Appendix A

Fuel Modification Zone (FMZ) Plans

FUEL MODIFICATION PLANS

THIS PROJECT IS LOCATED IN A RECOMMENDED HIGH FIRE SEVERITY ZONE

 # SR 220 090

PLANT LEGEND

SYMBOL	ABBREV	BOTANICAL / COMMON NAME	PLANT* NUMBER	SYMBOL* CODE	MAX. HEIGHT	MAX. WIDTH	PROP. Spacing	QUANTITY	SIZE	REMARKS	WATER USE FACTOR
TREES											
		EXISTING TREES									
	ALN RHO	ALNUS RHOMBIFOLIA / WHITE ALDER	13	o	90'	60'	--	1	EXST.	EXST. TO BE REMOVED	--
	CUP ANA	CUPANIOPSIS ANACARDIOIDES / CARROTWOOD	--	--	40'	30'	--	6	EXST.	EXST. TO REMAIN AND PROTECT IN PLACE	--
	PIN SPE	PINUS SPECIES / PINE TREE	--	--	--	--	--	8	EXST.	EXST. TO BE REMOVED	--
	PLA RAC	PLATANUS RACEMOSA / CALIFORNIA SYCAMORE	210	W	80'	50'	--	1	EXST.	EXST. TO REMAIN AND PROTECT IN PLACE	--
	POP NIG	POPULUS NIGRA 'ITALICA' / LOMBARDY POPLAR	--	--	100'	30'	--	1	EXST.		--
	EXISTING	EXISTING TREES TO REMAIN - OFFSITE (OC PARKS)	--	--	--	--	--	7	EXST.		--
		PROPOSED TREE									
	QUE AGR	QUERCUS AGRIFOLIA / COAST LIVE OAK	222	o	70'	35'	≥30' AS SHOWN	11	24" BOX	SEE DETAILS 'V', SHEET F-6.2	LOW PLANT FACTOR 0.3
SHRUBS											
K	PLU AUR	PLUMBAGO AURICULATA / CAPE LEADWORT IN GROUPS OF THREE SPECIMENTS	211	W	6'	10'	≥15' AS SHOWN	28	5 GALLON	SEE DETAIL 'W', SHEET F-6.2	LOW PLANT FACTOR 0.3
J	PYR KOI	PYRACANTHA KOIDZUMII 'SANTA CRUZ' / SANTA CRUZ FIRETHORN IN GROUPS OF THREE SPECIMENTS	221	W	6'	10'	≥15' AS SHOWN	27	5 GALLON		
GROUND COVER											
	BAC PIL	BACCHARIS PILULARIS / BACCHARIS FROM 1 GALLON SPACE @ 24" ON CENTER	38	W o	2'	6'	AS SHOWN	2,008	1 GALLON	SEE DETAIL 'X', SHEET F-6.2	LOW PLANT FACTOR 0.3
	CAR 'GRE'	CARISSA MAC. 'GREEN CARPET' / PROSTRATE NATAL PLUM FROM 1 GALLON SPACE @ 12" ON CENTER	46	N	15"	4'		3,173	1 GALLON		
	CEA 'POI'	CEANOTHUS GLORIOSUS 'POINT REYES' / POINT REYES CEANOTHUS FROM 1 GALLON SPACE @ 48" ON CENTER	48	W	1-1/2'	16'		573	1 GALLON		
	MYO PAR	MYOPORUM PARVIFOLIUM / PROSTRATE MYOPORUM FROM 1 GALLON SPACE @ 24" ON CENTER	184	W	6"	9'		2,235	1 GALLON		
	ROS 'PRO'	ROSMARINUS OFFICINALIS 'PROSTRATUS' / PROSTRATE ROSEMARY FROM 1 GALLON SPACE @ 24" ON CENTER	241	W n	2'	8'		2,996	1 GALLON		
	EXISTING	EXISTING LAWN TO REMAIN	--	--	--	--		--	EXISTING	EXISTING TO REMAIN AND PROTECT IN PLACE	--
	EXISTING NATIVE	EXISTING NATIVE VEGETATION TO REMAIN AND MODIFIED PER ZONE C REQUIREMENT.	--	--	--	--		--	EXISTING	EXISTING TO REMAIN	--
SUCCULENTS											
2	AGA ATT	AGAVE ATTENUATA / CENTURY PLANT	8	W	5'	8'	AS SHOWN	15	5 GALLON	SEE DETAIL 'W', SHEET F-6.2	LOW PLANT FACTOR 0.3
5	AGA VIC	AGAVE VICTORIAE-REGINAE / QUEEN VICTORIA AGAVE	10	N	15"	15"		89	5 GALLON		
1	AEO DEC	AEONIUM DECORUM / AEONIUM	6	X	12"	12"		59	5 GALLON		
3	ALO VERA	ALOE VERA / MEDICINAL ALOE	17	W	12"	18"		42	5 GALLON		
4	DUD PUL	DUDLEYA PULVERULENTA / CHALK DUDLEYA	95	o	24"	24"		71	5 GALLON		
	ALO ARI	ALOE ARISTATA / NO COMMON NAME FROM 1 GALLON SPACE @ 18" ON CENTER	15	N	10"	10"	18"	485	1 GALLON	SEE DETAIL 'X', SHEET F-6.2	
	SED CON	SEDUM CONFUSUM / NO COMMON NAME FROM 1 GALLON SPACE @ 24" ON CENTER	252	X	18"	18"	24"	362	1 GALLON		
	SEN SER	SENECIO SERPENS / BLUE CHALKSTICKS FROM 1 GALLON SPACE @ 18" ON CENTER	255	X	6"	12"	18"	1,100	1 GALLON		

NOTE: WITHIN THE FUEL MODIFICATION ZONES, THE PLANT SPECIES FOR THE PRECISE FUEL MODIFICATION PLANS WILL BE SELECTED FROM THE OCFA APPROVED PLANT PALETTE ATTACHMENT 8

NURSERY STANDARD NOTES:

ALL PLANT MATERIALS DELIVERED TO THE SITE SHALL CONFORM WITH THE CURRENT NURSERY INDUSTRY STANDARDS, THAT INCLUDES AND IS NOT LIMITED TO HEAVY PRUNING, TOPPING AND SPIKE MARKS EVIDENT ON ANY SPECIMEN TREES AND / OR PALMS.

SIZE AND QUALITY OF PLANT MATERIAL SHALL CONFORM WITH THE CURRENT NURSERY INDUSTRY STANDARDS. MATERIALS NOT IN COMPLIANCE WITH THESE SAID STANDARDS SHALL BE DEEMED UNACCEPTABLE AND WILL BE REPLACED WITH MATERIALS THAT ARE.

THE SIZE OF THE MATERIAL SHALL BE IN PORPORTION WITH THE RESPECTIVE CONTAINER SIZE. PLANT MATERIAL THAT DOES NOT FILL THE CONTAINER (WITHIN REASON) IS TO BE REPLACED WITH MATERIAL IN KIND THAT MEET THE INDUSTRY STANDARDS.

PLANT MATERIAL THAT IS OVERGROWN AND ROOT-BOUND IS NOT ACCEPTABLE WILL BE RETURNED.

PHOTOS OF ALL TREES AND PALMS TO BE SUBMITTED TO LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO DELIVERY TO SITE. NO SUBSTITUTIONS ALLOWED UNLESS APPROVED BY LANDSCAPE ARCHITECT.

COMPLIANCE NOTE:

I HAVE COMPLIED WITH THE CRITERIA OF THE WATER EFFICIENT LANDSCAPE REGULATIONS PER AB 1881 AND APPLIED THEM ACCORDINGLY FOR THE EFFICIENT USE OF WATER IN THE IRRIGATION DESIGN.

INSTALL ALL IRRIGATION EQUIPMENT, IRRIGATION DESIGN AND PLANT MATERIALS IN COMPLIANCE WITH THE CITY OF LAKE FOREST STANDARD UNIFORM BUILDING CODE.

SIGNATURE

10/05/2018
DATE

PLANTING NOTES

THE LANDSCAPE CONTRACTOR SHALL INSTALL ALL PLANT MATERIAL IN ACCORDANCE WITH THE PLANS AND DETAILS.

PRIOR TO SOIL PREPARATION, CONTRACTOR SHALL HIRE A LICENSED SOIL LABORATORY TO ANALYZE THE SITE SOIL IN PLANTING AREAS TO DETERMINE THE AGRICULTURAL SUITABILITY AND FERTILITY. THE LAB SHALL SUBMIT A WRITTEN REPORT OF THEIR FINDINGS WITH ANY RECOMMENDATIONS FOR THE AMENDING OF THE SOIL TO THE OWNER AND THE LANDSCAPE ARCHITECT TO BE IMPLEMENTED BY THE CONTRACTOR IN ADDITION TO THE ORIGINAL SOIL PREP MIX.

SOIL PREPARATION AMENDMENTS (PER 1000 SQUARE FEET):
- 4 CUBIC YARDS OF NITROGEN STABILIZED & MINERALIZED ORGANIC AMENDMENTS (REDWOOD, FIR OR CEDAR SHAVINGS)
- 50 POUNDS AGRICULTURAL GYPSUM
- 150 POUNDS GRO-POWER PLUS

THE REQUIRED SITE SPECIFIC SOILS REPORT AND ITS RECOMMENDATIONS WILL DICTATE THE FINAL SOIL PREPARATION REQUIREMENTS.

CULTIVATE (ROTOTIL) PLANTING AREAS TO A DEPTH OF SIX (6) INCHES WITH THE REQUIRED SOIL PREPARATION AMENDMENTS, WET THOROUGHLY AND ALLOW TO SETTLE, REPEAT THIS PROCEDURE UNTIL SOIL IS STABLE ENOUGH TO HOLD A UNIFORM AND SMOOTH CONSISTENCY TO ALLOW FOR DRAINAGEAND AIR PENETRATION. DO NOT ROTOTIL SLOPED AREAS THAT ARE OVER A 3:1 GRADIENT.

FOR WEED CONTROL, CONTINUE TO IRRIGATE THOROUGHLY FOR A PERIOD OF TWO TO THREE WEEKS OR UNTIL THE WEED SEEDS HAVE GERMINATED. WHEN THERE IS SUFFICIENT WEED SEED GERMINATION, THE CONTRACTOR SHALL APPLY A POST EMERGENT WEED KILLER, ACCORDING TO THE DIRECTIONS OF A LICENSED PEST CONTROL APPLICATOR. THE CONTRACTOR SHALL THEN WAIT AN ADDITIONAL ONE WEEK TO ALLOW THE WEED KILLER TO DISSIPATE PRIOR TO PLANTING.

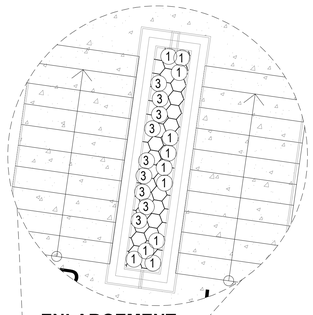
BACKFILL MIX FOR TREE AND SHRUB PLANTING FOR INFILTRATION PLANTER (PER CUBIC YARD):
- 2/3 CUBIC YARD ON SITE SOIL
- 1/3 CUBIC YARD ORGANIC AMENDMENT (NITROLIZED SHAVINGS)
- 1 POUND IRON SULFATE (20% IRON, 10% SULFUR)
- 2 POUNDS 6-20-20 COMMERCIAL FERTILIZER
- 10 POUNDS GRO-POWER PLUS

PROVIDE GRO-POWER PLANTING TABLETS (7 & 21 GRAMS) IN EACH PLANTING PIT AS FOLLOWS:
- (1) ONE TABLET (7 GRAMS) FOR EACH 4" POT & GROUND COVER
- (1) ONE TABLET (21 GRAMS) FOR EACH 1 GALLON CONTAINER
- (3) THREE TABLETS (63 GRAMS) FOR EACH 5 GALLON CONTAINER
- (5) FIVE TABLETS (105 GRAMS) FOR EACH 15 GALLON CONTAINER
- (4) FOUR TABLETS (84 GRAMS) FOR EACH 1/2" OF CALIPER MEASURED 14" ABOVE SOIL LEVEL FOR LARGER SIZES

REMOVE STAKES AND TRELLIS FROM VINES AND ESPALIERS AND SECURE TO WALLS, FENCES AND POSTS AS PER DETAIL.

GROUND COVERS SHALL EXTEND BENEATH ALL TREES AND SHRUBS IN PLANTER AREAS WITH GROUND COVERS INDICATED.

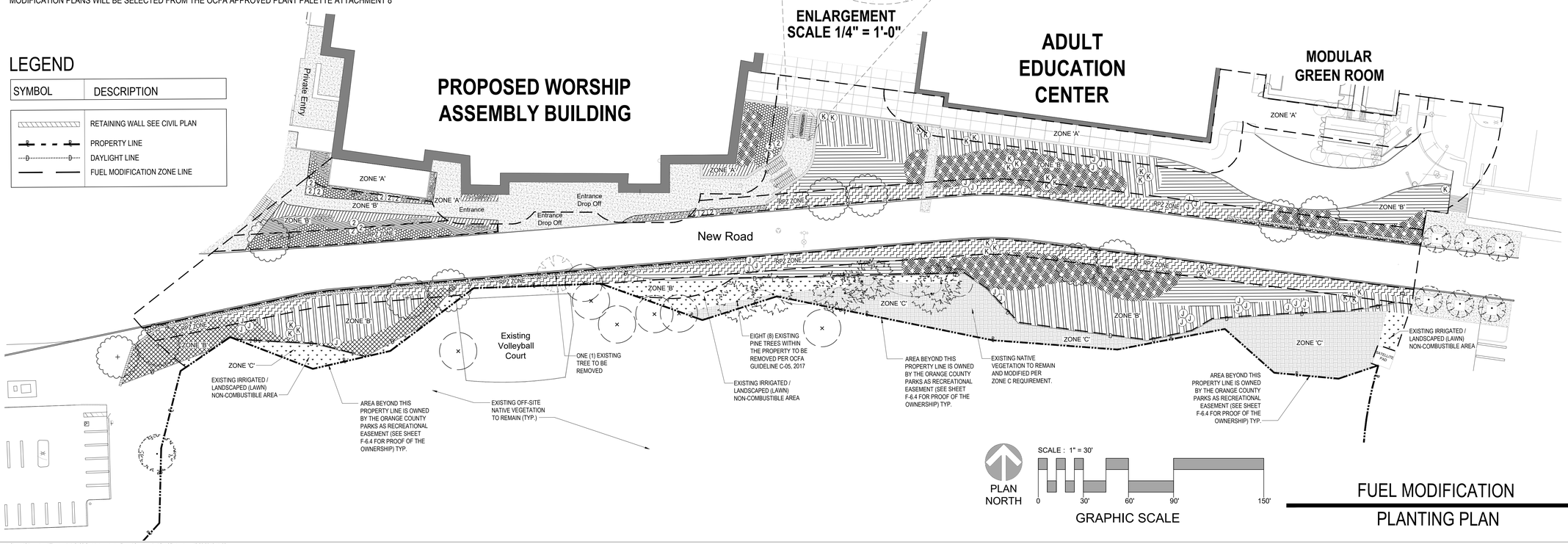
NOTE: WHENEVER NEW TREES ARE LOCATED WITHIN SIX (6) FT. OF ANY CONCRETE WALK, CURB, WALL OR BUILDING, THEY MUST BE PLACED WITHIN A LINEAR ROOT BARRIER AS INDICATED WITH THE SYMBOL (——) (TYPICAL). THE PREFERRED BARRIER IS MIN .085 THICK BLACK POLYETHYLENE MATERIAL PLACED ALONG THE SIDE OF THE WALL, CURB, BUILDING ETC., TWENTY-FOUR (24) INCHES DEEP AND A LENGTH OF TEN FEET CENTERED ON THE TREE.



ENLARGEMENT
SCALE 1/4" = 1'-0"

LEGEND

SYMBOL	DESCRIPTION
	RETAINING WALL SEE CIVIL PLAN
	PROPERTY LINE
	DAYLIGHT LINE
	FUEL MODIFICATION ZONE LINE



FUEL MODIFICATION PLANTING PLAN

F-1.0

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STAMPS

LICENSED LANDSCAPE ARCHITECT
KENNETH A. ANDREW
NO. 1460
Signature
NOVEMBER 30, 2019
Renewal Date
12/28/2018
Date
STATE OF CALIFORNIA

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PROJECT

Saddleback Church
Worship Center

SITE ADDRESS:
1 Saddleback Parkway
Lake Forest, CA 92630

MAILING ADDRESS:

PH 949.609.8000

SHEET DATA

PROJECT #	16042
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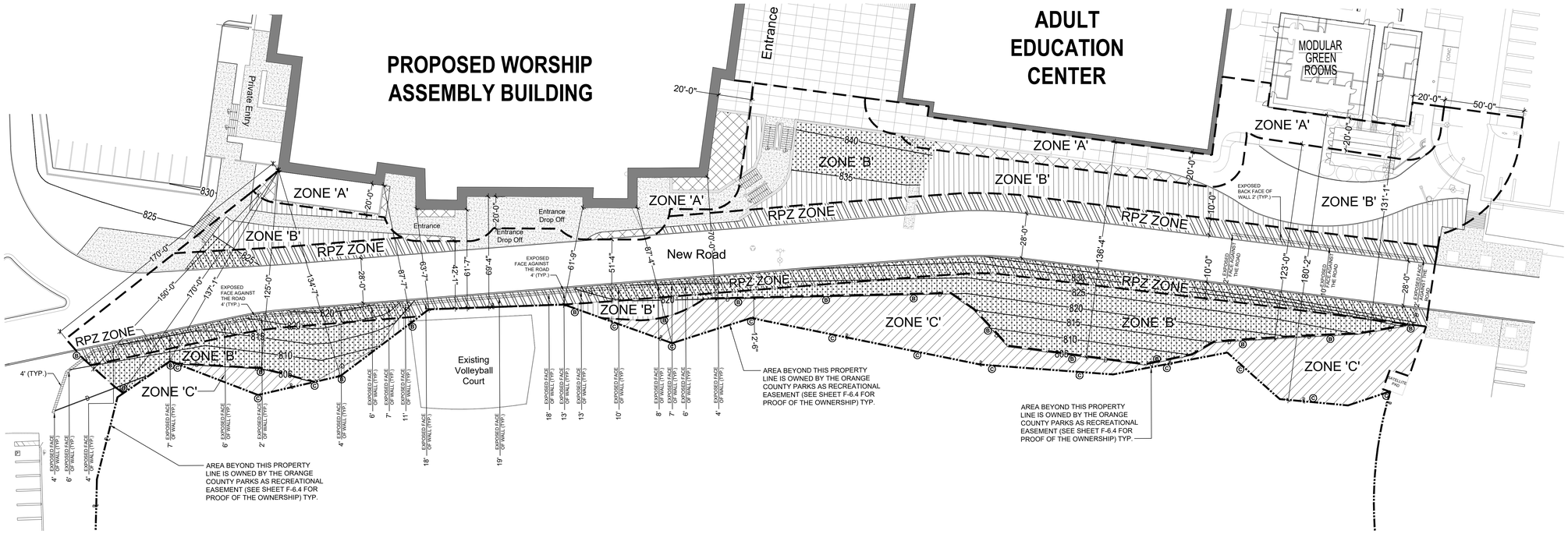
FUEL MODIFICATION PLANS

THIS PROJECT IS LOCATED IN A RECOMMENDED HIGH FIRE SEVERITY ZONE

 # SR 220 090



ZONE A:

IRRIGATED ZONE

ZONE A IS
20-FEET
IN WIDTH

A. 60 TO 170 FEET FMZ MINIMUM WIDTH (REFER TO SHEET F-6.3 AM&M LETTER)

1) FLAT LEVEL GROUND REQUIREMENT
2) 20-FOOT MINIMUM WIDTH
3) BUILDING FOUNDATION SETBACK (NO DESIGN ALTERNATIVES ALLOWED)
   a. ZONE "A" (20 FEET WIDE)
   b. SETBACK FROM THE SLOPE NEAREST THE FOUNDATION.
   c. NO COMBUSTIBLE CONSTRUCTION ALLOWED IN SETBACK.
   d. AUTOMATIC IRRIGATION SYSTEMS TO MAINTAIN HEALTHY VEGETATION WITH HIGH MOISTURE CONTENT AND BE REGULARLY IRRIGATED.
   e. PLANTS IN THIS ZONE SHALL BE HIGHLY FIRE RESISTANT AND SELECTED FROM ATTACHMENT 8 (REFER TO ATTACHMENT 8 AND SECTION 3).
   f. IF ALL ZONES A-D ARE TO BE MAINTAINED BY THE STRUCTURE OWNER, THEN ZONE A SHALL BEGIN AT THE WALL OF THE STRUCTURE

ZONE B:

IRRIGATED ZONE

ZONE B IS
40-150 FEET
IN WIDTH

ON-SLOPE ZONE "B" **(40 -150 FEET WIDE):** REFER TO SHEET F-6.3 AM&M LETTER

1) REQUIRED AT THE NEAREST SLOPE ADJOINING ZONE A.
2) IRRIGATED AND PLANTED PER ATTACHMENT 6.
3) COULD REPLACE ZONES C/D WHEN GRADING PLANS REQUIRE LARGER REPLANTED AREAS.
4) ALL PLANT SPECIES DESIGNED FOR ZONE B SHALL BE SELECTED FROM ATTACHMENT 8. EXISTING FUEL MODIFICATION MAINTENANCE PROGRAMS ARE LIMITED TO THE PLANTS LISTED ON THE APPROVED PLANS UNLESS A REVISION IS REQUESTED. PLANTING AND MAINTENANCE SHALL BE IN ACCORDANCE WITH PLANTING RESTRICTIONS FROM ATTACHMENTS 6, 7, AND 8.
5) NO COMBUSTIBLE CONSTRUCTION IS ALLOWED WITHIN ZONE B.

ZONE C:

THINNING ZONE - NON-IRRIGATED

ZONE C IS
0-52 FEET
IN WIDTH

C. ON-SLOPE ZONE "C/D" **(0-52 FEET WIDE):** REFER TO SHEET F-6.3 AM&M LETTER

1) ONE NATURAL VEGETATION THINNING (ZONE C) OR TWO THINNING ZONES (ZONE C/D).
2) PLANTING INSTALLATION PER ATTACHMENT 6, IF INSTALLING PLANTS.
3) SEE SECTION 4 ALTERNATIVES.
4) PLANTS SPECIES INTRODUCED INTO ZONE C AND D SHALL BE SELECTED FROM ATTACHMENT 8. MAINTENANCE SHALL BE IN ACCORDANCE WITH ATTACHMENTS 6 AND 7. (SEE SECTION 3)
5) NO COMBUSTIBLE CONSTRUCTION IS ALLOWED WITHIN ZONE C AND D.

RPZ ZONE:

IRRIGATED ZONE

RPZ ZONE IS
10 FEET
IN WIDTH

RESIDENTIAL TRACT TYPES OF INTERIOR SLOPE

B. SMA TYPE 2 : (REFER TO SHEET F-6.3 AM&M LETTER)

1) ROADSIDE PROTECTION ZONE (RPZ)
2) 50 FEET MAXIMUM WIDTH
3) CAN BE DESIGNED AS FMZ OR SMA DEPENDING ON IF THE ROAD IS AT THE PERIMETER OR INTERIOR OF THE COMMUNITY.
4) STREETSCAPE DESIGNS WHICH ARE NOT COMMUNITY PERIMETER EDGES MAY NOT BE REGULATED UNLESS A DISTINCT HAZARD IS CREATED.
5) DESIGN MUST BE IRRIGATED.

ZONE LEGEND

SYMBOL	DESCRIPTION
	ZONE A - IRRIGATED ZONE
	ZONE B - IRRIGATED ZONE
	ZONE C - THINNING ZONES - NOT IRRIGATED
	RPZ ZONE - IRRIGATED ZONE
	NEW PLANTS RESTORATION ZONES WITH PERMANENT IRRIGATION Wherever new grading occurred, restored with new plants and permanent irrigation per planting plan, irrigation plan and fuel modification zone requirements.

GENERAL NOTE

SEE SHEET F-6.3 FOR AM&M LETTER (A5)

ZONE MARKER LEGEND

SYMBOL	MARKER	REMARKS
Ⓑ	FIRE ZONE B	SEE ATTACHMENT 4 SHEET F-4.0 FOR DETAILS
Ⓒ	FIRE ZONE C	

LEGEND

SYMBOL	DESCRIPTION
	RETAINING WALL SEE CIVIL PLAN
P P	PROPERTY LINE
D D	DAYLIGHT LINE
	FUEL MODIFICATION ZONE LINE
810	PROPOSED CONTOUR LINE AT REGRADED SLOPE

NOTE: WHEREEVER REGRADING OCCURS, NEW PLANTS WILL BE PROVIDED TO REPLACE THE EXISTING LANDSCAPE. NEW LANDSCAPE WILL COMPLY WITH REQUIREMED FUEL MODIFICATION ORDINANCE.

PLAN NORTH

SCALE : 1" = 30'

0 30' 60' 90' 150'

GRAPHIC SCALE

FUEL MODIFICATION

ZONES with ZONE MARKERS

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STAMPS

LICENSED LANDSCAPE ARCHITECT
KENNETH A. ANDREW
NO. 1460
SIGNATURE
NOVEMBER 30, 2019
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CAD FILENAME	16042 Saddleback New Worship Center

FUEL MOD. ZONES

F-3.0

APN : 104-143-12

PLANT PALETTE

- EXISTING TREES:
  - EXISTING FICUS TREE / INDIAN LAUREL FIG TO REMAIN
- NEW PROPOSED TREES: (PER WUCOLS ZONE 3)
  - BRACHYCHITON POPULNEUS / KURRAJONG BOTTLE TREE
    LOPHOSTEMON CONFERTUS / BRISBANE BOX
  - CINNAMOMUM CAMPHORA / CAMPHOR TREE
    PODOCARPUS GRACILIOR / FERN PODOCARPUS
  - CERCIS CANADENSIS 'FOREST PANSY' / FOREST PANSY REDBUD
    LAGERSTROEMIA INDICA / CRAPE MYRTLE
  - OLEA EUROPAEA 'SWAN HILL' / FRUITLESS OLIVE
    QUERCUS ILEX / HOLLY OAK
    PODOCARPUS GRACILIOR / FERN PODOCARPUS
  - PINUS SPECIES / PINE TREE
  - QUERCUS AGRIFOLIA / COASTAL SCRUB OAK
  - PLATANUS RACEMOSA / CALIFORNIA SYCAMORE.
    EXISTING FICUS TREE / INDIAN LAUREL FIG TO BE RELOCATED
- NEW PROPOSED PALMS: (PER WUCOLS ZONE 3)
  - PHOENIX CANARIENSIS / CANARY ISLAND DATE PALM
  - WASHINGTONIA ROBUSTA / MEXICAN FAN PALM

PLANT PALETTE

- SHRUBS: (PER WUCOLS ZONE 3)
  - ANIGOZANTHOS BUSH SPECIES / KANGAROO PAW
    CAREX DIVULSA / BERKELEY SEDGE
  - BOUGAINVILLEA 'BARBARA KARST' / BARBARA KARST BOUGAINVILLEA
  - DIANELLA TASMANICA 'SILVER STREAK' / SILVER STREAK FLAX LILY
  - HEMEROCALLIS SPECIES
    CAREX DIVULSA / BERKELEY SEDGE
    ALOE 'BLUE ELF' / ALOE
  - PHORMIUM 'DARK DELIGHT' / RED NEW ZEALAND FLAX
    STRELITZIA REGINAE / BIRD OF PARADISE
    DIETES GRANDIFLORA / FORTNIGHT LILY
  - (S) PHORMIUM TENAX 'ATROPURPUREUM' / BRONZE FLAX
    STRELITZIA NICOLAI / GIANT BIRD OF PARADISE
  - (P) PITTOSPORUM TOBIRA 'VARIEGATA' / VARIEGATED TOBIRA
    VIBURNUM TINUS / LAURUSTINUS
    WESTRINGIA FRUTICOSA / COASTAL ROSEMARY
  - AGAVE ATTENUATA / CENTURY PLANT
    AEONIUM SPECIES / AEONIUM
    ALOE SPECIES / ALOE
    CRASSULA SPECIES / CRASSULA
    SENECIO SERPENS / BLUE CHALKSTICKS
  - PYRACANTHA KOIDZUMII 'SANTA CRUZ' / SANTA CRUZ FIRETHORN
    RHAPHIOLEPIS INDICA 'CLARA' / INDIAN HAWTHORN
    CARISSA MACROCARPA 'GREEN CARPET' / NATAL PLUM

PLANT PALETTE

- GROUND COVER: (PER WUCOLS ZONE 3)
  MULCH 2" LAYER OF 2" MINUS 'FOREST FLOOR' SHREDDED BARK MULCH AVAILABLE THROUGH AGUINAGA FERTILIZERS (949) 786-9558 (TYP. THROUGHOUT GROUND COVER AREAS).
  CONTRACTOR SHALL SUBMIT SAMPLE TO THE LANDSCAPE ARCHITECT.
  - AFRICAN CALENDULA / CAPEWEED
    ARTIFICIAL TURF
  - BACCHARIS PILULARIS / BACCHARIS
  - CARISSA MACROCARPA 'GREEN CARPET' / NATAL PLUM
  - MYOPORUM PARVIFOLIUM / PROSTRATE MYOPORUM
    CEANOTHUS MARITIMUS 'FROSTY DAWN' / MARITIME CEANOTHUS
  - PLUMBAGO AURICULATA / CAPE LEADWORT
    CEANOTHUS SPECIES
  - PYRACANTHA SPECIES
  - ROSMARINUS OFFICINALIS 'PROSTRATUS' / PROSTRATE ROSEMARY
    CEANOTHUS MARITIMUS 'FROSTY DAWN' / MARITIME CEANOTHUS
    CARISSA MACROCARPA 'GREEN CARPET' / NATAL PLUM
  - EXISTING NATIVE PLANTS TO REMAIN AND PROTECT IN PLACE
- VINES: (PER WUCOLS ZONE 3)
  - ▼ DISTICTIS 'RIVERS' / ROYAL TRUMPET VINE REMOVAL FROM STAKE & SECURE TO WALLS
  - ▽ PARTHENOCISSUS TRICUSPIDATA / BOSTON IVY
    FROM STAKE & SECURE TO WALLS
- SHRUB / VINE SPACING:
  SPACE 1 GALLON SIZE SHRUBS @ 18" TO 24" ON CENTER (TYPICAL).
  SPACE 5 GALLON SIZE SHRUBS @ 24" TO 36" ON CENTER (TYPICAL).

LANDSCAPE NOTES

- IRRIGATION SYSTEM:
  ALL PLANTED AREAS SHALL BE IRRIGATED ACCORDING TO PLANT TYPE GROUPINGS AND ENVIRONMENTAL EXPOSURE AND SHALL RECEIVE UNIFORM WATER COVERAGE AS REQUIRED BY STATE MANDATED WATER ORDINANCE. IRRIGATION SHALL BE AND BY MEANS OF AN AUTOMATICALLY CONTROLLED IRRIGATION CONTROL SYSTEM WITH A RAIN SENSOR. THE SYSTEM SHALL BE CAPABLE OF REPEAT CYCLES IN ORDER TO APPLY WATER AT A RATE THAT THE SOIL CAN ABSORB THE APPLIED IRRIGATION WATER. A MASTER CONTROL VALVE WILL BE INSTALLED TO PREVENT OVER WATERING WHEN VALVES MALFUNCTION. DOMESTIC WATER WILL BE PROTECTED BY MEANS OF A REDUCED PRESSURE TYPE BACKFLOW PREVENTER.

WATER CALCULATIONS

MAXIMUM APPLIED WATER ALLOWANCE (MAWA)
THE PROJECT'S MAXIMUM APPLIED WATER ALLOWANCE (MAWA) SHALL BE CALCULATED:

MAWA = (ETo) (0.62) ((0.7 x LA) + (0.3 x SLA))WHERE:

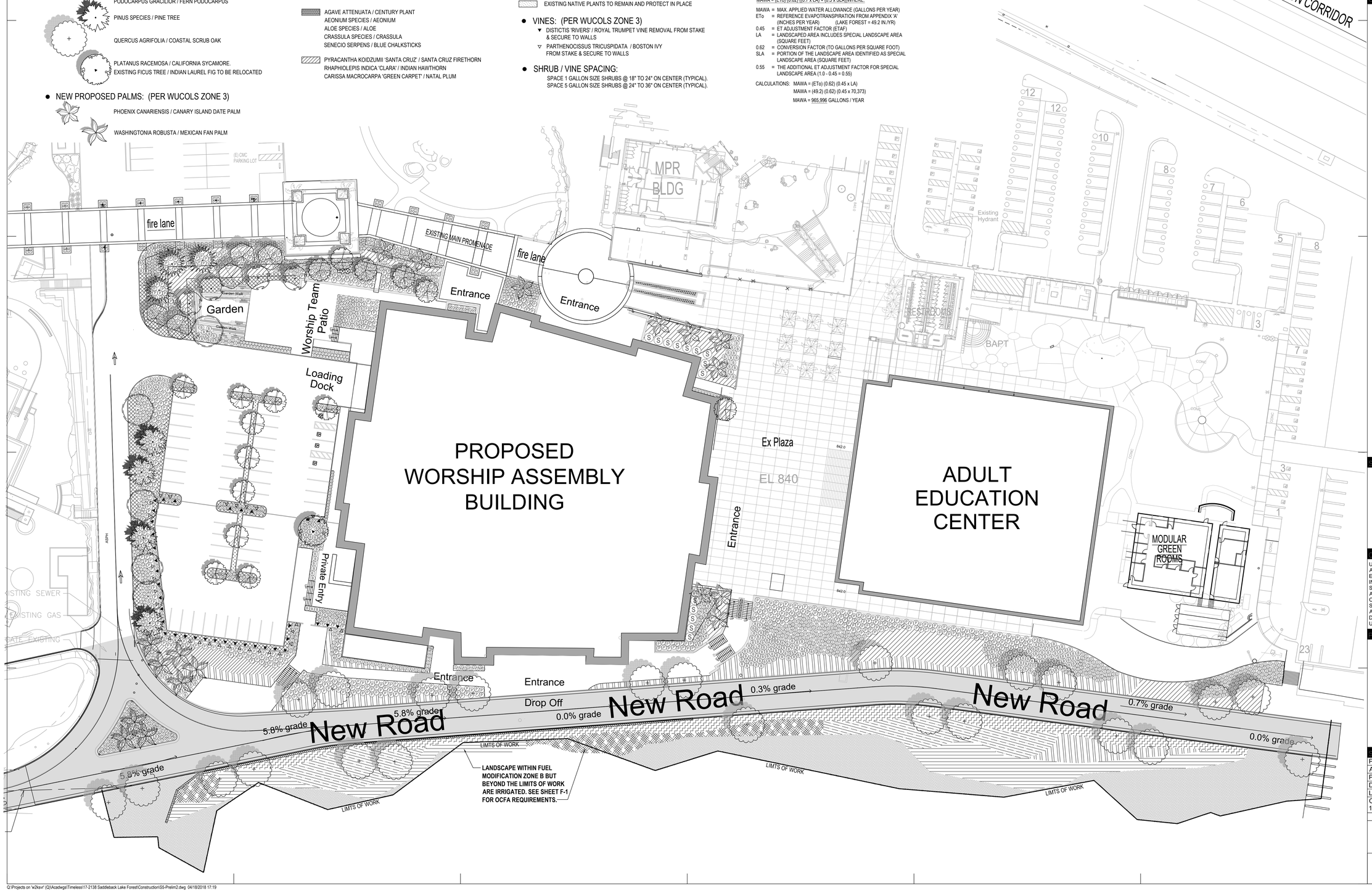
MAWA = MAX. APPLIED WATER ALLOWANCE (GALLONS PER YEAR)
ETo = REFERENCE EVAPOTRANSPIRATION FROM APPENDIX 'A' (INCHES PER YEAR) (LAKE FOREST = 49.2 IN./YR)
0.45 = ET ADJUSTMENT FACTOR (ETAF)
LA = LANDSCAPED AREA INCLUDES SPECIAL LANDSCAPE AREA (SQUARE FEET)
0.62 = CONVERSION FACTOR (TO GALLONS PER SQUARE FOOT)
SLA = PORTION OF THE LANDSCAPE AREA IDENTIFIED AS SPECIAL LANDSCAPE AREA (SQUARE FEET)
0.55 = THE ADDITIONAL ET ADJUSTMENT FACTOR FOR SPECIAL LANDSCAPE AREA (1.0 - 0.45 = 0.55)

CALCULATIONS: MAWA = (ETo) (0.62) (0.45 x LA)
MAWA = (49.2) (0.62) (0.45 x 70,373)
MAWA = 965,996 GALLONS / YEAR

- LANDSCAPE CONCEPT:
  TO PROVIDE VISUAL CONTINUITY OF LANDSCAPE DESIGN WITH EXISTING COMMERCIAL AND INDUSTRIAL DEVELOPMENT. THE LANDSCAPE WILL COMPLIMENT THE ARCHITECTURE WHEREVER POSSIBLE (I.E. SOFTEN WALLS SCREENING SERVICE AREAS WITH TREES, SHRUBS AND VINES). SIGHT CLEARANCE FOR AUTOMOBILE TRAFFIC AND VISUAL ACCESS TO SIGNAGE ARE OBSERVED AND ACCOUNTED FOR IN THE DESIGN.
  PLANT MATERIALS ARE SELECTED FOR TEMPERATURE HARDINESS AND LOW WATER USE REQUIREMENTS. A LAYER OF MULCH WILL BE INSTALLED TO REDUCE WATER EVAPORATION BETWEEN IRRIGATION PERIODS.

PLAN NORTH

SCALE : 1" = 30'
0 30' 60' 90' 150'



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STAMPS

LICENSED LANDSCAPE ARCHITECT
KENNETH A. ANDREW
NO. 1460
Signature
NOVEMBER 30, 2019
Renewal Date
4/10/2018
Date
STATE OF CALIFORNIA

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PROJECT

Saddleback Church Worship Center

SITE ADDRESS:
1 Saddleback Parkway
Lake Forest, CA
92630

MAILING ADDRESS:

PH 949.609.8000

SHEET DATA

PROJECT #	16042
APN:	104-143-12
PDF DATE:	4/10/18
DRAWN BY:	XM
LAST SAVED BY:	Local Admin
CAD FILENAME	16042 Saddleback New Worship Center

PRELIMINARY PLANTING PLAN

L-1.0

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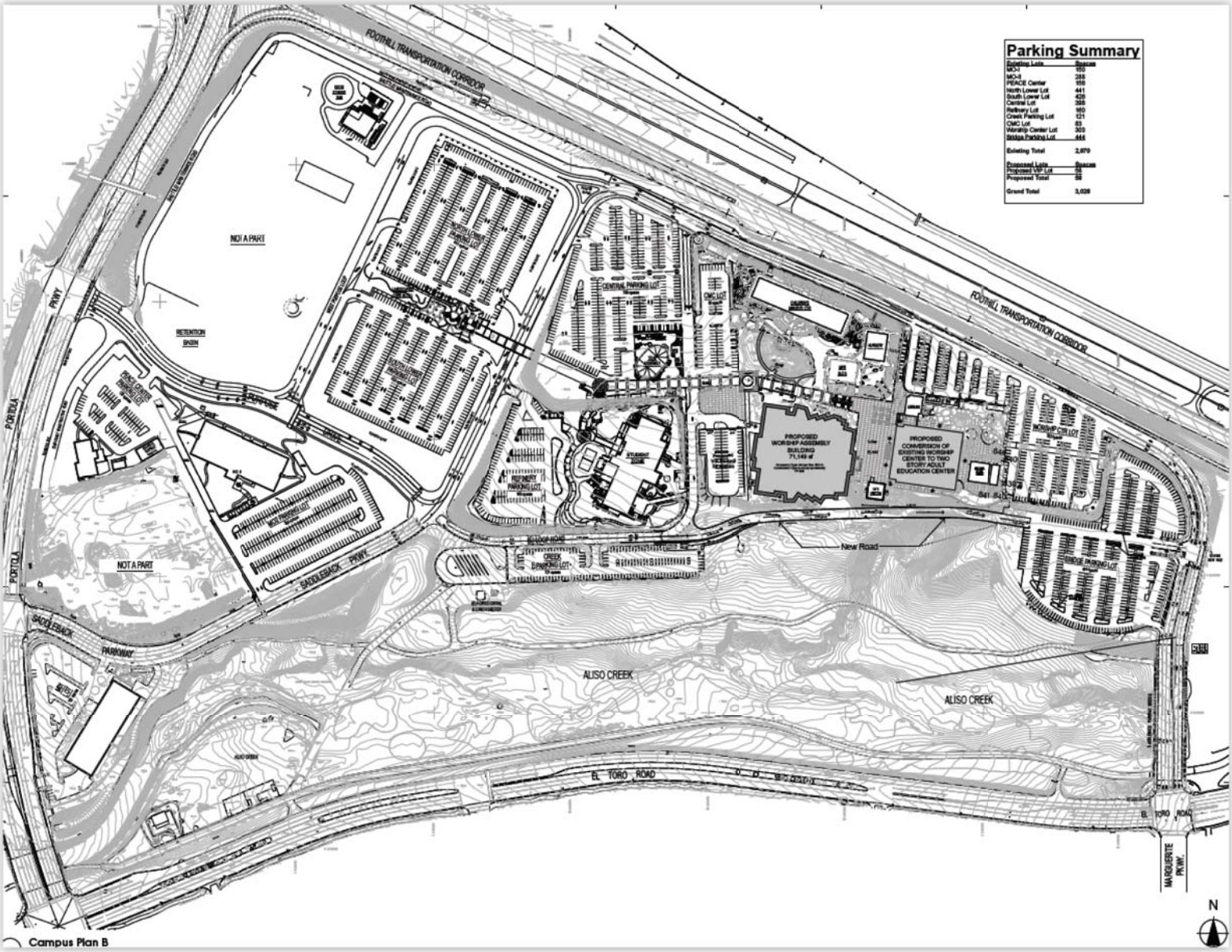
Appendix B

Air Quality and Greenhouse Gas Impact Study

SADDLEBACK COMMUNITY CHURCH NEW WORSHIP CENTER AND ROADWAY EXTENSTION AIR QUALITY AND GREENHOUSE GAS IMPACT STUDY

City of Lake Forest, California



SADDLEBACK COMMUNITY CHURCH
NEW WORSHIP CENTER AND ROADWAY EXTENSION
AIR QUALITY AND GREENHOUSE GAS IMPACT STUDY
City of Lake Forest, California

Prepared for:

SADDLEBACK COMMUNITY CHURCH
1 Saddleback Parkway
Lake Forest, CA 92630

Prepared by:

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February 15, 2019

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1.0 Introduction

This air quality and greenhouse gas (GHG) impact study evaluates the estimated criteria pollutants and GHG emissions generated from the proposed Saddleback Community Church New Worship Center and Roadway Extension project. The purpose of this analysis is to determine whether significant impacts to air resources may occur as a result of the proposed project.

This assessment was conducted within the context of the California Environmental Quality Act (CEQA). The methodology and emission factors used in this analysis are endorsed by the South Coast Air Quality Management District (SCAQMD), California Air Resource Board (CARB), and the United States Environmental Protection Agency (US EPA).

1.1 Site Location

The project is located within the existing Saddleback Community Church Campus, at 1 Saddleback Parkway, in the City of Lake Forest, County of Orange, CA. The site is bound by the SR-241 Toll Road to the north, El Toro Road to the south, Saddleback Parkway to the east, and Portola Parkway to the west. A location map is provided in Exhibit A.

The land uses surrounding the site include commercial, open space and future residential uses to west, and existing residential uses to the south. The project is located in the SCAQMD Inland Orange County General Forecast Area and the Saddleback Valley Air Monitoring Area (19).

1.2 Project Description

The proposed project will consist of the following land uses and construction activity:

- Construction and operation of a new 92,391 sqaure foot Worship Center Building with a total occupancy of 3,509;
- Utilization of the existing Worship Center Building to serve as classrooms for up to 903 students. This will entail constructing a 26,924 square feet of second floor addition within the existing shell of the building.
- Demolition of 2 tents and ancillary modular buildings;
- Paving approximately 50,000 square feet of additional surface parking lot area including new fire lane roadway extension and approximately 18,400 square feet of new flatwork.

Based on information provided by the project applicant and the church, the project is not expected to result in any significant changes to weekday activities at the church. Hence, no new weekday vehicle trips are assumed in the mobile emissions analysis.

The proposed project's site plan is shown in Exhibit B.

1.3 Sensitive Receptors

Sensitive receptors are considered land uses or other types of population groups that are more sensitive to air pollution exposure. Sensitive population groups include children, the elderly, the acutely and chronically ill, and those with cardio-respiratory diseases. For CEQA purposes, the SCAQMD considers a sensitive receptor to be a location where a sensitive individual could remain for 24-hours or longer, such as residencies, hospitals, and schools (etc), as described in the Localized Significance Threshold Methodology (SCAQMD 2008a, page 3-2).

The closest existing sensitive receptors are residential land uses located to the south of the project site, approximately 650 feet away. Air quality emissions impacts to sensitive receptors are analyzed in the localized significance analysis (Section 6.0).

