	63.7	63.7	44.6	14:01:54	67.5	44.6	44.6	49.5	14:11:54	63.0	49.5	49.5
55.9	13:58:57	73.7	55.9	55.9	47.4	14:01:57	67.5	47.4	47.4	59.1	14:11:57	63.0	59.1	59.1
66	13:59:00	73.7	66	66	52.7	14:02:00	67.5	52.7	52.7	61.7	14:12:00	63.0	61.7	61.7
54.9	13:59:03	73.7	54.9	54.9	69.2	14:02:03	67.5	69.2	69.2	51.6	14:12:03	63.0	51.6	51.6
51.2	13:59:06	73.7	51.2	51.2	74.7	14:02:06	67.5	74.7	74.7	48	14:12:06	63.0	48	48
59.5	13:59:09	73.7	59.5	59.5	67.5	14:02:09	67.5	67.5	67.5	47.8	14:12:09	63.0	47.8	47.8
60.6	13:59:12	73.7	60.6	60.6	66.4	14:02:12	67.5	66.4	66.4	51.1	14:12:12	63.0	51.1	51.1
55.6	13:59:15	73.7	55.6	55.6	65.6	14:02:15	67.5	65.6	65.6	49.1	14:12:15	63.0	49.1	49.1
61.4	13:59:18	73.7	61.4	61.4	54.6	14:02:18	67.5	54.6	54.6	55	14:12:18	63.0	55	55
58.9	13:59:21	73.7	58.9	58.9	59.5	14:02:21	67.5	59.5	59.5	54.4	14:12:21	63.0	54.4	54.4
65.4	13:59:24	73.7	65.4	65.4	68.2	14:02:24	67.5	68.2	68.2	53.8	14:12:24	63.0	53.8	53.8
58.9	13:59:27	73.7	58.9	58.9	66.1	14:02:27	67.5	66.1	66.1	67.8	14:12:27	63.0	67.8	67.8
64.4	13:59:30	73.7	64.4	64.4	59.4	14:02:30	67.5	59.4	59.4	60.6	14:12:30	63.0	60.6	60.6
54.1	13:59:33	73.7	54.1	54.1	65.4	14:02:33	67.5	65.4	65.4	53.4	14:12:33	63.0	53.4	53.4
60.8	13:59:36	73.7	60.8	60.8	57	14:02:36	67.5	57	57	47.8	14:12:36	63.0	47.8	47.8
65.6	13:59:39	73.7	65.6	65.6	48.5	14:02:39	67.5	48.5	48.5	59.4	14:12:39	63.0	59.4	59.4
59.6	13:59:42	73.7	59.6	59.6	45.4	14:02:42	67.5	45.4	45.4	57.2	14:12:42	63.0	57.2	57.2
57.1	13:59:45	73.7	57.1	57.1	44.1	14:02:45	67.5	44.1	44.1	57.4	14:12:45	63.0	57.4	57.4
60.8	13:59:48	73.7	60.8	60.8	44	14:02:48	67.5	44	44	47.7	14:12:48	63.0	47.7	47.7
49.8	13:59:51	73.7	49.8	49.8	44	14:02:51	67.5	44	44	48.3	14:12:51	63.0	48.3	48.3
45.2	13:59:54	73.7	45.2	45.2	44.7	14:02:54	67.5	44.7	44.7	47	14:12:54	63.0	47	47
44.2	13:59:57	73.7	44.2	44.2	44.8	14:02:57	67.5	44.8	44.8	48.3	14:12:57	63.0	48.3	48.3
44.4	14:00:00	73.7	44.4	44.4	44.4	14:03:00	67.5	44.4	44.4	47.8	14:13:00	63.0	47.8	47.8
52.5	14:00:03	73.7	52.5	52.5	44.9	14:03:03	67.5	44.9	44.9	54.4	14:13:03	63.0	54.4	54.4
58	14:00:06	73.7	58	58	49.2	14:03:06	67.5	49.2	49.2	65.7	14:13:06	63.0	65.7	65.7
52	14:00:09	73.7	52	52	46.4	14:03:09	67.5	46.4	46.4	58.8	14:13:09	63.0	58.8	58.8
51.4	14:00:12	73.7	51.4	51.4	48.6	14:03:12	67.5	48.6	48.6	52.3	14:13:12	63.0	52.3	52.3
48.2	14:00:15	73.7	48.2	48.2	59.5	14:03:15	67.5	59.5	59.5	52.8	14:13:15	63.0	52.8	52.8
56.2	14:00:18	73.7	56.2	56.2	65.4	14:03:18	67.5	65.4	65.4	55.1	14:13:18	63.0	55.1	55.1
51.2	14:00:21	73.7	51.2	51.2	57.9	14:03:21	67.5	57.9	57.9	62.6	14:13:21	63.0	62.6	62.6
53.8	14:00:24	73.7	53.8	53.8	61.3	14:03:24	67.5	61.3	61.3	58.6	14:13:24	63.0	58.6	58.6
63.6	14:00:27	73.7	63.6	63.6	59.8	14:03:27	67.5	59.8	59.8	53.6	14:13:27	63.0	53.6	53.6
58	14:00:30	73.7	58	58	54.7	14:03:30	67.5	54.7	54.7	51.1	14:13:30	63.0	51.1	51.1
69.2	14:00:33	73.7	69.2	69.2	69.1	14:03:33	67.5	69.1	69.1	52.1	14:13:33	63.0	52.1	52.1
69.1	14:00:36	73.7	69.1	69.1	71	14:03:36	67.5	71	71	57.1	14:13:36	63.0	57.1	57.1
60.1	14:00:39	73.7	60.1	60.1	66.3	14:03:39	67.5	66.3	66.3	65	14:13:39	63.0	65	65
50.1	14:00:42	73.7	50.1	50.1	56.6	14:03:42	67.5	56.6	56.6	55.6	14:13:42	63.0	55.6	55.6
47.3	14:00:45	73.7	47.3	47.3	49.4	14:03:45	67.5	49.4	49.4	49	14:13:45	63.0	49	49
62	14:00:48	73.7	62	62	52.6	14:03:48	67.5	52.6	52.6	49	14:13:48	63.0	49	49
63.2	14:00:51	73.7	63.2	63.2	64.9	14:03:51	67.5	64.9	64.9	48.9	14:13:51	63.0	48.9	48.9
51.9	14:00:54	73.7	51.9	51.9	69.9	14:03:54	67.5	69.9	69.9	49.3	14:13:54	63.0	49.3	49.3
45.4	14:00:57	73.7	45.4	45.4	62.2	14:03:57	67.5	62.2	62.2	48.2	14:13:57	63.0	48.2	48.2
44.1	14:01:00	73.7	44.1	44.1	67.4	14:04:00	67.5	67.4	67.4	48.6	14:14:00	63.0	48.6	48.6
46.4	14:01:03	73.7	46.4	46.4	60.3	14:04:03	67.5	60.3	60.3	51.7	14:14:03	63.0	51.7	51.7
55.4	14:01:06	73.7	55.4	55.4	68.3	14:04:06	67.6	68.3	68.3	50	14:14:06	63.0	50	50
62	14:01:09	73.7	62	62	63.2	14:04:09	67.6	63.2	63.2	52.8	14:14:09	63.0	52.8	52.8
55.8	14:01:12	73.7	55.8	55.8	65.5	14:04:12	67.6	65.5	65.5	48.2	14:14:12	63.0	48.2	48.2
56.5	14:01:15	73.7	56.5	56.5	66.8	14:04:15	67.5	66.8	66.8	46.6	14:14:15	63.0	46.6	46.6
57.3	14:01:18	73.7	57.3	57.3	67.9	14:04:18	67.5	67.9	67.9	45.6	14:14:18	63.0	45.6	45.6
55.6	14:01:21	73.7	55.6	55.6	67.2	14:04:21	67.5	67.2	67.2	46.5	14:14:21	63.1	46.5	46.5
53.4	14:01:24	73.7	53.4	53.4	55.4	14:04:24	67.5	55.4	55.4	48.5	14:14:24	63.1	48.5	48.5
61.2	14:01:27	73.7	61.2	61.2	48.9	14:04:27	67.5	48.9	48.9	45.1	14:14:27	63.1	45.1	45.1
58.1	14:01:30	73.7	58.1	58.1	49.7	14:04:30	67.5	49.7	49.7	46.6	14:14:30	63.1	46.6	46.6
52.3	14:01:33	73.7	52.3	52.3	62.1	14:04:33	67.5	62.1	62.1	49.8	14:14:33	63.1	49.8	49.8
58.1	14:01:36	73.7	58.1	58.1	67.2	14:04:36	67.5	67.2	67.2	63.1	14:14:36	63.1	63.1	63.1
65.9	14:01:39	73.7	65.9	65.9	69.6	14:04:39	67.5	69.6	69.6	62	14:14:39	63.1	62	62
67.4	14:01:42	73.7	67.4	67.4	61.5	14:04:42	67.6	61.5	61.5	52.5	14:14:42	63.1	52.5	52.5
63.8	14:01:45	73.7	63.8	63.8	67.1	14:04:45	67.6	67.1	67.1	46	14:14:45	63.1	46	46
67.5	14:01:48	73.7	67.5	67.5	65.5	14:04:48	67.6	65.5	65.5	46.8	14:14:48	63.1	46.8	46.8
64.1	14:01:51	73.7	64.1	64.1	61.2	14:04:51	67.6	61.2	61.2	51.8	14:14:51	63.1	51.8	51.8
64.5	14:01:54	73.7	64.5	64.5	63	14:04:54	67.6	63	63	50.3	14:14:54	63.1	50.3	50.3
62.9	14:01:57	73.7	62.9	62.9	67.7	14:04:57	67.5	67.7	67.7	49	14:14:57	63.1	49	49
63.1	14:02:00	73.7	63.1	63.1	71.3	14:05:00	67.5	71.3	71.3	46.7	14:15:00	63.1	46.7	46.7
62.3	14:02:03	73.7	62.3	62.3	64.7	14:05:03	67.5	64.7	64.7	45.1	14:15:03	63.1	45.1	45.1
64.5	14:02:06	73.7	64.5	64.5	57	14:05:06	67.5	57	57	45.2	14:15:06	63.1	45.2	45.2
62.7	14:02:09	73.7	62.7	62.7	60.5	14:05:09	67.5	60.5	60.5	50.1	14:15:09	63.1	50.1	50.1
62.2	14:02:12	73.7	62.2	62.2	59	14:05:12	67.5	59	59	49.2	14:15:12	63.1	49.2	49.2
69.6	14:02:15	73.7	69.6	69.6	52.8	14:05:15	67.6	52.8	52.8	49.4	14:15:15	63.1	49.4	49.4
68.6	14:02:18	73.7	68.6	68.6	63.7	14:05:18	67.5	63.7	63.7	45	14:15:18	63.1	45	45
71.9	14:02:21	73.7	71.9	71.9	59.5	14:05:21	67.5	59.5	59.5	43.4	14:15:21	63.1	43.4	43.4
102.5	14:02:24	73.7	102.5	102.5	50.1	14:05:24	67.5	50.1	50.1	43.4	14:15:24	63.1	43.4	43.4
93.3	14:02:27	73.7	93.3	93.3	48.8	14:05:27	67.5	48.8	48.8	44.1	14:15:27	63.1	44.1	44.1
88.7	14:02:30	73.7	88.7	88.7	55.3	14:05:30	67.5	55.3	55.3	44.6	14:15:30	63.1	44.6	44.6
77.3	14:02:33	73.7	77.3	77.3	67.9	14:05:33	67.6	67.9	67.9	44.8	14:15:33	63.1	44.8	44.8
65.6	14:02:36	73.7	65.6	65.6	70.4	14:05:36	67.6	70.4	70.4	46.5	14:15:36	63.1	46.5	46.5
63.5	14:02:39	73.7	63.5	63.5	68.8	14:05:39	67.6	68.8	68.8	51	14:15:39	63.1	51	51
64.1	14:02:42	73.7	64.1	64.1	61.6	14:05:42	67.6	61.6	61.6	50.8	14:15:42	63.1	50.8	50.8
64.6	14:02:45	73.7	64.6	64.6	63.9	14:05:45	67.6	63.9	63.9	48.9	14:15:45	63.1	48.9	48.9
67.4	14:02:48	73.7	67.4	67.4	66.4	14:05:48	67.6	66.4	66.4	51.6	14:15:48	63.1	51.6	51.6
62.1	14:02:51	73.7	62.1	62.1	58	14:05:51	67.6	58	58	52	14:15:51	63.1	52	52
56.1	14:02:54	73.7	56.1	56.1	51.5	14:05:54	67.6	51.5	51.5	48.8	14:15:54	63.1	48.8	48.8
58.6	14:02:57	73.7	58.6	58.6	59.6	14:05:57	67.6	59.6	59.6	48	14:15:57	63.1	48	48

APPENDIX C

SoundPlan Model Existing Noise Calculations

Banna Crossings
Assessed receiver levels - Existing

Name	Usage	Floor	X m	Y m	Z m	Ldn dB(A)	Leq,d dB(A)	Leq,n dB(A)
A	RA	G	194.4	272.4	1.5	77.7	75.9	69.6
B	RA	G	306.3	271.4	1.5	72.0	69.5	64.3
C	RA	G	189.1	215.6	1.5	68.3	66.5	60.2

Banna Crossings
Source level road - Existing

MSVges Night Veh/h	MSVges Day Veh/h	Pavement type	Road	KM km	ADT Veh/24h	Gradient %
136.12	515.66	Average (of DGAC and PCC)	Cypress St	0.000	8960	0.0
15.99	73.74	Average (of DGAC and PCC)	Banna Ave	0.000	1250	0.0
4.73	21.83	Average (of DGAC and PCC)	Clover Place	0.000	370	0.0
5.50	25.37	Average (of DGAC and PCC)	Kidder Ave	0.000	430	0.0

Banna Crossings
Railway details - Existing

Train name	v	l
	km/h	m
Track vMax 56.00 km/h DTr 0.00 dB Horn LmE(22-7) 58.87 dB(A) LmE(7-22) 64.89 dB(A) Ser.No. 1 Src-ObjID 1436 Rail		
conventional freight train	56.0	598.32
conventional passenger train	56.0	285.29
Track vMax 56.00 km/h DTr 17.00 dB Horn LmE(22-7) 72.05 dB(A) LmE(7-22) 78.70 dB(A) Ser.No. 2 Src-ObjID 1436 Rail		
conventional freight train	56.0	598.32
conventional passenger train	56.0	285.29

APPENDIX D

SoundPlan Model With Project Noise Calculations

Banna Crossings
Assessed receiver levels - Year 2018 Plus Project

21

Name	Floor	X	Dir	Y	Z	Ldn	Leq,d	Leq,n
		m		m	m	dB(A)	dB(A)	dB(A)
1 - Lot 1	G	195.5	N	209.8	1.7	66.8	65.1	58.6
	F2				4.7	68.3	66.7	60.2
1 - Lot 1 Backyard	G	189.8		211.4	1.5	66.2	64.5	58.0
2 - Lot 3	G	219.0	N	209.6	1.7	66.9	65.3	58.6
	F2				4.7	68.3	66.8	60.1
2 - Lot 3 Backyard	G	218.2		211.5	1.5	66.4	64.8	58.2
3 - Lot 5	G	245.3	N	207.7	1.7	66.5	65.0	58.3
	F2				4.7	67.7	66.2	59.5
3 - Lot 5 Backyard	G	245.1		211.1	1.5	66.5	64.9	58.2
4 - Lot 7	G	269.0	N	209.8	1.7	66.3	64.7	58.1
	F2				4.7	67.7	66.1	59.4
4 - Lot 7 Backyard	G	274.6		211.9	1.5	65.6	64.0	57.3
5 - Lot 9	G	303.5	N	211.6	1.7	65.6	64.0	57.5
	F2				4.7	67.3	65.7	59.1
5 - Lot 9 Backyard	G	293.5		210.8	1.5	64.1	62.5	55.8

Banna Crossings
Source level road - Year 2018 Plus Project

MSVges Night Veh/h	MSVges Day Veh/h	Pavement type	Road	KM km	ADT Veh/24h	Gradient %
146.00	553.07	Average (of DGAC and PCC)	Cypress St	0.000	9610	0.0
20.34	93.79	Average (of DGAC and PCC)	Banna Ave	0.000	1590	0.0
6.59	30.38	Average (of DGAC and PCC)	Clover Place	0.000	515	0.0
8.32	38.34	Average (of DGAC and PCC)	Kidder Ave	0.000	650	0.0

Banna Crossings
Source level railroad - Year 2018 Plus Project

Track vMax km/h	DTr dB	Horn	LmE(22-7) dB(A)	LmE(7-22) dB(A)	Ser.No.	Src-ObjID	Rail	KM	DRa dB	DRz dB
56.00	0.00		58.87	64.89	1	1436	Southern	0.000	0.0	0.0
56.00	17.00		72.05	78.70	2	1436	Southern	0.284	0.0	0.0

Banna Crossings
Octave spectra of the sources in dB(A) - Year 2018 Plus Project

Name	Source type	l or A	L'w	Lw	KI	KT	Day histogram	Spectrum	16Hz	31Hz	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	16kHz
		m,m²	dB(A)	dB(A)	dB	dB			dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
Park	Area	5900.00	65.3	103.	0.0	0.0	Park	Baseball	58.11	71.9	85.5	93.5	91.8	93.2	99.2	96.6	88.1	77.1	66.7

APPENDIX E

Proposed Residential Homes Exterior to Interior Attenuation Calculations

Interior Noise Calculations

Project Name: Banna Crossings Floor Plan: 2 Room: Master Bedroom

Room Absorption

Type of Surface	Area (Sq ft)	Sound Absorption Coefficient, Hz 125	250	500	1000	2000	4000	Sound Absorption (Sabins) 125	250	500	1000	2000	4000
Floor - Carpet*	180	0.1	0.4	0.62	0.7	0.63	0.88	18	72	111.6	126	113.4	158.4
Floor - Linoleum	0	0.02	0.03	0.03	0.03	0.03	0.02	0	0	0	0	0	0
Ceiling - Gypsum Board	180	0.29	0.1	0.05	0.04	0.07	0.09	52.2	18	9	7.2	12.6	16.2
Wall - Gypsum board	486	0.29	0.1	0.05	0.04	0.07	0.09	140.94	48.6	24.3	19.44	34.02	43.74
Total	846							211.14	138.6	144.9	152.64	160.02	218.34
							10*log(S/A) S=Exterior wall area, A= Sound Absorption	-2.91	-1.08	-1.28	-1.50	-1.71	-3.06
							Sound Source Adjustment Factor	-6.00	-6.00	-6.00	-6.00	-6.00	-6.00
							Correction Factor for A-Weighted Sound Levels	-16.10	-8.60	-3.20	0.00	1.20	1.00
							A-Weighted Sound Absorption Level	-25.01	-15.68	-10.48	-7.50	-6.51	-8.06
							dBA Noise Absorption Level	**-1.7**					

Exterior-Interior Transmission Calculations

Type of Surface	Area (Sq ft)	STC Rating	Fractional Area (Area/10^(STC/10))
Stucco Wall	83	46	0.0021
Window	25	29	0.0315
Door	0	26	0
Total	108		0.0003
	Transmission Loss		**35.1**

21 STC = Standard single panel window/door

26 STC = Standard dual panel window/door

Exterior-Interior Noise Reduction

(Transmission Loss - Sound Absorption Level)

37 dBA

*Carpet analyzed consisted of 3/8" Loop Pile with Pad

Sources:

Fundamentals of Accoustics 4th Edition , Lawrence E. Kinsler, 2000.

Noise Control in Buildings , Cyril M. Harris, 1994.

Interior Noise Calculations

Project Name: Banna Crossings Floor Plan: 2 Room: Bedroom 5

Room Absorption

Type of Surface	Area (Sq ft)	Sound Absorption Coefficient, Hz 125	250	500	1000	2000	4000	Sound Absorption (Sabins) 125	250	500	1000	2000	4000
Floor - Carpet*	120	0.1	0.4	0.62	0.7	0.63	0.88	12	48	74.4	84	75.6	105.6
Floor - Linoleum	0	0.02	0.03	0.03	0.03	0.03	0.02	0	0	0	0	0	0
Ceiling - Gypsum Board	120	0.29	0.1	0.05	0.04	0.07	0.09	34.8	12	6	4.8	8.4	10.8
Wall - Gypsum board	396	0.29	0.1	0.05	0.04	0.07	0.09	114.84	39.6	19.8	15.84	27.72	35.64
Total	636							161.64	99.6	100.2	104.64	111.72	152.04
							10*log(S/A) S=Exterior wall area, A= Sound Absorption	0.88	2.98	2.96	2.77	2.49	1.15
							Sound Source Adjustment Factor	-6.00	-6.00	-6.00	-6.00	-6.00	-6.00
							Correction Factor for A-Weighted Sound Levels	-16.10	-8.60	-3.20	0.00	1.20	1.00
							A-Weighted Sound Absorption Level	-21.22	-11.62	-6.24	-3.23	-2.31	-3.85
							dBA Noise Absorption Level	**2.5**					

Exterior-Interior Transmission Calculations

Type of Surface	Area (Sq ft)	STC Rating	Fractional Area (Area/10^(STC/10))
Stucco Wall	153	46	0.0038
Window	45	29	0.0567
Door	0	26	0
Total	198		0.0003
	Transmission Loss		**35.1**

21 STC = Standard single panel window/door

26 STC = Standard dual panel window/door

Exterior-Interior Noise Reduction

(Transmission Loss - Sound Absorption Level)

33 dBA

*Carpet analyzed consisted of 3/8" Loop Pile with Pad

Sources:

Fundamentals of Accoustics 4th Edition , Lawrence E. Kinsler, 2000.

Noise Control in Buildings , Cyril M. Harris, 1994.

Interior Noise Calculations

Project Name: Banna Crossings Floor Plan: 3 Room: Master Bedroom

Room Absorption

Type of Surface	Area (Sq ft)	Sound Absorption Coefficient, Hz 125	250	500	1000	2000	4000	Sound Absorption (Sabins) 125	250	500	1000	2000	4000
Floor - Carpet*	228	0.1	0.4	0.62	0.7	0.63	0.88	22.776	91.104	141.21	159.43	143.49	200.43
Floor - Linoleum	0	0.02	0.03	0.03	0.03	0.03	0.02	0	0	0	0	0	0
Ceiling - Gypsum Board	228	0.29	0.1	0.05	0.04	0.07	0.09	66.05	22.776	11.388	9.1104	15.943	20.498
Wall - Gypsum board	544	0.29	0.1	0.05	0.04	0.07	0.09	157.64	54.36	27.18	21.744	38.052	48.924
Total	999							246.47	168.24	179.78	190.29	197.48	269.85
							10*log(S/A) S=Exterior wall area, A= Sound Absorption	0.48	2.14	1.85	1.61	1.44	0.09
							Sound Source Adjustment Factor	-6.00	-6.00	-6.00	-6.00	-6.00	-6.00
							Correction Factor for A-Weighted Sound Levels	-16.10	-8.60	-3.20	0.00	1.20	1.00
							A-Weighted Sound Absorption Level	-21.62	-12.46	-7.35	-4.39	-3.36	-4.91
							dBA Noise Absorption Level	**1.4**					

Exterior-Interior Transmission Calculations

Type of Surface	Area (Sq ft)	STC Rating	Fractional Area (Area/10^(STC/10))
Stucco Wall	230	46	0.0058
Window	45	29	0.0567
Door	0	26	0
Total	275		0.0002
	Transmission Loss		**36.4**

21 STC = Standard single panel window/door

26 STC = Standard dual panel window/door

Exterior-Interior Noise Reduction

(Transmission Loss - Sound Absorption Level)

35 dBA

*Carpet analyzed consisted of 3/8" Loop Pile with Pad

Sources:

Fundamentals of Accoustics 4th Edition , Lawrence E. Kinsler, 2000.

Noise Control in Buildings , Cyril M. Harris, 1994.

Interior Noise Calculations

Project Name: Banna Crossings Floor Plan: 4 Room: Master Bedroom

Room Absorption

Type of Surface	Area (Sq ft)	Sound Absorption Coefficient, Hz 125	250	500	1000	2000	4000	Sound Absorption (Sabins) 125	250	500	1000	2000	4000
Floor - Carpet*	264	0.1	0.4	0.62	0.7	0.63	0.88	26.4	105.6	163.68	184.8	166.32	232.32
Floor - Linoleum	0	0.02	0.03	0.03	0.03	0.03	0.02	0	0	0	0	0	0
Ceiling - Gypsum Board	264	0.29	0.1	0.05	0.04	0.07	0.09	76.56	26.4	13.2	10.56	18.48	23.76
Wall - Gypsum board	587	0.29	0.1	0.05	0.04	0.07	0.09	170.17	58.68	29.34	23.472	41.076	52.812
Total	1115							273.13	190.68	206.22	218.83	225.88	308.89
		10*log(S/A) S=Exterior wall area, A= Sound Absorption						0.31	1.87	1.53	1.27	1.14	-0.22
		Sound Source Adjustment Factor						-6.00	-6.00	-6.00	-6.00	-6.00	-6.00
		Correction Factor for A-Weighted Sound Levels						-16.10	-8.60	-3.20	0.00	1.20	1.00
		A-Weighted Sound Absorption Level						-21.79	-12.73	-7.67	-4.73	-3.66	-5.22
		dBA Noise Absorption Level						**1.1**					

Exterior-Interior Transmission Calculations

Type of Surface	Area (Sq ft)	STC Rating	Fractional Area (Area/10^(STC/10))
Stucco Wall	218	46	0.0055
Window	75	29	0.0944
Door	0	26	0
Total	293		0.0003
	Transmission Loss		**34.7**

21 STC = Standard single panel window/door

26 STC = Standard dual panel window/door

Exterior-Interior Noise Reduction

(Transmission Loss - Sound Absorption Level)

34 dBA

*Carpet analyzed consisted of 3/8" Loop Pile with Pad

Sources:

Fundamentals of Accoustics 4th Edition , Lawrence E. Kinsler, 2000.

Noise Control in Buildings , Cyril M. Harris, 1994.

APPENDIX F

FHWA Model Traffic Noise Contour Calculations

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING CONDITIONS

Project: Banna Crossings
Site Conditions: Soft

	Vehicle Mix 1 (Local)				Vehicle Mix 2 (Arterials)			
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily
Automobiles	73.60%	13.60%	10.22%	97.40%	73.30%	10.20%	10.00%	93.40%
Medium Trucks	0.90%	0.90%	0.04%	1.84%	2.70%	0.30%	0.30%	3.20%
Heavy Trucks	0.35%	0.04%	0.35%	0.74%	2.90%	0.20%	0.30%	3.40%

Road Name: Cypress Street **Segment: Banna Avenue to Kidder Avenue**

Average Daily Traffic: 8960 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: Secondary

	NOISE PARAMETERS AT 50 FEET FROM CENTERLINE (Equiv. Lane Dist: 43.3 ft)										**Centerline Distance to Noise Contour (in feet)**		
	Noise Adjustments				**Unmitigated Noise Levels**								
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.52	0.83	-1.20	63.2	61.1	58.5	53.7	62.1	62.55	70 dBA:	**15**	**16**
Medium Trucks	74.83	-16.17	0.83	-1.20	58.3	41.8	38.3	33.5	42.3	42.72	65 dBA:	**33**	**35**
Heavy Trucks	80.05	-15.91	0.83	-1.20	63.8	47.6	42.0	39.0	47.8	48.12	60 dBA:	**71**	**76**
				Total:	**67.1**	**61.3**	**58.7**	**53.9**	**62.3**	**62.7**	55 dBA:	**152**	**164**

Road Name: Banna Avenue **Segment: Cypress Street to Colver Place**

Average Daily Traffic: 1250 Vehicles Vehicle Speed: 25 MPH Vehicle Mix: 1 Roadway Classification: Local

	NOISE PARAMETERS AT 50 FEET FROM CENTERLINE (Equiv. Lane Dist: 49.18 ft)										**Centerline Distance to Noise Contour (in feet)**		
	Noise Adjustments				**Unmitigated Noise Levels**								
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	59.44	-8.43	0.00	-1.20	49.8	47.7	46.4	40.4	48.8	49.4	70 dBA:	**2**	**2**
Medium Trucks	71.09	-25.67	0.00	-1.20	44.2	23.0	29.0	10.7	23.8	26.6	65 dBA:	**4**	**5**
Heavy Trucks	78.74	-29.62	0.00	-1.20	47.9	22.6	19.2	23.8	30.0	30.1	60 dBA:	**9**	**10**
				Total:	**52.7**	**47.7**	**46.5**	**40.5**	**48.9**	**49.5**	55 dBA:	**19**	**21**

Road Name: Colver Place **Segment: Banna Avenue to Kidder Avenue**

Average Daily Traffic: 370 Vehicles Vehicle Speed: 25 MPH Vehicle Mix: 1 Roadway Classification: Local

	NOISE PARAMETERS AT 50 FEET FROM CENTERLINE (Equiv. Lane Dist: 49.18 ft)										**Centerline Distance to Noise Contour (in feet)**		
	Noise Adjustments				**Unmitigated Noise Levels**								
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	59.44	-13.72	0.00	-1.20	44.5	42.4	41.1	35.1	43.5	44.1	70 dBA:	**1**	**1**
Medium Trucks	71.09	-30.95	0.00	-1.20	38.9	17.7	23.7	5.4	18.6	21.3	65 dBA:	**2**	**2**
Heavy Trucks	78.74	-34.91	0.00	-1.20	42.6	17.3	13.9	18.5	24.7	24.8	60 dBA:	**4**	**4**
				Total:	**47.4**	**42.4**	**41.2**	**35.2**	**43.6**	**44.2**	55 dBA:	**9**	**10**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING CONDITIONS

Project: Banna Crossings
Site Conditions: Soft

Road Name: Kidder Avenue **Segment: Cypress Street to Colver Place**

Average Daily Traffic: 430 Vehicles Vehicle Speed: 25 MPH Vehicle Mix: 1 Roadway Classification: Local

	NOISE PARAMETERS AT 50 FEET FROM CENTERLINE (Equiv. Lane Dist: 49.18 ft)										**Centerline Distance to Noise Contour (in feet)**		
	Noise Adjustments				**Unmitigated Noise Levels**								
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	59.44	-13.06	0.00	-1.20	45.2	43.1	41.7	35.7	44.2	44.8	70 dBA:	**1**	**1**
Medium Trucks	71.09	-30.30	0.00	-1.20	39.6	18.3	24.4	6.1	19.2	22.0	65 dBA:	**2**	**2**
Heavy Trucks	78.74	-34.26	0.00	-1.20	43.3	17.9	14.5	19.2	25.4	25.5	60 dBA:	**4**	**5**
				Total:	**48.0**	**43.1**	**41.8**	**35.8**	**44.2**	**44.9**	55 dBA:	**10**	**11**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING WITH PROJECT CONDITIONS

Project: Banna Crossings
Site Conditions: Soft

	Vehicle Mix 1 (Local)				Vehicle Mix 2 (Arterials)			
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily
Automobiles	73.60%	13.60%	10.22%	97.40%	73.30%	10.20%	10.00%	93.40%
Medium Trucks	0.90%	0.90%	0.04%	1.84%	2.70%	0.30%	0.30%	3.20%
Heavy Trucks	0.35%	0.04%	0.35%	0.74%	2.90%	0.20%	0.30%	3.40%

Road Name: Cypress Street **Segment: Banna Avenue to Kidder Avenue**

Average Daily Traffic: 9080 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: Secondary

	NOISE PARAMETERS AT 50 FEET FROM CENTERLINE (Equiv. Lane Dist: 43.3 ft)										**Centerline Distance to Noise Contour (in feet)**		
	Noise Adjustments				**Unmitigated Noise Levels**								
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.46	0.83	-1.20	63.3	61.1	58.6	53.7	62.1	62.6	70 dBA:	**15**	**17**
Medium Trucks	74.83	-16.11	0.83	-1.20	58.3	41.9	38.3	33.6	42.3	42.8	65 dBA:	**33**	**36**
Heavy Trucks	80.05	-15.85	0.83	-1.20	63.8	47.7	42.1	39.1	47.9	48.2	60 dBA:	**71**	**77**
				Total:	**67.2**	**61.4**	**58.7**	**53.9**	**62.3**	**62.8**	55 dBA:	**154**	**166**

Road Name: Banna Avenue **Segment: Cypress Street to Colver Place**

Average Daily Traffic: 1550 Vehicles Vehicle Speed: 25 MPH Vehicle Mix: 1 Roadway Classification: Local

	NOISE PARAMETERS AT 50 FEET FROM CENTERLINE (Equiv. Lane Dist: 49.18 ft)										**Centerline Distance to Noise Contour (in feet)**		
	Noise Adjustments				**Unmitigated Noise Levels**								
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	59.44	-7.50	0.00	-1.20	50.7	48.6	47.3	41.3	49.7	50.3	70 dBA:	**2**	**2**
Medium Trucks	71.09	-24.73	0.00	-1.20	45.2	23.9	29.9	11.6	24.8	27.5	65 dBA:	**5**	**5**
Heavy Trucks	78.74	-28.69	0.00	-1.20	48.9	23.5	20.1	24.8	31.0	31.0	60 dBA:	**10**	**11**
				Total:	**53.6**	**48.7**	**47.4**	**41.4**	**49.8**	**50.4**	55 dBA:	**22**	**25**

Road Name: Colver Place **Segment: Banna Avenue to Kidder Avenue**

Average Daily Traffic: 505 Vehicles Vehicle Speed: 25 MPH Vehicle Mix: 1 Roadway Classification: Local

	NOISE PARAMETERS AT 50 FEET FROM CENTERLINE (Equiv. Lane Dist: 49.18 ft)										**Centerline Distance to Noise Contour (in feet)**		
	Noise Adjustments				**Unmitigated Noise Levels**								
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	59.44	-12.37	0.00	-1.20	45.9	43.8	42.4	36.4	44.8	45.5	70 dBA:	**1**	**1**
Medium Trucks	71.09	-29.60	0.00	-1.20	40.3	19.0	25.1	6.8	19.9	22.7	65 dBA:	**2**	**3**
Heavy Trucks	78.74	-33.56	0.00	-1.20	44.0	18.6	15.2	19.9	26.1	26.2	60 dBA:	**5**	**5**
				Total:	**48.7**	**43.8**	**42.5**	**36.5**	**44.9**	**45.5**	55 dBA:	**11**	**12**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING WITH PROJECT CONDITIONS

Project: Banna Crossings
Site Conditions: Soft

Road Name: Kidder Avenue **Segment: Cypress Street to Colver Place**

Average Daily Traffic: 640 Vehicles Vehicle Speed: 25 MPH Vehicle Mix: 1 Roadway Classification: Local

	NOISE PARAMETERS AT 50 FEET FROM CENTERLINE (Equiv. Lane Dist: 49.18 ft)										**Centerline Distance to Noise Contour (in feet)**		
	Noise Adjustments				**Unmitigated Noise Levels**								
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	59.44	-11.34	0.00	-1.20	46.9	44.8	43.5	37.5	45.9	46.5	70 dBA:	**1**	**1**
Medium Trucks	71.09	-28.57	0.00	-1.20	41.3	20.1	26.1	7.8	20.9	23.7	65 dBA:	**3**	**3**
Heavy Trucks	78.74	-32.53	0.00	-1.20	45.0	19.7	16.3	20.9	27.1	27.2	60 dBA:	**6**	**6**
				Total:	**49.7**	**44.8**	**43.6**	**37.6**	**45.9**	**46.6**	55 dBA:	**12**	**14**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2018 WITHOUT PROJECT

Project: Banna Crossings
Site Conditions: Soft

	Vehicle Mix 1 (Local)				Vehicle Mix 2 (Arterials)			
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily
Automobiles	73.60%	13.60%	10.22%	97.40%	73.30%	10.20%	10.00%	93.40%
Medium Trucks	0.90%	0.90%	0.04%	1.84%	2.70%	0.30%	0.30%	3.20%
Heavy Trucks	0.35%	0.04%	0.35%	0.74%	2.90%	0.20%	0.30%	3.40%

Road Name: Cypress Street **Segment: Banna Avenue to Kidder Avenue**

Average Daily Traffic: 9490 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: Secondary

	NOISE PARAMETERS AT 50 FEET FROM CENTERLINE (Equiv. Lane Dist: 43.3 ft)										**Centerline Distance to Noise Contour (in feet)**		
	Noise Adjustments				**Unmitigated Noise Levels**								
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.27	0.83	-1.20	63.5	61.3	58.8	53.9	62.3	62.8	70 dBA:	**16**	**17**
Medium Trucks	74.83	-15.92	0.83	-1.20	58.5	42.1	38.5	33.8	42.5	43.0	65 dBA:	**34**	**37**
Heavy Trucks	80.05	-15.66	0.83	-1.20	64.0	47.9	42.3	39.2	48.1	48.4	60 dBA:	**74**	**79**
				Total:	**67.4**	**61.6**	**58.9**	**54.1**	**62.5**	**63.0**	55 dBA:	**158**	**171**

Road Name: Banna Avenue **Segment: Cypress Street to Colver Place**

Average Daily Traffic: 1290 Vehicles Vehicle Speed: 25 MPH Vehicle Mix: 1 Roadway Classification: Local

	NOISE PARAMETERS AT 50 FEET FROM CENTERLINE (Equiv. Lane Dist: 49.18 ft)										**Centerline Distance to Noise Contour (in feet)**		
	Noise Adjustments				**Unmitigated Noise Levels**								
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	59.44	-8.29	0.00	-1.20	50.0	47.8	46.5	40.5	48.9	49.5	70 dBA:	**2**	**2**
Medium Trucks	71.09	-25.53	0.00	-1.20	44.4	23.1	29.1	10.8	24.0	26.7	65 dBA:	**4**	**5**
Heavy Trucks	78.74	-29.49	0.00	-1.20	48.1	22.7	19.3	24.0	30.2	30.3	60 dBA:	**9**	**10**
				Total:	**52.8**	**47.9**	**46.6**	**40.6**	**49.0**	**49.6**	55 dBA:	**20**	**22**

Road Name: Colver Place **Segment: Banna Avenue to Kidder Avenue**

Average Daily Traffic: 380 Vehicles Vehicle Speed: 25 MPH Vehicle Mix: 1 Roadway Classification: Local

	NOISE PARAMETERS AT 50 FEET FROM CENTERLINE (Equiv. Lane Dist: 49.18 ft)										**Centerline Distance to Noise Contour (in feet)**		
	Noise Adjustments				**Unmitigated Noise Levels**								
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	59.44	-13.60	0.00	-1.20	44.6	42.5	41.2	35.2	43.6	44.2	70 dBA:	**1**	**1**
Medium Trucks	71.09	-30.84	0.00	-1.20	39.1	17.8	23.8	5.5	18.7	21.4	65 dBA:	**2**	**2**
Heavy Trucks	78.74	-34.79	0.00	-1.20	42.7	17.4	14.0	18.6	24.8	24.9	60 dBA:	**4**	**5**
				Total:	**47.5**	**42.5**	**41.3**	**35.3**	**43.7**	**44.3**	55 dBA:	**9**	**10**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2018 WITHOUT PROJECT

Project: Banna Crossings
Site Conditions: Soft

Road Name: Kidder Avenue **Segment: Cypress Street to Colver Place**

Average Daily Traffic: 440 Vehicles Vehicle Speed: 25 MPH Vehicle Mix: 1 Roadway Classification: Local

	NOISE PARAMETERS AT 50 FEET FROM CENTERLINE (Equiv. Lane Dist: 49.18 ft)										**Centerline Distance to Noise Contour (in feet)**		
	Noise Adjustments				**Unmitigated Noise Levels**								
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	59.44	-12.96	0.00	-1.20	45.3	43.2	41.8	35.8	44.3	44.9	70 dBA:	**1**	**1**
Medium Trucks	71.09	-30.20	0.00	-1.20	39.7	18.4	24.5	6.2	19.3	22.1	65 dBA:	**2**	**2**
Heavy Trucks	78.74	-34.16	0.00	-1.20	43.4	18.0	14.6	19.3	25.5	25.6	60 dBA:	**5**	**5**
				Total:	**48.1**	**43.2**	**41.9**	**35.9**	**44.3**	**45.0**	55 dBA:	**10**	**11**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2018 WITH PROJECT CONDITIONS

Project: Banna Crossings
Site Conditions: Soft

	Vehicle Mix 1 (Local)				Vehicle Mix 2 (Arterials)			
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily
Automobiles	73.60%	13.60%	10.22%	97.40%	73.30%	10.20%	10.00%	93.40%
Medium Trucks	0.90%	0.90%	0.04%	1.84%	2.70%	0.30%	0.30%	3.20%
Heavy Trucks	0.35%	0.04%	0.35%	0.74%	2.90%	0.20%	0.30%	3.40%

Road Name: Cypress Street **Segment: Banna Avenue to Kidder Avenue**

Average Daily Traffic: 9610 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: Secondary

	NOISE PARAMETERS AT 50 FEET FROM CENTERLINE (Equiv. Lane Dist: 43.3 ft)										**Centerline Distance to Noise Contour (in feet)**		
	Noise Adjustments				**Unmitigated Noise Levels**								
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.22	0.83	-1.20	63.5	61.4	58.8	54.0	62.4	62.9	70 dBA:	**16**	**17**
Medium Trucks	74.83	-15.87	0.83	-1.20	58.6	42.1	38.6	33.8	42.6	43.0	65 dBA:	**34**	**37**
Heavy Trucks	80.05	-15.60	0.83	-1.20	64.1	47.9	42.3	39.3	48.1	48.4	60 dBA:	**74**	**80**
				Total:	**67.4**	**61.6**	**59.0**	**54.2**	**62.6**	**63.1**	55 dBA:	**160**	**172**

Road Name: Banna Avenue **Segment: Cypress Street to Colver Place**

Average Daily Traffic: 1590 Vehicles Vehicle Speed: 25 MPH Vehicle Mix: 1 Roadway Classification: Local

	NOISE PARAMETERS AT 50 FEET FROM CENTERLINE (Equiv. Lane Dist: 49.18 ft)										**Centerline Distance to Noise Contour (in feet)**		
	Noise Adjustments				**Unmitigated Noise Levels**								
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	59.44	-7.39	0.00	-1.20	50.9	48.7	47.4	41.4	49.8	50.5	70 dBA:	**2**	**3**
Medium Trucks	71.09	-24.62	0.00	-1.20	45.3	24.0	30.0	11.7	24.9	27.6	65 dBA:	**5**	**5**
Heavy Trucks	78.74	-28.58	0.00	-1.20	49.0	23.6	20.2	24.9	31.1	31.2	60 dBA:	**11**	**12**
				Total:	**53.7**	**48.8**	**47.5**	**41.5**	**49.9**	**50.5**	55 dBA:	**23**	**25**

Road Name: Colver Place **Segment: Banna Avenue to Kidder Avenue**

Average Daily Traffic: 515 Vehicles Vehicle Speed: 25 MPH Vehicle Mix: 1 Roadway Classification: Local

	NOISE PARAMETERS AT 50 FEET FROM CENTERLINE (Equiv. Lane Dist: 49.18 ft)										**Centerline Distance to Noise Contour (in feet)**		
	Noise Adjustments				**Unmitigated Noise Levels**								
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	59.44	-12.28	0.00	-1.20	46.0	43.8	42.5	36.5	44.9	45.6	70 dBA:	**1**	**1**
Medium Trucks	71.09	-29.52	0.00	-1.20	40.4	19.1	25.1	6.9	20.0	22.7	65 dBA:	**2**	**3**
Heavy Trucks	78.74	-33.47	0.00	-1.20	44.1	18.7	15.3	20.0	26.2	26.3	60 dBA:	**5**	**6**
				Total:	**48.8**	**43.9**	**42.6**	**36.6**	**45.0**	**45.6**	55 dBA:	**11**	**12**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2018 WITH PROJECT CONDITIONS

Project: Banna Crossings
Site Conditions: Soft

Road Name: Kidder Avenue **Segment: Cypress Street to Colver Place**

Average Daily Traffic: 650 Vehicles Vehicle Speed: 25 MPH Vehicle Mix: 1 Roadway Classification: Local

	NOISE PARAMETERS AT 50 FEET FROM CENTERLINE (Equiv. Lane Dist: 49.18 ft)										**Centerline Distance to Noise Contour (in feet)**		
	Noise Adjustments				**Unmitigated Noise Levels**								
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	59.44	-11.27	0.00	-1.20	47.0	44.9	43.5	37.5	45.9	46.6	70 dBA:	**1**	**1**
Medium Trucks	71.09	-28.51	0.00	-1.20	41.4	20.1	26.2	7.9	21.0	23.8	65 dBA:	**3**	**3**
Heavy Trucks	78.74	-32.46	0.00	-1.20	45.1	19.7	16.3	21.0	27.2	27.3	60 dBA:	**6**	**6**
				Total:	**49.8**	**44.9**	**43.6**	**37.6**	**46.0**	**46.6**	55 dBA:	**13**	**14**

APPENDIX G

RCNM Model Construction Noise Calculations

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 3/28/2015
Case Description: Banna Crossings - Demolition

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Home	Residential	63.2	63.2	63.2

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	90	0
Excavator	No	40		80.7	140	0
Excavator	No	40		80.7	190	0
Excavator	No	40		80.7	240	0
Dozer	No	40		81.7	290	0
Dozer	No	40		81.7	340	0

		Calculated (dBA)		Results		Noise Limits (dBA)	
				Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw		84.5	77.5	N/A	N/A	N/A	N/A
Excavator		71.8	67.8	N/A	N/A	N/A	N/A
Excavator		69.1	65.1	N/A	N/A	N/A	N/A
Excavator		67.1	63.1	N/A	N/A	N/A	N/A
Dozer		66.4	62.4	N/A	N/A	N/A	N/A
Dozer		65.0	61.0	N/A	N/A	N/A	N/A
	Total	**85**	**79**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 3/28/2015
Case Description: Banna Crossings - Site Preparation

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Home	Residential	63.2	63.2	63.2

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	80	0
Dozer	No	40		81.7	130	0
Dozer	No	40		81.7	180	0
Tractor	No	40	84		230	0
Tractor	No	40	84		280	0
Tractor	No	40	84		330	0
Tractor	No	40	84		380	0

Equipment	Calculated (dBA) *Lmax	Leq	Results Day Lmax	Noise Limits (dBA) Day Leq	Evening Lmax	Evening Leq
Dozer	77.6	73.6	N/A	N/A	N/A	N/A
Dozer	73.4	69.4	N/A	N/A	N/A	N/A
Dozer	70.5	66.6	N/A	N/A	N/A	N/A
Tractor	70.7	66.8	N/A	N/A	N/A	N/A
Tractor	69.0	65.1	N/A	N/A	N/A	N/A
Tractor	67.6	63.6	N/A	N/A	N/A	N/A
Tractor	66.4	62.4	N/A	N/A	N/A	N/A
Total	**78**	**77**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 3/28/2015
Case Description: Banna Crossings - Grading

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Home	Residential	63.2	63.2	63.2

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	80	0
Grader	No	40	85		130	0
Dozer	No	40		81.7	180	0
Tractor	No	40	84		230	0
Tractor	No	40	84		280	0
Tractor	No	40	84		330	0

Equipment		Calculated (dBA) *Lmax	Leq	Results Noise Limits (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq
Excavator		76.6	72.6	N/A	N/A	N/A	N/A
Grader		76.7	72.7	N/A	N/A	N/A	N/A
Dozer		70.5	66.6	N/A	N/A	N/A	N/A
Tractor		70.7	66.8	N/A	N/A	N/A	N/A
Tractor		69.0	65.1	N/A	N/A	N/A	N/A
Tractor		67.6	63.6	N/A	N/A	N/A	N/A
	Total	**77**	**77**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 3/28/2015
Case Description: Banna Crossings - Building

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Home	Residential	63.2	63.2	63.2

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	80	0
Gradall	No	40		83.4	130	0
Gradall	No	40		83.4	180	0
Gradall	No	40		83.4	230	0
Tractor	No	40	84		280	0
Tractor	No	40	84		330	0
Tractor	No	40	84		380	0
Generator	No	50		80.6	430	0
Welder / Torch	No	40		74	480	0

Equipment		Calculated (dBA) *Lmax	Leq	Results Day Lmax	Day Leq	Noise Limits (dBA) Evening Lmax	Evening Leq
Crane		76.5	68.5	N/A	N/A	N/A	N/A
Gradall		75.1	71.1	N/A	N/A	N/A	N/A
Gradall		72.3	68.3	N/A	N/A	N/A	N/A
Gradall		70.1	66.2	N/A	N/A	N/A	N/A
Tractor		69.0	65.1	N/A	N/A	N/A	N/A
Tractor		67.6	63.6	N/A	N/A	N/A	N/A
Tractor		66.4	62.4	N/A	N/A	N/A	N/A
Generator		61.9	58.9	N/A	N/A	N/A	N/A
Welder / Torch		54.4	50.4	N/A	N/A	N/A	N/A
	Total	**77**	**76**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 3/28/2015
Case Description: Banna Crossings - Paving

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Home	Residential	63.2	63.2	63.2

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Roller	No	20		80	80	0
Roller	No	20		80	130	0
Paver	No	50		77.2	180	0
Paver	No	50		77.2	230	0
Paver	No	50		77.2	280	0
Paver	No	50		77.2	330	0

Equipment		Calculated (dBA) *Lmax	Leq	Results Day Lmax	Leq	Noise Limits (dBA) Evening Lmax	Leq
Roller		75.9	68.9	N/A	N/A	N/A	N/A
Roller		71.7	64.7	N/A	N/A	N/A	N/A
Paver		66.1	63.1	N/A	N/A	N/A	N/A
Paver		64.0	61.0	N/A	N/A	N/A	N/A
Paver		62.3	59.2	N/A	N/A	N/A	N/A
Paver		60.8	57.8	N/A	N/A	N/A	N/A
	Total	**76**	**72**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 3/28/2015
Case Description: Banna Crossings - Painting

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Home	Residential	63.2	63.2	63.2

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	100	0

Results

	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	71.6	67.7	N/A	N/A	N/A	N/A
Total	**72**	**68**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

APPENDIX H

Traffic Impact Analysis

REVISED

TRAFFIC IMPACT ANALYSIS

BANNA CROSSING

RESIDENTIAL DEVELOPMENT

City of Covina, CA

arch beach

C O N S U L T I N G

October 19, 2015

REVISED TRAFFIC IMPACT ANALYSIS

BANNA CROSSING RESIDENTIAL DEVELOPMENT

City of Covina, California

Prepared by

arch beach
CONSULTING

Project No. 15-006
October 19, 2015

Contact
Arch Beach Consulting
1155 Camino Del Mar, #125
Del Mar, California 92014
mobile phone (949) 637-9007
office phone/fax (858) 925-6190
www.archbeachconsulting.com

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Appendix B – Intersection Level of Service Worksheets
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1.0 INTRODUCTION

The following presents the traffic impact analysis (TIA) prepared by Arch Beach Consulting for Banna Crossing (proposed project), a 63 dwelling unit (DU) single-family home development with a 2.0 acre passive park proposed at 800 N. Banna Avenue in the City of Covina (City). The following TIA has been prepared based on City's *General Plan Circulation Element*, requirements of the City's Public Works Department, the Los Angeles County *Congestion Management Program* (CMP), and the *California Environmental Quality Act* (CEQA).

Purpose and Objectives of the Traffic Study

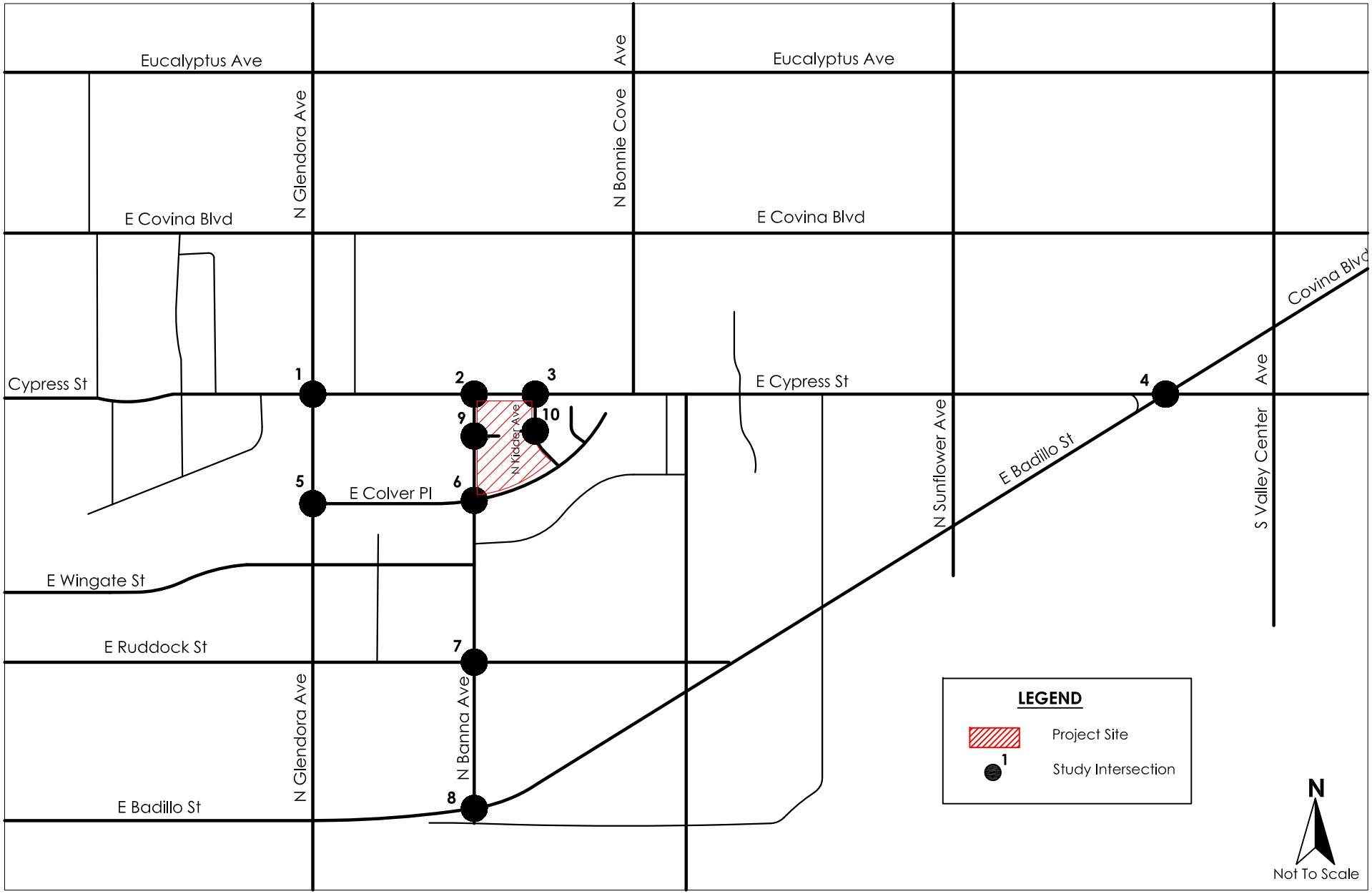
The purpose of this TIA is to evaluate the traffic and circulation impacts of the proposed project. The study objectives of this traffic study include:

- Establish the existing baseline traffic conditions.
- Develop the projected future baseline conditions without the project by considering the cumulative effects of regional growth and traffic generated by other development projects in the study vicinity (if any).
- Estimate the level of traffic that would be generated by the proposed development.
- Conduct a comparative analysis of traffic conditions with and without the project.
- Analyze on-site circulation.
- Identify potential mitigation measures (if required).

This analysis is based on the weekday a.m. and p.m. peak hours of commuter traffic on the adjacent street network. Peak hour traffic counts were taken in mid-February 2015 on a typical weekday from 7:00 a.m. to 9:00 a.m. during the a.m. peak commute period, and 4:00 p.m. to 6:00 p.m. during the p.m. peak commute period. It should be noted that more recent counts were collected in August 2015, after the adjacent Charter Oak High School started its 2015-2016 school year. Based on comparison of those counts with the February 2015 counts, the February counts had higher traffic volumes at all roadway segments and intersections when compared to the August 2015 counts. Per direction of the City Traffic Engineer, the counts from February 2015 were to be used as the basis of the traffic analysis.

In addition, pedestrian counts at the mid-block crosswalk on Cypress Street, near the railroad tracks, we collected during the a.m. peak hour and the after-school peak hour (of the adjacent Charter Oak High School), as well as pedestrian/bicycle counts at all study area intersections.

Per trip rates in *Trip Generation, 9th Edition* published by the Institute of Transportation Engineers (ITE), the proposed project would generate approximately 600 daily trips, 47 a.m. peak hour trips, and 63 p.m. peak hour trips. Per review of the 2010 LA County CMP, the nearest CMP monitoring stations in the project vicinity are the intersection of Azusa Avenue (State Route 39 – SR 39)/Foothill Boulevard, and the freeway segment of Interstate 210 (I-210) at San Dimas Avenue. Per review of Appendix B of the CMP, *Guidelines for CMP Transportation Impact Analysis*, a regional CMP-level traffic analysis is not required for the proposed project since it would not add 50 or more weekday peak hour trips to the nearest monitored CMP intersection (Azusa Avenue (SR 39)/Foothill Boulevard), or 150 or more peak hour trips to a monitored freeway mainline segment (I-210 at San Dimas Avenue).



Map Sources: Google Maps, March 2015.

arch beach CONSULTING

Figure 1
Project Site Location and Study Area

Site Location and Study Area

Regional access to the site is provided by I-210, via its interchanges with Grand Avenue and Sunflower Avenue; State Route 57 (SR 57) via its interchange with Covina Boulevard; and, Interstate 10 (I-10) via its interchange with Grand Avenue. Local access is provided by Glendora Avenue and Cypress Street. Figure 1 illustrates the project site location and study area intersections. The study area intersections and roadway segments are as follows:

Intersections

1. Glendora Avenue/Cypress Street
2. Banna Avenue/Cypress Street
3. Kidder Avenue/Cypress Street
4. Badillo Street/Cypress Street
5. Glendora Avenue/Colver Place
6. Banna Avenue/Colver Place
7. Banna Avenue/Ruddock Street
8. Banna Avenue/Badillo Street
9. Project Driveway/Cypress Street

Roadway Segments

1. Cypress Street, Banna Avenue to Kidder Avenue
2. Banna Avenue, Cypress Street to Colver Place
3. Colver Place, Banna Avenue to Kidder Avenue
4. Kidder Place, Cypress Street to Colver Place

Methodology

The signalized study area intersections were analyzed using the Intersection Capacity Utilization (ICU) methodology for weekday peak hour levels of service (LOS). The ICU method determines the volume-to-capacity (V/C) ratio on a critical lane basis and determines LOS associated with each critical V/C ratio at the signalized intersection. The unsignalized intersections of San Gabriel Place/Paramount Street and the project driveways were analyzed using the *Highway Capacity Manual* (HCM) Operations methodology. The HCM method determines LOS based on vehicle control delay for each approach movement of the intersection.

The degree of congestion at an intersection is described by the level of service, which ranges from LOS A to LOS F, with LOS A representing free-flow conditions with little delay and LOS F representing over-saturated traffic flow throughout the peak hour. A complete description of the meaning of level of service can be found in the Highway Research Board Special Report 209, *Highway Capacity Manual* (HCM 2000). Brief descriptions of the six levels of service for signalized intersections are shown in Table A. Table B below provides detailed descriptions of each level of service.

Significance Criteria

Intersections

Per the City's General Plan, the minimum satisfactory level of service (LOS) is LOS D for transportation facilities within the City. Therefore, if a project causes an intersection (signalized

Table A – Level of Service Definitions

Level of Service	V/C Ratio or ICU (signalized)	Control Delay in Seconds (unsignalized)
A	0.00 – 0.60	0.0 – 10.0 seconds
B	0.61 – 0.70	10.1 – 15.0 seconds
C	0.71 – 0.80	15.1 – 25.0 seconds
D	0.81 – 0.90	25.1 – 35.0 seconds
E	0.91 – 1.00	35.1 – 50.0 seconds
F	1.01 or greater	50.1 seconds or greater

Table B – Level of Service Descriptions

LOS	Description
A	No approach phase is fully utilized by traffic, and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turns are made easily, and nearly all drivers find freedom of operation.
B	This service level represents stable operation, where an occasional approach phase is fully utilized and a substantial number are nearing full use. Many drivers begin to feel restricted within platoons of vehicles.
C	This level still represents stable operating conditions. Occasionally drivers may have to wait through more than one red signal indication, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so.
D	This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak period; however, enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups.
E	Capacity occurs at the upper end of this service level. It represents the most vehicles that any particular intersection approach can accommodate. Full utilization of every signal cycle is seldom attained no matter how great the demand.
F	This level describes forced flow operations at low speeds, where volumes exceed capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream. Speeds are reduced substantially, and stoppages may occur for short or long periods of time due to the congestion. In the extreme case, both speed and volume can drop to zero.

Source: Highway Capacity Manual, Transportation Research Board, Special Report No. 209, Washington, D.C., 2000.

and unsignalized) that is currently operating, or is forecast to operate, at LOS D or better, to LOS E or F, a significant project impact would occur.

Similar to the Los Angeles County CMP, if a signalized intersection is already operating at, or is forecast to operate at LOS E or F without the project, a significant impact would occur when the proposed project increases traffic demand on a facility by an increase of over 0.020 V/C.

To determine whether the addition of project-generated trips at an unsignalized study intersection results in a significant impact, the following thresholds would need to occur:

- A significant project-related impact would occur at an unsignalized study intersection if the addition of project-generated trips reduces the peak hour level of service of the study intersection from acceptable operation (LOS A, B, C, or D) to deficient operation (LOS E or F), and the unsignalized intersection satisfies a Caltrans traffic signal warrant; or
- A significant project-related impact would occur at an unsignalized study intersection if the addition of project-generated trips changes the delay of a baseline (i.e., without project) LOS E or F by ≥ 2.0 seconds, and the unsignalized intersection satisfies a Caltrans traffic signal warrant.

Roadway Segments

The study area roadway segments were analyzed using the V/C method based on the average daily traffic (ADT) roadway capacities shown in Table C.

Table C – Daily Roadway Capacity Volumes

	Daily Service Volumes (vehicles per day)				
Roadway Type	**LOS A**	**LOS B**	**LOS C**	**LOS D**	**LOS E**
6 lanes (divided)	33,900	39,400	45,000	50,600	56,300
4 lanes (divided)	22,500	26,300	30,000	33,800	37,500
4 lanes (undivided)	15,000	17,500	20,000	22,500	25,000
2 lanes (divided)	10,000	11,700	13,300	15,000	16,600
2 lanes (undivided)	7,500	8,800	10,000	11,300	12,500
local road	3,000	3,500	4,000	4,500	5,000

To determine whether the addition of project-generated trips at a study roadway segment results in a significant impact, the following thresholds would need to occur:

- A significant project-related impact would occur at a study roadway segment if the addition of project-generated trips reduces the roadway from acceptable operation (LOS A, B, or C) to deficient operation (LOS D, E or F); or
- A significant project-related impact would occur at a study roadway segment already operating at a deficient LOS (LOS D, E, or F) pre-project if the addition of project-generated trips increases the traffic demand at the roadway by two (2.0) percent of capacity (V/C ≥ 0.02).

Traffic Analysis Scenarios

This traffic study analyzed the following traffic scenarios:

Existing Condition

Existing daily, a.m. and p.m. peak hour peak hour traffic volumes were collected at the study area roadway segments and intersections in mid-February 2015 from 7:00 a.m. to 9:00 a.m., and 4:00 p.m. to 6:00 p.m. for a typical weekday. In addition, pedestrian and bicycle counts were collected during the a.m. peak hour and after-school peak hour; and, Metrolink train crossings were observed during the a.m. and p.m. peak commute hours. The existing traffic scenario constitutes the environmental setting in accordance with the CEQA analysis at the time that the hearing body reviews the proposed project.

Existing plus Project Condition

The Existing plus Project Condition traffic was developed by adding the proposed project traffic to the Existing Baseline Condition. This scenario is the basis for determining project-specific impacts and mitigation measures.

Short-Term Year (2018) Baseline Condition

The proposed project is anticipated to be built and fully occupied by 2018. Therefore, short-term background traffic in this scenario was forecast for 2018 by applying a conservative annual ambient growth rate of one percent per year. Per the CMP, the average annual growth rate for project's Regional Statistical Area (RSA) 26 – West Covina, is 0.46 percent. Therefore, the total ambient growth adjustment applied over a three-year period (from 2015 to 2018) is 3.0 percent. In addition, traffic from cumulative projects in the project vicinity were added to the existing and ambient traffic growth volumes.

Short-Term Year (2018) plus Project Condition

The Short-Term Year (2018) plus Project Condition traffic was developed by adding the proposed project traffic to the Short-Term Year (2018) Baseline Condition. This scenario is also the basis for determining project-specific impacts and mitigation measures.

2.0 PROJECT DESCRIPTION AND TRAFFIC GENERATION

The following section provides information on the proposed project relative to the local and regional circulation network.

Project Description

The project site is located in the City of Covina, which is in the southeastern portion of Los Angeles County, approximately 22 miles east of downtown Los Angeles. The City is adjacent to the Cities of Azusa and Glendora to the north, the City of West Covina to the south, the Cities of Irwindale and Baldwin Park to the west, and the City of San Dimas to the east. The City is also adjacent to a number of unincorporated communities, such as the communities of Citrus to the north and Vincent to the west. The project site is located at 800 N. Banna Avenue, on the southeast corner of Banna Avenue and Cypress Street. The 8.5-acre project site is bounded by Cypress Street to the north, Colver Place to the south, Kidder Avenue to the east, and Banna Avenue to the west.

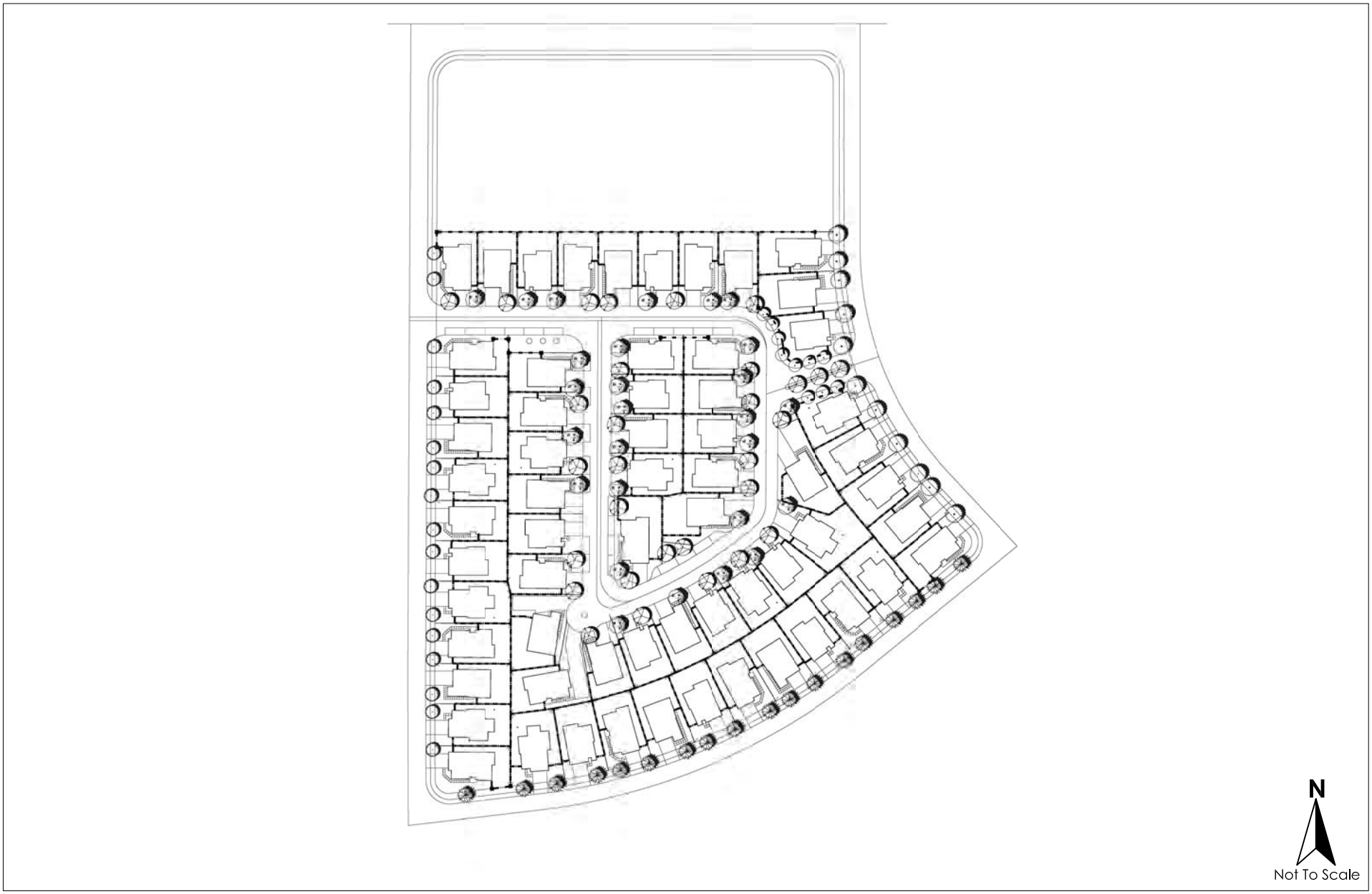
The project site is surrounded by existing single-family homes located immediately east, west, and south. Charter Oak High School and Los Angeles County Fire Station #153 are located to the north of the project site. A Metrolink railroad line running northeast-southwest across Cypress Street is also located north of the project site.

The proposed project would demolish the existing structures located on the project site and construct 63 single-family detached homes at a density of approximately 9.7 units per acre. In addition, space for a 2.0 acre passive park (i.e., no facilities, structures, and parking – primarily open space) would be provided between the proposed housing and Cypress Street. Figure 2 illustrates the conceptual site design and layout of the proposed project. The primary access to the site would occur on Kidder Avenue, approximately midway between Cypress Street and Colver Place. Secondary access would occur on Banna Avenue, between Cypress Street and Colver Place.

Each unit would include two a two-car garage. A total of 126 garage stalls would be provided. The proposed project also includes 126 private driveway spaces (two spaces per unit), 24 in-tract stalls, and 29 perimeter on-street stalls, for a project total of 305 parking spaces.

Although no significant project-related traffic impacts are anticipated, the City will require the project, through Conditions of Approval, to install the following improvements in improve traffic conditions in the project vicinity:

- Restripe the east leg of the Glendora Avenue/Colver Place intersection to provide two westbound approach lanes and one eastbound return lane. The westbound approach will be striped to have a shared left plus through lane, and a dedicated right turn lane. The additional westbound lane approach would improve vehicle delays and levels of service at the intersection. A conceptual striping plan of this improvement is shown in Figure 3.
- Install a crosswalk, with appropriate signage and warning beacons (if warranted), across Cypress Street on the west leg of the intersection of Kidder Avenue/Cypress Street. This would provide for improved sight distance for pedestrians and bicyclists on the east side of the existing Metrolink train crossing. The existing crosswalk on the west side of the tracks would remain to serve pedestrians and bicyclists on the west side of the tracks.



Sources: Summa Architecture, March 2015.

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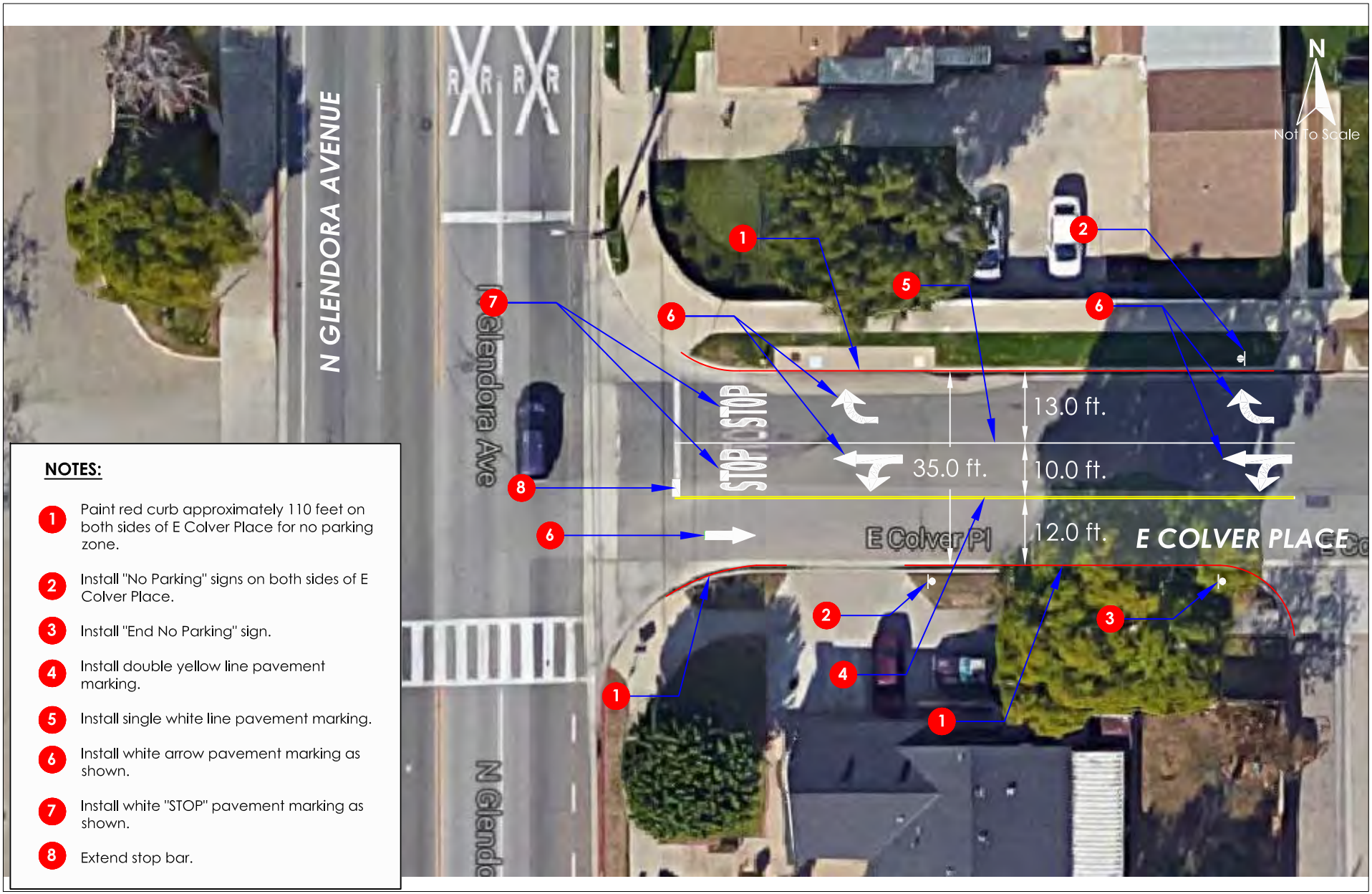
Figure 2
Project Site Plan



NOTES:

1. Paint red curb approximately 110 feet on both sides of E Colver Place for no parking zone.
2. Install "No Parking" signs on both sides of E Colver Place.
3. Install "End No Parking" sign.
4. Install double yellow line pavement marking.
5. Install single white line pavement marking.
6. Install white arrow pavement marking as shown.
7. Install white "STOP" pavement marking as shown.
8. Extend stop bar.

Aerial Source: Google Maps, September 2015.

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One Charter Oak, LLC.
Manager: Sheldon Development, LLC
901 Dove Street, Suite 230
Newport Beach, CA 92660
Phone: (949) 777-9400

Figure 3
Conceptual Striping Plan at
Colver Place and Glendora Avenue

Project Traffic

This section describes the trip generation, distribution, and assignment of the proposed project's traffic volumes on the study area transportation network facilities.

Trip Generation

Weekday daily, a.m. and p.m. peak hour trip generation estimates for the proposed project were developed using trip rates provided in the Institute of Transportation Engineers (ITE) *Trip Generation*, 9th *Edition.* Summaries of the trip generation rates and resulting vehicle trips for the proposed project are presented in Table D.

According to the table, the proposed project would generate approximately 600 daily trips, 47 a.m. peak hour trips (12 inbound and 35 outbound), and 63 p.m. peak hour trips (40 inbound and 23 outbound).

Table D – Proposed Project Trip Generation Estimates

Land Use	Size/Units	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
TRIP RATES								
Single-Family Detached Housing (ITE 210)	per DU	9.52	0.19	0.56	0.75	0.63	0.37	1.00
TRIP GENERATION								
Single-Family Homes	63 Dus	600	12	35	47	40	23	63
	Total Trip Generation	**600**	**12**	**35**	**47**	**40**	**23**	**63**

Notes:

Trip rates and equations obtained from *Trip Generation, 9th Edition*, Institute of Transportation Engineers, 2012.

Trip Distribution and Assignment

A majority of project-related traffic would be oriented to and from I-10, SR 57, and I-210. Figure 4 illustrates the project's trip distribution and assignment to the study area street network.

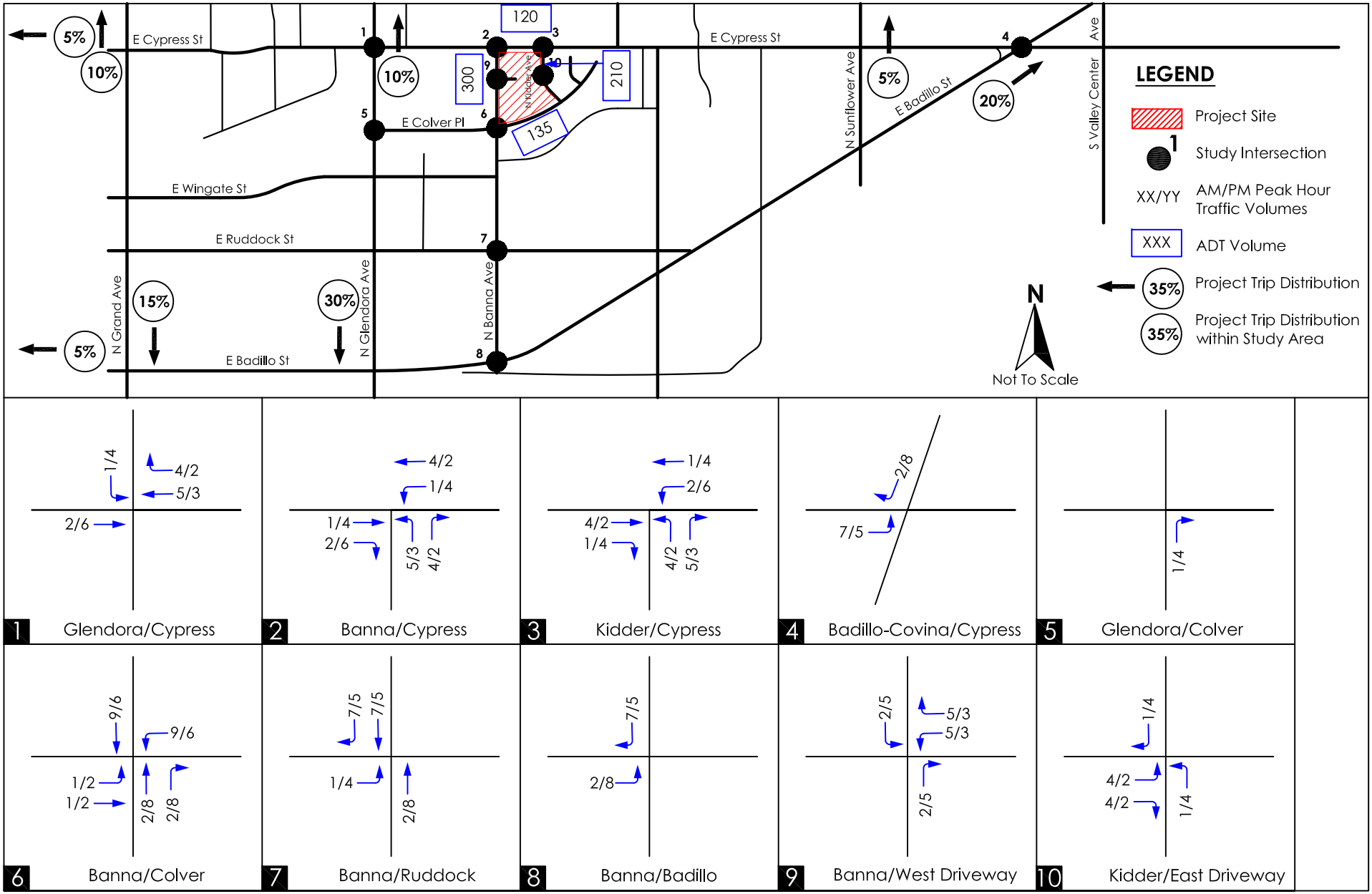

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Figure 4
Project Trip Distribution and Assignment

3.0 EXISTING CONDITIONS ANALYSIS

The following section describes the existing traffic conditions in the project study area. Existing weekday a.m. and p.m. peak hour traffic volumes were collected in mid-February 2015 at the study area intersections and roadway segments. As previously mentioned, traffic counts were recently collected in August 2015, after the adjacent Charter Oak High School started its 2015-2016 school year. Based on comparison of those counts with the February 2015 counts, the February counts had higher traffic volumes at all roadway segments and intersections when compared to the August 2015 counts. Per direction of the City Traffic Engineer[1], the counts from February 2015 were to be used as the basis of the traffic analysis. Both sets of traffic counts (February and August 2015) are included in Appendix B.

In addition, pedestrian counts at the mid-block crosswalk on Cypress Street, near the railroad tracks, we collected during the a.m. peak hour and the after-school peak hour (of the adjacent Charter Oak High School). Pedestrian and bicycle counts were also collected at all of the study area intersections for the weekday a.m. peak hour and after-school peak hour.

Existing Conditions

Roadways

Glendora Avenue

Glendora Avenue in the project vicinity is not specifically classified in the City's Circulation Element, but operates as a Secondary Arterial Street. It runs in a north-south direction throughout the City. Glendora Avenue provides local access to the project site, and is an undivided roadway with two through lanes per direction in the vicinity of the proposed project. There are left-turn storage lanes at major signalized intersections. On-street parking is prohibited on both sides of the street and there is a Class II, striped bicycle lane on both sides. Land uses in the project vicinity along Glendora Avenue are retail/commercial and residential (single- and multi-family).

Cypress Street

Cypress Street is not specifically classified in the City's Circulation Element, but also operates as a Secondary Arterial Street. It runs in an east-west direction throughout the City. Cypress Street provides local and direct access to project site, has two through lanes in each direction, and is an undivided roadway. On-street vehicle parking is prohibited on both sides of the street. Land uses along Cypress Street in the project vicinity are primarily single-family residential and Charter Oak High School on the north side of the street, across from the project site. There is no posted speed limit, except for 25 MPH in front of the school, when children are present. At the intersection of Banna Avenue, there is a Metrolink railroad crossing with a mid-block crosswalk primarily serving students of the adjacent high school, located west of the railroad crossing.

Banna Avenue

Banna Avenue is a discontinuous residential street that runs in a north-south direction. In the project vicinity, Banna Avenue is continuous from Cypress Street to Badillo Street, and primarily serves single-family residences. Banna Avenue is a two-lane undivided residential roadway with driveways and sidewalks on both sides of the street. On-street parking is permitted on both sides of the street. At its intersection with Cypress Street, there is a Metrolink railroad crossing that runs through the center of the intersection in a diagonal fashion (southwest to northeast, and vice-versa).

[1] E-mail correspondence from Kamran Saber on September 1, 2015.

Intersection Geometrics and Traffic Volumes

Figure 5 illustrates the existing traffic controls and lane geometrics at the study area intersections. Existing weekday a.m. and p.m. hour traffic volumes and pedestrian/bicycle counts were collected in mid-February 2015 at the study area intersections. Figure 6 illustrates the existing weekday a.m. and p.m. peak hour traffic volumes at the study intersections. The raw traffic volume count sheets are provided in Appendix B.

Level of Service Analysis

Intersections

Based on the analysis methodology described in Section 1.0, the existing weekday a.m. and p.m. peak hour traffic volumes were input into the *Traffix* LOS software to determine the existing intersection V/C ratios and resulting LOS values. Table E presents the results of the existing intersection LOS analysis for the weekday a.m. and p.m. peak hours. The LOS calculation sheets are provided in Appendix C.

Table E – Existing Peak Hour Intersection Level of Service Summary

		AM Peak Hour		PM Peak Hour	
Intersection	**Control**	**V/C or Delay**	**LOS**	**V/C or Delay**	**LOS**
1. Glendora Avenue/Cypress Street	signal	0.657	B	0.507	A
2. Banna Avenue/Cypress Street	1-way stop	15.2 sec	C	13.6 sec	B
3. Kidder Avenue/Cypress Street	1-way stop	11.3 sec	B	13.9 sec	B
4. Badillo Street/Cypress Street	signal	0.614	B	0.530	A
5. Glendora Avenue/Colver Place	2-way stop	34.9 sec	D	22.5 sec	C
6. Banna Avenue/Colver Place	all-way stop	8.2 sec	A	7.4 sec	A
7. Banna Avenue/Ruddock Street	all-way stop	9.8 sec	A	7.6 sec	A
8. Banna Avenue/Badillo Street	signal	0.784	C	0.503	A
9. Kidder Avenue/Primary Driveway	*DNE*	*does not exist*		*does not exist*	
10. Banna Avenue/Secondary Dwy	*DNE*	*does not exist*		*does not exist*	

Notes: LOS determined using ICU method for signalized intersections; HCM for unsignalized.
BOLD value indicates unsatisfactory LOS.

Based on the existing weekday a.m. and p.m. peak hour LOS analysis, all of the study area intersections are currently operating with satisfactory LOS at LOS D or better in the a.m. and p.m. peak hours.

Roadway Segments

Existing daily roadway segment counts were collected in mid-February 2015 at the study roadway segments surrounding the project site. Table F shows the roadway segment daily traffic volumes and levels of service.

According to the table, all study area roadway segments are currently operating within their acceptable capacity limits at LOS A.