1.4 Summary of Analysis Results

The following is a summary of the air quality impact results, per CEQA requirements. Would the project:

Impact AIR-1: Conflict with or obstruct implementation of the applicable air quality plan? **Less than significant with mitigation**

Impact AIR-2: Violate an air quality standard or contribute substantially to an existing or projected air quality violation? **Less than significant with mitigation**

Impact AIR-3: Result in a cumulatively considerable net increase of a criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)? **Less than significant with mitigation**

Impact AIR-4: Expose sensitive receptors to substantial pollutant concentrations? **Less than significant mitigation**

Impact AIR-5: Create objectionable odors affecting a substantial number of people? **Less than significant.**

The following is a summary of the GHG impact results, per CEQA requirements. Would the project:

Impact GHG-1: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? **Less than significant.**

Impact GHG-2: Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases? **Less than significant.**

1.5 Mitigations Measures (MM)

The following mitigation measures are required to reduce criteria air pollutants impacts during project construction:

MM – 1: Comply with all SCAQMD rules and requirements for fugitive dust control during construction. The following requirements are applicable to this project.

i. All operations on any unpaved surface should be suspended if winds exceed 15 mph.

ii. Require minimum soil moisture of 12% for earthmoving by use of a moveable sprinkler system or a water truck. Moisture content can be verified by lab sample or moisture probe.

iii. Apply nontoxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).

iv. All haul trucks shall be covered and maintain at least 12 inches of freeboard height.

v. Use a gravel apron, 25 feet long by road width, to reduce mud/dirt trackout from unpaved truck exit routes.

vi. Limit on-site vehicle speed on unpaved roads 15 mph or less by radar enforcement.

vii. Any visible dirt on public roadways and access points shall be swept or washed within 30 minutes.

viii. Any on-site stockpiles of debris, dirt or other dusty material shall be covered or enclosed on three sides.

ix. Replace ground cover on exposed surfaces as quickly as possible

MM – 2: Comply with SCAQMD Rule 1113 regarding VOC content in coatings and paint and limit the VOC content of paint to 50 g/L or less.

MM – 3: Limit the number of soil hauling trips to 100 truck loads per day or less during material import phase.

1.7 Recommended Project Design Features (DF)

In addition, the required mitigation measures, the following recommended project design features are provided to help further reduce project related air quality and GHG emissions. The following recommendations are considered best practices during construction and operation:

DF – 1: Construction equipment should be maintained in proper tune.

DF – 2: Gasoline or electric-powered equipment should be utilized instead of diesel equipment, whenever possible.

DF – 3: All construction vehicles should be prohibited from excessive idling of five minutes or longer.

DF – 4: Heavy construction equipment and earthmoving activity shall be suspended during Air Alerts when the Air Quality Index reaches the "Unhealthy for Sensitive Groups" level.

DF – 5: Comply with the current California Title 24 Green Building Code standards.

DF – 6: Encourage visitors and employees to utilize alternative modes of transportation to get to and from the site; including walking, bicycling and public transit options.

DF – 7: Provide on-site bicycle racks in easily accessible and highly visible locations.

DF – 8: Use zero VOC paint for re-application purposes, whenever possible.

DF – 9: Use electric landscaping equipment, such as lawn mowers and leaf blowers, whenever possible.

DF – 10: Implement water conservation strategies such as installing low flow fixtures and toilets, installing water efficient irrigation systems, drought tolerant/native landscaping, and reducing the amount of turf.

DF – 11: Implement a waste recycling and composting program with the goal of diverting at least 50% of waste away from a landfill.

2.0 Regulatory Framework and Background

2.1 Air Quality Regulatory Setting

This project is subject to several air pollutant control measures regulated at the national, state, and local air Basin level. The United States Environmental Protection Agency (EPA) regulates at the national level. The California Air Resources Board (ARB) regulates at the state level. The South Coast Air Quality Management District (SCAQMD) regulates at the air Basin level.

2.1.1 National and State

Both the federal government and the State of California have established health-based ambient air quality standards (AAQS) for seven air pollutants. As shown in Table 2, these pollutants include ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), coarse particulate matter with a diameter of 10 microns or less (PM_{10}), fine particulate matter with a diameter of 2.5 microns in diameter ($PM_{2.5}$), and lead. In addition, the State has set standards for sulfates, hydrogen sulfides, vinyl chloride, and visibility-reducing particles.

In addition to setting out primary and secondary AAQS, the State has established a set of episode criteria for O_3, CO, NO_2, SO_2, and PM_{10}. These criteria refer to episode levels representing periods of short-term exposure to air pollutants that actually threaten public health. Health effects are progressively more severe as pollutant levels increases from Stage One to Stage Three. An alert level is that concentration of pollutants at which initial stage control actions are to begin. An alert will be declared when any one of the pollutant concentrations can be expected to remain at these levels for 12 or more hours or to increase or, in the case of oxidants, the situation is likely to recur within the next 24 hours, unless control actions are taken.

Pollutant alert levels:

- O_3: 392 micrograms per cubic meter (μg/m3) (0.20 parts per million [ppm]), 1-hour average
- CO: 17 milligrams per cubic meter (mg/m3) (15 ppm), 8-hour average
- NO_2: 1,130 μg/m3 (0.6 ppm) 1-hour average; 282 μg/m3 (0.15 ppm) 24-hour average
- S02: 1,130 μg/m3 (0.2 ppm) 24-hour average
- Particulates, measured as PM10: 350 μg/m3, 24-hour average

According to the AQMD pollutant alert levels are summarized below:

Air Quality Index
Pollutant Specific Cautionary Statements

Health Categories	Ozone	Very Small Particles PM2.5	Small Particles PM10	Carbon Monoxide (C0)
Very Unhealthy (201 to 300)	Active children and adults, and people with respiratory disease, such as asthma, should avoid all outdoor exertion (participation in strenuous sports activities or exercise); everyone else, especially children, should limit outdoor exertion.	People with respiratory or heart disease, the elderly and children should avoid any outdoor activity; everyone else should avoid prolonged exertion.	People with respiratory disease, such as asthma, should avoid any outdoor activity; everyone else, especially the elderly and children, should limit outdoor exertion.	People with cardiovascular disease, such as angina, should avoid exertion and sources of CO, such as heavy traffic.
Unhealthy (151 to 200)	Active children and adults, and people with respiratory disease, such as asthma, should avoid prolonged outdoor exertion; everyone else, especially children, should limit prolonged outdoor exertion.	People with respiratory or heart disease, the elderly and children should avoid prolonged exertions; everyone else should limit prolonged exertion.	People with respiratory disease, such as asthma, should avoid outdoor exertion; everyone else, especially the elderly and children, should limit prolonged outdoor exertion.	People with cardiovascular disease, such as angina, should limit moderate exertion and avoid sources of CO, such as heavy traffic.
Unhealthy For Sensitive Groups (101 to 150)	Active children and adults, and people with respiratory disease, such as asthma, should limit prolonged outdoor exertion.	People with respiratory or heart disease, the elderly and children should limit prolonged exertion.	People with respiratory disease, such as asthma, should limit outdoor exertion.	People with cardiovascular disease, such as angina, should limit heavy exertion and avoid sources of CO, such as heavy traffic.
Moderate (51 to 100)	Unusually sensitive people should consider limiting prolonged outdoor exertion.	None	None	None
Good (0 to 50)	None	None	None	None

Source: South Coast Air Quality Management District

A State Implementation Plan is a document prepared by each state describing existing air quality conditions and measures that will be followed to attain and maintain federal standards. The State Implementation Plan for the State of California is administered by the ARB, which has overall responsibility for statewide air quality maintenance and air pollution

prevention. California's State Implementation Plan incorporates individual federal attainment plans for regional air districts—air district prepares their federal attainment plan, which sent to ARB to be approved and incorporated into the California State Implementation Plan. Federal attainment plans include the technical foundation for understanding air quality (e.g., emission inventories and air quality monitoring), control measures and strategies, and enforcement mechanisms.

Several pollutants listed in Table 2 are not addressed in this analysis. Analysis of lead is not included in this report because the Project is not anticipated to emit lead. Visibility-reducing particles are not explicitly addressed in this analysis because particulate matter is addressed. The Project is not expected to generate or be exposed to vinyl chloride because proposed Project uses do not utilize the chemical processes that create this pollutant and there are no such uses in the Project vicinity. The proposed Project is not expected to cause exposure to hydrogen sulfide because it would not generate hydrogen sulfide in any substantial quantity.

2.1.2 South Coast Air Quality Management District

The agency responsible for air pollution control for the South Coast Air Basin (Basin) is the South Coast Air Quality Management District (SCAQMD). SCAQMD is responsible for controlling emissions primarily from stationary sources. SCAQMD maintains air quality monitoring stations throughout the Basin. SCAQMD, in coordination with the Southern California Association of Governments, is also responsible for developing, updating, and implementing the Air Quality Management Plan (AQMP) for the Basin. An AQMP is a plan prepared and implemented by an air pollution district for a county or region designated as nonattainment of the federal and/or California ambient air quality standards. The term nonattainment area is used to refer to an air Basin where one or more ambient air quality standards are exceeded.

Every three (3) years the SCAQMD prepares a new AQMP, updating the previous plan and having a 20-year horizon. The latest version is the 2016 AQMP. The 2016 AQMP is a regional blueprint for achieving the federal air quality standards and healthful air. While air quality has dramatically improved over the years, the Basin still exceeds federal public health standards for both ozone and particulate matter (PM) and experiences some of the worst air pollution in the nation. The 2016 AQMP includes both stationary and mobile source strategies to ensure that rapidly approaching attainment deadlines are met, that public health is protected to the maximum extent feasible, and that the region is not faced with burdensome sanctions if the Plan is not approved or if the NAAQS are not met on time.

The most significant air quality challenge in the Basin is to reduce nitrogen oxide (NOx) emissions sufficiently to meet the upcoming ozone standard deadlines. Based on the inventory and modeling results, 522 tons per day (tpd) of total Basin NOx 2012 emissions are projected to drop to 255 tpd and 214 tpd in the 8-hour ozone attainment years of 2023 and 2031 respectively, due to continued implementation of already adopted

regulatory actions ("baseline emissions"). The analysis suggests that total Basin emissions of NOx must be reduced to approximately 141 tpd in 2023 and 96 tpd in 2031 to attain the 8-hour ozone standards. This represents an additional 45 percent reduction in NOx in 2023, and an additional 55 percent NOx reduction beyond 2031 levels.[1]

South Coast Air Quality Management District Rules

The 2016 AQMP for the Basin establishes a program of rules and regulations administered by SCAQMD to obtain attainment of the state and federal standards. Several of the rules and regulations that apply to this Project include, but are not limited to, the following:

SCAQMD Rule 402 prohibits a person from discharging from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

SCAQMD Rule 403 governs emissions of fugitive dust during construction and operation activities. Compliance with this rule is achieved through application of standard Best Management Practices, such as application of water or chemical stabilizers to disturbed soils, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 miles per hour, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph, and establishing a permanent ground cover on finished sites.

SCAQMD Rule 1113 governs the sale, use, and manufacturing of architectural coating and limits the VOC content in paints and paint solvents. This rule regulates the VOC content of paints available during construction. Therefore, all paints and solvents used during construction and operation of project must comply with Rule 1113.

SCAQMD Rule 1143 governs the manufacture, sale, and use of paint thinners and solvents used in thinning of coating materials, cleaning of coating application equipment, and other solvent cleaning operations by limiting their VOC content. This rule regulates the VOC content of solvents used during construction. Solvents used during the construction phase must comply with this rule.

SCAQMD Rule 1186 limits the presence of fugitive dust on paved and unpaved roads and sets certification protocols and requirements for street sweepers that are under contract to provide sweeping services to any federal, state, county, agency or special district such as water, air, sanitation, transit, or school district.

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[1] http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf

SCAQMD Rule 1303 governs the permitting of re-located or new major emission sources, requiring Best Available Control Measures and setting significance limits for PM10 among other pollutants.

SCAQMD Rule 2202 On-Road Motor Vehicle Mitigation Options, is to provide employers with a menu of options to reduce mobile source emissions generated from employee commutes, to comply with federal and state Clean Air Act requirements, Health & Safety Code Section 40458, and Section 182(d)(1)(B) of the federal Clean Air Act. It applies to any employer who employs 250 or more employees on a full or part-time basis at a worksite for a consecutive six-month period calculated as a monthly average.

2.2 Greenhouse Gas Regulatory Setting

2.2.1 International

Intergovernmental Panel on Climate Change. In 1988, the United Nations and the World Meteorological Organization established the Intergovernmental Panel on Climate Change to assess the scientific, technical and socio-economic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts, and options for adaptation and mitigation.

United Nations. The United States participates in the United Nations Framework Convention on Climate Change (UNFCCC) (signed on March 21, 1994). Under the Convention, governments gather and share information on greenhouse gas emissions, national policies, and best practices; launch national strategies for addressing greenhouse gas emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change. The 2014 UN Climate Change Conference in Lima Peru provided a unique opportunity to engage all countries to assess how developed countries are implementing actions to reduce emissions.

Kyoto Protocol. The Kyoto Protocol is a treaty made under the UNFCCC and was the first international agreement to regulate GHG emissions. It has been estimated that if the commitments outlined in the Kyoto Protocol are met, global GHG emissions could be reduced by an estimated 5 percent from 1990 levels during the first commitment period of 2008 – 2012 (UNFCCC 1997). On December 8, 2012, the Doha Amendment to the Kyoto Protocol was adopted. The amendment includes: New commitments for Annex I Parties to the Kyoto Protocol who agreed to take on commitments in a second commitment period from 2013 – 2020, a revised list of greenhouse gases (GHG) to be reported on by Parties in the second commitment period, and Amendments to several articles of the Kyoto Protocol, which specifically referenced issues pertaining to the first commitment period and which needed to be updated for the second commitment period.

The Paris Agreement. The Paris agreement is the first comprehensive global climate agreement to be ratified by the United States, United Nations, China, and India; the largest

producers of greenhouse gas emissions in the world. The agreement was negotiated by a total of 195 nations, and entered into force on November 4, 2016. The central aim is to strengthen the global response to the threat of climate change by keeping the global temperature rise this century well below 2 degrees Celsius compared to pre-industrial levels, and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. Additionally, the agreement aims to strengthen the ability of countries to deal with the impacts of climate change. Currently 122 parties have ratified the agreement. The Trump administration has recently indicated the United States federal government will no longer participate in the Paris agreement. However, the State of California is committed to honoring the agreement as a crucial path towards addressing climate change.

2.2.2 National

Greenhouse Gas Endangerment. On December 2, 2009, the EPA announced that GHGs threaten the public health and welfare of the American people. The EPA also states that GHG emissions from on-road vehicles contribute to that threat. The decision was based on *Massachusetts v. EPA* (Supreme Court Case 05-1120) which argued that GHGs are air pollutants covered by the Clean Air Act and that the EPA has authority to regulate those emissions.

Clean Vehicles. Congress first passed the Corporate Average Fuel Economy (CAFE) law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the United States. On April 1, 2010, the EPA and the Department of Transportation's National Highway Safety Administration announced a joint final rule establishing a national program that would reduce greenhouse gas emissions and improve fuel economy for new cars and trucks sold in the United States.

The first phase of the national program would apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. They require these vehicles to meet an estimated combined average emissions level of 250 grams of carbon dioxide per mile, equivalent to 35.5 miles per gallon if the automobile industry were to meet this carbon dioxide level solely through fuel economy improvements. Together, these standards would cut carbon dioxide emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012-2016). The second phase of the national program would involve proposing new fuel economy and greenhouse gas standards for model years 2017 – 2025 by September 1, 2011.

On October 25, 2010, the EPA and the U.S. Department of Transportation proposed the first national standards to reduce greenhouse gas emissions and improve fuel efficiency of heavy-duty trucks and buses. For combination tractors, the agencies are proposing engine and vehicle standards that begin in the 2014 model year and achieve up to a 20 percent reduction in carbon dioxide emissions and fuel consumption by the 2018 model year. For

heavy-duty pickup trucks and vans, the agencies are proposing separate gasoline and diesel truck standards, which phase in starting in the 2014 model year and achieve up to a 10 percent reduction for gasoline vehicles and 15 percent reduction for diesel vehicles by 2018 model year (12 and 17 percent respectively, if accounting for air conditioning leakage). Lastly, for vocational vehicles, the agencies are proposing engine and vehicle standards starting in the 2014 model year which would achieve up to a 10 percent reduction in fuel consumption and carbon dioxide emissions by 2018 model year.

Mandatory Reporting of Greenhouse Gases. On January 1, 2010, the EPA started requiring large emitters of heat-trapping emissions to begin collecting GHG data under a new reporting system. Under the rule, suppliers of fossil fuels or industrial greenhouse gases, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of greenhouse gas emissions are required to submit annual reports to the EPA.

Climate Adaption Plan. The EPA Plan identifies priority actions the Agency will take to incorporate considerations of climate change into its programs, policies, rules and operations to ensure they are effective under future climatic conditions. The Plan reflects input received from States, Tribes and municipal and county officials during development, as well as comments received during a formal Tribal consultation process and a 60 day public comment period during the Winter of 2013.

EPA is also releasing final Climate Change Adaptation Implementation Plans from its National Environmental Program Offices and all 10 Regional Offices. The Implementation Plans, which also reflect responses to public comment, provide more detail on how EPA Programs and Regions will carry out the work called for in the agency wide Plan in partnership with states, tribes, and local governments.

2.2.3 California

Title 24. California Code of Regulations Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings, was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. Energy efficient buildings require less electricity and can reduce the demand for fossil fuel consumption and decrease greenhouse gas emissions. The standards are updated every three years to allow incorporate new energy efficient technologies and methods. The latest 2016 Building Energy Efficiency Standards went into effect January 1, 2017. The energy demand and savings from the 2016 standards compared to the previous 2013 standards are estimated to result in approximately 28% energy savings in the residential sector and 5% energy savings in the nonresidential sector.

California Green Building Standards. On January 12, 2010, the State Building Standards Commission unanimously adopted updates to the California Green Building Standards Code, which went into effect on January 1, 2011. The Code is a comprehensive and uniform regulatory code for all residential, commercial and school buildings.

The California Green Building Standards Code does not prevent a local jurisdiction from adopting a more stringent code as state law provides methods for local enhancements. The Code recognizes that many jurisdictions have developed existing construction and demolition ordinances, and defers to them as the prevailing guidance so long as they provide a minimum 50-percent diversion requirement. The code also provides exemptions for areas not served by construction and demolition recycling infrastructure. The State building code provides the minimum standard which buildings need to meet in order to be certified for occupancy. Enforcement is generally through the local building official.

The California Green Building Standards Code (code section in parentheses) requires:

- **Short-term bicycle parking.** If a commercial project is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5 percent of visitor motorized vehicle parking capacity, with a minimum of one two-bike capacity rack (5.106.4.1).

- **Long-term bicycle parking.** For buildings with over 10 tenant-occupants, provide secure bicycle parking for 5 percent of tenant-occupied motorized vehicle parking capacity, with a minimum of one space (5.106.4.2).

- **Designated parking.** Provide designated parking in commercial projects for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles (5.106.5.2).

- **Recycling by Occupants.** Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of nonhazardous materials for recycling.

- **Construction waste.** A minimum 50-percent diversion of construction and demolition waste from landfills, increasing voluntarily to 65 and-75 percent for new homes and 80-percent for commercial projects. All (100 percent) of trees, stumps, rocks and associated vegetation and soils resulting from land clearing shall be reused or recycled.

- **Wastewater reduction.** Each building shall reduce the generation of wastewater by one of the following methods:

    - The installation of water-conserving fixtures or
    - Utilizing nonpotable water systems (5.303.4).
    - Water use savings. 20-percent mandatory reduction in indoor water use with voluntary goal standards for 30, 35 and 40-percent reductions.
    - Water meters. Separate water meters for buildings in excess of 50,000 square feet or buildings projected to consume more than 1,000 gallons per day.
    - Irrigation efficiency. Moisture-sensing irrigation systems for larger landscaped areas.

- Materials pollution control. Low-pollutant emitting interior finish materials such as paints, carpet, vinyl flooring, and particle board.
- Building commissioning. Mandatory inspections of energy systems (i.e. heat furnace, air conditioner, mechanical equipment) for nonresidential buildings over 10,000 square feet to ensure that all are working at their maximum capacity according to their design efficiencies.

Pavley Regulations. California AB 1493, enacted on July 22, 2002, required the ARB to develop and adopt regulations that reduce greenhouse gases emitted by passenger vehicles and light duty trucks. The regulation was stalled by automaker lawsuits and by the EPA's denial of an implementation waiver. On January 21, 2009, the ARB requested that the EPA reconsider its previous waiver denial. On January 26, 2009, President Obama directed that the EPA assess whether the denial of the waiver was appropriate. On June 30, 2009, the EPA granted the waiver request. With this waiver approved, California proceeded with implementing the amended Low Emission Vehicle (LEV) II standards, including the Pavely Standards for GHG emissions.

California Advanced Clean Cars Program

In 2012, the California ARB worked in coordination with EPA and the National Highway Traffic Safety Administration (NHTSA) to develop the Advanced Clean Cars Program. This combined four separate regulations into one program: LEV III standards for criteria pollutants emissions, the Pavely GHG emissions standards, and zero emissions vehicles (ZEV) regulations that established targets for total ZEVs purchased in state. Starting in 2025, fleet-wide GHG targets will be equivalent to 36 miles per gallon in real-world driving conditions (54.5 miles per gallon in testing conditions).

Executive Order S-3-05. California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S-3-05, the following reduction targets for greenhouse gas emissions:

- By 2010, California shall reduce greenhouse gas emissions to 2000 levels;
- By 2020, California shall reduce greenhouse gas emissions to 1990 levels.
- By 2050, California shall reduce greenhouse gas emissions to 80% below 1990 levels.

The 2050 reduction goal represents what scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be an aggressive, but achievable, mid-term target. The Climate Action Team's Report to the Governor in 2006 contains recommendations and strategies to help ensure the 2020 targets in Executive Order S-3-05 are met.

Low Carbon Fuel Standard - Executive Order S-01-07. The Governor signed Executive Order S-01-07 on January 18, 2007. The order mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. In particular, the executive order established a Low Carbon Fuel

Standard and directed the Secretary for Environmental Protection to coordinate the actions of the California Energy Commission, the ARB, the University of California, and other agencies to develop and propose protocols for measuring the "life-cycle carbon intensity" of transportation fuels. This analysis supporting development of the protocols was included in the State Implementation Plan for alternative fuels (State Alternative Fuels Plan adopted by California Energy Commission on December 24, 2007) and was submitted to ARB for consideration as an "early action" item under AB 32. The ARB adopted the Low Carbon Fuel Standard on April 23, 2009.

SB 1368. In 2006, the State Legislature adopted Senate Bill (SB) 1368, which was subsequently signed into law by the Governor. SB 1368 directs the California Public Utilities Commission to adopt a performance standard for greenhouse gas emissions for the future power purchases of California utilities. SB 1368 seeks to limit carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than 5 years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. Because of the carbon content of its fuel source, a coal-fired plant cannot meet this standard because such plants emit roughly twice as much carbon as natural gas, combined cycle plants. Accordingly, the new law will effectively prevent California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the State. Thus, SB 1368 will lead to dramatically lower greenhouse gas emissions associated with California's energy demand, as SB 1368 will effectively prohibit California utilities from purchasing power from out-of-state producers that cannot satisfy the performance standard for greenhouse gas emissions required by SB 1368. The California Public Utilities Commission adopted the regulations required by SB 1368 on August 29, 2007.

SB 97 and the CEQA Guidelines Update. Passed in August 2007, SB 97 added Section 21083.05 to the Public Resources Code. The code states "(a) On or before July 1, 2009, the Office of Planning and Research shall prepare, develop, and transmit to the Resources Agency guidelines for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions as required by this division, including, but not limited to, effects associated with transportation or energy consumption. (b) On or before January 1, 2010, the Resources Agency shall certify and adopt guidelines prepared and developed by the Office of Planning and Research pursuant to subdivision (a)." Section 21097 was also added to the Public Resources Code. It provided CEQA protection until January 1, 2010 for transportation projects funded by the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006 or projects funded by the Disaster Preparedness and Flood Prevention Bond Act of 2006, in stating that the failure to adequately analyze the effects of greenhouse gases would not violate CEQA.

On April 13, 2009, the Office of Planning and Research submitted to the Secretary for Natural Resources its recommended amendments to the CEQA Guidelines for addressing greenhouse gas emissions. On July 3, 2009, the Natural Resources Agency commenced the Administrative Procedure Act rulemaking process for certifying and adopting these amendments pursuant to Public Resources Code section 21083.05. Following a 55-day

public comment period and two public hearings, the Natural Resources Agency proposed revisions to the text of the proposed Guidelines amendments. The Natural Resources Agency transmitted the adopted amendments and the entire rulemaking file to the Office of Administrative Law on December 31, 2009. On February 16, 2010, the Office of Administrative Law approved the Amendments, and filed them with the Secretary of State for inclusion in the California Code of Regulations. The Amendments became effective on March 18, 2010.

The CEQA Amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of greenhouse gas emissions in CEQA documents. The CEQA Amendments fit within the existing CEQA framework by amending existing CEQA Guidelines to reference climate change.

A new section, CEQA Guidelines Section 15064.4, was added to assist agencies in determining the significance of greenhouse gas emissions. The new section allows agencies the discretion to determine whether a quantitative or qualitative analysis is best for a particular project. However, little guidance is offered on the crucial next step in this assessment process—how to determine whether the project's estimated greenhouse gas emissions are significant or cumulatively considerable.

Also amended were CEQA Guidelines Sections 15126.4 and 15130, which address mitigation measures and cumulative impacts respectively. Greenhouse gas mitigation measures are referenced in general terms, but no specific measures are championed. The revision to the cumulative impact discussion requirement (Section 15130) simply directs agencies to analyze greenhouse gas emissions in an EIR when a project's incremental contribution of emissions may be cumulatively considerable, however it does not answer the question of when emissions are cumulatively considerable.

Section 15183.5 permits programmatic greenhouse gas analysis and later project-specific tiering, as well as the preparation of Greenhouse Gas Reduction Plans. Compliance with such plans can support a determination that a project's cumulative effect is not cumulatively considerable, according to proposed Section 15183.5(b). In addition, the amendments revised Appendix F of the CEQA Guidelines, which focuses on Energy Conservation. The sample environmental checklist in Appendix G was amended to include greenhouse gas questions.

AB 32. The California State Legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires that greenhouse gases emitted in California be reduced to 1990 levels by the year 2020. "Greenhouse gases" as defined under AB 32 include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. ARB is the state agency charged with monitoring and regulating sources of greenhouse gases. AB 32 states the following:

Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global

warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.
The ARB Board approved the 1990 greenhouse gas emissions level of 427 million metric tons of carbon dioxide equivalent (MMTCO2e) on December 6, 2007 (California Air Resources Board 2007). Therefore, emissions generated in California in 2020 are required to be equal to or less than 427 MMTCO2e. Emissions in 2020 in a "business as usual" scenario are estimated to be 596 MMTCO2e.

Under AB 32, the ARB published its Final Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California. Discrete early action measures are currently underway or are enforceable by January 1, 2010. The ARB has 44 early action measures that apply to the transportation, commercial, forestry, agriculture, cement, oil and gas, fire suppression, fuels, education, energy efficiency, electricity, and waste sectors. Of these early action measures, nine are considered discrete early action measures, as they are regulatory and enforceable by January 1, 2010. The ARB estimates that the 44 recommendations are expected to result in reductions of at least 42 MMTCO2e by 2020, representing approximately 25 percent of the 2020 target.

The ARB's Climate Change Scoping Plan (Scoping Plan) contains measures designed to reduce the State's emissions to 1990 levels by the Year 2020 (California Air Resources Board 2008). The Scoping Plan identifies recommended measures for multiple greenhouse gas emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target—each sector has a different emission reduction target. Most of the measures target the transportation and electricity sectors. As stated in the Scoping Plan, the key elements of the strategy for achieving the 2020 greenhouse gas target include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a statewide renewables energy mix of 33 percent;
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;
- Establishing targets for transportation-related greenhouse gas emissions for regions throughout California and pursuing policies and incentives to achieve those targets;
- Adopting and implementing measures pursuant to existing State laws and policies, Including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State's long-term commitment to AB 32 implementation.

In addition, the Scoping Plan differentiates between "capped" and "uncapped" strategies. "Capped" strategies are subject to the proposed cap-and-trade program. The Scoping Plan

states that the inclusion of these emissions within the cap-and trade program will help ensure that the year 2020 emission targets are met despite some degree of uncertainty in the emission reduction estimates for any individual measure. Implementation of the capped strategies is calculated to achieve a sufficient amount of reductions by 2020 to achieve the emission target contained in AB 32. "Uncapped" strategies that will not be subject to the cap-and-trade emissions caps and requirements are provided as a margin of safety by accounting for additional greenhouse gas emission reductions.

SB 32. In 2006, the Legislature passed the California Global Warming Solutions Act of 2006 [Assembly Bill 32 (AB 32)], which created a comprehensive, multi-year program to reduce greenhouse gas (GHG) emissions in California. AB 32 required the California Air Resources Board (ARB or Board) to develop a Scoping Plan that describes the approach California will take to reduce GHGs to achieve the goal of reducing emissions to 1990 levels by 2020. The Scoping Plan was first approved by the Board in 2008 and must be updated every five years. The First Update to the Climate Change Scoping Plan was approved by the Board on May 22, 2014.

In 2016, the Legislature passed SB 32, which codifies a 2030 GHG emissions reduction target of 40 percent below 1990 levels. With SB 32, the Legislature passed companion legislation AB 197, which provides additional direction for developing the Scoping Plan. ARB is moving forward with a second update to the Scoping Plan to reflect the 2030 target set by Executive Order B-30-15 and codified by SB 32.[2]

SB 375. Passing the Senate on August 30, 2008, SB 375 was signed by the Governor on September 30, 2008. According to SB 375, the transportation sector is the largest contributor of greenhouse gas emissions, which emits over 40 percent of the total greenhouse gas emissions in California. SB 375 states, "Without improved land use and transportation policy, California will not be able to achieve the goals of AB 32." SB 375 does the following: (1) requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing greenhouse gas emissions, (2) aligns planning for transportation and housing, and (3) creates specified incentives for the implementation of the strategies. Concerning CEQA, SB 375, section 21159.28 states that CEQA findings determinations for certain projects are not required to reference, describe, or discuss (1) growth inducing impacts or (2) any project-specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network if the project:

1. Is in an area with an approved sustainable communities' strategy or an alternative planning strategy that the ARB accepts as achieving the greenhouse gas emission reduction targets.
2. Is consistent with that strategy (in designation, density, building intensity, and applicable policies).

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[2] https://www.arb.ca.gov/cc/scopingplan/scopingplan.htm

3. Incorporates the mitigation measures required by an applicable prior environmental document.

Executive Order S-13-08. Executive Order S-13-08 indicates that "climate change in California during the next century is expected to shift precipitation patterns, accelerate sea level rise and increase temperatures, thereby posing a serious threat to California's economy, to the health and welfare of its population and to its natural resources." Pursuant to the requirements in the order, the 2009 California Climate Adaptation Strategy (California Natural Resources Agency 2009) was adopted, which is the " . . . first statewide, multi-sector, region-specific, and information-based climate change adaptation strategy in the United States." Objectives include analyzing risks of climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

Renewable Electricity Standards. On September 12, 2002, Governor Gray Davis signed SB 1078 requiring California to generate 20 percent of its electricity from renewable energy by 2017. SB 107 changed the due date to 2010 instead of 2017. On November 17, 2008, Governor Arnold Schwarzenegger signed Executive Order S-14-08, which established a Renewable Portfolio Standard target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. Governor Schwarzenegger also directed the ARB (Executive Order S-21¬09) to adopt a regulation by July 31, 2010, requiring the state's load serving entities to meet a 33 percent renewable energy target by 2020. The ARB Board approved the Renewable Electricity Standard on September 23, 2010 by Resolution 10-23.

2.2.4 South Coast Air Quality Management District

The Project is within the Basin, which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). SCAQMD Regulation XXVII currently includes three rules:

- The purpose of Rule 2700 is to define terms and provides a table of global warming potentials.
- The purpose of Rule 2701, SoCal Climate Solutions Exchange, is to establish a voluntary program to encourage, quantify, and certify voluntary, high quality certified greenhouse gas emission reductions in the SCAQMD.
- Rule 2702, Greenhouse Gas Reduction Program, was adopted on February 6, 2009. The purpose of this rule is to create a Greenhouse Gas Reduction Program for greenhouse gas emission reductions in the SCAQMD. The SCAQMD will fund projects through contracts in response to requests for proposals or purchase reductions from other parties.

SCAQMD Threshold Development

The SCAQMD has published interim significance thresholds for greenhouse gases where the AQMD is the lead agency, *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Thresholds*. This document describes a five-tiered draft GHG threshold which includes a 10,000-metric ton of CO_2e per year threshold for stationary/industrial sources and a 3,000 metric tons of CO_2e per year significance threshold for residential/commercial projects (South Coast Air Quality Management District 2010c). Tier 3 is anticipated to be the primary tier by which the SCAQMD will determine significance for projects. The Tier 3 screening level for stationary sources is based on an emission capture rate of 90 percent for all new or modified projects. A 90-precent emission capture rate means that 90 percent of total emissions from all new or modified stationary source projects would be subject to CEQA analysis. The 90-percent capture rate GHG significance screening level in Tier 3 for stationary sources was derived using the SCAQMD's annual Emissions Reporting Program.

The current draft thresholds consist of the following tiered approach:

- Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA.

- Tier 2 consists of determining whether or not the project is consistent with a greenhouse gas reduction plan. If a project is consistent with a qualifying local greenhouse gas reduction plan, it does not have significant greenhouse gas emissions.

- Tier 3 consists of screening values, which the lead agency can choose but must be consistent. A project's construction emissions are averaged over 30 years and are added to a project's operational emissions. If a project's emissions are under one of the following screening thresholds, then the project is less than significant:
  - All land use types: 3,000 MTCO2e per year

- Tier 4 has the following options:
  - Option 1: Reduce emissions from business as usual by a certain percentage; as appropriately defined in "Center for Biological Diversity v. California Department of Fish and Wildlife" Supreme Court case.
  - Option 2: Early implementation of applicable AB 32 Scoping Plan measures
  - Option 3: Year 2020 target for service populations (SP), which includes residents and employees: 4.8 MTCO2e/SP/year for projects and 6.6 MTCO2e/SP/year for plans;
  - Option 3, 2035 target: 3.0 MTCO2e/SP/year for projects and 4.1 MTCO2e/SP/year for plans

Tier 5 involves mitigation offsets to achieve target significance threshold.

2.2.5 City of Lake Forest

The City of Lake Forest discusses air quality in the Recreation and Resources Element of the General Plan. Air Quality is included as a sub-element of the Recreation and Resources Element of the Lake Forest General Plan to fulfill AQMP requirements and to improve air resources within the City.

Lake Forest recognizes the need for cooperation among all agencies in the basin to achieve desired improvements to air quality. The following policies are provided by the City of Lake Forest to meet their goal of improving air quality:

Policy 7.1: Cooperate with the South Coast Air Quality Management District and Southern California Association of Governments in their efforts to implement the regional Air Quality Management Plan.

Policy 7.2: Cooperate and participate in regional air quality management planning, programs and enforcement measures.

Policy 7.3: Utilize transportation demand management to influence transportation choices related to mode and time of travel.

Policy 7.4: Implement Citywide traffic flow improvements

Policy 7.5: Implement land use policy aimed at achieving a greater balance between jobs and housing in Lake Forest.

Policy 7.6: Integrate air quality planning with land use and transportation planning

Policy 7.7: Promote energy conservation and recycling by the public and private sector in Lake Forest.

3.0 Setting

3.1 Existing Physical Setting

The project is located in the City of Lake Forest, County of Orange. The project is located within the South Coast Air Basin (Basin). To the west of the Basin is the Pacific Ocean. To the north and east of the Basin are the San Gabriel, San Bernardino, and San Jacinto mountains, while the southern limit of the Basin is the San Diego County line. The Basin consists of Orange County, all of Los Angeles County except for the Antelope Valley, the non-desert portion of western San Bernardino County, and the western and Coachella Valley portions of Riverside County. The air quality in the Basin is impacted by dominant airflows, topography, atmospheric inversions, location, season, and time of day.

3.1.1 Local Climate and Meteorology

Dominant airflows provide the driving mechanism for transport and dispersion of air pollution. The mountains surrounding the region form natural horizontal barriers to the dispersion of air contaminants. Air pollution created in the coastal areas and around the Los Angeles area is transported inland until it reaches the mountains where the combination of mountains and inversion layers generally prevent further dispersion. This poor ventilation results in a gradual degradation of air quality from the coastal areas to inland areas. Air stagnation may occur during the early evening and early morning periods of transition between day and nighttime flows. The region also experiences periods of hot, dry winds from the desert, known as Santa Ana winds. If the Santa Ana winds are strong, they can surpass the sea breeze, which blows from the ocean to the land, and carry the suspended dust and pollutants out to the ocean. If the winds are weak, they are opposed by the sea breeze and cause stagnation, resulting in high pollution events.

The local dominant wind blows predominantly from the south-southwest with relatively low velocities. The annual average annual wind speed is about 10 mph. Summer wind speeds average slightly higher than winter wind speeds. Low average wind speeds, together with a persistent temperature inversion limit the vertical dispersion of air pollutants throughout the Basin.

The annual average temperature varies little throughout much of the Basin, ranging from the low to middle 60s, measured in degrees Fahrenheit (°F). With more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas.

Temperature inversions are an important feature that limits the vertical depth through which pollution can be mixed. During the summer, coastal areas are characterized by a sharp discontinuity between the cool marine air at the surface and the warm, sinking air aloft within the high-pressure cell over the ocean to the west. This marine/subsidence inversion allows for good local mixing, but acts like a giant lid over the Basin. The air

remains stagnant, as the average wind speed in downtown Los Angeles becomes less than five mph. A second type of inversion forms on clear winter nights when cold air off the mountains to the south sinks to the valley floor while the air aloft over the valley remains warm. This forms radiation inversions. These inversions, in conjunction with calm winds, trap pollutants such as those from automobile exhaust near their source. They lead to air pollution "hotspots" in heavily developed coastal areas of the Basin, although onshore breezes often push the pollutants along canyons into the inland valleys. Summers are often periods of hazy visibility and occasionally unhealthful air, while winter air quality impacts tend to be highly localized and can consist of elevated levels of nitrogen dioxide and fine particulate matter.

IRVINE RANCH WEATHER STATION: The climatological station closest to the project site is a National Weather Service Cooperative weather station located at IRVINE RANCH STATION (ID: 044303). Climatological data from the National Weather Service at this station is summarized in Table 3. The average annual temperature is 63.9° Fahrenheit, with an average high temperature of 78.4° F and an average low temperature of 51.8°F. The average annual precipitation is 13.05 inches.

3.1.2 Local Air Quality

The local air quality can be evaluated by reviewing relevant air pollution concentrations near the project area. For evaluation purposes, the South Coast Air Quality Management District (SCAQMD) has divided the Basin into 36 Source Receptor Areas (SRA) within the Basin operating monitoring stations in most of the areas. These SRAs are designated to provide a general representation of the local meteorological, terrain, and air quality conditions within the particular geographical area. The project is within SRA 19, Saddleback Valley. This station monitors CO, O_3, PM_{10} and $PM_{2.5.}$ The Central Orange County station was referenced for NO_2 and the North Coastal Orange County station was referenced for SO_2. These pollutant levels were used to comprise a "background" for the project location.

Table 4 summarizes 2014 through 2016 published monitoring data, which is the most recent 3-year period available. The data shows that during the past few years, the project area has exceeded the ozone and PM_{10}.

3.1.3 Attainment Status

The EPA and the ARB designate air Basins where ambient air quality standards are exceeded as "nonattainment" areas. If standards are met, the area is designated as an "attainment" area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered "unclassified." National nonattainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards. Each standard has a different definition, or 'form' of what constitutes attainment, based on specific air quality statistics. For example, the Federal 8-hour CO standard is not to be exceeded more than once per year; therefore, an area is in

attainment of the CO standard if no more than one 8-hour ambient air monitoring values exceeds the threshold per year. In contrast, the federal annual $PM_{2.5}$ standard is met if the three-year average of the annual average $PM_{2.5}$ concentration is less than or equal to the standard.

When a state submits a request to the EPA to re-designate a nonattainment area to attainment, the Clean Air Act (CAA) section 175A(a) requires that the state (or states, if the area is a multi-state area) submit a maintenance plan ensuring the area can maintain the air quality standard for which the area is to be re-designated for at least 10 years following the effective date of re-designation.

Table 5 lists the attainment status for the criteria pollutants in the Basin.

3.2 Climate Change Setting

Climate change is a change in the average weather of the earth that is measured by alterations in temperature, wind patterns, storms, and precipitation. These changes are assessed using historical records of temperature changes occurring in the past, such as during previous ice ages. The historical data is utilized to extrapolate a level of statistical significance specifically focusing on temperature records from the last 150 years.

The United Nations Intergovernmental Panel on Climate Change (IPCC) constructed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. The IPPC concluded that global average temperatures and sea levels are expected to rise under all analytical scenarios (Intergovernmental Panel on Climate Change 2007a). The report also concluded that"[w]arming of the climate system is unequivocal," and that "[m]ost of the observed increase in global average temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic greenhouse gas concentrations."

Consequences of Climate Change in California

In California, climate change may result in consequences such as the following (from California Climate Change Center 2006 and Moser et al. 2010).

- A rise in sea levels resulting in displacement of costal businesses and residencies. During the past century, sea levels along California's coast have risen about seven inches. If emissions continue unabated and temperatures rise into the higher anticipated warming range, sea level is expected to rise an additional 22 to 55 inches by the end of the century.

- A reduction in the quality and supply of water from the Sierra snowpack. If heat-trapping emissions continue unabated, more precipitation will fall as rain instead of snow, and the snow that does fall will melt earlier, reducing the Sierra Nevada spring

snowpack by as much as 70 to 90 percent. This can lead to challenges in securing adequate water supplies. It can also lead to a potential reduction in hydropower.

- Increased risk of large wildfires. If rain increases as temperatures rise, wildfires in the grasslands and chaparral ecosystems of southern California are estimated to increase by approximately 30 percent toward the end of the 21st century because more winter rain will stimulate the growth of more plant "fuel" available to burn in the fall. In contrast, a hotter, drier climate could promote up to 90 percent more northern California fires by the end of the century by drying out and increasing the flammability of forest vegetation.

- Reductions in the quality and quantity of certain agricultural products. The crops and products likely to be adversely affected include wine grapes, fruit, nuts, and milk.

- Exacerbation of air quality problems. If temperatures rise to the medium warming range, there could be 75 to 85 percent more days with weather conducive to ozone formation in Los Angeles and the San Joaquin Valley, relative to today's conditions. This is more than twice the increase expected if rising temperatures remain in the lower warming range. This increase in air quality problems could result in an increase in asthma and other health-related problems.

- An increase temperature and extreme weather events. Climate change is expected to lead to increases in the frequency, intensity, and duration of extreme heat events and heat waves in California. More heat waves can exacerbate chronic disease or heat-related illness.

- A decrease in the health and productivity of California's forests. Climate change can cause an increase in wildfires, an enhanced insect population, and establishment of non-native species.

3.3 Greenhouse Gases

Gases that trap heat in the atmosphere are commonly referred to as "greenhouse gases" because they function like a greenhouse by letting light in while preventing heat from escaping. Naturally occurring GHGs include water vapor, carbon dioxide (CO_2) methane (CH_4) and nitrogen dioxide/oxides (N_2O and NO_x). The natural accumulation of GHGs in the atmosphere has a warming effect on the Earth's temperature. Without these natural GHGs, the Earths temperature would be cooler.

In addition to the naturally occurring gases, man-made chemicals also act as GHGs and include the following common compounds: chlorofluorocarbons (CFCs), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), ozone (O_3), and aerosols. It is believed that emissions from human activities, such as electricity

production and vehicle use, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations.

Climate change is driven by forcings and feedbacks. Radiative forcing is the difference between the incoming energy and outgoing energy in the climate system. Positive forcing tends to warm the surface while negative forcing tends to cool it. Radiative forcing values are typically expressed in watts per square meter. A feedback is a climate process that can strengthen or weaken a forcing. For example, when ice or snow melts, it reveals darker land underneath which absorbs more radiation and causes more warming. The global warming potential is the potential of a gas or aerosol to trap heat in the atmosphere. The global warming potential of a gas is essentially a measurement of the radiative forcing of a greenhouse gas compared with the reference gas, carbon dioxide.

Individual greenhouse gas compounds have varying global warming potential and atmospheric lifetimes. Carbon dioxide (CO_2), the reference gas for global warming potential, has a global warming potential of one. The global warming potential of a greenhouse gas is a measure of how much a given mass of a greenhouse gas is estimated to contribute to global warming. To describe how much global warming a given type and amount of greenhouse gas may cause, the carbon dioxide equivalent (CO_2 e) is used. The calculation of the carbon dioxide equivalent is a consistent methodology for comparing greenhouse gas emissions since it normalizes various greenhouse gas emissions to a consistent reference gas, carbon dioxide. For example, methane's warming potential of 21 indicates that methane has 21 times greater warming affect than carbon dioxide on a molecule per molecule basis. A carbon dioxide equivalent is the mass emissions of an individual greenhouse gas multiplied by its global warming potential. Greenhouse gases defined by AB 32 include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. They are described in Table 6.

Emissions Inventories

Emissions in California were approximately 450 million tons of carbon dioxide equivalents (MMTCO2e) in 2009 (California Air Resources Board).

3.4 Greenhouse Gas Inventory

This analysis is restricted to greenhouse gases identified by AB 32 and the CEQA Guidelines (section 15364.5), which include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. The project would generate a variety of greenhouse gases during construction and operation, including several defined by AB 32 and the CEQA Guidelines such as carbon dioxide, methane, and nitrous oxide.