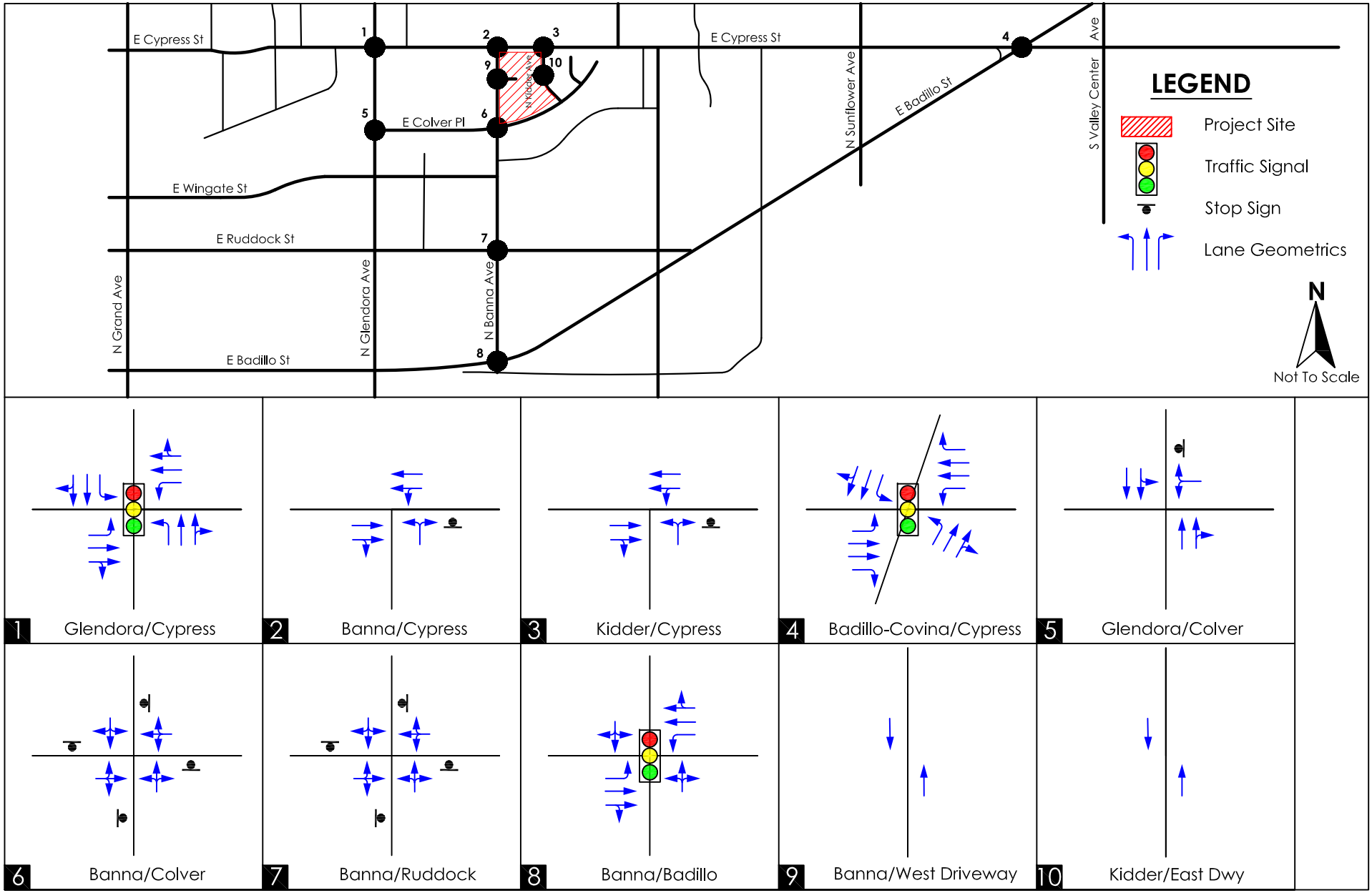

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Figure 5
Existing Intersection Geometrics and Traffic Control

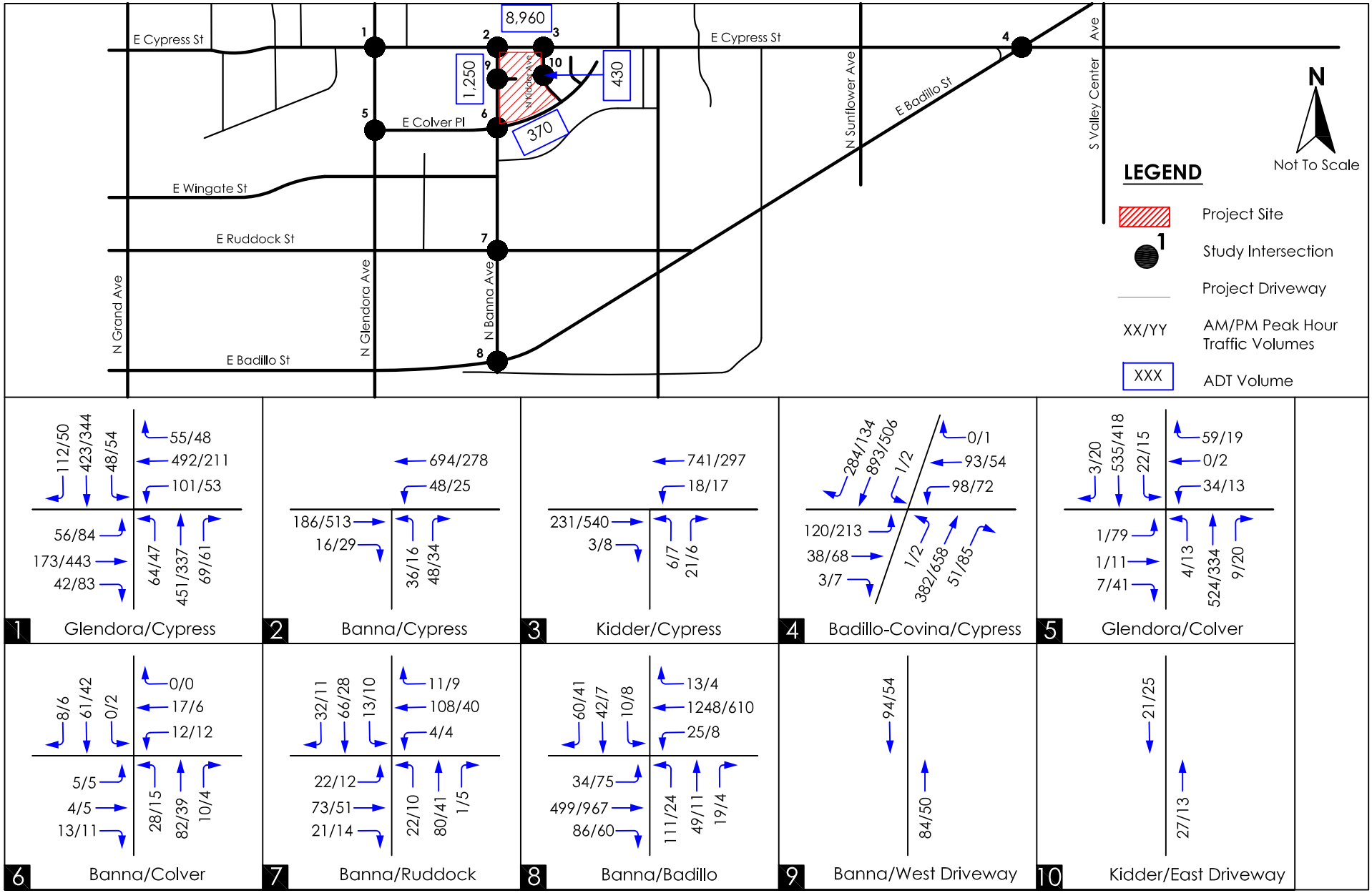

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Figure 6
Existing Weekday Daily, AM and PM Peak Hour Volumes

Table F – Existing Roadway Segment Daily Level of Service Summary

Roadway Segment	LOS E Capacity	Existing Condition ADT	V/C Ratio	LOS
Cypress Street				
Banna Avenue to Kidder Avenue	25,000	8,960	0.358	A
Banna Avenue				
Cypress Street to Colver Place	5,000	1,250	0.250	A
Colver Place				
Banna Avenue to Kidder Avenue	5,000	370	0.074	A
Kidder Avenue				
Cypress Street to Colver Place	5,000	430	0.086	A

Notes: **XX** Roadway LOS calculated to be below City's standard of LOS D.

Transit Service

Transit services in the project vicinity are provided by Foothill Transit and Metrolink. Foothill Transit Bus Line 284, West Covina – Covina – San Dimas - Glendora, provides service to destinations such as South Hills High School, Aurora Charter Oak Hospital, Charter Oak High School, San Dimas Hospital, San Dimas High School, Kaiser Permanente, Glendora High School, Foothill Presbyterian Hospital, Glendora Public Library, Whitcomb Continuation High School, East Valley Hospital Medical Center, and Eastland Center. Weekday service starts at 6:00 a.m. and ends at 7:22 p.m. Weekend and holiday service starts at 6:25 a.m. and ends at 7:36 p.m.

Metrolink provides regional and local rail service to the area via its station, the Covina Metrolink Station, located approximately 2.0 miles west of the project site at 600 N. Citrus Avenue, Covina. This station serves the Metrolink San Bernardino Line which originates at Los Angeles Union Station and ends at the San Bernardino Metrolink Station. In the project vicinity, there is a Metrolink track crossing at the intersection of Banna Avenue/Cypress Street. The following are train crossing data based on pedestrian and bicycle counts collected in mid-February at the crossing:

- There were four Metrolink trains (only) that ran in the westbound direction during the a.m. peak hour with approximately 10-15 minute headways.
- There were four Metrolink trains (only) that ran in the eastbound direction during the p.m. peak hour with approximately 20 minute headways.
- The gate arms at the crossing were down for approximately 6 to 8 seconds during each train passing.
- Train crossings during the after-school peak hour are less than frequent with two train crossings (one eastbound and one westbound train).

Pedestrian and Bicycle Facilities

Currently, there are continuous sidewalks that exist along both sides of Cypress Street, Banna Avenue, Kidder Avenue, and Colver Place surrounding the project site. There are three basic categories of bike trails within the City, as defined by Caltrans. Class I bike paths involve designs which are completely separated from traffic lanes. Class II paths are on-street paths that are located along the edge of a street with a striped lane denoting this bike path. Class III paths also are located along a street edge, but are not striped. These paths are identified by street signs

only. Currently within the study area, Glendora Avenue provides a Class II, striped bicycle lane on both sides of the street.

There are sidewalks on both sides of street on all adjacent roadway segments (Cypress Street, Banna Avenue, Kidder Place, and Colver Avenue). In addition, there are crosswalks at the adjacent intersections to the project site located across the stopped approach of the intersection. There is also a mid-block crosswalk on Cypress Street, west of Banna Avenue, which primarily serves to connect pedestrians to Charter Oak High School from the residential areas south of Cypress Street. The following are pedestrian crossing data based on pedestrian and bicycle counts collected in mid-February and August (peak volumes noted) at the crossing:

- 19 pedestrians (19 northbound and zero southbound) and four (two northbound and two southbound) bikes crossing in the crosswalk during the a.m. peak hour.
- One eastbound bike and three westbound bikes traveling on the street in the a.m. peak hour (zero bikes used the crosswalk).
- 11 pedestrians (zero northbound and 11 southbound) and zero bikes crossing in the crosswalk during the after-school peak hour.
- One eastbound bike and two westbound bikes traveling on the street in the after-school peak hour (zero bikes used the crosswalk).

Existing plus Project Conditions

Traffic generated by the proposed project was added to the Existing Baseline scenario and the project impacts on the circulation system were analyzed. This scenario would determine project-specific impacts and mitigation measures (if required).

Intersection Geometrics and Traffic Volumes

Intersection geometrics at most of the study intersections will remain unchanged with exception of a project-conditioned striping improvement at Glendora Avenue/Colver Place. This improvement would restripe the east leg of the Glendora Avenue/Colver Place intersection to provide two westbound approach lanes and one eastbound return lane. The westbound approach will be striped to have a shared left plus through lane, and a dedicated right turn lane. This improvement was included in the Existing plus Project LOS analysis.

The proposed project trip assignment for the weekday a.m. and p.m. peak hours, noted in Figure 4, were added to the Existing Baseline weekday a.m. and p.m. peak hour traffic volumes in Figure 6, which resulted in the Existing plus Project traffic volumes. Figure 7 illustrates the Existing plus Project weekday daily, a.m. and p.m. peak hour traffic volumes at the study intersections.

Level of Service Analysis

Intersections

Based on the analysis methodology described in Section 1.0, the Existing plus Project weekday a.m. and p.m. peak hour traffic volumes were input into the *Traffix* LOS software to determine the intersection ICU and LOS values. Table G presents the results of the Existing plus Project intersection LOS analysis, while the LOS calculation sheets are provided in Appendix C.

Based on the Existing plus Project LOS analysis, and the significance criteria of the City, the proposed project would not create any significant impacts to the study area intersections. All study intersections would remain at LOS D or better in both peak hours. With the project-

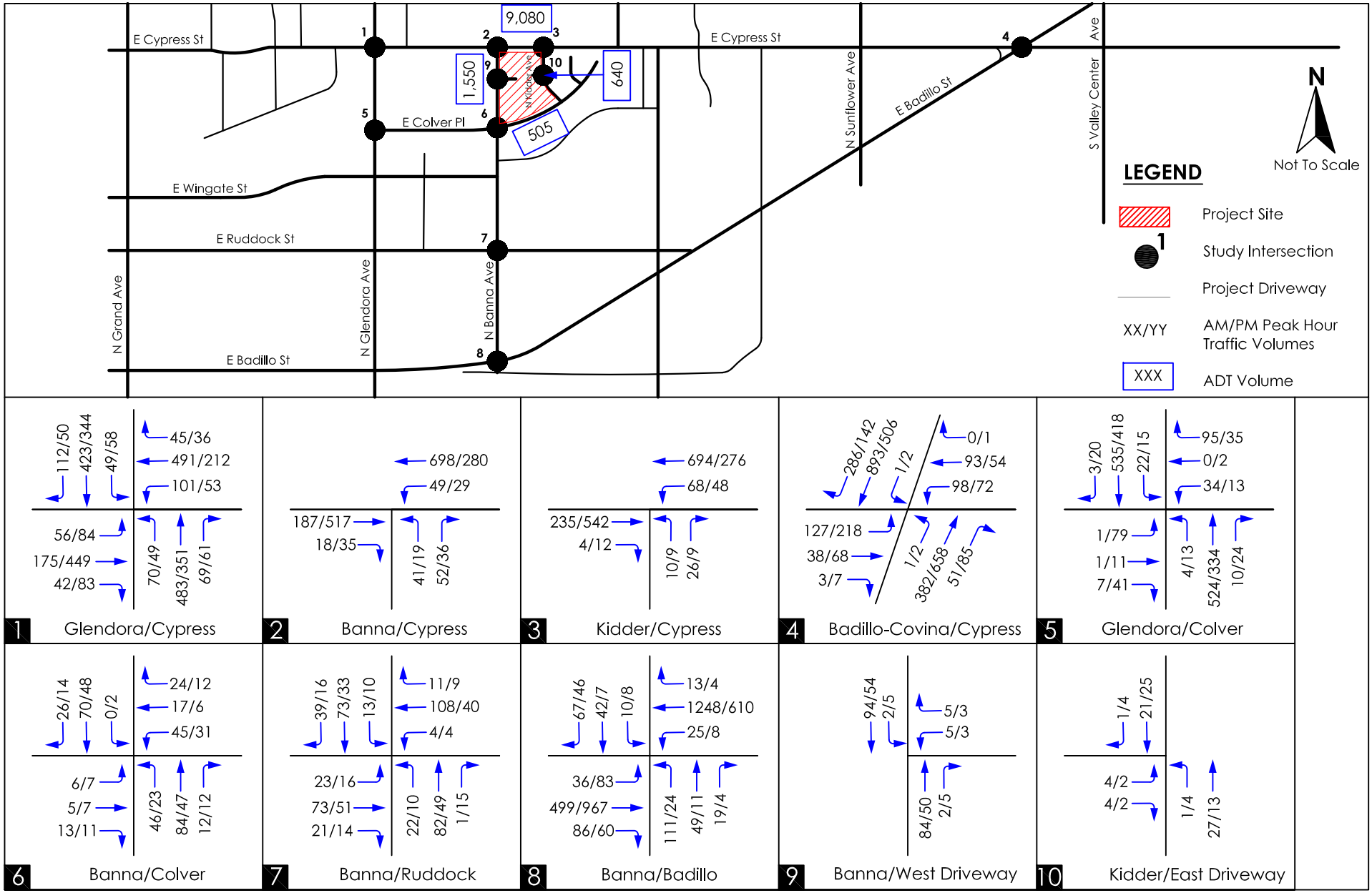

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Figure 7
Existing plus Project Weekday Daily, AM and PM Peak Hour Volumes

Table G – Existing plus Project Intersection Level of Service Summary

Intersection	Control	Existing Condition				Existing plus Project				Difference	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
		V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	AM	PM
1. Glendora Avenue/Cypress Street	signal	0.657	B	0.507	A	0.661	B	0.509	A	+0.004	+0.002
2. Banna Avenue/Cypress Street	1-way stop	15.2 sec	C	13.6 sec	B	16.0 sec	C	14.2 sec	B	+0.8 sec	+0.6 sec
3. Kidder Avenue/Cypress Street	1-way stop	11.3 sec	B	13.9 sec	B	12.9 sec	B	14.6 sec	B	+1.6 sec	+0.7 sec
4. Badillo Street/Cypress Street	signal	0.614	B	0.530	A	0.619	B	0.534	A	+0.005	+0.004
5. Glendora Avenue/Colver Place	2-way stop	34.9 sec	D	22.5 sec	C	22.3 sec	C	23.2 sec	C	-11.7 sec	+0.7 sec
6. Banna Avenue/Colver Place	all-way stop	8.2 sec	A	7.4 sec	A	8.9 sec	A	7.8 sec	A	+0.7 sec	+0.4 sec
7. Banna Avenue/Ruddock Street	all-way stop	9.8 sec	A	7.6 sec	A	10.0 sec	A	7.7 sec	A	+0.2 sec	+0.1 sec
8. Banna Avenue/Badillo Street	signal	0.784	C	0.503	A	0.793	C	0.507	A	+0.009	+0.004
9. Kidder Avenue/Primary Driveway	1-way stop	*does not exist*		*does not exist*		8.7 sec	A	8.6 sec	A	+8.7 sec	+8.6 sec
10. Banna Avenue/Secondary Dwy	1-way stop	*does not exist*		*does not exist*		9.6 sec	A	9.0 sec	A	+9.6 sec	+9.0 sec

Notes: LOS determined using ICU method for signalized intersections, and HCM method for unsignalized intersections and freeway ramps.
BOLD value indicates unsatisfactory LOS.
BOLD value indicates significant project impact (LOS E or F from LOS D in baseline; or, greater than 0.020 V/C increase at LOS E or F in baseline; or, ≥ 2.0 seconds of delay at unsignalized intersection at LOS E or F in baseline)

conditioned improvement at Glendora Avenue/Colver Place, the intersection would improve from LOS D in the a.m. peak hour (existing condition), to LOS C (Existing plus Project condition). In the p.m. peak hour, the LOS would remain at LOS C.

Roadway Segments

Existing plus Project daily roadway segment volumes for the study roadway segments surrounding the project site are shown in Table H.

Table H – Existing plus Project Roadway Segment Daily Level of Service Summary

		Existing Condition			Existing plus Project			
Roadway Segment	LOS E Capacity	ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS	Difference
Cypress Street								
Banna Avenue to Kidder Avenue	25,000	8,960	0.358	A	9,080	0.363	A	0.005
Banna Avenue								
Cypress Street to Colver Place	5,000	1,250	0.250	A	1,550	0.310	A	0.060
Colver Place								
Banna Avenue to Kidder Avenue	5,000	370	0.074	A	505	0.101	A	0.027
Kidder Avenue								
Cypress Street to Colver Place	5,000	430	0.086	A	640	0.128	A	0.042

Notes: XX Roadway LOS calculated to be below City's standard of LOS D.
XX Roadway significantly impacted by project per City's Signficance Criteria.

According to the table, all study area roadway segments are forecast to continue to operate within their acceptable capacity limits, with the addition of project traffic, at LOS A.

Mitigation Measures

No mitigation measures are required.

4.0 SHORT-TERM YEAR 2018 TRAFFIC CONDITIONS

This section describes the future traffic conditions related to the following traffic scenarios:

- Short-Term Year 2018 Baseline
- Short-Term Year 2018 plus Project

Short-Term Year 2018 Condition

The proposed project is anticipated to be built and fully occupied by 2018. Therefore, short-term background traffic in this scenario was forecast for 2018 by applying a conservative annual ambient growth rate of one percent per year. In addition, traffic from cumulative projects in the project vicinity were added to the existing and ambient traffic growth volumes.

Traffic Controls and Intersection Geometrics

There no improvements planned for the study area roadways and intersection through the 2018 Short-Term horizon year. Therefore, the existing intersection traffic controls and geometrics were assumed for those intersections and roadway segments in the 2018 level of service analysis.

Traffic Volumes

As discussed above, Short-Term 2018 baseline traffic volumes were forecast by applying a conservative annual growth rate of one (1) percent per year, plus the addition of traffic from cumulative development. Per the CMP, the average annual growth rate for project's Regional Statistical Area (RSA) 26 – West Covina, is 0.46 percent. Therefore, the total ambient growth adjustment applied over a two-year period (from 2015 to 2018) is 3.0 percent. Table I presents the list of cumulative developments that would generate traffic in the study area, and their anticipated trip generation estimates, while Figure 8 illustrates the locations of the cumulative projects relative to the proposed project site. Appendix D contains the City's Cumulative Projects List.

According to the table, the cumulative projects would generate a total of approximately 2,315 daily trips, 123 a.m. peak hour trips (36 inbound and 87 outbound), and 206 p.m. peak hour trips (120 inbound and 86 outbound). Figure 9 illustrates the Short-Term 2018 Baseline daily, a.m. and p.m. peak hour volumes.

Level of Service Analysis

Intersections

The Short-Term Year 2018 Baseline weekday a.m. and p.m. peak hour traffic volumes were input into the *Traffix* LOS software to determine the ICU and resulting LOS values. Table J presents the results of the Short-Term Year 2018 Baseline intersection LOS analysis, while the LOS calculation sheets are provided in Appendix C.

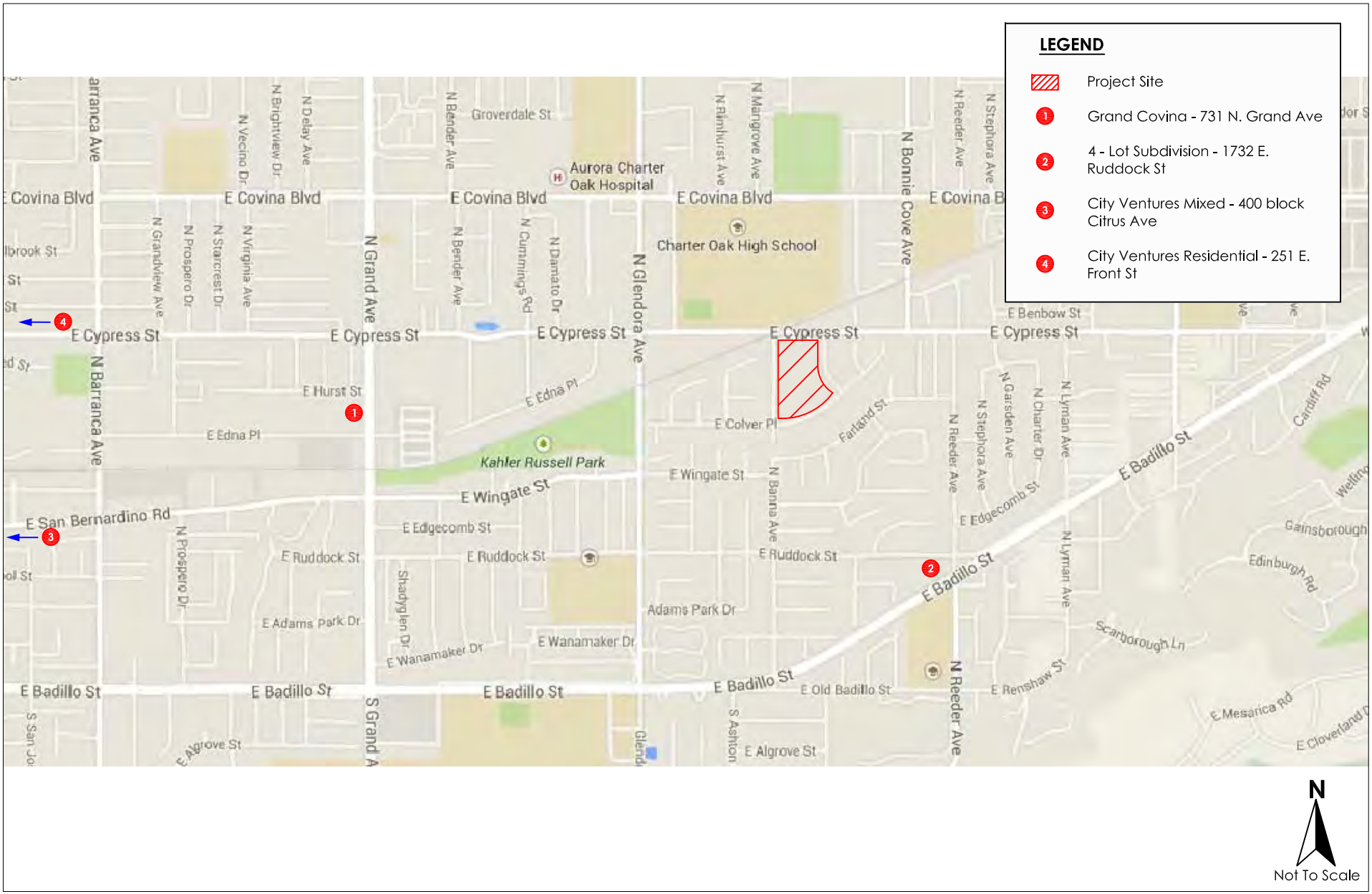
Based on the Short-Term Year 2018 Baseline weekday a.m. and p.m. peak hour LOS analysis, most of the study area intersections are forecast to continue to operate with satisfactory LOS at LOS D or better in the a.m. and p.m. peak hours, except for the intersection of Glendora Avenue/Colver Place which is forecast to operate at LOS E in the a.m. peak hour (without the proposed project).

Table I – Cumulative Projects Trip Generation Estimates

Land Use	Size/Units	Daily	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total
TRIP RATES								
Single-Family Detached Housing (ITE 210)	per DU	9.52	0.19	0.56	0.75	0.63	0.37	1.00
Residential Condo/Townhouse (ITE 230)	per DU	5.81	0.07	0.37	0.44	0.35	0.17	0.52
Shopping Center (ITE 820)	per TSF	*ITE*	*ITE equation used*			*ITE equation used*		
TRIP GENERATION								
1. Grand Covina, 731 N. Grand Avenue & 777-847 E. Edna Place, Covina								
Single-Family Housing	35 DUs	333	7	20	26	22	13	35
Condominums	32 DUs	186	2	12	14	11	5	17
Retail/commercial buildings	5.000 TSF	969	16	10	25	39	42	81
pass-by trips (34%)		*-329*	*-5*	*-3*	*-9*	*-13*	*-14*	*-27*
Subtotal Net Trip Generation		**1,159**	**19**	**38**	**57**	**59**	**46**	**105**
2. 4-lot Subdivision, 1732 E. Ruddock Street, Covina								
Single-Family Housing	4 DUs	38	1	2	3	3	1	4
Subtotal Net Trip Generation		**38**	**1**	**2**	**3**	**3**	**1**	**4**
3. City Ventures Mixed-Use Development, 400 block N. Citrus Avenue, Covina								
Condominums	68 DUs	395	5	25	30	24	12	35
Retail/commercial buildings	2.741 TSF	656	11	7	17	26	28	54
pass-by trips (34%)		*-223*	*-4*	*-2*	*-6*	*-9*	*-10*	*-18*
Subtotal Net Trip Generation		**828**	**12**	**29**	**41**	**41**	**30**	**71**
4. City Ventures Residential Development, 251 E. Front Street, Covina								
Condominums	50 DUs	291	4	18	22	17	9	26
Subtotal Net Trip Generation		**291**	**4**	**18**	**22**	**17**	**9**	**26**
TOTAL CUMULATIVE PROJECTS NET TRIP GENERATION		**2,315**	**36**	**87**	**123**	**119**	**86**	**206**

Notes:

Trip generation rates based on *Trip Generation, 9th Edition*, Institute of Transportation Engineers (ITE), 2012.



Not To Scale

Map Sources: Google Maps, March 2015.

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Figure 8
Cumulative Projects Location Map

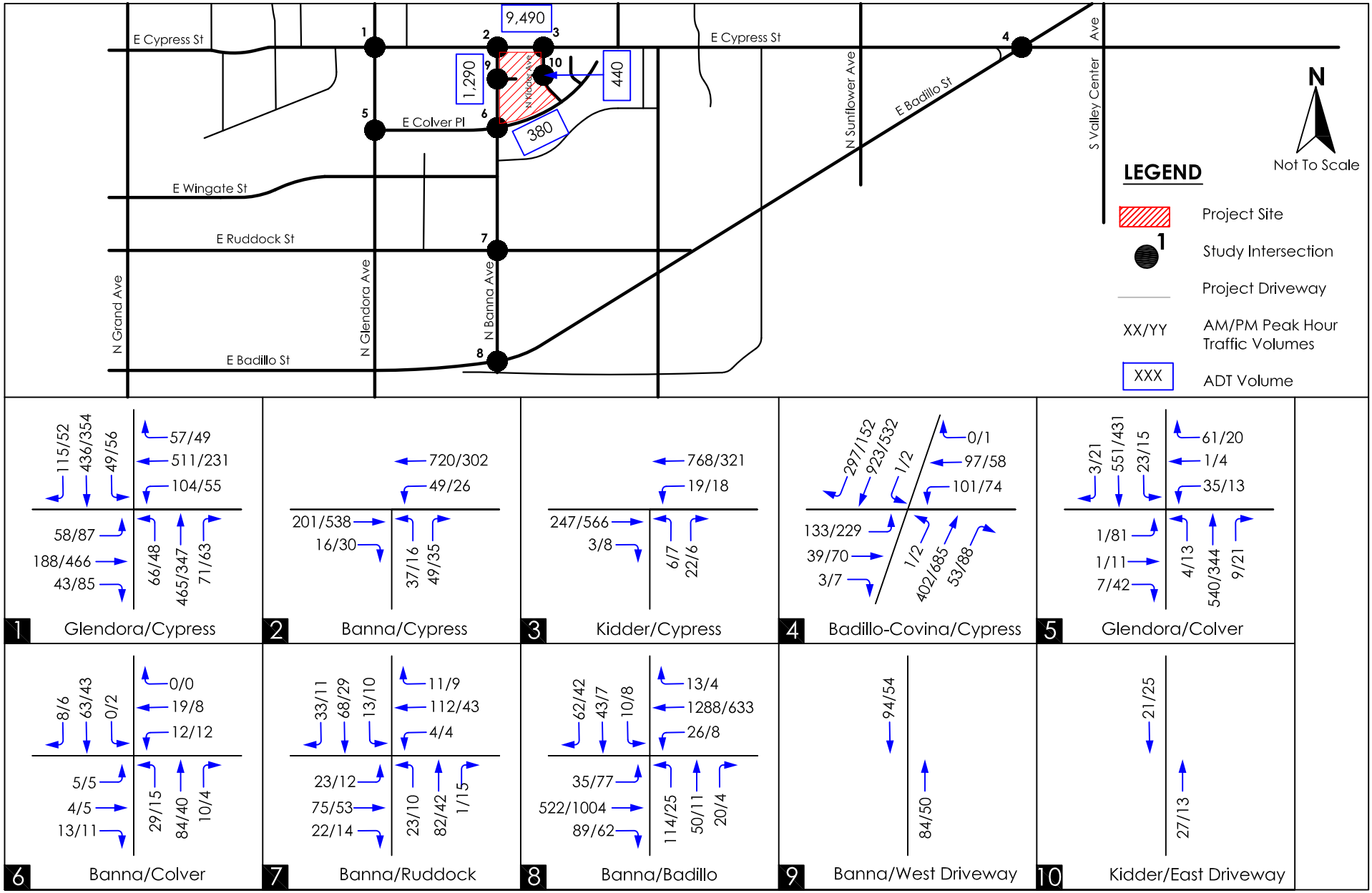

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Figure 9
Short-Term Year 2018 Weekday Daily, AM and PM Peak Hour Volumes

Table J – Short-Term Year 2018 Peak Hour Intersection Level of Service Summary

Intersection	Control	AM Peak Hour V/C or Delay	AM Peak Hour LOS	PM Peak Hour V/C or Delay	PM Peak Hour LOS
1. Glendora Avenue/Cypress Street	signal	0.676	B	0.523	A
2. Banna Avenue/Cypress Street	1-way stop	16.1 sec	C	14.1 sec	B
3. Kidder Avenue/Cypress Street	1-way stop	11.5 sec	B	14.4 sec	B
4. Badillo Street/Cypress Street	signal	0.639	B	0.553	A
5. Glendora Avenue/Colver Place	2-way stop	**40.5 sec**	**E**	24.2 sec	C
6. Banna Avenue/Colver Place	all-way stop	8.2 sec	A	7.5 sec	A
7. Banna Avenue/Ruddock Street	all-way stop	9.9 sec	A	7.7 sec	A
8. Banna Avenue/Badillo Street	signal	0.804	D	0.518	A
9. Kidder Avenue/Primary Driveway	*DNE*	*does not exist*		*does not exist*	
10. Banna Avenue/Secondary Dwy	*DNE*	*does not exist*		*does not exist*	

Notes: LOS determined using ICU method for signalized intersections; HCM for unsignalized.
BOLD value indicates unsatisfactory LOS.

Roadway Segments

Short-Term 2018 Baseline daily roadway volumes were forecast at the study roadway segments surrounding the project site. Table K shows the roadway segment daily traffic volumes and levels of service.

Table K – Short-Term 2018 Baseline Roadway Segment Daily Level of Service Summary

Roadway Segment	LOS E Capacity	Short-Term 2018 Baseline ADT	V/C Ratio	LOS
Cypress Street				
Banna Avenue to Kidder Avenue	25,000	9,490	0.380	A
Banna Avenue				
Cypress Street to Colver Place	5,000	1,290	0.258	A
Colver Place				
Banna Avenue to Kidder Avenue	5,000	380	0.076	A
Kidder Avenue				
Cypress Street to Colver Place	5,000	440	0.088	A

Notes: **XX** Roadway LOS calculated to be below City's standard of LOS D.

According to the table, all study area roadway segments are forecast to continue to operate within their acceptable capacity limits at LOS A.

Short-Term Year 2018 plus Project Condition

Traffic generated by the proposed project was added to the Short-Term Year 2018 Baseline scenario and the project impacts on the circulation system were analyzed. This scenario would also determine project-specific impacts and mitigation measures (if required).

Intersection Geometrics and Traffic Volumes

Intersection geometrics at most of the study intersections will remain unchanged with exception of a project-conditioned striping improvement at Glendora Avenue/Colver Place. This improvement would restripe the east leg of the Glendora Avenue/Colver Place intersection to provide two westbound approach lanes and one eastbound return lane. The westbound approach will be striped to have a shared left plus through lane, and a dedicated right turn lane. This improvement was included in the Short-Term Year 2018 plus Project LOS analysis.

The proposed project trip assignment noted in Figure 4 was added to the Short-Term Year 2018 Baseline weekday a.m. and p.m. peak hour traffic volumes shown in Figure 9. This resulted in the Short-Term Year 2018 plus Project traffic volumes. Figure 10 illustrates the Short-Term Year 2018 plus Project weekday a.m. and p.m. peak hour traffic volumes.

Level of Service Analysis

Intersections

Based on the analysis methodology described in Section 1.0, the Short-Term Year 2018 plus Project weekday a.m. and p.m. peak hour traffic volumes were input into the *Traffix* LOS software to determine the intersection ICU and LOS values. Table L presents the results of the Short-Term Year 2018 plus Project intersection LOS analysis, while the LOS calculation sheets are provided in Appendix C.

Based on the Opening Year 2018 plus Project LOS analysis, and the significance criteria of the City, the proposed project would not create any significant impacts to the study area intersections. All study intersections are forecast to operate at LOS D or better in both peak hours. With the project-conditioned improvement at Glendora Avenue/Colver Place, the intersection would improve from LOS E a.m. peak hour (Short-Term Baseline condition), to LOS D (Short-Term plus Project condition). In the p.m. peak hour, the LOS would remain at LOS C.

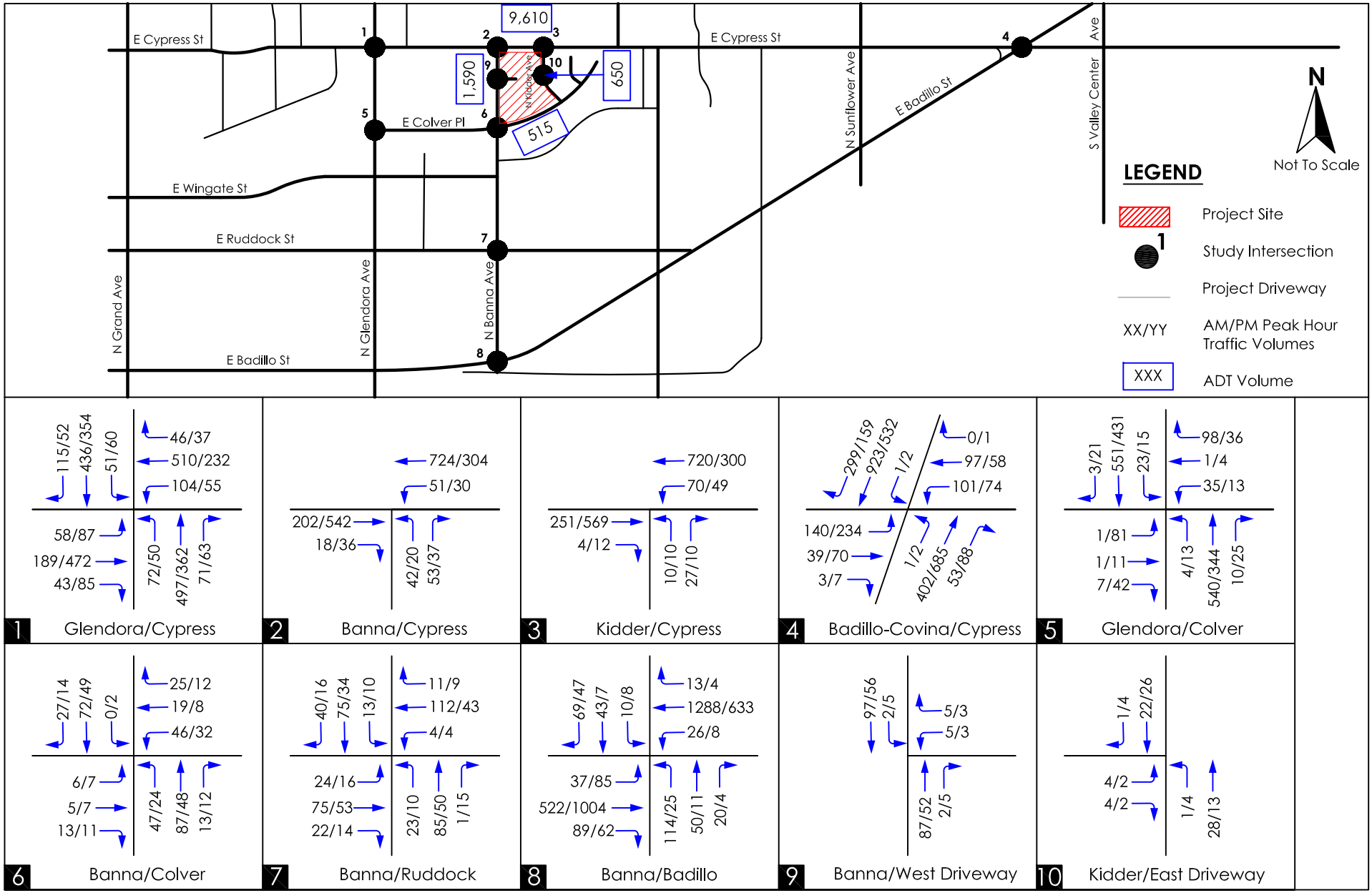
Roadway Segments

Short-Term 2018 plus Project daily roadway segment volumes for the study roadway segments surrounding the project site are shown in Table M.

Table M – Short-Term 2018 plus Project Roadway Segment Daily Level of Service Summary

		Short-Term 2018 Baseline			Short-Term 2018 plus Project			
Roadway Segment	LOS E Capacity	ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS	Difference
Cypress Street								
Banna Avenue to Kidder Avenue	25,000	9,490	0.380	A	9,610	0.384	A	0.005
Banna Avenue								
Cypress Street to Colver Place	5,000	1,290	0.258	A	1,590	0.318	A	0.060
Colver Place								
Banna Avenue to Kidder Avenue	5,000	380	0.076	A	515	0.103	A	0.027
Kidder Avenue								
Cypress Street to Colver Place	5,000	440	0.088	A	650	0.130	A	0.042

Notes: **XX** Roadway LOS calculated to be below City's standard of LOS D.
XX Roadway significantly impacted by project per City's Signficance Criteria.



arch beach CONSULTING

Figure 10
Short-Term Year 2018 plus Project Weekday Daily, AM and PM Peak Hour Volumes

Table L – Short-Term Year 2018 plus Project Intersection Level of Service Summary

Intersection	Control	Short-Term Baseline Condition				Short-Term plus Project				Difference	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
		V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	AM	PM
1. Glendora Avenue/Cypress Street	signal	0.676	B	0.523	A	0.680	B	0.525	A	+0.004	+0.002
2. Banna Avenue/Cypress Street	1-way stop	16.1 sec	C	14.1 sec	B	17.0 sec	C	14.9 sec	B	+0.9 sec	+0.8 sec
3. Kidder Avenue/Cypress Street	1-way stop	11.5 sec	B	14.4 sec	B	13.2 sec	B	15.2 sec	C	+1.7 sec	+0.8 sec
4. Badillo Street/Cypress Street	signal	0.639	B	0.553	A	0.644	B	0.557	A	+0.005	+0.004
5. Glendora Avenue/Colver Place	2-way stop	**40.5 sec**	**E**	24.2 sec	C	25.3 sec	D	24.9 sec	C	-15.2 sec	+0.7 sec
6. Banna Avenue/Colver Place	all-way stop	8.2 sec	A	7.5 sec	A	9.0 sec	A	7.9 sec	A	+0.8 sec	+0.4 sec
7. Banna Avenue/Ruddock Street	all-way stop	9.9 sec	A	7.7 sec	A	10.2 sec	B	7.8 sec	A	+0.3 sec	+0.1 sec
8. Banna Avenue/Badillo Street	signal	0.804	D	0.518	A	0.813	D	0.522	A	+0.009	+0.004
9. Kidder Avenue/Primary Driveway	1-way stop	*does not exist*		*does not exist*		8.7 sec	A	8.6 sec	A	+8.7 sec	+8.6 sec
10. Banna Avenue/Secondary Dwy	1-way stop	*does not exist*		*does not exist*		9.6 sec	A	9.0 sec	A	+9.6 sec	+9.0 sec

Notes: LOS determined using ICU method for signalized intersections, and HCM method for unsignalized intersections and freeway ramps.
BOLD value indicates unsatisfactory LOS.
BOLD value indicates significant project impact (LOS E or F from LOS D in baseline; or, greater than 0.020 V/C increase at LOS E or F in baseline; or, ≥ 2.0 seconds of delay at unsignalized intersection at LOS E or F in baseline)

According to the table, all study area roadway segments are forecast to continue to operate within their acceptable capacity limits, with the addition of project traffic, at LOS A.

Mitigation Measures

No mitigation measures are required.

5.0 PROJECT ACCESS, CIRCULATION AND PARKING

The following section discusses the proposed project's access, circulation, and parking characteristics. If required, mitigation measures will be proposed to mitigate impacts to less than significant levels.

Project Access

The primary access to the site would occur on Kidder Avenue, approximately midway between Cypress Street and Colver Place. Secondary access would occur on Banna Avenue, between Cypress Street and Colver Place. Both access locations are proposed to be unsignalized with full-access, and with no gate control. There would also be clear lines of sight along Banna Avenue and Kidder Avenue at both new intersections.

Based on the intersection LOS at Kidder Avenue/Primary Project Access and Banna Avenue/Secondary Project Access, both access intersections are forecast to operate with satisfactory LOS at LOS A in both peak hours, for both the Existing plus Project and Short-Term 2018 plus Project scenarios. Also, based on the forecast satisfactory intersection levels of service (LOS A – C) at the surrounding intersections (Banna Avenue at Cypress Street and Colver Place; and, Kidder Avenue at Cypress Street and Colver Place); and, the surrounding roadway segment LOS for both the Existing- and Short-Term plus Project scenarios, the proposed project's access locations on Banna Avenue and Kidder Avenue would not have a significant impact to the surrounding street network.

Circulation

On-site vehicular circulation is proposed to be consistent with the adjacent residential neighborhood. Driveway access for 29 of the 63 homes would occur on the existing segments of Banna Avenue, Kidder Avenue, and Colver Place; and, the remaining 34 homes would be located internally within the site and would use a new loop street to gain access to/from Banna Avenue and Kidder Avenue. The loop street would generally be 26 feet to 32 feet wide from curb-to-curb. The loop street is proposed to also be consistent with the adjacent neighborhood and would generally be double-loaded (i.e., home driveways on both sides of the street).

On-site pedestrian and bicycle circulation would occur on the existing sidewalks along Banna Avenue, Kidder Avenue, and Colver Place. The new internal loop street would be designed as a private residential street with no through traffic (resident traffic only) and the loop street would be shared between residents' vehicles and pedestrians (no sidewalks are proposed along the loop street).

The proposed project will be required to design its internal circulation, for vehicles, pedestrians, and bicyclists consistent with the City's Municipal Code and Design Standards.

Parking

Per the City's Municipal Code, *Section 17.72.010 Off-street Parking – Space Requirements,* a single-family home is required to be parked at two (2) spaces per dwelling unit; and, guest spaces shall be provided at one (1) space per every five (5) DUs. Therefore, the proposed 63 single-family home development would require 126 spaces for 63 DUs; and, 13 guest spaces for a total requirement of 139 spaces. The proposed project would provide 126 garage spaces (at two garage spaces per DU) and 24 (in-tract) guest spaces for a total of 150 spaces. Therefore, the proposed project would be consistent with the City's Municipal Code's parking space requirements.

6.0 PROJECT CONSTRUCTION TRAFFIC

The following section provides an analysis of the peak operations of the building construction phase of the proposed project. Based on the construction modeling parameters and assumptions detailed in the air impact analysis prepared for the proposed project, the peak construction activity in terms of traffic generation would be building construction.

Construction Trip Generation

The building construction phase would generate 13 a.m. peak hour inbound construction worker trips and 13 p.m. peak hour outbound construction worker trips. In addition, four (4) materials trucks would arrive in the middle of the day, in between peak hours.

Based on the trip generation analysis in Section 2.0, the proposed project would generate 600 daily trips, including 47 a.m. peak hour trips and 63 p.m. peak hour trips. When comparing the project construction traffic with the project operational (buildout) traffic, traffic generated by building construction would be 72 percent less than the proposed project in the a.m. peak hour and 79 percent less in the p.m. peak hour.