The project may also emit greenhouse gases that are not defined by AB 32 and the CEQA Guidelines. For example, the project may generate aerosols. During construction, the diesel fueled vehicles and equipment emit diesel particulate matter, which has black

carbon, which is a component of aerosol. During operation, any diesel fueled trucks or vehicles could emit aerosols. Aerosols are short-lived particles, as they remain in the atmosphere for about one week. Studies have indicated that black carbon has a high global warming potential; however, the Intergovernmental Panel on Climate Change states that it has a low level of scientific certainty (Intergovernmental Panel on Climate Change 2007a). As a result, aerosols are not counted as global warming potential gases.

Water vapor could be emitted from evaporated water used for landscaping, but this is not a significant impact, because water vapor concentrations in the upper atmosphere are primarily due to climate feedbacks rather than emissions from project-related activities. The project would emit nitrogen oxides and volatile organic compounds, which are ozone precursors. Ozone is a greenhouse gas; however, unlike the other greenhouse gases, ozone in the troposphere is relatively short-lived and can be reduced in the troposphere on a daily basis. Stratospheric ozone can be reduced through reactions with other pollutants.

Certain greenhouse gases defined by AB 32 would not be emitted by the project. Perfluorocarbons and sulfur hexafluoride are typically used in industrial applications, none of which would be used by the project. Therefore, it is not anticipated that the project would emit perfluorocarbons or sulfur hexafluoride.

4.0 Modeling Parameters and Assumptions

4.1 Construction

Emissions were estimated using the California Emissions Estimator Model Version 2016.3.2 (CalEEMod), which was re-released in November 2017.

The analysis reflects the construction of a 3,509 seat Place of Worship (worship center) and new parking area roadway extension project that includes 48,000 sqaure feet of paved surfaces and requires 40,000 cubic yards of material import.

Construction is assumed to begin in January 2019 and would last approximately 14 months. The project's construction schedule is based on default CalEEMod estimates. The assessment assumes that construction phases will not overlap.

The CalEEMod default construction equipment list is based on survey data and the size of the site. The construction equipment list is shown in Table 7. The parameters used to estimate construction emissions, such as the worker and vendor trips and trip lengths, utilize the CalEEMod defaults.

This analysis assumes 40,000 cubic yards of soil will need to be imported to the site during the grading phase of construction; resulting in 5,000 truck hauling trips. Mitigation measures have been recommended to reduce the impact of hauling trips. The trip assumptions are available in Appendix A.

The quantity of fugitive dust estimated by CalEEMod is based on the number of equipment used during site preparation and grading. CalEEMod estimates the worst case fugitive dust impacts will occur during the site preparation phase. The total disturbance footprint would be 3.5 acres per 8-hour day with all equipment in use. The disturbance rate is based on the SCAQMD Fact Sheet for Applying CalEEMod to Localized Significance Thresholds.

The project will be required to follow SCAQMD Rule 403 regarding fugitive dust; which requires dust generating activities to follow best available control measures to reduce particulate emissions.

4.2 Operations

Operational emissions occur over the life of the Project and are considered "long-term". Operational emissions are generated from mobile sources, energy sources and area sources. Mobile source emissions are from motor vehicles, and are the largest single long-term source of air pollutants from the operation of the project. Emissions are also generated from area sources such as the consumption of natural gas for heating, hearths, landscaping equipment, consumer product usage, and architectural coatings (painting).

Energy source emissions typically occur off-site at a power plant and are considered an indirect source of emissions. Energy source emissions are mainly used for estimating GHG's.

4.2.1 Motor Vehicle Emissions

Estimates of motor vehicle emissions require information on four parameters: trip generation, trip length, vehicle/fleet mix, and emission factor (quantity of emission for each mile traveled or time spent idling by each vehicle).

The trip generation rates for this project are based on the Saddleback Community Church New Worship Center and Roadway Extension Traffic Impact Study, prepared by RK Engineering Group, Inc. (December 2017). Trip generation rates are shown in Table 8 and operational trip lengths are shown in Table 9. The operational vehicle mix is shown in Table 10 and is based on area-wide averages.

The emission factors (from EMFAC2011) used to estimate the mobile source emissions are embedded in the CalEEMod emissions model. No adjustments have been made to default emission factors.

4.2.2 Other Emissions

Natural Gas. Natural gas emissions refer to the emissions that occur when natural gas is combusted on the project site for heating water, space heating, stoves, or other uses. Criteria air pollutant and greenhouse gas emissions were estimated using CalEEMod defaults.

Indirect Electricity. Indirect electricity refers to the greenhouse gas emissions generated by offsite power plants to supply the electricity required for the project. The CalEEMod defaults for energy intensity were used.

Water Transport. Greenhouse gas emissions are generated from the energy required to supply and treat the water used on the project site. Emissions from water usage are counted as part of the project's overall impact. It is estimated that the project will use 5,708,220 gallons of water annually. Water usage is reported in Table 11 and recommendations to reduce water usage is discussed in Section 6.0.

Waste. CalEEMod calculates the indirect GHG emissions associated with waste that is disposed of at a landfill. The program uses annual waste disposal rates from the California Department of Resources Recycling and Recovery (CalRecycle) data for individual land uses. The program quantifies the GHG emissions associated with the decomposition of the waste which generates methane based on the total amount of degradable organic carbon. It is estimated that the project will generate approximately 405.56 tons of waste annually. Waste generation is reported in Table 11 and recommendations to reduce waste generation in landfills are discussed in Section 6.0

RK has noticed a problem in CalEEMod with the calculation of GHG emissions from water and waste that results in emissions being grossly overestimated when the land use quantity is based on the number of seats. Therefore, water and waste is calculated based on the square footage of the building, as shown in Appendix B, to give a more accurate estimate of GHG emissions.

4.3 Localized Construction Analysis Modeling Parameters

The SCAQMD has published a "Fact Sheet for Applying CalEEMod to Localized Significance Thresholds" (South Coast Air Quality Management District 2011b). CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily disturbance activity possible for each piece of equipment. This report identifies the following parameters in the project design or applicable mitigation measures in order to compare CalEEMod reported emissions against the localized significance threshold lookup tables:

1) The off-road equipment list (including type of equipment, horsepower, and hours of operation) assumed for the day of construction activity with maximum emissions.

2) The maximum number of acres disturbed on the peak day.

3) Any emission control devices added onto off-road equipment.

4) Specific dust suppression techniques used on the day of construction activity with maximum emissions.

The local air quality emissions from construction were analyzed using the SCAQMD's Mass Rate Localized Significant Threshold Look-up Tables and the methodology described in Localized Significance Threshold Methodology, prepared by SCAQMD, revised July 2008. The Look-up Tables were developed by the SCAQMD in order to readily determine if the daily emissions of CO, NOx, PM10, and PM2.5 from the proposed project could result in a significant impact to the local air quality. Sensitive receptors include residences, schools, hospitals, and similar uses that are sensitive to adverse air quality.

The nearest existing sensitive receptors in the project vicinity include residential units located south of the project site, approximately 650 feet away. However, to be conservative, the construction emissions were compared to the SCAQMD's threshold for sensitive receivers at distance of 25 meters. This methodology helps ensure the project does not cause adverse impacts to receivers located on-site as well.

4.4 Localized Operational Analysis Modeling Parameters

The SCAQMD "Fact Sheet for Applying CalEEMod to Localized Significance Thresholds" is also used for determining project localized project impacts during operations. The operational emissions were compared to the SCAQMD's threshold for a site disturbance area of 5 acres at a distance of 25 meters. Localized emissions during operation include all on-site area source and energy source emissions, as well as mobile source emissions that occur on-site. Per the SCAQMD LST methodology, it is estimated that approximately 5% of mobile emissions will occur on the project site.

5.0 Thresholds of Significance

5.1 Air Quality Thresholds of Significance

5.1.1 CEQA Guidelines for Air Quality

The CEQA Guidelines define a significant effect on the environment as "a substantial, or potentially substantial, adverse change in the environment." To determine if a project would have a significant impact on air quality, the type, level, and impact of emissions generated by the project must be evaluated.

The following air quality significance thresholds are contained in Appendix G of the CEQA Guidelines. A significant impact would occur if the project would:

a) Conflict with or obstruct implementation of the applicable air quality plan;

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation;

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable national or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);

d) Expose sensitive receptors to substantial pollutant concentrations; or

e) Create objectionable odors affecting a substantial number of people.

While the final determination of whether a project is significant is within the purview of the Lead Agency pursuant to Section 15064(b) of the CEQA Guidelines, SCAQMD recommends that its quantitative air pollution thresholds be used to determine the significance of project emissions. If the Lead Agency finds that the project has the potential to exceed these air pollution thresholds, the project should be considered to have significant air quality impacts. There are daily emission thresholds for construction and operation of a proposed project in the Basin.

5.1.2 Regional Significance Thresholds for Construction Emissions

The following CEQA significance thresholds for construction emissions are established for the Basin:

- 75 pounds per day (lbs/day) of ROC
- 100 lbs/day of NO_x
- 550 lbs/day of CO
- 150 lbs/day of PM_{10}

- 55 lbs/day of $PM_{2.5}$
- 150 lbs/day of SO_2

Projects in the Basin with construction-related emissions that exceed any of the emission thresholds are considered to be significant under SCAQMD guidelines.

5.1.3 Regional Significance Thresholds for Operational Emissions

The daily operational emissions significance thresholds for the Basin are as follows:

- 55 pounds per day (lbs/day) of ROC
- 55 lbs/day of NO_x
- 550 lbs/day of CO
- 150 lbs/day of PM_{10}
- 55 lbs/day of $PM_{2.5}$
- 150 lbs/day of SO_2

Local Microscale Concentration Standards The significance of localized project impacts under CEQA depends on whether ambient CO levels in the vicinity of the project are above or below State and federal CO standards. If ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a State or federal standard, project emissions are considered significant if they increase 1-hour CO concentrations by 1.0 ppm or more or 8-hour CO concentrations by 0.45 ppm or more. The following are applicable local emission concentration standards for CO:

- California State 1-hour CO standard of 20.0 ppm
- California State 8-hour CO standard of 9.0 ppm

5.1.4 Thresholds for Localized Significance (LST)

LST's represent the maximum emissions from a project site that is not expected to result in an exceedance of the national or state AAQS shown in Table 4. LSTs are based on the ambient concentrations of that pollutant within the project source receptor area (SRA) and the distance to the nearest sensitive receptor. For this project, the appropriate SRA for the LST is the Saddleback Valley – SRA 19.

In the case of CO and NO_2, if ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a State or federal standard, then project emissions are considered significant if they increase ambient concentrations by a measurable amount. This would apply to PM_{10} and $PM_{2.5}$, both of which are non-attainment pollutants. For these two, the significance criteria are the pollutant concentration thresholds presented in SCAQMD Rules 403. The Rule 403 threshold of 10.4

micrograms per cubic meter applies to construction emissions (and may apply to operational emissions at aggregate handling facilities).

Construction LSTs are assessed with the SCAQMD screening thresholds. Construction thresholds for a 5-acre site in the SADDLEBACK VALLEY (SRA 19) at 25 meters were utilized:

- 1,804 lbs/day of CO
- 197 lbs/day of NO_X
- 12 lbs/day of PM_{10}
- 8 lbs/day of $PM_{2.5}$

Operational LSTs are assessed with the SCAQMD screening thresholds. Operational thresholds for a 5-acre site in the SADDLEBACK VALLEY (SRA 19) at 25 meters were utilized:

- 1,804 lbs/day of CO
- 17 lbs/day of NO_X
- 3 lbs/day of PM_{10}
- 2 lbs/day of $PM_{2.5}$

5.2 Greenhouse Gas Thresholds of Significance

5.2.1 CEQA Guidelines for Greenhouse Gas

CEQA Guidelines define a significant effect on the environment as "a substantial, or potentially substantial, adverse change in the environment." To determine if a project would have a significant impact on greenhouse gases, the type, level, and impact of emissions generated by the project must be evaluated.

The following greenhouse gas significance thresholds are contained in Appendix G of the CEQA Guidelines, which were amendments adopted into the Guidelines on March 18, 2010, pursuant to SB 97. A significant impact would occur if the project would:

(a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or

(b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

5.2.2 SCAQMD Interim Significance Thresholds

In addition to CEQA guidelines, the SCAQMD established a working group to develop an interim significance threshold for GHG emissions under CEQA as discussed in Section 3.4.1. This analysis compares the Project's GHG emissions to the SCAQMD's Tier 3 and Tier 4 approach. If the project exceeds the SCAQMD threshold of 3,000 $MTCO_2e$ annually, with

all reasonably feasible with mitigation measures, then the project will be required to achieve a 30% reduction in GHG emissions compared to business as usual (BAU) conditions. Per SCAQMD guidelines, BAU is based on current regulatory requirements, and is considered the level from which GHG reductions must occur.

5.2.3 CARB 2017 Climate Change Scoping Plan Update

As of January 20, 2017, the California Air Resources Board (CARB) has updated the scoping plan established for the State of California to achieve the target greenhouse gas reductions. The latest scoping plan provides the framework for reducing 2030 GHG emission levels by 40% below 1990 level. This report suggests that, to be consistent with the latest scoping plan, the proposed project must demonstrate it can achieve a 40% reduction in long term operational emissions compared to BAU conditions.

6.0 Air Quality Impact Analysis

Consistent with CEQA and the State CEQA Guidelines, a significant impact related to air quality would occur if the proposed modified project is determined to:

1. Conflict with or obstruct implementation of the applicable air quality plan.

2. Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

3. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

4. Expose sensitive receptors to substantial pollutant concentrations.

5. Create objectionable odors affecting a substantial number of people.

6.1 Construction Air Quality Emissions Impact

6.1.1 Regional Construction Emissions

CalEEMod was used to estimate onsite and offsite construction emissions as shown in Table 12. Regional emissions include on-site and off-site emissions associated with construction. Regional daily emissions of criteria pollutants are expected to be below the allowable thresholds for all criteria pollutants, with the exception of VOC and NOx emissions.

Mitigation measures are required to reduce the project's impact to be less than significant. Table 13 shows the mitigated regional construction emissions levels. The project will be required to implement to following mitigation measures during construction:

MM – 1: Comply with all SCAQMD rules and requirements for fugitive dust control during construction.

MM – 2: Comply with SCAQMD Rule 1113 regarding VOC content in coatings and paint and limit the VOC content of paint to 50 g/L or less.

MM – 3: Limit the number of soil hauling trips to 100 truck loads per day or less during material import phase.

By incorporating the recommended mitigation measures, the daily regional emissions will be below the SCAQMD thresholds of significance. **The project's impact is less than significant with mitigation.** CalEEMod outputs are located in Appendix A.

6.1.2 Localized Construction Emissions

Table 14 illustrates the construction related LSTs for the project area. The project will be required to comply with the SCAQMD Rule 403 to mitigate fugitive dust and particulate matter (PM10 and PM2.5) emissions. With the recommended mitigation measures listed above, t**he project's impact will be less than significant.**

6.1.3 Fugitive Dust

The Project is required to comply with regional rules that assist in reducing short-term air pollutant emissions associated with suspended particulate matter, also known as fugitive dust. Fugitive dust emissions are commonly associated with land clearing activities, cut-and-fill grading operations, and exposure of soils to the air and wind during. SCAQMD Rule 403 requires that fugitive dust be controlled with best-available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rules 402 and 403 require implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site.

Applicable suppression techniques are as follows:

i. All operations on any unpaved surface should be suspended if winds exceed 15 mph.
ii. Require minimum soil moisture of 12% for earthmoving by use of a moveable sprinkler system or a water truck. Moisture content can be verified by lab sample or moisture probe.
iii. Apply nontoxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).
iv. All haul trucks shall be covered and maintain at least 12 inches of freeboard height.
v. Use a gravel apron, 25 feet long by road width, to reduce mud/dirt trackout from unpaved truck exit routes.
vi. Limit on-site vehicle speed on unpaved roads 15 mph or less by radar enforcement.
vii. Any visible dirt on public roadways and access points shall be swept or washed within 30 minutes.
viii. Any on-site stockpiles of debris, dirt or other dusty material shall be covered or enclosed on three sides.
ix. Replace ground cover on exposed surfaces as quickly as possible

Tables 13 and 14 illustrates the total construction emissions, including, fugitive-dust emissions (PM_{10}) and construction equipment exhausts after incorporating a number of feasible control measures that can be reasonably implemented. The daily construction

emissions, with standard control measures, would be below the applicable thresholds established by the SCAQMD. **Therefore, the proposed project's construction would cause less than significant Fugitive Dust emissions.**

6.1.4 Odors

Heavy-duty equipment in the Project area during construction will emit odors; however, the construction activity would cease to occur after individual construction is completed. The project is required to comply with Rule 402 during construction, which states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. No other sources of objectionable odors have been identified for the proposed Project. **Therefore, the project impact from odor emissions is less than significant.**

6.1.5 Naturally Occurring Asbestos

The proposed Project is located in Orange County, CA, which is not among the counties that are found to have serpentine and ultramafic rock in their soils. Therefore, the potential risk for naturally occurring asbestos (NOA) during project construction is small. However, standard rules and regulations would apply to properly handle asbestos if it did occur. **The project impact is less than significant**.

6.1.6 Construction Traffic

Construction traffic is evaluated with regards to air quality and greenhouse gas related emissions. Construction traffic is expected to be heaviest during the site preparation and grading phases, when a total of approximately 40,000 cubic yards of soil will be hauled to the site. CalEEMod estimates emission levels during all phases of construction related to both on-road and off-road mobile sources. In order to ensure mobile source emissions do not exceed the allowable daily emissions, the project shall limit the number of hauling trips to the site to 100 truckloads per day or less. With the recommended mitigation measures, emission levels associated with on-site and off-site construction traffic will be below the applicable thresholds set forth by the State of California and the SCAQMD. **The project impact is considered less than significant with mitigation.**

6.2 Operational Air Quality Emissions Impact

6.2.1 Regional Operational Emissions

Long-term operational air pollutant emission impacts associated with mobile, stationary and energy sources are shown in Table 15. The project is not expected to exceed the allowable daily emissions thresholds for all criteria pollutants. **The project's impact is less than significant.**

CalEEMod outputs are located in Appendix A.

6.2.2 Localized Operational Emissions

Table 16 shows the calculated emissions for the proposed operational activities compared with appropriate LSTs, with the recommended mitigation measures. The LST analysis only includes on-site sources; however, the CalEEMod software outputs do not separate on-site and off-site emissions for mobile sources. For a worst-case scenario assessment, the emissions shown in Table 16 include all on-site project-related stationary sources and 5 percent of the project-related new mobile source emissions. This percentage is an estimate of the amount of project-related new vehicle traffic that will occur on-site, per SCAQMD recommendations.

Table 16 indicates that the operational emission rates would not exceed the LST thresholds for sensitive receptors at 25 meters. **The Project will result in a less than significant localized operational emissions impact.**

6.3 CO Hot Spot Emissions

A CO hot spot is a localized concentration of carbon monoxide (CO) that is above the state or federal 1-hour or 8-hour ambient air quality standards. High levels of localized CO are associated with traffic congestion and idling or slow-moving vehicles. In the CO attainment re-designation request to EPA, the SCAQMD has demonstrated that there are no "hot spots" anywhere in the air Basin. Additionally, based on the results of the Saddleback Community Church New Worship Center and Roadway Extension Traffic Impact Study Traffic Impact Study, all nearby study area intersections were shown to operate at level of service D or better with the addition of the project and mitigation measures. It is reasonable to conclude, therefore, that the project would not significantly contribute to the formation of CO Hot Spots in the project vicinity. **The project impact to CO Hot Spots is less than significant.**

6.4 Air Quality Management Plan Consistency

An AQMP describes air pollution control strategies to be taken by a City, County, or Region classified as a nonattainment area. The main purpose of an AQMP is to bring the area into compliance with Federal and State air quality standards. CEQA requires that certain

proposed projects be analyzed for consistency with the AQMP. For this project to be consistent with the 2016 AQMP adopted by the SCAQMD, the pollutants emitted from the project should not exceed the SCAQMD daily threshold or cause a significant impact on air quality, or the project must already have been included in the AQMP projection. A project may also be deemed as consistent with the AQMP if feasible mitigation measures are implemented and shown to reduce the impact level to less than significant. The AQMP uses the assumptions and projections of local planning agencies to determine control strategies for regional compliance status. As demonstrated in this analysis, the project will comply with the applicable thresholds of significance with the proposed mitigation measures. **Therefore, the project is consistent with the SCAQMD 2016 AQMP and the impact is considered less than significant with mitigation.**

6.5 Operational Odors

Land uses that commonly receive odor complaints include agricultural uses (farming and livestock), chemical plants, composting operations, dairies, fiberglass molding facilities, food processing plants, landfills, refineries, rail yards, and wastewater treatment plants. The proposed project does not contain land uses that would typically be associated with significant odor emissions.

On-site activity associate with food may emit odors; however these are not typically considered offensive and would not be considered a significant impact. The project will be required to comply with standard building code requirements related to exhaust ventilation, as well as comply with SCAQMD Rule 402. Rule 402 requires that a person may not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. Project related odors are not expected to meet the criteria of being a nuisance. **The project's operation will not result in significant odor issues.**

7.0 Greenhouse Gas Impact Analysis

7.1 Construction Greenhouse Gas Emissions

Greenhouse gas emissions are estimated for onsite and offsite construction activity using CalEEMod. Greenhouse gas emissions from project construction equipment and worker vehicle emissions are shown in Table 17. Emissions include all phases of construction. The total construction emissions would be 758.14 metric tons of CO_2e. CalEEMod output calculations are provided in Appendix B. Construction emissions are amortized over 30 years and added to the long term operational emissions, pursuant to SCAQMD recommendations.

7.2 Operational Greenhouse Gas Emissions

Greenhouse gas emissions are estimated for onsite and offsite operational activity using CalEEMod. Greenhouse gas emissions from mobile sources, area sources and energy sources are shown in Table 18. The total annual unmitigated GHG emissions would be 2,107.75 metric tons of CO_2e. CalEEMod output calculations are provided in Appendix B.

The analysis compares the Project's GHG emissions to the SCAQMD's Tier 3 approach, which limits GHG emissions to 3,000 $MTCO_2$e. As shown in Table 18, unmitigated GHG emissions are expected to be below 3,000 $MTCO_2$e.

Therefore, based on the established thresholds of significance, the project would not generate GHG emissions, either directly and indirectly, that may have a significant impact on the environment. **The project impact is less than significant.**

The project is consistent with the City of Lake Forest General Plan Land Use Designation and Zoning requirements and is consistent with the 2017 California Air Resources Board Climate Change Scoping Plan Update. The project would not exceed the GHG emission thresholds outlined in the SCAQMD Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold with the recommendations listed in this report. Therefore the project is consistent with the applicable plans, policies and regulation for the purpose of reducing GHG gases. **The impact is less than significant.**

8.0 References

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Exhibits

Exhibit A

Location Map

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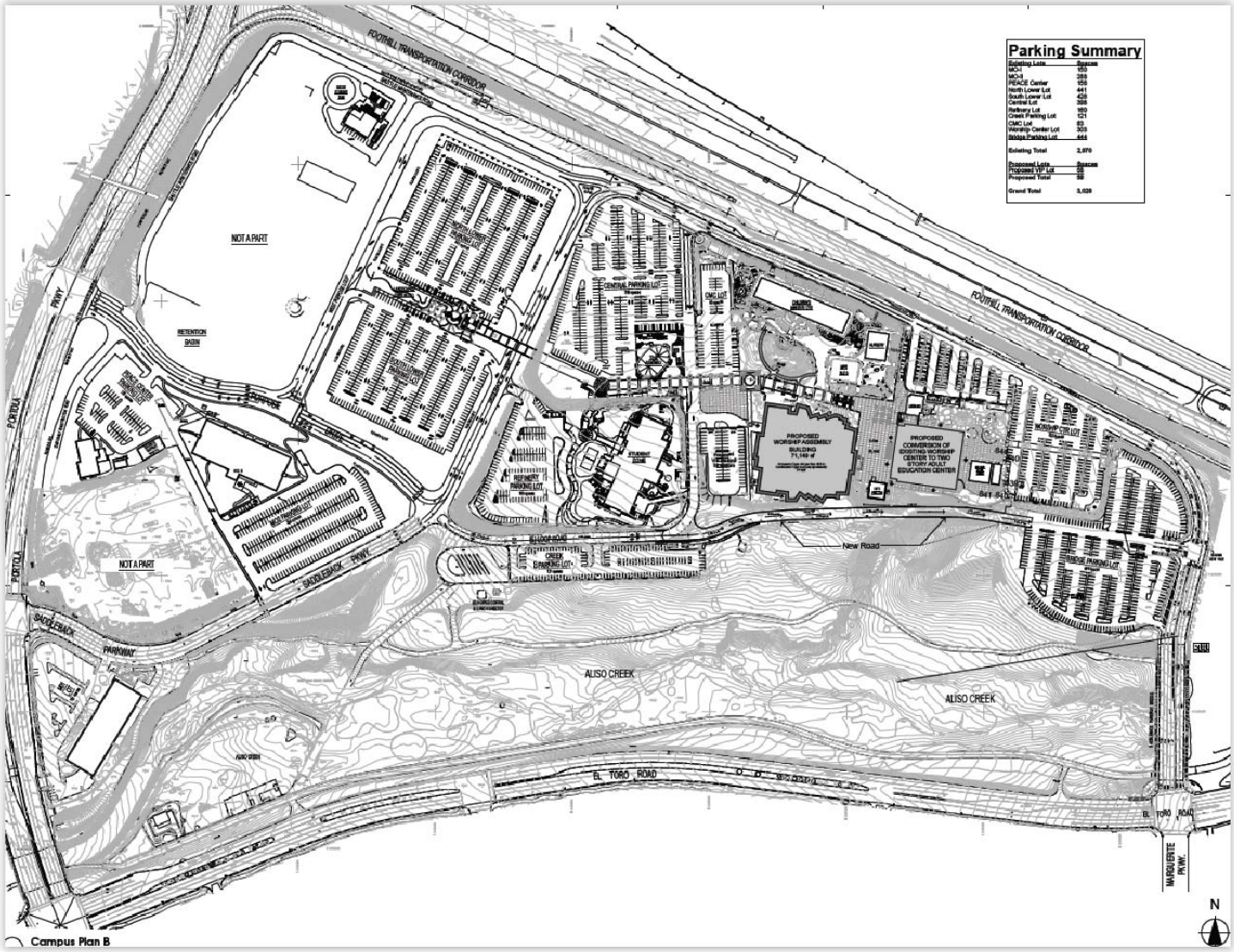
Exhibit B

Site Plan



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Tables

TABLE 1
Land Use Summary[1]

Land Use	Quantity	Metric[1]
Place of Worship	3,509	Seats
Parking Lot/Paved Surfaces[2]	50.00	TSF

[1] The land uses summary indicates the input land uses used in the CalEEMod emissions model.

[2] Approximately 20,000 sf of paved surface area will be added to the parking lot and 28,000 sf of paved surface will be constructed for the roadway extension. Lighting is assumed to be required for all new parking lot and roadway extension area.

TABLE 2
Description of Air Pollutants

Air Pollutant	Averaging Time	California Standard	Federal Standard[1]	Most Relevant Effects from Pollutant Exposure	Properties	Sources
Ozone	1 Hour	0.09 ppm	--	(a) Decrease of pulmonary function and localized lung edema in humans and animals; (b) risk to public health implied by alterations in pulmonary morphology and host defense in animals; (c) increased mortality risk; (d) altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (e) vegetation damage; (f) property damage.	Ozone is a photochemical pollutant as it is not emitted directly into the atmosphere, but is formed by a complex series of chemical reactions between volatile organic compounds (VOC), NOX, and sunlight. Ozone is a regional pollutant that is generated over a large area and is transported and spread by the wind	Ozone is a secondary pollutant; thus, it is not emitted directly into the lower level of the atmosphere. The primary sources of ozone precursors (VOC and NOX) are mobile sources (on-road and off-road vehicle exhaust).
	8 Hour	0.070 ppm	0.075 ppm[4]			
Carbon Monoxide (CO)	1 Hour	20 ppm	35 ppm	(a) Aggravation of angina pectoris (chest pain) and there aspects of coronary heart disease; (b) decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (c) impairment of central nervous system functions; (d) possible increased risk to fetuses.	CO is a colorless, odorless, toxic gas. CO is somewhat soluble in water; therefore, rainfall and fog can suppress CO conditions. CO enters the body through the lungs, dissolves in the blood, replaces oxygen as an attachment to hemoglobin, and reduces available oxygen in the blood.	CO is produced by incomplete combustion of carbon-containing fuels (e.g., gasoline, diesel fuel, and biomass). Sources include motor vehicle exhaust, industrial processes (metals processing and chemical manufacturing), residential wood burning, and natural sources.
	8 Hour	9 ppm	9 ppm			
Nitrogen Dioxide (NO_2)[2]	1 Hour	0.18 ppm	0.100 ppm	(a) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (b) risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; (c) contribution to atmospheric discoloration.	During combustion of fossil fuels, oxygen reacts with nitrogen to produce nitrogen oxides - NOX (NO, NO, NO_2, N_2O, N_2O_3, N_2O_4,and N_2O_5). NOX is a precursor to ozone, PM_{10}, and $PM_{2.5}$ formation. NOX can react with compounds to form nitric acid and related particles.	NOX is produced in motor vehicle internal combustion engines and fossil fuel-fired electric utility and industrial boilers. NO_2 concentrations near major roads can be 30 to 100 percent higher than those at monitoring stations.
	Annual	0.030 ppm	0.053 ppm			
Sulfur Dioxide (SO_2)	1 Hour	0.25 ppm	0.075 ppm	Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma. Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient sulfur dioxide levels. It is not clear whether the two pollutant alone is the predominant factor.	Sulfur dioxide is a colorless, pungent gas. At levels greater than 0.5 ppm, the gas has a strong odor, similar to rotten eggs. Sulfur oxides (SOX) include sulfur dioxide and sulfur trioxide. Sulfuric acid is formed from sulfur dioxide, which can lead to acid deposition and can harm natural resources and materials. Although sulfur dioxide concentrations have been reduced to levels well below state and federal standards, further reductions are desirable because sulfur dioxide is a precursor to sulfate and PM_0.	Human caused sources include fossil-fuel combustion, mineral ore processing, and chemical manufacturing. Volcanic emissions are a natural source of sulfur dioxide. The gas can also be produced in the air by dimethylsulfide and hydrogen sulfide. Sulfur dioxide is removed from the air by dissolution in water, chemical reactions, and transfer to soils and ice caps. The sulfur dioxide levels in the State are well below the maximum standards.
	3 Hour	--	0.5 ppm			
	24 Hour	0.04 ppm	--			
Particulate Matter (PM_{10})	24 Hour	50 µg/m³	150 µg/m³	(a) Exacerbation of symptoms in sensitive patients with respiratory or cardiovascular disease; (b) declines in pulmonary function growth in children; (c) increased risk of premature death from heart or lung diseases in the elderly. Daily fluctuations in PM2.5 levels have been related to hospital admissions for acute respiratory conditions, school absences, and increased medication use in children and adults with asthma.	Suspended particulate matter is a mixture of small particles that consist of dry solid fragments, droplets of water, or solid cores with liquid coatings. The particles vary in shape, size, and composition. PM_{10} refers to particulate matter that is between 2.5 and 10 microns in diameter, (1 micron is one-millionth of a meter). $PM_{2.5}$ refers to particulate matter that is 2.5 microns or less in diameter.	Stationary sources include fuel combustion for electrical utilities, residential space heating, and industrial processes; construction and demolition; metals, minerals, and petrochemicals; wood products processing; mills and elevators used in agriculture; erosion from tilled lands; waste disposal, and recycling. Mobile or transportation-related sources are from vehicle exhaust and road dust.
	Mean	20 µg/m³	--			
Particulate Matter (PM2.5)	24 Hour	--	35 µg/m³			
	Annual	12 µg/m³	15 µg/m³			
Visibility reducing particles	8 Hour	Extinction coefficient of 0.23 per kilometer; visibility of ten miles or more (0.07 - 30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent.				
Sulfates	24 Hour	25 µg/m³	--	(a) Decrease in ventilatory function; (b) aggravation of asthmatic symptoms; (c) aggravation of cardiopulmonary disease; (d) vegetation damage; (e) degradation of visibility; (f) property damage.	The sulfate ion is a polyatomic anion with the empirical formula SO4 2−. Sulfates occur in combination with metal and/or hydrogen ions. Many sulfates are soluble in water.	Sulfates are particulates formed through the photochemical oxidation of sulfur dioxide. In California, the main source of sulfur compounds is combustion of gasoline and diesel fuel.
Lead[3]	30-day	1.5 µg/m³	--	Lead accumulates in bones, soft tissue, and blood and can affect the kidneys, liver, and nervous system It can cause impairment of blood formation and nerve conduction, behavior disorders, mental retardation, neurological impairment, learning deficiencies, and low IQs.	Lead is a solid heavy metal that can exist in air pollution as an aerosol particle component. Leaded gasoline was used in motor vehicles until around 1970. Lead concentrations have not exceeded state or federal standards at any monitoring station since 1982.	Lead ore crushing, lead-ore smelting, and battery manufacturing are currently the largest sources of lead in the atmosphere in the United States. Other sources include dust from soils contaminated with lead-based paint, solid waste disposal, and crustal physical weathering.
	Quarter	--	1.5 µg/m³			
	Rolling 3-month average	--	0.15 µg/m³			
Vinyl chloride[3]	24 Hour	0.01 ppm	--	Short-term exposure to high levels of vinyl chloride in the air causes central nervous system effects, such as dizziness, drowsiness, and headaches. pidemiological studies of occupationally exposed workers have linked vinyl chloride exposure to development of a rare cancer, liver angiosarcoma, and have suggested a relationship between exposure and lung and brain cancers.	Vinyl chloride, or chloroethene, is a chlorinated hydrocarbon and a colorless gas with a mild, sweet odor. In 1990, ARB identified vinyl chloride as a toxic air contaminant and estimated a cancer unit risk factor.	Most vinyl chloride is used to make polyvinyl chloride plastic and vinyl products, including pipes, wire and cable coatings, and packaging materials. It can be formed when plastics containing these substances are left to decompose in solid waste landfills, sewage plants, and hazardous waste sites.
Hydrogen sulfide	24 Hour	0.03 ppm	--	High levels of hydrogen sulfide can cause immediate respiratory arrest. It can irritate the eyes and respiratory tract and cause headache, nausea, vomiting, and cough. Long exposure can cause pulmonary edema.	Hydrogen sulfide (H2S) is a flammable, colorless, poisonous gas that smells like rotten eggs.	Manure, storage tanks, ponds, anaerobic lagoons, and land application sites are the primary sources of hydrogen sulfide. Anthropogenic sources include the combustion of sulfur containing fuels (oil and coal).
Volatile organic compounds (VOC)		There are no State or federal standards for VOCs because they are not classified as criteria pollutants.		Although health-based standards have not been established for VOCs, health effects can occur from exposures to high concentrations because of interference with oxygen uptake. In general, concentrations of VOCs are suspected to cause eye, nose, and throat irritation; headaches; loss of coordination; nausea; and damage to the liver, the kidneys, and the central nervous system. Many VOCs have been classified as toxic air contaminants.	Reactive organic gases (ROGs), or VOCs, are defined as any compound of carbon—excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate—that participates in atmospheric photochemical reactions. Although there are slight differences in the definition of ROGs and VOCs, the two terms are often used interchangeably.	Indoor sources of VOCs include paints, solvents, aerosol sprays, cleansers, tobacco smoke, etc. Outdoor sources of VOCs are from combustion and fuel evaporation. A reduction in VOC emissions reduces certain chemical reactions that contribute to the formulation of ozone. VOCs are transformed into organic aerosols in the atmosphere, which contribute to higher PM10 and lower visibility.
Benzene		There are no ambient air quality standards for benzene.		Short-term (acute) exposure of high doses from inhalation of benzene may cause dizziness, drowsiness, headaches, eye irritation, skin irritation, and respiratory tract irritation, and at higher levels, loss of consciousness can occur. Long-term (chronic) occupational exposure of high doses has caused blood disorders, leukemia, and lymphatic cancer.	Benzene is a VOC. It is a clear or colorless light-yellow, volatile, highly flammable liquid with a gasoline-like odor. The EPA has classified benzene as a "Group A" carcinogen.	Benzene is emitted into the air from fuel evaporation, motor vehicle exhaust, tobacco smoke, and from burning oil and coal. Benzene is used as a solvent for paints, inks, oils, waxes, plastic, and rubber. It is used in the extraction of oils from seeds and nuts and in the manufacture of detergents, explosives, and pharmaceuticals.
Diesel particulate matter (DPM)		There are no ambient air quality standards for DPM.		Some short-term (acute) effects of DPM exposure include eye, nose, throat, and lung irritation, coughs, headaches, light-headedness, and nausea. Studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems. Human studies on the carcinogenicity of DPM demonstrate an increased risk of lung cancer, although the increased risk cannot be clearly attributed to diesel exhaust exposure.	DPM is a source of PM2.5—diesel particles are typically 2.5 microns and smaller. Diesel exhaust is a complex mixture of thousands of particles and gases that is produced when an engine burns diesel fuel. Organic compounds account for 80 percent of the total particulate matter mass, which consists of compounds such as hydrocarbons and their derivatives, and polycyclic aromatic hydrocarbons and their derivatives. Fifteen polycyclic aromatic hydrocarbons are confirmed carcinogens, a number of which are found in diesel exhaust.	Diesel exhaust is a major source of ambient particulate matter pollution in urban environments. Typically, the main source of DPM is from combustion of diesel fuel in diesel-powered engines. Such engines are in on-road vehicles such as diesel trucks, off-road construction vehicles, diesel electrical generators, and various pieces of stationary construction equipment.

Notes:
ppm = parts per million (concentration) µg/m3 = micrograms per cubic meter Annual = Annual Arithmetic Mean 30-day = 30-day average Quarter = Calendar quarter

[1] Federal standard refers to the primary national ambient air quality standard, or the levels of air quality necessary, with an adequate margin of safety to protect the public health. All standards listed are primary standards except for 3 Hour SO2, which is a secondary standard. A secondary standard is the level of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[2] Effective April 12, 2010; the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 100 ppb, or 188µg/m3

[3] The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[4] To attain this standard, the 3-year average of the 99th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 75 ppb.

Source of effects: South Coast Air Quality Management District 2007b; California Environmental Protection Agency 2002; California Air Resources Board 2009; U.S. Environmental Protection Agency 2010; U.S. Environmental Protection Agency 2000; National Toxicology Program 2005a.

Source of standards: California Air Resources Board 2010a.

Source of properties and sources: U.S. Environmental Protection Agency 1999; U.S. Environmental Protection Agency 2003; U.S. Environmental Protection Agency 2011b; U.S. Environmental Protection Agency 2009a; National Toxicology Program 2005b.

TABLE 3
Meteorological Summary[1]

Month	Temperature (˚F)			Average Precipitation (inches)
	Average	Average High	Average Low	
January	55.8	69.9	46.0	2.57
February	56.9	69.6	45.3	3.10
March	58.7	74.4	46.5	0.61
April	61.6	75.8	48.3	0.98
May	64.6	79.0	52.9	0.29
June	68.0	81.6	56.1	0.04
July	72.2	88.6	59.7	0.05
August	73.2	90.1	60.0	0.01
September	71.6	89.1	58.3	0.08
October	66.9	81.1	53.6	1.35
November	60.8	75.0	49.7	0.86
December	56.2	66.7	45.4	3.11
Yearly Average	**63.9**	**78.4**	**51.8**	**13.05**

[1] Averages derived from measurements recorded between 2003 and 2016, Irvine Ranch Station (Coop ID: 044303).
Source: Western Regional Climate Center 2016.

TABLE 4
Air Quality Monitoring Summary

Air Pollutant Location	Averaging Time	Item	2015	2016	2017
Carbon Monoxide from Saddleback Valley Station	1 Hour	Max 1-Hour (ppm)	1.4	1.3	1.4
		Days > State Standard (20 ppm)	--	--	--
		Days >National Standard (35 ppm)	--	--	--
	8 Hour	Max 8 Hour (ppm)	0.7	0.7	0.9
		Days > State Standard (9 ppm)	--	--	--
		Days >National Standard (9 ppm)	--	--	--
Ozone from Saddleback Valley Station	1 Hour	Max 1-Hour (ppm)	0.099	0.122	0.103
		Days > State Standard (0.09 ppm)	2	5	3
	8 Hour	Max 8 Hour (ppm)	0.088	0.093	0.083
		Days > State Standard (0.07 ppm)	8	13	0
		Days >National Standard (0.075 ppm)[1]	3	6	14
		Days >National Standard (0.070 ppm)	8	13	25
Coarse Particles (PM10) from Saddleback Valley Station	24 Hour	Max 24-Hour ($\mu g/m^3$)	49.0	59.0	58.0
		Days > State Standard (50 $\mu g/m^3$)	0	1	1
		Days >National Standard (150 $\mu g/m^3$)	0	0	0
	Annual	Annual Average ($\mu g/m^3$)	19	21.0	18.4
		Exceeded >State Standard (20 $\mu g/m^3$)	NO	YES	NO
Fine Particulates (PM2.5) from Saddleback Valley Station	24 Hour	Max 24-Hour ($\mu g/m^3$)	31.5	24.79	19.59
		Days >National Standard (35 $\mu g/m^3$)	0	0	0
	Annual	Annual Average ($\mu g/m^3$)	7.05	7.36	7.9
		Exceeded >State Standard (12 $\mu g/m^3$)	NO	NO	NO
		Exceeded >National Standard (15 $\mu g/m^3$)	NO	NO	NO
Nitrogen Dioxide from North Coastal Orange County Station	1 Hour	Max 1-Hour (ppm)	52.4	59.8	45.3
		Exceeded > State Standard (0.18 ppm)	YES	YES	YES
	Annual	Annual Average (ppm)	11.6	10.1	7.8
		Exceeded >State Standard (0.030 ppm)	YES	YES	YES
		Exceeded >National Standard (0.053 ppm)	YES	YES	YES
Sulfur Dioxide from North Coastal Orange County Station	1 Hour	Max 1 Hour (ppm)	4.5	3.3	1.9
		Exceeded >State Standard (0.25 ppm)	YES	YES	YES
		Exceeded >National Standard (0.075 ppm)	YES	YES	YES

Source: EPA and ARB websites www.epa.gov/air/data.index.html and www.arb.ca.gov/adam/welcome.html
$\mu g/m^3$ = micrograms per cubic meter
ARB = California Air Resource Board
EPA= Environmental Protection Agency
ppm = part per million
(- -) = Data not provided
[1] = 2008 National Standards

TABLE 5
South Coast Air Basin Attainment Status

Pollutant	State Status	National Status
Ozone	Nonattainment	Nonattainment (Extreme)
Carbon monoxide	Attainment	Attainment (Maintenance)
Nitrogen dioxide (annual)	Attainment	Attainment (Maintenance)
Nitrogen dioxide (1-hour)	Attainment	Attainment
Sulfur dioxide	Attainment	Attainment
PM_{10}	Nonattainment	Attainment
$PM_{2.5}$	Nonattainment	Nonattainment
Lead	Attainment	Nonattainment (Partial)[1]

[1] Partial Nonattainment designation – Los Angeles County portion of Basin only.

Source: State status from California Air Resources Board. http://www.arb.ca.gov/desig/adm/adm.htm

TABLE 6
Description of Greenhouse Gases[1]

Greenhouse Gas	Description and Physical Properties	Sources
Nitrous oxide	Nitrous oxide (N_20),also known as laughing gas is a colorless gas. It has a lifetime of 114 years. Its global warming potential is 310.	Microbial processes in soil and water, fuel combustion, and industrial processes. In addition to agricultural sources, some industrial processes (nylon production, nitric acid production) also emit N_20.
Methane	Methane (CH_4) is a flammable gas and is the main component of natural gas. It has a lifetime of 12 years. Its global warming potential is 21.	A natural source of CH_4 is from the decay of organic matter. Methane is extracted from geological deposits (natural gas fields). Other sources are from the decay of organic material in landfills, fermentation of manure, and cattle farming.
Carbon dioxide	Carbon dioxide (CO_2) is an odorless, colorless, natural greenhouse gas. Carbon dioxide's global warming potential is 1. The concentration in 2005 was 379 parts per million (ppm), which is an increase of about 1.4 ppm per year since 1960.	Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood.
Chlorofluorocarbons	CFCs are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). They are gases formed synthetically by replacing all hydrogen atoms in methane or methane with chlorine and/or fluorine atoms. Global warming potentials range from 3,800 to 8,100.	Chlorofluorocarbons were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. They destroy stratospheric ozone, therefore their production was stopped as required by the Montreal Protocol.
Hydrofluorocarbons	Hydrofluorocarbons (HFCs) are a group of greenhouse gases containing carbon, chlorine, and at least one hydrogen atom. Global warming potentials range from 140 to 11,700.	Hydrofluorocarbons are synthetic manmade chemicals used as a substitute for chlorofluorocarbons in applications such as automobile air conditioners and refrigerants.
Perfluorocarbons	Perfluorocarbons (PFCs) have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above the Earth's surface. They have a lifetime 10,000 to 50,000 years. They have a global warming potential range of 6,200 to 9,500.	Two main sources of perfluorocarbons are primary aluminum production and semiconductor manufacturing.
Sulfur hexafluoride	Sulfur hexafluoride (SF_6) is an inorganic, odorless, colorless, and nontoxic, nonflammable gas. It has a lifetime of 3,200 years. It has a high global warming potential, 23,900.	This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

[1] Sources: Intergovernmental Panel on Climate Change 2007a and Intergovernmental Panel on Climate Change 2007b.

TABLE 7
Construction Equipment Assumptions[1]

Phase	Equipment	Number	Hours per day	Horsepower	Load Factor	Soil Disturbance Rate (Acres/ 8hr-Day)[2]	Off-Road Equipment Daily Disturbance Footprint (Acres)	Total Daily Disturbance Footprint (Acres)
Site Preparation	Rubber Tired Dozers	3	8	247	0.40	0.5	1.5	3.5
	Tractors/Loaders/Backhoes	4	8	97	0.37	0.5	2.0	
Grading	Excavator	1	8	158	0.38	1.0	1.0	3.5
	Grader	1	8	187	0.41	0.5	0.5	
	Rubber Tired Dozers	1	8	247	0.40	0.5	0.5	
	Tractors/Loaders/Backhoes	3	8	97	0.37	0.5	1.5	
Building Construction	Cranes	1	7	231	0.29	0.0	0.0	1.3
	Forklifts	3	8	89	0.2	0.0	0.0	
	Generator Sets	1	8	84	0.74	0.0	0.0	
	Tractors/Loaders/Backhoes	3	7	97	0.37	0.5	1.3	
	Welders	1	8	46	0.45	0.0	0.0	
Paving	Pavers	2	8	130	0.42	0.0	0.0	0.0
	Paving Equipment	2	8	132	0.36	0.0	0.0	
	Rollers	2	8	80	0.38	0.0	0.0	
Architectural Coating	Air Compressors	1	6	78	0.48	0.0	0.0	0.0

[1] CalEEMod Defaults

[2] Soil disturbance rate is based on the SCAQMD Fact Sheet for Applying CalEEMod to Localized Significance Thresholds.

TABLE 8
Operarional Trip Generation Rates

Land Use	ITE Code	Units	Trip Generation Rate (trips/unit/day)[1]		
			Weekday[2]	Saturday	Sunday
Church (New Worship Center)	560	Seats	- -	0.90	1.85

[1] Trips rates based Saddleback Community Church New Worship Center and Roadway Extension Project, prepared by RK Engineering Group, Inc. (Dec. 2017). Per the traffic impact study, no additional weekday trips are expected at the new worship center.
[2] No new weekday vehicle trips are assumed as part of the project.

TABLE 9
Operational Vehicle Trip Length[1]

Land Use	Trip Length (miles) Non Residential[2]			Percent of Trips (%) Non Residential[2]		
	C-C	C-W	C-NW	C-C	C-W	C-NW
Church (New Worship Center)	8.4	16.6	6.9	95.0	0.0	5.0

[1] CalEEMod Defaults

[2] Non-Residential Trips:
C-C = commercial-customer; C-W = commercial-work; C-NW = commercial-nonwork

TABLE 10
Operational Vehicle Mix[1]

Vehicle Class	Vehicle Mix (%)
Light Duty Automobile (LDA)	55.90%
Light Duty Truck (LDTI)	4.35%
Light Duty Truck (LDT2)	20.98%
Medium Duty Truck (MDV)	11.39%
Light Heavy Truck (LHD1)	1.61%
Light Heavy Truck (LHD2)	0.58%
Medium Heavy Truck (MHD)	2.54%
Heavy Heavy Truck (HHD)	1.67%
Other Bus (OBUS)	0.17%
Urban Bus (UBUS)	0.16%
Motorcycle (MCY)	0.49%
School Bus (SBUS)	0.06%
Motor Home (MH)	0.10%
Total	**100.0%**

[1] CalEEMod Defaults

Table 11
Operational Water and Waste

Land Use	Water Usage (gallons/year)[1]			Waste Generation (tons/year)[1]
	Indoor	Outdoor	Total	
Church (New Worship Center)	3,733,080	5,838,919	9,571,999	680.07

[1] Water and waste based on 119,315 SF worship center.

TABLE 12
Regional Significance
Unmitigated Construction Emissions (lbs/day)

Summer						
Activity	**VOC**	**NO_x**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Site Preparation	4.41	45.62	22.71	0.04	9.50	6.05
Grading	4.72	102.49	34.59	0.23	9.37	4.41
Building Construction	2.89	25.53	21.66	0.05	2.62	1.60
Paving	1.67	15.28	15.20	0.02	0.99	0.80
Architectural Coating	83.13	1.73	2.45	0.01	0.32	0.17
Maximum[1]	83.13	102.49	34.59	0.23	9.50	6.05
SCAQMD Threshold	75	100	550	150	150	55
Exceeds Threshold (?)	**Yes**	**Yes**	**No**	**No**	**No**	**No**

Winter						
Activity	**VOC**	**NO_x**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Site Preparation	4.42	45.63	22.66	0.04	9.50	6.05
Grading	4.78	103.47	35.60	0.22	9.38	4.42
Building Construction	2.95	25.56	21.52	0.05	2.62	1.60
Paving	1.67	15.29	15.16	0.02	0.99	0.80
Architectural Coating	83.13	1.73	2.41	0.00	0.32	0.17
Maximum[1]	83.13	103.47	35.60	0.22	9.50	6.05
SCAQMD Threshold	75	100	550	150	150	55
Exceeds Threshold (?)	**Yes**	**Yes**	**No**	**No**	**No**	**No**

Maximum Daily Emissions						
Activity	**VOC**	**NO_x**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Site Preparation	4.42	45.63	22.71	0.04	9.50	6.05
Grading	4.78	103.47	35.60	0.23	9.38	4.42
Building Construction	2.95	25.56	21.66	0.05	2.62	1.60
Paving	1.67	15.29	15.20	0.02	0.99	0.80
Architectural Coating	83.13	1.73	2.45	0.01	0.32	0.17
Maximum[1]	83.13	103.47	35.60	0.23	9.50	6.05
SCAQMD Threshold	75	100	550	150	150	55
Exceeds Threshold (?)	**Yes**	**Yes**	**No**	**No**	**No**	**No**

TABLE 13
Regional Significance
Mitigated Construction Emissions (lbs/day)

Summer						
Activity	**VOC**	**NO_x**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Site Preparation	4.41	45.62	22.71	0.04	9.50	6.05
Grading	4.30	87.67	31.04	0.19	7.81	3.80
Building Construction	2.89	25.53	21.66	0.05	2.62	1.60
Paving	1.56	14.10	15.14	0.02	0.92	0.74
Architectural Coating	42.05	1.73	2.45	0.01	0.32	0.17
Maximum[1]	42.05	87.67	31.04	0.19	9.50	6.05
SCAQMD Threshold	75	100	550	150	150	55
Exceeds Threshold (?)	**No**	**No**	**No**	**No**	**No**	**No**

Winter						
Activity	**VOC**	**NO_x**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Site Preparation	4.42	45.63	22.66	0.04	9.50	6.05
Grading	4.36	88.45	31.83	0.18	7.82	3.80
Building Construction	2.95	25.56	21.52	0.05	2.62	1.60
Paving	1.57	14.11	15.11	0.02	0.92	0.74
Architectural Coating	42.06	1.73	2.41	0.00	0.32	0.17
Maximum[1]	42.06	88.45	31.83	0.18	9.50	6.05
SCAQMD Threshold	75	100	550	150	150	55
Exceeds Threshold (?)	**No**	**No**	**No**	**No**	**No**	**No**

Maximum Daily Emissions						
Activity	**VOC**	**NO_x**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Site Preparation	4.42	45.63	22.71	0.04	9.50	6.05
Grading	4.36	88.45	31.83	0.19	7.82	3.80
Building Construction	2.95	25.56	21.66	0.05	2.62	1.60
Paving	1.57	14.11	15.14	0.02	0.92	0.74
Architectural Coating	42.06	1.73	2.45	0.01	0.32	0.17
Maximum[1]	42.06	88.45	31.83	0.19	9.50	6.05
SCAQMD Threshold	75	100	550	150	150	55
Exceeds Threshold (?)	**No**	**No**	**No**	**No**	**No**	**No**

TABLE 14
Construction Localized Significance

Unmitigated - Summer[3]				
LST Pollutants[1]	CO (lbs/day)	NOx (lbs/day)	PM_{10} (lbs/day)	$PM_{2.5}$ (lbs/day)
On-site Emissions	22.06	45.57	9.30	6.00
SCAQMD Construction Threshold[2]	1,804	197	12	8
Exceeds Threshold (?)	**No**	**No**	**No**	**No**
Unmitigated - Winter[3]				
LST Pollutants[1]	CO (lbs/day)	NOx (lbs/day)	PM_{10} (lbs/day)	$PM_{2.5}$ (lbs/day)
On-site Emissions	22.06	45.57	9.30	6.00
SCAQMD Construction Threshold[2]	1,804	197	12	8
Exceeds Threshold (?)	**No**	**No**	**No**	**No**

[1] Reference LST thresholds are from 2006-2008 SCAQMD Mass rate Localized Significant Thresholds for construction and operation Tables C-1 through C-6 for a disturbance area of 5 acre and at a receptor distance of 25 meters.

[2] Reference: Source Receptor Area 19 (Saddleback Valley) Thresholds.

[3] Localized emissions include recommended mitigation measures described in Section 6.0.

TABLE 15

Regional Significance Operational Emissions (lbs/day)

Summer						
Activity	**VOC**	**NO_x**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Mobile Sources	8.65	31.45	96.09	0.34	29.62	8.09
Energy Sources	0.07	0.67	0.56	0.00	0.05	0.05
Area Sources	2.87	0.00	0.36	0.00	0.00	0.00
Total	11.60	32.12	97.02	0.34	29.67	8.14
SCAQMD Threshold	55	55	550	150	150	55
Exceeds Threshold (?)	**No**	**No**	**No**	**No**	**No**	**No**

Winter						
Activity	**VOC**	**NO_x**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Mobile Sources	8.52	32.14	93.57	0.32	29.62	8.09
Energy Sources	0.07	0.67	0.56	0.00	0.05	0.05
Area Sources	2.87	0.00	0.36	0.00	0.00	0.00
Total	11.46	32.81	94.50	0.33	29.67	8.14
SCAQMD Threshold	55	55	550	150	150	55
Exceeds Threshold (?)	**No**	**No**	**No**	**No**	**No**	**No**

TABLE 16
Localized Significance - Operational Emissions

Summer - Unmitigated				
LST Pollutants[1]	NOx (lbs/day)	CO (lbs/day)	PM_{10} (lbs/day)	$PM_{2.5}$ (lbs/day)
On-site Emissions[2]	2.25	5.73	1.53	0.46
SCAQMD Operation Threshold[3]	197	1,804	3	2
Exceeds Threshold (?)	**No**	**No**	**No**	**No**

Winter - Unmitigated				
LST Pollutants[1]	NOx (lbs/day)	CO (lbs/day)	PM_{10} (lbs/day)	$PM_{2.5}$ (lbs/day)
On-site Emissions[2]	2.28	5.61	1.53	0.46
SCAQMD Operation Threshold[3]	197	1,804	3	2
Exceeds Threshold (?)	**No**	**No**	**No**	**No**

[1] Reference LST thresholds are from 2006-2008 SCAQMD Mass rate Localized Significant Thresholds for construction and operation Table C-1 through C-6; disturbance area of 5-acre and receptor distance of 25 meters.

[2] Per LST methodology, mobile source emissions do not need to be included except for land use emissions and on-site vehicle emissions. It is estimated that approximately 5% of mobile emissions will occur on the project site.

[3] Reference: Source Receptor Area 19 (Saddleback Valley) Thresholds.

Table 17
Construction Greenhouse Gas Emissions

Activity	Emissions ($MTC0_2e$)[1]		
	Onsite	Offsite	Total
Site Preparation	17.22	0.88	18.10
Grading	33.57	196.77	230.34
Building Construction	271.95	211.76	483.71
Paving	20.19	1.43	21.62
Coating	2.56	1.81	4.37
Total	345.49	412.65	758.14
Averaged over 30 years[2]	11.52	13.76	25.27

[1] $MTCO_2e$=metric tons of carbon dioxide equivalents (includes carbon dioxide, methane, nitrous oxide, and/or hydroflurocarbons).

[2] The emissions are averaged over 30 years and added to the operational emissions, pursuant to SCAQMD recommendations.

TABLE 18
Operational Greenhouse Gas Emissions

Emission Source	GHG Emissions ($MTCO_2e$)[1]
Mobile Source	1,170.71
Energy Source	683.05
Area Source	0.09
Water	24.67
Waste	203.96
Subtotal (Operational)	2,082.48
Construction (averaged over 30 years)	25.27
Total Annual Emissions	**2,107.75**
SCAQMD Tier 3 Significance Threshold[2]	3,000 MTCO2e/year
Exceed Tier 3 Threshold?	No

[1] $MTCO_2e$ = metric tons of carbon dioxide equivalents

[2] Per South Coast Air Quality Management District (SCAQMD) Draft Guidance Document - Interim CEQA Greenhouse Gas (GHG) Significance Threshold, October 2008

Appendices

Appendix A

Daily Emissions Calculations Output
(CalEEMod)

Summer (Unmitigated)

SADDLEBACK CHURCH EXPANSION

Orange County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Place of Worship	3,509.00	Seat	4.07	119,315.00	0
Parking Lot	50.00	1000sqft	1.15	50,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	8			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - The total building square foot will entail constructing a 26,924 square foot second floor addition within the existing shell of the building.

Construction Phase -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Grading - Approximately 40,000 cubic yards of material import required.

Architectural Coating -

Vehicle Trips - Per traffic impact study, no additional weekday trips are expected at the new worship center.

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - Project shall comply with SCAQMD Rule 403 regarding fugitive dust control.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	25
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblGrading	AcresOfGrading	12.50	10.00
tblGrading	MaterialImported	0.00	40,000.00
tblLandUse	LandUseSquareFeet	177,222.22	119,315.00
tblVehicleTrips	WD_TR	0.61	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	4.7204	102.4924	34.5937	0.2253	18.2675	2.3917	20.6592	9.9840	2.2004	12.1844	0.0000	24,670.0434	24,670.0434	3.1845	0.0000	24,749.6559
2020	83.1250	14.1019	15.1431	0.0244	0.2124	0.7539	0.9216	0.0563	0.6936	0.7381	0.0000	2,371.2400	2,371.2400	0.7178	0.0000	2,389.1838
Maximum	**83.1250**	**102.4924**	**34.5937**	**0.2253**	**18.2675**	**2.3917**	**20.6592**	**9.9840**	**2.2004**	**12.1844**	**0.0000**	**24,670.0434**	**24,670.0434**	**3.1845**	**0.0000**	**24,749.6559**

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					
2019	4.7204	102.4924	34.5937	0.2253	7.6896	2.3917	9.5032	3.8519	2.2004	6.0522	0.0000	24,670.0434	24,670.0434	3.1845	0.0000	24,749.6559
2020	83.1250	14.1019	15.1431	0.0244	0.2124	0.7539	0.9216	0.0563	0.6936	0.7381	0.0000	2,371.2400	2,371.2400	0.7178	0.0000	2,389.1838
Maximum	**83.1250**	**102.4924**	**34.5937**	**0.2253**	**7.6896**	**2.3917**	**9.5032**	**3.8519**	**2.2004**	**6.0522**	**0.0000**	**24,670.0434**	**24,670.0434**	**3.1845**	**0.0000**	**24,749.6559**

	ROG	NOx	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**	**57.24**	**0.00**	**51.69**	**61.08**	**0.00**	**47.45**	**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	2.8680	3.3500e-003	0.3648	3.0000e-005		1.3000e-003	1.3000e-003		1.3000e-003	1.3000e-003		0.7789	0.7789	2.0700e-003		0.8306
Energy	0.0737	0.6698	0.5626	4.0200e-003		0.0509	0.0509		0.0509	0.0509		803.7658	803.7658	0.0154	0.0147	808.5422
Mobile	8.6544	31.4473	96.0899	0.3396	29.3679	0.2504	29.6183	7.8532	0.2330	8.0862		34,480.4414	34,480.4414	1.4743		34,517.2978
Total	**11.5960**	**32.1204**	**97.0173**	**0.3437**	**29.3679**	**0.3026**	**29.6705**	**7.8532**	**0.2853**	**8.1384**		**35,284.9861**	**35,284.9861**	**1.4917**	**0.0147**	**35,326.6706**

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	2.8680	3.3500e-003	0.3648	3.0000e-005		1.3000e-003	1.3000e-003		1.3000e-003	1.3000e-003		0.7789	0.7789	2.0700e-003		0.8306
Energy	0.0737	0.6698	0.5626	4.0200e-003		0.0509	0.0509		0.0509	0.0509		803.7658	803.7658	0.0154	0.0147	808.5422
Mobile	8.6544	31.4473	96.0899	0.3396	29.3679	0.2504	29.6183	7.8532	0.2330	8.0862		34,480.4414	34,480.4414	1.4743		34,517.2978
Total	**11.5960**	**32.1204**	**97.0173**	**0.3437**	**29.3679**	**0.3026**	**29.6705**	**7.8532**	**0.2853**	**8.1384**		**35,284.9861**	**35,284.9861**	**1.4917**	**0.0147**	**35,326.6706**

	ROG	NOx	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	Site Preparation	Site Preparation	1/1/2019	1/14/2019	5	10	
2	Grading	Grading	1/15/2019	2/11/2019	5	20	
3	Building Construction	Building Construction	2/12/2019	12/30/2019	5	230	
4	Paving	Paving	12/31/2019	1/27/2020	5	20	
5	Architectural Coating	Architectural Coating	1/28/2020	2/24/2020	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 1.15

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 265,833; Non-Residential Outdoor: 88,611; Striped Parking Area: 2,880 (Architectural Coating – sqft)

OffRoad Equipment

SADDLEBACK CHURCH EXPANSION - Orange County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	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
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
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
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	5,000.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	95.00	37.00	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
Architectural Coating	1	19.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2019

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	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**		**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.2 Site Preparation - 2019

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	0.0742	0.0486	0.6421	2.0300e-003	0.2012	1.3400e-003	0.2025	0.0534	1.2400e-003	0.0546		202.7053	202.7053	4.9800e-003		202.8298
Total	**0.0742**	**0.0486**	**0.6421**	**2.0300e-003**	**0.2012**	**1.3400e-003**	**0.2025**	**0.0534**	**1.2400e-003**	**0.0546**		**202.7053**	**202.7053**	**4.9800e-003**		**202.8298**

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					6.9103	0.0000	6.9103	3.7985	0.0000	3.7985			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**6.9103**	**2.3904**	**9.3007**	**3.7985**	**2.1991**	**5.9976**	**0.0000**	**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.2 Site Preparation - 2019

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	0.0742	0.0486	0.6421	2.0300e-003	0.2012	1.3400e-003	0.2025	0.0534	1.2400e-003	0.0546		202.7053	202.7053	4.9800e-003		202.8298
Total	**0.0742**	**0.0486**	**0.6421**	**2.0300e-003**	**0.2012**	**1.3400e-003**	**0.2025**	**0.0534**	**1.2400e-003**	**0.0546**		**202.7053**	**202.7053**	**4.9800e-003**		**202.8298**

3.3 Grading - 2019

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					8.2840	0.0000	8.2840	4.2293	0.0000	4.2293			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856		2,936.8068	2,936.8068	0.9292		2,960.0361
Total	**2.5805**	**28.3480**	**16.2934**	**0.0297**	**8.2840**	**1.3974**	**9.6814**	**4.2293**	**1.2856**	**5.5149**		**2,936.8068**	**2,936.8068**	**0.9292**		**2,960.0361**

3.3 Grading - 2019

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	2.0781	74.1038	17.7652	0.1940	4.3533	0.2846	4.6378	1.1917	0.2722	1.4640		21,564.3156	21,564.3156	2.2512		21,620.5949
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	0.0618	0.0405	0.5351	1.6900e-003	0.1677	1.1200e-003	0.1688	0.0445	1.0300e-003	0.0455		168.9210	168.9210	4.1500e-003		169.0249
Total	**2.1399**	**74.1444**	**18.3003**	**0.1957**	**4.5209**	**0.2857**	**4.8066**	**1.2362**	**0.2733**	**1.5095**		**21,733.2367**	**21,733.2367**	**2.2553**		**21,789.6197**

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					3.1686	0.0000	3.1686	1.6177	0.0000	1.6177			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856	0.0000	2,936.8068	2,936.8068	0.9292		2,960.0361
Total	**2.5805**	**28.3480**	**16.2934**	**0.0297**	**3.1686**	**1.3974**	**4.5660**	**1.6177**	**1.2856**	**2.9033**	**0.0000**	**2,936.8068**	**2,936.8068**	**0.9292**		**2,960.0361**

3.3 Grading - 2019

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	2.0781	74.1038	17.7652	0.1940	4.3533	0.2846	4.6378	1.1917	0.2722	1.4640		21,564.3156	21,564.3156	2.2512		21,620.5949
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	0.0618	0.0405	0.5351	1.6900e-003	0.1677	1.1200e-003	0.1688	0.0445	1.0300e-003	0.0455		168.9210	168.9210	4.1500e-003		169.0249
Total	**2.1399**	**74.1444**	**18.3003**	**0.1957**	**4.5209**	**0.2857**	**4.8066**	**1.2362**	**0.2733**	**1.5095**		**21,733.2367**	**21,733.2367**	**2.2553**		**21,789.6197**

3.4 Building Construction - 2019

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	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**		**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Building Construction - 2019

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	0.1387	4.1988	1.1099	9.2900e-003	0.2364	0.0284	0.2648	0.0680	0.0271	0.0952		1,009.9848	1,009.9848	0.0853		1,012.1164
Worker	0.3915	0.2567	3.3891	0.0107	1.0619	7.0900e-003	1.0690	0.2816	6.5300e-003	0.2882		1,069.8333	1,069.8333	0.0263		1,070.4908
Total	**0.5302**	**4.4555**	**4.4990**	**0.0200**	**1.2983**	**0.0355**	**1.3338**	**0.3496**	**0.0337**	**0.3833**		**2,079.8181**	**2,079.8181**	**0.1116**		**2,082.6072**

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	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127	0.0000	2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**	**0.0000**	**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Building Construction - 2019

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	0.1387	4.1988	1.1099	9.2900e-003	0.2364	0.0284	0.2648	0.0680	0.0271	0.0952		1,009.9848	1,009.9848	0.0853		1,012.1164
Worker	0.3915	0.2567	3.3891	0.0107	1.0619	7.0900e-003	1.0690	0.2816	6.5300e-003	0.2882		1,069.8333	1,069.8333	0.0263		1,070.4908
Total	**0.5302**	**4.4555**	**4.4990**	**0.0200**	**1.2983**	**0.0355**	**1.3338**	**0.3496**	**0.0337**	**0.3833**		**2,079.8181**	**2,079.8181**	**0.1116**		**2,082.6072**

3.5 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586		2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	0.1507					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6051**	**15.2441**	**14.6648**	**0.0228**		**0.8246**	**0.8246**		**0.7586**	**0.7586**		**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

3.5 Paving - 2019

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	0.0618	0.0405	0.5351	1.6900e-003	0.1677	1.1200e-003	0.1688	0.0445	1.0300e-003	0.0455		168.9210	168.9210	4.1500e-003		169.0249
Total	**0.0618**	**0.0405**	**0.5351**	**1.6900e-003**	**0.1677**	**1.1200e-003**	**0.1688**	**0.0445**	**1.0300e-003**	**0.0455**		**168.9210**	**168.9210**	**4.1500e-003**		**169.0249**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586	0.0000	2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	0.1507					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6051**	**15.2441**	**14.6648**	**0.0228**		**0.8246**	**0.8246**		**0.7586**	**0.7586**	**0.0000**	**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

3.5 Paving - 2019

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	0.0618	0.0405	0.5351	1.6900e-003	0.1677	1.1200e-003	0.1688	0.0445	1.0300e-003	0.0455		168.9210	168.9210	4.1500e-003		169.0249
Total	**0.0618**	**0.0405**	**0.5351**	**1.6900e-003**	**0.1677**	**1.1200e-003**	**0.1688**	**0.0445**	**1.0300e-003**	**0.0455**		**168.9210**	**168.9210**	**4.1500e-003**		**169.0249**

3.5 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.1507					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5072**	**14.0656**	**14.6521**	**0.0228**		**0.7528**	**0.7528**		**0.6926**	**0.6926**		**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

3.5 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0576	0.0363	0.4910	1.6400e-003	0.1677	1.1100e-003	0.1688	0.0445	1.0200e-003	0.0455		163.5065	163.5065	3.7300e-003		163.5997
Total	**0.0576**	**0.0363**	**0.4910**	**1.6400e-003**	**0.1677**	**1.1100e-003**	**0.1688**	**0.0445**	**1.0200e-003**	**0.0455**		**163.5065**	**163.5065**	**3.7300e-003**		**163.5997**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.1507					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5072**	**14.0656**	**14.6521**	**0.0228**		**0.7528**	**0.7528**		**0.6926**	**0.6926**	**0.0000**	**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

3.5 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0576	0.0363	0.4910	1.6400e-003	0.1677	1.1100e-003	0.1688	0.0445	1.0200e-003	0.0455		163.5065	163.5065	3.7300e-003		163.5997
Total	**0.0576**	**0.0363**	**0.4910**	**1.6400e-003**	**0.1677**	**1.1100e-003**	**0.1688**	**0.0445**	**1.0200e-003**	**0.0455**		**163.5065**	**163.5065**	**3.7300e-003**		**163.5997**

3.6 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	82.8098					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**83.0520**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.6 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0730	0.0460	0.6219	2.0800e-003	0.2124	1.4000e-003	0.2138	0.0563	1.2900e-003	0.0576		207.1083	207.1083	4.7200e-003		207.2263
Total	**0.0730**	**0.0460**	**0.6219**	**2.0800e-003**	**0.2124**	**1.4000e-003**	**0.2138**	**0.0563**	**1.2900e-003**	**0.0576**		**207.1083**	**207.1083**	**4.7200e-003**		**207.2263**

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	82.8098					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**83.0520**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.6 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0730	0.0460	0.6219	2.0800e-003	0.2124	1.4000e-003	0.2138	0.0563	1.2900e-003	0.0576		207.1083	207.1083	4.7200e-003		207.2263
Total	**0.0730**	**0.0460**	**0.6219**	**2.0800e-003**	**0.2124**	**1.4000e-003**	**0.2138**	**0.0563**	**1.2900e-003**	**0.0576**		**207.1083**	**207.1083**	**4.7200e-003**		**207.2263**

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	8.6544	31.4473	96.0899	0.3396	29.3679	0.2504	29.6183	7.8532	0.2330	8.0862		34,480.4414	34,480.4414	1.4743		34,517.2978
Unmitigated	8.6544	31.4473	96.0899	0.3396	29.3679	0.2504	29.6183	7.8532	0.2330	8.0862		34,480.4414	34,480.4414	1.4743		34,517.2978

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Place of Worship	0.00	3,158.10	6491.65	2,940,127	2,940,127
Total	0.00	3,158.10	6,491.65	2,940,127	2,940,127

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
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Place of Worship	16.60	8.40	6.90	0.00	95.00	5.00	64	25	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.558976	0.043534	0.209821	0.113949	0.016111	0.005791	0.025447	0.016654	0.001713	0.001553	0.004896	0.000590	0.000966
Place of Worship	0.558976	0.043534	0.209821	0.113949	0.016111	0.005791	0.025447	0.016654	0.001713	0.001553	0.004896	0.000590	0.000966

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0737	0.6698	0.5626	4.0200e-003		0.0509	0.0509		0.0509	0.0509		803.7658	803.7658	0.0154	0.0147	808.5422
NaturalGas Unmitigated	0.0737	0.6698	0.5626	4.0200e-003		0.0509	0.0509		0.0509	0.0509		803.7658	803.7658	0.0154	0.0147	808.5422

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					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Place of Worship	6832.01	0.0737	0.6698	0.5626	4.0200e-003		0.0509	0.0509		0.0509	0.0509		803.7658	803.7658	0.0154	0.0147	808.5422
Total		**0.0737**	**0.6698**	**0.5626**	**4.0200e-003**		**0.0509**	**0.0509**		**0.0509**	**0.0509**		**803.7658**	**803.7658**	**0.0154**	**0.0147**	**808.5422**

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					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Place of Worship	6.83201	0.0737	0.6698	0.5626	4.0200e-003		0.0509	0.0509		0.0509	0.0509		803.7658	803.7658	0.0154	0.0147	808.5422
Total		**0.0737**	**0.6698**	**0.5626**	**4.0200e-003**		**0.0509**	**0.0509**		**0.0509**	**0.0509**		**803.7658**	**803.7658**	**0.0154**	**0.0147**	**808.5422**

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	2.8680	3.3500e-003	0.3648	3.0000e-005		1.3000e-003	1.3000e-003		1.3000e-003	1.3000e-003		0.7789	0.7789	2.0700e-003		0.8306
Unmitigated	2.8680	3.3500e-003	0.3648	3.0000e-005		1.3000e-003	1.3000e-003		1.3000e-003	1.3000e-003		0.7789	0.7789	2.0700e-003		0.8306

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	0.4538					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3802					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0341	3.3500e-003	0.3648	3.0000e-005		1.3000e-003	1.3000e-003		1.3000e-003	1.3000e-003		0.7789	0.7789	2.0700e-003		0.8306
Total	**2.8680**	**3.3500e-003**	**0.3648**	**3.0000e-005**		**1.3000e-003**	**1.3000e-003**		**1.3000e-003**	**1.3000e-003**		**0.7789**	**0.7789**	**2.0700e-003**		**0.8306**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4538					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3802					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0341	3.3500e-003	0.3648	3.0000e-005		1.3000e-003	1.3000e-003		1.3000e-003	1.3000e-003		0.7789	0.7789	2.0700e-003		0.8306
Total	**2.8680**	**3.3500e-003**	**0.3648**	**3.0000e-005**		**1.3000e-003**	**1.3000e-003**		**1.3000e-003**	**1.3000e-003**		**0.7789**	**0.7789**	**2.0700e-003**		**0.8306**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Winter (Unmitigated)

SADDLEBACK CHURCH EXPANSION

Orange County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Place of Worship	3,509.00	Seat	4.07	119,315.00	0
Parking Lot	50.00	1000sqft	1.15	50,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	8			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - The total building square foot will entail constructing a 26,924 square foot second floor addition within the existing shell of the building.

Construction Phase -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Grading - Approximately 40,000 cubic yards of material import required.

Architectural Coating -

Vehicle Trips - Per traffic impact study, no additional weekday trips are expected at the new worship center.

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - Project shall comply with SCAQMD Rule 403 regarding fugitive dust control.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	25
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblGrading	AcresOfGrading	12.50	10.00
tblGrading	MaterialImported	0.00	40,000.00
tblLandUse	LandUseSquareFeet	177,222.22	119,315.00
tblVehicleTrips	WD_TR	0.61	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	4.7827	103.4704	35.5959	0.2224	18.2675	2.3917	20.6592	9.9840	2.2004	12.1844	0.0000	24,341.4343	24,341.4343	3.2422	0.0000	24,422.4892
2020	83.1345	14.1055	15.1059	0.0244	0.2124	0.7539	0.9216	0.0563	0.6936	0.7381	0.0000	2,362.4766	2,362.4766	0.7176	0.0000	2,380.4155
Maximum	**83.1345**	**103.4704**	**35.5959**	**0.2224**	**18.2675**	**2.3917**	**20.6592**	**9.9840**	**2.2004**	**12.1844**	**0.0000**	**24,341.4343**	**24,341.4343**	**3.2422**	**0.0000**	**24,422.4892**

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					
2019	4.7827	103.4704	35.5959	0.2224	7.6896	2.3917	9.5032	3.8519	2.2004	6.0522	0.0000	24,341.4343	24,341.4343	3.2422	0.0000	24,422.4892
2020	83.1345	14.1055	15.1059	0.0244	0.2124	0.7539	0.9216	0.0563	0.6936	0.7381	0.0000	2,362.4766	2,362.4766	0.7176	0.0000	2,380.4155
Maximum	**83.1345**	**103.4704**	**35.5959**	**0.2224**	**7.6896**	**2.3917**	**9.5032**	**3.8519**	**2.2004**	**6.0522**	**0.0000**	**24,341.4343**	**24,341.4343**	**3.2422**	**0.0000**	**24,422.4892**

	ROG	NOx	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**	**57.24**	**0.00**	**51.69**	**61.08**	**0.00**	**47.45**	**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	2.8680	3.3500e-003	0.3648	3.0000e-005		1.3000e-003	1.3000e-003		1.3000e-003	1.3000e-003		0.7789	0.7789	2.0700e-003		0.8306
Energy	0.0737	0.6698	0.5626	4.0200e-003		0.0509	0.0509		0.0509	0.0509		803.7658	803.7658	0.0154	0.0147	808.5422
Mobile	8.5195	32.1376	93.5743	0.3243	29.3679	0.2520	29.6199	7.8532	0.2346	8.0878		32,929.6527	32,929.6527	1.4815		32,966.6905
Total	**11.4611**	**32.8107**	**94.5017**	**0.3283**	**29.3679**	**0.3043**	**29.6721**	**7.8532**	**0.2868**	**8.1400**		**33,734.1974**	**33,734.1974**	**1.4990**	**0.0147**	**33,776.0633**

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	2.8680	3.3500e-003	0.3648	3.0000e-005		1.3000e-003	1.3000e-003		1.3000e-003	1.3000e-003		0.7789	0.7789	2.0700e-003		0.8306
Energy	0.0737	0.6698	0.5626	4.0200e-003		0.0509	0.0509		0.0509	0.0509		803.7658	803.7658	0.0154	0.0147	808.5422
Mobile	8.5195	32.1376	93.5743	0.3243	29.3679	0.2520	29.6199	7.8532	0.2346	8.0878		32,929.6527	32,929.6527	1.4815		32,966.6905
Total	**11.4611**	**32.8107**	**94.5017**	**0.3283**	**29.3679**	**0.3043**	**29.6721**	**7.8532**	**0.2868**	**8.1400**		**33,734.1974**	**33,734.1974**	**1.4990**	**0.0147**	**33,776.0633**

	ROG	NOx	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	Site Preparation	Site Preparation	1/1/2019	1/14/2019	5	10	
2	Grading	Grading	1/15/2019	2/11/2019	5	20	
3	Building Construction	Building Construction	2/12/2019	12/30/2019	5	230	
4	Paving	Paving	12/31/2019	1/27/2020	5	20	
5	Architectural Coating	Architectural Coating	1/28/2020	2/24/2020	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 1.15

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 265,833; Non-Residential Outdoor: 88,611; Striped Parking Area: 2,880 (Architectural Coating – sqft)

OffRoad Equipment

SADDLEBACK CHURCH EXPANSION - Orange County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	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
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
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
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	5,000.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	95.00	37.00	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
Architectural Coating	1	19.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2019

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	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**		**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.2 Site Preparation - 2019

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	0.0837	0.0535	0.5945	1.9200e-003	0.2012	1.3400e-003	0.2025	0.0534	1.2400e-003	0.0546		191.8393	191.8393	4.7300e-003		191.9574
Total	**0.0837**	**0.0535**	**0.5945**	**1.9200e-003**	**0.2012**	**1.3400e-003**	**0.2025**	**0.0534**	**1.2400e-003**	**0.0546**		**191.8393**	**191.8393**	**4.7300e-003**		**191.9574**

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					6.9103	0.0000	6.9103	3.7985	0.0000	3.7985			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**6.9103**	**2.3904**	**9.3007**	**3.7985**	**2.1991**	**5.9976**	**0.0000**	**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.2 Site Preparation - 2019

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	0.0837	0.0535	0.5945	1.9200e-003	0.2012	1.3400e-003	0.2025	0.0534	1.2400e-003	0.0546		191.8393	191.8393	4.7300e-003		191.9574
Total	**0.0837**	**0.0535**	**0.5945**	**1.9200e-003**	**0.2012**	**1.3400e-003**	**0.2025**	**0.0534**	**1.2400e-003**	**0.0546**		**191.8393**	**191.8393**	**4.7300e-003**		**191.9574**

3.3 Grading - 2019

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					8.2840	0.0000	8.2840	4.2293	0.0000	4.2293			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856		2,936.8068	2,936.8068	0.9292		2,960.0361
Total	**2.5805**	**28.3480**	**16.2934**	**0.0297**	**8.2840**	**1.3974**	**9.6814**	**4.2293**	**1.2856**	**5.5149**		**2,936.8068**	**2,936.8068**	**0.9292**		**2,960.0361**

3.3 Grading - 2019

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	2.1325	75.0779	18.8071	0.1911	4.3533	0.2909	4.6441	1.1917	0.2783	1.4700		21,244.7615	21,244.7615	2.3091		21,302.4886
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	0.0697	0.0446	0.4954	1.6000e-003	0.1677	1.1200e-003	0.1688	0.0445	1.0300e-003	0.0455		159.8661	159.8661	3.9400e-003		159.9645
Total	**2.2023**	**75.1224**	**19.3026**	**0.1927**	**4.5209**	**0.2920**	**4.8129**	**1.2362**	**0.2793**	**1.5155**		**21,404.6275**	**21,404.6275**	**2.3130**		**21,462.4531**

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					3.1686	0.0000	3.1686	1.6177	0.0000	1.6177			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856	0.0000	2,936.8068	2,936.8068	0.9292		2,960.0361
Total	**2.5805**	**28.3480**	**16.2934**	**0.0297**	**3.1686**	**1.3974**	**4.5660**	**1.6177**	**1.2856**	**2.9033**	**0.0000**	**2,936.8068**	**2,936.8068**	**0.9292**		**2,960.0361**

3.3 Grading - 2019

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	2.1325	75.0779	18.8071	0.1911	4.3533	0.2909	4.6441	1.1917	0.2783	1.4700		21,244.7615	21,244.7615	2.3091		21,302.4886
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	0.0697	0.0446	0.4954	1.6000e-003	0.1677	1.1200e-003	0.1688	0.0445	1.0300e-003	0.0455		159.8661	159.8661	3.9400e-003		159.9645
Total	**2.2023**	**75.1224**	**19.3026**	**0.1927**	**4.5209**	**0.2920**	**4.8129**	**1.2362**	**0.2793**	**1.5155**		**21,404.6275**	**21,404.6275**	**2.3130**		**21,462.4531**

3.4 Building Construction - 2019

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	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**		**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Building Construction - 2019

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	0.1446	4.2032	1.2186	9.0700e-003	0.2364	0.0289	0.2653	0.0680	0.0276	0.0957		985.5140	985.5140	0.0898		987.7580
Worker	0.4417	0.2822	3.1377	0.0102	1.0619	7.0900e-003	1.0690	0.2816	6.5300e-003	0.2882		1,012.4850	1,012.4850	0.0250		1,013.1086
Total	**0.5863**	**4.4854**	**4.3563**	**0.0192**	**1.2983**	**0.0360**	**1.3343**	**0.3496**	**0.0342**	**0.3838**		**1,997.9990**	**1,997.9990**	**0.1147**		**2,000.8666**

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	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127	0.0000	2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**	**0.0000**	**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Building Construction - 2019

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	0.1446	4.2032	1.2186	9.0700e-003	0.2364	0.0289	0.2653	0.0680	0.0276	0.0957		985.5140	985.5140	0.0898		987.7580
Worker	0.4417	0.2822	3.1377	0.0102	1.0619	7.0900e-003	1.0690	0.2816	6.5300e-003	0.2882		1,012.4850	1,012.4850	0.0250		1,013.1086
Total	**0.5863**	**4.4854**	**4.3563**	**0.0192**	**1.2983**	**0.0360**	**1.3343**	**0.3496**	**0.0342**	**0.3838**		**1,997.9990**	**1,997.9990**	**0.1147**		**2,000.8666**

3.5 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586		2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	0.1507					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6051**	**15.2441**	**14.6648**	**0.0228**		**0.8246**	**0.8246**		**0.7586**	**0.7586**		**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

3.5 Paving - 2019

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	0.0697	0.0446	0.4954	1.6000e-003	0.1677	1.1200e-003	0.1688	0.0445	1.0300e-003	0.0455		159.8661	159.8661	3.9400e-003		159.9645
Total	**0.0697**	**0.0446**	**0.4954**	**1.6000e-003**	**0.1677**	**1.1200e-003**	**0.1688**	**0.0445**	**1.0300e-003**	**0.0455**		**159.8661**	**159.8661**	**3.9400e-003**		**159.9645**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586	0.0000	2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	0.1507					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6051**	**15.2441**	**14.6648**	**0.0228**		**0.8246**	**0.8246**		**0.7586**	**0.7586**	**0.0000**	**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

3.5 Paving - 2019

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	0.0697	0.0446	0.4954	1.6000e-003	0.1677	1.1200e-003	0.1688	0.0445	1.0300e-003	0.0455		159.8661	159.8661	3.9400e-003		159.9645
Total	**0.0697**	**0.0446**	**0.4954**	**1.6000e-003**	**0.1677**	**1.1200e-003**	**0.1688**	**0.0445**	**1.0300e-003**	**0.0455**		**159.8661**	**159.8661**	**3.9400e-003**		**159.9645**

3.5 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.1507					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5072**	**14.0656**	**14.6521**	**0.0228**		**0.7528**	**0.7528**		**0.6926**	**0.6926**		**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

3.5 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0651	0.0399	0.4538	1.5500e-003	0.1677	1.1100e-003	0.1688	0.0445	1.0200e-003	0.0455		154.7432	154.7432	3.5300e-003		154.8314
Total	**0.0651**	**0.0399**	**0.4538**	**1.5500e-003**	**0.1677**	**1.1100e-003**	**0.1688**	**0.0445**	**1.0200e-003**	**0.0455**		**154.7432**	**154.7432**	**3.5300e-003**		**154.8314**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.1507					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5072**	**14.0656**	**14.6521**	**0.0228**		**0.7528**	**0.7528**		**0.6926**	**0.6926**	**0.0000**	**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

3.5 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0651	0.0399	0.4538	1.5500e-003	0.1677	1.1100e-003	0.1688	0.0445	1.0200e-003	0.0455		154.7432	154.7432	3.5300e-003		154.8314
Total	**0.0651**	**0.0399**	**0.4538**	**1.5500e-003**	**0.1677**	**1.1100e-003**	**0.1688**	**0.0445**	**1.0200e-003**	**0.0455**		**154.7432**	**154.7432**	**3.5300e-003**		**154.8314**

3.6 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	82.8098					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**83.0520**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.6 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0825	0.0506	0.5748	1.9700e-003	0.2124	1.4000e-003	0.2138	0.0563	1.2900e-003	0.0576		196.0080	196.0080	4.4700e-003		196.1198
Total	**0.0825**	**0.0506**	**0.5748**	**1.9700e-003**	**0.2124**	**1.4000e-003**	**0.2138**	**0.0563**	**1.2900e-003**	**0.0576**		**196.0080**	**196.0080**	**4.4700e-003**		**196.1198**

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	82.8098					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**83.0520**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.6 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0825	0.0506	0.5748	1.9700e-003	0.2124	1.4000e-003	0.2138	0.0563	1.2900e-003	0.0576		196.0080	196.0080	4.4700e-003		196.1198
Total	**0.0825**	**0.0506**	**0.5748**	**1.9700e-003**	**0.2124**	**1.4000e-003**	**0.2138**	**0.0563**	**1.2900e-003**	**0.0576**		**196.0080**	**196.0080**	**4.4700e-003**		**196.1198**

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	8.5195	32.1376	93.5743	0.3243	29.3679	0.2520	29.6199	7.8532	0.2346	8.0878		32,929.6527	32,929.6527	1.4815		32,966.6905
Unmitigated	8.5195	32.1376	93.5743	0.3243	29.3679	0.2520	29.6199	7.8532	0.2346	8.0878		32,929.6527	32,929.6527	1.4815		32,966.6905

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Place of Worship	0.00	3,158.10	6491.65	2,940,127	2,940,127
Total	0.00	3,158.10	6,491.65	2,940,127	2,940,127

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
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Place of Worship	16.60	8.40	6.90	0.00	95.00	5.00	64	25	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.558976	0.043534	0.209821	0.113949	0.016111	0.005791	0.025447	0.016654	0.001713	0.001553	0.004896	0.000590	0.000966
Place of Worship	0.558976	0.043534	0.209821	0.113949	0.016111	0.005791	0.025447	0.016654	0.001713	0.001553	0.004896	0.000590	0.000966

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0737	0.6698	0.5626	4.0200e-003		0.0509	0.0509		0.0509	0.0509		803.7658	803.7658	0.0154	0.0147	808.5422
NaturalGas Unmitigated	0.0737	0.6698	0.5626	4.0200e-003		0.0509	0.0509		0.0509	0.0509		803.7658	803.7658	0.0154	0.0147	808.5422

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					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Place of Worship	6832.01	0.0737	0.6698	0.5626	4.0200e-003		0.0509	0.0509		0.0509	0.0509		803.7658	803.7658	0.0154	0.0147	808.5422
Total		**0.0737**	**0.6698**	**0.5626**	**4.0200e-003**		**0.0509**	**0.0509**		**0.0509**	**0.0509**		**803.7658**	**803.7658**	**0.0154**	**0.0147**	**808.5422**

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					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Place of Worship	6.83201	0.0737	0.6698	0.5626	4.0200e-003		0.0509	0.0509		0.0509	0.0509		803.7658	803.7658	0.0154	0.0147	808.5422
Total		**0.0737**	**0.6698**	**0.5626**	**4.0200e-003**		**0.0509**	**0.0509**		**0.0509**	**0.0509**		**803.7658**	**803.7658**	**0.0154**	**0.0147**	**808.5422**

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	2.8680	3.3500e-003	0.3648	3.0000e-005		1.3000e-003	1.3000e-003		1.3000e-003	1.3000e-003		0.7789	0.7789	2.0700e-003		0.8306
Unmitigated	2.8680	3.3500e-003	0.3648	3.0000e-005		1.3000e-003	1.3000e-003		1.3000e-003	1.3000e-003		0.7789	0.7789	2.0700e-003		0.8306

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	0.4538					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3802					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0341	3.3500e-003	0.3648	3.0000e-005		1.3000e-003	1.3000e-003		1.3000e-003	1.3000e-003		0.7789	0.7789	2.0700e-003		0.8306
Total	**2.8680**	**3.3500e-003**	**0.3648**	**3.0000e-005**		**1.3000e-003**	**1.3000e-003**		**1.3000e-003**	**1.3000e-003**		**0.7789**	**0.7789**	**2.0700e-003**		**0.8306**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4538					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3802					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0341	3.3500e-003	0.3648	3.0000e-005		1.3000e-003	1.3000e-003		1.3000e-003	1.3000e-003		0.7789	0.7789	2.0700e-003		0.8306
Total	**2.8680**	**3.3500e-003**	**0.3648**	**3.0000e-005**		**1.3000e-003**	**1.3000e-003**		**1.3000e-003**	**1.3000e-003**		**0.7789**	**0.7789**	**2.0700e-003**		**0.8306**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Summer (Mitigated)

SADDLEBACK CHURCH EXPANSION

Orange County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Place of Worship	3,509.00	Seat	4.07	119,315.00	0
Parking Lot	50.00	1000sqft	1.15	50,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	8			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - The total building square foot will entail constructing a 26,924 square foot second floor addition within the existing shell of the building. Paving approximately 50,000 square foot of additional surface parking lot area including new Fire Lane roadway extension and approximately 18,400 square foot of new flatwork.