As described in project traffic analysis above (in Sections 3.0 and 4.0), the proposed project would not have any significant impacts at the study area intersections during a.m. and p.m. peak hours. Therefore, the traffic generated by construction activity would not be significant as it is significantly less than the project's buildout traffic.

Haul Routes

Per the City of Covina's Genera Plan Circulation Element, truck travel in the City is facilitated through designated truck routes, typically on primary and secondary arterials, such as Cypress Street and Glendora Avenue. The truck traffic related to construction activities would be required to access the project site via these streets. In addition, the applicant would be required to comply with the City of Covina's Municipal Code Section 10.44 (Truck Routes).

While truck traffic related to construction activities would access the project site as noted above, Section 10.44.030 of the City's Municipal Code states that:

"*…nothing in this section shall prohibit the operator of any vehicle exceeding a maximum gross weight of three tons coming from a truck traffic route having ingress and egress by direct route to and from restricted streets when necessary for the purpose of making pickups or deliveries of goods, wares and merchandise from or to any building or structure located on such restricted streets or for the purpose of delivering materials to be used in the actual and bona fide repair, alteration, remodeling or construction of any building or structure upon such restricted streets for which a building permit has previously been obtained thereof…*"

Therefore, as long as heavy trucks associated with materials deliveries during the construction phase use primary and secondary arterials to access the site, and use the surrounding, adjacent residential streets only to pick-up or drop-off materials associated with the project, the truck traffic related to the project construction would have a less than significant impact to the street network.

7.0 CONCLUSIONS AND RECOMMENDATIONS

The following are the conclusions and recommendations (if any) of the traffic impact analysis, above, for the proposed project:

Project Traffic

The proposed project, the development of 63 single-family homes and a 2.0 acre passive park, would generate approximately 600 daily trips, 47 a.m. peak hour trips (12 inbound and 35 outbound), and 63 p.m. peak hour trips (40 inbound and 23 outbound).

Existing plus Project Conditions

Intersections

Based on the Existing plus Project LOS analysis, and the significance criteria of the City, the proposed project would not create any significant impacts to the study area intersections.

Roadway Segments

All study area roadway segments are forecast to continue to operate within their acceptable capacity limits in the Existing plus Project condition, with the addition of project traffic, at LOS A.

No mitigation measures are required.

Short-Term Year 2018 plus Project Conditions

Intersections

Based on the Opening Year 2018 plus Project LOS analysis, and the significance criteria of the City, the proposed project would not create any significant impacts to the study area intersections.

Roadway Segments

All study area roadway segments are forecast to continue to operate within their acceptable capacity limits in the Short-Term 2018 plus Project condition, with the addition of project traffic, at LOS A.

No mitigation measures are required.

Project Access, Circulation and Parking

Project Access

Based on the intersection LOS at Kidder Avenue/Primary Project Access and Banna Avenue/Secondary Project Access, both access intersections are forecast to operate with satisfactory LOS at LOS A in both peak hours, for both the Existing plus Project and Short-Term 2018 plus Project scenarios. Also, based on the forecast satisfactory intersection levels of service (LOS A – C) at the surrounding intersections (Banna Avenue at Cypress Street and Colver Place; and, Kidder Avenue at Cypress Street and Colver Place); and, the surrounding roadway segment LOS for both the Existing- and Short-Term plus Project scenarios, the proposed project's access locations on Banna Avenue and Kidder Avenue would not have a significant impact to the surrounding street network.

No mitigation measures are required.

Circulation

On-site vehicular circulation is proposed to be consistent with the adjacent residential neighborhood. Driveway access for 29 of the 63 homes would occur on the existing segments of Banna Avenue, Kidder Avenue, and Colver Place; and, the remaining 34 homes would be located internally within the site and would use a new loop street to gain access to/from Banna Avenue and Kidder Avenue. The loop street would generally be 26 feet to 32 feet wide from curb-to-curb. The loop street is proposed to also be consistent with the adjacent neighborhood and would generally be double-loaded (i.e., home driveways on both sides of the street).

On-site pedestrian and bicycle circulation would occur on the existing sidewalks along Banna Avenue, Kidder Avenue, and Colver Place. The new internal loop street would be designed as a private residential street with no through traffic (resident traffic only) and the loop street would be shared between residents' vehicles and pedestrians (no sidewalks are proposed along the loop street).

The proposed project will be required to design its internal circulation, for vehicles, pedestrians, and bicyclists consistent with the City's Municipal Code and Design Standards.

No mitigation measures are required.

Parking

Per the City's Municipal Code, *Section 17.72.010 Off-street Parking – Space Requirements,* a single-family home is required to be parked at two (2) spaces per dwelling unit; and, guest spaces shall be provided at one (1) space per every five (5) DUs. Therefore, the proposed 63 single-family home development would require 126 spaces for 63 DUs; and, 13 guest spaces for a total requirement of 139 spaces. The proposed project would provide 126 garage spaces (at two garage spaces per DU) and 24 (in-tract) guest spaces for a total of 150 spaces. Therefore, the proposed project would be consistent with the City's Municipal Code's parking space requirements.

No mitigation measures are required.

Improvements through Conditions of Approval

Although no significant project-related traffic impacts are anticipated, the City will require the project, through Conditions of Approval, to install the following improvements in improve traffic conditions in the project vicinity:

- Restripe the east leg of the Glendora Avenue/Colver Place intersection to provide two westbound approach lanes and one eastbound return lane. The westbound approach will be striped to have a shared left plus through lane, and a dedicated right turn lane. The additional westbound lane approach would improve vehicle delays and levels of service at the intersection. A conceptual striping plan of this improvement is shown in Figure 3.
- Install a crosswalk, with appropriate signage and warning beacons (if warranted), across Cypress Street on the west leg of the intersection of Kidder Avenue/Cypress Street. This would provide for improved sight distance for pedestrians and bicyclists on the east side of the existing Metrolink train crossing. The existing crosswalk on the west side of the tracks would remain to serve pedestrians and bicyclists on the west side of the tracks.

8.0 REFERENCES

City of Covina, *Covina General Plan Circulation Element*, April 2000.

City of Covina, *Cumulative Projects List*, March 2014.

City of Covina Municipal Code, *Section 17.72.010 Off-street Parking – Space Requirements.*

Institute of Transportation Engineers (ITE) *Trip Generation*, 9th *Edition*, 2012.

Los Angeles County Metropolitan Transportation Authority (MTA), *Guidelines for CMP Transportation Impact Analysis*, Appendix B of the Los Angeles County *Congestion Management Program* (CMP), 2010.

Transportation Research Board, *Highway Capacity Manual*, Special Report No. 209, Washington, D.C., 2000.

APPENDIX A

Raw Traffic Volume Count Sheets

Prepared by NDS/ATD

VOLUME

Cypress St Bet. Banna Ave & Kidder Ave

Day: Thursday
Date: 2/12/2015

City: Covina
Project #: CA15_5076_001

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	4,294	4,669	8,963

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
0:00			7		5		12		12:00			40		53		93	
0:15			3		3		6		12:15			44		55		99	
0:30			5		3		8		12:30			54		60		114	
0:45			2	17	1	12	3	29	12:45			54	192	50	218	104	410
1:00			3		1		4		13:00			40		48		88	
1:15			7		4		11		13:15			68		45		113	
1:30			4		3		7		13:30			56		51		107	
1:45			1	15	1	9	2	24	13:45			53	217	47	191	100	408
2:00			3		1		4		14:00			62		58		120	
2:15			1		3		4		14:15			80		64		144	
2:30			5		1		6		14:30			108		100		208	
2:45			5	14	0	5	5	19	14:45			91	341	88	310	179	651
3:00			1		1		2		15:00			83		62		145	
3:15			1		0		1		15:15			77		64		141	
3:30			0		1		1		15:30			108		60		168	
3:45			2	4	0	2	2	6	15:45			99	367	66	252	165	619
4:00			1		4		5		16:00			114		83		197	
4:15			0		7		7		16:15			119		65		184	
4:30			4		11		15		16:30			137		91		228	
4:45			4	9	7	29	11	38	16:45			122	492	73	312	195	804
5:00			4		17		21		17:00			131		67		198	
5:15			9		22		31		17:15			133		70		203	
5:30			11		37		48		17:30			158		82		240	
5:45			7	31	66	142	73	173	17:45			125	547	81	300	206	847
6:00			22		53		75		18:00			98		63		161	
6:15			15		90		105		18:15			105		61		166	
6:30			25		109		134		18:30			86		63		149	
6:45			34	96	165	417	199	513	18:45			89	378	57	244	146	622
7:00			33		193		226		19:00			80		41		121	
7:15			40		139		179		19:15			54		54		108	
7:30			77		181		258		19:30			59		35		94	
7:45			84	234	229	742	313	976	19:45			46	239	41	171	87	410
8:00			60		137		197		20:00			56		47		103	
8:15			43		101		144		20:15			48		22		70	
8:30			53		107		160		20:30			37		35		72	
8:45			38	194	96	441	134	635	20:45			21	162	24	128	45	290
9:00			40		64		104		21:00			32		25		57	
9:15			26		45		71		21:15			55		11		66	
9:30			26		67		93		21:30			20		26		46	
9:45			42	134	51	227	93	361	21:45			29	136	16	78	45	214
10:00			48		45		93		22:00			25		21		46	
10:15			36		40		76		22:15			14		9		23	
10:30			29		38		67		22:30			25		18		43	
10:45			36	149	48	171	84	320	22:45			14	78	13	61	27	139
11:00			42		41		83		23:00			12		9		21	
11:15			54		51		105		23:15			14		5		19	
11:30			59		38		97		23:30			12		11		23	
11:45			47	202	46	176	93	378	23:45			8	46	6	31	14	77
TOTALS				1099		2373		3472	TOTALS				3195		2296		5491
SPLIT %				31.7%		68.3%		38.7%	SPLIT %				58.2%		41.8%		61.3%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	4,294	4,669	8,963

AM Peak Hour			7:30	7:00	7:00	PM Peak Hour			17:00	14:15	17:00
AM Pk Volume			264	742	976	PM Pk Volume			547	314	847
Pk Hr Factor			0.786	0.810	0.780	Pk Hr Factor			0.866	0.785	0.882
7 - 9 Volume	0	0	428	1183	1611	4 - 6 Volume	0	0	1039	612	1651
7 - 9 Peak Hour			7:30	7:00	7:00	4 - 6 Peak Hour			17:00	16:00	17:00
7 - 9 Pk Volume	0	0	264	742	976	4 - 6 Pk Volume	0	0	547	312	847
Pk Hr Factor	0.000	0.000	0.786	0.810	0.780	Pk Hr Factor	0.000	0.000	0.866	0.857	0.882

Prepared by NDS/ATD

VOLUME

Banna Ave Bet. Cypress St & Colver Pl

Day: Thursday
Date: 2/12/2015

City: Covina
Project #: CA15_5076_002

DAILY TOTALS	NB	SB	EB	WB	Total
	637	608	0	0	1,245

AM Period	NB		SB		EB		WB		TOTAL		PM Period	NB		SB		EB		WB		TOTAL	
0:00	1		2						3		**12:00**	7		7						14	
0:15	0		2						2		**12:15**	10		13						23	
0:30	1		0						1		**12:30**	6		7						13	
0:45	0	2	2	6					2	8	**12:45**	10	33	8	35					18	68
1:00	1		0						1		**13:00**	7		1						8	
1:15	2		1						3		**13:15**	11		7						18	
1:30	0		0						0		**13:30**	13		7						20	
1:45	0	3	1	2					1	5	**13:45**	8	39	9	24					17	63
2:00	0		2						2		**14:00**	10		12						22	
2:15	0		0						0		**14:15**	15		6						21	
2:30	0		0						0		**14:30**	14		12						26	
2:45	0		0	2					0	2	**14:45**	23	62	15	45					38	107
3:00	0		1						1		**15:00**	11		8						19	
3:15	1		1						2		**15:15**	6		12						18	
3:30	0		0						0		**15:30**	12		2						14	
3:45	1	2	0	2					1	4	**15:45**	7	36	13	35					20	71
4:00	1		0						1		**16:00**	10		13						23	
4:15	0		1						1		**16:15**	17		17						34	
4:30	1		1						2		**16:30**	9		12						21	
4:45	2	4	0	2					2	6	**16:45**	11	47	16	58					27	105
5:00	3		1						4		**17:00**	15		15						30	
5:15	5		1						6		**17:15**	9		14						23	
5:30	2		0						2		**17:30**	8		15						23	
5:45	4	14	1	3					5	17	**17:45**	17	49	8	52					25	101
6:00	6		1						7		**18:00**	15		12						27	
6:15	7		2						9		**18:15**	9		14						23	
6:30	4		2						6		**18:30**	5		14						19	
6:45	10	27	8	13					18	40	**18:45**	10	39	11	51					21	90
7:00	10		6						16		**19:00**	9		18						27	
7:15	12		10						22		**19:15**	8		7						15	
7:30	27		17						44		**19:30**	14		6						20	
7:45	35	84	33	66					68	150	**19:45**	7	38	11	42					18	80
8:00	16		9						25		**20:00**	4		11						15	
8:15	7		3						10		**20:15**	7		9						16	
8:30	8		14						22		**20:30**	3		10						13	
8:45	4	35	7	33					11	68	**20:45**	2	16	9	39					11	55
9:00	6		4						10		**21:00**	4		4						8	
9:15	4		2						6		**21:15**	9		4						13	
9:30	6		5						11		**21:30**	2		7						9	
9:45	6	22	5	16					11	38	**21:45**	3	18	5	20					8	38
10:00	3		3						6		**22:00**	2		2						4	
10:15	5		6						11		**22:15**	3		3						6	
10:30	3		2						5		**22:30**	2		9						11	
10:45	6	17	4	15					10	32	**22:45**	2	9	3	17					5	26
11:00	9		6						15		**23:00**	2		3						5	
11:15	9		4						13		**23:15**	3		2						5	
11:30	7		3						10		**23:30**	2		5						7	
11:45	7	32	6	19					13	51	**23:45**	2	9	1	11					3	20
TOTALS		242		179						**421**	**TOTALS**		395		429						**824**
SPLIT %		57.5%		42.5%						**33.8%**	**SPLIT %**		47.9%		52.1%						**66.2%**

DAILY TOTALS	NB	SB	EB	WB	Total
	637	608	0	0	1,245

AM Peak Hour	7:15	7:15			**7:15**	**PM Peak Hour**	14:15	16:15			**16:15**
AM Pk Volume	90	69			**159**	**PM Pk Volume**	63	60			**112**
Pk Hr Factor	0.643	0.523			**0.585**	**Pk Hr Factor**	0.685	0.882			**0.824**
7 - 9 Volume	119	99	0	0	**218**	**4 - 6 Volume**	96	110	0	0	**206**
7 - 9 Peak Hour	7:15	7:15			**7:15**	**4 - 6 Peak Hour**	16:15	16:15			**16:15**
7 - 9 Pk Volume	90	69	0	0	**159**	**4 - 6 Pk Volume**	52	60	0	0	**112**
Pk Hr Factor	0.643	0.523	0.000	0.000	**0.585**	**Pk Hr Factor**	0.765	0.882	0.000	0.000	**0.824**

Prepared by NDS/ATD

VOLUME

Colver Pl Bet. Banna Ave & Kidder Ave

Day: Thursday
Date: 2/12/2015

City: Covina
Project #: CA15_5076_003

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	162	210	372

AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL	
0:00			0	1	1		12:00			0	1	1	
0:15			0	1	1		12:15			3	2	5	
0:30			0	0	0		12:30			1	3	4	
0:45			0	0	0	2	12:45			3	1	4	14
1:00			0	0	0		13:00			3	0	3	
1:15			0	0	0		13:15			3	3	6	
1:30			0	0	0		13:30			4	0	4	
1:45			0	0	0		13:45			4	4	8	21
2:00			0	0	0		14:00			2	2	4	
2:15			0	0	0		14:15			0	6	6	
2:30			0	0	0		14:30			5	6	11	
2:45			0	0	0		14:45			8	12	20	41
3:00			0	0	0		15:00			1	4	5	
3:15			0	0	0		15:15			5	6	11	
3:30			0	0	0		15:30			2	3	5	
3:45			0	0	0		15:45			2	0	2	23
4:00			0	0	0		16:00			0	2	2	
4:15			0	0	0		16:15			2	3	5	
4:30			0	0	0		16:30			6	4	10	
4:45			0	0	0		16:45			3	2	5	22
5:00			0	1	1		17:00			1	2	3	
5:15			1	0	1		17:15			2	4	6	
5:30			1	1	2		17:30			3	3	6	
5:45			1	1	2	6	17:45			4	9	13	28
6:00			2	2	4		18:00			4	5	9	
6:15			0	0	0		18:15			2	4	6	
6:30			2	3	5		18:30			6	1	7	
6:45			2	4	6	15	18:45			4	7	11	33
7:00			1	10	11		19:00			6	5	11	
7:15			0	5	5		19:15			2	6	8	
7:30			5	6	11		19:30			4	1	5	
7:45			7	9	16	43	19:45			3	1	4	28
8:00			1	8	9		20:00			2	3	5	
8:15			1	0	1		20:15			1	2	3	
8:30			2	7	9		20:30			0	0	0	
8:45			1	3	4	23	20:45			0	1	1	9
9:00			2	0	2		21:00			2	0	2	
9:15			1	1	2		21:15			1	2	3	
9:30			1	1	2		21:30			0	0	0	
9:45			1	3	4	10	21:45			1	0	1	6
10:00			3	2	5		22:00			2	1	3	
10:15			1	1	2		22:15			1	1	2	
10:30			1	0	1		22:30			0	0	0	
10:45			2	1	3	11	22:45			1	0	1	6
11:00			1	3	4		23:00			1	0	1	
11:15			9	5	14		23:15			0	0	0	
11:30			2	5	7		23:30			0	1	1	
11:45			0	3	3	28	23:45			1	0	1	3
TOTALS			51	87		138	TOTALS			111	123		234
SPLIT %			37.0%	63.0%		37.1%	SPLIT %			47.4%	52.6%		62.9%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	162	210	372

AM Peak Hour			7:30	7:00	7:00	PM Peak Hour			14:30	14:15	14:30
AM Pk Volume			14	30	43	PM Pk Volume			19	28	47
Pk Hr Factor			0.500	0.750	0.672	Pk Hr Factor			0.594	0.583	0.588
7 - 9 Volume	0	0	18	48	66	4 - 6 Volume	0	0	21	29	50
7 - 9 Peak Hour			7:30	7:00	7:00	4 - 6 Peak Hour			16:15	17:00	17:00
7 - 9 Pk Volume	0	0	14	30	43	4 - 6 Pk Volume	0	0	12	18	28
Pk Hr Factor	0.000	0.000	0.500	0.750	0.672	Pk Hr Factor	0.000	0.000	0.500	0.500	0.538

Prepared by NDS/ATD

VOLUME

Kidder Ave Bet. Cypress St & Colver Pl

Day: Thursday
Date: 2/12/2015

City: Covina
Project #: CA15_5076_004

DAILY TOTALS	NB	SB	EB	WB	Total
	200	233	0	0	433

AM Period	NB		SB		EB		WB		TOTAL		PM Period	NB		SB		EB		WB		TOTAL	
0:00	0		0						0		12:00	0		2						2	
0:15	0		1						1		12:15	1		1						2	
0:30	0		0						0		12:30	1		5						6	
0:45	0		0	1					0	1	12:45	6	8	3	11					9	19
1:00	0		0						0		13:00	1		0						1	
1:15	0		0						0		13:15	5		4						9	
1:30	0		0						0		13:30	2		0						2	
1:45	0		0						0		13:45	4	12	4	8					8	20
2:00	0		0						0		14:00	6		4						10	
2:15	0		0						0		14:15	1		5						6	
2:30	0		0						0		14:30	3		5						8	
2:45	0		0						0		14:45	9	19	16	30					25	49
3:00	0		0						0		15:00	4		4						8	
3:15	0		0						0		15:15	5		8						13	
3:30	0		0						0		15:30	3		4						7	
3:45	0		0						0		15:45	4	16	2	18					6	34
4:00	0		0						0		16:00	2		6						8	
4:15	0		0						0		16:15	1		5						6	
4:30	0		0						0		16:30	6		7						13	
4:45	0		0						0		16:45	3	12	8	26					11	38
5:00	0		0						0		17:00	4		4						8	
5:15	1		0						1		17:15	2		5						7	
5:30	1		1						2		17:30	2		7						9	
5:45	1	3	0	1					1	4	17:45	4	12	7	23					11	35
6:00	2		1						3		18:00	4		4						8	
6:15	3		0						3		18:15	1		4						5	
6:30	4		0						4		18:30	7		1						8	
6:45	6	15	3	4					9	19	18:45	7	19	6	15					13	34
7:00	4		7						11		19:00	5		5						10	
7:15	2		2						4		19:15	5		2						7	
7:30	9		1						10		19:30	2		2						4	
7:45	9	24	10	20					19	44	19:45	3	15	3	12					6	27
8:00	2		3						5		20:00	2		6						8	
8:15	1		1						2		20:15	3		2						5	
8:30	2		6						8		20:30	0		1						1	
8:45	1	6	1	11					2	17	20:45	0	5	0	9					0	14
9:00	1		0						1		21:00	0		2						2	
9:15	0		2						2		21:15	1		4						5	
9:30	3		0						3		21:30	0		1						1	
9:45	2	6	2	4					4	10	21:45	3	4	5	12					8	16
10:00	5		4						9		22:00	2		2						4	
10:15	4		3						7		22:15	1		2						3	
10:30	1		0						1		22:30	0		1						1	
10:45	1	11	1	8					2	19	22:45	1	4	0	5					1	9
11:00	1		2						3		23:00	1		0						1	
11:15	5		5						10		23:15	0		0						0	
11:30	1		4						5		23:30	0		0						0	
11:45	1	8	3	14					4	22	23:45	0	1	1	1					1	2
TOTALS		73		63						136	TOTALS		127		170						297
SPLIT %		53.7%		46.3%						31.4%	SPLIT %		42.8%		57.2%						68.6%

DAILY TOTALS	NB	SB	EB	WB	Total
	200	233	0	0	433

AM Peak Hour	7:00	7:00			7:00	PM Peak Hour	18:30	14:30			14:30
AM Pk Volume	24	20			44	PM Pk Volume	24	33			54
Pk Hr Factor	0.667	0.500			0.579	Pk Hr Factor	0.857	0.516			0.540
7 - 9 Volume	30	31	0	0	61	4 - 6 Volume	24	49	0	0	73
7 - 9 Peak Hour	7:00	7:00			7:00	4 - 6 Peak Hour	16:30	16:00			16:30
7 - 9 Pk Volume	24	20	0	0	44	4 - 6 Pk Volume	15	26	0	0	39
Pk Hr Factor	0.667	0.500	0.000	0.000	0.579	Pk Hr Factor	0.625	0.813	0.000	0.000	0.750

ITM Peak Hour Summary

Prepared by:

NDS

Glendora Ave and Cypress St , Covina

Date:	2/12/2015
Day:	Thursday

Project #:	15-5075-001
City:	Covina

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	500 PM

Peak Hour Summary

Southbound Approach (Glendora Ave)

Lanes	0	2	1		
AM	112	423	48	562	AM
NOON	0	0	0	0	NOON
PM	50	344	54	469	PM

Eastbound Approach (Cypress St)

Lanes	AM	NOON	PM
	668	0	308
1	56	0	84
2	173	0	443
0	42	0	83

Westbound Approach

Lanes	AM	NOON	PM
0	55	0	48
2	492	0	211
1	101	0	53
	290	0	558

Northbound Approach

Lanes	1	2	0	
AM	566	64	451	69	AM
NOON	0	0	0	0	NOON
PM	480	47	337	61	PM

CONTROL

Signalized

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs

	North Leg		East Leg			West Leg			South Leg	
AM	583	562	648	0	312	668	0	308	566	584
NOON	0	0	290	0	558	271	0	610	0	0
PM	448	469							480	445

Total Volume Per Leg

	North Leg	East Leg	West Leg	South Leg
AM	1145	938	939	1150
NOON	0	0	0	0
PM	917	870	918	925

ITM Peak Hour Summary

Prepared by:

NDS

Banna Ave and Cypress St , Covina

Date:	2/12/2015	Project #:	15-5075-002
Day:	Thursday	City:	Covina

AM Peak Hour	700 AM
NOON Peak Hour	
PM Peak Hour	500 PM

Peak Hour Summary

Southbound Approach (Banna Ave)

	Left	Thru	Right
Lanes	0	0	0
AM	0	0	0
NOON	0	0	0
PM	0	0	0

Eastbound Approach (Cypress St)

	AM	NOON	PM
	730	0	294
Lanes			
0	0	0	0
2	186	0	513
0	16	0	29

Westbound Approach

	AM	NOON	PM	Lanes
	0	0	0	0
	694	0	278	2
	48	0	25	0
	234	0	547	

Northbound Approach

	Left	Thru	Right
AM	64	36	0	48
NOON	0	0	0	0
PM	54	16	0	34
Lanes		0	1	0

CONTROL

1-Way Stop (NB)

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs

	North Leg		East Leg			West Leg			South Leg	
AM	0	0	742	0	303	730	0	294	64	84
NOON	0	0	234	0	547	202	0	542	0	0
PM	0	0							54	50

Total Volume Per Leg

	North Leg	East Leg	West Leg	South Leg
AM	0	976	932	148
NOON	0	0	0	0
PM	0	850	836	104

ITM Peak Hour Summary

Prepared by:

NDS

Kidder Ave and Cypress St , Covina

Date:	2/12/2015
Day:	Thursday

Project #:	15-5075-003
City:	Covina

AM Peak Hour	700 AM
NOON Peak Hour	
PM Peak Hour	500 PM

Peak Hour Summary

Southbound Approach

Kidder Ave

	Left	Thru	Right	
Lanes	0	0	0	
AM	0	0	0	0 AM
NOON	0	0	0	0 NOON
PM	0	0	0	0 PM

Eastbound Approach

Cypress St

	AM	NOON	PM
	747	0	304
0	0	0	0
2	231	0	540
0	3	0	8
Lanes	AM	NOON	PM

Westbound Approach

	AM	NOON	PM	Lanes
	0	0	0	0
	741	0	297	2
	18	0	17	0
	252	0	546	
	AM	NOON	PM	

CONTROL

1-Way Stop (NB)

Northbound Approach

	Left	Thru	Right	
AM	21	6	0	21 AM
NOON	0	0	0	0 NOON
PM	25	7	0	6 PM
Lanes		0	1	0 Lanes

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs

	North Leg		
AM	0	0	AM
NOON	0	0	NOON
PM	0	0	PM

West Leg			East Leg		
AM	NOON	PM			
747	0	304	759	0	314
234	0	548	252	0	546
			AM	NOON	PM

	South Leg	
AM	21	27
NOON	0	0
PM	25	13

Total Volume Per Leg

	North Leg
AM	0
NOON	0
PM	0

West Leg			East Leg		
AM	NOON	PM			
981	0	852	1011	0	860
			AM	NOON	PM

	South Leg
AM	48
NOON	0
PM	38

ITM Peak Hour Summary

Prepared by:

NDS

Badillo St and Cypress St , Covina

Date:	2/12/2015
Day:	Thursday

Project #:	15-5075-004
City:	Covina

AM Peak Hour	700 AM
NOON Peak Hour	
PM Peak Hour	500 PM

Peak Hour Summary

Southbound Approach

Badillo St

Lanes	0	2	1		
AM	284	893	1	502	AM
NOON	0	0	0	0	NOON
PM	134	506	2	872	PM

Eastbound Approach

Cypress St

	AM	NOON	PM
	378	0	190
1	120	0	213
2	38	0	68
1	3	0	7
Lanes	AM	NOON	PM

Westbound Approach

AM	NOON	PM	Lanes
0	0	1	1
93	0	54	2
98	0	72	1
90	0	155	
AM	NOON	PM	

CONTROL

Signalized

Northbound Approach

AM	994	1	382	51	AM
NOON	0	0	0	0	NOON
PM	585	2	658	85	PM
		1	2	0	Lanes

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs

	North Leg			East Leg			South Leg		
AM	1178	502	AM	191	0	127	994	434	AM
NOON	0	0	NOON	90	0	155	0	0	NOON
PM	642	872	PM	AM	NOON	PM	585	745	PM

West Leg		
AM	NOON	PM
378	0	190
161	0	288

Total Volume Per Leg

	North Leg			East Leg			South Leg		
AM	1680	AM	AM	281	AM	AM	1428	AM	AM
NOON	0	NOON	NOON	0	NOON	NOON	0	NOON	NOON
PM	1514	PM	PM	282	PM	PM	1330	PM	PM

West Leg		
AM	NOON	PM
539	0	478

ITM Peak Hour Summary

Prepared by:

NDS

Glendora Ave and Colver Pl , Covina

Date:	2/12/2015
Day:	Thursday

Project #:	15-5075-005
City:	Covina

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	500 PM

Peak Hour Summary

Southbound Approach

Glendora Ave

	Lanes 0	2	0		
AM	3	535	22	584	AM
NOON	0	0	0	0	NOON
PM	20	418	15	432	PM

Eastbound Approach

Colver Pl

Lanes	AM	NOON	PM
	7	0	35
0	1	0	79
1	1	0	11
0	7	0	41

Westbound Approach

Lanes	AM	NOON	PM
0	59	0	19
1	0	0	2
0	34	0	13
	32	0	46

CONTROL

1-Way Stop (EB)

Northbound Approach

AM	576	4	524	9	AM
NOON	0	0	0	0	NOON
PM	472	13	334	20	PM
		0	2	0	Lanes

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs

	North Leg		West Leg		East Leg		South Leg	
AM	560	584	7	35	93	34	576	537
NOON	0	0	0	0	0	0	0	0
PM	453	432	9	131	32	46	472	367

Total Volume Per Leg

	North Leg	West Leg	East Leg	South Leg
AM	1144	16	125	1113
NOON	0	0	0	0
PM	885	166	80	839

ITM Peak Hour Summary

Prepared by:

NDS

Banna Ave and Colver Pl , Covina

Date:	2/12/2015
Day:	Thursday

Project #:	15-5075-006
City:	Covina

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	500 PM

Peak Hour Summary

Southbound Approach

Banna Ave

Lanes	0	1	0		
AM	8	61	0	87	AM
NOON	0	0	0	0	NOON
PM	6	42	2	44	PM

Eastbound Approach

Colver Pl

	AM	NOON	PM
	53	0	27
0	5	0	5
1	4	0	5
0	13	0	11
Lanes	AM	NOON	PM

Westbound Approach

	AM	NOON	PM	Lanes
	0	0	0	0
	17	0	6	1
	12	0	12	0
	14	0	11	
	AM	NOON	PM	

CONTROL

4-Way Stop

Northbound Approach

AM	86	28	82	10	AM
NOON	0	0	0	0	NOON
PM	65	15	39	4	PM
		0	1	0	Lanes

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs

	North Leg	East Leg	South Leg	West Leg
AM	69	29	86	53
NOON	0	0	0	0
PM	50	18	120	27
AM	87	14	58	22
NOON	0	0	0	0
PM	44	11	65	21

Total Volume Per Leg

	North Leg	East Leg	South Leg	West Leg
AM	156	43	206	75
NOON	0	0	0	0
PM	94	29	123	48

ITM Peak Hour Summary

Prepared by:

NDS

Banna Ave and Ruddock St , Covina

Date:	2/12/2015
Day:	Thursday

Project #:	15-5075-007
City:	Covina

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	430 PM

Peak Hour Summary

Southbound Approach

Banna Ave

Lanes	0	1	0		
AM	32	66	13	113	AM
NOON	0	0	0	0	NOON
PM	11	28	10	62	PM

Eastbound Approach

Ruddock St

	AM	NOON	PM
	162	0	61
0	22	0	12
1	73	0	51
0	21	0	14
Lanes	AM	NOON	PM

Westbound Approach

AM	NOON	PM	Lanes
11	0	9	0
108	0	40	1
4	0	4	0
87	0	76	
AM	NOON	PM	

CONTROL

4-Way Stop

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Northbound Approach

AM	91	22	80	1	AM
NOON	0	0	0	0	NOON
PM	46	10	41	15	PM
		0	1	0	Lanes

Total Ins & Outs

	AM	NOON	PM
North Leg	111	0	49
	113	0	62
East Leg	123	0	53
	87	0	76
South Leg	91	0	46
	103	0	66
West Leg	162	0	61
	116	0	77

Total Volume Per Leg

	AM	NOON	PM
North Leg	224	0	111
East Leg	210	0	129
South Leg	194	0	112
West Leg	278	0	138

ITM Peak Hour Summary

Prepared by:

NDS

Banna Ave and Badillo St , Covina

Date:	2/12/2015
Day:	Thursday

Project #:	15-5075-008
City:	Covina

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	500 PM

Peak Hour Summary

Southbound Approach

Banna Ave

Lanes	0	1	0		
AM	60	42	10	96	AM
NOON	0	0	0	0	NOON
PM	41	7	8	90	PM

Eastbound Approach

Badillo St

Lanes	AM	NOON	PM
	1419	0	675
1	34	0	75
2	499	0	967
0	86	0	60

Westbound Approach

Lanes	AM	NOON	PM
0	13	0	4
2	1248	0	610
1	25	0	8
	528	0	979

CONTROL

Signalized

Northbound Approach

AM	153	111	49	19	AM
NOON	0	0	0	0	NOON
PM	75	24	11	4	PM
		0	1	0	Lanes

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs

	North Leg		East Leg			West Leg		
						AM	NOON	PM
AM	112	96	1286	0	622	1419	0	675
NOON	0	0	528	0	979	619	0	1102
PM	56	90	AM	NOON	PM			
	South Leg							
AM	153	179						
NOON	0	0						
PM	75	39						

Total Volume Per Leg

	North Leg	East Leg			West Leg		
					AM	NOON	PM
AM	208	1814	0	1601	2038	0	1777
NOON	0	AM	NOON	PM			
PM	146						
	South Leg						
AM	332						
NOON	0						
PM	114						

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 15-5077-001
N/S Street: Bonnie Cove Ave
E/W Street: Cypress St
DATE: 2/12/2015 DAY: Thursday
CITY: Covina

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	3	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	1	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	1	0	0
8:45 AM	0	0	0	0	0	0	0	1
TOTALS	**1**	**3**	**0**	**0**	**0**	**1**	**0**	**1**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	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
7:30 AM	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	1	0
8:00 AM	0	0	0	0	0	0	0	1	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	2	0
8:30 AM	0	0	0	0	0	0	0	1	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**3**	**0**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
2:00 PM	0	0	0	0	1	1	0	0
2:15 PM	0	0	0	0	0	0	0	0
2:30 PM	0	1	0	0	1	0	0	0
2:45 PM	1	0	0	0	0	2	0	0
3:00 PM	1	0	0	0	0	1	0	0
3:15 PM	1	0	0	0	0	1	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	1	0	0	0
TOTALS	**3**	**1**	**0**	**0**	**3**	**5**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
2:00 PM	0	0	0	0	0	1	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	2	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	1	0	0	0	0	0	0	0	0
3:30 PM	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	1	0
TOTALS	**0**	**0**	**0**	**3**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 15-5077-002
N/S Street: Midblock Crosswalk West of Banna Ave
E/W Street: Cypress St
DATE: 2/12/2015 DAY: Thursday
CITY: Covina

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	4	0
7:15 AM	0	0	0	0	0	0	1	0
7:30 AM	0	0	0	0	0	0	3	0
7:45 AM	0	0	0	0	0	0	7	1
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**15**	**1**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	0	0	0	0	1	0	0	0	0	1	0
7:15 AM	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
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0
8:00 AM	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	2	0
8:30 AM	0	0	0	0	0	0	0	1	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**4**	**0**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
2:00 PM	0	0	0	0	0	0	0	2
2:15 PM	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	9
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	2
3:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**13**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	1	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	1	0
3:15 PM	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
3:45 PM	0	0	0	0	0	0	0	1	0	0	1	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**2**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 15-5077-002
N/S Street: Midblock Crosswalk West of Banna Ave
E/W Street: Cypress St
DATE: 2/12/2015 DAY: Thursday
CITY: Covina

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	1	0	4	0	0	4	0
7:15 AM	0	0	0	1	0	0	1	0
7:30 AM	3	3	0	3	0	0	3	0
7:45 AM	1	1	0	7	0	0	7	1
8:00 AM	1	0	2	0	0	0	0	0
8:15 AM	0	0	1	1	0	0	0	0
8:30 AM	0	1	0	0	0	0	0	0
8:45 AM	0	1	1	2	0	0	0	0
TOTALS	**5**	**7**	**4**	**18**	**0**	**0**	**15**	**1**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	0	0	0	0	1	0	0	0	0	1	0
7:15 AM	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
7:45 AM	0	0	0	0	0	0	0	0	0	1	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	1	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	2	0
8:30 AM	0	0	0	0	0	0	0	1	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**2**	**3**	**0**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
2:00 PM	0	1	1	0	0	0	0	2
2:15 PM	0	0	0	0	0	0	0	0
2:30 PM	1	0	0	0	0	0	0	0
2:45 PM	5	0	11	0	0	0	0	9
3:00 PM	1	1	7	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	2	0	0	0	0	2
3:45 PM	0	0	0	0	0	0	0	0
TOTALS	**7**	**2**	**21**	**0**	**0**	**0**	**0**	**13**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	1	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	1	0
3:15 PM	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
3:45 PM	0	0	0	0	0	0	0	1	0	0	1	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**2**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 15-5077-003
N/S Street: Glendora Ave
E/W Street: Cypress St
DATE: 2/12/2015 DAY: Thursday
CITY: Covina

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	1	1	1	0	1	1	1	0
7:15 AM	1	0	0	0	2	0	2	2
7:30 AM	0	1	1	1	7	3	0	3
7:45 AM	3	1	1	2	4	0	2	1
8:00 AM	1	0	0	0	1	2	1	1
8:15 AM	0	0	2	0	0	0	0	2
8:30 AM	0	0	0	0	3	0	1	0
8:45 AM	0	0	0	0	2	0	1	0
TOTALS	**6**	**3**	**5**	**3**	**20**	**6**	**8**	**9**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	1	0	0	3	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	4	0	0	0	0	0	0	0
7:30 AM	0	1	0	0	1	0	0	0	0	0	0	0
7:45 AM	0	1	0	0	0	0	0	2	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	1	0	0	2	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	1	0	0	0	0	0	0	0
TOTALS	**0**	**3**	**0**	**0**	**9**	**0**	**0**	**3**	**0**	**0**	**2**	**0**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
2:00 PM	0	3	0	2	0	5	1	2
2:15 PM	0	0	0	0	0	4	0	0
2:30 PM	3	0	0	2	1	7	1	1
2:45 PM	0	17	0	2	3	18	3	8
3:00 PM	2	3	1	0	8	4	5	5
3:15 PM	0	0	0	3	0	0	4	1
3:30 PM	0	0	0	0	0	0	2	3
3:45 PM	0	1	3	0	0	1	2	3
TOTALS	**5**	**24**	**4**	**9**	**12**	**39**	**18**	**23**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
2:00 PM	0	0	0	0	1	0	0	0	0	0	0	0
2:15 PM	0	0	1	1	0	0	1	0	0	0	0	0
2:30 PM	0	0	0	0	1	0	0	0	0	1	0	0
2:45 PM	0	3	0	0	2	0	0	1	0	0	1	1
3:00 PM	0	1	0	0	1	0	0	0	0	0	0	0
3:15 PM	0	1	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
3:45 PM	0	0	0	0	0	0	0	0	0	0	1	0
TOTALS	**0**	**5**	**1**	**1**	**5**	**0**	**1**	**1**	**0**	**1**	**2**	**1**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 15-5075-001
N/S Street: Glendora Ave
E/W Street: Cypress St
DATE: 2/12/2015 DAY: Thursday
CITY: Covina

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	1	1	1	0	1	1	1	0
7:15 AM	1	0	0	0	2	0	2	2
7:30 AM	0	1	1	1	7	3	0	3
7:45 AM	3	1	1	2	4	0	2	1
8:00 AM	1	0	0	0	1	2	1	1
8:15 AM	0	0	2	0	0	0	0	2
8:30 AM	0	0	0	0	3	0	1	0
8:45 AM	0	0	0	0	2	0	1	0
TOTALS	**6**	**3**	**5**	**3**	**20**	**6**	**8**	**9**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	1	0	0	3	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	4	0	0	0	0	0	0	0
7:30 AM	0	1	0	0	1	0	0	0	0	0	0	0
7:45 AM	0	1	0	0	0	0	0	2	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	1	0	0	2	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	1	0	0	0	0	0	0	0
TOTALS	**0**	**3**	**0**	**0**	**9**	**0**	**0**	**3**	**0**	**0**	**2**	**0**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
4:00 PM	0	0	1	1	3	1	2	0
4:15 PM	0	1	1	0	1	0	0	1
4:30 PM	0	1	1	4	2	6	1	1
4:45 PM	1	1	0	1	0	0	2	2
5:00 PM	0	0	0	1	2	0	1	0
5:15 PM	1	0	0	2	0	0	1	1
5:30 PM	0	3	2	4	3	0	1	0
5:45 PM	1	0	0	2	0	2	0	2
TOTALS	**3**	**6**	**5**	**15**	**11**	**9**	**8**	**7**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	3	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	2	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	3	0	0	0	0	0	1	0
5:00 PM	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
5:30 PM	0	1	0	0	0	0	0	1	0	0	0	0
5:45 PM	0	1	0	0	1	0	0	0	0	0	0	0
TOTALS	**0**	**7**	**0**	**0**	**4**	**0**	**0**	**1**	**0**	**0**	**1**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 15-5075-002
N/S Street: Banna Ave
E/W Street: Cypress St
DATE: 2/12/2015 DAY: Thursday
CITY: Covina

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	1	0	1	0	0
8:00 AM	0	0	1	0	0	1	0	0
8:15 AM	0	0	1	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	1	2	0	0	0	0
TOTALS	**0**	**0**	**3**	**3**	**0**	**2**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	0	0	0	0	0	0	0	0	0	2	0
7:15 AM	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
7:45 AM	0	0	0	0	0	0	0	1	0	0	2	0
8:00 AM	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	2	0
8:30 AM	0	0	0	0	0	0	0	1	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**6**	**0**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	1	0	0	1	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	2	0	1	0	0
5:30 PM	0	0	2	0	0	0	0	1
5:45 PM	0	0	0	1	0	0	0	0
TOTALS	**0**	**0**	**2**	**4**	**0**	**1**	**1**	**1**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	1	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	1	0	1	0
5:00 PM	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
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	1	0	0	1	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**1**	**0**	**3**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 15-5075-003
N/S Street: Kidder Ave
E/W Street: Cypress St
DATE: 2/12/2015 DAY: Thursday
CITY: Covina

A M

PEDESTRIANS

T I M E	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	1	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	1	0	0	0	0	0
8:00 AM	0	0	1	0	0	0	0	0
8:15 AM	0	0	1	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	1	2	0	0	0	0
TOTALS	**0**	**0**	**4**	**3**	**0**	**0**	**0**	**0**

BIKES

T I M E	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	0	0	0	0	0	0	0	0	0	2	0
7:15 AM	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
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0
8:00 AM	0	0	0	0	0	0	0	1	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	2	0
8:30 AM	0	0	0	0	0	0	0	1	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**5**	**0**

P M

PEDESTRIANS

T I M E	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	2	0	0	0	0
5:45 PM	0	0	0	1	0	0	0	0
TOTALS	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**

BIKES

T I M E	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	1	0	0	0	0
4:45 PM	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
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	1	0	0	1	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**3**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 15-5075-004
N/S Street: Badillo St
E/W Street: Cypress St
DATE: 2/12/2015 DAY: Thursday
CITY: Covina

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	2	1	0	1	0	0	2	1
7:15 AM	0	0	1	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	2	0	1	0	0
8:00 AM	0	0	0	0	1	0	0	0
8:15 AM	0	0	0	0	2	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	1	0	0	0	0	0
TOTALS	**2**	**1**	**2**	**3**	**3**	**1**	**2**	**1**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	0	2	0	1	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	3	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	1	0	0	0	0	0	0
8:15 AM	0	1	0	1	0	0	1	0	0	0	1	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**2**	**2**	**1**	**4**	**1**	**1**	**0**	**0**	**0**	**2**	**0**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	1	0	0
4:45 PM	0	0	0	1	1	0	0	0
5:00 PM	0	0	0	0	0	1	0	0
5:15 PM	0	0	0	0	0	1	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	1	0	0	0	0	0	0	0
TOTALS	**1**	**0**	**0**	**1**	**1**	**3**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
4:00 PM	0	0	0	0	1	0	0	0	0	0	0	0
4:15 PM	0	1	0	1	0	0	0	0	0	0	0	0
4:30 PM	0	0	1	0	1	0	0	1	0	0	0	0
4:45 PM	0	1	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	2	0	0	3	0	0	0	0	0	0	0
5:15 PM	0	3	0	0	2	0	0	1	0	0	1	0
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	2	1	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**10**	**2**	**1**	**7**	**0**	**0**	**2**	**0**	**0**	**1**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 15-5075-005
N/S Street: Glendora Ave
E/W Street: Colver Pl
DATE: 2/12/2015 DAY: Thursday
CITY: Covina