Construction Phase - Approximately 40,000 cubic yards of material will be required for import. Project should limit the number of hauling trips to 100 truck loads per day or less.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Grading - Approximately 40,000 cubic yards of material import required.

Architectural Coating - Project shall comply with SCAQMD Rule 1113 and limit the VOC content in paint to 50 g/L or less.

Vehicle Trips - Per traffic impact study, no additional weekday trips are expected at the new worship center.

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - Project shall comply with SCAQMD Rule 403 regarding fugitive dust control.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	25
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	25.00
tblGrading	AcresOfGrading	12.50	10.00
tblGrading	MaterialImported	0.00	40,000.00
tblLandUse	LandUseSquareFeet	177,222.22	119,315.00
tblVehicleTrips	WD_TR	0.61	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	4.4092	87.6716	31.0406	0.1865	18.2675	2.3917	20.6592	9.9840	2.2004	12.1844	0.0000	20,357.1803	20,357.1803	2.7343	0.0000	20,425.5369
2020	42.0538	23.2706	20.9755	0.0465	1.2983	1.1442	2.4425	0.3496	1.0760	1.4257	0.0000	4,591.7815	4,591.7815	0.7276	0.0000	4,609.9715
Maximum	**42.0538**	**87.6716**	**31.0406**	**0.1865**	**18.2675**	**2.3917**	**20.6592**	**9.9840**	**2.2004**	**12.1844**	**0.0000**	**20,357.1803**	**20,357.1803**	**2.7343**	**0.0000**	**20,425.5369**

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					
2019	4.4092	87.6716	31.0406	0.1865	7.1115	2.3917	9.5032	3.8519	2.2004	6.0522	0.0000	20,357.1803	20,357.1803	2.7343	0.0000	20,425.5369
2020	42.0538	23.2706	20.9755	0.0465	1.2983	1.1442	2.4425	0.3496	1.0760	1.4257	0.0000	4,591.7815	4,591.7815	0.7276	0.0000	4,609.9715
Maximum	**42.0538**	**87.6716**	**31.0406**	**0.1865**	**7.1115**	**2.3917**	**9.5032**	**3.8519**	**2.2004**	**6.0522**	**0.0000**	**20,357.1803**	**20,357.1803**	**2.7343**	**0.0000**	**20,425.5369**

SADDLEBACK CHURCH EXPANSION - Orange County, Summer

	ROG	NOx	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**	**57.02**	**0.00**	**48.29**	**59.34**	**0.00**	**45.06**	**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	2.8680	3.3500e-003	0.3648	3.0000e-005		1.3000e-003	1.3000e-003		1.3000e-003	1.3000e-003		0.7789	0.7789	2.0700e-003		0.8306
Energy	0.0737	0.6698	0.5626	4.0200e-003		0.0509	0.0509		0.0509	0.0509		803.7658	803.7658	0.0154	0.0147	808.5422
Mobile	8.6544	31.4473	96.0899	0.3396	29.3679	0.2504	29.6183	7.8532	0.2330	8.0862		34,480.4414	34,480.4414	1.4743		34,517.2978
Total	**11.5960**	**32.1204**	**97.0173**	**0.3437**	**29.3679**	**0.3026**	**29.6705**	**7.8532**	**0.2853**	**8.1384**		**35,284.9861**	**35,284.9861**	**1.4917**	**0.0147**	**35,326.6706**

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	2.8680	3.3500e-003	0.3648	3.0000e-005		1.3000e-003	1.3000e-003		1.3000e-003	1.3000e-003		0.7789	0.7789	2.0700e-003		0.8306
Energy	0.0737	0.6698	0.5626	4.0200e-003		0.0509	0.0509		0.0509	0.0509		803.7658	803.7658	0.0154	0.0147	808.5422
Mobile	8.6544	31.4473	96.0899	0.3396	29.3679	0.2504	29.6183	7.8532	0.2330	8.0862		34,480.4414	34,480.4414	1.4743		34,517.2978
Total	**11.5960**	**32.1204**	**97.0173**	**0.3437**	**29.3679**	**0.3026**	**29.6705**	**7.8532**	**0.2853**	**8.1384**		**35,284.9861**	**35,284.9861**	**1.4917**	**0.0147**	**35,326.6706**

	ROG	NOx	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	Site Preparation	Site Preparation	1/1/2019	1/14/2019	5	10	
2	Grading	Grading	1/15/2019	2/18/2019	5	25	
3	Building Construction	Building Construction	2/19/2019	1/6/2020	5	230	
4	Paving	Paving	1/7/2020	2/3/2020	5	20	
5	Architectural Coating	Architectural Coating	2/4/2020	3/2/2020	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 1.15

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 265,833; Non-Residential Outdoor: 88,611; Striped Parking Area: 2,880 (Architectural Coating – sqft)

OffRoad Equipment

SADDLEBACK CHURCH EXPANSION - Orange County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	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
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
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
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	5,000.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	95.00	37.00	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
Architectural Coating	1	19.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2019

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	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**		**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.2 Site Preparation - 2019

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	0.0742	0.0486	0.6421	2.0300e-003	0.2012	1.3400e-003	0.2025	0.0534	1.2400e-003	0.0546		202.7053	202.7053	4.9800e-003		202.8298
Total	**0.0742**	**0.0486**	**0.6421**	**2.0300e-003**	**0.2012**	**1.3400e-003**	**0.2025**	**0.0534**	**1.2400e-003**	**0.0546**		**202.7053**	**202.7053**	**4.9800e-003**		**202.8298**

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					6.9103	0.0000	6.9103	3.7985	0.0000	3.7985			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**6.9103**	**2.3904**	**9.3007**	**3.7985**	**2.1991**	**5.9976**	**0.0000**	**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.2 Site Preparation - 2019

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	0.0742	0.0486	0.6421	2.0300e-003	0.2012	1.3400e-003	0.2025	0.0534	1.2400e-003	0.0546		202.7053	202.7053	4.9800e-003		202.8298
Total	**0.0742**	**0.0486**	**0.6421**	**2.0300e-003**	**0.2012**	**1.3400e-003**	**0.2025**	**0.0534**	**1.2400e-003**	**0.0546**		**202.7053**	**202.7053**	**4.9800e-003**		**202.8298**

3.3 Grading - 2019

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					6.6272	0.0000	6.6272	3.3834	0.0000	3.3834			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856		2,936.8068	2,936.8068	0.9292		2,960.0361
Total	**2.5805**	**28.3480**	**16.2934**	**0.0297**	**6.6272**	**1.3974**	**8.0246**	**3.3834**	**1.2856**	**4.6690**		**2,936.8068**	**2,936.8068**	**0.9292**		**2,960.0361**

3.3 Grading - 2019

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	1.6625	59.2831	14.2122	0.1552	3.4826	0.2276	3.7103	0.9534	0.2178	1.1712		17,251.4525	17,251.4525	1.8009		17,296.4759
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	0.0618	0.0405	0.5351	1.6900e-003	0.1677	1.1200e-003	0.1688	0.0445	1.0300e-003	0.0455		168.9210	168.9210	4.1500e-003		169.0249
Total	**1.7243**	**59.3236**	**14.7473**	**0.1569**	**3.6503**	**0.2288**	**3.8790**	**0.9979**	**0.2188**	**1.2167**		**17,420.3735**	**17,420.3735**	**1.8051**		**17,465.5008**

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					2.5349	0.0000	2.5349	1.2942	0.0000	1.2942			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856	0.0000	2,936.8068	2,936.8068	0.9292		2,960.0361
Total	**2.5805**	**28.3480**	**16.2934**	**0.0297**	**2.5349**	**1.3974**	**3.9323**	**1.2942**	**1.2856**	**2.5797**	**0.0000**	**2,936.8068**	**2,936.8068**	**0.9292**		**2,960.0361**

3.3 Grading - 2019

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	1.6625	59.2831	14.2122	0.1552	3.4826	0.2276	3.7103	0.9534	0.2178	1.1712		17,251.4525	17,251.4525	1.8009		17,296.4759
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	0.0618	0.0405	0.5351	1.6900e-003	0.1677	1.1200e-003	0.1688	0.0445	1.0300e-003	0.0455		168.9210	168.9210	4.1500e-003		169.0249
Total	**1.7243**	**59.3236**	**14.7473**	**0.1569**	**3.6503**	**0.2288**	**3.8790**	**0.9979**	**0.2188**	**1.2167**		**17,420.3735**	**17,420.3735**	**1.8051**		**17,465.5008**

3.4 Building Construction - 2019

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	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**		**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Building Construction - 2019

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	0.1387	4.1988	1.1099	9.2900e-003	0.2364	0.0284	0.2648	0.0680	0.0271	0.0952		1,009.9848	1,009.9848	0.0853		1,012.1164
Worker	0.3915	0.2567	3.3891	0.0107	1.0619	7.0900e-003	1.0690	0.2816	6.5300e-003	0.2882		1,069.8333	1,069.8333	0.0263		1,070.4908
Total	**0.5302**	**4.4555**	**4.4990**	**0.0200**	**1.2983**	**0.0355**	**1.3338**	**0.3496**	**0.0337**	**0.3833**		**2,079.8181**	**2,079.8181**	**0.1116**		**2,082.6072**

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	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127	0.0000	2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**	**0.0000**	**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Building Construction - 2019

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	0.1387	4.1988	1.1099	9.2900e-003	0.2364	0.0284	0.2648	0.0680	0.0271	0.0952		1,009.9848	1,009.9848	0.0853		1,012.1164
Worker	0.3915	0.2567	3.3891	0.0107	1.0619	7.0900e-003	1.0690	0.2816	6.5300e-003	0.2882		1,069.8333	1,069.8333	0.0263		1,070.4908
Total	**0.5302**	**4.4555**	**4.4990**	**0.0200**	**1.2983**	**0.0355**	**1.3338**	**0.3496**	**0.0337**	**0.3833**		**2,079.8181**	**2,079.8181**	**0.1116**		**2,082.6072**

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**		**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.4 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1182	3.8546	1.0174	9.2200e-003	0.2364	0.0201	0.2565	0.0680	0.0192	0.0873		1,003.1771	1,003.1771	0.0811		1,005.2054
Worker	0.3651	0.2300	3.1096	0.0104	1.0619	7.0200e-003	1.0689	0.2816	6.4700e-003	0.2881		1,035.5414	1,035.5414	0.0236		1,036.1316
Total	**0.4833**	**4.0846**	**4.1270**	**0.0196**	**1.2983**	**0.0271**	**1.3254**	**0.3496**	**0.0257**	**0.3754**		**2,038.7185**	**2,038.7185**	**0.1048**		**2,041.3370**

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	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**	**0.0000**	**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.4 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1182	3.8546	1.0174	9.2200e-003	0.2364	0.0201	0.2565	0.0680	0.0192	0.0873		1,003.1771	1,003.1771	0.0811		1,005.2054
Worker	0.3651	0.2300	3.1096	0.0104	1.0619	7.0200e-003	1.0689	0.2816	6.4700e-003	0.2881		1,035.5414	1,035.5414	0.0236		1,036.1316
Total	**0.4833**	**4.0846**	**4.1270**	**0.0196**	**1.2983**	**0.0271**	**1.3254**	**0.3496**	**0.0257**	**0.3754**		**2,038.7185**	**2,038.7185**	**0.1048**		**2,041.3370**

3.5 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.1507					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5072**	**14.0656**	**14.6521**	**0.0228**		**0.7528**	**0.7528**		**0.6926**	**0.6926**		**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

3.5 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0576	0.0363	0.4910	1.6400e-003	0.1677	1.1100e-003	0.1688	0.0445	1.0200e-003	0.0455		163.5065	163.5065	3.7300e-003		163.5997
Total	**0.0576**	**0.0363**	**0.4910**	**1.6400e-003**	**0.1677**	**1.1100e-003**	**0.1688**	**0.0445**	**1.0200e-003**	**0.0455**		**163.5065**	**163.5065**	**3.7300e-003**		**163.5997**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.1507					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5072**	**14.0656**	**14.6521**	**0.0228**		**0.7528**	**0.7528**		**0.6926**	**0.6926**	**0.0000**	**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

3.5 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0576	0.0363	0.4910	1.6400e-003	0.1677	1.1100e-003	0.1688	0.0445	1.0200e-003	0.0455		163.5065	163.5065	3.7300e-003		163.5997
Total	**0.0576**	**0.0363**	**0.4910**	**1.6400e-003**	**0.1677**	**1.1100e-003**	**0.1688**	**0.0445**	**1.0200e-003**	**0.0455**		**163.5065**	**163.5065**	**3.7300e-003**		**163.5997**

3.6 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	41.7386					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**41.9808**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.6 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0730	0.0460	0.6219	2.0800e-003	0.2124	1.4000e-003	0.2138	0.0563	1.2900e-003	0.0576		207.1083	207.1083	4.7200e-003		207.2263
Total	**0.0730**	**0.0460**	**0.6219**	**2.0800e-003**	**0.2124**	**1.4000e-003**	**0.2138**	**0.0563**	**1.2900e-003**	**0.0576**		**207.1083**	**207.1083**	**4.7200e-003**		**207.2263**

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	41.7386					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**41.9808**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.6 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0730	0.0460	0.6219	2.0800e-003	0.2124	1.4000e-003	0.2138	0.0563	1.2900e-003	0.0576		207.1083	207.1083	4.7200e-003		207.2263
Total	**0.0730**	**0.0460**	**0.6219**	**2.0800e-003**	**0.2124**	**1.4000e-003**	**0.2138**	**0.0563**	**1.2900e-003**	**0.0576**		**207.1083**	**207.1083**	**4.7200e-003**		**207.2263**

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	8.6544	31.4473	96.0899	0.3396	29.3679	0.2504	29.6183	7.8532	0.2330	8.0862		34,480.4414	34,480.4414	1.4743		34,517.2978
Unmitigated	8.6544	31.4473	96.0899	0.3396	29.3679	0.2504	29.6183	7.8532	0.2330	8.0862		34,480.4414	34,480.4414	1.4743		34,517.2978

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Place of Worship	0.00	3,158.10	6491.65	2,940,127	2,940,127
Total	0.00	3,158.10	6,491.65	2,940,127	2,940,127

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
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Place of Worship	16.60	8.40	6.90	0.00	95.00	5.00	64	25	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.558976	0.043534	0.209821	0.113949	0.016111	0.005791	0.025447	0.016654	0.001713	0.001553	0.004896	0.000590	0.000966
Place of Worship	0.558976	0.043534	0.209821	0.113949	0.016111	0.005791	0.025447	0.016654	0.001713	0.001553	0.004896	0.000590	0.000966

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0737	0.6698	0.5626	4.0200e-003		0.0509	0.0509		0.0509	0.0509		803.7658	803.7658	0.0154	0.0147	808.5422
NaturalGas Unmitigated	0.0737	0.6698	0.5626	4.0200e-003		0.0509	0.0509		0.0509	0.0509		803.7658	803.7658	0.0154	0.0147	808.5422

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					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Place of Worship	6832.01	0.0737	0.6698	0.5626	4.0200e-003		0.0509	0.0509		0.0509	0.0509		803.7658	803.7658	0.0154	0.0147	808.5422
Total		**0.0737**	**0.6698**	**0.5626**	**4.0200e-003**		**0.0509**	**0.0509**		**0.0509**	**0.0509**		**803.7658**	**803.7658**	**0.0154**	**0.0147**	**808.5422**

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					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Place of Worship	6.83201	0.0737	0.6698	0.5626	4.0200e-003		0.0509	0.0509		0.0509	0.0509		803.7658	803.7658	0.0154	0.0147	808.5422
Total		**0.0737**	**0.6698**	**0.5626**	**4.0200e-003**		**0.0509**	**0.0509**		**0.0509**	**0.0509**		**803.7658**	**803.7658**	**0.0154**	**0.0147**	**808.5422**

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	2.8680	3.3500e-003	0.3648	3.0000e-005		1.3000e-003	1.3000e-003		1.3000e-003	1.3000e-003		0.7789	0.7789	2.0700e-003		0.8306
Unmitigated	2.8680	3.3500e-003	0.3648	3.0000e-005		1.3000e-003	1.3000e-003		1.3000e-003	1.3000e-003		0.7789	0.7789	2.0700e-003		0.8306

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	0.4538					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3802					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0341	3.3500e-003	0.3648	3.0000e-005		1.3000e-003	1.3000e-003		1.3000e-003	1.3000e-003		0.7789	0.7789	2.0700e-003		0.8306
Total	**2.8680**	**3.3500e-003**	**0.3648**	**3.0000e-005**		**1.3000e-003**	**1.3000e-003**		**1.3000e-003**	**1.3000e-003**		**0.7789**	**0.7789**	**2.0700e-003**		**0.8306**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4538					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3802					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0341	3.3500e-003	0.3648	3.0000e-005		1.3000e-003	1.3000e-003		1.3000e-003	1.3000e-003		0.7789	0.7789	2.0700e-003		0.8306
Total	**2.8680**	**3.3500e-003**	**0.3648**	**3.0000e-005**		**1.3000e-003**	**1.3000e-003**		**1.3000e-003**	**1.3000e-003**		**0.7789**	**0.7789**	**2.0700e-003**		**0.8306**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Winter (Mitigated)

SADDLEBACK CHURCH EXPANSION

Orange County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Place of Worship	3,509.00	Seat	4.07	119,315.00	0
Parking Lot	50.00	1000sqft	1.15	50,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	8			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - The total building square foot will entail constructing a 26,924 square foot second floor addition within the existing shell of the building. Paving approximately 50,000 square foot of additional surface parking lot area including new Fire Lane roadway extension and approximately 18,400 square foot of new flatwork.

Construction Phase - Approximately 40,000 cubic yards of material will be required for import. Project should limit the number of hauling trips to 100 truck loads per day or less.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Grading - Approximately 40,000 cubic yards of material import required.

Architectural Coating - Project shall comply with SCAQMD Rule 1113 and limit the VOC content in paint to 50 g/L or less.

Vehicle Trips - Per traffic impact study, no additional weekday trips are expected at the new worship center.

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - Project shall comply with SCAQMD Rule 403 regarding fugitive dust control.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	25
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	25.00
tblGrading	AcresOfGrading	12.50	10.00
tblGrading	MaterialImported	0.00	40,000.00
tblLandUse	LandUseSquareFeet	177,222.22	119,315.00
tblVehicleTrips	WD_TR	0.61	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	4.4187	88.4548	31.8345	0.1841	18.2675	2.3917	20.6592	9.9840	2.2004	12.1844	0.0000	20,092.4820	20,092.4820	2.7804	0.0000	20,161.9915
2020	42.0633	23.2921	20.8377	0.0457	1.2983	1.1445	2.4428	0.3496	1.0764	1.4260	0.0000	4,511.6275	4,511.6275	0.7305	0.0000	4,529.8887
Maximum	**42.0633**	**88.4548**	**31.8345**	**0.1841**	**18.2675**	**2.3917**	**20.6592**	**9.9840**	**2.2004**	**12.1844**	**0.0000**	**20,092.4820**	**20,092.4820**	**2.7804**	**0.0000**	**20,161.9915**

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					
2019	4.4187	88.4548	31.8345	0.1841	7.1115	2.3917	9.5032	3.8519	2.2004	6.0522	0.0000	20,092.4820	20,092.4820	2.7804	0.0000	20,161.9915
2020	42.0633	23.2921	20.8377	0.0457	1.2983	1.1445	2.4428	0.3496	1.0764	1.4260	0.0000	4,511.6275	4,511.6275	0.7305	0.0000	4,529.8887
Maximum	**42.0633**	**88.4548**	**31.8345**	**0.1841**	**7.1115**	**2.3917**	**9.5032**	**3.8519**	**2.2004**	**6.0522**	**0.0000**	**20,092.4820**	**20,092.4820**	**2.7804**	**0.0000**	**20,161.9915**

SADDLEBACK CHURCH EXPANSION - Orange County, Winter

	ROG	NOx	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**	**57.02**	**0.00**	**48.29**	**59.34**	**0.00**	**45.06**	**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	2.8680	3.3500e-003	0.3648	3.0000e-005		1.3000e-003	1.3000e-003		1.3000e-003	1.3000e-003		0.7789	0.7789	2.0700e-003		0.8306
Energy	0.0737	0.6698	0.5626	4.0200e-003		0.0509	0.0509		0.0509	0.0509		803.7658	803.7658	0.0154	0.0147	808.5422
Mobile	8.5195	32.1376	93.5743	0.3243	29.3679	0.2520	29.6199	7.8532	0.2346	8.0878		32,929.6527	32,929.6527	1.4815		32,966.6905
Total	**11.4611**	**32.8107**	**94.5017**	**0.3283**	**29.3679**	**0.3043**	**29.6721**	**7.8532**	**0.2868**	**8.1400**		**33,734.1974**	**33,734.1974**	**1.4990**	**0.0147**	**33,776.0633**

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	2.8680	3.3500e-003	0.3648	3.0000e-005		1.3000e-003	1.3000e-003		1.3000e-003	1.3000e-003		0.7789	0.7789	2.0700e-003		0.8306
Energy	0.0737	0.6698	0.5626	4.0200e-003		0.0509	0.0509		0.0509	0.0509		803.7658	803.7658	0.0154	0.0147	808.5422
Mobile	8.5195	32.1376	93.5743	0.3243	29.3679	0.2520	29.6199	7.8532	0.2346	8.0878		32,929.6527	32,929.6527	1.4815		32,966.6905
Total	**11.4611**	**32.8107**	**94.5017**	**0.3283**	**29.3679**	**0.3043**	**29.6721**	**7.8532**	**0.2868**	**8.1400**		**33,734.1974**	**33,734.1974**	**1.4990**	**0.0147**	**33,776.0633**

	ROG	NOx	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	Site Preparation	Site Preparation	1/1/2019	1/14/2019	5	10	
2	Grading	Grading	1/15/2019	2/18/2019	5	25	
3	Building Construction	Building Construction	2/19/2019	1/6/2020	5	230	
4	Paving	Paving	1/7/2020	2/3/2020	5	20	
5	Architectural Coating	Architectural Coating	2/4/2020	3/2/2020	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 1.15

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 265,833; Non-Residential Outdoor: 88,611; Striped Parking Area: 2,880 (Architectural Coating – sqft)

OffRoad Equipment

SADDLEBACK CHURCH EXPANSION - Orange County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	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
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
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
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	5,000.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	95.00	37.00	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
Architectural Coating	1	19.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2019

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	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**		**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.2 Site Preparation - 2019

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	0.0837	0.0535	0.5945	1.9200e-003	0.2012	1.3400e-003	0.2025	0.0534	1.2400e-003	0.0546		191.8393	191.8393	4.7300e-003		191.9574
Total	**0.0837**	**0.0535**	**0.5945**	**1.9200e-003**	**0.2012**	**1.3400e-003**	**0.2025**	**0.0534**	**1.2400e-003**	**0.0546**		**191.8393**	**191.8393**	**4.7300e-003**		**191.9574**

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					6.9103	0.0000	6.9103	3.7985	0.0000	3.7985			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**6.9103**	**2.3904**	**9.3007**	**3.7985**	**2.1991**	**5.9976**	**0.0000**	**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.2 Site Preparation - 2019

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	0.0837	0.0535	0.5945	1.9200e-003	0.2012	1.3400e-003	0.2025	0.0534	1.2400e-003	0.0546		191.8393	191.8393	4.7300e-003		191.9574
Total	**0.0837**	**0.0535**	**0.5945**	**1.9200e-003**	**0.2012**	**1.3400e-003**	**0.2025**	**0.0534**	**1.2400e-003**	**0.0546**		**191.8393**	**191.8393**	**4.7300e-003**		**191.9574**

3.3 Grading - 2019

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					6.6272	0.0000	6.6272	3.3834	0.0000	3.3834			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856		2,936.8068	2,936.8068	0.9292		2,960.0361
Total	**2.5805**	**28.3480**	**16.2934**	**0.0297**	**6.6272**	**1.3974**	**8.0246**	**3.3834**	**1.2856**	**4.6690**		**2,936.8068**	**2,936.8068**	**0.9292**		**2,960.0361**

3.3 Grading - 2019

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	1.7060	60.0623	15.0457	0.1529	3.4826	0.2327	3.7153	0.9534	0.2226	1.1760		16,995.8092	16,995.8092	1.8473		17,041.9908
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	0.0697	0.0446	0.4954	1.6000e-003	0.1677	1.1200e-003	0.1688	0.0445	1.0300e-003	0.0455		159.8661	159.8661	3.9400e-003		159.9645
Total	**1.7758**	**60.1069**	**15.5411**	**0.1545**	**3.6503**	**0.2338**	**3.8841**	**0.9979**	**0.2236**	**1.2215**		**17,155.6752**	**17,155.6752**	**1.8512**		**17,201.9554**

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					2.5349	0.0000	2.5349	1.2942	0.0000	1.2942			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856	0.0000	2,936.8068	2,936.8068	0.9292		2,960.0361
Total	**2.5805**	**28.3480**	**16.2934**	**0.0297**	**2.5349**	**1.3974**	**3.9323**	**1.2942**	**1.2856**	**2.5797**	**0.0000**	**2,936.8068**	**2,936.8068**	**0.9292**		**2,960.0361**

3.3 Grading - 2019

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	1.7060	60.0623	15.0457	0.1529	3.4826	0.2327	3.7153	0.9534	0.2226	1.1760		16,995.8092	16,995.8092	1.8473		17,041.9908
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	0.0697	0.0446	0.4954	1.6000e-003	0.1677	1.1200e-003	0.1688	0.0445	1.0300e-003	0.0455		159.8661	159.8661	3.9400e-003		159.9645
Total	**1.7758**	**60.1069**	**15.5411**	**0.1545**	**3.6503**	**0.2338**	**3.8841**	**0.9979**	**0.2236**	**1.2215**		**17,155.6752**	**17,155.6752**	**1.8512**		**17,201.9554**

3.4 Building Construction - 2019

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	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**		**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Building Construction - 2019

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	0.1446	4.2032	1.2186	9.0700e-003	0.2364	0.0289	0.2653	0.0680	0.0276	0.0957		985.5140	985.5140	0.0898		987.7580
Worker	0.4417	0.2822	3.1377	0.0102	1.0619	7.0900e-003	1.0690	0.2816	6.5300e-003	0.2882		1,012.4850	1,012.4850	0.0250		1,013.1086
Total	**0.5863**	**4.4854**	**4.3563**	**0.0192**	**1.2983**	**0.0360**	**1.3343**	**0.3496**	**0.0342**	**0.3838**		**1,997.9990**	**1,997.9990**	**0.1147**		**2,000.8666**

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	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127	0.0000	2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**	**0.0000**	**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Building Construction - 2019

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	0.1446	4.2032	1.2186	9.0700e-003	0.2364	0.0289	0.2653	0.0680	0.0276	0.0957		985.5140	985.5140	0.0898		987.7580
Worker	0.4417	0.2822	3.1377	0.0102	1.0619	7.0900e-003	1.0690	0.2816	6.5300e-003	0.2882		1,012.4850	1,012.4850	0.0250		1,013.1086
Total	**0.5863**	**4.4854**	**4.3563**	**0.0192**	**1.2983**	**0.0360**	**1.3343**	**0.3496**	**0.0342**	**0.3838**		**1,997.9990**	**1,997.9990**	**0.1147**		**2,000.8666**

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**		**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.4 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1234	3.8533	1.1151	9.0000e-003	0.2364	0.0205	0.2569	0.0680	0.0196	0.0876		978.5244	978.5244	0.0852		980.6551
Worker	0.4126	0.2528	2.8741	9.8300e-003	1.0619	7.0200e-003	1.0689	0.2816	6.4700e-003	0.2881		980.0401	980.0401	0.0224		980.5991
Total	**0.5360**	**4.1061**	**3.9892**	**0.0188**	**1.2983**	**0.0275**	**1.3258**	**0.3496**	**0.0260**	**0.3757**		**1,958.5644**	**1,958.5644**	**0.1076**		**1,961.2542**

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	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**	**0.0000**	**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.4 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1234	3.8533	1.1151	9.0000e-003	0.2364	0.0205	0.2569	0.0680	0.0196	0.0876		978.5244	978.5244	0.0852		980.6551
Worker	0.4126	0.2528	2.8741	9.8300e-003	1.0619	7.0200e-003	1.0689	0.2816	6.4700e-003	0.2881		980.0401	980.0401	0.0224		980.5991
Total	**0.5360**	**4.1061**	**3.9892**	**0.0188**	**1.2983**	**0.0275**	**1.3258**	**0.3496**	**0.0260**	**0.3757**		**1,958.5644**	**1,958.5644**	**0.1076**		**1,961.2542**

3.5 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.1507					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5072**	**14.0656**	**14.6521**	**0.0228**		**0.7528**	**0.7528**		**0.6926**	**0.6926**		**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

3.5 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0651	0.0399	0.4538	1.5500e-003	0.1677	1.1100e-003	0.1688	0.0445	1.0200e-003	0.0455		154.7432	154.7432	3.5300e-003		154.8314
Total	**0.0651**	**0.0399**	**0.4538**	**1.5500e-003**	**0.1677**	**1.1100e-003**	**0.1688**	**0.0445**	**1.0200e-003**	**0.0455**		**154.7432**	**154.7432**	**3.5300e-003**		**154.8314**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.1507					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5072**	**14.0656**	**14.6521**	**0.0228**		**0.7528**	**0.7528**		**0.6926**	**0.6926**	**0.0000**	**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

3.5 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0651	0.0399	0.4538	1.5500e-003	0.1677	1.1100e-003	0.1688	0.0445	1.0200e-003	0.0455		154.7432	154.7432	3.5300e-003		154.8314
Total	**0.0651**	**0.0399**	**0.4538**	**1.5500e-003**	**0.1677**	**1.1100e-003**	**0.1688**	**0.0445**	**1.0200e-003**	**0.0455**		**154.7432**	**154.7432**	**3.5300e-003**		**154.8314**

3.6 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	41.7386					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**41.9808**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.6 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0825	0.0506	0.5748	1.9700e-003	0.2124	1.4000e-003	0.2138	0.0563	1.2900e-003	0.0576		196.0080	196.0080	4.4700e-003		196.1198
Total	**0.0825**	**0.0506**	**0.5748**	**1.9700e-003**	**0.2124**	**1.4000e-003**	**0.2138**	**0.0563**	**1.2900e-003**	**0.0576**		**196.0080**	**196.0080**	**4.4700e-003**		**196.1198**

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	41.7386					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**41.9808**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.6 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0825	0.0506	0.5748	1.9700e-003	0.2124	1.4000e-003	0.2138	0.0563	1.2900e-003	0.0576		196.0080	196.0080	4.4700e-003		196.1198
Total	**0.0825**	**0.0506**	**0.5748**	**1.9700e-003**	**0.2124**	**1.4000e-003**	**0.2138**	**0.0563**	**1.2900e-003**	**0.0576**		**196.0080**	**196.0080**	**4.4700e-003**		**196.1198**

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	8.5195	32.1376	93.5743	0.3243	29.3679	0.2520	29.6199	7.8532	0.2346	8.0878		32,929.6527	32,929.6527	1.4815		32,966.6905
Unmitigated	8.5195	32.1376	93.5743	0.3243	29.3679	0.2520	29.6199	7.8532	0.2346	8.0878		32,929.6527	32,929.6527	1.4815		32,966.6905

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Place of Worship	0.00	3,158.10	6491.65	2,940,127	2,940,127
Total	0.00	3,158.10	6,491.65	2,940,127	2,940,127

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
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Place of Worship	16.60	8.40	6.90	0.00	95.00	5.00	64	25	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.558976	0.043534	0.209821	0.113949	0.016111	0.005791	0.025447	0.016654	0.001713	0.001553	0.004896	0.000590	0.000966
Place of Worship	0.558976	0.043534	0.209821	0.113949	0.016111	0.005791	0.025447	0.016654	0.001713	0.001553	0.004896	0.000590	0.000966

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0737	0.6698	0.5626	4.0200e-003		0.0509	0.0509		0.0509	0.0509		803.7658	803.7658	0.0154	0.0147	808.5422
NaturalGas Unmitigated	0.0737	0.6698	0.5626	4.0200e-003		0.0509	0.0509		0.0509	0.0509		803.7658	803.7658	0.0154	0.0147	808.5422

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					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Place of Worship	6832.01	0.0737	0.6698	0.5626	4.0200e-003		0.0509	0.0509		0.0509	0.0509		803.7658	803.7658	0.0154	0.0147	808.5422
Total		**0.0737**	**0.6698**	**0.5626**	**4.0200e-003**		**0.0509**	**0.0509**		**0.0509**	**0.0509**		**803.7658**	**803.7658**	**0.0154**	**0.0147**	**808.5422**

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					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Place of Worship	6.83201	0.0737	0.6698	0.5626	4.0200e-003		0.0509	0.0509		0.0509	0.0509		803.7658	803.7658	0.0154	0.0147	808.5422
Total		**0.0737**	**0.6698**	**0.5626**	**4.0200e-003**		**0.0509**	**0.0509**		**0.0509**	**0.0509**		**803.7658**	**803.7658**	**0.0154**	**0.0147**	**808.5422**

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	2.8680	3.3500e-003	0.3648	3.0000e-005		1.3000e-003	1.3000e-003		1.3000e-003	1.3000e-003		0.7789	0.7789	2.0700e-003		0.8306
Unmitigated	2.8680	3.3500e-003	0.3648	3.0000e-005		1.3000e-003	1.3000e-003		1.3000e-003	1.3000e-003		0.7789	0.7789	2.0700e-003		0.8306

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	0.4538					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3802					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0341	3.3500e-003	0.3648	3.0000e-005		1.3000e-003	1.3000e-003		1.3000e-003	1.3000e-003		0.7789	0.7789	2.0700e-003		0.8306
Total	**2.8680**	**3.3500e-003**	**0.3648**	**3.0000e-005**		**1.3000e-003**	**1.3000e-003**		**1.3000e-003**	**1.3000e-003**		**0.7789**	**0.7789**	**2.0700e-003**		**0.8306**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4538					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3802					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0341	3.3500e-003	0.3648	3.0000e-005		1.3000e-003	1.3000e-003		1.3000e-003	1.3000e-003		0.7789	0.7789	2.0700e-003		0.8306
Total	**2.8680**	**3.3500e-003**	**0.3648**	**3.0000e-005**		**1.3000e-003**	**1.3000e-003**		**1.3000e-003**	**1.3000e-003**		**0.7789**	**0.7789**	**2.0700e-003**		**0.8306**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix B

Annual Emission Calculations Output
(CalEEMod)

SADDLEBACK CHURCH EXPANSION

Orange County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Place of Worship	3,509.00	Seat	4.07	119,315.00	0
Parking Lot	50.00	1000sqft	1.15	50,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	8			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - The total building square foot will entail constructing a 26,924 square foot second floor addition within the existing shell of the building. Paving approximately 50,000 square foot of additional surface parking lot area including new Fire Lane roadway extension and approximately 18,400 square foot of new flatwork.

Construction Phase - Approximately 40,000 cubic yards of material will be required for import. Project should limit the number of hauling trips to 100 truck loads per day or less.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Grading - Approximately 40,000 cubic yards of material import required.

Architectural Coating - Project shall comply with SCAQMD Rule 1113 and limit the VOC content in paint to 50 g/L or less.

Vehicle Trips - Per traffic impact study, no additional weekday trips are expected at the new worship center.

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - Project shall comply with SCAQMD Rule 403 regarding fugitive dust control.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	25
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	25.00
tblGrading	AcresOfGrading	12.50	10.00
tblGrading	MaterialImported	0.00	40,000.00
tblLandUse	LandUseSquareFeet	177,222.22	119,315.00
tblVehicleTrips	WD_TR	0.61	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.4037	4.2469	2.9399	7.7600e-003	0.3632	0.1821	0.5453	0.1434	0.1707	0.3141	0.0000	721.0482	721.0482	0.1129	0.0000	723.8712
2020	0.4414	0.2052	0.2171	3.9000e-004	6.2800e-003	0.0110	0.0172	1.6800e-003	0.0102	0.0119	0.0000	34.0509	34.0509	8.0700e-003	0.0000	34.2526
Maximum	**0.4414**	**4.2469**	**2.9399**	**7.7600e-003**	**0.3632**	**0.1821**	**0.5453**	**0.1434**	**0.1707**	**0.3141**	**0.0000**	**721.0482**	**721.0482**	**0.1129**	**0.0000**	**723.8712**

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					
2019	0.4037	4.2469	2.9399	7.7600e-003	0.2563	0.1821	0.4384	0.0866	0.1707	0.2573	0.0000	721.0478	721.0478	0.1129	0.0000	723.8708
2020	0.4414	0.2052	0.2171	3.9000e-004	6.2800e-003	0.0110	0.0172	1.6800e-003	0.0102	0.0119	0.0000	34.0508	34.0508	8.0700e-003	0.0000	34.2526
Maximum	**0.4414**	**4.2469**	**2.9399**	**7.7600e-003**	**0.2563**	**0.1821**	**0.4384**	**0.0866**	**0.1707**	**0.2573**	**0.0000**	**721.0478**	**721.0478**	**0.1129**	**0.0000**	**723.8708**

	ROG	NOx	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**	**28.94**	**0.00**	**19.01**	**39.13**	**0.00**	**17.42**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-1-2019**	**3-31-2019**	1.8279	1.8279
2	**4-1-2019**	**6-30-2019**	0.9238	0.9238
3	**7-1-2019**	**9-30-2019**	0.9340	0.9340
4	**10-1-2019**	**12-31-2019**	0.9368	0.9368
5	**1-1-2020**	**3-31-2020**	0.6504	0.6504
		Highest	1.8279	1.8279

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	0.5215	4.2000e-004	0.0456	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	0.0883	0.0883	2.3000e-004	0.0000	0.0942
Energy	0.0135	0.1222	0.1027	7.3000e-004		9.2900e-003	9.2900e-003		9.2900e-003	9.2900e-003	0.0000	459.8862	459.8862	0.0160	5.2300e-003	461.8462
Mobile	0.3179	1.2624	3.6489	0.0127	1.1151	9.6900e-003	1.1248	0.2986	9.0200e-003	0.3076	0.0000	1,169.4239	1,169.4239	0.0516	0.0000	1,170.7147
Waste						0.0000	0.0000		0.0000	0.0000	6,410.6576	0.0000	6,410.6576	378.8590	0.0000	15,882.1329
Water						0.0000	0.0000		0.0000	0.0000	1.7592	53.7070	55.4662	0.1829	4.7300e-003	61.4469
Total	**0.8528**	**1.3850**	**3.7972**	**0.0134**	**1.1151**	**0.0191**	**1.1342**	**0.2986**	**0.0185**	**0.3171**	**6,412.4168**	**1,683.1055**	**8,095.5223**	**379.1098**	**9.9600e-003**	**17,576.2349**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5215	4.2000e-004	0.0456	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	0.0883	0.0883	2.3000e-004	0.0000	0.0942
Energy	0.0135	0.1222	0.1027	7.3000e-004		9.2900e-003	9.2900e-003		9.2900e-003	9.2900e-003	0.0000	459.8862	459.8862	0.0160	5.2300e-003	461.8462
Mobile	0.3179	1.2624	3.6489	0.0127	1.1151	9.6900e-003	1.1248	0.2986	9.0200e-003	0.3076	0.0000	1,169.4239	1,169.4239	0.0516	0.0000	1,170.7147
Waste						0.0000	0.0000		0.0000	0.0000	6,410.6576	0.0000	6,410.6576	378.8590	0.0000	15,882.1329
Water						0.0000	0.0000		0.0000	0.0000	1.7592	53.7070	55.4662	0.1829	4.7300e-003	61.4469
Total	**0.8528**	**1.3850**	**3.7972**	**0.0134**	**1.1151**	**0.0191**	**1.1342**	**0.2986**	**0.0185**	**0.3171**	**6,412.4168**	**1,683.1055**	**8,095.5223**	**379.1098**	**9.9600e-003**	**17,576.2349**

	ROG	NOx	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

SADDLEBACK CHURCH EXPANSION - Orange County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2019	1/14/2019	5	10	
2	Grading	Grading	1/15/2019	2/18/2019	5	25	
3	Building Construction	Building Construction	2/19/2019	1/6/2020	5	230	
4	Paving	Paving	1/7/2020	2/3/2020	5	20	
5	Architectural Coating	Architectural Coating	2/4/2020	3/2/2020	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 1.15

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 265,833; Non-Residential Outdoor: 88,611; Striped Parking Area: 2,880 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	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
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
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
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	5,000.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	95.00	37.00	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
Architectural Coating	1	19.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2019

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	0.0217	0.2279	0.1103	1.9000e-004		0.0120	0.0120		0.0110	0.0110	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195
Total	**0.0217**	**0.2279**	**0.1103**	**1.9000e-004**	**0.0903**	**0.0120**	**0.1023**	**0.0497**	**0.0110**	**0.0607**	**0.0000**	**17.0843**	**17.0843**	**5.4100e-003**	**0.0000**	**17.2195**

3.2 Site Preparation - 2019

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	3.8000e-004	2.7000e-004	3.0400e-003	1.0000e-005	9.9000e-004	1.0000e-005	9.9000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8835	0.8835	2.0000e-005	0.0000	0.8840
Total	**3.8000e-004**	**2.7000e-004**	**3.0400e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**9.9000e-004**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.8835**	**0.8835**	**2.0000e-005**	**0.0000**	**0.8840**

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					0.0346	0.0000	0.0346	0.0190	0.0000	0.0190	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0217	0.2279	0.1103	1.9000e-004		0.0120	0.0120		0.0110	0.0110	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195
Total	**0.0217**	**0.2279**	**0.1103**	**1.9000e-004**	**0.0346**	**0.0120**	**0.0465**	**0.0190**	**0.0110**	**0.0300**	**0.0000**	**17.0843**	**17.0843**	**5.4100e-003**	**0.0000**	**17.2195**

3.2 Site Preparation - 2019

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	3.8000e-004	2.7000e-004	3.0400e-003	1.0000e-005	9.9000e-004	1.0000e-005	9.9000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8835	0.8835	2.0000e-005	0.0000	0.8840
Total	**3.8000e-004**	**2.7000e-004**	**3.0400e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**9.9000e-004**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.8835**	**0.8835**	**2.0000e-005**	**0.0000**	**0.8840**

3.3 Grading - 2019

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					0.0828	0.0000	0.0828	0.0423	0.0000	0.0423	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0323	0.3544	0.2037	3.7000e-004		0.0175	0.0175		0.0161	0.0161	0.0000	33.3028	33.3028	0.0105	0.0000	33.5663
Total	**0.0323**	**0.3544**	**0.2037**	**3.7000e-004**	**0.0828**	**0.0175**	**0.1003**	**0.0423**	**0.0161**	**0.0584**	**0.0000**	**33.3028**	**33.3028**	**0.0105**	**0.0000**	**33.5663**

3.3 Grading - 2019

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	0.0210	0.7653	0.1823	1.9300e-003	0.0429	2.8700e-003	0.0457	0.0118	2.7500e-003	0.0145	0.0000	194.4106	194.4106	0.0207	0.0000	194.9269
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	7.8000e-004	5.7000e-004	6.3400e-003	2.0000e-005	2.0600e-003	1.0000e-005	2.0700e-003	5.5000e-004	1.0000e-005	5.6000e-004	0.0000	1.8405	1.8405	5.0000e-005	0.0000	1.8417
Total	**0.0218**	**0.7659**	**0.1886**	**1.9500e-003**	**0.0449**	**2.8800e-003**	**0.0478**	**0.0123**	**2.7600e-003**	**0.0151**	**0.0000**	**196.2512**	**196.2512**	**0.0207**	**0.0000**	**196.7686**

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					0.0317	0.0000	0.0317	0.0162	0.0000	0.0162	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0323	0.3544	0.2037	3.7000e-004		0.0175	0.0175		0.0161	0.0161	0.0000	33.3028	33.3028	0.0105	0.0000	33.5662
Total	**0.0323**	**0.3544**	**0.2037**	**3.7000e-004**	**0.0317**	**0.0175**	**0.0492**	**0.0162**	**0.0161**	**0.0323**	**0.0000**	**33.3028**	**33.3028**	**0.0105**	**0.0000**	**33.5662**

3.3 Grading - 2019

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	0.0210	0.7653	0.1823	1.9300e-003	0.0429	2.8700e-003	0.0457	0.0118	2.7500e-003	0.0145	0.0000	194.4106	194.4106	0.0207	0.0000	194.9269
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	7.8000e-004	5.7000e-004	6.3400e-003	2.0000e-005	2.0600e-003	1.0000e-005	2.0700e-003	5.5000e-004	1.0000e-005	5.6000e-004	0.0000	1.8405	1.8405	5.0000e-005	0.0000	1.8417
Total	**0.0218**	**0.7659**	**0.1886**	**1.9500e-003**	**0.0449**	**2.8800e-003**	**0.0478**	**0.0123**	**2.7600e-003**	**0.0151**	**0.0000**	**196.2512**	**196.2512**	**0.0207**	**0.0000**	**196.7686**

3.4 Building Construction - 2019

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	0.2668	2.3819	1.9395	3.0400e-003		0.1458	0.1458		0.1370	0.1370	0.0000	265.6677	265.6677	0.0647	0.0000	267.2857
Total	**0.2668**	**2.3819**	**1.9395**	**3.0400e-003**		**0.1458**	**0.1458**		**0.1370**	**0.1370**	**0.0000**	**265.6677**	**265.6677**	**0.0647**	**0.0000**	**267.2857**

3.4 Building Construction - 2019

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	0.0160	0.4839	0.1317	1.0400e-003	0.0263	3.2300e-003	0.0296	7.5900e-003	3.0900e-003	0.0107	0.0000	102.4819	102.4819	8.9500e-003	0.0000	102.7055
Worker	0.0449	0.0327	0.3631	1.1700e-003	0.1179	8.0000e-004	0.1187	0.0313	7.4000e-004	0.0320	0.0000	105.3768	105.3768	2.6000e-003	0.0000	105.4416
Total	**0.0608**	**0.5166**	**0.4948**	**2.2100e-003**	**0.1442**	**4.0300e-003**	**0.1482**	**0.0389**	**3.8300e-003**	**0.0427**	**0.0000**	**207.8586**	**207.8586**	**0.0116**	**0.0000**	**208.1472**

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	0.2668	2.3819	1.9395	3.0400e-003		0.1458	0.1458		0.1370	0.1370	0.0000	265.6674	265.6674	0.0647	0.0000	267.2854
Total	**0.2668**	**2.3819**	**1.9395**	**3.0400e-003**		**0.1458**	**0.1458**		**0.1370**	**0.1370**	**0.0000**	**265.6674**	**265.6674**	**0.0647**	**0.0000**	**267.2854**

3.4 Building Construction - 2019

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	0.0160	0.4839	0.1317	1.0400e-003	0.0263	3.2300e-003	0.0296	7.5900e-003	3.0900e-003	0.0107	0.0000	102.4819	102.4819	8.9500e-003	0.0000	102.7055
Worker	0.0449	0.0327	0.3631	1.1700e-003	0.1179	8.0000e-004	0.1187	0.0313	7.4000e-004	0.0320	0.0000	105.3768	105.3768	2.6000e-003	0.0000	105.4416
Total	**0.0608**	**0.5166**	**0.4948**	**2.2100e-003**	**0.1442**	**4.0300e-003**	**0.1482**	**0.0389**	**3.8300e-003**	**0.0427**	**0.0000**	**207.8586**	**207.8586**	**0.0116**	**0.0000**	**208.1472**

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.2400e-003	0.0384	0.0337	5.0000e-005		2.2300e-003	2.2300e-003		2.1000e-003	2.1000e-003	0.0000	4.6322	4.6322	1.1300e-003	0.0000	4.6605
Total	**4.2400e-003**	**0.0384**	**0.0337**	**5.0000e-005**		**2.2300e-003**	**2.2300e-003**		**2.1000e-003**	**2.1000e-003**	**0.0000**	**4.6322**	**4.6322**	**1.1300e-003**	**0.0000**	**4.6605**

3.4 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.4000e-004	7.8500e-003	2.1300e-003	2.0000e-005	4.7000e-004	4.0000e-005	5.1000e-004	1.3000e-004	4.0000e-005	1.7000e-004	0.0000	1.8014	1.8014	1.5000e-004	0.0000	1.8051
Worker	7.4000e-004	5.2000e-004	5.8900e-003	2.0000e-005	2.0900e-003	1.0000e-005	2.1000e-003	5.5000e-004	1.0000e-005	5.7000e-004	0.0000	1.8053	1.8053	4.0000e-005	0.0000	1.8063
Total	**9.8000e-004**	**8.3700e-003**	**8.0200e-003**	**4.0000e-005**	**2.5600e-003**	**5.0000e-005**	**2.6100e-003**	**6.8000e-004**	**5.0000e-005**	**7.4000e-004**	**0.0000**	**3.6067**	**3.6067**	**1.9000e-004**	**0.0000**	**3.6114**

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	4.2400e-003	0.0384	0.0337	5.0000e-005		2.2300e-003	2.2300e-003		2.1000e-003	2.1000e-003	0.0000	4.6322	4.6322	1.1300e-003	0.0000	4.6605
Total	**4.2400e-003**	**0.0384**	**0.0337**	**5.0000e-005**		**2.2300e-003**	**2.2300e-003**		**2.1000e-003**	**2.1000e-003**	**0.0000**	**4.6322**	**4.6322**	**1.1300e-003**	**0.0000**	**4.6605**

3.4 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.4000e-004	7.8500e-003	2.1300e-003	2.0000e-005	4.7000e-004	4.0000e-005	5.1000e-004	1.3000e-004	4.0000e-005	1.7000e-004	0.0000	1.8014	1.8014	1.5000e-004	0.0000	1.8051
Worker	7.4000e-004	5.2000e-004	5.8900e-003	2.0000e-005	2.0900e-003	1.0000e-005	2.1000e-003	5.5000e-004	1.0000e-005	5.7000e-004	0.0000	1.8053	1.8053	4.0000e-005	0.0000	1.8063
Total	**9.8000e-004**	**8.3700e-003**	**8.0200e-003**	**4.0000e-005**	**2.5600e-003**	**5.0000e-005**	**2.6100e-003**	**6.8000e-004**	**5.0000e-005**	**7.4000e-004**	**0.0000**	**3.6067**	**3.6067**	**1.9000e-004**	**0.0000**	**3.6114**

3.5 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0136	0.1407	0.1465	2.3000e-004		7.5300e-003	7.5300e-003		6.9300e-003	6.9300e-003	0.0000	20.0282	20.0282	6.4800e-003	0.0000	20.1902
Paving	1.5100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0151**	**0.1407**	**0.1465**	**2.3000e-004**		**7.5300e-003**	**7.5300e-003**		**6.9300e-003**	**6.9300e-003**	**0.0000**	**20.0282**	**20.0282**	**6.4800e-003**	**0.0000**	**20.1902**

3.5 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	4.1000e-004	4.6500e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.4252	1.4252	3.0000e-005	0.0000	1.4261
Total	**5.8000e-004**	**4.1000e-004**	**4.6500e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.4252**	**1.4252**	**3.0000e-005**	**0.0000**	**1.4261**

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	0.0136	0.1407	0.1465	2.3000e-004		7.5300e-003	7.5300e-003		6.9300e-003	6.9300e-003	0.0000	20.0282	20.0282	6.4800e-003	0.0000	20.1901
Paving	1.5100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0151**	**0.1407**	**0.1465**	**2.3000e-004**		**7.5300e-003**	**7.5300e-003**		**6.9300e-003**	**6.9300e-003**	**0.0000**	**20.0282**	**20.0282**	**6.4800e-003**	**0.0000**	**20.1901**

3.5 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	4.1000e-004	4.6500e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.4252	1.4252	3.0000e-005	0.0000	1.4261
Total	**5.8000e-004**	**4.1000e-004**	**4.6500e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.4252**	**1.4252**	**3.0000e-005**	**0.0000**	**1.4261**

3.6 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4174					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4200e-003	0.0168	0.0183	3.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	2.5533	2.5533	2.0000e-004	0.0000	2.5582
Total	**0.4198**	**0.0168**	**0.0183**	**3.0000e-005**		**1.1100e-003**	**1.1100e-003**		**1.1100e-003**	**1.1100e-003**	**0.0000**	**2.5533**	**2.5533**	**2.0000e-004**	**0.0000**	**2.5582**

3.6 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4000e-004	5.2000e-004	5.8900e-003	2.0000e-005	2.0900e-003	1.0000e-005	2.1000e-003	5.5000e-004	1.0000e-005	5.7000e-004	0.0000	1.8053	1.8053	4.0000e-005	0.0000	1.8063
Total	**7.4000e-004**	**5.2000e-004**	**5.8900e-003**	**2.0000e-005**	**2.0900e-003**	**1.0000e-005**	**2.1000e-003**	**5.5000e-004**	**1.0000e-005**	**5.7000e-004**	**0.0000**	**1.8053**	**1.8053**	**4.0000e-005**	**0.0000**	**1.8063**

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	0.4174					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4200e-003	0.0168	0.0183	3.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	2.5533	2.5533	2.0000e-004	0.0000	2.5582
Total	**0.4198**	**0.0168**	**0.0183**	**3.0000e-005**		**1.1100e-003**	**1.1100e-003**		**1.1100e-003**	**1.1100e-003**	**0.0000**	**2.5533**	**2.5533**	**2.0000e-004**	**0.0000**	**2.5582**

3.6 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4000e-004	5.2000e-004	5.8900e-003	2.0000e-005	2.0900e-003	1.0000e-005	2.1000e-003	5.5000e-004	1.0000e-005	5.7000e-004	0.0000	1.8053	1.8053	4.0000e-005	0.0000	1.8063
Total	**7.4000e-004**	**5.2000e-004**	**5.8900e-003**	**2.0000e-005**	**2.0900e-003**	**1.0000e-005**	**2.1000e-003**	**5.5000e-004**	**1.0000e-005**	**5.7000e-004**	**0.0000**	**1.8053**	**1.8053**	**4.0000e-005**	**0.0000**	**1.8063**

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	0.3179	1.2624	3.6489	0.0127	1.1151	9.6900e-003	1.1248	0.2986	9.0200e-003	0.3076	0.0000	1,169.4239	1,169.4239	0.0516	0.0000	1,170.7147
Unmitigated	0.3179	1.2624	3.6489	0.0127	1.1151	9.6900e-003	1.1248	0.2986	9.0200e-003	0.3076	0.0000	1,169.4239	1,169.4239	0.0516	0.0000	1,170.7147

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Place of Worship	0.00	3,158.10	6491.65	2,940,127	2,940,127
Total	0.00	3,158.10	6,491.65	2,940,127	2,940,127

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
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Place of Worship	16.60	8.40	6.90	0.00	95.00	5.00	64	25	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.558976	0.043534	0.209821	0.113949	0.016111	0.005791	0.025447	0.016654	0.001713	0.001553	0.004896	0.000590	0.000966
Place of Worship	0.558976	0.043534	0.209821	0.113949	0.016111	0.005791	0.025447	0.016654	0.001713	0.001553	0.004896	0.000590	0.000966

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	326.8137	326.8137	0.0135	2.7900e-003	327.9829
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	326.8137	326.8137	0.0135	2.7900e-003	327.9829
NaturalGas Mitigated	0.0135	0.1222	0.1027	7.3000e-004		9.2900e-003	9.2900e-003		9.2900e-003	9.2900e-003	0.0000	133.0725	133.0725	2.5500e-003	2.4400e-003	133.8632
NaturalGas Unmitigated	0.0135	0.1222	0.1027	7.3000e-004		9.2900e-003	9.2900e-003		9.2900e-003	9.2900e-003	0.0000	133.0725	133.0725	2.5500e-003	2.4400e-003	133.8632

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					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Place of Worship	2.49368e+006	0.0135	0.1222	0.1027	7.3000e-004		9.2900e-003	9.2900e-003		9.2900e-003	9.2900e-003	0.0000	133.0725	133.0725	2.5500e-003	2.4400e-003	133.8632
Total		**0.0135**	**0.1222**	**0.1027**	**7.3000e-004**		**9.2900e-003**	**9.2900e-003**		**9.2900e-003**	**9.2900e-003**	**0.0000**	**133.0725**	**133.0725**	**2.5500e-003**	**2.4400e-003**	**133.8632**

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					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Place of Worship	2.49368e+006	0.0135	0.1222	0.1027	7.3000e-004		9.2900e-003	9.2900e-003		9.2900e-003	9.2900e-003	0.0000	133.0725	133.0725	2.5500e-003	2.4400e-003	133.8632
Total		**0.0135**	**0.1222**	**0.1027**	**7.3000e-004**		**9.2900e-003**	**9.2900e-003**		**9.2900e-003**	**9.2900e-003**	**0.0000**	**133.0725**	**133.0725**	**2.5500e-003**	**2.4400e-003**	**133.8632**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	17500	5.5759	2.3000e-004	5.0000e-005	5.5958
Place of Worship	1.00821e+006	321.2379	0.0133	2.7400e-003	322.3871
Total		**326.8137**	**0.0135**	**2.7900e-003**	**327.9829**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	17500	5.5759	2.3000e-004	5.0000e-005	5.5958
Place of Worship	1.00821e+006	321.2379	0.0133	2.7400e-003	322.3871
Total		**326.8137**	**0.0135**	**2.7900e-003**	**327.9829**

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	0.5215	4.2000e-004	0.0456	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	0.0883	0.0883	2.3000e-004	0.0000	0.0942
Unmitigated	0.5215	4.2000e-004	0.0456	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	0.0883	0.0883	2.3000e-004	0.0000	0.0942

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	0.0828					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4344					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.2600e-003	4.2000e-004	0.0456	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	0.0883	0.0883	2.3000e-004	0.0000	0.0942
Total	**0.5215**	**4.2000e-004**	**0.0456**	**0.0000**		**1.6000e-004**	**1.6000e-004**		**1.6000e-004**	**1.6000e-004**	**0.0000**	**0.0883**	**0.0883**	**2.3000e-004**	**0.0000**	**0.0942**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0828					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4344					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.2600e-003	4.2000e-004	0.0456	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	0.0883	0.0883	2.3000e-004	0.0000	0.0942
Total	**0.5215**	**4.2000e-004**	**0.0456**	**0.0000**		**1.6000e-004**	**1.6000e-004**		**1.6000e-004**	**1.6000e-004**	**0.0000**	**0.0883**	**0.0883**	**2.3000e-004**	**0.0000**	**0.0942**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	55.4662	0.1829	4.7300e-003	61.4469
Unmitigated	55.4662	0.1829	4.7300e-003	61.4469

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Place of Worship	5.54509 / 8.67309	55.4662	0.1829	4.7300e-003	61.4469
Total		**55.4662**	**0.1829**	**4.7300e-003**	**61.4469**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Place of Worship	5.54509 / 8.67309	55.4662	0.1829	4.7300e-003	61.4469
Total		**55.4662**	**0.1829**	**4.7300e-003**	**61.4469**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	6,410.6576	378.8590	0.0000	15,882.1329
Unmitigated	6,410.6576	378.8590	0.0000	15,882.1329

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Place of Worship	31581	6,410.6576	378.8590	0.0000	15,882.1329
Total		**6,410.6576**	**378.8590**	**0.0000**	**15,882.1329**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Place of Worship	31581	6,410.6576	378.8590	0.0000	15,882.1329
Total		**6,410.6576**	**378.8590**	**0.0000**	**15,882.1329**

9.0 Operational Offroad

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

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Place of Worship	3.73308 / 5.83892	37.3411	0.1231	3.1800e-003	41.3675
Total		**37.3411**	**0.1231**	**3.1800e-003**	**41.3675**

Water emissions based on SF of building, not seats

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	138.0481	8.1584	0.0000	342.0082
Unmitigated	138.0481	8.1584	0.0000	342.0082

Waste emissions on SF of building, not seats

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

N2O Operational GHG Emission Mobile Calculations

Project Code & Title: Saddleback

Vehicle Population Breakdown*	
10957598	Gasoline vehicles
232339	Diesel vehicles
97.9%	Gasoline vehicle %
2.1%	Diesel vehicle %

VMT per Vehicle Type	
2940127	Project VMT (CalEEMod output)
2879080	Gasoline vehicle VMT
61047	Diesel vehicle VMT

Gasoline Vehicles	
97.9%	Gasoline vehicle %
1.38	Tons per year mobile NOX emissions (annual output in CalEEMod)
1.35	Gasoline vehicle tons per year NOX emissions
4.16%	Percentage to convert NOX emissions to N2O **
0.0562	Tons per year N2O emissions for gasoline vehicles
0.0510	Metric tons per year N2O emissions for gasoline vehicles

Diesel Vehicles	
0.3316	grams N2O per gallon of fuel for diesel vehicles**
23.86	Diesel average miles per gallon*
0.01390	grams per mile N2O for diesel vehicles
848.3	grams per year N2O for diesel vehicles
0.0008483	Metric tons per year N2O emissions for diesel vehicles

CO2E Emissions from N2O	
0.0518	Metric tons per year from gasoline + diesel vehicles
298	GWP of N2O***
15.5	**CO2E emissions per year from N2O emissions from gasoline + diesel vehicles**

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

Appendix C

Biological Resources Assessment Report

Environmental Intelligence, LLC

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BIOLOGICAL RESOURCES ASSESSMENT REPORT
SADDLEBACK CHURCH CONVERSION PROJECT
LAKE FOREST, ORANGE COUNTY, CALIFORNIA

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EXECUTIVE SUMMARY

Environmental Intelligence, LLC (EI) was retained by Timeless Architecture to provide biological services for the proposed construction of a new building, the conversion of an existing building, and the widening of an existing connector path (Project) at Saddleback Church (Project Site), located in the City of Lake Forest (the City), Orange County, California. This Biological Resources Assessment Report (BRAR) provides (1) the results of a database search and literature review; (2) the results of a field survey to map vegetation communities, formally delineate jurisdictional waters, and evaluate the Project Site's potential to support sensitive plant and wildlife species; (3) an evaluation of potential impacts of the Project; and (4) proposed mitigation measures to avoid or minimize potential impacts. This assessment is consistent with the reporting requirements of the California Department of Fish and Wildlife (CDFW), the U.S. Fish and Wildlife Service (USFWS), the County of Orange, and the City of Lake Forest

Vegetation within the Survey Area was mapped up to the dirt multi-use trail south of the proposed connector path. Six vegetation communities/land cover types were documented and mapped during the habitat assessment; three of these vegetation types are considered either rare or sensitive. Two special-status wildlife species, coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*) and coyote (*Canis latrans*), were observed during the habitat assessment survey; both observations were outside of the anticipated impact areas. No other sensitive biological resources were observed within the Survey Area or impact areas.

Four coast live oaks (*Quercus agrifolia*) were identified within potential impact areas on the Project Site and would likely need to be removed. All trees had diameter at breast height (dbh) measurement of less than 25 inches and appeared to be healthy with no obvious evidence of decay, cracks or other structural defects, or canopy die back. Approximately 21 coast live oaks would be planted along the widened connector road as part of the Project. The Project is located on private property within an incorporated area of Orange County. As such, the removal of these trees would be subject to the guidelines of the City of Lake Forest's Tree Preservation and Landscaping Ordinance (TPLO). A permit authorizing the removal of these trees would not be required pursuant to items a through g listed in Section 42-4 of the TPLO.

The survey area does not support waters of the U.S. (including wetlands) as regulated by U.S. Army Corps of Engineers (USACE) and Regional Water Quality Control Board (RWQCB). None of the three potential wetland parameters (hydrophytic vegetation, hydric soil, and wetland hydrology) occurred within the survey area. Approximately 0.01 acre of aquatic features were formally delineated within the survey area as potential jurisdictional waters of the state, exclusively in the form of southern willow scrub (as regulated by California Department of Fish and Wildlife [CDFW]), and approximately 0.02 acre is composed of drainage swale (as regulated by CDFW and RWQCB). As such, a submission of a Notification of Lake or Streambed Alteration to the CDFW South Coast Region Field office for issuance of a Streambed Alteration Agreement (SAA) prior to commencement of the Project could be required. Compensatory mitigation may be necessary to offset unavoidable impacts to jurisdictional aquatic resources (e.g., trimming/thinning the southern willow scrub) as related to the Project Fuel Modification Plan as mandated/required by OCFA. The amount of compensatory mitigation would be determined through consultation and permit processing with CDFW.

The Project is located within the boundaries of the City of Lake Forest, a signatory to the Orange County Central/Coastal Natural Communities Conservation Plans (NCCP)/Habitat Conservation Plans (HCP), and must meet the requirements and conditions of the NCCP/HCP and the Lake Forest General Plan. Based on the information presented in this report, EI concludes that implementation of the proposed Project may result in direct or indirect impacts to sensitive biological resources. As such, EI recommends that the Project be designed to (1) avoid conversion of coastal sage scrub (CSS) habitat; (2) minimize CSS impacts and mitigate unavoidable impacts onsite or on other lands located outside the Reserve through the federal Section 7 or Section 10 processes or, if necessary due to future state listings, through the Section 2081/2084 permit process; or (3) pay a one-time mitigation fee per acre of impacts to CSS.

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1.0 INTRODUCTION

Environmental Intelligence, LLC (EI) was retained by Timeless Architecture to provide biological services for the proposed construction of a new building, demolition of two tents and ancillary modular buildings, paving of additional surface parking, the conversion of an existing building, and the widening of an existing connector path (Project) at Saddleback Church (Project Site), located in the City of Lake Forest, Orange County, California. This Biological Resources Assessment Report (BRAR) provides (1) the results of a database search and literature review; (2) the results of a field survey to map vegetation communities, informally assess jurisdictional waters, and evaluate the Project Site's potential to support sensitive plant and wildlife species; (3) an evaluation of potential impacts of the Project; and (4) proposed mitigation measures to avoid or minimize potential impacts.

2.0 PROJECT LOCATION AND DESCRIPTION

The Project is located in the City of Lake Forest, Orange County, California (Appendix A: Exhibit 1) within the United States Geological Survey (USGS) El Toro 7.5-minute quadrangle. The Project Site is bounded by State Route (SR) 241 to the north, Marguerite Parkway to the east, El Toro Road to the south, and Saddleback Parkway to the west. Land use (City of Lake Forest 1994) surrounding the Project Site includes industrial, commercial, transportation corridor, and regional park/open space (Appendix A: Exhibit 2).

Phase I of the Project would include the construction of a new 92,391 ft^2 two-story Worship Center with capacity for 3,509 seats at the Church campus. The first and second floors will be 70,592 ft^2 and 21,799 ft^2, respectively. Phase II of the Project would include the conversion of an existing 31,088 ft^2 one-story structure into a two-story facility by constructing a new 26,924 ft^2 second floor within the existing building footprint. This existing worship center building would serve as classrooms for up to 903 students. Additionally, the Project will require demolition of two tents and ancillary modular buildings, and paving for additional surface parking. The proposed and existing buildings, the two tents, and new parking spaces are located within previously developed portions of the Project Site. An existing connector path on the south edge of the Project Site would need to be widened to 28 feet to meet Orange County Fire Authority (OCFA) requirements. Appendix B includes the proposed Site plan and Fuel Modification Plan.

3.0 REGULATORY FRAMEWORK

The Project will comply with applicable federal, state, and local laws, ordinances, regulations, and standards (LORS) throughout Project construction. Potentially applicable LORS are discussed below.

3.1 Federal

3.1.1 CLEAN WATER ACT, SECTION 404

Pursuant to Section 404 of the Clean Water Act (CWA), the U.S. Army Corps of Engineers (USACE) is authorized to regulate any activity that would result in the discharge of dredged or fill material into waters of the U.S., which include those waters listed in 33 Code of Federal Regulations (CFR) Part 328.3 (Definitions).5, 6 The fundamental rationale of Section 404 of the CWA is that no discharge of dredged or fill material should be permitted if there is a practicable alternative that would be less damaging to aquatic resources or if significant degradation would occur to waters of the U.S. (including federally defined wetlands).

USACE, with oversight by the U.S. Environmental Protection Agency (USEPA), has the principal authority to issue CWA Section 404 Permits (40 CFR Part 230). Under two 1989 Memorandums of Agreement (MOAs) between USEPA and the Department of Defense (DOD), USACE is given sole responsibility for making final permit decisions pursuant to Section 404, and 'conducts jurisdictional delineations associated with the day-to-day administration of the Section 404 program.' However, USEPA retains the authority to enforce compliance with Section 404 and maintains the power to overrule USACE decisions on the issuance or denial of permits. If there is a dispute about whether an area can be regulated, USEPA has the ultimate authority to determine the actual geographic scope of waters of the

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U.S. subject to jurisdiction under all sections of the CWA, including the Section 404 regulatory program (USEPA 1989a, 1989b).

3.1.2 CLEAN WATER ACT, SECTION 401

If it is determined that an activity proposed within jurisdictional waters requires a permit pursuant to Section 404 of the CWA, then, pursuant to Section 401 of the CWA, the Regional Water Quality Control Board (RWQCB; Region 8) must certify that the discharge will comply with state water quality standards or waive (as applicable) the certification requirement. The RWQCB, as delegated by USEPA, has the principal authority to issue a CWA Section 401 water quality certification or waiver.

Therefore, pursuant to the CWA, water quality standards are provisions of federal (and state) law that define the water quality goals of a water body, or portion thereof, by establishing (a) designated uses of water to be protected, and (b) water quality criteria to protect those uses. Water quality standards are to protect the public health or welfare, enhance the quality of water and serve the purposes of the CWA.7 Antidegradation policies are also an integral component of federal water quality standards. Water quality standards are enforceable in the bodies of water for which they have been promulgated.

Additionally, under State Water Board Order 2003-0017-DWQ discharges of dredged or fill material that have received 401 Certification are eligible for Waste Discharge Requirements (WDR) coverage under Section 132609 of the California Water Code (CWC [1969 Porter-Cologne Water Quality Control Act]). These General WDRs fulfill the requirements of Article 4, of Chapter 4 of Division 7 of the CWC for proposed dredge or fill discharges to waters of the U.S. that are regulated under the State's CWA Section 401 authority.

3.1.3 FEDERAL ENDANGERED SPECIES ACT (FESA)

This 1973 law, administered by the United States Fish and Wildlife Service (USFWS), is designed to minimize impacts to imperiled plants and animals, as well as facilitate recovery of such species. Declining plant and animal species are listed as "endangered" or "threatened" based on a variety of factors. Applicants for projects requiring federal agency action that could adversely affect listed species are required to consult with and mitigate impacts in consultation with the USFWS. Adverse impacts are defined as "take" (defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct"), which is prohibited except as authorized through consultation under Section 7 or through issuance of an Incidental Take Permit under Section 10. The Carlsbad Fish and Wildlife Office oversees permitting actions relative to the FESA for this Project.

3.1.4 MIGRATORY BIRDS

The protection of birds is regulated by the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA). Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the USFWS (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). The Carlsbad Fish and Wildlife Office oversees actions relative to migratory birds and eagles for this Project.

The MBTA makes it illegal for anyone to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid permit issued pursuant to federal regulations. The migratory bird species protected by the MBTA are listed in 50 CFR 10.13.

The BGEPA (16 U.S.C. 668-668c), enacted in 1940, and amended several times since then, prohibits anyone, without a permit issued by the Secretary of the Interior, from "taking" bald and golden eagles, including their parts, nests, or eggs. The BGEPA provides criminal penalties for persons who "take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald or golden eagle, alive or dead, or any part, nest, or egg thereof." The BGEPA defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb." Disturb is defined under the BGEPA as to agitate or bother an eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle, 2) a decrease in its

productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior (Pagel et al. 2010).

3.1.5 USFWS HABITAT CONSERVATION PLANS

Habitat Conservation Plans (HCPs) under section 10(a)(1)(B) of the FESA provide for partnerships with non-federal parties to conserve the ecosystems upon which listed species depend, ultimately contributing to their recovery. The Project is located within the boundaries of the Orange County Central/Coastal Natural Community Conservation Plan (NCCP)/HCP. This plan is described in more detail in Section 5.2 (Regulatory Framework).

3.2 State of California

3.2.1 CALIFORNIA FISH AND GAME CODE, SECTION 1600 ET SEQ.

Pursuant to Section 1600 et seq. of the California Fish and Game Code (CFGC), the CDFW regulates activities of an applicant's project that would substantially alter the flow, bed, channel, or bank of streams or lakes unless certain conditions outlined by CDFW are met by the applicant. The limits of CDFW jurisdiction are defined in CFGC Section 1600 et seq. as the 'bed, channel, or bank of any river, stream, or lake designated by [CDFW] in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit.' However, in practice, CDFW usually extends its jurisdictional limit and assertion to the top of a bank of a stream, the bank of a lake, or outer edge of the riparian vegetation, whichever is wider.

By long practice, CDFW defines a stream as 'a body of water that flows perennially or episodically and that is defined by the area in which water currently flows, or has flowed, over a given course during the historic hydrologic course regime, and where the width of its course can reasonably be identified by physical or biological indicators.' The 'historic hydrologic regime' is defined in practice by CDFW as circa 1800 to the present (Brady and Vyverberg 2013).

Section 1601(a)8 is based on Title 14 California Code of Regulations (CCR) 720, which designates waters under the administration of CDFW to be as follows:

> For the purpose of implementing Sections 1601 and 1603 of the Fish and Game Code, which requires submission to [CDFW] of general plans sufficient to indicate the nature of a project for construction by or on behalf of any person, governmental agency, state or local, and any public utility, of any project which will divert, obstruct, or change the natural flow or bed of any river, stream, or lake designated by [CDFW], or will use material from the streambeds designated by [CDFW], all rivers, streams, lakes, and streambeds in the State of California, including all rivers, streams, and streambeds which may have intermittent flows of water, are hereby designated for such purpose.

The CDFW links stream protection, conservation, and management with the presence (and/or indirect consideration) of fish, wildlife, and their habitats. In practice, the CDFW defines a stream as follows:

> A body of water that flows perennially, intermittently, or ephemerally and that is defined by the area in which water currently flows or has flowed over a given course during the historic hydrologic regime, and where the width of its course can reasonably be identified by physical or biological indicators (Vyverberg 2010).

In summary, CFGC Section 1600 et seq. was enacted to conserve fish and wildlife associated with stream ecosystems. The size of a watershed, the size of its streams, the duration of flows, and the absence of hydrologic connectivity to other waterbodies is immaterial. The CDFW does not consider a stream or watercourse defined by particular flow events, such as bankfull flow or ordinary high water, but rather by the local topography or elevations of the land that confine a stream to a definite course when its waters rise to their highest level. Thus, the watercourse is a stream and its boundaries define the maximal extent

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or expression of a stream on the landscape. All streams are subject to CDFW jurisdiction (Brady and Vyverberg 2013).

Therefore, semi-arid aquatic features with ephemeral flow can meet CDFW's definition of a jurisdictional stream and can be under CDFW's regulation because these semi-arid aquatic features can support fish and wildlife (directly or indirectly). This is based on CDFW guidance concerning ephemeral streams and, to a lesser extent, developed swales that exhibit short duration, low-volume flow (Vyverberg 2010). Therefore, under this interpretation, CDFW jurisdiction is not predicated on the following:

- The morphology of the stream or riverine feature, or how well-defined its banks are;
- The cross-sectional area occupied by particular flow events;
- The time-period between flow events; and
- The constancy of (surface) water flow.

California Water Code, Section 13000 et seq. Pursuant to Section 13000 et seq. of the CWC (the 1969 Porter-Cologne Water Quality Control Act), the RWQCB is authorized to regulate any activity that would result in discharges of waste or fill material into waters of the state, including "isolated" waters and/or wetlands (e.g., vernal pools and seeps), saline waters, and groundwater within the boundaries of the state (CWC Section 13050[e]).

Porter-Cologne authorizes the State Water Resources Control Board (SWRCB) to adopt, review, and revise policies for all waters of the state. It also directs the nine RWQCBs to develop and implement regional Basin Plans that recognize and are designed to maintain the unique characteristics of each region with regard to natural water quality, actual and potential beneficial uses, maintaining water quality, and addressing the water quality problems of that region. According to implementation language in the Basin Plans, the RWQCB's authority to protect water quality from waste discharges is limited to the regulation of 'controllable water quality factors,' those actions, conditions, or circumstances resulting from human activities that may influence the quality of waters of the state and that may be reasonably controlled.

CWC Section 13170 also authorizes the SWRCB to adopt water-quality control plans on its own initiative. The Water Quality Control Plan for the Santa Ana River Basin (RWQCB Region 8), as amended, is designed to maintain, preserve, and enhance the quality of water resources. The purpose of the plan is to designate beneficial uses of surface and ground waters, designate water-quality objectives for the reasonable protection of those uses and establish an implementation plan to achieve the objectives within RWQCB Region 8 (RWQCB 1995, as amended). Designated beneficial uses of state waters that may be protected against degradation include preservation and enhancement of fish, wildlife, designated biological habitats of special significance, and other aquatic resources or preserves.

3.2.2 CALIFORNIA ENDANGERED SPECIES ACT (CESA)

The California Endangered Species Act (CESA) states that all native species of fishes, amphibians, reptiles, birds, mammals, invertebrates, and plants, and their habitats, threatened with extinction and those experiencing a significant decline which, if not halted, would lead to a threatened or endangered designation, will be protected or preserved. This state law prohibits the "take" (defined as to hunt, pursue, catch, capture, or kill) of state listed species except as otherwise provided in state law. CESA, administered by the California Department of Fish and Wildlife (CDFW), is similar to the FESA, although unlike the federal law, CESA applies incidental take prohibitions to species currently petitioned for state-listing status (i.e., candidate species). State lead agencies are required to consult with the CDFW to ensure that their authorized actions are not likely to jeopardize the continued existence of any state listed species or result in the degradation of occupied habitat. Under Section 2081, CDFW authorizes "take" of state listed endangered, threatened, or candidate species through incidental take permits or memoranda of understanding. These acts, which are otherwise prohibited, may be authorized through permits or memoranda of understanding if (1) the take is incidental to otherwise lawful activities, (2) impacts of the take are minimized and fully mitigated, (3) the permit is consistent with regulations adopted in accordance with any recovery plan for the species in question, and (4) the applicant ensures

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suitable funding to implement the measures required by the CDFW. Should a species be both federally and state listed, and if the FESA authorization fulfills CESA requirements, CDFW may streamline the CESA permitting process by adopting a Consistency Determination (Section 2081.1), that concurs with the federal authorization. The CDFW South Coast Region oversees actions relative to CESA for this Project.

3.2.3 California Environmental Quality Act (CEQA)

CEQA applies to "projects" proposed to be undertaken or requiring approval by state and/or local governmental agencies. “Projects” are activities that have the potential to have a physical impact on the environment. The purpose of CEQA is to: (1) disclose to the public the significant environmental effects of a proposed discretionary project, through the preparation of an Initial Study (IS), Negative Declaration (ND), or Environmental Impact Report (EIR); (2) prevent or minimize damage to the environment through development of project alternatives, mitigation measures, and mitigation monitoring; (3) disclose to the public the agency decision-making process utilized to approve discretionary projects through findings and statements of overriding consideration; (4) enhance public participation in the environmental review process through scoping meetings, public notice, public review, hearings, and the judicial process; and (5) improve interagency coordination through early consultations, scoping meetings, notices of preparation, and State Clearinghouse review. The CDFW South Coast Region oversees actions relative to CEQA for this Project.

3.2.4 Fish and Game Code and Title 14 Laws and Regulations

Fish and Game Code (FGC) Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by the Code or any associated regulation. Section 3503.5 makes it unlawful to take, possess, or destroy birds of prey. It also prohibits the take, possession, or destruction of nests or eggs of any bird of prey. Section 3511 describes bird species, primarily raptors that are “fully protected.” Fully protected species may not be taken or possessed, except under specific permit requirements. No incidental take permit may be issued for a fully protected species.

Sections 4700, 5050, and 5515 list mammal, reptile and amphibian, and fish species, respectively, that are classified as fully protected in California.

Section 1900 *et seq.* describes the Native Plant Protection Act (NPPA). The NPPA was enacted in 1977 and allows the Fish and Game Commission to designate plants as rare or endangered. There are 64 species, subspecies, and varieties of plants that are protected as rare under the NPPA. The NPPA prohibits take of endangered or rare native plants, but includes some exceptions for agricultural and nursery operations, emergencies, and after properly notifying CDFW, for vegetation removal from canals, roads, and other sites, changes in land use, and in certain other situations.

Title 14, California Code of Regulations (CCR) lists plant and animal species designated as threatened and endangered in California. California Species of Special Concern (SSC) is a category applied by CDFW to those species that are indicators of regional habitat changes or are considered potential future protected species. SSCs do not have any special legal status, but are intended by CDFW for use as a management tool to take these species into special consideration when decisions are made concerning the future of any land parcel.

3.2.5 Natural Community Conservation Plans

CDFW’s Natural Community Conservation Planning Act (NCCPA) allows for the development of broad-based ecosystem-level plans for the protection and perpetuation of biological diversity. The primary objective of Natural Community Conservation Plans (NCCP) prepared under the NCCPA is to conserve natural communities at the ecosystem level while accommodating compatible land use. The Project is located within the boundaries of the Orange County Central/Coastal NCCP/HCP.

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3.2.5.1 Orange County Central/Coastal NCCP/HCP

The Orange County Central/Coastal NCCP/HCP was approved in 1996. The NCCP/HCP was designed to create a permanent, subregional habitat Reserve System to protect multiple species and multiple habitats, particularly coastal sage scrub (CSS) species and habitats. The NCCP/HCP is comprised of four parts: Part I Introduction, Part II NCCP/HCP, Part III Joint Programmatic EIR/EIS, and Part IV Implementing Agreement. The planning area covers 208,000 acres encompassing the central portion of Orange County from the coastline inland to Riverside County. The NCCP/HCP creates a preservation area (Reserve System) totaling 37,378 acres. The NCCP/HCP currently covers 45 species, including 10 federally listed species. Three of these species were selected as "Target" species: coastal California gnatcatcher (*Polioptila californica californica*), orange-throated whiptail (*Aspidoscelis hyperythra*), and coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*), which are used as indicator or umbrella species. The remaining covered species were designated as "Identified" species, which receive regulatory coverage under the NCCP/HCP and treated "as if listed." The Reserve System was designed to provide long-term protection of CSS habitats for these umbrella species and in turn protects a broader range of CSS-related species.

USFWS and CDFW have found and determined that the NCCP/HCP meets the requirements for a habitat conservation plan for purposes of FESA, CESA, and the NCCP Act, and specifically for purposes of 16 U.S.C. § 1539, 50 C.F.R. § 1732(b)(2), and sections 2825(c), 2830 and 2835 of the NCCP Act, and in this regard, USFWS and CDFW have made the following findings:

- The Taking of Identified Species in accordance with the NCCP/HCP in connection with the Planned Activities will be incidental to an otherwise lawful activity.
- The minimization and mitigation measures of the NCCP/HCP and Implementation Agreement, to the maximum extent practicable, minimize and mitigate the impacts of the Taking of Identified Species.

The Implementation Agreement assures the funding required to implement the minimization and mitigation measures specified in Chapters 4 and 5 of the NCCP/HCP.

3.3 Local

3.3.1 CITY OF LAKE FOREST

The Project, located within the boundaries of the City of Lake Forest, is subject to the requirements and authority of the Lake Forest General Plan. Since the Project is located within the City of Lake Forest, a signatory to the Orange County NCCP/HCP, the Project must meet the requirements and conditions of the NCCP/HCP. The Project is located on lands designated as "Non-Reserve" lands. Therefore, under the NCCP/HCP, non-participating landowners have three options:

1) Landowners may elect to avoid conversion of habitat resulting in "take" under FESA or CESA (no mitigation necessary). Where practicable, this is the preferred approach under FESA. When impact avoidance is not practicable, the choice of mitigation approaches is up to the landowner and local government (see options 2 and 3 below).
2) As provided for under existing law, landowners may choose to minimize CSS impacts and mitigate unavoidable impacts onsite or on other lands located outside the Reserve through the federal Section 7 or Section 10 processes or, if necessary due to future state listings, through the Section 2081/2084 permit process. If landowners choose this option, they will proceed through the agencies' normal review, approval, and ongoing monitoring processes.
3) If a non-participating landowner with land located outside the Reserve in a signatory jurisdiction determines that onsite avoidance is not practicable, and decides not to obtain FESA Section 7/10 or CESA Section 2081/2084 approvals, the NCCP/HCP would allow the non-participating landowner to elect to pay a one-time Mitigation Fee to offset Incidental Take of habitat supporting a listed or unlisted CSS "Identified Species." The CSS species that are covered by the

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"Mitigation Fee" option are the coast horned lizard (*Phrynosoma blainvillii*), coastal cactus wren, coastal California gnatcatcher, orange-throated whiptail, coastal western whiptail (*Aspidoscelis tigris stejnegeri*), southern California rufous crowned sparrow (*Aimophila ruficeps canescens*), red diamond rattlesnake (*Crotalus ruber*), and San Diego desert woodrat (*Neotoma lepida intermedia*). The Mitigation Fee option does not apply to other non-CSS "Identified Species." If the landowner selects this mitigation option, all mitigation responsibilities for impacts on CSS Identified Species would be fulfilled as soon as the designated funds are accepted by the non-profit management corporation. The mitigation fee under this option is currently $80,316.78 per acre for impacts to CSS resulting from development on lands.

3.3.2 ORANGE COUNTY FIRE AUTHORITY

The Fuel Modification Plan requirement is a vegetation management code that requires landscaped fuel modification zones (FMZ) adjacent to new buildings be dedicated for permanent vegetation management activities. FMZ plan approval is required prior to map recordation, site grading, or building permit issuance; whichever comes first. The approved FMZ plan requires permanent vegetation management in dedicated land areas and is used indefinitely to facilitate on-going maintenance requirements. This guideline covers the timing of plans for construction, plan criteria needed for approval, the resource agency plant list for the zones, new construction inspection requirements, and introductory maintenance information. The Fuel Modification program brings fire safe landscaping and construction features together to improve public safety and reduce property loss during wildfire emergencies.

The Project Fuel Modification Plans (see Appendix B) depict an FMZ that would be sited entirely within the Project Site boundary. Three irrigated zones and one non-irrigated zone would comprise the FMZ. A combination of new and existing native and non-native vegetation would occur within these zones. No off-site improvements would be required as a part of the Project.

4.0 METHODS

4.1 Database Search and Literature Review

A database search and literature review were conducted to determine which species/habitats identified as special-status by state, federal, and local resources agencies have the potential to occur in the Project area or immediate vicinity (within 3 miles). Sources reviewed included the following:

- Special-status species lists from California Department of Fish and Wildlife (CDFW), United States Fish and Wildlife Service (USFWS), California Native Plant Society (CNPS), and the Orange County Central/Coastal NCCP/HCP;
- Database searches of:
  - California Natural Diversity Database (CNDDB 2018),
  - USFWS Species Occurrence Data (USFWS 2018),
  - California Native Plant Society (CNPS 2018), and
  - Consortium of California Herbaria (CCH 2018);
- Federal Register listing package and USFWS Critical Habitat determination for each federally listed Endangered or Threatened species potentially occurring within the Project vicinity;
- Biological reports for other projects in the Project vicinity:
  - Portola Center Project (City of Lake Forest 2013),
  - Whisler Ranch Residential Project (City of Lake Forest 2010), and
  - Saddleback Valley Community Church (County of Orange Environmental Management Agency 1991).

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Special-status species with the potential to occur within the Survey Area were evaluated and classified as one of the following:

- **Occurs**: the species and/or positive sign was observed on-site during site visit or field survey.
- **Absent**: the species and/or positive sign was not observed on-site during focused survey(s) during the appropriate blooming/activity period (and, for plants, observed at a reference population).
- **Likely**: all site features indicate this species is very likely present and should be expected based on geographic range, suitable habitat present, and/or nearby recent historical records.
- **Unlikely**: species could occur, but records of the species are not locally known.
- **Does Not Occur**: species would not occur because the Project site is outside known or current geographic/elevation range, lacks habitat or suitable conditions, and/or there is reasonable certainty to assume absent based on historical records.

4.2 Field Surveys

4.2.1 Waters Assessment

EI Waters Specialist Tom Thompson conducted an informal assessment of potentially jurisdictional waters on January 8, 2018. The Survey Area extended south to include Aliso Creek.

On April 29 and May 3, 2019, EI ecologist Joshua Zinn conducted a general field reconnaissance of the Survey Area to identify areas (including the limits) supporting potential federal and state jurisdictional waters (including wetlands). After the field reconnaissance was completed, the EI ecologist formally delineated potential jurisdictional waters and classified and mapped the riparian and upland habitats occurring within the Survey Area.

All acquired field data were obtained by recording the presence (including extents, types, and boundaries) of potential jurisdictional waters using an Apple iPad tablet running ESRI Collector for ArcGIS with a sub-meter GPS receiver.

Post-field analysis was conducted in tandem by an EI GIS specialist and the ecologists who performed the fieldwork. Trimble GPS Analyst (Version 2.3) GIS software was used to code, define, designate, and edit all acquired GPS field data representing potential jurisdictional waters occurring within the Survey Area.