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	1	1	1
7:15 AM	0	0	1	0	2	0	2	1
7:30 AM	0	0	2	0	5	0	0	9
7:45 AM	0	0	2	0	2	2	3	1
8:00 AM	1	0	0	0	1	0	1	0
8:15 AM	0	1	0	0	1	0	0	3
8:30 AM	0	0	1	0	4	1	2	1
8:45 AM	0	0	0	1	2	1	2	1
TOTALS	**1**	**1**	**6**	**1**	**17**	**5**	**11**	**17**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	1	0	0	3	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	4	0	0	0	0	0	0	0
7:30 AM	0	2	0	0	0	0	0	0	0	1	0	0
7:45 AM	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
8:15 AM	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
8:45 AM	0	0	0	0	1	0	0	0	0	0	0	0
TOTALS	**0**	**3**	**0**	**0**	**8**	**0**	**0**	**0**	**0**	**1**	**0**	**0**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
4:00 PM	0	0	2	0	2	1	2	0
4:15 PM	0	0	0	1	1	1	0	1
4:30 PM	0	0	1	0	0	0	1	2
4:45 PM	0	0	0	0	0	2	1	2
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	2	1	3	0	0	2
5:30 PM	0	0	0	0	0	1	1	1
5:45 PM	0	0	0	1	2	1	0	1
TOTALS	**0**	**0**	**5**	**3**	**8**	**6**	**5**	**9**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	2	2	0	0	0	0	0	0	0	0	2
4:30 PM	0	2	0	1	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	1	0	0	0	0	0
5:30 PM	0	3	1	0	0	0	0	0	0	1	0	0
5:45 PM	0	0	0	0	0	0	1	0	0	0	0	0
TOTALS	**0**	**7**	**3**	**1**	**0**	**0**	**2**	**0**	**0**	**1**	**0**	**3**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 15-5075-006
N/S Street: Banna Ave
E/W Street: Colver Pl
DATE: 2/12/2015 DAY: Thursday
CITY: Covina

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	1	0	3	0	1	3	0
7:15 AM	0	0	0	0	0	0	1	0
7:30 AM	0	0	0	0	3	0	3	0
7:45 AM	0	0	0	0	0	2	5	0
8:00 AM	0	0	1	0	0	0	0	1
8:15 AM	0	0	0	1	0	0	1	0
8:30 AM	0	1	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**2**	**1**	**4**	**3**	**3**	**13**	**2**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	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
7:30 AM	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
8:00 AM	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
8:30 AM	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
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	1	1	0
5:00 PM	1	0	0	4	1	1	0	1
5:15 PM	1	0	1	0	2	1	1	1
5:30 PM	2	0	3	1	0	0	2	0
5:45 PM	0	0	0	0	0	2	1	1
TOTALS	**4**	**0**	**4**	**5**	**3**	**5**	**5**	**3**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	1	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	1	0	0	0	0	0	0	0
5:00 PM	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
5:30 PM	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
TOTALS	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 15-5075-007
N/S Street: Banna Ave
E/W Street: Ruddock St
DATE: 2/12/2015 DAY: Thursday
CITY: Covina

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	1	0	0	0	1	0
7:15 AM	0	0	1	2	0	0	1	1
7:30 AM	0	0	0	2	0	0	3	0
7:45 AM	0	0	4	0	1	0	0	4
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	1	0	0	1	0	1	0
8:30 AM	0	0	0	1	0	0	1	0
8:45 AM	0	0	0	3	0	0	0	1
TOTALS	**0**	**1**	**6**	**8**	**2**	**0**	**7**	**6**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0
7:15 AM	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
7:45 AM	0	0	0	0	0	2	0	0	0	0	0	0
8:00 AM	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
8:30 AM	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
TOTALS	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**1**	**0**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
4:00 PM	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	1	0	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	1	0	0	0	1	1
5:00 PM	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	1	1
5:30 PM	0	0	0	0	0	0	4	1
5:45 PM	0	1	1	0	1	2	0	1
TOTALS	**0**	**1**	**2**	**0**	**1**	**3**	**6**	**6**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	1	0	0	0	0
4:30 PM	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	1	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0
5:15 PM	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
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**3**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 15-5075-008
N/S Street: Banna Ave
E/W Street: Badillo St
DATE: 2/12/2015 DAY: Thursday
CITY: Covina

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	1
7:15 AM	0	0	3	1	1	0	0	1
7:30 AM	0	3	12	3	0	3	0	2
7:45 AM	5	0	15	1	1	8	0	1
8:00 AM	0	0	0	2	1	0	0	0
8:15 AM	0	0	0	1	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	1	0	0	0	0	1	0
TOTALS	**5**	**4**	**30**	**8**	**3**	**11**	**1**	**5**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	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	3	0
7:30 AM	0	0	0	0	0	0	0	0	0	1	0	0
7:45 AM	0	0	0	0	0	0	0	1	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	2	0	0	0	0
8:15 AM	0	0	0	1	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	1	0	0	1	0
TOTALS	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**4**	**0**	**1**	**4**	**0**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
4:00 PM	0	0	3	1	0	0	0	0
4:15 PM	0	0	0	1	0	1	0	0
4:30 PM	0	0	0	0	0	0	1	0
4:45 PM	1	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	1	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	2	1	0	0
TOTALS	**1**	**0**	**3**	**3**	**2**	**2**	**1**	**2**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
4:00 PM	0	0	0	0	0	0	0	1	0	0	1	0
4:15 PM	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
4:45 PM	0	0	0	0	0	0	0	2	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	2	0	0	2	0
5:30 PM	0	0	0	0	0	0	0	1	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**	**0**	**0**	**3**	**0**

Prepared by National Data & Surveying Services

TRAIN OBSERVATION STUDY

Location: Banna Ave & Cypress St
City: Covina

Date: 2/12/2015
Day: Thursday

#	Time Arms Begin to Descend	Time Arms Are Fully Down	Train (?) Yes or No	Direction (EB or WB?)	Time Train Enters the Intersection	Time Train Leaves the Intersection	Time Arms Begin to Ascend	Time Arms Are Fully Up
1	7:02:14 AM	7:02:23 AM	Yes	WB	7:02:49 AM	7:02:56 AM	7:03:00 AM	7:03:08 AM
2	7:16:25 AM	7:16:34 AM	Yes	WB	7:17:03 AM	7:17:10 AM	7:17:12 AM	7:17:20 AM
3	7:40:57 AM	7:41:06 AM	Yes	WB	7:41:36 AM	7:41:44 AM	7:41:47 AM	7:41:54 AM
4	7:55:19 AM	7:55:29 AM	Yes	WB	7:55:58 AM	7:56:06 AM	7:56:09 AM	7:56:17 AM
5	8:37:05 AM	8:37:08 AM	Yes	EB	8:37:36 AM	8:37:45 AM	8:37:48 AM	8:37:55 AM
6	16:01:29 PM	16:01:36 PM	Yes	EB	16:02:02 PM	16:02:10 PM	16:02:15 PM	16:02:20 PM
7	16:05:36 PM	16:05:41 PM	No	N/A	N/A	N/A	16:06:00 PM	16:06:07 PM
8	16:22:43 PM	16:22:47 PM	Yes	EB	16:23:18 PM	16:23:26 PM	16:23:30 PM	16:23:35 PM
9	16:52:31 PM	16:52:37 PM	Yes	WB	16:53:06 PM	16:53:13 PM	16:53:17 PM	16:53:24 PM
10	17:00:44 PM	17:00:53 PM	Yes	EB	17:01:25 PM	17:01:36 PM	17:01:41 PM	17:01:47 PM
11	17:20:59 PM	17:21:08 PM	Yes	EB	17:21:34 PM	17:21:42 PM	17:21:49 PM	17:21:55 PM
12	17:42:41 PM	17:42:47 PM	No	N/A	N/A	N/A	17:43:06 PM	17:43:14 PM
13	17:45:47 PM	17:45:43 PM	No	N/A	N/A	N/A	17:46:12 PM	17:46:19 PM
14	17:47:30 PM	17:47:35 PM	No	N/A	N/A	N/A	17:47:54 PM	17:48:01 PM
15	17:49:17 PM	17:49:23 PM	No	N/A	N/A	N/A	17:50:00 PM	17:50:08 PM
16	17:50:37 PM	17:50:44 PM	Yes	EB	17:51:09 PM	17:51:18 PM	17:51:21 PM	17:51:28 PM
17	17:55:18 PM	17:55:24 PM	Yes	EB	17:56:15 PM	17:56:26 PM	17:56:30 PM	17:56:37 PM
18	17:58:23 PM	17:58:29 PM	No	N/A	N/A	N/A	17:58:46 PM	17:58:33 PM

Dennis Pascua

Subject: FW: Banna Crossing: Daily and Peak Hour Volume Comparison

From: Dennis Pascua [mailto:dennis.pascua@archbeachconsulting.com]
Sent: Wednesday, August 26, 2015 6:35 AM
To: Steve R. Sheldon (steve@sheldongrp.com) <steve@sheldongrp.com>
Cc: Danielle Jacobs (danielle@sheldongrp.com) <danielle@sheldongrp.com>
Subject: Banna Crossing: Daily and Peak Hour Volume Comparison

Steve,

Below are the daily and a.m. peak hour volume comparisons between the February and August 2015 traffic counts in the study area:

ADT SUMMARY

	Thursday, February 12, 2015					Thursday, August 20, 2015					
STREET SEGMENT	NB	SB	EB	WB	TOTAL	NB	SB	EB	WB	TOTAL	Difference
Cypress St Bet. Banna Ave & Kidder Ave			4,294	4,669	8,963	0	0	4,082	4,292	8,374	-589
Banna Ave Bet. Cypress St & Colver Pl	637	608			1,245	615	567	0	0	1,182	-63
Colver Pl Bet. Banna Ave & Kidder Ave			162	210	372	0	0	179	163	342	-30
Kidder Ave Bet. Cypress St & Colver Pl	200	233			433	207	185	0	0	392	-41

PEAK HOUR VOLUMES SUMMARY

	Thurs, Feb 12, 2015		Thurs, Aug 20, 2015		
Intersection	Pk Hr Start	Volume	Pk Hr Start	Volume	Difference
Glendora Ave/Cypress St	7:15 AM	2,086	7:00 AM	1,842	-244
Banna Ave/Cypress St	7:00 AM	1,028	7:00 AM	943	-85
Kidder Ave/Cypress St	7:00 AM	1,020	7:00 AM	924	-96
Badillo St/Cypress St	7:00 AM	1,964	6:45 AM	1,789	-175
Glendora Ave/Colver Pl	7:15 AM	1,199	7:00 AM	975	-224
Banna Ave/Colver Pl	7:15 AM	240	7:00 AM	176	-64
Banna Ave/Ruddock St	7:15 AM	453	7:00 AM	280	-173
Banna Ave/Badillo St	7:15 AM	2,196	7:00 AM	2,041	-155

All traffic counts collected last week, on Thursday, August 20, 2015, are less than all of the counts collected on Thursday, February 12, 2015.

Dennis

Dennis M. Pascua
arch beach CONSULTING

San Diego
1155 Camino Del Mar, #125
Del Mar, CA 92014
(858) 925-6190 office phone/fax

Orange County
303 Broadway, Suite 104-6
Laguna Beach, CA 92651
(949) 637-9007 mobile phone

dennis.pascua@archbeachconsulting.com
www.archbeachconsulting.com

Prepared by NDS/ATD

VOLUME

Cypress St Bet. Banna Ave & Kidder Ave

Day: Thursday
Date: 8/20/2015

City: Covina
Project #: CA15_5498_001

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	4,082	4,292	8,374

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			12		5		17		12:00			60		72		132	
00:15			11		5		16		12:15			52		51		103	
00:30			6		3		9		12:30			43		35		78	
00:45			1	30	0	13	1	43	12:45			52	207	51	209	103	416
01:00			1		4		5		13:00			35		57		92	
01:15			4		3		7		13:15			55		35		90	
01:30			4		2		6		13:30			54		48		102	
01:45			5	14	1	10	6	24	13:45			43	187	56	196	99	383
02:00			2		2		4		14:00			68		38		106	
02:15			3		2		5		14:15			71		64		135	
02:30			4		1		5		14:30			64		69		133	
02:45			5	14	1	6	6	20	14:45			69	272	93	264	162	536
03:00			1		1		2		15:00			97		61		158	
03:15			1		2		3		15:15			74		46		120	
03:30			3		1		4		15:30			74		49		123	
03:45			2	7	3	7	5	14	15:45			76	321	69	225	145	546
04:00			1		3		4		16:00			123		51		174	
04:15			3		6		9		16:15			110		58		168	
04:30			1		11		12		16:30			128		50		178	
04:45			5	10	8	28	13	38	16:45			122	483	58	217	180	700
05:00			8		15		23		17:00			113		56		169	
05:15			7		26		33		17:15			148		67		215	
05:30			9		40		49		17:30			135		69		204	
05:45			14	38	58	139	72	177	17:45			120	516	60	252	180	768
06:00			20		68		88		18:00			106		56		162	
06:15			18		78		96		18:15			106		48		154	
06:30			26		123		149		18:30			83		70		153	
06:45			29	93	167	436	196	529	18:45			55	350	48	222	103	572
07:00			30		149		179		19:00			68		40		108	
07:15			40		146		186		19:15			61		61		122	
07:30			59		181		240		19:30			50		40		90	
07:45			95	224	193	669	288	893	19:45			57	236	36	177	93	413
08:00			51		104		155		20:00			44		37		81	
08:15			42		83		125		20:15			45		35		80	
08:30			50		82		132		20:30			44		25		69	
08:45			34	177	66	335	100	512	20:45			35	168	26	123	61	291
09:00			29		61		90		21:00			48		31		79	
09:15			32		43		75		21:15			41		21		62	
09:30			27		54		81		21:30			21		17		38	
09:45			39	127	43	201	82	328	21:45			28	138	18	87	46	225
10:00			39		51		90		22:00			24		14		38	
10:15			45		46		91		22:15			16		18		34	
10:30			39		47		86		22:30			20		13		33	
10:45			41	164	42	186	83	350	22:45			8	68	14	59	22	127
11:00			47		54		101		23:00			11		10		21	
11:15			45		55		100		23:15			11		9		20	
11:30			52		48		100		23:30			11		10		21	
11:45			50	194	38	195	88	389	23:45			11	44	7	36	18	80
TOTALS				1092		2225		3317	TOTALS				2990		2067		5057
SPLIT %				32.9%		67.1%		39.6%	SPLIT %				59.1%		40.9%		60.4%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	4,082	4,292	8,374

AM Peak Hour			07:30	07:00	07:00	PM Peak Hour			16:45	14:15	16:45
AM Pk Volume			247	669	893	PM Pk Volume			518	287	768
Pk Hr Factor			0.650	0.867	0.775	Pk Hr Factor			0.875	0.772	0.893
7 - 9 Volume	0	0	401	1004	1405	4 - 6 Volume	0	0	999	469	1468
7 - 9 Peak Hour			07:30	07:00	07:00	4 - 6 Peak Hour			16:45	17:00	16:45
7 - 9 Pk Volume	0	0	247	669	893	4 - 6 Pk Volume	0	0	518	252	768
Pk Hr Factor	0.000	0.000	0.650	0.867	0.775	Pk Hr Factor	0.000	0.000	0.875	0.913	0.893

Prepared by NDS/ATD

VOLUME

Banna Ave Bet. Cypress St & Colver Pl

Day: Thursday
Date: 8/20/2015

City: Covina
Project #: CA15_5498_002

DAILY TOTALS	NB	SB	EB	WB	Total
	615	567	0	0	1,182

AM Period	NB		SB		EB		WB		TOTAL		PM Period	NB		SB		EB		WB		TOTAL	
00:00	2		2						4		12:00	12		13						25	
00:15	1		2						3		12:15	8		5						13	
00:30	0		1						1		12:30	5		5						10	
00:45	1	4	0	5					1	9	12:45	8	33	6	29					14	62
01:00	0		3						3		13:00	2		8						10	
01:15	1		0						1		13:15	5		6						11	
01:30	0		0						0		13:30	12		6						18	
01:45	0	1	0	3					0	4	13:45	11	30	16	36					27	66
02:00	0		1						1		14:00	9		3						12	
02:15	0		0						0		14:15	11		7						18	
02:30	0		0						0		14:30	14		9						23	
02:45	1	1	0	1					1	2	14:45	30	64	20	39					50	103
03:00	0		0						0		15:00	3		10						13	
03:15	0		1						1		15:15	11		7						18	
03:30	0		0						0		15:30	8		8						16	
03:45	1	1	1	2					2	3	15:45	6	28	9	34					15	62
04:00	0		0						0		16:00	10		11						21	
04:15	0		0						0		16:15	9		8						17	
04:30	1		0						1		16:30	9		15						24	
04:45	2	3	0						2	3	16:45	15	43	10	44					25	87
05:00	1		0						1		17:00	8		15						23	
05:15	5		3						8		17:15	7		14						21	
05:30	2		0						2		17:30	8		16						24	
05:45	2	10	0	3					2	13	17:45	5	28	7	52					12	80
06:00	6		1						7		18:00	7		5						12	
06:15	7		3						10		18:15	10		12						22	
06:30	5		3						8		18:30	4		11						15	
06:45	18	36	8	15					26	51	18:45	1	22	13	41					14	63
07:00	6		9						15		19:00	13		8						21	
07:15	15		5						20		19:15	7		8						15	
07:30	19		22						41		19:30	7		8						15	
07:45	36	76	11	47					47	123	19:45	9	36	9	33					18	69
08:00	12		7						19		20:00	4		12						16	
08:15	9		7						16		20:15	5		11						16	
08:30	12		7						19		20:30	7		10						17	
08:45	10	43	6	27					16	70	20:45	7	23	4	37					11	60
09:00	9		4						13		21:00	6		10						16	
09:15	3		3						6		21:15	4		8						12	
09:30	4		5						9		21:30	1		4						5	
09:45	4	20	1	13					5	33	21:45	3	14	5	27					8	41
10:00	11		2						13		22:00	7		8						15	
10:15	7		3						10		22:15	1		7						8	
10:30	8		4						12		22:30	6		4						10	
10:45	9	35	7	16					16	51	22:45	2	16	8	27					10	43
11:00	12		6						18		23:00	3		2						5	
11:15	8		7						15		23:15	2		3						5	
11:30	7		6						13		23:30	3		3						6	
11:45	12	39	8	27					20	66	23:45	1	9	1	9					2	18
TOTALS		269		159						428	TOTALS		346		408						754
SPLIT %		62.9%		37.1%						36.2%	SPLIT %		45.9%		54.1%						63.8%

DAILY TOTALS	NB	SB	EB	WB	Total
	615	567	0	0	1,182

AM Peak Hour	07:15	07:00			07:15	PM Peak Hour	14:00	16:45			14:15
AM Pk Volume	82	47			127	PM Pk Volume	64	55			104
Pk Hr Factor	0.569	0.534			0.676	Pk Hr Factor	0.533	0.859			0.520
7 - 9 Volume	119	74	0	0	193	4 - 6 Volume	71	96	0	0	167
7 - 9 Peak Hour	07:15	07:00			07:15	4 - 6 Peak Hour	16:00	16:45			16:30
7 - 9 Pk Volume	82	47	0	0	127	4 - 6 Pk Volume	43	55	0	0	93
Pk Hr Factor	0.569	0.534	0.000	0.000	0.676	Pk Hr Factor	0.717	0.859	0.000	0.000	0.930

Prepared by NDS/ATD

VOLUME

Colver Pl Bet. Banna Ave & Kidder Ave

Day: Thursday
Date: 8/20/2015

City: Covina
Project #: CA15_5498_003

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	179	163	342

AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL	
00:00			0	0	0		12:00			6	4	10	
00:15			0	0	0		12:15			0	2	2	
00:30			0	0	0		12:30			3	4	7	
00:45			0	0	0		12:45			3	12	0	10	3	22
01:00			0	0	0		13:00			2	0	2	
01:15			0	0	0		13:15			2	3	5	
01:30			0	0	0		13:30			1	0	1	
01:45			0	0	0		13:45			0	5	3	6	3	11
02:00			0	0	0		14:00			3	3	6	
02:15			0	0	0		14:15			4	3	7	
02:30			0	0	0		14:30			2	3	5	
02:45			0	0	0		14:45			4	13	3	12	7	25
03:00			0	0	0		15:00			7	1	8	
03:15			1	0	1		15:15			3	2	5	
03:30			0	0	0		15:30			4	4	8	
03:45			0	1	0	1	15:45			3	17	3	10	6	27
04:00			0	0	0		16:00			7	4	11	
04:15			0	0	0		16:15			4	6	10	
04:30			0	1	1		16:30			3	3	6	
04:45			0	0	1	0	1	16:45			1	15	2	15	3	30
05:00			2	1	3		17:00			1	2	3	
05:15			0	1	1		17:15			2	5	7	
05:30			0	1	1		17:30			4	1	5	
05:45			0	2	0	3	0	5	17:45			2	9	5	13	7	22
06:00			4	1	5		18:00			3	2	5	
06:15			1	3	4		18:15			2	3	5	
06:30			0	2	2		18:30			1	2	3	
06:45			2	7	1	7	3	14	18:45			1	7	5	12	6	19
07:00			0	4	4		19:00			2	3	5	
07:15			1	1	2		19:15			5	4	9	
07:30			6	5	11		19:30			2	1	3	
07:45			6	13	5	15	11	28	19:45			5	14	2	10	7	24
08:00			5	1	6		20:00			4	2	6	
08:15			2	2	4		20:15			2	2	4	
08:30			3	2	5		20:30			2	4	6	
08:45			2	12	2	7	4	19	20:45			1	9	0	8	1	17
09:00			1	1	2		21:00			0	6	6	
09:15			1	3	4		21:15			3	1	4	
09:30			4	3	7		21:30			1	1	2	
09:45			1	7	0	7	1	14	21:45			0	4	2	10	2	14
10:00			1	1	2		22:00			3	1	4	
10:15			4	2	6		22:15			2	0	2	
10:30			7	1	8		22:30			0	0	0	
10:45			3	15	3	7	6	22	22:45			1	6	0	1	1	7
11:00			1	2	3		23:00			1	0	1	
11:15			2	0	2		23:15			0	1	1	
11:30			3	3	6		23:30			0	0	0	
11:45			3	9	3	8	6	17	23:45			1	2	0	1	1	3
TOTALS				66	55		121	TOTALS				113	108		221
SPLIT %				54.5%	45.5%		35.4%	SPLIT %				51.1%	48.9%		64.6%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	179	163	342

AM Peak Hour			07:30	07:00	07:30	PM Peak Hour			14:45	15:30	15:30
AM Pk Volume			19	15	32	PM Pk Volume			18	17	35
Pk Hr Factor			0.792	0.750	0.727	Pk Hr Factor			0.643	0.708	0.795
7 - 9 Volume	0	0	25	22	47	4 - 6 Volume	0	0	24	28	52
7 - 9 Peak Hour			07:30	07:00	07:30	4 - 6 Peak Hour			16:00	16:00	16:00
7 - 9 Pk Volume	0	0	19	15	32	4 - 6 Pk Volume	0	0	15	15	30
Pk Hr Factor	0.000	0.000	0.792	0.750	0.727	Pk Hr Factor	0.000	0.000	0.536	0.625	0.682

Prepared by NDS/ATD

VOLUME

Kidder Ave Bet. Cypress St & Colver Pl

Day: Thursday
Date: 8/20/2015

City: Covina
Project #: CA15_5498_004

DAILY TOTALS	NB	SB	EB	WB	Total
	207	185	0	0	392

AM Period	NB		SB		EB		WB		TOTAL	
00:00	0		0						0	
00:15	0		0						0	
00:30	0		0						0	
00:45	0		0						0	
01:00	0		0						0	
01:15	0		0						0	
01:30	0		0						0	
01:45	0		0						0	
02:00	0		0						0	
02:15	0		0						0	
02:30	0		0						0	
02:45	0		0						0	
03:00	0		0						0	
03:15	1		0						1	
03:30	1		0						1	
03:45	0	2	0						0	2
04:00	0		0						0	
04:15	0		0						0	
04:30	0		0						0	
04:45	0		0						0	
05:00	4		2						6	
05:15	0		0						0	
05:30	0		0						0	
05:45	0	4	0	2					0	6
06:00	3		0						3	
06:15	3		0						3	
06:30	2		2						4	
06:45	5	13	2	4					7	17
07:00	4		2						6	
07:15	6		1						7	
07:30	9		3						12	
07:45	11	30	6	12					17	42
08:00	6		2						8	
08:15	4		1						5	
08:30	2		3						5	
08:45	1	13	1	7					2	20
09:00	2		1						3	
09:15	2		4						6	
09:30	3		2						5	
09:45	4	11	0	7					4	18
10:00	2		1						3	
10:15	4		0						4	
10:30	7		1						8	
10:45	4	17	1	3					5	20
11:00	1		1						2	
11:15	3		1						4	
11:30	5		5						10	
11:45	4	13	6	13					10	26
TOTALS		103		48						151
SPLIT %		68.2%		31.8%						38.5%

PM Period	NB		SB		EB		WB		TOTAL	
12:00	7		2						9	
12:15	0		2						2	
12:30	4		2						6	
12:45	2	13	4	10					6	23
13:00	3		0						3	
13:15	2		4						6	
13:30	2		0						2	
13:45	1	8	2	6					3	14
14:00	0		3						3	
14:15	5		2						7	
14:30	2		6						8	
14:45	7	14	6	17					13	31
15:00	6		1						7	
15:15	1		3						4	
15:30	5		4						9	
15:45	2	14	5	13					7	27
16:00	3		4						7	
16:15	5		6						11	
16:30	1		2						3	
16:45	0	9	3	15					3	24
17:00	2		4						6	
17:15	2		7						9	
17:30	5		3						8	
17:45	4	13	8	22					12	35
18:00	4		6						10	
18:15	2		2						4	
18:30	4		5						9	
18:45	1	11	7	20					8	31
19:00	4		3						7	
19:15	4		1						5	
19:30	1		2						3	
19:45	0	9	1	7					1	16
20:00	1		2						3	
20:15	0		4						4	
20:30	3		5						8	
20:45	2	6	2	13					4	19
21:00	0		3						3	
21:15	2		1						3	
21:30	0		1						1	
21:45	0	2	3	8					3	10
22:00	2		2						4	
22:15	1		0						1	
22:30	0		1						1	
22:45	1	4	0	3					1	7
23:00	0		0						0	
23:15	0		1						1	
23:30	1		0						1	
23:45	0	1	2	3					2	4
TOTALS		104		137						241
SPLIT %		43.2%		56.8%						61.5%

DAILY TOTALS	NB	SB	EB	WB	Total
	207	185	0	0	392

AM Peak Hour	07:15	11:30			07:15	PM Peak Hour	14:15	17:15			17:15
AM Pk Volume	32	15			44	PM Pk Volume	20	24			39
Pk Hr Factor	0.727	0.625			0.647	Pk Hr Factor	0.714	0.750			0.813
7 - 9 Volume	43	19	0	0	62	4 - 6 Volume	22	37	0	0	59
7 - 9 Peak Hour	07:15	07:00			07:15	4 - 6 Peak Hour	17:00	17:00			17:00
7 - 9 Pk Volume	32	12	0	0	44	4 - 6 Pk Volume	13	22	0	0	35
Pk Hr Factor	0.727	0.500	0.000	0.000	0.647	Pk Hr Factor	0.650	0.688	0.000	0.000	0.729

ITM Peak Hour Summary

Prepared by:

NDS

Glendora Ave and Cypress St , Covina

Date:	8/20/2015	Project #:	15-5497-001
Day:	Thursday	City:	Covina

AM Peak Hour	700 AM
NOON Peak Hour	
PM Peak Hour	

Peak Hour Summary

Southbound Approach

Glendora Ave

Lanes	0	2	1		
AM	81	369	37	460	AM
NOON	0	0	0	0	NOON
PM	0	0	0	0	PM

Eastbound Approach

Cypress St

	AM	NOON	PM
	642	0	0
1	51	0	0
2	152	0	0
0	47	0	0
Lanes	AM	NOON	PM

Westbound Approach

	AM	NOON	PM	Lanes
	45	0	0	0
	507	0	0	2
	86	0	0	1
	238	0	0	
	AM	NOON	PM	

CONTROL

Signalized

Northbound Approach

AM	502	54	364	49	AM
NOON	0	0	0	0	NOON
PM	0	0	0	0	PM
		1	2	0	Lanes

Count Periods	Start	End
AM	6:00 AM	8:00 AM
NOON		
PM		

Total Ins & Outs

	North Leg		
AM	487	460	
NOON	0	0	
PM	0	0	

	West Leg			East Leg		
AM	642	0	0	638	0	0
NOON	250	0	0	238	0	0
PM						

	South Leg	
AM	502	467
NOON	0	0
PM	0	0

Total Volume Per Leg

	North Leg	East Leg	West Leg	South Leg
AM	947	876	892	969
NOON	0	0	0	0
PM	0	0	0	0

ITM Peak Hour Summary

Prepared by:

NDS

Banna Ave and Cypress St , Covina

Date:	8/20/2015	Project #:	15-5497-002
Day:	Thursday	City:	Covina

AM Peak Hour	700 AM
NOON Peak Hour	
PM Peak Hour	

Peak Hour Summary

Southbound Approach (Banna Ave)

	Left	Thru	Right
Lanes	0	0	0
AM	0	0	0
NOON	0	0	0
PM	0	0	0

Eastbound Approach (Cypress St)

	AM	NOON	PM
	671	0	0
Lanes			
0	0	0	0
2	177	0	0
0	17	0	0

Westbound Approach

	AM	NOON	PM	Lanes
	0	0	0	0
	640	0	0	2
	31	0	0	0
	224	0	0	

Northbound Approach

	Left	Thru	Right
AM	48	31	0	47
NOON	0	0	0	0
PM	0	0	0	0
Lanes		0	1	0

CONTROL

1-Way Stop (NB)

Count Periods	Start	End
AM	6:00 AM	8:00 AM
NOON		
PM		

Total Ins & Outs

	North Leg	East Leg	South Leg	West Leg
AM	0	671	48	671
NOON	0	0	0	0
PM	0	0	0	0
AM	0	224	78	194
NOON	0	0	0	0
PM	0	0	0	0

Total Volume Per Leg

	North Leg	East Leg	South Leg	West Leg
AM	0	895	126	865
NOON	0	0	0	0
PM	0	0	0	0

ITM Peak Hour Summary

Prepared by:

NDS

Kidder Ave and Cypress St , Covina

Date:	8/20/2015
Day:	Thursday

Project #:	15-5497-003
City:	Covina

AM Peak Hour	700 AM
NOON Peak Hour	
PM Peak Hour	

Peak Hour Summary

Southbound Approach (Kidder Ave)

	Lanes	0	0	0		
AM		0	0	0	0	AM
NOON		0	0	0	0	NOON
PM		0	0	0	0	PM

Eastbound Approach (Cypress St)

Lanes	AM	NOON	PM
	669	0	0
0	0	0	0
2	222	0	0
0	1	0	0

Westbound Approach

AM	NOON	PM	Lanes
0	0	0	0
662	0	0	2
10	0	0	0
244	0	0	

CONTROL

1-Way Stop (NB)

Northbound Approach

AM	11	7	0	22	AM
NOON	0	0	0	0	NOON
PM	0	0	0	0	PM
		0	1	0	Lanes

Count Periods	Start	End
AM	6:00 AM	8:00 AM
NOON		
PM		

Total Ins & Outs

	North Leg		East Leg		West Leg		South Leg	
AM	0	0	672	0	669	0	11	29
NOON	0	0	244	0	223	0	0	0
PM	0	0					0	0

Total Volume Per Leg

	North Leg	East Leg	West Leg	South Leg
AM	0	916	892	40
NOON	0	0	0	0
PM	0	0	0	0

ITM Peak Hour Summary

Prepared by:

NDS

Badillo St and Cypress St , Covina

Date:	8/20/2015
Day:	Thursday

Project #:	15-5497-004
City:	Covina

AM Peak Hour	645 AM
NOON Peak Hour	
PM Peak Hour	

Peak Hour Summary

Southbound Approach

Badillo St

Lanes	0	2	1		
AM	254	896	0	446	AM
NOON	0	0	0	0	NOON
PM	0	0	0	0	PM

Eastbound Approach

Cypress St

	AM	NOON	PM
	328	0	0
1	96	0	0
2	18	0	0
1	1	0	0
Lanes	AM	NOON	PM

Westbound Approach

AM	NOON	PM	Lanes
0	0	0	1
74	0	0	2
75	0	0	1
43	0	0	
AM	NOON	PM	

CONTROL

Signalized

Count Periods	Start	End
AM	6:00 AM	8:00 AM
NOON		
PM		

Northbound Approach

AM	972	0	350	25	AM
NOON	0	0	0	0	NOON
PM	0	0	0	0	PM
		1	2	0	Lanes

Total Ins & Outs

	North Leg		
AM	1150	446	
NOON	0	0	
PM	0	0	

	AM	NOON	PM
West Leg	328	0	0
	115	0	0

	AM	NOON	PM
East Leg	149	0	0
	43	0	0

	South Leg	
AM	972	375
NOON	0	0
PM	0	0

Total Volume Per Leg

	North Leg
AM	1596
NOON	0
PM	0

	AM	NOON	PM
West Leg	443	0	0

	AM	NOON	PM
East Leg	192	0	0

	South Leg
AM	1347
NOON	0
PM	0

ITM Peak Hour Summary

Prepared by:

NDS

Glendora Ave and Colver Pl , Covina

Date:	8/20/2015	Project #:	15-5497-005
Day:	Thursday	City:	Covina

AM Peak Hour	700 AM
NOON Peak Hour	
PM Peak Hour	

Peak Hour Summary

Southbound Approach

Glendora Ave

	Lanes 0	2	0		
AM	3	475	18	460	AM
NOON	0	0	0	0	NOON
PM	0	0	0	0	PM

Eastbound Approach

Colver Pl

Lanes	AM	NOON	PM
	8	0	0
0	2	0	0
1	0	0	0
0	1	0	0

Westbound Approach

Lanes	AM	NOON	PM
0	36	0	0
1	1	0	0
0	9	0	0
	22	0	0

CONTROL

1-Way Stop (WB)

Northbound Approach

AM	485	4	422	4	AM
NOON	0	0	0	0	NOON
PM	0	0	0	0	PM
		0	2	0	Lanes

Count Periods	Start	End
AM	6:00 AM	8:00 AM
NOON		
PM		

Total Ins & Outs

	North Leg		East Leg		West Leg		South Leg	
AM	496	460	46	0	8	0	485	430
NOON	0	0	0	0	0	0	0	0
PM	0	0	0	0	0	0	0	0

Total Volume Per Leg

	North Leg	East Leg	West Leg	South Leg
AM	956	68	11	915
NOON	0	0	0	0
PM	0	0	0	0

ITM Peak Hour Summary

Prepared by:

NDS

Banna Ave and Colver Pl , Covina

Date:	8/20/2015	Project #:	15-5497-006
Day:	Thursday	City:	Covina

AM Peak Hour	700 AM
NOON Peak Hour	
PM Peak Hour	

Peak Hour Summary

Southbound Approach (Banna Ave)

	Lanes 0	1	0		
AM	1	46	0	72	AM
NOON	0	0	0	0	NOON
PM	0	0	0	0	PM

Eastbound Approach (Colver Pl)

Lanes	AM	NOON	PM
	23	0	0
0	2	0	0
1	6	0	0
0	10	0	0

Westbound Approach

Lanes	AM	NOON	PM
0	1	0	0
1	3	0	0
0	11	0	0
	14	0	0

CONTROL: 4-Way Stop

Northbound Approach

AM	67	19	69	8	AM
NOON	0	0	0	0	NOON
PM	0	0	0	0	PM
		0	1	0	Lanes

Count Periods	Start	End
AM	6:00 AM	8:00 AM
NOON		
PM		

Total Ins & Outs

	North Leg		East Leg		West Leg		South Leg	
AM	47	72	15	0	0	23	67	96
NOON	0	0	0	0	0	0	0	0
PM	0	0	0	0	0	0	0	0

Total Volume Per Leg

	North Leg	East Leg	West Leg	South Leg
AM	119	29	41	163
NOON	0	0	0	0
PM	0	0	0	0

ITM Peak Hour Summary

Prepared by:

NDS

Banna Ave and Ruddock St , Covina

Date:	8/20/2015
Day:	Thursday

Project #:	15-5497-007
City:	Covina

AM Peak Hour	700 AM
NOON Peak Hour	
PM Peak Hour	

Peak Hour Summary

Southbound Approach

Banna Ave

Lanes	0	1	0		
AM	15	56	5	82	AM
NOON	0	0	0	0	NOON
PM	0	0	0	0	PM

Eastbound Approach

Ruddock St

	AM	NOON	PM
	71	0	0
0	12	0	0
1	38	0	0
0	21	0	0
Lanes	AM	NOON	PM

Westbound Approach

	AM	NOON	PM	Lanes
	2	0	0	0
	35	0	0	1
	4	0	0	0
	46	0	0	
	AM	NOON	PM	

CONTROL

4-Way Stop

Northbound Approach

AM	81	21	68	3	AM
NOON	0	0	0	0	NOON
PM	0	0	0	0	PM
		0	1	0	Lanes

Count Periods	Start	End
AM	6:00 AM	8:00 AM
NOON		
PM		

Total Ins & Outs

	North Leg		East Leg		West Leg		South Leg	
AM	76	82	41	0	71	0	81	92
NOON	0	0	0	0	0	0	0	0
PM	0	0	0	0	0	0	0	0

Total Volume Per Leg

	North Leg	East Leg	West Leg	South Leg
AM	158	87	142	173
NOON	0	0	0	0
PM	0	0	0	0

ITM Peak Hour Summary

Prepared by:

NDS

Banna Ave and Badillo St , Covina

Date:	8/20/2015	Project #:	15-5497-008
Day:	Thursday	City:	Covina

AM Peak Hour	700 AM
NOON Peak Hour	
PM Peak Hour	

Peak Hour Summary

Southbound Approach

Banna Ave

Lanes	0	1	0		
AM	58	36	10	80	AM
NOON	0	0	0	0	NOON
PM	0	0	0	0	PM

Eastbound Approach

Badillo St

Lanes	AM	NOON	PM
	1383	0	0
1	51	0	0
2	429	0	0
0	68	0	0

Westbound Approach

Lanes	AM	NOON	PM
0	5	0	0
2	1253	0	0
1	16	0	0
	458	0	0

CONTROL

Signalized

Northbound Approach

	0	1	0	Lanes
AM	120	72	24	19
NOON	0	0	0	0
PM	0	0	0	0

Count Periods	Start	End
AM	6:00 AM	8:00 AM
NOON		
PM		

Total Ins & Outs

	North Leg	East Leg	South Leg	West Leg
AM	104	1274	120	1383
NOON	0	0	0	0
PM	0	0	0	0
AM	80	458	115	548
NOON	0	0	0	0
PM	0	0	0	0

Total Volume Per Leg

	North Leg	East Leg	South Leg	West Leg
AM	184	1732	235	1931
NOON	0	0	0	0
PM	0	0	0	0

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 15-5497-001
N/S Street: Glendora Ave
E/W Street: Cypress St
DATE: 8/20/2015 DAY: Thursday
CITY: Covina

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
6:00 AM	0	0	0	1	0	1	1	0
6:15 AM	0	0	0	1	1	0	0	0
6:30 AM	0	0	0	0	0	1	0	2
6:45 AM	2	0	2	0	9	0	0	1
7:00 AM	0	0	0	0	1	0	1	1
7:15 AM	5	1	2	0	8	5	2	0
7:30 AM	2	0	1	1	8	1	2	1
7:45 AM	5	0	2	0	4	0	2	1
TOTALS	**14**	**1**	**7**	**3**	**31**	**8**	**8**	**6**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
6:00 AM	0	0	0	0	0	0	0	1	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	2	0	0	2	0	0	0	0
6:45 AM	0	1	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
7:15 AM	0	0	0	0	5	0	0	0	0	0	0	0
7:30 AM	0	1	0	0	2	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	1	0	0	1	0
TOTALS	**0**	**2**	**0**	**0**	**9**	**0**	**0**	**4**	**0**	**0**	**1**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 15-5497-002
N/S Street: Banna Ave
E/W Street: Cypress St
DATE: 8/20/2015 DAY: Thursday
CITY: Covina

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
6:00 AM	0	1	3	1	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0
6:30 AM	2	1	0	0	0	0	2	0
6:45 AM	0	0	1	1	0	0	0	0
7:00 AM	1	1	0	1	0	0	0	0
7:15 AM	2	0	0	0	0	1	0	0
7:30 AM	0	2	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	1	0	0
TOTALS	**5**	**5**	**4**	**3**	**0**	**2**	**2**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
6:00 AM	0	0	0	0	0	0	0	1	0	0	1	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	1	0
6:30 AM	0	0	0	0	0	0	0	1	0	0	1	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	3	0
7:00 AM	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	2	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**10**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 15-5497-003
N/S Street: Kidder Ave
E/W Street: Cypress St
DATE: 8/20/2015 DAY: Thursday
CITY: Covina

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
6:00 AM	0	1	1	0	0	0	0	0
6:15 AM	0	0	1	0	1	0	0	0
6:30 AM	2	1	0	1	0	0	0	0
6:45 AM	0	0	1	1	0	0	0	0
7:00 AM	0	1	0	2	0	0	0	1
7:15 AM	2	1	0	0	0	0	0	0
7:30 AM	0	3	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	2	0	0
TOTALS	**4**	**7**	**3**	**4**	**1**	**2**	**0**	**1**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
6:00 AM	0	0	0	0	0	0	0	1	0	0	1	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	1	0
6:30 AM	0	0	0	0	0	0	0	1	0	0	1	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	2	0
7:00 AM	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	1	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0
7:45 AM	0	0	0	0	0	0	0	1	0	0	1	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**8**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 15-5497-004
N/S Street: Badillo St
E/W Street: Cypress St
DATE: 8/20/2015 DAY: Thursday
CITY: Covina

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
6:00 AM	0	1	1	0	0	0	0	0
6:15 AM	0	0	1	0	1	0	0	0
6:30 AM	2	1	0	1	0	0	0	0
6:45 AM	0	0	1	1	0	0	0	0
7:00 AM	0	1	0	2	0	0	0	1
7:15 AM	2	1	0	0	0	0	0	0
7:30 AM	0	3	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	2	0	0
TOTALS	**4**	**7**	**3**	**4**	**1**	**2**	**0**	**1**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
6:00 AM	0	0	0	0	0	0	0	1	0	0	1	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	1	0
6:30 AM	0	0	0	0	0	0	0	1	0	0	1	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	2	0
7:00 AM	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	1	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0
7:45 AM	0	0	0	0	0	0	0	1	0	0	1	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**8**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 15-5497-005
N/S Street: Glendora Ave
E/W Street: Colver Pl
DATE: 8/20/2015 DAY: Thursday
CITY: Covina

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
6:00 AM	0	0	0	0	0	0	0	0
6:15 AM	1	0	0	0	1	0	0	1
6:30 AM	0	0	0	0	2	0	0	0
6:45 AM	0	0	3	0	5	0	3	2
7:00 AM	0	0	0	0	3	0	2	0
7:15 AM	0	0	0	1	4	5	3	2
7:30 AM	0	0	0	0	4	1	6	3
7:45 AM	0	0	0	1	0	1	7	0
TOTALS	**1**	**0**	**3**	**2**	**19**	**7**	**21**	**8**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	1
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	1	0	0	2	0	0	1	0	0	0	0
6:45 AM	0	3	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
7:15 AM	0	0	0	0	4	0	0	0	0	0	0	0
7:30 AM	0	1	0	0	1	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	1	0	0	0	0	1	0	0
TOTALS	**0**	**5**	**0**	**0**	**8**	**0**	**0**	**1**	**0**	**1**	**0**	**1**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 15-5497-006
N/S Street: Banna Ave
E/W Street: Colver Pl
DATE: 8/20/2015 DAY: Thursday
CITY: Covina

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
6:00 AM	0	0	0	0	0	0	0	1
6:15 AM	1	0	0	0	0	0	1	0
6:30 AM	0	0	0	0	1	1	6	0
6:45 AM	0	0	0	0	3	0	1	0
7:00 AM	0	3	0	1	4	5	2	0
7:15 AM	0	0	0	0	1	0	0	0
7:30 AM	0	0	0	0	2	1	2	0
7:45 AM	0	0	0	0	0	0	1	0
TOTALS	**1**	**3**	**0**	**1**	**11**	**7**	**13**	**1**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
6:00 AM	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
6:30 AM	0	0	0	0	0	1	1	0	0	0	0	0
6:45 AM	0	1	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
7:15 AM	0	1	1	0	0	0	0	0	0	0	0	0
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0
TOTALS	**0**	**3**	**1**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**1**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 15-5497-007
N/S Street: Banna Ave
E/W Street: Ruddock St
DATE: 8/20/2015 DAY: Thursday
CITY: Covina

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
6:00 AM	0	0	1	0	0	0	1	0
6:15 AM	0	1	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	1	0	0
6:45 AM	0	0	0	0	0	0	1	0
7:00 AM	1	0	0	0	0	1	1	1
7:15 AM	0	0	0	1	1	2	0	2
7:30 AM	0	0	0	0	0	0	3	0
7:45 AM	0	0	0	0	0	0	2	0
TOTALS	**1**	**1**	**1**	**1**	**1**	**4**	**8**	**3**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
6:00 AM	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
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	1	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
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	1	0	0	0	0	1	1	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**1**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 15-5497-008
N/S Street: Banna Ave
E/W Street: Badillo St
DATE: 8/20/2015 DAY: Thursday
CITY: Covina

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
6:00 AM	0	1	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	1
7:15 AM	0	1	0	0	2	1	0	0
7:30 AM	2	0	8	2	0	6	1	4
7:45 AM	1	0	6	1	2	5	0	0
TOTALS	**3**	**2**	**14**	**3**	**4**	**12**	**1**	**5**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
6:00 AM	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	1	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	1	1	0	0	0	0	2	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	1	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	1	0	0	0	0	0	1	0
7:45 AM	0	0	0	0	1	0	0	1	0	0	0	0
TOTALS	**0**	**1**	**1**	**0**	**2**	**0**	**0**	**3**	**1**	**0**	**3**	**0**

Prepared by National Data & Surveying Services

TRAIN OBSERVATION STUDY

Location: Banna Ave & Cypress St
City: Covina

Date: 8/20/2015
Day: Thursday

#	Time Arms Begin to Descend	Time Arms Are Fully Down	Train (?) Yes or No	Direction (EB or WB?)	Time Train Enters the Intersection	Time Train Leaves the Intersection	Time Arms Begin to Ascend	Time Arms Are Fully Up
1	6:08:07 AM	6:08:15 AM	Yes	WB	6:08:47AM	6:08:53AM	6:08:57 AM	6:09:06 AM
2	6:15:14 AM	6:15:22 AM	Yes	WB	6:15:48 AM	6:15:56 AM	6:15:58 AM	6:16:08 AM
3	6:42:24 AM	6:42:32 AM	Yes	WB	6:43:00 AM	6:43:07AM	6:43:10 AM	6:43:19 AM
4	6:49:09 AM	6:49:16 AM	Yes	EB	6:49:44 AM	6:49:52 AM	6:49:55 AM	6:50:04 AM
5	7:05:01 AM	7:05:09 AM	Yes	WB	7:05:42 AM	7:05:49 AM	7:05:52 AM	7:06:00 AM
6	7:17:25 AM	7:17:33 AM	Yes	WB	7:18:03 AM	7:18:10 AM	7:18:13 AM	7:18:22 AM
7	7:41:28 AM	7:41:35 AM	Yes	WB	7:42:06AM	7:42:12AM	6:42:15 AM	7:42:24 AM
8	7:58:14 AM	7:58:21 AM	Yes	WB	7:58:49 AM	7:58:56 AM	7:59:00 AM	7:59:08 AM

Prepared by National Data & Surveying Services

STUDENT DROP-OFF STUDY

Project #: 15-5501 **Day:** 8/20/15
City: Covina **Date:** Thursday

Vehicle No.	TIME (HH:MM)	# of People Dropped Off	Location
1	7:28	1	North side of Cypress St
2	7:33	1	North side of Cypress St
3	7:34	1	North side of Cypress St
4	7:37	1	North side of Cypress St
5	7:40	1	North side of Cypress St
6	7:49	1	North side of Cypress St
7	7:54	1	North side of Cypress St
8	7:56	1	North side of Cypress St

Notes: No drop-offs were observed at the south side of Cypress St or on Banna Ave.