4.2.2 Vegetation Mapping and Habitat Assessment

EI biologist Tom Thompson conducted an initial habitat assessment on January 8, 2018. The Survey Area included the Project impact area plus an approximately 500-foot buffer around the Project (i.e., Survey Area). Weather conditions during the survey (06:30-16:00) were 58-60 degrees Fahrenheit, 80-100 percent cloud cover, calm winds (0-3 mph), and light to moderate scattered showers. The habitat assessment included a general pedestrian survey to identify plant and wildlife species present and identify areas that provide suitable habitat for any special-status species. Further, vegetation communities and land cover were assessed and mapped within the 500-buffer but only north of the dirt multi-use trail. EI subsequently updated the vegetation communities and land cover types during the 2019 field reconnaissance and formal jurisdictional delineation surveys. The results of the updated 2019 field work are presented herein.

Handheld Global Positioning System (GPS) units, binoculars, digital cameras, and field forms/notes were utilized to aid in the recording of biological resources. Vegetation/habitat communities were described in accordance with A Manual of California Vegetation, 2nd Edition (Sawyer et al. 2009).

5.0 RESULTS

5.1 Database Search and Literature Review

A review of the Orange County Central/Coastal NCCP/HCP, databases (e.g., CNDDB, USFWS, CCH), and previous biological documents from other projects in the Project vicinity identified one sensitive

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vegetation community, eight special-status plant species, and 15 special-status wildlife species with the potential to occur within a 3-mile radius of the Project Site (Appendix A: Exhibits 3B and 3C). The Project is outside the Critical Habitat boundaries for any federally listed threatened or endangered species; the closest designated Critical Habitat areas are approximately 0.2 mile (Riverside fairy shrimp [*Streptocephalus woottoni*]), 0.9 mile (coastal California gnatcatcher), and 2.1 miles (arroyo toad [*Anaxyrus californicus*]; USFWS 2017; Appendix A: Exhibit 3A).

5.2 Physical Environment

Topography along the proposed connector path is relatively flat, with elevations from west to east ranging from approximately 780 to 840 feet (240 to 255 meters) above mean sea level (amsl). The developed/landscaped portions of the Project property are maintained; the non-developed areas (south of the parking lots and connector path) slope down (5 to 80 percent slope) to Aliso Creek (elevation approximately 750 to 780 feet, west to east).

5.3 Waters

Waters of the U.S. and State

The survey area does not support waters of the U.S. (including wetlands) as regulated by USACE and RWQCB. None of the three potential wetland parameters (hydrophytic vegetation, hydric soil, and wetland hydrology) occurred within the survey area.

Waters of the State, Exclusively

Approximately 0.01 acre of aquatic features was formally delineated within the survey area as potential jurisdictional waters of the state, exclusively in the form of southern willow scrub (as regulated by CDFW), and approximately 0.02 acre is composed of drainage swale (as regulated by CDFW and RWQCB; see Appendix C).

5.4 Vegetation Communities/Land Cover Types

Vegetation within the Survey Area was mapped south of the developed areas north of the dirt multi-use trail (Appendix A: Exhibit 4). Four vegetation communities and one land cover type were documented and mapped during the habitat assessment. Descriptions of the communities, based on the Manual of California Vegetation, 2nd Edition (Sawyer et al. 2009), and land cover types are provided below.

TABLE 1. VEGETATION COMMUNITY / LAND COVER TYPE

Vegetation Community / Land Cover Type	Rarity Ranking[1]
Artemisia californica (California sagebrush scrub) Alliance (32.010.00)	G5 S5
Baccharis piluaris (Coyote brush scrub) Alliance (32.060.00)	G5 S5
Opuntia littoralis (Coast prickly pear scrub) Alliance (32.150.00)	G4 S3
Salix lasiolepis (Arroyo willow thickets) Alliance (61.201.00)	G4 S4
Land Cover Types	
Developed/Ornamental/Landscaped	N/A

[1]Rarity and Global/State Ranks: One purpose of the vegetation classification is to assist in determining the level of rarity and imperilment of vegetation types. Ranking of alliances according to their degree of imperilment (as measured by rarity, trends, and threats) follows NatureServe's Heritage Methodology, in which all alliances are listed with a G (global) and S (state) rank. Alliances with State ranks of S1-S3 are considered to be highly imperiled.

5.4.1 VEGETATION COMMUNITIES DESCRIPTIONS

<u>*Artemisia californica* (California sagebrush scrub) Alliance</u>

The *Artemisia californica* alliance is a CSS community. *Artemisia californica* is dominant or co-dominant in the shrub canopy with chamise *(Adenostoma fasciculatum*), coyote brush *(Baccharis pilularis*), sticky monkey flower *(Diplacus aurantiacus*), California brittlebrush *(Encelia californica*), brittlebrush *(Encelia farinosa*), California buckwheat *(Eriogonum fasciculatum*), chaparral yucca *(Hesperoyucca whipplei*),

coastal goldenbush *(Isocoma menziesii*), heartleaf keckiella *(Keckiella cordifolia*), deerweed *(Lotus scoparius*), coastal prickly pear *(Opuntia littoralis*), lemonade berry *(Rhus integrifolia*), white sage *(Salvia apiana*), purple sage *(Salvia leucophylla*), black sage *(Salvia mellifera*), black elderberry *(Sambucus nigra*), and poison oak *(Toxicodendron diversilobum*). Emergent trees or tall shrubs may be present at low cover. Habitats include slopes that are usually steep and rarely flooded, and low-gradient deposits along streams. Soils are alluvial or colluvial derived and shallow. Elevation for this vegetation community ranges from 0 to 4,000 feet.

<u>*Baccharis piluaris* (Coyote brush scrub) Alliance</u>

The *Baccharis piluaris* alliance is a CSS community. *Baccharis pilularis* is dominant to co-dominant in the shrub canopy with California sagebrush, blueblosson *(Ceanothus thyrsiflorus*), sticky monkey flower, California buckwheat, Seaside woolly sunflower *(Eriophyllum staechadifolium*), coffeeberry *(Frangula californica*), Silk tassel bush *(Garrya elliptica*), deerweed, yellow bush lupine *(Lupinus arboreus*), white sage, purple sage, and poison oak. Emergent trees may be present at low cover including Bishop pine *(Pinus muricate*), Douglas fir *(Pseudotsuga menziesii*), coast live oak *(Quercus agrifolia*), or California bay (*Umbellularia californica)*. Habitats include river mouths, stream sides, terraces, stabilized dunes of coastal bars, spits along the coastline, coastal bluffs, open slopes, and ridges. Soils are variable, sandy to relatively heavy clay. Elevation for this vegetation community ranges from 0 to 4,900 feet.

<u>*Opuntia littoralis* (Coast prickly pear scrub) Alliance</u>

The *Opuntia littoralis* alliance is a CSS community. *Opuntia littoralis* and/or other cacti are dominant or co-dominant in the shrub canopy with California sagebrush, bladderpod (*Cleome isomeris)*, Cneoridium (*Cneoridium dumosum)*, California cholla (*Cylindropuntia californica)*, coast cholla (*Cylindropuntia prolifera)*, California brittlebrush, California buckwheat, Cliff spurge (*Euphorbia misera)*, chaparral yucca, laurel sumac (*Malosma laurina)*, California four o'clock (*Mirabilis laevis* var. *crassifolia)*, chaparral pricklypear (*Opuntia oricola)*, desert prickly pear (*Opuntia phaeacantha)*, *lemonade berry*, black sage, and black elderberry. Emergent trees may be present at low cover, including Peruvian pepper (*Schinus mole)*. Habitats include south-facing slopes and headlands. Soils are shallow, loams and clays that may be rocky. Elevation for this vegetation community ranges from 0 to 4,000 feet.

<u>*Salix lasiolepis* (Arroyo willow thickets) Alliance</u>

Salix lasiolepis are dominant or co-dominant in the tall shrub or low tree canopy with bigleaf maple (*Acer macrophylllum)*, *coyotebrush*, *mulefat*, button bush (*Cephalanthus occidentalis)*, Pacific Wax myrtle (*Morella californica)*, western sycamore (*Platanus racemosa)*, Fremont cottonwood (*Populus fremontii)*, black cottonwood (*Populus trichocarpa)*, willow (*Salix* spp.) and black elderberry. As a shrubland, emergent trees may be present at low cover. Habitats include stream banks and benches, slope seeps, and stringers along drainages. Elevation for this vegetation community ranges from 0 to 7,120 feet.

5.4.2 LAND COVER TYPE DESCRIPTION

<u>Developed/Ornamental/Landscaped</u>

Developed lands include urban or built-up areas with much of the land covered by structures. Such areas include cities, transportation, power and communications facilities, mills, shopping centers, and other buildings that may, in some cases, be separate from urban areas. Urban or built-up land may contain a wide variety of native and non-native, ruderal and ornamental plant species. The ornamental/landscaped areas are primarily trees incorporated into the landscape as accents, windbreaks, privacy screens, or shade providers.

5.5 General Plants and Wildlife

Plant and wildlife species identified during the habitat assessment survey are included in Appendix D. It should be noted that short-term inventories of this nature are limited in their scope by the seasonality, timing and duration of surveys, plant blooming periods, and the nocturnal and fossorial habits of many

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animals. Therefore, the lists of species do not necessarily reflect the total number of plants and animals that potentially occupy the survey areas.

5.6 Wildlife Movement

Aliso Creek occurs to the south of the Project Site and is a 19-mile intermittent stream that serves as a wildlife movement corridor between the coast and the Cleveland National Forest. Wildlife movement corridors are linear landscape elements that provide for species movement and dispersal between two or more habitats. They maintain connectivity between core CSS habitat areas, improve biological linkages between the Reserve System and adjacent NCCPs, and provide for other "Target Species" habitat located outside the Reserve System (County of Orange Environmental Management Agency 1996). Maintaining sufficient connectivity between peripheral and core populations and among core habitat areas is essential for conservation of wildlife.

The Project will not create new roads or structures within the Aliso Creek wildlife corridor. Further, the Project will be entirely within the existing Saddleback Church development footprint. Therefore, no habitat fragmentation or obstructions to existing or planned wildlife linkages, corridors, or crossings will occur.

5.7 Special-Status Biological Resources

Plant or animal taxa may be considered "sensitive" or "special-status" due to declining populations, vulnerability to habitat change or loss, or because of restricted distributions. Some of these species have been listed as threatened or endangered by the USFWS and/or CDFW, and are thus protected by the federal and state ESAs, respectively. Other species have been identified as sensitive or special-status by the USFWS and CDFW. Still others have been designated as special-status species by private conservation organizations, including the NCCP/HCP and CNPS. The regulatory protection provided by these various agencies is discussed in *Section 3.0 – Regulatory Framework* of this document.

The database search and literature review described in Section 4.1 identified special-status biological resources occurring or having the potential to occur in the vicinity (within 3 miles) of the Project. Appendix E provides a complete list of these special-status biological resources, their respective conservation status, and occurrence potential along the alignment. Exhibit 3A (Appendix A) provides Critical Habitat areas and conservation lands, Exhibit 3B (Appendix A) provides historical special-status plant species records, and Exhibit 3C (Appendix A) provides historical special-status wildlife species records. Exhibit 4 (Appendix A) provides the results of the vegetation mapping and habitat assessment.

The following sections describe the special-status vegetation communities and special-status plant and wildlife species occurring or potentially occurring on or in the immediate vicinity of the Project.

5.7.1 Sensitive Vegetation Communities

Sensitive vegetation communities are associations sometimes afforded special legislative protection. Such communities are normally considered a management priority because of their rarity or imperilment, the sensitivity of the species that they support, or because these areas serve multiple functions, as is often the case with wetlands. Two sensitive vegetation alliances were identified as occurring in the Survey Area:

- *Opuntia littoralis* (coast prickly pear scrub) Alliance
- *Salix lasiolepis* (arroyo willow thickets) Alliance

In addition, since CSS communities are protected through the NCCP/HCP, the following vegetation alliances are considered sensitive:

- *Artemisia californica* (California sagebrush scrub) Alliance
- *Baccharis piluaris* (Coyote brush scrub) Alliance

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5.7.2 SPECIAL-STATUS PLANT SPECIES

Based upon the literature search and habitat assessment, eight special-status plant species occur or have the potential to occur in the vicinity of the Project (Appendix E). Of these, six do not occur or are unlikely to occur based on the absence of suitable habitat and/or the Project being outside the species' geographic or elevation range. One special-status plant species, thread-leaved brodiaea (*Brodiaea filifolia*), is likely to occur within the Survey Area based on the presence of suitable soils, vegetation alliances, and/or documented collections. See Appendix E for distribution, habitat preference, and habitat suitability for these species.

5.7.2.1 Federal/State Listed Plant Species Observed

No federal or state listed plant species were identified during the habitat assessment survey.

5.7.2.2 Federal/State Listed Plant Species Likely to Occur

No federal or state listed plant species are anticipated to occur within the Project Site; however, one plant species, thread-leaved brodiaea, has the potential to occur within the Survey Area. Thread-leaved brodiaea is a federally threatened, state endangered, and CNPS species with a California Rare Plant Rank (CRPR) of 1B.1. Fifteen plants were identified in 1998 in the Open Space area one-half mile northeast of the Project (Appendix A: Exhibit 3B).

No thread-leaved brodiaea individuals were observed within the Survey Area but potentially suitable habitat includes the Aliso Creek floodplain and open areas with clay soils south of the proposed connector path. The Project impact areas will not be within habitat or soils identified as suitable for thread-leaved brodiaea.

5.7.2.3 CNPS Listed Plant Species Likely to Occur

No additional CNPS listed plant species are likely to occur on the Project.

5.7.2.4 Protected Trees

Five coast live oaks (*Quercus agrifolia*) were identified in the Survey Area. Four of the oaks are located within potential impact areas on the Project and would likely need to be removed (Appendix A: Exhibit 4). Approximately 21 coast live oaks would be planted along the widened connector road as part of the Project (see Appendix B). All trees had diameter at breast height (dbh) measurement of less than 25 inches and appeared to be healthy with no obvious evidence of decay, cracks or other structural defects, or canopy die back. The Project is located on private property within an incorporated area of Orange County. As such, the removal of these trees would not be subject to County oak tree ordinances, rather, the guidelines of the City of Lake Forest's Tree Preservation and Landscaping Ordinance (TPLO). However, a permit authorizing the removal of these trees would not be required pursuant to items A through G listed in Section 42-4 of the TPLO.

5.7.3 SPECIAL-STATUS WILDLIFE SPECIES

Based upon the literature search and habitat assessments, 15 special-status wildlife species occur or have the potential to occur in the vicinity of the Project (Appendix E). Of these, five do not occur or are unlikely to occur based on the absence of suitable habitat and/or the alignment being outside the species' geographic or elevation range. Two special-status wildlife species, coastal cactus wren and coyote, were observed during the habitat assessment survey; both observations were outside of the anticipated Project impact areas. Five special-status wildlife species are likely to occur within the Survey Area based on the presence of suitable habitat and/or documented observations. See Appendix E for distribution and habitat preference for these species.

5.7.3.1 Federal/State Listed or Fully Protected Wildlife Species Observed

No federal or state listed wildlife species were identified during the habitat assessment survey.

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5.7.3.2 Federal/State Listed or Fully Protected Wildlife Species Likely to Occur

Coastal California Gnatcatcher (*Polioptila californica californica*)

The coastal California gnatcatcher is a federally threatened species, State SSC, and a "Target" species in the Orange County Central/Coastal NCCP/HCP. Numerous historical records are located throughout the Project vicinity (Appendix A: Exhibit 3C), and USFWS Critical Habitat occurs less than 1 mile from the Project (Appendix A: Exhibit 3A).

The Project Site is immediately adjacent to suitable coastal sage scrub habitat.; however, no gnatcatchers were observed within the Survey Area. Suitable foraging and breeding habitat are present in the coastal sage scrub communities, specifically the *Artemisia californica* communities, located on the slope south of the proposed connector path (Appendix A: Exhibit 4). As such, coastal California gnatcatchers may occur adjacent to the Project's impact area for the proposed pathway.

5.7.3.3 Special-Status (Non-Listed) Wildlife Species Observed

Coastal Cactus Wren (*Campylorhynchus brunneicapillus sandiegensis*)

The coastal cactus wren is a state SSC and a "Target" species in the Orange County Central/Coastal NCCP/HCP. Numerous historical records are located on and around the Project (Appendix A: Exhibit 3C). Suitable foraging and breeding habitat occur in the CSS communities, specifically the *Opuntia littoralis* communities, located on the slope south of the proposed connector path and outside of anticipated impact areas.

A pair of cactus wren was observed within the Survey Area approximately 300-feet southwest of the Project during the habitat assessment survey (Appendix A: Exhibit 4). However, no coastal cactus wrens are likely to occur within the Project's impact area.

Coyote (*Canis latrans*)

The coyote is not federally or state listed, however it is an "Identified" species in the Orange County Central/Coastal NCCP/HCP. Coyote scat was observed during the habitat assessment survey in the Aliso Creek corridor, which is likely used by coyotes as a movement corridor. Coyotes are known to utilize urban development for shelter and food sources and they are likely to occur within the Project Site.

5.7.3.4 Special-Status (Non-Listed) Wildlife Species Likely to Occur

Western Spadefoot (*Spea hammondii*)

The western spadefoot is a state SSC and an "Identified" species in the Orange County Central/Coastal NCCP/HCP. Historical records occur along the Aliso Creek corridor (Appendix A: Exhibit 3C). During large rain events creating long-lasting pools of water, the spadefoot may emerge from underground and breed in the Aliso Creek corridor. Suitable habitat is present in the CSS communities within the Survey Area and within the riparian habitat associated with Aliso Creek but outside the Project impact area.

Orange-throated Whiptail (*Aspidoscelis hyperythra*)

The orange-throated whiptail is a state watch list species and a "Target" species in the Orange County Central/Coastal NCCP/HCP. Historical records occur near the Project (Appendix A: Exhibit 3C). Orange-throated whiptails are likely to occur within suitable habitat is present in the CSS communities located just south of the Project Site. No suitable habitat occurs within the Project impact area.

Southern California Rufous-crowned Sparrow (*Aimophila ruficeps canescens*)

The southern California rufous-crowned sparrow is a state watch list species and an "Identified" species in the Orange County Central/Coastal NCCP/HCP. Historical records occur near the Project (Appendix A: Exhibit 3C). Southern California rufous-crowned sparrows are likely to occur where suitable habitat is present in the CSS communities located just south of the Project Site.

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6.0 POTENTIAL IMPACTS AND MITIGATION

6.1 Waters Resources

EI's *Jurisdictional Delineation Report* (EI 2019; Appendix C) determined the collective area of potential waters of the state, exclusively that occur within the Project and FMZ areas totals approximately 0.03 acre. Of this total, approximately 0.02 acre (265 linear feet) is composed of drainage swale and approximately 0.01 acre is composed of associated riparian extent (southern willow scrub).

A submission of a Notification of Lake or Streambed Alteration to the CDFW South Coast Region Field office for issuance of a Streambed Alteration Agreement (SAA) prior to commencement of the Project could be required. Submitting the Lake or Streambed Alteration Notification (Notification) to the CDFW South Coast Region for the Project also allows CDFW to determine whether aquatic features, under their regulatory administration will become 'substantially, adversely affected' under CFGC Section 1602(a), and to provide guidance on requisite and appropriate compensatory mitigation for any unavoidable impacts to these aquatic resources as a result of the Project activities. Submitting a Notification may also enable CDFW to determine that no SAA and/or compensatory mitigation would be required for activities related to the Project.

Compensatory mitigation may be necessary to offset unavoidable impacts to jurisdictional aquatic resources (e.g., trimming/thinning the southern willow scrub) as related to the Project Fuel Modification Plan as mandated/required by OCFA.

Compensatory mitigation must be, to the extent practicable, sufficient to replace lost aquatic resource functions. Compensatory mitigation related to jurisdictional aquatic habitat (e.g., southern willow scrub) may be required for all permanent (and temporary) impacts to jurisdictional aquatic habitat and is usually conditional to any SAA issued by CDFW. The amount of compensatory mitigation would be determined through consultation and permit processing with CDFW.

6.2 Biological Resources

Construction activities could cause potential impacts to special-status biological resources identified or potentially occurring in the Project area. According to the Lake Forest General Plan, a project would normally have a significant land use impact if it would:

1. Physically divide an established community.
2. Substantially conflict with existing on-site or adjacent land use due to project-related significant unavoidable indirect effects (e.g., noise, aesthetics, etc.) that preclude use of the land as it was intended by the General Plan.
3. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, planned community, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.
4. Conflict with the Orange County Central/Coastal NCCP/HCP of which the City of Lake Forest is a participant.

The first three items above should not be applicable for the proposed Project. The fourth item point will require the Project to adhere to the provisions outlined in the Orange County Central/Coastal NCCP/HCP. As described in *Section 3.3.1 – City of Lake Forest*, non-participating landowners have three options: (1) avoid conversion of CSS habitat; (2) minimize CSS impacts and mitigate unavoidable impacts onsite or on other lands located outside the Reserve through the federal Section 7 or Section 10 processes or, if necessary due to future state listings, through the Section 2081/2084 permit process; or (3) pay a one-time Mitigation Fee ($80,316.78 per acre for impacts to CSS [Natural Communities Coalition 2017]).

If Option 1 (avoidance of conversion of CSS habitat) is feasible, no mitigation would be necessary. This option may require:

- No direct or indirect impacts to CSS communities, or CSS-associated species, would occur.

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- Best Management Practices (BMPs), such as dust control, sediment control, erosion control, materials management, etc., may be required to avoid impacts to waters, CSS communities, and CSS-associated species.
- Construction activities may be required to be conducted between September 2 and January 31, which is outside the typical nesting bird season of February 1 through September 1. If not feasible to conduct construction activities outside of the nesting bird season, nesting bird surveys may be required during the nesting season to determine if nesting birds would be impacted by construction.

If Option 2 (minimize CSS impacts and mitigate unavoidable impacts through the federal/state permit process) is selected, consultation with USFWS and CDFW would be initiated. This process would require the Project to proceed through the agencies' normal review, approval, and ongoing monitoring processes. Focused surveys (e.g., waters, plants, amphibians/reptiles, birds, mammals) would likely be required prior to construction to identify presence/absence, abundance, and distribution of special-status species on and around the Project impact area. Based on focused survey results, mitigation measures would be implemented through consultation with the agencies.

If Option 3 (pay Mitigation Fee) is selected, the Project proponent would pay a one-time fee based on how many acres of CSS habitat would be impacted. This fee would cover all NCCP/HCP-identified CSS species, and no further mitigation would be required. Currently, based on EI's 2019 vegetation mapping, the Project would directly impact approximately 0.27 acre (includes connector path and associated FMZ restoration zone) of CSS habitat comprising *Artemisia californica*. Additionally, the Project would potentially impact approximately 0.12 acre of CSS habitat comprising *Artemisia californica* for vegetation management within the FMZ thinning zone. All of these impacts would occur entirely within the Project Site and FMZ boundaries and no off-site impacts are anticipated. Assuming a total impact to CSS habitat of 0.39 acres, the resulting one-time mitigation fee would be approximately $31,323.54; however, EI recommends consultation with the City or non-profit management corporation (currently Natural Communities Coalition) to determine the exact impact acreage and fees.

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7.0 REFERENCES

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APPENDIX A

Exhibits

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Legend

- Survey Area
- Proposed Connector Path
- FMZ Restoration Zone
- FMZ Irrigated Zone
- FMZ Thinning Zone

N
W E
S

0 150 300 Feet

1:3,600 1 in = 300 feet

Coordinate System: NAD 1983 UTM Zone 11N
Projection: Transverse Mercator
Datum: North American 1983

Created on: Wednesday, June 19, 2019

Environmental Intelligence. Date: 6/19/2019. Q:\Timeless Architecture\Saddleback Church\02_GIS_Data\maps\2018\Exhibits\Exhibit1_EI01_20180116.mxd

Exhibit 1. Project Location

Saddleback Church Conversion Project | Orange County, CA

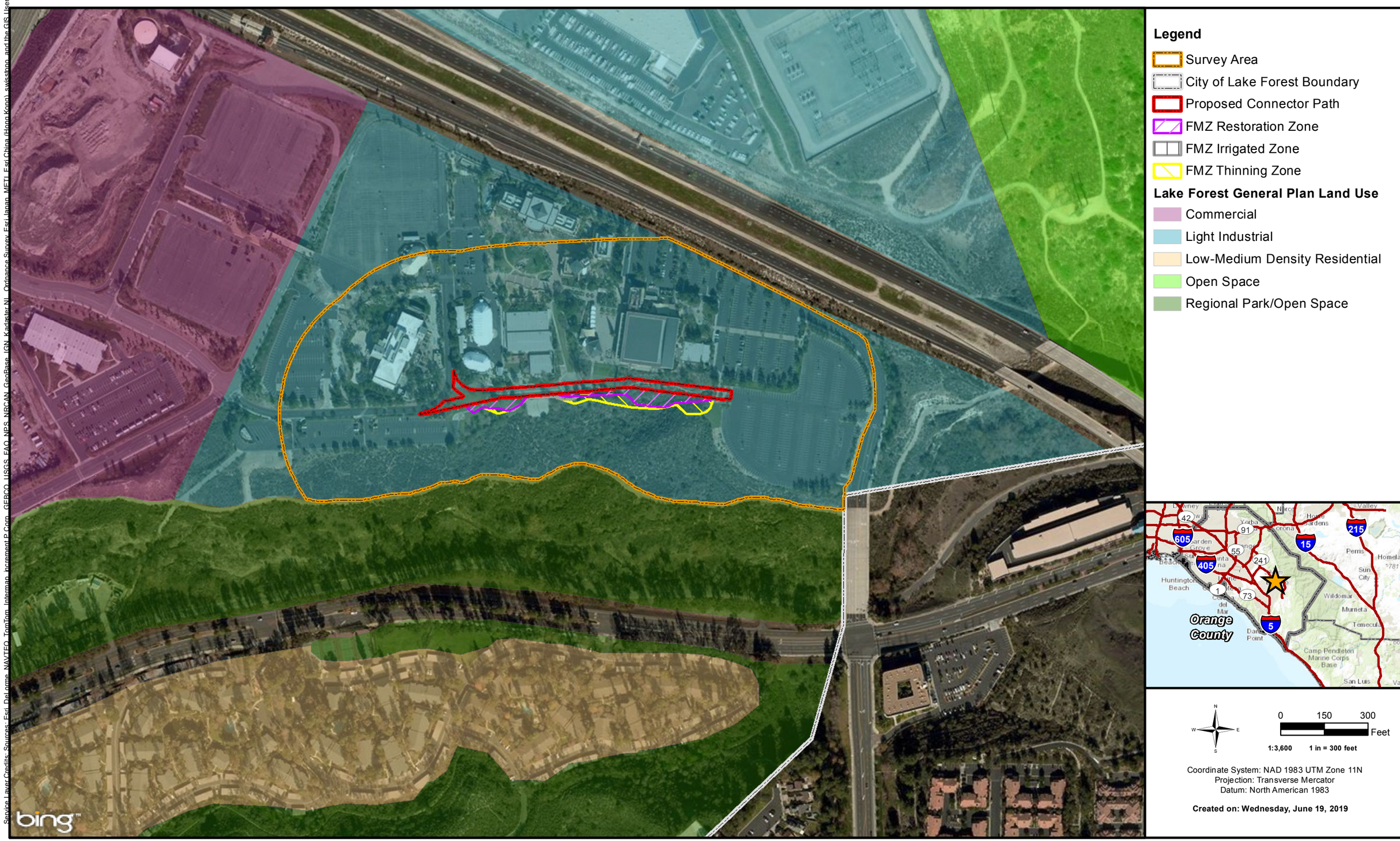


Exhibit 2. Land Use

Saddleback Church Conversion Project | Orange County, CA

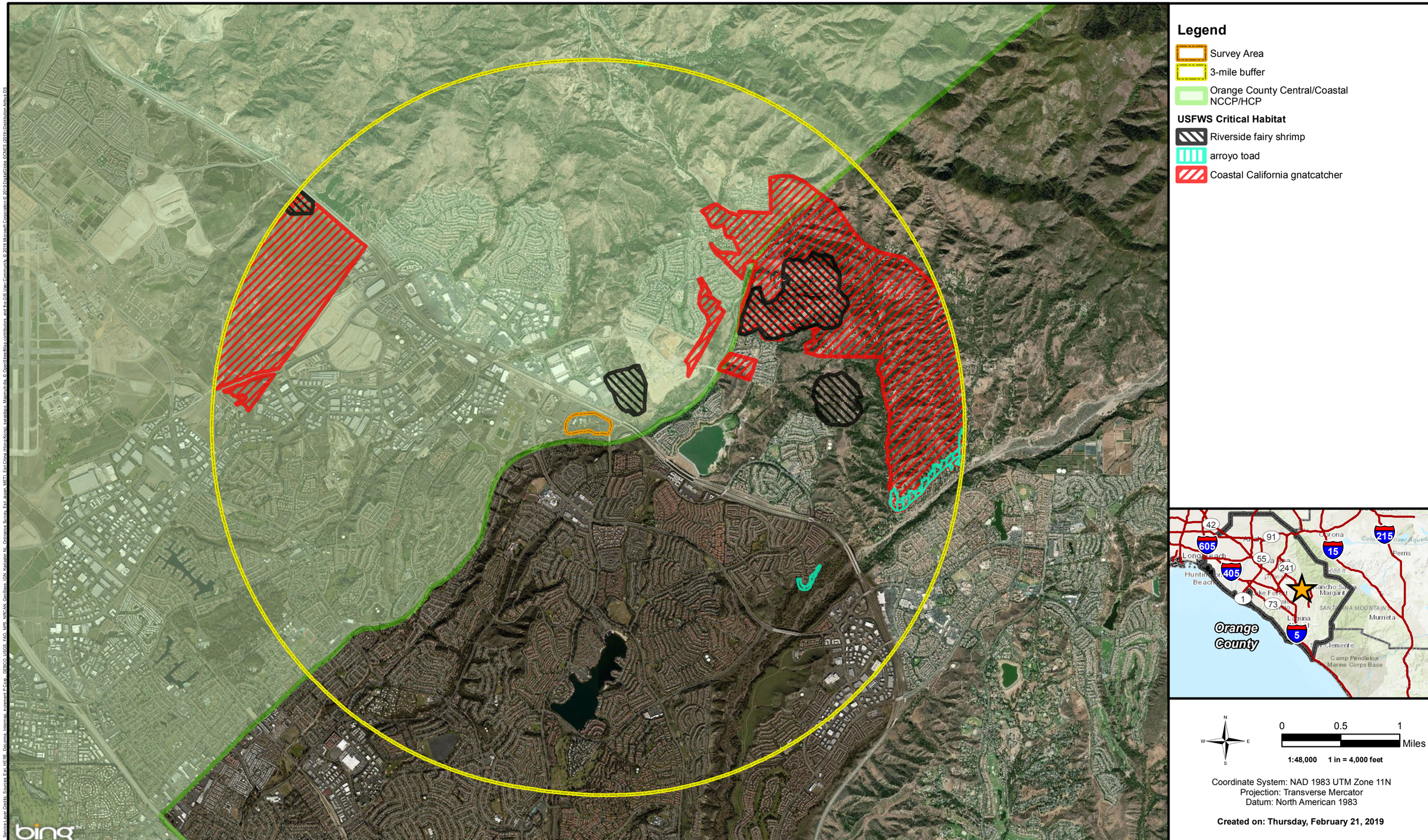
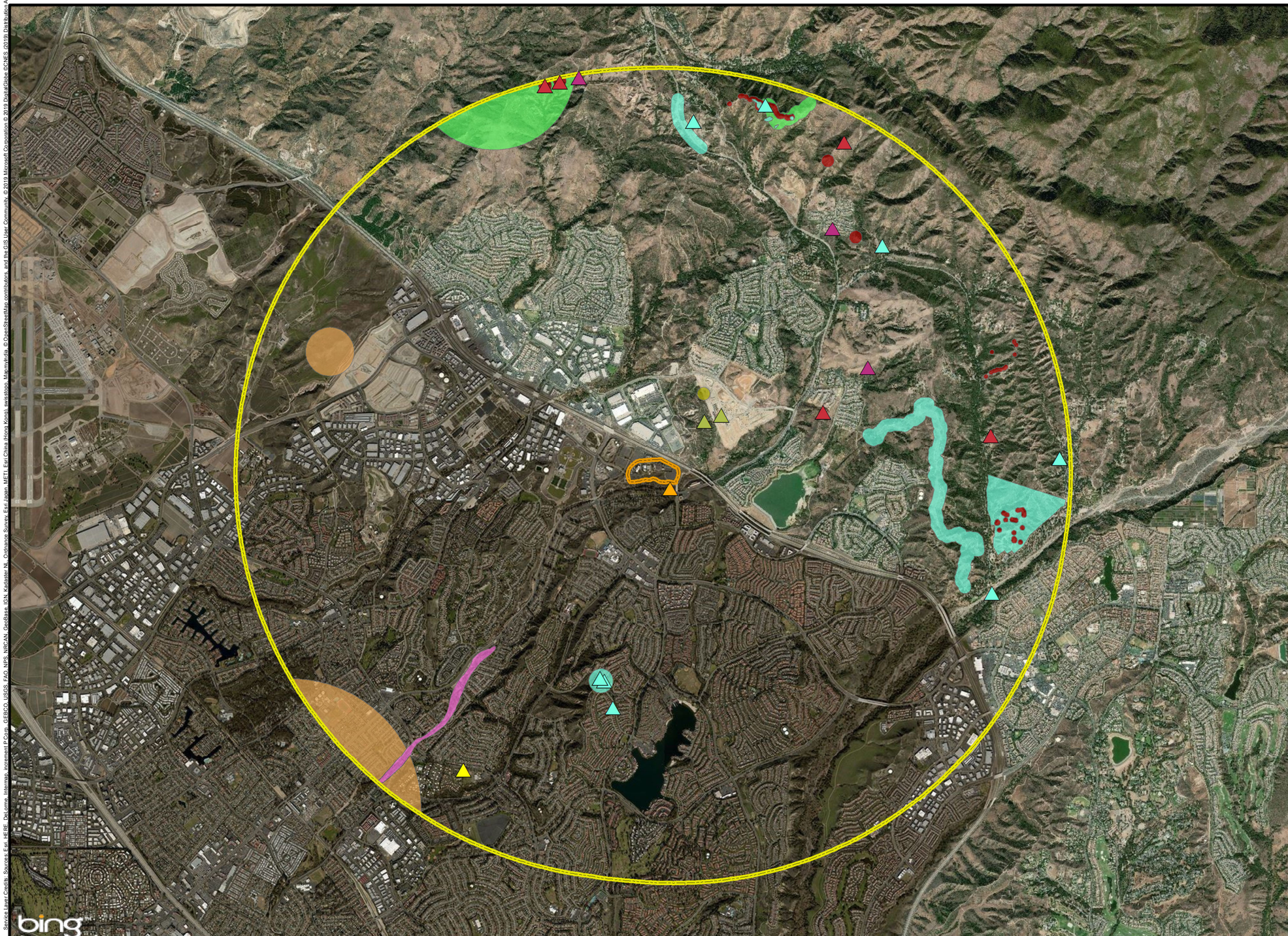


Exhibit 3a: USFWS Critical Habitat and Conservation Lands

Saddleback Church Conversion Project | Orange County, CA



Legend

- Survey Area
- 3 mile buffer

CCH

- *Brodiaea filifolia*
- *Calochortus catalinae*
- *Calochortus weedii* var. *intermedius*
- *Dudleya multicaulis*
- *Nolina cismontana*
- *Romneya coulteri*

CNDDB

- *Brodiaea filifolia*
- *Calochortus weedii* var. *intermedius*
- *Monardella hypoleuca* ssp. *intermedia*
- *Nolina cismontana*
- *Pentachaeta aurea* ssp. *allenii*
- Southern Cottonwood Willow Riparian Forest

N W E S

0 0.5 1 Miles

1:48,000 1 in = 4,000 feet

Coordinate System: NAD 1983 UTM Zone 11N
Projection: Transverse Mercator
Datum: North American 1983

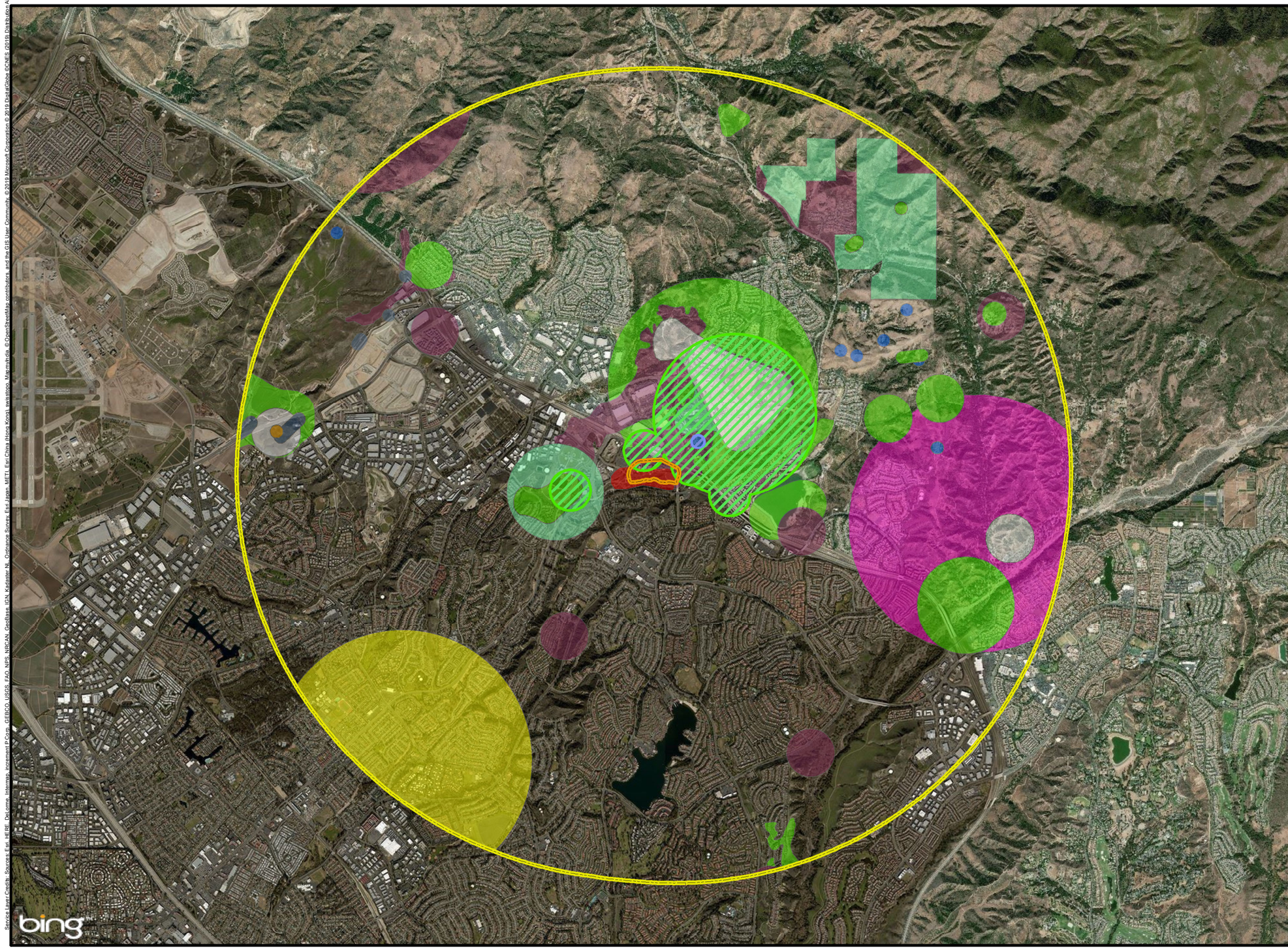
Created on: Thursday, February 21, 2019

Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community, © 2019 Microsoft Corporation © 2019 DigitalGlobe ©CNES (2019) Distribution Airbus DS

Environmental Intelligence: Date: 2/21/2019. Q:\Timeless Architecture\Saddleback Church\02_GIS_Data\maps\2018\Exhibits\Exhibit3b_EI01_20180116.mxd

Exhibit 3b. CNDDB/CCH Records - Plants

Saddleback Church Conversion Project | Orange County, CA



Legend

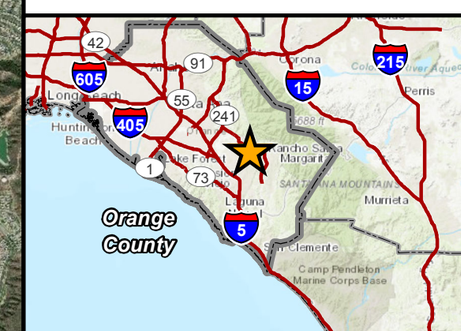
- Survey Area
- 3 mile buffer

CNDDB

- coast horned lizard
- coastal cactus wren
- coastal whiptail
- least Bell's vireo
- orange-throated whiptail
- southern California rufous-crowned sparrow
- tricolored blackbird
- western spadefoot
- Riverside fairy shrimp
- coastal California gnatcatcher

USFWS

- Riverside fairy shrimp
- coastal California gnatcatcher



N W E S

0 0.5 1 Miles

1:48,000 1 in = 4,000 feet

Coordinate System: NAD 1983 UTM Zone 11N
Projection: Transverse Mercator
Datum: North American 1983

Created on: Thursday, February 21, 2019

Service Layer Credits: Source: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community, © 2019 Microsoft Corporation © 2019 DigitalGlobe ©CNES (2019) Distribution Airbus DS

Environmental Intelligence. Date: 2/21/2019. Q:\Timeless Architecture\Saddleback Church\02_GIS_Data\maps\2018\Exhibits\Exhibit3c_EI01_20180116.mxd

Exhibit 3c. USFWS/CNDDB Records - Wildlife

Saddleback Church Conversion Project | Orange County, CA

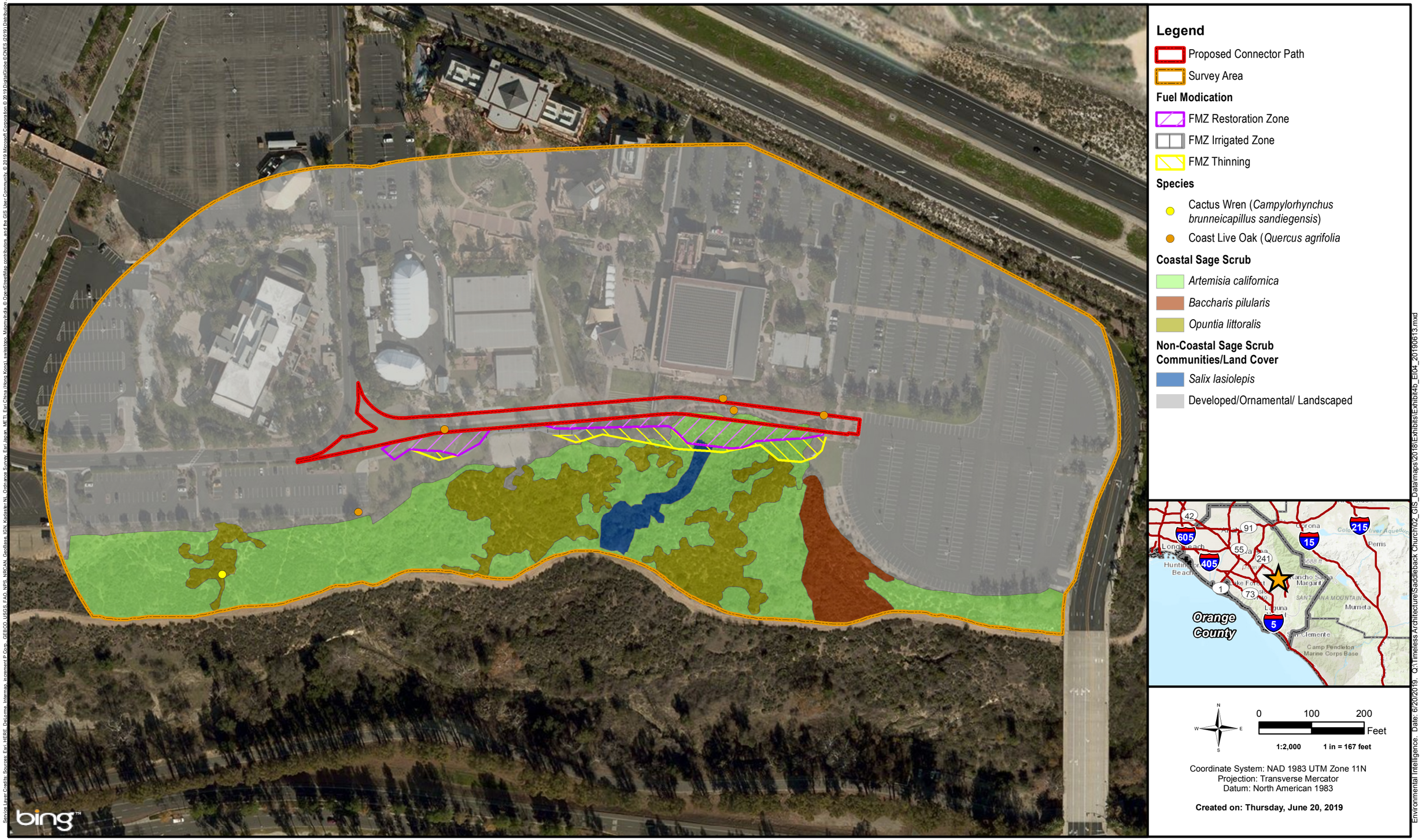


Exhibit 4. Vegetation Mapping and Habitat Assessment Results
Saddleback Church Conversion Project | Orange County, CA