APPENDIX B

Intersection Level of Service Worksheets

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Glendora Avenue/Cypress Street	B	xxxxx	0.657	B	xxxxx	0.657	+ 0.000 V/C
# 2 Banna Avenue/Cypress Street	C	15.2	0.188	C	15.2	0.188	+ 0.000 D/V
# 3 Kidder Avenue/Cypress Street	B	11.3	0.036	B	11.3	0.036	+ 0.000 D/V
# 4 Badillo St - Covina Blvd/Cypre	B	xxxxx	0.614	B	xxxxx	0.614	+ 0.000 V/C
# 5 Glendora Avenue/Colver Place	D	34.9	0.357	D	34.9	0.357	+ 0.000 D/V
# 6 Banna Avenue/Colver Place	A	8.2	0.232	A	8.2	0.232	+ 0.000 V/C
# 7 Banna Avenue/Ruddock Street	A	9.8	0.317	A	9.8	0.317	+ 0.000 V/C
# 8 Banna Avenue/Badillo Street	C	xxxxx	0.784	C	xxxxx	0.784	+ 0.000 V/C
# 9 Project Driveway/Cypress Stree	A	7.2	0.000	A	7.2	0.000	+ 0.000 D/V

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Glendora Avenue/Cypress Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.657
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	45	Level Of Service:	B

Street Name:	Glendora Avenue						Cypress Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	64	451	69	48	423	112	56	173	42	101	492	55
Growth 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
Initial Bse:	64	451	69	48	423	112	56	173	42	101	492	55
User 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
PHF Adj:	0.60	0.60	0.60	0.87	0.87	0.87	0.74	0.74	0.74	0.84	0.84	0.84
PHF Volume:	107	754	115	55	485	128	76	235	57	120	586	66
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	107	754	115	55	485	128	76	235	57	120	586	66
PCE 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
MLF 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
FinalVolume:	107	754	115	55	485	128	76	235	57	120	586	66
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.73	0.27	1.00	1.58	0.42	1.00	1.61	0.39	1.00	1.80	0.20
Final Sat.:	1600	2775	425	1600	2530	670	1600	2575	625	1600	2878	322
Capacity Analysis Module:												
Vol/Sat:	0.07	0.27	0.27	0.03	0.19	0.19	0.05	0.09	0.09	0.08	0.20	0.20
Crit Moves:		****			****			****			****	

```
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
********************************************************************************
Intersection #2 Banna Avenue/Cypress Street
********************************************************************************
Average Delay (sec/veh):      1.9       Worst Case Level Of Service: C[ 15.2]
********************************************************************************
Street Name:           Banna Avenue                     Cypress Street
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:           Include          Include          Include          Include
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  1  1  0    0  1  1  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      36    0    48     0    0     0     0  186    16    48  694     0
Growth 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
Initial Bse:   36    0    48     0    0     0     0  186    16    48  694     0
User 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
PHF Adj:     0.64 0.64  0.64  1.00 1.00  1.00  0.68 0.68  0.68  0.81 0.81  0.81
PHF Volume:    57    0    75     0    0     0     0  273    23    59  853     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:   57    0    75     0    0     0     0  273    23    59  853     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  6.8  6.5   6.9 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:  3.5  4.0   3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  829 1255   148  xxxx xxxx xxxxx  xxxx xxxx xxxxx   296 xxxx xxxxx
Potent Cap.:  313  173   878  xxxx xxxx xxxxx  xxxx xxxx xxxxx  1277 xxxx xxxxx
Move Cap.:    302  165   878  xxxx xxxx xxxxx  xxxx xxxx xxxxx  1277 xxxx xxxxx
Volume/Cap:  0.19 0.00  0.09  xxxx xxxx  xxxx  xxxx xxxx  xxxx  0.05 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx   0.1 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   8.0 xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     *    *     *     A    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx  483 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx  1.1 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   0.1 xxxx xxxxx
Shrd ConDel:xxxxx 15.2 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   8.0 xxxx xxxxx
Shared LOS:     *    C     *     *    *     *     *    *     *     A    *     *
ApproachDel:      15.2           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:         C                *                *                *
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
```

```
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
*******************************************************************************
Intersection #3 Kidder Avenue/Cypress Street
*******************************************************************************
Average Delay (sec/veh):      0.5       Worst Case Level Of Service: B[ 11.3]
*******************************************************************************
Street Name:          Kidder Avenue                     Cypress Street
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:           Include          Include          Include          Include
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  1  1  0    0  1  1  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       6    0    21     0    0     0     0  231     3    18  741     0
Growth 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
Initial Bse:    6    0    21     0    0     0     0  231     3    18  741     0
User 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
PHF Adj:     0.68 0.68  0.68  1.00 1.00  1.00  0.71 0.71  0.71  0.79 0.79  0.79
PHF Volume:     9    0    31     0    0     0     0  328     4    23  933     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    9    0    31     0    0     0     0  328     4    23  933     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  6.8  6.5   6.9 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:  3.5  4.0   3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  842 1308   166  xxxx xxxx xxxxx  xxxx xxxx xxxxx   332 xxxx xxxxx
Potent Cap.:  307  161   856  xxxx xxxx xxxxx  xxxx xxxx xxxxx  1239 xxxx xxxxx
Move Cap.:    303  158   856  xxxx xxxx xxxxx  xxxx xxxx xxxxx  1239 xxxx xxxxx
Volume/Cap:  0.03 0.00  0.04  xxxx xxxx  xxxx  xxxx xxxx  xxxx  0.02 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx   0.1 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   8.0 xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     *    *     *     A    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx  609 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx  0.2 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   0.1 xxxx xxxxx
Shrd ConDel:xxxxx 11.3 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   8.0 xxxx xxxxx
Shared LOS:     *    B     *     *    *     *     *    *     *     A    *     *
ApproachDel:      11.3           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:         B                *                *                *
*******************************************************************************
Note: Queue reported is the number of cars per lane.
*******************************************************************************
```

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Badillo St - Covina Blvd/Cypress Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.614
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	41	Level Of Service:	B

Street Name:	Badillo Street - Covina Boulevard							Cypress Street					
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Permitted			Permitted			Permitted			Permitted			
Rights:	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	2 0	1	1 0	2 0	1	
Volume Module:													
Base Vol:	1	382	51	1	893	284	120	38	3	98	93	0	
Growth 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	
Initial Bse:	1	382	51	1	893	284	120	38	3	98	93	0	
User 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	
PHF Adj:	0.74	0.74	0.74	0.94	0.94	0.94	0.94	0.94	0.94	0.74	0.74	0.74	
PHF Volume:	1	514	69	1	955	304	128	41	3	133	127	0	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	1	514	69	1	955	304	128	41	3	133	127	0	
PCE 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	
MLF 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	
FinalVolume:	1	514	69	1	955	304	128	41	3	133	127	0	
Saturation Flow Module:													
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Lanes:	1.00	1.76	0.24	1.00	1.52	0.48	1.00	2.00	1.00	1.00	2.00	1.00	
Final Sat.:	1600	2823	377	1600	2428	772	1600	3200	1600	1600	3200	1600	
Capacity Analysis Module:													
Vol/Sat:	0.00	0.18	0.18	0.00	0.39	0.39	0.08	0.01	0.00	0.08	0.04	0.00	
Crit Moves:	****				****		****				****		

```
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
*******************************************************************************
Intersection #5 Glendora Avenue/Colver Place
*******************************************************************************
Average Delay (sec/veh):      2.5       Worst Case Level Of Service: D[ 34.9]
*******************************************************************************
Street Name:         Glendora Avenue                     Colver Place
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        0  1  0  1  0    0  1  0  1  0    0  0  1! 0  0    0  0  1! 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       4  524     9    22  535     3     1    1     7    34    0    59
Growth 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
Initial Bse:    4  524     9    22  535     3     1    1     7    34    0    59
User 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
PHF Adj:     0.59 0.59  0.59  0.77 0.77  0.77  0.56 0.56  0.56  0.86 0.86  0.86
PHF Volume:     7  887    15    28  692     4     2    2    12    39    0    69
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    7  887    15    28  692     4     2    2    12    39    0    69
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx   4.1 xxxx xxxxx   7.5  6.5   6.9   7.5  6.5   6.9
FollowUpTim:  2.2 xxxx xxxxx   2.2 xxxx xxxxx   3.5  4.0   3.3   3.5  4.0   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  696 xxxx xxxxx   902 xxxx xxxxx  1208 1666   348  1312 1661   451
Potent Cap.:  909 xxxx xxxxx   762 xxxx xxxxx   141   98   654   118   98   561
Move Cap.:    909 xxxx xxxxx   762 xxxx xxxxx   120   93   654   111   94   561
Volume/Cap:  0.01 xxxx  xxxx  0.04 xxxx  xxxx  0.01 0.02  0.02  0.36 0.00  0.12
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    0.0 xxxx xxxxx   0.1 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:  9.0 xxxx xxxxx   9.9 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    A    *     *     A    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  302 xxxxx  xxxx  225 xxxxx
SharedQueue:  0.0 xxxx xxxxx   0.1 xxxx xxxxx xxxxx  0.2 xxxxx xxxxx  2.4 xxxxx
Shrd ConDel:  9.0 xxxx xxxxx   9.9 xxxx xxxxx xxxxx 17.6 xxxxx xxxxx 34.9 xxxxx
Shared LOS:     A    *     *     A    *     *     *    C     *     *    D     *
ApproachDel:    xxxxxx           xxxxxx             17.6             34.9
ApproachLOS:         *                *               C               D
*******************************************************************************
Note: Queue reported is the number of cars per lane.
*******************************************************************************
```

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #6 Banna Avenue/Colver Place

Cycle (sec):	100	Critical Vol./Cap.(X):	0.232
Loss Time (sec):	10	Average Delay (sec/veh):	8.2
Optimal Cycle:	0	Level Of Service:	A

Street Name:	Banna Avenue						Colver Place					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	0 1	0	0 0	1! 0	0	0 1	0 0	0
Volume Module:												
Base Vol:	28	82	10	0	61	8	5	4	13	12	17	0
Growth 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
Initial Bse:	28	82	10	0	61	8	5	4	13	12	17	0
User 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
PHF Adj:	0.61	0.61	0.61	0.48	0.48	0.48	0.79	0.79	0.79	0.73	0.73	0.73
PHF Volume:	46	134	16	0	127	17	6	5	17	17	23	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	46	134	16	0	127	17	6	5	17	17	23	0
PCE 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
MLF 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
FinalVolume:	46	134	16	0	127	17	6	5	17	17	23	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.23	0.69	0.08	0.00	0.88	0.12	0.23	0.18	0.59	0.41	0.59	0.00
Final Sat.:	197	577	70	0	747	98	175	140	456	296	419	0
Capacity Analysis Module:												
Vol/Sat:	0.23	0.23	0.23	xxxx	0.17	0.17	0.04	0.04	0.04	0.06	0.06	xxxx
Crit Moves:		****				****		****		****		
Delay/Veh:	8.4	8.4	8.4	0.0	8.0	8.0	7.5	7.5	7.5	8.0	8.0	0.0
Delay 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
AdjDel/Veh:	8.4	8.4	8.4	0.0	8.0	8.0	7.5	7.5	7.5	8.0	8.0	0.0
LOS by Move:	A	A	A	*	A	A	A	A	A	A	A	*
ApproachDel:	8.4			8.0			7.5			8.0		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.4			8.0			7.5			8.0		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.3	0.3	0.3	0.2	0.2	0.2	0.0	0.0	0.0	0.1	0.1	0.1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #7 Banna Avenue/Ruddock Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.317
Loss Time (sec):	10	Average Delay (sec/veh):	9.8
Optimal Cycle:	0	Level Of Service:	A

Street Name:	Banna Avenue						Ruddock Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	22	80	1	13	66	32	22	73	21	4	108	11
Growth 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
Initial Bse:	22	80	1	13	66	32	22	73	21	4	108	11
User 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
PHF Adj:	0.61	0.61	0.61	0.57	0.57	0.57	0.71	0.71	0.71	0.57	0.57	0.57
PHF Volume:	36	131	2	23	117	57	31	103	30	7	190	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	131	2	23	117	57	31	103	30	7	190	19
PCE 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
MLF 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
FinalVolume:	36	131	2	23	117	57	31	103	30	7	190	19
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.21	0.78	0.01	0.12	0.59	0.29	0.19	0.63	0.18	0.03	0.88	0.09
Final Sat.:	140	509	6	80	407	198	127	422	121	22	599	61
Capacity Analysis Module:												
Vol/Sat:	0.26	0.26	0.26	0.29	0.29	0.29	0.24	0.24	0.24	0.32	0.32	0.32
Crit Moves:		****		****				****			****	
Delay/Veh:	9.7	9.7	9.7	9.7	9.7	9.7	9.5	9.5	9.5	10.1	10.1	10.1
Delay 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
AdjDel/Veh:	9.7	9.7	9.7	9.7	9.7	9.7	9.5	9.5	9.5	10.1	10.1	10.1
LOS by Move:	A	A	A	A	A	A	A	A	A	B	B	B
ApproachDel:	9.7			9.7			9.5			10.1		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	9.7			9.7			9.5			10.1		
LOS by Appr:	A			A			A			B		
AllWayAvgQ:	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Banna Avenue/Badillo Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.784
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	63	Level Of Service:	C

Street Name:	Banna Avenue						Badiillo Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	1! 0	0	1	0	1	1	0	1	0	1	1	0
Volume Module:												
Base Vol:	111	49	19	10	42	60	34	499	86	25	1248	13
Growth 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
Initial Bse:	111	49	19	10	42	60	34	499	86	25	1248	13
User 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
PHF Adj:	0.71	0.71	0.71	0.62	0.62	0.62	0.68	0.68	0.68	0.89	0.89	0.89
PHF Volume:	156	69	27	16	68	96	50	735	127	28	1401	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	156	69	27	16	68	96	50	735	127	28	1401	15
PCE 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
MLF 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
FinalVolume:	156	69	27	16	68	96	50	735	127	28	1401	15
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.62	0.27	0.11	0.09	0.37	0.54	1.00	1.71	0.29	1.00	1.98	0.02
Final Sat.:	992	438	170	143	600	857	1600	2730	470	1600	3167	33
Capacity Analysis Module:												
Vol/Sat:	0.10	0.16	0.16	0.01	0.11	0.11	0.03	0.27	0.27	0.02	0.44	0.44
Crit Moves:	****				****		****				****	

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------------------------------------------------------------------------------
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                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #9 Project Driveway/Cypress Street
******************************************************************************
Average Delay (sec/veh):      0.0       Worst Case Level Of Service: A[  7.2]
******************************************************************************
Street Name:         Project Driveway                  Cypress Street
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:           Include          Include          Include          Include
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  1  1  0    0  1  1  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0     0    0     0     0  234     0     0  742     0
Growth 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
Initial Bse:    0    0     0     0    0     0     0  234     0     0  742     0
User 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
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  0.68 0.68  0.68  0.81 0.81  0.81
PHF Volume:     0    0     0     0    0     0     0  343     0     0  912     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0    0     0     0    0     0     0  343     0     0  912     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  6.8  6.5   6.9 xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:  3.5  4.0   3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  799 1255   172  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.:  327  173   849  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:    327  173   849  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Volume/Cap:  0.00 0.00  0.00  xxxx xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx    0 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   0.0 xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   7.2 xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    *     *     A    *     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:         *                *                *                *
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
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Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Glendora Avenue/Cypress Street	A	xxxxx	0.507	A	xxxxx	0.507	+ 0.000 V/C
# 2 Banna Avenue/Cypress Street	B	13.6	0.072	B	13.6	0.072	+ 0.000 D/V
# 3 Kidder Avenue/Cypress Street	B	13.9	0.027	B	13.9	0.027	+ 0.000 D/V
# 4 Badillo St - Covina Blvd/Cypre	A	xxxxx	0.530	A	xxxxx	0.530	+ 0.000 V/C
# 5 Glendora Avenue/Colver Place	C	22.5	0.324	C	22.5	0.324	+ 0.000 D/V
# 6 Banna Avenue/Colver Place	A	7.4	0.093	A	7.4	0.093	+ 0.000 V/C
# 7 Banna Avenue/Ruddock Street	A	7.6	0.111	A	7.6	0.111	+ 0.000 V/C
# 8 Banna Avenue/Badillo Street	A	xxxxx	0.503	A	xxxxx	0.503	+ 0.000 V/C
# 9 Project Driveway/Cypress Stree	A	7.2	0.000	A	7.2	0.000	+ 0.000 D/V

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Glendora Avenue/Cypress Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.507
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	34	Level Of Service:	A

Street Name:	Glendora Avenue						Cypress Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	47	337	61	54	344	50	84	443	83	53	211	48
Growth 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
Initial Bse:	47	337	61	54	344	50	84	443	83	53	211	48
User 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
PHF Adj:	0.95	0.95	0.95	0.79	0.79	0.79	0.90	0.90	0.90	0.88	0.88	0.88
PHF Volume:	49	354	64	68	433	63	94	494	93	61	241	55
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	49	354	64	68	433	63	94	494	93	61	241	55
PCE 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
MLF 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
FinalVolume:	49	354	64	68	433	63	94	494	93	61	241	55
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.69	0.31	1.00	1.75	0.25	1.00	1.68	0.32	1.00	1.63	0.37
Final Sat.:	1600	2710	490	1600	2794	406	1600	2695	505	1600	2607	593
Capacity Analysis Module:												
Vol/Sat:	0.03	0.13	0.13	0.04	0.16	0.16	0.06	0.18	0.18	0.04	0.09	0.09
Crit Moves:	****				****			****		****		

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
*******************************************************************************
Intersection #2 Banna Avenue/Cypress Street
*******************************************************************************
Average Delay (sec/veh):      1.1       Worst Case Level Of Service: B[ 13.6]
*******************************************************************************
Street Name:           Banna Avenue                     Cypress Street
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:           Include          Include          Include          Include
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  1  1  0    0  1  1  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      16    0    34     0    0     0     0  513    29    25  278     0
Growth 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
Initial Bse:   16    0    34     0    0     0     0  513    29    25  278     0
User 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
PHF Adj:     0.74 0.74  0.74  1.00 1.00  1.00  0.84 0.84  0.84  0.90 0.90  0.90
PHF Volume:    22    0    46     0    0     0     0  609    34    28  308     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:   22    0    46     0    0     0     0  609    34    28  308     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  6.8  6.5   6.9 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:  3.5  4.0   3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  836  990   322  xxxx xxxx xxxxx  xxxx xxxx xxxxx   644 xxxx xxxxx
Potent Cap.:  310  248   680  xxxx xxxx xxxxx  xxxx xxxx xxxxx   951 xxxx xxxxx
Move Cap.:    303  241   680  xxxx xxxx xxxxx  xxxx xxxx xxxxx   951 xxxx xxxxx
Volume/Cap:  0.07 0.00  0.07  xxxx xxxx  xxxx  xxxx xxxx  xxxx  0.03 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx   0.1 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   8.9 xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     *    *     *     A    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx  486 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx  0.5 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   0.1 xxxx xxxxx
Shrd ConDel:xxxxx 13.6 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   8.9 xxxx xxxxx
Shared LOS:     *    B     *     *    *     *     *    *     *     A    *     *
ApproachDel:      13.6           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:         B                *                *                *
*******************************************************************************
Note: Queue reported is the number of cars per lane.
*******************************************************************************
```

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                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
*******************************************************************************
Intersection #3 Kidder Avenue/Cypress Street
*******************************************************************************
Average Delay (sec/veh):      0.4       Worst Case Level Of Service: B[ 13.9]
*******************************************************************************
Street Name:          Kidder Avenue                     Cypress Street
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:           Include          Include          Include          Include
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  1  1  0    0  1  1  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       7    0     6     0    0     0     0  540     8    17  297     0
Growth 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
Initial Bse:    7    0     6     0    0     0     0  540     8    17  297     0
User 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
PHF Adj:     0.81 0.81  0.81  1.00 1.00  1.00  0.87 0.87  0.87  0.95 0.95  0.95
PHF Volume:     9    0     7     0    0     0     0  619     9    18  314     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    9    0     7     0    0     0     0  619     9    18  314     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  6.8  6.5   6.9 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:  3.5  4.0   3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  816  973   314  xxxx xxxx xxxxx  xxxx xxxx xxxxx   628 xxxx xxxxx
Potent Cap.:  319  254   688  xxxx xxxx xxxxx  xxxx xxxx xxxxx   964 xxxx xxxxx
Move Cap.:    314  249   688  xxxx xxxx xxxxx  xxxx xxxx xxxxx   964 xxxx xxxxx
Volume/Cap:  0.03 0.00  0.01  xxxx xxxx  xxxx  xxxx xxxx  xxxx  0.02 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx   0.1 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   8.8 xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     *    *     *     A    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx  420 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx  0.1 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   0.1 xxxx xxxxx
Shrd ConDel:xxxxx 13.9 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   8.8 xxxx xxxxx
Shared LOS:     *    B     *     *    *     *     *    *     *     A    *     *
ApproachDel:      13.9           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:         B                *                *                *
*******************************************************************************
Note: Queue reported is the number of cars per lane.
*******************************************************************************
```

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Badillo St - Covina Blvd/Cypress Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.530
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	35	Level Of Service:	A

Street Name:	Badillo Street - Covina Boulevard									Cypress Street							
Approach:	North Bound			South Bound			East Bound			West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Permitted			Permitted			Permitted			Permitted							
Rights:	Include			Include			Include			Include							
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0					
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0					
Lanes:	1	0	1	1	0	1	0	1	1	0	1	0	2	0	1	1	0	2	0	1					
Volume Module:																	
Base Vol:	2	658	85	2	506	134	213	68	7	72	54	1					
Growth 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					
Initial Bse:	2	658	85	2	506	134	213	68	7	72	54	1					
User 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					
PHF Adj:	0.94	0.94	0.94	0.96	0.96	0.96	0.83	0.83	0.83	0.86	0.86	0.86					
PHF Volume:	2	703	91	2	527	139	257	82	8	84	63	1					
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0					
Reduced Vol:	2	703	91	2	527	139	257	82	8	84	63	1					
PCE 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					
MLF 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					
FinalVolume:	2	703	91	2	527	139	257	82	8	84	63	1					
Saturation Flow Module:																	
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600					
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
Lanes:	1.00	1.77	0.23	1.00	1.58	0.42	1.00	2.00	1.00	1.00	2.00	1.00					
Final Sat.:	1600	2834	366	1600	2530	670	1600	3200	1600	1600	3200	1600					
Capacity Analysis Module:																	
Vol/Sat:	0.00	0.25	0.25	0.00	0.21	0.21	0.16	0.03	0.01	0.05	0.02	0.00					
Crit Moves:		****			****			****				****					

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
*******************************************************************************
Intersection #5 Glendora Avenue/Colver Place
*******************************************************************************
Average Delay (sec/veh):      4.0       Worst Case Level Of Service: C[ 22.5]
*******************************************************************************
Street Name:         Glendora Avenue                     Colver Place
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        0  1  0  1  0    0  1  0  1  0    0  0  1! 0  0    0  0  1! 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      13  334    20    15  418    20    79   11    41    13    2    19
Growth 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
Initial Bse:   13  334    20    15  418    20    79   11    41    13    2    19
User 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
PHF Adj:     0.95 0.95  0.95  0.88 0.88  0.88  0.82 0.82  0.82  0.77 0.77  0.77
PHF Volume:    14  353    21    17  476    23    96   13    50    17    3    25
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:   14  353    21    17  476    23    96   13    50    17    3    25
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx   4.1 xxxx xxxxx   7.5  6.5   6.9   7.5  6.5   6.9
FollowUpTim:  2.2 xxxx xxxxx   2.2 xxxx xxxxx   3.5  4.0   3.3   3.5  4.0   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  499 xxxx xxxxx   374 xxxx xxxxx   727  923   249   670  924   187
Potent Cap.: 1076 xxxx xxxxx  1195 xxxx xxxxx   315  272   757   347  271   829
Move Cap.:   1076 xxxx xxxxx  1195 xxxx xxxxx   297  264   757   305  264   829
Volume/Cap:  0.01 xxxx  xxxx  0.01 xxxx  xxxx  0.32 0.05  0.07  0.06 0.01  0.03
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    0.0 xxxx xxxxx   0.0 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:  8.4 xxxx xxxxx   8.1 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    A    *     *     A    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  363 xxxxx  xxxx  465 xxxxx
SharedQueue:  0.0 xxxx xxxxx   0.0 xxxx xxxxx xxxxx  2.2 xxxxx xxxxx  0.3 xxxxx
Shrd ConDel:  8.4 xxxx xxxxx   8.1 xxxx xxxxx xxxxx 22.5 xxxxx xxxxx 13.6 xxxxx
Shared LOS:     A    *     *     A    *     *     *    C     *     *    B     *
ApproachDel:    xxxxxx           xxxxxx             22.5             13.6
ApproachLOS:         *                *               C               B
*******************************************************************************
Note: Queue reported is the number of cars per lane.
*******************************************************************************
```

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #6 Banna Avenue/Colver Place

Cycle (sec):	100	Critical Vol./Cap.(X):	0.093
Loss Time (sec):	10	Average Delay (sec/veh):	7.4
Optimal Cycle:	0	Level Of Service:	A

Street Name:	Banna Avenue						Colver Place					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0 1!	0 0		0 0 1!	0 0		0 0 1!	0 0		0 1	0 0	0
Volume Module:												
Base Vol:	15	39	4	2	42	6	5	5	11	12	6	0
Growth 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
Initial Bse:	15	39	4	2	42	6	5	5	11	12	6	0
User 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
PHF Adj:	0.73	0.73	0.73	0.74	0.74	0.74	0.75	0.75	0.75	0.45	0.45	0.45
PHF Volume:	21	54	6	3	57	8	7	7	15	27	13	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	54	6	3	57	8	7	7	15	27	13	0
PCE 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
MLF 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
FinalVolume:	21	54	6	3	57	8	7	7	15	27	13	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.26	0.67	0.07	0.04	0.84	0.12	0.24	0.24	0.52	0.67	0.33	0.00
Final Sat.:	222	577	59	35	732	105	208	208	457	532	266	0
Capacity Analysis Module:												
Vol/Sat:	0.09	0.09	0.09	0.08	0.08	0.08	0.03	0.03	0.03	0.05	0.05	xxxx
Crit Moves:		****			****				****	****		
Delay/Veh:	7.5	7.5	7.5	7.4	7.4	7.4	7.1	7.1	7.1	7.6	7.6	0.0
Delay 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
AdjDel/Veh:	7.5	7.5	7.5	7.4	7.4	7.4	7.1	7.1	7.1	7.6	7.6	0.0
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	*
ApproachDel:	7.5			7.4			7.1			7.6		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	7.5			7.4			7.1			7.6		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #7 Banna Avenue/Ruddock Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.111
Loss Time (sec):	10	Average Delay (sec/veh):	7.6
Optimal Cycle:	0	Level Of Service:	A

Street Name:	Banna Avenue						Ruddock Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	10	41	15	10	28	11	12	51	14	4	40	9
Growth 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
Initial Bse:	10	41	15	10	28	11	12	51	14	4	40	9
User 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
PHF Adj:	0.92	0.92	0.92	0.68	0.68	0.68	0.84	0.84	0.84	0.74	0.74	0.74
PHF Volume:	11	45	16	15	41	16	14	61	17	5	54	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	45	16	15	41	16	14	61	17	5	54	12
PCE 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
MLF 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
FinalVolume:	11	45	16	15	41	16	14	61	17	5	54	12
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.15	0.62	0.23	0.20	0.58	0.22	0.16	0.66	0.18	0.08	0.75	0.17
Final Sat.:	125	512	187	168	469	184	129	550	151	62	623	140
Capacity Analysis Module:												
Vol/Sat:	0.09	0.09	0.09	0.09	0.09	0.09	0.11	0.11	0.11	0.09	0.09	0.09
Crit Moves:	****			****			****				****	
Delay/Veh:	7.6	7.6	7.6	7.6	7.6	7.6	7.7	7.7	7.7	7.6	7.6	7.6
Delay 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
AdjDel/Veh:	7.6	7.6	7.6	7.6	7.6	7.6	7.7	7.7	7.7	7.6	7.6	7.6
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	7.6			7.6			7.7			7.6		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	7.6			7.6			7.7			7.6		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Banna Avenue/Badillo Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.503
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	34	Level Of Service:	A

Street Name:	Banna Avenue						Badiillo Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	24	11	4	8	7	41	75	967	60	8	610	4
Growth 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
Initial Bse:	24	11	4	8	7	41	75	967	60	8	610	4
User 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
PHF Adj:	0.81	0.81	0.81	0.78	0.78	0.78	0.96	0.96	0.96	0.91	0.91	0.91
PHF Volume:	30	14	5	10	9	53	78	1007	63	9	671	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	30	14	5	10	9	53	78	1007	63	9	671	4
PCE 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
MLF 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
FinalVolume:	30	14	5	10	9	53	78	1007	63	9	671	4
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.62	0.28	0.10	0.14	0.12	0.74	1.00	1.88	0.12	1.00	1.99	0.01
Final Sat.:	985	451	164	229	200	1171	1600	3013	187	1600	3179	21
Capacity Analysis Module:												
Vol/Sat:	0.02	0.03	0.03	0.01	0.04	0.04	0.05	0.33	0.33	0.01	0.21	0.21
Crit Moves:	****				****			****		****		

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                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
*******************************************************************************
Intersection #9 Project Driveway/Cypress Street
*******************************************************************************
Average Delay (sec/veh):      0.0       Worst Case Level Of Service: A[  7.2]
*******************************************************************************
Street Name:         Project Driveway                  Cypress Street
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:           Include          Include          Include          Include
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  1  1  0    0  1  1  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0     0    0     0     0  529     0     0  303     0
Growth 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
Initial Bse:    0    0     0     0    0     0     0  529     0     0  303     0
User 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
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  0.84 0.84  0.84  0.90 0.90  0.90
PHF Volume:     0    0     0     0    0     0     0  628     0     0  336     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0    0     0     0    0     0     0  628     0     0  336     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  6.8  6.5   6.9 xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:  3.5  4.0   3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  796  964   314  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.:  328  257   688  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:    328  257   688  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Volume/Cap:  0.00 0.00  0.00  xxxx xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx    0 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   0.0 xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   7.2 xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    *     *     A    *     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:         *                *                *                *
*******************************************************************************
Note: Queue reported is the number of cars per lane.
*******************************************************************************
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Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Glendora Avenue/Cypress Street	B	xxxxx	0.661	B	xxxxx	0.661	+ 0.000 V/C
# 2 Banna Avenue/Cypress Street	C	16.0	0.216	C	16.0	0.216	+ 0.000 D/V
# 3 Kidder Avenue/Cypress Street	B	12.9	0.070	B	12.9	0.070	+ 0.000 D/V
# 4 Badillo St - Covina Blvd/Cypre	B	xxxxx	0.619	B	xxxxx	0.619	+ 0.000 V/C
# 5 Glendora Avenue/Colver Place							
# 6 Banna Avenue/Colver Place	A	8.9	0.298	A	8.9	0.298	+ 0.000 V/C
# 7 Banna Avenue/Ruddock Street	A	10.0	0.323	A	10.0	0.323	+ 0.000 V/C
# 8 Banna Avenue/Badillo Street	C	xxxxx	0.793	C	xxxxx	0.793	+ 0.000 V/C
# 9 Banna Avenue/West Project Driv	A	9.6	0.007	A	9.6	0.007	+ 0.000 D/V
# 10 Kidder Avenue/East Project Dri	A	8.7	0.004	A	8.7	0.004	+ 0.000 D/V

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Glendora Avenue/Cypress Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.661
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	46	Level Of Service:	B

Street Name:	Glendora Avenue						Cypress Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	64	451	69	49	423	112	56	175	42	101	497	59
Growth 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
Initial Bse:	64	451	69	49	423	112	56	175	42	101	497	59
User 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
PHF Adj:	0.60	0.60	0.60	0.87	0.87	0.87	0.74	0.74	0.74	0.84	0.84	0.84
PHF Volume:	107	754	115	56	485	128	76	238	57	120	592	70
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	107	754	115	56	485	128	76	238	57	120	592	70
PCE 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
MLF 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
FinalVolume:	107	754	115	56	485	128	76	238	57	120	592	70
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.73	0.27	1.00	1.58	0.42	1.00	1.61	0.39	1.00	1.79	0.21
Final Sat.:	1600	2775	425	1600	2530	670	1600	2581	619	1600	2860	340
Capacity Analysis Module:												
Vol/Sat:	0.07	0.27	0.27	0.04	0.19	0.19	0.05	0.09	0.09	0.08	0.21	0.21
Crit Moves:		****		****			****				****	

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------------------------------------------------------------------------------
------------------------------------------------------------------------------
                       Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #2 Banna Avenue/Cypress Street
******************************************************************************
Average Delay (sec/veh):      2.1       Worst Case Level Of Service: C[ 16.0]
******************************************************************************
Street Name:           Banna Avenue                     Cypress Street
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:           Include          Include          Include          Include
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  1  1  0    0  1  1  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      41    0    52     0    0     0     0  187    18    49  698     0
Growth 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
Initial Bse:   41    0    52     0    0     0     0  187    18    49  698     0
User 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
PHF Adj:     0.64 0.64  0.64  1.00 1.00  1.00  0.68 0.68  0.68  0.81 0.81  0.81
PHF Volume:    64    0    82     0    0     0     0  274    26    60  857     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:   64    0    82     0    0     0     0  274    26    60  857     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  6.8  6.5   6.9 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:  3.5  4.0   3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  837 1265   150  xxxx xxxx xxxxx  xxxx xxxx xxxxx   301 xxxx xxxxx
Potent Cap.:  310  171   876  xxxx xxxx xxxxx  xxxx xxxx xxxxx  1272 xxxx xxxxx
Move Cap.:    298  162   876  xxxx xxxx xxxxx  xxxx xxxx xxxxx  1272 xxxx xxxxx
Volume/Cap:  0.22 0.00  0.09  xxxx xxxx  xxxx  xxxx xxxx  xxxx  0.05 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx   0.1 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   8.0 xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     *    *     *     A    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx  472 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx  1.3 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   0.1 xxxx xxxxx
Shrd ConDel:xxxxx 16.0 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   8.0 xxxx xxxxx
Shared LOS:     *    C     *     *    *     *     *    *     *     A    *     *
ApproachDel:      16.0           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:         C                *                *                *
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
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------------------------------------------------------------------------------
                       Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #3 Kidder Avenue/Cypress Street
******************************************************************************
Average Delay (sec/veh):      1.0       Worst Case Level Of Service: B[ 12.9]
******************************************************************************
Street Name:          Kidder Avenue                     Cypress Street
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:           Include          Include          Include          Include
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  1  1  0    0  1  1  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      10    0    26     0    0     0     0  235     4    68  694     0
Growth 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
Initial Bse:   10    0    26     0    0     0     0  235     4    68  694     0
User 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
PHF Adj:     0.68 0.68  0.68  1.00 1.00  1.00  0.71 0.71  0.71  0.79 0.79  0.79
PHF Volume:    15    0    39     0    0     0     0  333     6    86  874     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:   15    0    39     0    0     0     0  333     6    86  874     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  6.8  6.5   6.9 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:  3.5  4.0   3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  944 1382   170  xxxx xxxx xxxxx  xxxx xxxx xxxxx   339 xxxx xxxxx
Potent Cap.:  264  145   851  xxxx xxxx xxxxx  xxxx xxxx xxxxx  1231 xxxx xxxxx
Move Cap.:    249  135   851  xxxx xxxx xxxxx  xxxx xxxx xxxxx  1231 xxxx xxxxx
Volume/Cap:  0.06 0.00  0.05  xxxx xxxx  xxxx  xxxx xxxx  xxxx  0.07 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx   0.2 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   8.1 xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     *    *     *     A    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx  509 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx  0.3 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   0.2 xxxx xxxxx
Shrd ConDel:xxxxx 12.9 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   8.1 xxxx xxxxx
Shared LOS:     *    B     *     *    *     *     *    *     *     A    *     *
ApproachDel:      12.9           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:         B                *                *                *
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Badillo St - Covina Blvd/Cypress Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.619
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	42	Level Of Service:	B

Street Name:	Badillo Street - Covina Boulevard							Cypress Street					
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Permitted			Permitted			Permitted			Permitted			
Rights:	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	2 0	1	1 0	2 0	1	
Volume Module:													
Base Vol:	1	382	51	1	893	286	127	38	3	98	93	0	
Growth 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	
Initial Bse:	1	382	51	1	893	286	127	38	3	98	93	0	
User 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	
PHF Adj:	0.74	0.74	0.74	0.94	0.94	0.94	0.94	0.94	0.94	0.74	0.74	0.74	
PHF Volume:	1	514	69	1	955	306	136	41	3	133	127	0	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	1	514	69	1	955	306	136	41	3	133	127	0	
PCE 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	
MLF 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	
FinalVolume:	1	514	69	1	955	306	136	41	3	133	127	0	
Saturation Flow Module:													
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Lanes:	1.00	1.76	0.24	1.00	1.51	0.49	1.00	2.00	1.00	1.00	2.00	1.00	
Final Sat.:	1600	2823	377	1600	2424	776	1600	3200	1600	1600	3200	1600	
Capacity Analysis Module:													
Vol/Sat:	0.00	0.18	0.18	0.00	0.39	0.39	0.08	0.01	0.00	0.08	0.04	0.00	
Crit Moves:	****				****		****				****		

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Glendora Avenue/Colver Place

Average Delay (sec/veh): 2.7 Worst Case Level Of Service: C[22.3]

Street Name:	Glendora Avenue									Colver Place							
Approach:	North Bound				South Bound				East Bound				West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	0	1	0	1	0	0	1	0	1	0	0	0	1!	0	0	0	1	0	0	1
Volume Module:																				
Base Vol:	4	524		10		22	535		3		1		1		7	34		0		130
Growth 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
Initial Bse:	4	524		10		22	535		3		1		1		7	34		0		130
Added Vol:	0	0		0		0	0		0		0		0		0	0		0		0
PasserByVol:	0	0		0		0	0		0		0		0		0	0		0		0
Initial Fut:	4	524		10		22	535		3		1		1		7	34		0		130
User 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
PHF Adj:	0.59	0.59		0.59		0.77	0.77		0.77		0.56		0.56		0.56	0.86		0.86		0.86
PHF Volume:	7	887		17		28	692		4		2		2		12	39		0		151
Reduct Vol:	0	0		0		0	0		0		0		0		0	0		0		0
FinalVolume:	7	887		17		28	692		4		2		2		12	39		0		151
Critical Gap Module:																				
Critical Gp:	4.1	xxxx		xxxxx		4.1	xxxx		xxxxx		7.5		6.5		6.9	7.5		6.5		6.9
FollowUpTim:	2.2	xxxx		xxxxx		2.2	xxxx		xxxxx		3.5		4.0		3.3	3.5		4.0		3.3
Capacity Module:																				
Cnflict Vol:	696	xxxx		xxxxx		904	xxxx		xxxxx		1208		1668		348	1312		1662		452
Potent Cap.:	909	xxxx		xxxxx		761	xxxx		xxxxx		141		97		654	118		98		560
Move Cap.:	909	xxxx		xxxxx		761	xxxx		xxxxx		100		93		654	110		94		560
Volume/Cap:	0.01	xxxx		xxxx		0.04	xxxx		xxxx		0.02		0.02		0.02	0.36		0.00		0.27
Level Of Service Module:																				
2Way95thQ:	0.0	xxxx		xxxxx		0.1	xxxx		xxxxx		xxxx		xxxx		xxxxx	xxxx		xxxx		1.1
Control Del:	9.0	xxxx		xxxxx		9.9	xxxx		xxxxx		xxxxx		xxxx		xxxxx	xxxxx		xxxx		13.8
LOS by Move:	A	*		*		A	*		*		*		*		*	*		*		B
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx		286		xxxxx	110		xxxx		xxxxx
SharedQueue:	0.0	xxxx		xxxxx		0.1	xxxx		xxxxx		xxxxx		0.2		xxxxx	1.4		xxxx		xxxxx
Shrd ConDel:	9.0	xxxx		xxxxx		9.9	xxxx		xxxxx		xxxxx		18.4		xxxxx	54.8		xxxx		xxxxx
Shared LOS:	A	*		*		A	*		*		*		C		*	F		*		*
ApproachDel:	xxxxxx					xxxxxx					18.4					22.3				
ApproachLOS:	*					*					C					C				

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #6 Banna Avenue/Colver Place

Cycle (sec):	100	Critical Vol./Cap.(X):	0.298
Loss Time (sec):	10	Average Delay (sec/veh):	8.9
Optimal Cycle:	0	Level Of Service:	A

Street Name:	Banna Avenue						Colver Place					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	0 1	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	46	84	12	0	70	26	6	5	13	45	17	24
Growth 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
Initial Bse:	46	84	12	0	70	26	6	5	13	45	17	24
User 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
PHF Adj:	0.61	0.61	0.61	0.48	0.48	0.48	0.79	0.79	0.79	0.73	0.73	0.73
PHF Volume:	75	137	20	0	146	54	8	6	17	62	23	33
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	75	137	20	0	146	54	8	6	17	62	23	33
PCE 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
MLF 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
FinalVolume:	75	137	20	0	146	54	8	6	17	62	23	33
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.32	0.60	0.08	0.00	0.73	0.27	0.25	0.21	0.54	0.52	0.20	0.28
Final Sat.:	253	461	66	0	584	217	174	145	376	365	138	195
Capacity Analysis Module:												
Vol/Sat:	0.30	0.30	0.30	xxxx	0.25	0.25	0.04	0.04	0.04	0.17	0.17	0.17
Crit Moves:	****					****	****				****	
Delay/Veh:	9.3	9.3	9.3	0.0	8.7	8.7	7.9	7.9	7.9	8.7	8.7	8.7
Delay 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
AdjDel/Veh:	9.3	9.3	9.3	0.0	8.7	8.7	7.9	7.9	7.9	8.7	8.7	8.7
LOS by Move:	A	A	A	*	A	A	A	A	A	A	A	A
ApproachDel:	9.3			8.7			7.9			8.7		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	9.3			8.7			7.9			8.7		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.4	0.4	0.4	0.3	0.3	0.3	0.0	0.0	0.0	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #7 Banna Avenue/Ruddock Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.323
Loss Time (sec):	10	Average Delay (sec/veh):	10.0
Optimal Cycle:	0	Level Of Service:	A

Street Name:	Banna Avenue						Ruddock Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	22	82	1	13	73	39	23	73	21	4	108	11
Growth 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
Initial Bse:	22	82	1	13	73	39	23	73	21	4	108	11
User 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
PHF Adj:	0.61	0.61	0.61	0.57	0.57	0.57	0.71	0.71	0.71	0.57	0.57	0.57
PHF Volume:	36	134	2	23	129	69	33	103	30	7	190	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	134	2	23	129	69	33	103	30	7	190	19
PCE 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
MLF 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
FinalVolume:	36	134	2	23	129	69	33	103	30	7	190	19
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.21	0.78	0.01	0.10	0.59	0.31	0.20	0.62	0.18	0.03	0.88	0.09
Final Sat.:	136	506	6	71	401	214	129	409	118	22	587	60
Capacity Analysis Module:												
Vol/Sat:	0.26	0.26	0.26	0.32	0.32	0.32	0.25	0.25	0.25	0.32	0.32	0.32
Crit Moves:		****			****			****			****	
Delay/Veh:	9.9	9.9	9.9	10.0	10.0	10.0	9.7	9.7	9.7	10.2	10.2	10.2
Delay 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
AdjDel/Veh:	9.9	9.9	9.9	10.0	10.0	10.0	9.7	9.7	9.7	10.2	10.2	10.2
LOS by Move:	A	A	A	B	B	B	A	A	A	B	B	B
ApproachDel:		9.9			10.0			9.7			10.2	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		9.9			10.0			9.7			10.2	
LOS by Appr:		A			B			A			B	
AllWayAvgQ:	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Banna Avenue/Badillo Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.793
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	65	Level Of Service:	C

Street Name:	Banna Avenue						Badiillo Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	1! 0	0	1	0	1	1	0	1	0	1	1	0
Volume Module:												
Base Vol:	111	49	19	10	42	67	36	499	86	25	1248	13
Growth 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
Initial Bse:	111	49	19	10	42	67	36	499	86	25	1248	13
User 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
PHF Adj:	0.71	0.71	0.71	0.62	0.62	0.62	0.68	0.68	0.68	0.89	0.89	0.89
PHF Volume:	156	69	27	16	68	108	53	735	127	28	1401	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	156	69	27	16	68	108	53	735	127	28	1401	15
PCE 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
MLF 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
FinalVolume:	156	69	27	16	68	108	53	735	127	28	1401	15
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.62	0.27	0.11	0.08	0.35	0.57	1.00	1.71	0.29	1.00	1.98	0.02
Final Sat.:	992	438	170	134	565	901	1600	2730	470	1600	3167	33
Capacity Analysis Module:												
Vol/Sat:	0.10	0.16	0.16	0.01	0.12	0.12	0.03	0.27	0.27	0.02	0.44	0.44
Crit Moves:	****				****		****				****	

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                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #9 Banna Avenue/West Project Driveway
******************************************************************************
Average Delay (sec/veh):      0.4       Worst Case Level Of Service: A[  9.6]
******************************************************************************
Street Name:           Banna Avenue                 West Project Driveway
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0   84     2     2   94     0     0    0     0     5    0     5
Growth 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
Initial Bse:    0   84     2     2   94     0     0    0     0     5    0     5
User 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
PHF Adj:     0.64 0.64  0.64  0.64 0.64  0.64  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     0  132     3     3  148     0     0    0     0     5    0     5
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0  132     3     3  148     0     0    0     0     5    0     5
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx   4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.4  6.5   6.2
FollowUpTim:xxxxx xxxx xxxxx   2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5  4.0   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx   135 xxxx xxxxx  xxxx xxxx xxxxx   288  288   134
Potent Cap.: xxxx xxxx xxxxx  1462 xxxx xxxxx  xxxx xxxx xxxxx   707  625   921
Move Cap.:   xxxx xxxx xxxxx  1462 xxxx xxxxx  xxxx xxxx xxxxx   706  624   921
Volume/Cap:  xxxx xxxx  xxxx  0.00 xxxx  xxxx  xxxx xxxx  xxxx  0.01 0.00  0.01
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx   0.0 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx   7.5 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    *    *     *     A    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  799 xxxxx
SharedQueue:xxxxx xxxx xxxxx   0.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx  0.0 xxxxx
Shrd ConDel:xxxxx xxxx xxxxx   7.5 xxxx xxxxx xxxxx xxxx xxxxx xxxxx  9.6 xxxxx
Shared LOS:     *    *     *     A    *     *     *    *     *     *    A     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx               9.6
ApproachLOS:         *                *                *                  A
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
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------------------------------------------------------------------------------
------------------------------------------------------------------------------
                       Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #10 Kidder Avenue/East Project Driveway
******************************************************************************
Average Delay (sec/veh):      1.0       Worst Case Level Of Service: A[  8.7]
******************************************************************************
Street Name:          Kidder Avenue                East Project Driveway
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       1   27     0     0   21     1     4    0     4     0    0     0
Growth 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
Initial Bse:    1   27     0     0   21     1     4    0     4     0    0     0
User 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
PHF Adj:     0.68 0.68  0.68  0.68 0.68  0.68  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     1   40     0     0   31     1     4    0     4     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    1   40     0     0   31     1     4    0     4     0    0     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.4  6.5   6.2 xxxxx xxxx xxxxx
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5  4.0   3.3 xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:   33 xxxx xxxxx  xxxx xxxx xxxxx    75   75    32  xxxx xxxx xxxxx
Potent Cap.: 1592 xxxx xxxxx  xxxx xxxx xxxxx   934  819  1048  xxxx xxxx xxxxx
Move Cap.:   1592 xxxx xxxxx  xxxx xxxx xxxxx   933  819  1048  xxxx xxxx xxxxx
Volume/Cap:  0.00 xxxx  xxxx  xxxx xxxx  xxxx  0.00 0.00  0.00  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    0.0 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:  7.3 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    A    *     *     *    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  987 xxxxx  xxxx xxxx xxxxx
SharedQueue:  0.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx  0.0 xxxxx xxxxx xxxx xxxxx
Shrd ConDel:  7.3 xxxx xxxxx xxxxx xxxx xxxxx xxxxx  8.7 xxxxx xxxxx xxxx xxxxx
Shared LOS:     A    *     *     *    *     *     *    A     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx              8.7           xxxxxx
ApproachLOS:         *                *                A                *
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
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Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Glendora Avenue/Cypress Street	A	xxxxx	0.509	A	xxxxx	0.509	+ 0.000 V/C
# 2 Banna Avenue/Cypress Street	B	14.2	0.088	B	14.2	0.088	+ 0.000 D/V
# 3 Kidder Avenue/Cypress Street	B	14.6	0.053	B	14.6	0.053	+ 0.000 D/V
# 4 Badillo St - Covina Blvd/Cypre	A	xxxxx	0.534	A	xxxxx	0.534	+ 0.000 V/C
# 5 Glendora Avenue/Colver Place							
# 6 Banna Avenue/Colver Place	A	7.8	0.138	A	7.8	0.138	+ 0.000 V/C
# 7 Banna Avenue/Ruddock Street	A	7.7	0.119	A	7.7	0.119	+ 0.000 V/C
# 8 Banna Avenue/Badillo Street	A	xxxxx	0.507	A	xxxxx	0.507	+ 0.000 V/C
# 9 Banna Avenue/West Project Driv	A	9.0	0.004	A	9.0	0.004	+ 0.000 D/V
# 10 Kidder Avenue/East Project Dri	A	8.6	0.003	A	8.6	0.003	+ 0.000 D/V

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

****

Intersection #1 Glendora Avenue/Cypress Street

****

Cycle (sec):	100	Critical Vol./Cap.(X):	0.509
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	34	Level Of Service:	A

****

Street Name:	Glendora Avenue						Cypress Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	47	337	61	58	344	50	84	449	83	53	214	50
Growth 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
Initial Bse:	47	337	61	58	344	50	84	449	83	53	214	50
User 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
PHF Adj:	0.95	0.95	0.95	0.79	0.79	0.79	0.90	0.90	0.90	0.88	0.88	0.88
PHF Volume:	49	354	64	73	433	63	94	501	93	61	244	57
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	49	354	64	73	433	63	94	501	93	61	244	57
PCE 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
MLF 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
FinalVolume:	49	354	64	73	433	63	94	501	93	61	244	57
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.69	0.31	1.00	1.75	0.25	1.00	1.69	0.31	1.00	1.62	0.38
Final Sat.:	1600	2710	490	1600	2794	406	1600	2701	499	1600	2594	606
Capacity Analysis Module:												
Vol/Sat:	0.03	0.13	0.13	0.05	0.16	0.16	0.06	0.19	0.19	0.04	0.09	0.09
Crit Moves:	****				****			****		****		

****

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------------------------------------------------------------------------------
                       Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #2 Banna Avenue/Cypress Street
******************************************************************************
Average Delay (sec/veh):      1.3       Worst Case Level Of Service: B[ 14.2]
******************************************************************************
Street Name:           Banna Avenue                     Cypress Street
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:           Include          Include          Include          Include
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  1  1  0    0  1  1  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      19    0    36     0    0     0     0  517    35    29  280     0
Growth 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
Initial Bse:   19    0    36     0    0     0     0  517    35    29  280     0
User 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
PHF Adj:     0.74 0.74  0.74  1.00 1.00  1.00  0.84 0.84  0.84  0.90 0.90  0.90
PHF Volume:    26    0    49     0    0     0     0  614    42    32  310     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:   26    0    49     0    0     0     0  614    42    32  310     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  6.8  6.5   6.9 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:  3.5  4.0   3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  854 1010   328  xxxx xxxx xxxxx  xxxx xxxx xxxxx   656 xxxx xxxxx
Potent Cap.:  302  242   674  xxxx xxxx xxxxx  xxxx xxxx xxxxx   941 xxxx xxxxx
Move Cap.:    294  234   674  xxxx xxxx xxxxx  xxxx xxxx xxxxx   941 xxxx xxxxx
Volume/Cap:  0.09 0.00  0.07  xxxx xxxx  xxxx  xxxx xxxx  xxxx  0.03 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx   0.1 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   9.0 xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     *    *     *     A    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx  466 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx  0.6 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   0.1 xxxx xxxxx
Shrd ConDel:xxxxx 14.2 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   9.0 xxxx xxxxx
Shared LOS:     *    B     *     *    *     *     *    *     *     A    *     *
ApproachDel:      14.2           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:         B                *                *                *
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
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------------------------------------------------------------------------------
------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #3 Kidder Avenue/Cypress Street
******************************************************************************
Average Delay (sec/veh):      0.8       Worst Case Level Of Service: B[ 14.6]
******************************************************************************
Street Name:          Kidder Avenue                     Cypress Street
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:           Include          Include          Include          Include
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  1  1  0    0  1  1  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       9    0     9     0    0     0     0  542    12    48  276     0
Growth 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
Initial Bse:    9    0     9     0    0     0     0  542    12    48  276     0
User 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
PHF Adj:     0.81 0.81  0.81  1.00 1.00  1.00  0.87 0.87  0.87  0.95 0.95  0.95
PHF Volume:    11    0    11     0    0     0     0  621    14    51  292     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:   11    0    11     0    0     0     0  621    14    51  292     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  6.8  6.5   6.9 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:  3.5  4.0   3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  875 1021   317  xxxx xxxx xxxxx  xxxx xxxx xxxxx   635 xxxx xxxxx
Potent Cap.:  292  238   684  xxxx xxxx xxxxx  xxxx xxxx xxxxx   958 xxxx xxxxx
Move Cap.:    280  225   684  xxxx xxxx xxxxx  xxxx xxxx xxxxx   958 xxxx xxxxx
Volume/Cap:  0.04 0.00  0.02  xxxx xxxx  xxxx  xxxx xxxx  xxxx  0.05 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx   0.2 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   9.0 xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     *    *     *     A    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx  398 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx  0.2 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   0.2 xxxx xxxxx
Shrd ConDel:xxxxx 14.6 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   9.0 xxxx xxxxx
Shared LOS:     *    B     *     *    *     *     *    *     *     A    *     *
ApproachDel:      14.6           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:         B                *                *                *
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
```

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Badillo St - Covina Blvd/Cypress Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.534
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	35	Level Of Service:	A

Street Name:	Badillo Street - Covina Boulevard									Cypress Street					
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	2 0	1	1 0	2 0	1			
Volume Module:															
Base Vol:	2	658	85	2	506	142	218	68	7	72	54	1			
Growth 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			
Initial Bse:	2	658	85	2	506	142	218	68	7	72	54	1			
User 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			
PHF Adj:	0.94	0.94	0.94	0.96	0.96	0.96	0.83	0.83	0.83	0.86	0.86	0.86			
PHF Volume:	2	703	91	2	527	148	263	82	8	84	63	1			
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	2	703	91	2	527	148	263	82	8	84	63	1			
PCE 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			
MLF 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			
FinalVolume:	2	703	91	2	527	148	263	82	8	84	63	1			
Saturation Flow Module:															
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600			
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Lanes:	1.00	1.77	0.23	1.00	1.56	0.44	1.00	2.00	1.00	1.00	2.00	1.00			
Final Sat.:	1600	2834	366	1600	2499	701	1600	3200	1600	1600	3200	1600			
Capacity Analysis Module:															
Vol/Sat:	0.00	0.25	0.25	0.00	0.21	0.21	0.16	0.03	0.01	0.05	0.02	0.00			
Crit Moves:		****			****			****			****				

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Glendora Avenue/Colver Place

Average Delay (sec/veh): 4.2 Worst Case Level Of Service: C[23.2]

Street Name:	Glendora Avenue						Colver Place					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1 0	1 0		0 1 0	1 0		0 0	1! 0	0	0 1 0	0 1	
Volume Module:												
Base Vol:	13	334	24	15	418	20	79	11	41	13	2	35
Growth 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
Initial Bse:	13	334	24	15	418	20	79	11	41	13	2	35
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	13	334	24	15	418	20	79	11	41	13	2	35
User 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
PHF Adj:	0.95	0.95	0.95	0.88	0.88	0.88	0.82	0.82	0.82	0.77	0.77	0.77
PHF Volume:	14	353	25	17	476	23	96	13	50	17	3	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	14	353	25	17	476	23	96	13	50	17	3	45
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	499	xxxx	xxxxx	378	xxxx	xxxxx	727	928	249	672	926	189
Potent Cap.:	1076	xxxx	xxxxx	1191	xxxx	xxxxx	315	270	757	345	271	827
Move Cap.:	1076	xxxx	xxxxx	1191	xxxx	xxxxx	290	263	757	303	263	827
Volume/Cap:	0.01	xxxx	xxxx	0.01	xxxx	xxxx	0.33	0.05	0.07	0.06	0.01	0.05
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	0.2
Control Del:	8.4	xxxx	xxxxx	8.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	9.6
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	A
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	355	xxxxx	297	xxxx	xxxxx
SharedQueue:	0.0	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	2.2	xxxxx	0.2	xxxx	xxxxx
Shrd ConDel:	8.4	xxxx	xxxxx	8.1	xxxx	xxxxx	xxxxx	23.2	xxxxx	17.9	xxxx	xxxxx
Shared LOS:	A	*	*	A	*	*	*	C	*	C	*	*
ApproachDel:	xxxxxx			xxxxxx			23.2			12.1		
ApproachLOS:	*			*			C			B		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #6 Banna Avenue/Colver Place

Cycle (sec):	100	Critical Vol./Cap.(X):	0.138
Loss Time (sec):	10	Average Delay (sec/veh):	7.8
Optimal Cycle:	0	Level Of Service:	A

Street Name:	Banna Avenue						Colver Place					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	23	47	12	2	48	14	7	7	11	31	6	12
Growth 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
Initial Bse:	23	47	12	2	48	14	7	7	11	31	6	12
User 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
PHF Adj:	0.73	0.73	0.73	0.74	0.74	0.74	0.75	0.75	0.75	0.45	0.45	0.45
PHF Volume:	32	65	17	3	65	19	9	9	15	69	13	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	32	65	17	3	65	19	9	9	15	69	13	27
PCE 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
MLF 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
FinalVolume:	32	65	17	3	65	19	9	9	15	69	13	27
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.28	0.57	0.15	0.03	0.75	0.22	0.28	0.28	0.44	0.64	0.12	0.24
Final Sat.:	229	469	120	26	621	181	227	227	357	505	98	196
Capacity Analysis Module:												
Vol/Sat:	0.14	0.14	0.14	0.11	0.11	0.11	0.04	0.04	0.04	0.14	0.14	0.14
Crit Moves:	****				****				****		****	
Delay/Veh:	7.9	7.9	7.9	7.7	7.7	7.7	7.4	7.4	7.4	8.0	8.0	8.0
Delay 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
AdjDel/Veh:	7.9	7.9	7.9	7.7	7.7	7.7	7.4	7.4	7.4	8.0	8.0	8.0
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	7.9			7.7			7.4			8.0		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	7.9			7.7			7.4			8.0		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #7 Banna Avenue/Ruddock Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.119
Loss Time (sec):	10	Average Delay (sec/veh):	7.7
Optimal Cycle:	0	Level Of Service:	A

Street Name:	Banna Avenue						Ruddock Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	10	49	15	10	33	16	16	51	14	4	40	9
Growth 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
Initial Bse:	10	49	15	10	33	16	16	51	14	4	40	9
User 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
PHF Adj:	0.92	0.92	0.92	0.68	0.68	0.68	0.84	0.84	0.84	0.74	0.74	0.74
PHF Volume:	11	53	16	15	48	23	19	61	17	5	54	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	53	16	15	48	23	19	61	17	5	54	12
PCE 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
MLF 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
FinalVolume:	11	53	16	15	48	23	19	61	17	5	54	12
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.14	0.66	0.20	0.17	0.56	0.27	0.20	0.63	0.17	0.08	0.75	0.17
Final Sat.:	110	539	165	139	460	223	161	513	141	61	613	138
Capacity Analysis Module:												
Vol/Sat:	0.10	0.10	0.10	0.11	0.11	0.11	0.12	0.12	0.12	0.09	0.09	0.09
Crit Moves:		****		****				****			****	
Delay/Veh:	7.7	7.7	7.7	7.7	7.7	7.7	7.8	7.8	7.8	7.7	7.7	7.7
Delay 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
AdjDel/Veh:	7.7	7.7	7.7	7.7	7.7	7.7	7.8	7.8	7.8	7.7	7.7	7.7
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	7.7			7.7			7.8			7.7		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	7.7			7.7			7.8			7.7		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Banna Avenue/Badillo Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.507
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	34	Level Of Service:	A

Street Name:	Banna Avenue						Badiillo Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	1! 0	0	1	0 1	1 0	1	0 1 1 0
Volume Module:												
Base Vol:	24	11	4	8	7	46	83	967	60	8	610	4
Growth 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
Initial Bse:	24	11	4	8	7	46	83	967	60	8	610	4
User 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
PHF Adj:	0.81	0.81	0.81	0.78	0.78	0.78	0.96	0.96	0.96	0.91	0.91	0.91
PHF Volume:	30	14	5	10	9	59	86	1007	63	9	671	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	30	14	5	10	9	59	86	1007	63	9	671	4
PCE 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
MLF 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
FinalVolume:	30	14	5	10	9	59	86	1007	63	9	671	4
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.62	0.28	0.10	0.13	0.11	0.76	1.00	1.88	0.12	1.00	1.99	0.01
Final Sat.:	985	451	164	210	184	1207	1600	3013	187	1600	3179	21
Capacity Analysis Module:												
Vol/Sat:	0.02	0.03	0.03	0.01	0.05	0.05	0.05	0.33	0.33	0.01	0.21	0.21
Crit Moves:	****				****			****		****		

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------------------------------------------------------------------------------
------------------------------------------------------------------------------
                       Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #9 Banna Avenue/West Project Driveway
******************************************************************************
Average Delay (sec/veh):      0.7       Worst Case Level Of Service: A[  9.0]
******************************************************************************
Street Name:           Banna Avenue                 West Project Driveway
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0   50     5     5   54     0     0    0     0     3    0     3
Growth 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
Initial Bse:    0   50     5     5   54     0     0    0     0     3    0     3
User 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
PHF Adj:     0.74 0.74  1.00  0.74 0.74  0.74  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     0   68     5     7   73     0     0    0     0     3    0     3
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0   68     5     7   73     0     0    0     0     3    0     3
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx   4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.4  6.5   6.2
FollowUpTim:xxxxx xxxx xxxxx   2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5  4.0   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx    73 xxxx xxxxx  xxxx xxxx xxxxx   158  158    71
Potent Cap.: xxxx xxxx xxxxx  1540 xxxx xxxxx  xxxx xxxx xxxxx   838  738   998
Move Cap.:   xxxx xxxx xxxxx  1540 xxxx xxxxx  xxxx xxxx xxxxx   835  735   998
Volume/Cap:  xxxx xxxx  xxxx  0.00 xxxx  xxxx  xxxx xxxx  xxxx  0.00 0.00  0.00
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx   0.0 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx   7.3 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    *    *     *     A    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  909 xxxxx
SharedQueue:xxxxx xxxx xxxxx   0.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx  0.0 xxxxx
Shrd ConDel:xxxxx xxxx xxxxx   7.3 xxxx xxxxx xxxxx xxxx xxxxx xxxxx  9.0 xxxxx
Shared LOS:     *    *     *     A    *     *     *    *     *     *    A     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx               9.0
ApproachLOS:         *                *                *                  A
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
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------------------------------------------------------------------------------
------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #10 Kidder Avenue/East Project Driveway
******************************************************************************
Average Delay (sec/veh):      1.2       Worst Case Level Of Service: A[  8.6]
******************************************************************************
Street Name:          Kidder Avenue                East Project Driveway
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       4   13     0     0   25     4     2    0     2     0    0     0
Growth 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
Initial Bse:    4   13     0     0   25     4     2    0     2     0    0     0
User 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
PHF Adj:     0.81 0.81  0.81  0.81 0.81  0.81  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     5   16     0     0   31     5     2    0     2     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    5   16     0     0   31     5     2    0     2     0    0     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.4  6.5   6.2 xxxxx xxxx xxxxx
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5  4.0   3.3 xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:   36 xxxx xxxxx  xxxx xxxx xxxxx    59   59    33  xxxx xxxx xxxxx
Potent Cap.: 1588 xxxx xxxxx  xxxx xxxx xxxxx   953  836  1046  xxxx xxxx xxxxx
Move Cap.:   1588 xxxx xxxxx  xxxx xxxx xxxxx   951  833  1046  xxxx xxxx xxxxx
Volume/Cap:  0.00 xxxx  xxxx  xxxx xxxx  xxxx  0.00 0.00  0.00  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    0.0 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:  7.3 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    A    *     *     *    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  996 xxxxx  xxxx xxxx xxxxx
SharedQueue:  0.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx  0.0 xxxxx xxxxx xxxx xxxxx
Shrd ConDel:  7.3 xxxx xxxxx xxxxx xxxx xxxxx xxxxx  8.6 xxxxx xxxxx xxxx xxxxx
Shared LOS:     A    *     *     *    *     *     *    A     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx              8.6           xxxxxx
ApproachLOS:         *                *               A                *
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
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Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Glendora Avenue/Cypress Street	B	xxxxx	0.676	B	xxxxx	0.676	+ 0.000 V/C
# 2 Banna Avenue/Cypress Street	C	16.1	0.205	C	16.1	0.205	+ 0.000 D/V
# 3 Kidder Avenue/Cypress Street	B	11.5	0.039	B	11.5	0.039	+ 0.000 D/V
# 4 Badillo St - Covina Blvd/Cypre	B	xxxxx	0.639	B	xxxxx	0.639	+ 0.000 V/C
# 5 Glendora Avenue/Colver Place	E	40.5	0.395	E	40.5	0.395	+ 0.000 D/V
# 6 Banna Avenue/Colver Place	A	8.2	0.239	A	8.2	0.239	+ 0.000 V/C
# 7 Banna Avenue/Ruddock Street	A	9.9	0.331	A	9.9	0.331	+ 0.000 V/C
# 8 Banna Avenue/Badillo Street	D	xxxxx	0.804	D	xxxxx	0.804	+ 0.000 V/C
# 9 Project Driveway/Cypress Stree	A	7.2	0.000	A	7.2	0.000	+ 0.000 D/V

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Glendora Avenue/Cypress Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.676
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	47	Level Of Service:	B

Street Name:	Glendora Avenue						Cypress Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	66	465	71	49	436	115	58	188	43	104	511	57
Growth 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
Initial Bse:	66	465	71	49	436	115	58	188	43	104	511	57
User 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
PHF Adj:	0.60	0.60	0.60	0.87	0.87	0.87	0.74	0.74	0.74	0.84	0.84	0.84
PHF Volume:	110	778	119	56	499	132	79	255	58	124	609	68
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	110	778	119	56	499	132	79	255	58	124	609	68
PCE 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
MLF 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
FinalVolume:	110	778	119	56	499	132	79	255	58	124	609	68
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.74	0.26	1.00	1.58	0.42	1.00	1.63	0.37	1.00	1.80	0.20
Final Sat.:	1600	2776	424	1600	2532	668	1600	2604	596	1600	2879	321
Capacity Analysis Module:												
Vol/Sat:	0.07	0.28	0.28	0.04	0.20	0.20	0.05	0.10	0.10	0.08	0.21	0.21
Crit Moves:		****		****			****				****	

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                       Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #2 Banna Avenue/Cypress Street
******************************************************************************
Average Delay (sec/veh):      1.9       Worst Case Level Of Service: C[ 16.1]
******************************************************************************
Street Name:           Banna Avenue                     Cypress Street
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:           Include          Include          Include          Include
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  1  1  0    0  1  1  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      37    0    49     0    0     0     0  201    16    49  720     0
Growth 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
Initial Bse:   37    0    49     0    0     0     0  201    16    49  720     0
User 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
PHF Adj:     0.64 0.64  0.64  1.00 1.00  1.00  0.68 0.68  0.68  0.81 0.81  0.81
PHF Volume:    58    0    77     0    0     0     0  295    23    60  885     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:   58    0    77     0    0     0     0  295    23    60  885     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  6.8  6.5   6.9 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:  3.5  4.0   3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  869 1311   159  xxxx xxxx xxxxx  xxxx xxxx xxxxx   318 xxxx xxxxx
Potent Cap.:  295  160   864  xxxx xxxx xxxxx  xxxx xxxx xxxxx  1253 xxxx xxxxx
Move Cap.:    284  152   864  xxxx xxxx xxxxx  xxxx xxxx xxxxx  1253 xxxx xxxxx
Volume/Cap:  0.20 0.00  0.09  xxxx xxxx  xxxx  xxxx xxxx  xxxx  0.05 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx   0.2 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   8.0 xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     *    *     *     A    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx  460 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx  1.2 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   0.2 xxxx xxxxx
Shrd ConDel:xxxxx 16.1 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   8.0 xxxx xxxxx
Shared LOS:     *    C     *     *    *     *     *    *     *     A    *     *
ApproachDel:      16.1           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:         C                *                *                *
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
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------------------------------------------------------------------------------
                       Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #3 Kidder Avenue/Cypress Street
******************************************************************************
Average Delay (sec/veh):      0.5       Worst Case Level Of Service: B[ 11.5]
******************************************************************************
Street Name:          Kidder Avenue                     Cypress Street
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:           Include          Include          Include          Include
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  1  1  0    0  1  1  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       6    0    22     0    0     0     0  247     3    19  768     0
Growth 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
Initial Bse:    6    0    22     0    0     0     0  247     3    19  768     0
User 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
PHF Adj:     0.68 0.68  0.68  1.00 1.00  1.00  0.71 0.71  0.71  0.79 0.79  0.79
PHF Volume:     9    0    33     0    0     0     0  350     4    24  967     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    9    0    33     0    0     0     0  350     4    24  967     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  6.8  6.5   6.9 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:  3.5  4.0   3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  884 1368   177  xxxx xxxx xxxxx  xxxx xxxx xxxxx   355 xxxx xxxxx
Potent Cap.:  289  148   841  xxxx xxxx xxxxx  xxxx xxxx xxxxx  1215 xxxx xxxxx
Move Cap.:    284  145   841  xxxx xxxx xxxxx  xxxx xxxx xxxxx  1215 xxxx xxxxx
Volume/Cap:  0.03 0.00  0.04  xxxx xxxx  xxxx  xxxx xxxx  xxxx  0.02 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx   0.1 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   8.0 xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     *    *     *     A    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx  593 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx  0.2 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   0.1 xxxx xxxxx
Shrd ConDel:xxxxx 11.5 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   8.0 xxxx xxxxx
Shared LOS:     *    B     *     *    *     *     *    *     *     A    *     *
ApproachDel:      11.5           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:         B                *                *                *
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
```

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Badillo St - Covina Blvd/Cypress Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.639
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	43	Level Of Service:	B

Street Name:	Badillo Street - Covina Boulevard									Cypress Street							
Approach:	North Bound			South Bound			East Bound			West Bound							
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Permitted			Permitted			Permitted			Permitted							
Rights:	Include			Include			Include			Include							
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0					
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0					
Lanes:	1	0 1	1 0	1	0 1	1 0	1	0 2	0 1	1	0 2	0 1					
Volume Module:																	
Base Vol:	1	402	53	1	923	297	133	39	3	101	97	0					
Growth 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					
Initial Bse:	1	402	53	1	923	297	133	39	3	101	97	0					
User 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					
PHF Adj:	0.74	0.74	0.74	0.94	0.94	0.94	0.94	0.94	0.94	0.74	0.74	0.74					
PHF Volume:	1	541	71	1	987	318	142	42	3	137	132	0					
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0					
Reduced Vol:	1	541	71	1	987	318	142	42	3	137	132	0					
PCE 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					
MLF 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					
FinalVolume:	1	541	71	1	987	318	142	42	3	137	132	0					
Saturation Flow Module:																	
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600					
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
Lanes:	1.00	1.77	0.23	1.00	1.51	0.49	1.00	2.00	1.00	1.00	2.00	1.00					
Final Sat.:	1600	2827	373	1600	2421	779	1600	3200	1600	1600	3200	1600					
Capacity Analysis Module:																	
Vol/Sat:	0.00	0.19	0.19	0.00	0.41	0.41	0.09	0.01	0.00	0.09	0.04	0.00					
Crit Moves:	****				****		****				****						

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                       Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #5 Glendora Avenue/Colver Place
******************************************************************************
Average Delay (sec/veh):      2.9       Worst Case Level Of Service: E[ 40.5]
******************************************************************************
Street Name:         Glendora Avenue                     Colver Place
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        0  1  0  1  0    0  1  0  1  0    0  0  1! 0  0    0  0  1! 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       4  540     9    23  551     3     1    1     7    35    1    61
Growth 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
Initial Bse:    4  540     9    23  551     3     1    1     7    35    1    61
User 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
PHF Adj:     0.59 0.59  0.59  0.77 0.77  0.77  0.56 0.56  0.56  0.86 0.86  0.86
PHF Volume:     7  914    15    30  713     4     2    2    12    41    1    71
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    7  914    15    30  713     4     2    2    12    41    1    71
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx   4.1 xxxx xxxxx   7.5  6.5   6.9   7.5  6.5   6.9
FollowUpTim:  2.2 xxxx xxxxx   2.2 xxxx xxxxx   3.5  4.0   3.3   3.5  4.0   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  717 xxxx xxxxx   929 xxxx xxxxx  1245 1717   358  1352 1711   464
Potent Cap.:  893 xxxx xxxxx   745 xxxx xxxxx   133   91   644   111   92   550
Move Cap.:    893 xxxx xxxxx   745 xxxx xxxxx   110   86   644   103   87   550
Volume/Cap:  0.01 xxxx  xxxx  0.04 xxxx  xxxx  0.02 0.02  0.02  0.40 0.01  0.13
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    0.0 xxxx xxxxx   0.1 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:  9.1 xxxx xxxxx  10.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    A    *     *     B    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  286 xxxxx  xxxx  210 xxxxx
SharedQueue:  0.0 xxxx xxxxx   0.1 xxxx xxxxx xxxxx  0.2 xxxxx xxxxx  2.8 xxxxx
Shrd ConDel:  9.1 xxxx xxxxx  10.0 xxxx xxxxx xxxxx 18.4 xxxxx xxxxx 40.5 xxxxx
Shared LOS:     A    *     *     B    *     *     *    C     *     *    E     *
ApproachDel:    xxxxxx           xxxxxx             18.4             40.5
ApproachLOS:         *                *                C                E
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #6 Banna Avenue/Colver Place

Cycle (sec):	100	Critical Vol./Cap.(X):	0.239
Loss Time (sec):	10	Average Delay (sec/veh):	8.2
Optimal Cycle:	0	Level Of Service:	A

Street Name:	Banna Avenue						Colver Place					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	0 1	0	0 0	1! 0	0	0 1	0 0	0
Volume Module:												
Base Vol:	29	84	10	0	63	8	5	4	13	12	19	0
Growth 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
Initial Bse:	29	84	10	0	63	8	5	4	13	12	19	0
User 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
PHF Adj:	0.61	0.61	0.61	0.48	0.48	0.48	0.79	0.79	0.79	0.73	0.73	0.73
PHF Volume:	47	137	16	0	132	17	6	5	17	17	26	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	47	137	16	0	132	17	6	5	17	17	26	0
PCE 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
MLF 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
FinalVolume:	47	137	16	0	132	17	6	5	17	17	26	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.24	0.68	0.08	0.00	0.89	0.11	0.23	0.18	0.59	0.39	0.61	0.00
Final Sat.:	198	574	68	0	746	95	174	139	452	276	437	0
Capacity Analysis Module:												
Vol/Sat:	0.24	0.24	0.24	xxxx	0.18	0.18	0.04	0.04	0.04	0.06	0.06	xxxx
Crit Moves:		****			****			****			****	
Delay/Veh:	8.5	8.5	8.5	0.0	8.1	8.1	7.5	7.5	7.5	8.0	8.0	0.0
Delay 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
AdjDel/Veh:	8.5	8.5	8.5	0.0	8.1	8.1	7.5	7.5	7.5	8.0	8.0	0.0
LOS by Move:	A	A	A	*	A	A	A	A	A	A	A	*
ApproachDel:	8.5			8.1			7.5			8.0		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.5			8.1			7.5			8.0		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.3	0.3	0.3	0.2	0.2	0.2	0.0	0.0	0.0	0.1	0.1	0.1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #7 Banna Avenue/Ruddock Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.331
Loss Time (sec):	10	Average Delay (sec/veh):	9.9
Optimal Cycle:	0	Level Of Service:	A

Street Name:	Banna Avenue						Ruddock Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	23	82	1	13	68	33	23	75	22	4	112	11
Growth 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
Initial Bse:	23	82	1	13	68	33	23	75	22	4	112	11
User 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
PHF Adj:	0.61	0.61	0.61	0.57	0.57	0.57	0.71	0.71	0.71	0.57	0.57	0.57
PHF Volume:	38	134	2	23	120	58	33	106	31	7	197	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	38	134	2	23	120	58	33	106	31	7	197	19
PCE 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
MLF 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
FinalVolume:	38	134	2	23	120	58	33	106	31	7	197	19
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.22	0.77	0.01	0.11	0.60	0.29	0.19	0.63	0.18	0.03	0.88	0.09
Final Sat.:	141	501	6	77	404	196	127	414	121	21	595	58
Capacity Analysis Module:												
Vol/Sat:	0.27	0.27	0.27	0.30	0.30	0.30	0.26	0.26	0.26	0.33	0.33	0.33
Crit Moves:		****		****				****			****	
Delay/Veh:	9.9	9.9	9.9	9.9	9.9	9.9	9.6	9.6	9.6	10.3	10.3	10.3
Delay 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
AdjDel/Veh:	9.9	9.9	9.9	9.9	9.9	9.9	9.6	9.6	9.6	10.3	10.3	10.3
LOS by Move:	A	A	A	A	A	A	A	A	A	B	B	B
ApproachDel:	9.9			9.9			9.6			10.3		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	9.9			9.9			9.6			10.3		
LOS by Appr:	A			A			A			B		
AllWayAvgQ:	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Banna Avenue/Badillo Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.804
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	68	Level Of Service:	D

Street Name:	Banna Avenue						Badiillo Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	1! 0	0	1	0	1	1	0	1	0	1	1	0
Volume Module:												
Base Vol:	114	50	20	10	43	62	35	522	89	26	1288	13
Growth 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
Initial Bse:	114	50	20	10	43	62	35	522	89	26	1288	13
User 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
PHF Adj:	0.71	0.71	0.71	0.62	0.62	0.62	0.68	0.68	0.68	0.89	0.89	0.89
PHF Volume:	161	70	28	16	69	100	52	769	131	29	1446	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	161	70	28	16	69	100	52	769	131	29	1446	15
PCE 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
MLF 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
FinalVolume:	161	70	28	16	69	100	52	769	131	29	1446	15
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.62	0.27	0.11	0.09	0.37	0.54	1.00	1.71	0.29	1.00	1.98	0.02
Final Sat.:	991	435	174	139	598	863	1600	2734	466	1600	3168	32
Capacity Analysis Module:												
Vol/Sat:	0.10	0.16	0.16	0.01	0.12	0.12	0.03	0.28	0.28	0.02	0.46	0.46
Crit Moves:	****				****		****				****	

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                       Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #9 Project Driveway/Cypress Street
******************************************************************************
Average Delay (sec/veh):      0.0       Worst Case Level Of Service: A[  7.2]
******************************************************************************
Street Name:         Project Driveway                   Cypress Street
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:           Include          Include          Include          Include
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  1  1  0    0  1  1  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0     0    0     0     0  250     0     0  769     0
Growth 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
Initial Bse:    0    0     0     0    0     0     0  250     0     0  769     0
User 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
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  0.68 0.68  0.68  0.81 0.81  0.81
PHF Volume:     0    0     0     0    0     0     0  367     0     0  945     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0    0     0     0    0     0     0  367     0     0  945     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  6.8  6.5   6.9 xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:  3.5  4.0   3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  839 1311   183  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.:  308  160   834  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:    308  160   834  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Volume/Cap:  0.00 0.00  0.00  xxxx xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx    0 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   0.0 xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   7.2 xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    *     *     A    *     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:         *                *                *                *
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
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Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Glendora Avenue/Cypress Street	A	xxxxx	0.523	A	xxxxx	0.523	+ 0.000 V/C
# 2 Banna Avenue/Cypress Street	B	14.1	0.077	B	14.1	0.077	+ 0.000 D/V
# 3 Kidder Avenue/Cypress Street	B	14.4	0.029	B	14.4	0.029	+ 0.000 D/V
# 4 Badillo St - Covina Blvd/Cypre	A	xxxxx	0.553	A	xxxxx	0.553	+ 0.000 V/C
# 5 Glendora Avenue/Colver Place	C	24.2	0.348	C	24.2	0.348	+ 0.000 D/V
# 6 Banna Avenue/Colver Place	A	7.5	0.095	A	7.5	0.095	+ 0.000 V/C
# 7 Banna Avenue/Ruddock Street	A	7.7	0.114	A	7.7	0.114	+ 0.000 V/C
# 8 Banna Avenue/Badillo Street	A	xxxxx	0.518	A	xxxxx	0.518	+ 0.000 V/C
# 9 Project Driveway/Cypress Stree	A	7.2	0.000	A	7.2	0.000	+ 0.000 D/V

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Glendora Avenue/Cypress Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.523
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	35	Level Of Service:	A

Street Name:	Glendora Avenue						Cypress Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	48	347	63	56	354	52	87	466	85	55	231	49
Growth 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
Initial Bse:	48	347	63	56	354	52	87	466	85	55	231	49
User 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
PHF Adj:	0.95	0.95	0.95	0.79	0.79	0.79	0.90	0.90	0.90	0.88	0.88	0.88
PHF Volume:	50	365	66	71	446	65	97	520	95	63	264	56
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	365	66	71	446	65	97	520	95	63	264	56
PCE 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
MLF 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
FinalVolume:	50	365	66	71	446	65	97	520	95	63	264	56
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.69	0.31	1.00	1.74	0.26	1.00	1.69	0.31	1.00	1.65	0.35
Final Sat.:	1600	2708	492	1600	2790	410	1600	2706	494	1600	2640	560
Capacity Analysis Module:												
Vol/Sat:	0.03	0.13	0.13	0.04	0.16	0.16	0.06	0.19	0.19	0.04	0.10	0.10
Crit Moves:	****				****			****		****		

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------------------------------------------------------------------------------
------------------------------------------------------------------------------
                       Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #2 Banna Avenue/Cypress Street
******************************************************************************
Average Delay (sec/veh):      1.1       Worst Case Level Of Service: B[ 14.1]
******************************************************************************
Street Name:           Banna Avenue                     Cypress Street
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:           Include          Include          Include          Include
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  1  1  0    0  1  1  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      16    0    35     0    0     0     0  538    30    26  302     0
Growth 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
Initial Bse:   16    0    35     0    0     0     0  538    30    26  302     0
User 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
PHF Adj:     0.74 0.74  0.74  1.00 1.00  1.00  0.84 0.84  0.84  0.90 0.90  0.90
PHF Volume:    22    0    48     0    0     0     0  639    36    29  335     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:   22    0    48     0    0     0     0  639    36    29  335     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  6.8  6.5   6.9 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:  3.5  4.0   3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  882 1049   337  xxxx xxxx xxxxx  xxxx xxxx xxxxx   675 xxxx xxxxx
Potent Cap.:  290  229   664  xxxx xxxx xxxxx  xxxx xxxx xxxxx   926 xxxx xxxxx
Move Cap.:    283  222   664  xxxx xxxx xxxxx  xxxx xxxx xxxxx   926 xxxx xxxxx
Volume/Cap:  0.08 0.00  0.07  xxxx xxxx  xxxx  xxxx xxxx  xxxx  0.03 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx   0.1 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   9.0 xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     *    *     *     A    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx  467 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx  0.5 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   0.1 xxxx xxxxx
Shrd ConDel:xxxxx 14.1 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   9.0 xxxx xxxxx
Shared LOS:     *    B     *     *    *     *     *    *     *     A    *     *
ApproachDel:      14.1           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:         B                *                *                *
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
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                        Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
********************************************************************************
Intersection #3 Kidder Avenue/Cypress Street
********************************************************************************
Average Delay (sec/veh):      0.4       Worst Case Level Of Service: B[ 14.4]
********************************************************************************
Street Name:          Kidder Avenue                     Cypress Street
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:           Include          Include          Include          Include
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  1  1  0    0  1  1  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       7    0     6     0    0     0     0  566     8    18  321     0
Growth 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
Initial Bse:    7    0     6     0    0     0     0  566     8    18  321     0
User 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
PHF Adj:     0.81 0.81  0.81  1.00 1.00  1.00  0.87 0.87  0.87  0.95 0.95  0.95
PHF Volume:     9    0     7     0    0     0     0  648     9    19  339     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    9    0     7     0    0     0     0  648     9    19  339     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  6.8  6.5   6.9 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:  3.5  4.0   3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  861 1030   329  xxxx xxxx xxxxx  xxxx xxxx xxxxx   658 xxxx xxxxx
Potent Cap.:  299  235   673  xxxx xxxx xxxxx  xxxx xxxx xxxxx   940 xxxx xxxxx
Move Cap.:    294  230   673  xxxx xxxx xxxxx  xxxx xxxx xxxxx   940 xxxx xxxxx
Volume/Cap:  0.03 0.00  0.01  xxxx xxxx  xxxx  xxxx xxxx  xxxx  0.02 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx   0.1 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   8.9 xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     *    *     *     A    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx  397 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx  0.1 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   0.1 xxxx xxxxx
Shrd ConDel:xxxxx 14.4 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   8.9 xxxx xxxxx
Shared LOS:     *    B     *     *    *     *     *    *     *     A    *     *
ApproachDel:      14.4           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:         B                *                *                *
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
```

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Badillo St - Covina Blvd/Cypress Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.553
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	37	Level Of Service:	A

Street Name:	Badillo Street - Covina Boulevard							Cypress Street					
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Permitted			Permitted			Permitted			Permitted			
Rights:	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	2 0	1	1 0	2 0	1	
Volume Module:													
Base Vol:	2	685	88	2	532	152	229	70	7	74	58	1	
Growth 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	
Initial Bse:	2	685	88	2	532	152	229	70	7	74	58	1	
User 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	
PHF Adj:	0.94	0.94	0.94	0.96	0.96	0.96	0.83	0.83	0.83	0.86	0.86	0.86	
PHF Volume:	2	732	94	2	554	158	277	85	8	86	68	1	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	2	732	94	2	554	158	277	85	8	86	68	1	
PCE 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	
MLF 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	
FinalVolume:	2	732	94	2	554	158	277	85	8	86	68	1	
Saturation Flow Module:													
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Lanes:	1.00	1.77	0.23	1.00	1.56	0.44	1.00	2.00	1.00	1.00	2.00	1.00	
Final Sat.:	1600	2836	364	1600	2489	711	1600	3200	1600	1600	3200	1600	
Capacity Analysis Module:													
Vol/Sat:	0.00	0.26	0.26	0.00	0.22	0.22	0.17	0.03	0.01	0.05	0.02	0.00	
Crit Moves:		****			****			****			****		

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Glendora Avenue/Colver Place

Average Delay (sec/veh): 4.3 Worst Case Level Of Service: C[24.2]

Street Name:	Glendora Avenue						Colver Place					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1 0	1 0		0 1 0	1 0		0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	13	344	21	15	431	21	81	11	42	13	4	20
Growth 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
Initial Bse:	13	344	21	15	431	21	81	11	42	13	4	20
User 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
PHF Adj:	0.95	0.95	0.95	0.88	0.88	0.88	0.82	0.82	0.82	0.77	0.77	0.77
PHF Volume:	14	364	22	17	491	24	99	13	51	17	5	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	14	364	22	17	491	24	99	13	51	17	5	26
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	515	xxxx	xxxxx	386	xxxx	xxxxx	749	950	257	689	951	193
Potent Cap.:	1061	xxxx	xxxxx	1184	xxxx	xxxxx	304	262	748	336	262	822
Move Cap.:	1061	xxxx	xxxxx	1184	xxxx	xxxxx	284	255	748	294	254	822
Volume/Cap:	0.01	xxxx	xxxx	0.01	xxxx	xxxx	0.35	0.05	0.07	0.06	0.02	0.03
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	8.4	xxxx	xxxxx	8.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	348	xxxxx	xxxx	439	xxxxx
SharedQueue:	0.0	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	2.4	xxxxx	xxxxx	0.4	xxxxx
Shrd ConDel:	8.4	xxxx	xxxxx	8.1	xxxx	xxxxx	xxxxx	24.2	xxxxx	xxxxx	14.2	xxxxx
Shared LOS:	A	*	*	A	*	*	*	C	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx			24.2			14.2		
ApproachLOS:	*			*			C			B		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #6 Banna Avenue/Colver Place

Cycle (sec):	100	Critical Vol./Cap.(X):	0.095
Loss Time (sec):	10	Average Delay (sec/veh):	7.5
Optimal Cycle:	0	Level Of Service:	A

Street Name:	Banna Avenue						Colver Place					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0			0 1 0 0 0		
Volume Module:												
Base Vol:	15	40	4	2	43	6	5	5	11	12	8	0
Growth 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
Initial Bse:	15	40	4	2	43	6	5	5	11	12	8	0
User 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
PHF Adj:	0.73	0.73	0.73	0.74	0.74	0.74	0.75	0.75	0.75	0.45	0.45	0.45
PHF Volume:	21	55	6	3	59	8	7	7	15	27	18	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	55	6	3	59	8	7	7	15	27	18	0
PCE 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
MLF 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
FinalVolume:	21	55	6	3	59	8	7	7	15	27	18	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.25	0.68	0.07	0.04	0.84	0.12	0.24	0.24	0.52	0.60	0.40	0.00
Final Sat.:	218	580	58	34	731	102	207	207	455	480	320	0
Capacity Analysis Module:												
Vol/Sat:	0.10	0.10	0.10	0.08	0.08	0.08	0.03	0.03	0.03	0.06	0.06	xxxx
Crit Moves:			****		****			****		****		
Delay/Veh:	7.6	7.6	7.6	7.4	7.4	7.4	7.1	7.1	7.1	7.6	7.6	0.0
Delay 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
AdjDel/Veh:	7.6	7.6	7.6	7.4	7.4	7.4	7.1	7.1	7.1	7.6	7.6	0.0
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	*
ApproachDel:	7.6			7.4			7.1			7.6		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	7.6			7.4			7.1			7.6		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #7 Banna Avenue/Ruddock Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.114
Loss Time (sec):	10	Average Delay (sec/veh):	7.7
Optimal Cycle:	0	Level Of Service:	A

Street Name:	Banna Avenue						Ruddock Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	10	42	15	10	29	11	12	53	14	4	43	9
Growth 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
Initial Bse:	10	42	15	10	29	11	12	53	14	4	43	9
User 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
PHF Adj:	0.92	0.92	0.92	0.68	0.68	0.68	0.84	0.84	0.84	0.74	0.74	0.74
PHF Volume:	11	46	16	15	43	16	14	63	17	5	58	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	46	16	15	43	16	14	63	17	5	58	12
PCE 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
MLF 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
FinalVolume:	11	46	16	15	43	16	14	63	17	5	58	12
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.15	0.63	0.22	0.20	0.58	0.22	0.15	0.67	0.18	0.07	0.77	0.16
Final Sat.:	122	513	183	163	474	180	126	554	146	59	632	132
Capacity Analysis Module:												
Vol/Sat:	0.09	0.09	0.09	0.09	0.09	0.09	0.11	0.11	0.11	0.09	0.09	0.09
Crit Moves:	****			****				****			****	
Delay/Veh:	7.6	7.6	7.6	7.6	7.6	7.6	7.7	7.7	7.7	7.6	7.6	7.6
Delay 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
AdjDel/Veh:	7.6	7.6	7.6	7.6	7.6	7.6	7.7	7.7	7.7	7.6	7.6	7.6
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	7.6			7.6			7.7			7.6		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	7.6			7.6			7.7			7.6		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Banna Avenue/Badillo Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.518
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	34	Level Of Service:	A

Street Name:	Banna Avenue						Badiillo Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1!	0	0	0	0	1!	0	0	1	0
Volume Module:												
Base Vol:	25	11	4	8	7	42	77	1004	62	8	633	4
Growth 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
Initial Bse:	25	11	4	8	7	42	77	1004	62	8	633	4
User 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
PHF Adj:	0.81	0.81	0.81	0.78	0.78	0.78	0.96	0.96	0.96	0.91	0.91	0.91
PHF Volume:	31	14	5	10	9	54	80	1046	65	9	696	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	31	14	5	10	9	54	80	1046	65	9	696	4
PCE 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
MLF 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
FinalVolume:	31	14	5	10	9	54	80	1046	65	9	696	4
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.62	0.28	0.10	0.14	0.12	0.74	1.00	1.88	0.12	1.00	1.99	0.01
Final Sat.:	1000	440	160	225	196	1179	1600	3014	186	1600	3180	20
Capacity Analysis Module:												
Vol/Sat:	0.02	0.03	0.03	0.01	0.05	0.05	0.05	0.35	0.35	0.01	0.22	0.22
Crit Moves:	****				****			****		****		

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                       Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #9 Project Driveway/Cypress Street
******************************************************************************
Average Delay (sec/veh):      0.0       Worst Case Level Of Service: A[  7.2]
******************************************************************************
Street Name:         Project Driveway                   Cypress Street
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:           Include          Include          Include          Include
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  1  1  0    0  1  1  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0     0    0     0     0  555     0     0  328     0
Growth 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
Initial Bse:    0    0     0     0    0     0     0  555     0     0  328     0
User 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
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  0.84 0.84  0.84  0.90 0.90  0.90
PHF Volume:     0    0     0     0    0     0     0  659     0     0  364     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0    0     0     0    0     0     0  659     0     0  364     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  6.8  6.5   6.9 xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:  3.5  4.0   3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  841 1023   330  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.:  308  238   672  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:    308  238   672  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Volume/Cap:  0.00 0.00  0.00  xxxx xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx    0 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   0.0 xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   7.2 xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    *     *     A    *     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:         *                *                *                *
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
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Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Glendora Avenue/Cypress Street	B	xxxxx	0.680	B	xxxxx	0.680	+ 0.000 V/C
# 2 Banna Avenue/Cypress Street	C	17.0	0.237	C	17.0	0.237	+ 0.000 D/V
# 3 Kidder Avenue/Cypress Street	B	13.2	0.073	B	13.2	0.073	+ 0.000 D/V
# 4 Badillo St - Covina Blvd/Cypre	B	xxxxx	0.644	B	xxxxx	0.644	+ 0.000 V/C
# 5 Glendora Avenue/Colver Place							
# 6 Banna Avenue/Colver Place	A	9.0	0.310	A	9.0	0.310	+ 0.000 V/C
# 7 Banna Avenue/Ruddock Street	B	10.2	0.337	B	10.2	0.337	+ 0.000 V/C
# 8 Banna Avenue/Badillo Street	D	xxxxx	0.813	D	xxxxx	0.813	+ 0.000 V/C
# 9 Banna Avenue/West Project Driv	A	9.6	0.007	A	9.6	0.007	+ 0.000 D/V
# 10 Kidder Avenue/East Project Dri	A	8.7	0.004	A	8.7	0.004	+ 0.000 D/V

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Glendora Avenue/Cypress Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.680
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	48	Level Of Service:	B

Street Name:	Glendora Avenue						Cypress Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	66	465	71	51	436	115	58	189	43	104	516	60
Growth 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
Initial Bse:	66	465	71	51	436	115	58	189	43	104	516	60
User 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
PHF Adj:	0.60	0.60	0.60	0.87	0.87	0.87	0.74	0.74	0.74	0.84	0.84	0.84
PHF Volume:	110	778	119	58	499	132	79	257	58	124	615	72
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	110	778	119	58	499	132	79	257	58	124	615	72
PCE 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
MLF 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
FinalVolume:	110	778	119	58	499	132	79	257	58	124	615	72
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.74	0.26	1.00	1.58	0.42	1.00	1.63	0.37	1.00	1.79	0.21
Final Sat.:	1600	2776	424	1600	2532	668	1600	2607	593	1600	2867	333
Capacity Analysis Module:												
Vol/Sat:	0.07	0.28	0.28	0.04	0.20	0.20	0.05	0.10	0.10	0.08	0.21	0.21
Crit Moves:		****			****			****			****	

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------------------------------------------------------------------------------
------------------------------------------------------------------------------
                       Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #2 Banna Avenue/Cypress Street
******************************************************************************
Average Delay (sec/veh):      2.1       Worst Case Level Of Service: C[ 17.0]
******************************************************************************
Street Name:           Banna Avenue                     Cypress Street
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:           Include          Include          Include          Include
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  1  1  0    0  1  1  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      42    0    53     0    0     0     0  202    18    51  724     0
Growth 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
Initial Bse:   42    0    53     0    0     0     0  202    18    51  724     0
User 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
PHF Adj:     0.64 0.64  0.64  1.00 1.00  1.00  0.68 0.68  0.68  0.81 0.81  0.81
PHF Volume:    66    0    83     0    0     0     0  296    26    63  889     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:   66    0    83     0    0     0     0  296    26    63  889     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  6.8  6.5   6.9 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:  3.5  4.0   3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  879 1324   161  xxxx xxxx xxxxx  xxxx xxxx xxxxx   323 xxxx xxxxx
Potent Cap.:  291  157   861  xxxx xxxx xxxxx  xxxx xxxx xxxxx  1249 xxxx xxxxx
Move Cap.:    279  149   861  xxxx xxxx xxxxx  xxxx xxxx xxxxx  1249 xxxx xxxxx
Volume/Cap:  0.24 0.00  0.10  xxxx xxxx  xxxx  xxxx xxxx  xxxx  0.05 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx   0.2 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   8.0 xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     *    *     *     A    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx  448 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx  1.4 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   0.2 xxxx xxxxx
Shrd ConDel:xxxxx 17.0 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   8.0 xxxx xxxxx
Shared LOS:     *    C     *     *    *     *     *    *     *     A    *     *
ApproachDel:      17.0           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:         C                *                *                *
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
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------------------------------------------------------------------------------
------------------------------------------------------------------------------
                       Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #3 Kidder Avenue/Cypress Street
******************************************************************************
Average Delay (sec/veh):      1.0       Worst Case Level Of Service: B[ 13.2]
******************************************************************************
Street Name:          Kidder Avenue                     Cypress Street
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:           Include          Include          Include          Include
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  1  1  0    0  1  1  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      10    0    27     0    0     0     0  251     4    70  720     0
Growth 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
Initial Bse:   10    0    27     0    0     0     0  251     4    70  720     0
User 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
PHF Adj:     0.68 0.68  0.68  1.00 1.00  1.00  0.71 0.71  0.71  0.79 0.79  0.79
PHF Volume:    15    0    40     0    0     0     0  356     6    88  907     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:   15    0    40     0    0     0     0  356     6    88  907     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  6.8  6.5   6.9 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:  3.5  4.0   3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  989 1442   181  xxxx xxxx xxxxx  xxxx xxxx xxxxx   362 xxxx xxxxx
Potent Cap.:  247  134   837  xxxx xxxx xxxxx  xxxx xxxx xxxxx  1208 xxxx xxxxx
Move Cap.:    233  123   837  xxxx xxxx xxxxx  xxxx xxxx xxxxx  1208 xxxx xxxxx
Volume/Cap:  0.06 0.00  0.05  xxxx xxxx  xxxx  xxxx xxxx  xxxx  0.07 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx   0.2 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   8.2 xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     *    *     *     A    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx  492 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx  0.4 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   0.2 xxxx xxxxx
Shrd ConDel:xxxxx 13.2 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   8.2 xxxx xxxxx
Shared LOS:     *    B     *     *    *     *     *    *     *     A    *     *
ApproachDel:      13.2           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:         B                *                *                *
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
```

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Badillo St - Covina Blvd/Cypress Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.644
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	44	Level Of Service:	B

Street Name:	Badillo Street - Covina Boulevard							Cypress Street					
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Permitted			Permitted			Permitted			Permitted			
Rights:	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	2 0	1	1 0	2 0	1	
Volume Module:													
Base Vol:	1	402	53	1	923	299	140	39	3	101	97	0	
Growth 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	
Initial Bse:	1	402	53	1	923	299	140	39	3	101	97	0	
User 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	
PHF Adj:	0.74	0.74	0.74	0.94	0.94	0.94	0.94	0.94	0.94	0.74	0.74	0.74	
PHF Volume:	1	541	71	1	987	320	150	42	3	137	132	0	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	1	541	71	1	987	320	150	42	3	137	132	0	
PCE 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	
MLF 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	
FinalVolume:	1	541	71	1	987	320	150	42	3	137	132	0	
Saturation Flow Module:													
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Lanes:	1.00	1.77	0.23	1.00	1.51	0.49	1.00	2.00	1.00	1.00	2.00	1.00	
Final Sat.:	1600	2827	373	1600	2417	783	1600	3200	1600	1600	3200	1600	
Capacity Analysis Module:													
Vol/Sat:	0.00	0.19	0.19	0.00	0.41	0.41	0.09	0.01	0.00	0.09	0.04	0.00	
Crit Moves:	****				****		****				****		

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Glendora Avenue/Colver Place

Average Delay (sec/veh): 2.7 Worst Case Level Of Service: D[25.3]

Street Name:	Glendora Avenue									Colver Place								
Approach:	North Bound				South Bound				East Bound				West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	0	1	0	1	0	0	1	0	1	0	0	0	1!	0	0	0	1	0	0	1
Volume Module:																				
Base Vol:	4	540		10		23	551		3		1		1		7	35		1		116
Growth 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
Initial Bse:	4	540		10		23	551		3		1		1		7	35		1		116
Added Vol:	0	0		0		0	0		0		0		0		0	0		0		0
PasserByVol:	0	0		0		0	0		0		0		0		0	0		0		0
Initial Fut:	4	540		10		23	551		3		1		1		7	35		1		116
User 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
PHF Adj:	0.59	0.59		0.59		0.77	0.77		0.77		0.56		0.56		0.56	0.86		0.86		0.86
PHF Volume:	7	914		17		30	713		4		2		2		12	41		1		135
Reduct Vol:	0	0		0		0	0		0		0		0		0	0		0		0
FinalVolume:	7	914		17		30	713		4		2		2		12	41		1		135
Critical Gap Module:																				
Critical Gp:	4.1	xxxx	xxxxx			4.1	xxxx	xxxxx			7.5		6.5		6.9	7.5		6.5		6.9
FollowUpTim:	2.2	xxxx	xxxxx			2.2	xxxx	xxxxx			3.5		4.0		3.3	3.5		4.0		3.3
Capacity Module:																				
Cnflict Vol:	717	xxxx	xxxxx			931	xxxx	xxxxx			1245		1718		358	1353		1712		465
Potent Cap.:	893	xxxx	xxxxx			743	xxxx	xxxxx			133		91		644	110		91		549
Move Cap.:	893	xxxx	xxxxx			743	xxxx	xxxxx			95		86		644	103		87		549
Volume/Cap:	0.01	xxxx	xxxx			0.04	xxxx	xxxx			0.02		0.02		0.02	0.40		0.01		0.25
Level Of Service Module:																				
2Way95thQ:	0.0	xxxx	xxxxx			0.1	xxxx	xxxxx			xxxx		xxxx		xxxxx	xxxx		xxxx		1.0
Control Del:	9.1	xxxx	xxxxx			10.0	xxxx	xxxxx			xxxxx		xxxx		xxxxx	xxxxx		xxxx		13.7
LOS by Move:	A	*		*		B	*		*		*		*		*	*		*		B
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx		273		xxxxx	102		xxxx		xxxxx
SharedQueue:	0.0	xxxx	xxxxx			0.1	xxxx	xxxxx			xxxxx		0.2		xxxxx	1.7		xxxx		xxxxx
Shrd ConDel:	9.1	xxxx	xxxxx			10.0	xxxx	xxxxx			xxxxx		19.0		xxxxx	62.7		xxxx		xxxxx
Shared LOS:	A	*		*		B	*		*		*		C		*	F		*		*
ApproachDel:	xxxxxx					xxxxxx					19.0					25.3				
ApproachLOS:	*					*					C					D				

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #6 Banna Avenue/Colver Place

Cycle (sec):	100	Critical Vol./Cap.(X):	0.310
Loss Time (sec):	10	Average Delay (sec/veh):	9.0
Optimal Cycle:	0	Level Of Service:	A

Street Name:	Banna Avenue						Colver Place					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	0 1	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	47	87	13	0	72	27	6	5	13	46	19	25
Growth 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
Initial Bse:	47	87	13	0	72	27	6	5	13	46	19	25
User 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
PHF Adj:	0.61	0.61	0.61	0.48	0.48	0.48	0.79	0.79	0.79	0.73	0.73	0.73
PHF Volume:	77	142	21	0	150	56	8	6	17	63	26	34
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	77	142	21	0	150	56	8	6	17	63	26	34
PCE 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
MLF 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
FinalVolume:	77	142	21	0	150	56	8	6	17	63	26	34
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.32	0.59	0.09	0.00	0.73	0.27	0.25	0.21	0.54	0.51	0.21	0.28
Final Sat.:	248	459	69	0	578	217	172	143	372	354	146	192
Capacity Analysis Module:												
Vol/Sat:	0.31	0.31	0.31	xxxx	0.26	0.26	0.04	0.04	0.04	0.18	0.18	0.18
Crit Moves:		****			****		****			****		
Delay/Veh:	9.4	9.4	9.4	0.0	8.8	8.8	8.0	8.0	8.0	8.8	8.8	8.8
Delay 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
AdjDel/Veh:	9.4	9.4	9.4	0.0	8.8	8.8	8.0	8.0	8.0	8.8	8.8	8.8
LOS by Move:	A	A	A	*	A	A	A	A	A	A	A	A
ApproachDel:	9.4			8.8			8.0			8.8		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	9.4			8.8			8.0			8.8		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.4	0.4	0.4	0.3	0.3	0.3	0.0	0.0	0.0	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #7 Banna Avenue/Ruddock Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.337
Loss Time (sec):	10	Average Delay (sec/veh):	10.2
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Banna Avenue						Ruddock Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	23	85	1	13	75	40	24	75	22	4	112	11
Growth 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
Initial Bse:	23	85	1	13	75	40	24	75	22	4	112	11
User 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
PHF Adj:	0.61	0.61	0.61	0.57	0.57	0.57	0.71	0.71	0.71	0.57	0.57	0.57
PHF Volume:	38	139	2	23	133	71	34	106	31	7	197	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	38	139	2	23	133	71	34	106	31	7	197	19
PCE 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
MLF 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
FinalVolume:	38	139	2	23	133	71	34	106	31	7	197	19
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.21	0.78	0.01	0.10	0.59	0.31	0.20	0.62	0.18	0.03	0.88	0.09
Final Sat.:	135	499	6	69	397	212	129	402	118	21	584	57
Capacity Analysis Module:												
Vol/Sat:	0.28	0.28	0.28	0.33	0.33	0.33	0.26	0.26	0.26	0.34	0.34	0.34
Crit Moves:		****			****			****			****	
Delay/Veh:	10.1	10.1	10.1	10.2	10.2	10.2	9.8	9.8	9.8	10.4	10.4	10.4
Delay 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
AdjDel/Veh:	10.1	10.1	10.1	10.2	10.2	10.2	9.8	9.8	9.8	10.4	10.4	10.4
LOS by Move:	B	B	B	B	B	B	A	A	A	B	B	B
ApproachDel:	10.1			10.2			9.8			10.4		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.1			10.2			9.8			10.4		
LOS by Appr:	B			B			A			B		
AllWayAvgQ:	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Banna Avenue/Badillo Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.813
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	70	Level Of Service:	D

Street Name:	Banna Avenue						Badiillo Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	114	50	20	10	43	69	37	522	89	26	1288	13
Growth 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
Initial Bse:	114	50	20	10	43	69	37	522	89	26	1288	13
User 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
PHF Adj:	0.71	0.71	0.71	0.62	0.62	0.62	0.68	0.68	0.68	0.89	0.89	0.89
PHF Volume:	161	70	28	16	69	111	54	769	131	29	1446	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	161	70	28	16	69	111	54	769	131	29	1446	15
PCE 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
MLF 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
FinalVolume:	161	70	28	16	69	111	54	769	131	29	1446	15
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.62	0.27	0.11	0.08	0.35	0.57	1.00	1.71	0.29	1.00	1.98	0.02
Final Sat.:	991	435	174	131	564	905	1600	2734	466	1600	3168	32
Capacity Analysis Module:												
Vol/Sat:	0.10	0.16	0.16	0.01	0.12	0.12	0.03	0.28	0.28	0.02	0.46	0.46
Crit Moves:	****				****		****				****	

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Banna Avenue/West Project Driveway

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: A[9.6]

Street Name:	Banna Avenue						West Project Driveway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	87	2	2	97	0	0	0	0	5	0	5
Growth 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
Initial Bse:	0	87	2	2	97	0	0	0	0	5	0	5
User 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
PHF Adj:	0.64	0.64	0.64	0.64	0.64	0.64	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	137	3	3	153	0	0	0	0	5	0	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	137	3	3	153	0	0	0	0	5	0	5
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	140	xxxx	xxxxx	xxxx	xxxx	xxxxx	297	297	138
Potent Cap.:	xxxx	xxxx	xxxxx	1456	xxxx	xxxxx	xxxx	xxxx	xxxxx	698	618	915
Move Cap.:	xxxx	xxxx	xxxxx	1456	xxxx	xxxxx	xxxx	xxxx	xxxxx	697	617	915
Volume/Cap:	xxxx	xxxx	xxxx	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	0.00	0.01
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	7.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	791	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.0	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	7.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	9.6	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	A	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx				9.6	
ApproachLOS:	*			*			*				A	

Note: Queue reported is the number of cars per lane.

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                       Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #10 Kidder Avenue/East Project Driveway
******************************************************************************
Average Delay (sec/veh):      0.9       Worst Case Level Of Service: A[  8.7]
******************************************************************************
Street Name:          Kidder Avenue                East Project Driveway
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       1   28     0     0   22     1     4    0     4     0    0     0
Growth 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
Initial Bse:    1   28     0     0   22     1     4    0     4     0    0     0
User 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
PHF Adj:     0.68 0.68  0.68  0.68 0.68  0.68  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     1   41     0     0   33     1     4    0     4     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    1   41     0     0   33     1     4    0     4     0    0     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.4  6.5   6.2 xxxxx xxxx xxxxx
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5  4.0   3.3 xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:   34 xxxx xxxxx  xxxx xxxx xxxxx    78   78    33  xxxx xxxx xxxxx
Potent Cap.: 1591 xxxx xxxxx  xxxx xxxx xxxxx   930  816  1046  xxxx xxxx xxxxx
Move Cap.:   1591 xxxx xxxxx  xxxx xxxx xxxxx   929  816  1046  xxxx xxxx xxxxx
Volume/Cap:  0.00 xxxx  xxxx  xxxx xxxx  xxxx  0.00 0.00  0.00  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    0.0 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:  7.3 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    A    *     *     *    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  984 xxxxx  xxxx xxxx xxxxx
SharedQueue:  0.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx  0.0 xxxxx xxxxx xxxx xxxxx
Shrd ConDel:  7.3 xxxx xxxxx xxxxx xxxx xxxxx xxxxx  8.7 xxxxx xxxxx xxxx xxxxx
Shared LOS:     A    *     *     *    *     *     *    A     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx              8.7           xxxxxx
ApproachLOS:         *                *               A                *
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
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Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Glendora Avenue/Cypress Street	A	xxxxx	0.525	A	xxxxx	0.525	+ 0.000 V/C
# 2 Banna Avenue/Cypress Street	B	14.9	0.099	B	14.9	0.099	+ 0.000 D/V
# 3 Kidder Avenue/Cypress Street	C	15.2	0.055	C	15.2	0.055	+ 0.000 D/V
# 4 Badillo St - Covina Blvd/Cypre	A	xxxxx	0.557	A	xxxxx	0.557	+ 0.000 V/C
# 5 Glendora Avenue/Colver Place							
# 6 Banna Avenue/Colver Place	A	7.9	0.145	A	7.9	0.145	+ 0.000 V/C
# 7 Banna Avenue/Ruddock Street	A	7.8	0.122	A	7.8	0.122	+ 0.000 V/C
# 8 Banna Avenue/Badillo Street	A	xxxxx	0.522	A	xxxxx	0.522	+ 0.000 V/C
# 9 Banna Avenue/West Project Driv	A	9.0	0.004	A	9.0	0.004	+ 0.000 D/V
# 10 Kidder Avenue/East Project Dri	A	8.6	0.003	A	8.6	0.003	+ 0.000 D/V

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Glendora Avenue/Cypress Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.525
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	35	Level Of Service:	A

Street Name:	Glendora Avenue						Cypress Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	48	347	63	60	354	52	87	472	85	55	234	52
Growth 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
Initial Bse:	48	347	63	60	354	52	87	472	85	55	234	52
User 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
PHF Adj:	0.95	0.95	0.95	0.79	0.79	0.79	0.90	0.90	0.90	0.88	0.88	0.88
PHF Volume:	50	365	66	76	446	65	97	526	95	63	267	59
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	365	66	76	446	65	97	526	95	63	267	59
PCE 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
MLF 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
FinalVolume:	50	365	66	76	446	65	97	526	95	63	267	59
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.69	0.31	1.00	1.74	0.26	1.00	1.69	0.31	1.00	1.64	0.36
Final Sat.:	1600	2708	492	1600	2790	410	1600	2712	488	1600	2618	582
Capacity Analysis Module:												
Vol/Sat:	0.03	0.13	0.13	0.05	0.16	0.16	0.06	0.19	0.19	0.04	0.10	0.10
Crit Moves:	****				****			****		****		

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------------------------------------------------------------------------------
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                       Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #2 Banna Avenue/Cypress Street
******************************************************************************
Average Delay (sec/veh):      1.3       Worst Case Level Of Service: B[ 14.9]
******************************************************************************
Street Name:           Banna Avenue                     Cypress Street
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:           Include          Include          Include          Include
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  1  1  0    0  1  1  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      20    0    37     0    0     0     0  542    36    30  304     0
Growth 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
Initial Bse:   20    0    37     0    0     0     0  542    36    30  304     0
User 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
PHF Adj:     0.74 0.74  0.74  1.00 1.00  1.00  0.84 0.84  0.84  0.90 0.90  0.90
PHF Volume:    27    0    50     0    0     0     0  644    43    33  337     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:   27    0    50     0    0     0     0  644    43    33  337     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  6.8  6.5   6.9 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:  3.5  4.0   3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  900 1069   343  xxxx xxxx xxxxx  xxxx xxxx xxxxx   686 xxxx xxxxx
Potent Cap.:  282  223   659  xxxx xxxx xxxxx  xxxx xxxx xxxxx   917 xxxx xxxxx
Move Cap.:    274  215   659  xxxx xxxx xxxxx  xxxx xxxx xxxxx   917 xxxx xxxxx
Volume/Cap:  0.10 0.00  0.08  xxxx xxxx  xxxx  xxxx xxxx  xxxx  0.04 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx   0.1 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   9.1 xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     *    *     *     A    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx  441 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx  0.6 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   0.1 xxxx xxxxx
Shrd ConDel:xxxxx 14.9 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   9.1 xxxx xxxxx
Shared LOS:     *    B     *     *    *     *     *    *     *     A    *     *
ApproachDel:      14.9           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:         B                *                *                *
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
```

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------------------------------------------------------------------------------
------------------------------------------------------------------------------
                       Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #3 Kidder Avenue/Cypress Street
******************************************************************************
Average Delay (sec/veh):      0.8       Worst Case Level Of Service: C[ 15.2]
******************************************************************************
Street Name:          Kidder Avenue                     Cypress Street
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:           Include          Include          Include          Include
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  1  1  0    0  1  1  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      10    0    10     0    0     0     0  569    12    49  300     0
Growth 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
Initial Bse:   10    0    10     0    0     0     0  569    12    49  300     0
User 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
PHF Adj:     0.81 0.81  0.81  1.00 1.00  1.00  0.87 0.87  0.87  0.95 0.95  0.95
PHF Volume:    12    0    12     0    0     0     0  652    14    52  317     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:   12    0    12     0    0     0     0  652    14    52  317     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  6.8  6.5   6.9 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:  3.5  4.0   3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  921 1079   333  xxxx xxxx xxxxx  xxxx xxxx xxxxx   666 xxxx xxxxx
Potent Cap.:  273  220   669  xxxx xxxx xxxxx  xxxx xxxx xxxxx   933 xxxx xxxxx
Move Cap.:    261  207   669  xxxx xxxx xxxxx  xxxx xxxx xxxxx   933 xxxx xxxxx
Volume/Cap:  0.05 0.00  0.02  xxxx xxxx  xxxx  xxxx xxxx  xxxx  0.06 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx   0.2 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   9.1 xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     *    *     *     A    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx  376 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx  0.2 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   0.2 xxxx xxxxx
Shrd ConDel:xxxxx 15.2 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   9.1 xxxx xxxxx
Shared LOS:     *    C     *     *    *     *     *    *     *     A    *     *
ApproachDel:      15.2           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:         C                *                *                *
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
```

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

****

Intersection #4 Badillo St - Covina Blvd/Cypress Street

****

Cycle (sec):	100	Critical Vol./Cap.(X):	0.557
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	37	Level Of Service:	A

****

Street Name:	Badillo Street - Covina Boulevard									Cypress Street							
Approach:	North Bound				South Bound				East Bound				West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Permitted					Permitted					Permitted					Permitted				
Rights:	Include					Include					Include					Include				
Min. Green:	0	0	0			0	0	0			0	0	0			0	0	0		
Y+R:	4.0	4.0	4.0			4.0	4.0	4.0			4.0	4.0	4.0			4.0	4.0	4.0		
Lanes:	1	0	1	1	0	1	0	1	1	0	1	0	2	0	1	1	0	2	0	1
Volume Module:																				
Base Vol:	2	685	88			2	532	159			234	70	7			74	58	1		
Growth 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		
Initial Bse:	2	685	88			2	532	159			234	70	7			74	58	1		
User 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		
PHF Adj:	0.94	0.94	0.94			0.96	0.96	0.96			0.83	0.83	0.83			0.86	0.86	0.86		
PHF Volume:	2	732	94			2	554	165			283	85	8			86	68	1		
Reduct Vol:	0	0	0			0	0	0			0	0	0			0	0	0		
Reduced Vol:	2	732	94			2	554	165			283	85	8			86	68	1		
PCE 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		
MLF 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		
FinalVolume:	2	732	94			2	554	165			283	85	8			86	68	1		
Saturation Flow Module:																				
Sat/Lane:	1600	1600	1600			1600	1600	1600			1600	1600	1600			1600	1600	1600		
Adjustment:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
Lanes:	1.00	1.77	0.23			1.00	1.54	0.46			1.00	2.00	1.00			1.00	2.00	1.00		
Final Sat.:	1600	2836	364			1600	2464	736			1600	3200	1600			1600	3200	1600		
Capacity Analysis Module:																				
Vol/Sat:	0.00	0.26	0.26			0.00	0.22	0.22			0.18	0.03	0.01			0.05	0.02	0.00		
Crit Moves:		****				****					****						****			

****

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Glendora Avenue/Colver Place

Average Delay (sec/veh): 4.4 Worst Case Level Of Service: C[24.9]

Street Name:	Glendora Avenue						Colver Place					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1 0	1 0		0 1 0	1 0		0 0 1! 0	0		0 1 0	0 1	
Volume Module:												
Base Vol:	13	344	25	15	431	21	81	11	42	13	4	36
Growth 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
Initial Bse:	13	344	25	15	431	21	81	11	42	13	4	36
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	13	344	25	15	431	21	81	11	42	13	4	36
User 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
PHF Adj:	0.95	0.95	0.95	0.88	0.88	0.88	0.82	0.82	0.82	0.77	0.77	0.77
PHF Volume:	14	364	26	17	491	24	99	13	51	17	5	47
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	14	364	26	17	491	24	99	13	51	17	5	47
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	515	xxxx	xxxxx	390	xxxx	xxxxx	749	955	257	691	953	195
Potent Cap.:	1061	xxxx	xxxxx	1179	xxxx	xxxxx	304	261	748	335	261	820
Move Cap.:	1061	xxxx	xxxxx	1179	xxxx	xxxxx	276	253	748	293	254	820
Volume/Cap:	0.01	xxxx	xxxx	0.01	xxxx	xxxx	0.36	0.05	0.07	0.06	0.02	0.06
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	0.2
Control Del:	8.4	xxxx	xxxxx	8.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	9.7
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	A
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	341	xxxxx	283	xxxx	xxxxx
SharedQueue:	0.0	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	2.5	xxxxx	0.3	xxxx	xxxxx
Shrd ConDel:	8.4	xxxx	xxxxx	8.1	xxxx	xxxxx	xxxxx	24.9	xxxxx	18.8	xxxx	xxxxx
Shared LOS:	A	*	*	A	*	*	*	C	*	C	*	*
ApproachDel:	xxxxxx			xxxxxx			24.9			12.6		
ApproachLOS:	*			*			C			B		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #6 Banna Avenue/Colver Place

Cycle (sec):	100	Critical Vol./Cap.(X):	0.145
Loss Time (sec):	10	Average Delay (sec/veh):	7.9
Optimal Cycle:	0	Level Of Service:	A

Street Name:	Banna Avenue						Colver Place					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	24	48	12	2	49	14	7	7	11	32	8	12
Growth 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
Initial Bse:	24	48	12	2	49	14	7	7	11	32	8	12
User 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
PHF Adj:	0.73	0.73	0.73	0.74	0.74	0.74	0.75	0.75	0.75	0.45	0.45	0.45
PHF Volume:	33	66	17	3	67	19	9	9	15	71	18	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	33	66	17	3	67	19	9	9	15	71	18	27
PCE 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
MLF 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
FinalVolume:	33	66	17	3	67	19	9	9	15	71	18	27
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.29	0.57	0.14	0.03	0.75	0.22	0.28	0.28	0.44	0.62	0.15	0.23
Final Sat.:	232	464	116	25	620	177	226	226	354	489	122	183
Capacity Analysis Module:												
Vol/Sat:	0.14	0.14	0.14	0.11	0.11	0.11	0.04	0.04	0.04	0.15	0.15	0.15
Crit Moves:		****			****				****	****		
Delay/Veh:	8.0	8.0	8.0	7.7	7.7	7.7	7.4	7.4	7.4	8.1	8.1	8.1
Delay 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
AdjDel/Veh:	8.0	8.0	8.0	7.7	7.7	7.7	7.4	7.4	7.4	8.1	8.1	8.1
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	8.0			7.7			7.4			8.1		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.0			7.7			7.4			8.1		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #7 Banna Avenue/Ruddock Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.122
Loss Time (sec):	10	Average Delay (sec/veh):	7.8
Optimal Cycle:	0	Level Of Service:	A

Street Name:	Banna Avenue						Ruddock Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	10	50	15	10	34	16	16	53	14	4	43	9
Growth 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
Initial Bse:	10	50	15	10	34	16	16	53	14	4	43	9
User 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
PHF Adj:	0.92	0.92	0.92	0.68	0.68	0.68	0.84	0.84	0.84	0.74	0.74	0.74
PHF Volume:	11	55	16	15	50	23	19	63	17	5	58	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	55	16	15	50	23	19	63	17	5	58	12
PCE 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
MLF 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
FinalVolume:	11	55	16	15	50	23	19	63	17	5	58	12
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.13	0.67	0.20	0.16	0.57	0.27	0.19	0.64	0.17	0.07	0.77	0.16
Final Sat.:	108	540	162	136	463	218	156	518	137	58	620	130
Capacity Analysis Module:												
Vol/Sat:	0.10	0.10	0.10	0.11	0.11	0.11	0.12	0.12	0.12	0.09	0.09	0.09
Crit Moves:		****		****				****			****	
Delay/Veh:	7.7	7.7	7.7	7.7	7.7	7.7	7.9	7.9	7.9	7.7	7.7	7.7
Delay 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
AdjDel/Veh:	7.7	7.7	7.7	7.7	7.7	7.7	7.9	7.9	7.9	7.7	7.7	7.7
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	7.7			7.7			7.9			7.7		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	7.7			7.7			7.9			7.7		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Banna Avenue/Badillo Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.522
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	35	Level Of Service:	A

Street Name:	Banna Avenue							Badiillo Street					
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Permitted			Permitted			Permitted			Permitted			
Rights:	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	0	0	1! 0	0	0	1! 0	0	1	0	1	1	0	
Volume Module:													
Base Vol:	25	11	4	8	7	47	85	1004	62	8	633	4	
Growth 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	
Initial Bse:	25	11	4	8	7	47	85	1004	62	8	633	4	
User 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	
PHF Adj:	0.81	0.81	0.81	0.78	0.78	0.78	0.96	0.96	0.96	0.91	0.91	0.91	
PHF Volume:	31	14	5	10	9	60	89	1046	65	9	696	4	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	31	14	5	10	9	60	89	1046	65	9	696	4	
PCE 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	
MLF 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	
FinalVolume:	31	14	5	10	9	60	89	1046	65	9	696	4	
Saturation Flow Module:													
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Lanes:	0.62	0.28	0.10	0.13	0.11	0.76	1.00	1.88	0.12	1.00	1.99	0.01	
Final Sat.:	1000	440	160	206	181	1213	1600	3014	186	1600	3180	20	
Capacity Analysis Module:													
Vol/Sat:	0.02	0.03	0.03	0.01	0.05	0.05	0.06	0.35	0.35	0.01	0.22	0.22	
Crit Moves:	****				****			****		****			

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Banna Avenue/West Project Driveway

Average Delay (sec/veh): 0.6 Worst Case Level Of Service: A[9.0]

Street Name:	Banna Avenue						West Project Driveway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	52	5	5	56	0	0	0	0	3	0	3
Growth 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
Initial Bse:	0	52	5	5	56	0	0	0	0	3	0	3
User 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
PHF Adj:	0.74	0.74	1.00	0.74	0.74	0.74	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	71	5	7	76	0	0	0	0	3	0	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	71	5	7	76	0	0	0	0	3	0	3
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	76	xxxx	xxxxx	xxxx	xxxx	xxxxx	163	163	73
Potent Cap.:	xxxx	xxxx	xxxxx	1536	xxxx	xxxxx	xxxx	xxxx	xxxxx	832	733	994
Move Cap.:	xxxx	xxxx	xxxxx	1536	xxxx	xxxxx	xxxx	xxxx	xxxxx	830	730	994
Volume/Cap:	xxxx	xxxx	xxxx	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	0.00	0.00
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	904	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.0	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	9.0	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	A	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx				9.0	
ApproachLOS:	*			*			*				A	

Note: Queue reported is the number of cars per lane.

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                       Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #10 Kidder Avenue/East Project Driveway
******************************************************************************
Average Delay (sec/veh):      1.1       Worst Case Level Of Service: A[  8.6]
******************************************************************************
Street Name:          Kidder Avenue                East Project Driveway
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       4   13     0     0   26     4     2    0     2     0    0     0
Growth 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
Initial Bse:    4   13     0     0   26     4     2    0     2     0    0     0
User 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
PHF Adj:     0.81 0.81  0.81  0.81 0.81  0.81  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     5   16     0     0   32     5     2    0     2     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    5   16     0     0   32     5     2    0     2     0    0     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.4  6.5   6.2 xxxxx xxxx xxxxx
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5  4.0   3.3 xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:   37 xxxx xxxxx  xxxx xxxx xxxxx    60   60    34  xxxx xxxx xxxxx
Potent Cap.: 1587 xxxx xxxxx  xxxx xxxx xxxxx   951  835  1044  xxxx xxxx xxxxx
Move Cap.:   1587 xxxx xxxxx  xxxx xxxx xxxxx   949  832  1044  xxxx xxxx xxxxx
Volume/Cap:  0.00 xxxx  xxxx  xxxx xxxx  xxxx  0.00 0.00  0.00  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    0.0 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:  7.3 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    A    *     *     *    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  994 xxxxx  xxxx xxxx xxxxx
SharedQueue:  0.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx  0.0 xxxxx xxxxx xxxx xxxxx
Shrd ConDel:  7.3 xxxx xxxxx xxxxx xxxx xxxxx xxxxx  8.6 xxxxx xxxxx xxxx xxxxx
Shared LOS:     A    *     *     *    *     *     *    A     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx              8.6           xxxxxx
ApproachLOS:         *                *               A                *
******************************************************************************
Note: Queue reported is the number of cars per lane.
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APPENDIX C

City of Covina Cumulative Projects List

1. **Grand Covina**, *731 North Grand Ave. & 777-847 East Edna Place Covina, CA 91723*
    - Two-component development consisting of 35 single-family and 32 condominiums dwelling units on 5.2 acre site with; and abutting 0.9-acre site with two retail-oriented buildings on separate lots (facing Grand), totaling 5,000 square feet.
    - Denied by City Council 3/3/15.
2. **4-Lot Subdivision**, *1732 East Ruddock Street, Covina, CA 91724*
    - Proposed Subdivision of .9 acre site into 4 single-family dwelling unit lots.
    - Not officially submitted.

Others outside the area

1. **City Ventures Mixed-Use Development**, *400 Block North Citrus Avenue Covina, CA 91723*
    - A 3.4 acre site totaling 165,000 square feet building area.
    - 68 dwelling units of various types including: 58 Condominiums, 6 lofts, and 4 "live-work" units.
    - 2,741 square feet commercial retail facing Citrus Avenue.
    - Under Plan Check review.
2. **City Ventures Residential Development**, *251 East Front Street, Covina, CA 91723*
    - Proposed 50 condominium dwelling units on 2.59 acre site.
    - Under Planning Department Review.