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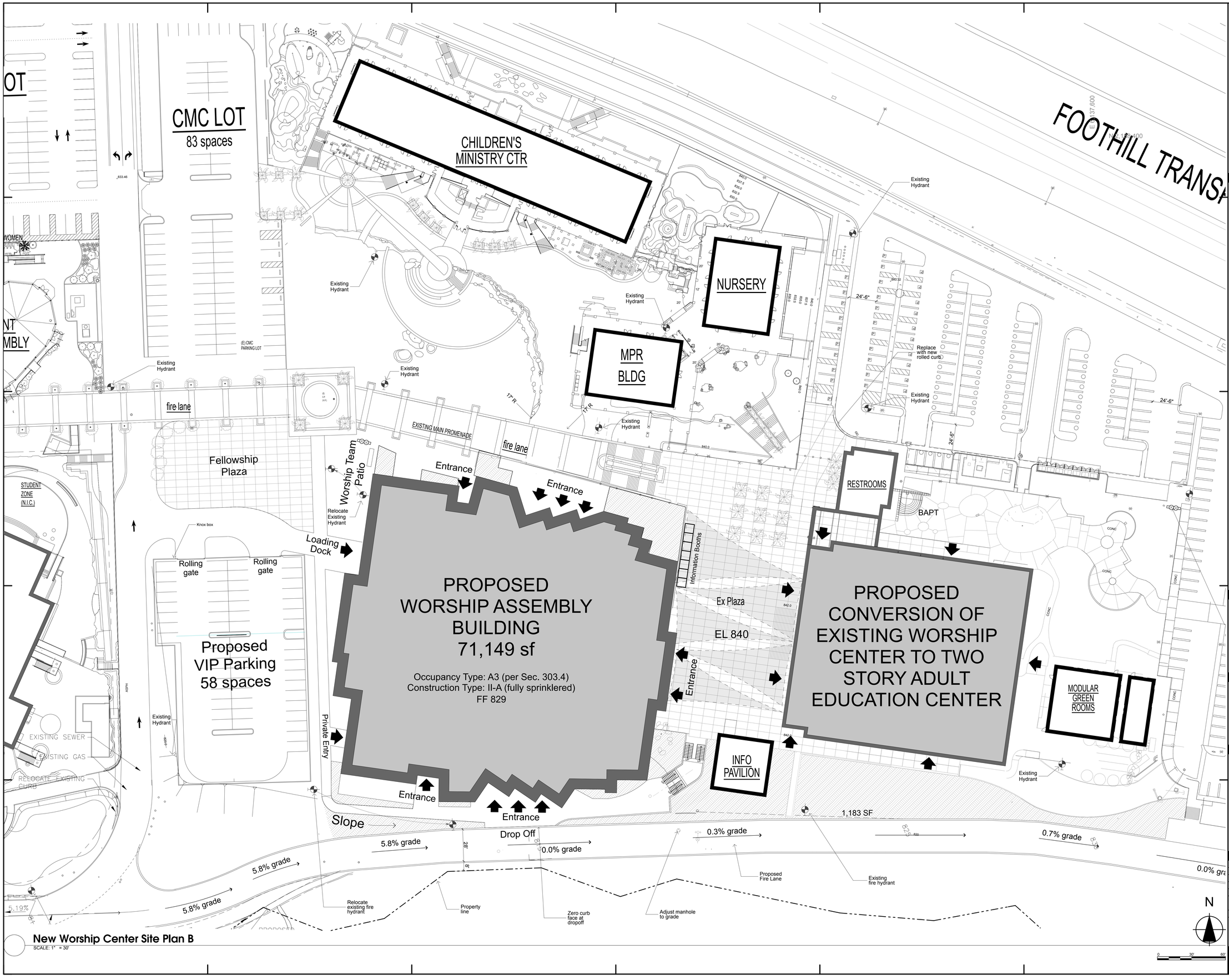
APPENDIX B

Site Plans



New Worship Center Site Plan B

SCALE: 1" = 30'

TIMELESS ARCHITECTURE • INC

9891 IRVINE CENTER DRIVE · SUITE 140
IRVINE · CALIFORNIA · 92618
TEL:949·831·8110 FAX:949·951·2820
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CONSULTANT

STAMPS

LICENSED ARCHITECT · JAMES M. THAYER · C-015575 · REN. 2-28-17 · STATE OF CALIFORNIA

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PROJECT

Saddleback Church Worship Center

SITE ADDRESS:
1 Saddleback Parkway
Lake Forest, CA 92630

MAILING ADDRESS:

PH 949.609.8000

SHEET DATA

PROJECT #	16042
APN:	104-143-12
PDF DATE:	11/2/17-8:41 AM
DRAWN BY:	
LAST SAVED BY:	iMac i7
CAD FILENAME	16042 Saddleback New Worship Center [i5-iMac-Tha

Site Plan

A010

teamwork://i5-iMac-Thane-Right.local/16042 Saddleback New Worship Center

FUEL MODIFICATION PLANS

THIS PROJECT IS LOCATED IN A RECOMMENDED HIGH FIRE SEVERITY ZONE

 # SR 220 090

PLANT LEGEND

SYMBOL	ABBREV	BOTANICAL / COMMON NAME	PLANT* NUMBER	SYMBOL* CODE	MAX. HEIGHT	MAX. WIDTH	PROP. Spacing	QUANTITY	SIZE	REMARKS	WATER USE FACTOR
TREES											
		EXISTING TREES									
	ALN RHO	ALNUS RHOMBIFOLIA / WHITE ALDER	13	o	90'	60'	--	1	EXST.	EXST. TO BE REMOVED	--
	CUP ANA	CUPANIOPSIS ANACARDIOIDES / CARROTWOOD	--	--	40'	30'	--	6	EXST.	EXST. TO REMAIN AND PROTECT IN PLACE	--
	PIN SPE	PINUS SPECIES / PINE TREE	--	--	--	--	--	8	EXST.	EXST. TO BE REMOVED	--
	PLA RAC	PLATANUS RACEMOSA / CALIFORNIA SYCAMORE	210	W	80'	50'	--	1	EXST.	EXST. TO REMAIN AND PROTECT IN PLACE	--
	POP NIG	POPULUS NIGRA 'ITALICA' / LOMBARDY POPLAR	--	--	100'	30'	--	1	EXST.		--
	EXISTING	EXISTING TREES TO REMAIN - OFFSITE (OC PARKS)	--	--	--	--	--	7	EXST.		--
		PROPOSED TREE									
	QUE AGR	QUERCUS AGRIFOLIA / COAST LIVE OAK	222	o	70'	35'	≥30' AS SHOWN	11	24" BOX	SEE DETAILS 'V', SHEET F-6.2	LOW PLANT FACTOR 0.3
SHRUBS											
K	PLU AUR	PLUMBAGO AURICULATA / CAPE LEADWORT IN GROUPS OF THREE SPECIMENTS	211	W	6'	10'	≥15' AS SHOWN	28	5 GALLON	SEE DETAIL 'W', SHEET F-6.2	LOW PLANT FACTOR 0.3
J	PYR KOI	PYRACANTHA KOIDZUMII 'SANTA CRUZ' / SANTA CRUZ FIRETHORN IN GROUPS OF THREE SPECIMENTS	221	W	6'	10'	≥15' AS SHOWN	27	5 GALLON		
GROUND COVER											
	BAC PIL	BACCHARIS PILULARIS / BACCHARIS FROM 1 GALLON SPACE @ 24" ON CENTER	38	W o	2'	6'	AS SHOWN	2,008	1 GALLON	SEE DETAIL 'X', SHEET F-6.2	LOW PLANT FACTOR 0.3
	CAR 'GRE'	CARISSA MAC. 'GREEN CARPET' / PROSTRATE NATAL PLUM FROM 1 GALLON SPACE @ 12" ON CENTER	46	N	15"	4'		3,173	1 GALLON		
	CEA 'POI'	CEANOTHUS GLORIOSUS 'POINT REYES' / POINT REYES CEANOTHUS FROM 1 GALLON SPACE @ 48" ON CENTER	48	W	1-1/2'	16'		573	1 GALLON		
	MYO PAR	MYOPORUM PARVIFOLIUM / PROSTRATE MYOPORUM FROM 1 GALLON SPACE @ 24" ON CENTER	184	W	6"	9'		2,235	1 GALLON		
	ROS 'PRO'	ROSMARINUS OFFICINALIS 'PROSTRATUS' / PROSTRATE ROSEMARY FROM 1 GALLON SPACE @ 24" ON CENTER	241	W n	2'	8'		2,996	1 GALLON		
	EXISTING	EXISTING LAWN TO REMAIN	--	--	--	--		--	EXISTING	EXISTING TO REMAIN AND PROTECT IN PLACE	--
	EXISTING NATIVE	EXISTING NATIVE VEGETATION TO REMAIN AND MODIFIED PER ZONE C REQUIREMENT.	--	--	--	--		--	EXISTING	EXISTING TO REMAIN	--
SUCCULENTS											
2	AGA ATT	AGAVE ATTENUATA / CENTURY PLANT	8	W	5'	8'	AS SHOWN	15	5 GALLON	SEE DETAIL 'W', SHEET F-6.2	LOW PLANT FACTOR 0.3
5	AGA VIC	AGAVE VICTORIAE-REGINAE / QUEEN VICTORIA AGAVE	10	N	15"	15"		89	5 GALLON		
1	AEO DEC	AEONIUM DECORUM / AEONIUM	6	X	12"	12"		59	5 GALLON		
3	ALO VERA	ALOE VERA / MEDICINAL ALOE	17	W	12"	18"		42	5 GALLON		
4	DUD PUL	DUDLEYA PULVERULENTA / CHALK DUDLEYA	95	o	24"	24"		71	5 GALLON		
	ALO ARI	ALOE ARISTATA / NO COMMON NAME FROM 1 GALLON SPACE @ 18" ON CENTER	15	N	10"	10"	18"	485	1 GALLON	SEE DETAIL 'X', SHEET F-6.2	
	SED CON	SEDUM CONFUSUM / NO COMMON NAME FROM 1 GALLON SPACE @ 24" ON CENTER	252	X	18"	18"	24"	362	1 GALLON		
	SEN SER	SENECIO SERPENS / BLUE CHALKSTICKS FROM 1 GALLON SPACE @ 18" ON CENTER	255	X	6"	12"	18"	1,100	1 GALLON		

NOTE: WITHIN THE FUEL MODIFICATION ZONES, THE PLANT SPECIES FOR THE PRECISE FUEL MODIFICATION PLANS WILL BE SELECTED FROM THE OCFA APPROVED PLANT PALETTE ATTACHMENT 8

NURSERY STANDARD NOTES:

ALL PLANT MATERIALS DELIVERED TO THE SITE SHALL CONFORM WITH THE CURRENT NURSERY INDUSTRY STANDARDS, THAT INCLUDES AND IS NOT LIMITED TO HEAVY PRUNING, TOPPING AND SPIKE MARKS EVIDENT ON ANY SPECIMEN TREES AND / OR PALMS.

SIZE AND QUALITY OF PLANT MATERIAL SHALL CONFORM WITH THE CURRENT NURSERY INDUSTRY STANDARDS. MATERIALS NOT IN COMPLIANCE WITH THESE SAID STANDARDS SHALL BE DEEMED UNACCEPTABLE AND WILL BE REPLACED WITH MATERIALS THAT ARE.

THE SIZE OF THE MATERIAL SHALL BE IN PORPORTION WITH THE RESPECTIVE CONTAINER SIZE. PLANT MATERIAL THAT DOES NOT FILL THE CONTAINER (WITHIN REASON) IS TO BE REPLACED WITH MATERIAL IN KIND THAT MEET THE INDUSTRY STANDARDS.

PLANT MATERIAL THAT IS OVERGROWN AND ROOT-BOUND IS NOT ACCEPTABLE WILL BE RETURNED.

PHOTOS OF ALL TREES AND PALMS TO BE SUBMITTED TO LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO DELIVERY TO SITE. NO SUBSTITUTIONS ALLOWED UNLESS APPROVED BY LANDSCAPE ARCHITECT.

COMPLIANCE NOTE:

I HAVE COMPLIED WITH THE CRITERIA OF THE WATER EFFICIENT LANDSCAPE REGULATIONS PER AB 1881 AND APPLIED THEM ACCORDINGLY FOR THE EFFICIENT USE OF WATER IN THE IRRIGATION DESIGN.

INSTALL ALL IRRIGATION EQUIPMENT, IRRIGATION DESIGN AND PLANT MATERIALS IN COMPLIANCE WITH THE CITY OF LAKE FOREST STANDARD UNIFORM BUILDING CODE.

SIGNATURE

10/05/2018
DATE

PLANTING NOTES

THE LANDSCAPE CONTRACTOR SHALL INSTALL ALL PLANT MATERIAL IN ACCORDANCE WITH THE PLANS AND DETAILS.

PRIOR TO SOIL PREPARATION, CONTRACTOR SHALL HIRE A LICENSED SOIL LABORATORY TO ANALYZE THE SITE SOIL IN PLANTING AREAS TO DETERMINE THE AGRICULTURAL SUITABILITY AND FERTILITY. THE LAB SHALL SUBMIT A WRITTEN REPORT OF THEIR FINDINGS WITH ANY RECOMMENDATIONS FOR THE AMENDING OF THE SOIL TO THE OWNER AND THE LANDSCAPE ARCHITECT TO BE IMPLEMENTED BY THE CONTRACTOR IN ADDITION TO THE ORIGINAL SOIL PREP MIX.

SOIL PREPARATION AMENDMENTS (PER 1000 SQUARE FEET):
- 4 CUBIC YARDS OF NITROGEN STABILIZED & MINERALIZED ORGANIC AMENDMENTS (REDWOOD, FIR OR CEDAR SHAVINGS)
- 50 POUNDS AGRICULTURAL GYPSUM
- 150 POUNDS GRO-POWER PLUS

THE REQUIRED SITE SPECIFIC SOILS REPORT AND ITS RECOMMENDATIONS WILL DICTATE THE FINAL SOIL PREPARATION REQUIREMENTS.

CULTIVATE (ROTOTIL) PLANTING AREAS TO A DEPTH OF SIX (6) INCHES WITH THE REQUIRED SOIL PREPARATION AMENDMENTS, WET THOROUGHLY AND ALLOW TO SETTLE, REPEAT THIS PROCEDURE UNTIL SOIL IS STABLE ENOUGH TO HOLD A UNIFORM AND SMOOTH CONSISTENCY TO ALLOW FOR DRAINAGEAND AIR PENETRATION. DO NOT ROTOTIL SLOPED AREAS THAT ARE OVER A 3:1 GRADIENT.

FOR WEED CONTROL, CONTINUE TO IRRIGATE THOROUGHLY FOR A PERIOD OF TWO TO THREE WEEKS OR UNTIL THE WEED SEEDS HAVE GERMINATED. WHEN THERE IS SUFFICIENT WEED SEED GERMINATION, THE CONTRACTOR SHALL APPLY A POST EMERGENT WEED KILLER, ACCORDING TO THE DIRECTIONS OF A LICENSED PEST CONTROL APPLICATOR. THE CONTRACTOR SHALL THEN WAIT AN ADDITIONAL ONE WEEK TO ALLOW THE WEED KILLER TO DISSIPATE PRIOR TO PLANTING.

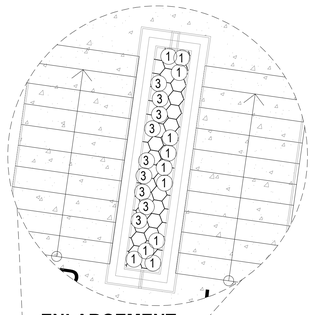
BACKFILL MIX FOR TREE AND SHRUB PLANTING FOR INFILTRATION PLANTER (PER CUBIC YARD):
- 2/3 CUBIC YARD ON SITE SOIL
- 1/3 CUBIC YARD ORGANIC AMENDMENT (NITROLIZED SHAVINGS)
- 1 POUND IRON SULFATE (20% IRON, 10% SULFUR)
- 2 POUNDS 6-20-20 COMMERCIAL FERTILIZER
- 10 POUNDS GRO-POWER PLUS

PROVIDE GRO-POWER PLANTING TABLETS (7 & 21 GRAMS) IN EACH PLANTING PIT AS FOLLOWS:
- (1) ONE TABLET (7 GRAMS) FOR EACH 4" POT & GROUND COVER
- (1) ONE TABLET (21 GRAMS) FOR EACH 1 GALLON CONTAINER
- (3) THREE TABLETS (63 GRAMS) FOR EACH 5 GALLON CONTAINER
- (5) FIVE TABLETS (105 GRAMS) FOR EACH 15 GALLON CONTAINER
- (4) FOUR TABLETS (84 GRAMS) FOR EACH 1/2" OF CALIPER MEASURED 14" ABOVE SOIL LEVEL FOR LARGER SIZES

REMOVE STAKES AND TRELLIS FROM VINES AND ESPALIERS AND SECURE TO WALLS, FENCES AND POSTS AS PER DETAIL.

GROUND COVERS SHALL EXTEND BENEATH ALL TREES AND SHRUBS IN PLANTER AREAS WITH GROUND COVERS INDICATED.

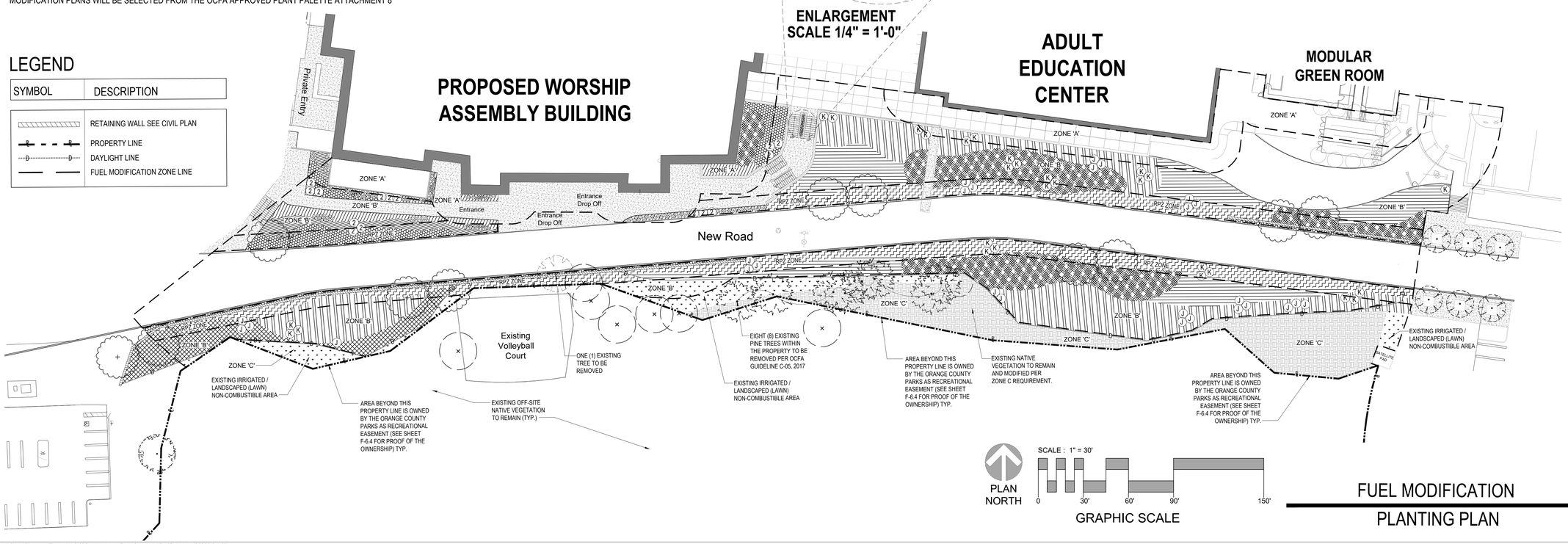
NOTE: WHENEVER NEW TREES ARE LOCATED WITHIN SIX (6) FT. OF ANY CONCRETE WALK, CURB, WALL OR BUILDING, THEY MUST BE PLACED WITHIN A LINEAR ROOT BARRIER AS INDICATED WITH THE SYMBOL (——) (TYPICAL). THE PREFERRED BARRIER IS MIN .085 THICK BLACK POLYETHYLENE MATERIAL PLACED ALONG THE SIDE OF THE WALL, CURB, BUILDING ETC., TWENTY-FOUR (24) INCHES DEEP AND A LENGTH OF TEN FEET CENTERED ON THE TREE.



ENLARGEMENT
SCALE 1/4" = 1'-0"

LEGEND

SYMBOL	DESCRIPTION
	RETAINING WALL SEE CIVIL PLAN
	PROPERTY LINE
	DAYLIGHT LINE
	FUEL MODIFICATION ZONE LINE



FUEL MODIFICATION PLANTING PLAN

F-1.0

TIMELESS ARCHITECTURE INC

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STAMPS

LICENSED LANDSCAPE ARCHITECT
KENNETH A. ANDREW
NO. 1460
Signature
NOVEMBER 30, 2019
Renewal Date
12/28/2018
Date
STATE OF CALIFORNIA

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PROJECT

Saddleback Church
Worship Center

SITE ADDRESS:
1 Saddleback Parkway
Lake Forest, CA 92630

MAILING ADDRESS:

PH 949.609.8000

SHEET DATA

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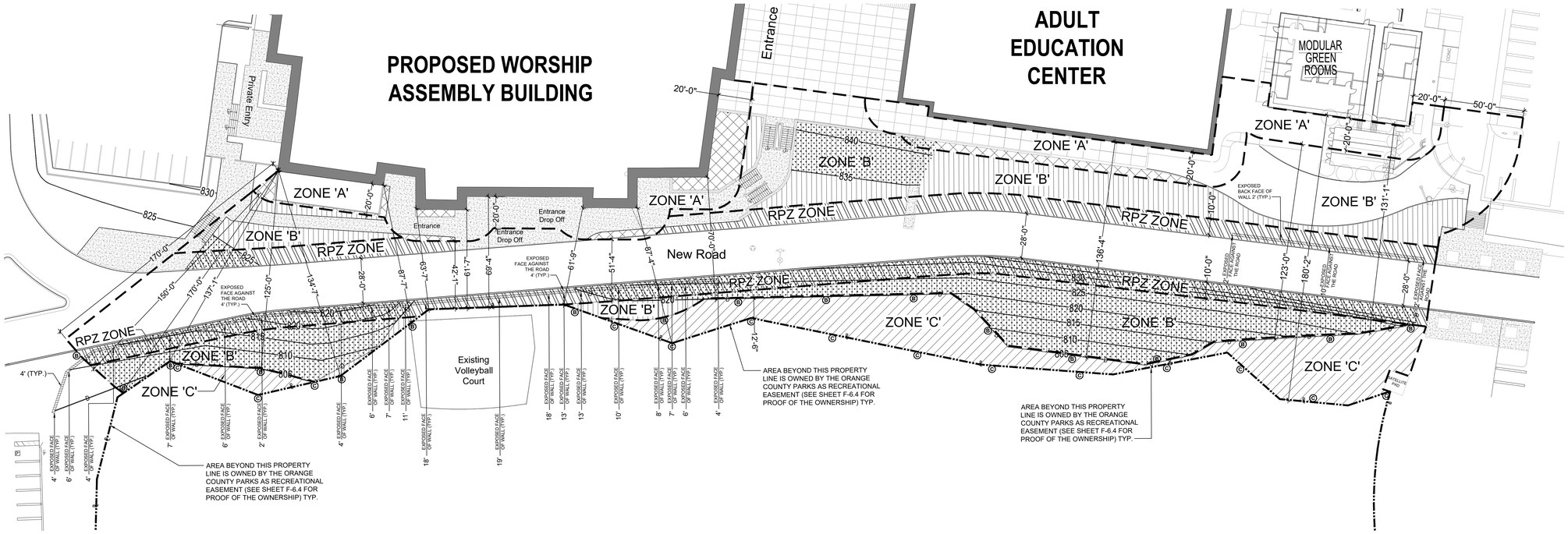
CAD FILENAME	16042 Saddleback New Worship Center

APN : 104-143-12

FUEL MODIFICATION PLANS

THIS PROJECT IS LOCATED IN A RECOMMENDED HIGH FIRE SEVERITY ZONE

 # SR 220 090



ZONE A:

IRRIGATED ZONE

ZONE A IS
20-FEET
IN WIDTH

A. 60 TO 170 FEET FMZ MINIMUM WIDTH (REFER TO SHEET F-6.3 AM&M LETTER)

1) FLAT LEVEL GROUND REQUIREMENT
2) 20-FOOT MINIMUM WIDTH
3) BUILDING FOUNDATION SETBACK (NO DESIGN ALTERNATIVES ALLOWED)
   a. ZONE "A" (20 FEET WIDE)
   b. SETBACK FROM THE SLOPE NEAREST THE FOUNDATION.
   c. NO COMBUSTIBLE CONSTRUCTION ALLOWED IN SETBACK.
   d. AUTOMATIC IRRIGATION SYSTEMS TO MAINTAIN HEALTHY VEGETATION WITH HIGH MOISTURE CONTENT AND BE REGULARLY IRRIGATED.
   e. PLANTS IN THIS ZONE SHALL BE HIGHLY FIRE RESISTANT AND SELECTED FROM ATTACHMENT 8 (REFER TO ATTACHMENT 8 AND SECTION 3).
   f. IF ALL ZONES A-D ARE TO BE MAINTAINED BY THE STRUCTURE OWNER, THEN ZONE A SHALL BEGIN AT THE WALL OF THE STRUCTURE

ZONE B:

IRRIGATED ZONE

ZONE B IS
40-150 FEET
IN WIDTH

ON-SLOPE ZONE "B" **(40 -150 FEET WIDE):** REFER TO SHEET F-6.3 AM&M LETTER

1) REQUIRED AT THE NEAREST SLOPE ADJOINING ZONE A.
2) IRRIGATED AND PLANTED PER ATTACHMENT 6.
3) COULD REPLACE ZONES C/D WHEN GRADING PLANS REQUIRE LARGER REPLANTED AREAS.
4) ALL PLANT SPECIES DESIGNED FOR ZONE B SHALL BE SELECTED FROM ATTACHMENT 8. EXISTING FUEL MODIFICATION MAINTENANCE PROGRAMS ARE LIMITED TO THE PLANTS LISTED ON THE APPROVED PLANS UNLESS A REVISION IS REQUESTED. PLANTING AND MAINTENANCE SHALL BE IN ACCORDANCE WITH PLANTING RESTRICTIONS FROM ATTACHMENTS 6, 7, AND 8.
5) NO COMBUSTIBLE CONSTRUCTION IS ALLOWED WITHIN ZONE B.

ZONE C:

THINNING ZONE - NON-IRRIGATED

ZONE C IS
0-52 FEET
IN WIDTH

C. ON-SLOPE ZONE "C/D" **(0-52 FEET WIDE):** REFER TO SHEET F-6.3 AM&M LETTER

1) ONE NATURAL VEGETATION THINNING (ZONE C) OR TWO THINNING ZONES (ZONE C/D).
2) PLANTING INSTALLATION PER ATTACHMENT 6, IF INSTALLING PLANTS.
3) SEE SECTION 4 ALTERNATIVES.
4) PLANTS SPECIES INTRODUCED INTO ZONE C AND D SHALL BE SELECTED FROM ATTACHMENT 8. MAINTENANCE SHALL BE IN ACCORDANCE WITH ATTACHMENTS 6 AND 7. (SEE SECTION 3)
5) NO COMBUSTIBLE CONSTRUCTION IS ALLOWED WITHIN ZONE C AND D.

RPZ ZONE:

IRRIGATED ZONE

RPZ ZONE IS
10 FEET
IN WIDTH

RESIDENTIAL TRACT TYPES OF INTERIOR SLOPE

B. SMA TYPE 2 : (REFER TO SHEET F-6.3 AM&M LETTER)

1) ROADSIDE PROTECTION ZONE (RPZ)
2) 50 FEET MAXIMUM WIDTH
3) CAN BE DESIGNED AS FMZ OR SMA DEPENDING ON IF THE ROAD IS AT THE PERIMETER OR INTERIOR OF THE COMMUNITY.
4) STREETSCAPE DESIGNS WHICH ARE NOT COMMUNITY PERIMETER EDGES MAY NOT BE REGULATED UNLESS A DISTINCT HAZARD IS CREATED.
5) DESIGN MUST BE IRRIGATED.

ZONE LEGEND

SYMBOL	DESCRIPTION
	ZONE A - IRRIGATED ZONE
	ZONE B - IRRIGATED ZONE
	ZONE C - THINNING ZONES - NOT IRRIGATED
	RPZ ZONE - IRRIGATED ZONE
	NEW PLANTS RESTORATION ZONES WITH PERMANENT IRRIGATION Wherever new grading occurred, restored with new plants and permanent irrigation per planting plan, irrigation plan and fuel modification zone requirements.

GENERAL NOTE

SEE SHEET F-6.3 FOR AM&M LETTER (A5)

ZONE MARKER LEGEND

SYMBOL	MARKER	REMARKS
Ⓑ	FIRE ZONE B	SEE ATTACHMENT 4 SHEET F-4.0 FOR DETAILS
Ⓒ	FIRE ZONE C	

LEGEND

SYMBOL	DESCRIPTION
	RETAINING WALL SEE CIVIL PLAN
P P	PROPERTY LINE
D D	DAYLIGHT LINE
	FUEL MODIFICATION ZONE LINE
810	PROPOSED CONTOUR LINE AT REGRADED SLOPE

NOTE: WHEREEVER REGRADING OCCURS, NEW PLANTS WILL BE PROVIDED TO REPLACE THE EXISTING LANDSCAPE. NEW LANDSCAPE WILL COMPLY WITH REQUIREMED FUEL MODIFICATION ORDINANCE.

PLAN NORTH

SCALE : 1" = 30'

0 30' 60' 90' 150'

GRAPHIC SCALE

FUEL MODIFICATION

ZONES with ZONE MARKERS

TIMELESS ARCHITECTURE + INC

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STAMPS

LICENSED LANDSCAPE ARCHITECT
KENNETH A. ANDREW
NO. 1460
SIGNATURE
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FUEL MOD. ZONES

F-3.0

APN : 104-143-12

PLANT PALETTE

- EXISTING TREES:
  - EXISTING FICUS TREE / INDIAN LAUREL FIG TO REMAIN
- NEW PROPOSED TREES: (PER WUCOLS ZONE 3)
  - BRACHYCHITON POPULNEUS / KURRAJONG BOTTLE TREE
    LOPHOSTEMON CONFERTUS / BRISBANE BOX
  - CINNAMOMUM CAMPHORA / CAMPHOR TREE
    PODOCARPUS GRACILIOR / FERN PODOCARPUS
  - CERCIS CANADENSIS 'FOREST PANSY' / FOREST PANSY REDBUD
    LAGERSTROEMIA INDICA / CRAPE MYRTLE
  - OLEA EUROPAEA 'SWAN HILL' / FRUITLESS OLIVE
    QUERCUS ILEX / HOLLY OAK
    PODOCARPUS GRACILIOR / FERN PODOCARPUS
  - PINUS SPECIES / PINE TREE
  - QUERCUS AGRIFOLIA / COASTAL SCRUB OAK
  - PLATANUS RACEMOSA / CALIFORNIA SYCAMORE.
    EXISTING FICUS TREE / INDIAN LAUREL FIG TO BE RELOCATED
- NEW PROPOSED PALMS: (PER WUCOLS ZONE 3)
  - PHOENIX CANARIENSIS / CANARY ISLAND DATE PALM
  - WASHINGTONIA ROBUSTA / MEXICAN FAN PALM

PLANT PALETTE

- SHRUBS: (PER WUCOLS ZONE 3)
  - ANIGOZANTHOS BUSH SPECIES / KANGAROO PAW
    CAREX DIVULSA / BERKELEY SEDGE
  - BOUGAINVILLEA 'BARBARA KARST' / BARBARA KARST BOUGAINVILLEA
  - DIANELLA TASMANICA 'SILVER STREAK' / SILVER STREAK FLAX LILY
  - HEMEROCALLIS SPECIES
    CAREX DIVULSA / BERKELEY SEDGE
    ALOE 'BLUE ELF' / ALOE
  - PHORMIUM 'DARK DELIGHT' / RED NEW ZEALAND FLAX
    STRELITZIA REGINAE / BIRD OF PARADISE
    DIETES GRANDIFLORA / FORTNIGHT LILY
  - (S) PHORMIUM TENAX 'ATROPURPUREUM' / BRONZE FLAX
    STRELITZIA NICOLAI / GIANT BIRD OF PARADISE
  - (P) PITTOSPORUM TOBIRA 'VARIEGATA' / VARIEGATED TOBIRA
    VIBURNUM TINUS / LAURUSTINUS
    WESTRINGIA FRUTICOSA / COASTAL ROSEMARY
  - AGAVE ATTENUATA / CENTURY PLANT
    AEONIUM SPECIES / AEONIUM
    ALOE SPECIES / ALOE
    CRASSULA SPECIES / CRASSULA
    SENECIO SERPENS / BLUE CHALKSTICKS
  - PYRACANTHA KOIDZUMII 'SANTA CRUZ' / SANTA CRUZ FIRETHORN
    RHAPHIOLEPIS INDICA 'CLARA' / INDIAN HAWTHORN
    CARISSA MACROCARPA 'GREEN CARPET' / NATAL PLUM

PLANT PALETTE

- GROUND COVER: (PER WUCOLS ZONE 3)
  MULCH 2" LAYER OF 2" MINUS 'FOREST FLOOR' SHREDDED BARK MULCH AVAILABLE THROUGH AGUINAGA FERTILIZERS (949) 786-9558 (TYP. THROUGHOUT GROUND COVER AREAS).
  CONTRACTOR SHALL SUBMIT SAMPLE TO THE LANDSCAPE ARCHITECT.
  - AFRICAN CALENDULA / CAPEWEED
    ARTIFICIAL TURF
  - BACCHARIS PILULARIS / BACCHARIS
  - CARISSA MACROCARPA 'GREEN CARPET' / NATAL PLUM
  - MYOPORUM PARVIFOLIUM / PROSTRATE MYOPORUM
    CEANOTHUS MARITIMUS 'FROSTY DAWN' / MARITIME CEANOTHUS
  - PLUMBAGO AURICULATA / CAPE LEADWORT
    CEANOTHUS SPECIES
  - PYRACANTHA SPECIES
  - ROSMARINUS OFFICINALIS 'PROSTRATUS' / PROSTRATE ROSEMARY
    CEANOTHUS MARITIMUS 'FROSTY DAWN' / MARITIME CEANOTHUS
    CARISSA MACROCARPA 'GREEN CARPET' / NATAL PLUM
  - EXISTING NATIVE PLANTS TO REMAIN AND PROTECT IN PLACE
- VINES: (PER WUCOLS ZONE 3)
  - ▼ DISTICTIS 'RIVERS' / ROYAL TRUMPET VINE REMOVAL FROM STAKE & SECURE TO WALLS
  - ▽ PARTHENOCISSUS TRICUSPIDATA / BOSTON IVY
    FROM STAKE & SECURE TO WALLS
- SHRUB / VINE SPACING:
  SPACE 1 GALLON SIZE SHRUBS @ 18" TO 24" ON CENTER (TYPICAL).
  SPACE 5 GALLON SIZE SHRUBS @ 24" TO 36" ON CENTER (TYPICAL).

LANDSCAPE NOTES

- IRRIGATION SYSTEM:
  ALL PLANTED AREAS SHALL BE IRRIGATED ACCORDING TO PLANT TYPE GROUPINGS AND ENVIRONMENTAL EXPOSURE AND SHALL RECEIVE UNIFORM WATER COVERAGE AS REQUIRED BY STATE MANDATED WATER ORDINANCE. IRRIGATION SHALL BE AND BY MEANS OF AN AUTOMATICALLY CONTROLLED IRRIGATION CONTROL SYSTEM WITH A RAIN SENSOR. THE SYSTEM SHALL BE CAPABLE OF REPEAT CYCLES IN ORDER TO APPLY WATER AT A RATE THAT THE SOIL CAN ABSORB THE APPLIED IRRIGATION WATER. A MASTER CONTROL VALVE WILL BE INSTALLED TO PREVENT OVER WATERING WHEN VALVES MALFUNCTION. DOMESTIC WATER WILL BE PROTECTED BY MEANS OF A REDUCED PRESSURE TYPE BACKFLOW PREVENTER.

WATER CALCULATIONS

MAXIMUM APPLIED WATER ALLOWANCE (MAWA)
THE PROJECT'S MAXIMUM APPLIED WATER ALLOWANCE (MAWA) SHALL BE CALCULATED:

MAWA = (ETo) (0.62) ((0.7 x LA) + (0.3 x SLA))WHERE:

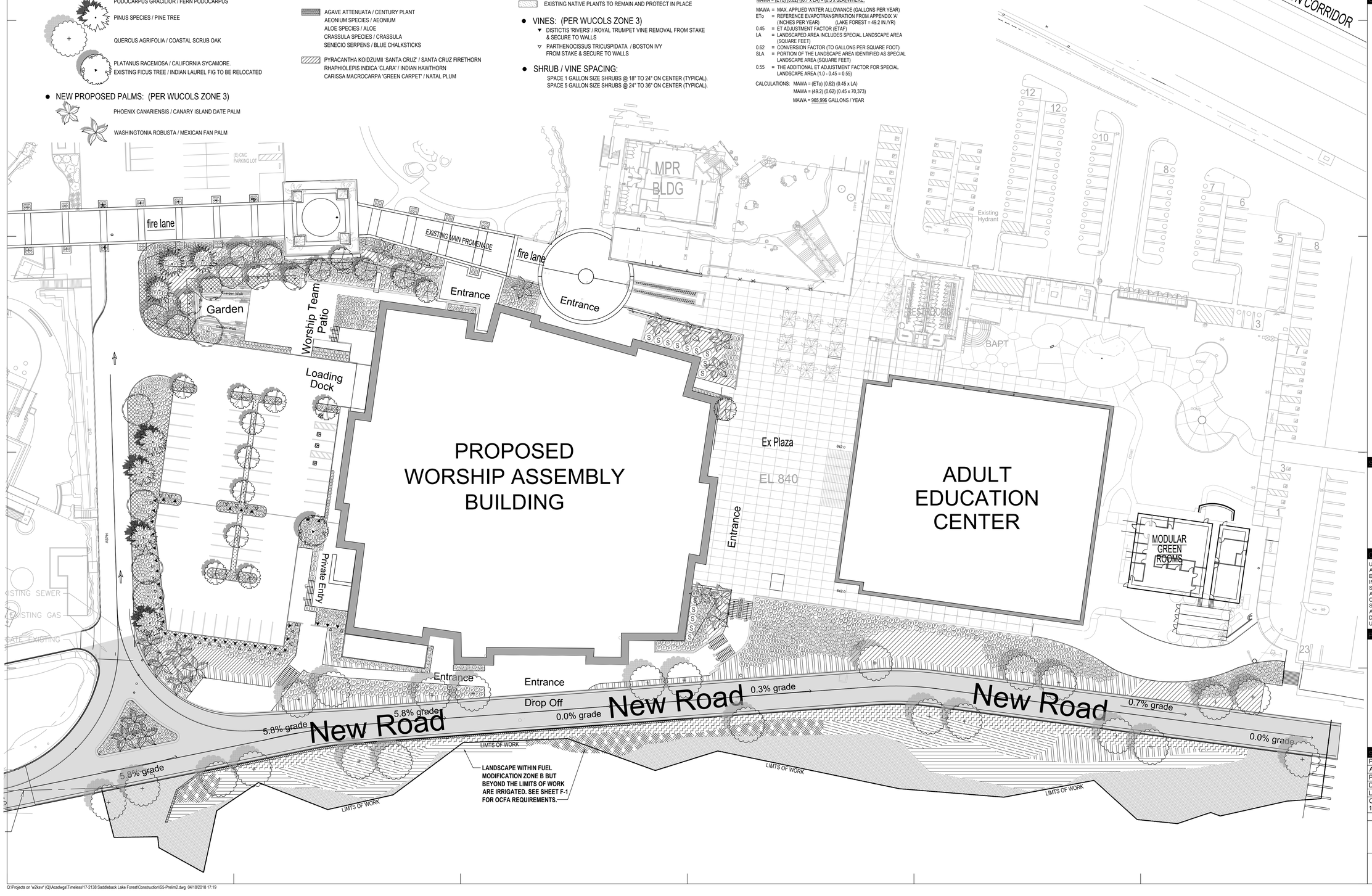
MAWA = MAX. APPLIED WATER ALLOWANCE (GALLONS PER YEAR)
ETo = REFERENCE EVAPOTRANSPIRATION FROM APPENDIX 'A' (INCHES PER YEAR) (LAKE FOREST = 49.2 IN./YR)
0.45 = ET ADJUSTMENT FACTOR (ETAF)
LA = LANDSCAPED AREA INCLUDES SPECIAL LANDSCAPE AREA (SQUARE FEET)
0.62 = CONVERSION FACTOR (TO GALLONS PER SQUARE FOOT)
SLA = PORTION OF THE LANDSCAPE AREA IDENTIFIED AS SPECIAL LANDSCAPE AREA (SQUARE FEET)
0.55 = THE ADDITIONAL ET ADJUSTMENT FACTOR FOR SPECIAL LANDSCAPE AREA (1.0 - 0.45 = 0.55)

CALCULATIONS: MAWA = (ETo) (0.62) (0.45 x LA)
MAWA = (49.2) (0.62) (0.45 x 70,373)
MAWA = 965,996 GALLONS / YEAR

- LANDSCAPE CONCEPT:
  TO PROVIDE VISUAL CONTINUITY OF LANDSCAPE DESIGN WITH EXISTING COMMERCIAL AND INDUSTRIAL DEVELOPMENT. THE LANDSCAPE WILL COMPLIMENT THE ARCHITECTURE WHEREVER POSSIBLE (I.E. SOFTEN WALLS SCREENING SERVICE AREAS WITH TREES, SHRUBS AND VINES). SIGHT CLEARANCE FOR AUTOMOBILE TRAFFIC AND VISUAL ACCESS TO SIGNAGE ARE OBSERVED AND ACCOUNTED FOR IN THE DESIGN.
  PLANT MATERIALS ARE SELECTED FOR TEMPERATURE HARDINESS AND LOW WATER USE REQUIREMENTS. A LAYER OF MULCH WILL BE INSTALLED TO REDUCE WATER EVAPORATION BETWEEN IRRIGATION PERIODS.

PLAN NORTH

SCALE : 1" = 30'
0 30' 60' 90' 150'



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PRELIMINARY PLANTING PLAN

L-1.0

Q:\Projects on \w2ksvr (Q)\Acadwgs\Timeless\17-2138 Saddleback Lake Forest\Construction\SS-Prelim2.dwg 04/18/2018 17:19

APPENDIX C

Compendium

DRAFT

Appendix C:

FLORAL AND FAUNAL COMPENDIUM

FLORAL COMPENDIUM	
SCIENTIFIC NAME (* introduced/nonnative species)	**COMMON NAME**
AIZOACEAE – FIG-MARIGOLD FAMILY	
**Carpobrotus edulis*	Hottentot fig
ALTINGIACEAE – SWEET GUM FAMILY	
**Liquidambar styraciflua*	American sweetgum tree
ANACARDIACEAE – SUMAC FAMILY	
Malosma laurina	Laurel sumac
Rhus ovata	Sugar sumac
**Schinus molle*	Peruvian peppertree
**Schinus terebinthifolius*	Brazilian peppertree
Toxicodendron diversilobum	poison oak
ARECACEAE – PALM FAMILY	
**Phoenix canariensis*	Canary Island date palm
**Washingtonia robusta*	Mexican fan palm
ASTERACEAE – SUNFLOWER FAMILY	
Artemisia californica	California sagebrush
Artemisia douglasiana	mugwort
Artemisia dracunculus	wild tarragon
Baccharis piluaris	Coyote brush
Baccharis salicifolia	mule fat
**Carduus pycnocephalus*	Italian thistle
Erigeron canadensis	Canada horseweed
Heterotheca grandiflora	telegraph weed
Pseudognaphalium stramineum	cottonbatting plant
**Sonchus oleraceus*	common sow-thistle
BETULACEAE	
Alnus rhombifolia	White alder
BIGNONIACEAE – CATALPA FAMILY	
**Jacaranda* spp.	Jacaranda
BORAGINACEAE – BORAGE FAMILY	
Phacelia ramosissima	branching phacelia
BRASSICACEAE – MUSTARD FAMILY	
Descurainia pinnata	Western tansymustard
CACTACEAE – CACTUS FAMILY	
Cylindropuntia prolifera	coastal cholla
Opuntia littoralis	coastal prickly pear
Opuntia oricola	Chaparral prickly pear
CARYOPHYLLACEAE – CARNATION FAMILY	
**Stellaria media*	common chickweed

FLORAL COMPENDIUM	
SCIENTIFIC NAME (* introduced/nonnative species)	**COMMON NAME**
CHENOPODIACEAE – GOOSEFOOT FAMILY	
**Salsola tragus*	Russian thistle
CRASSULACEAE – STONECROP FAMILY	
Dudleya pulverulenta	chalk dudleya
**Rhodiola pachyclados*	Gray stonecrop
CUCURBITACEAE – SQUASH FAMILY	
Cucurbita foetidissima	Coyote melon
EUPHORBIACEAE – SPURGE FAMILY	
Croton setigerus	turkey-mullein
**Ricinis communis*	Castor bean
FAGACEAE – OAK FAMILY	
Quercus agrifolia	Coast live oak
IRIDACEAE – IRIS FAMILY	
**Iris × hollandica*	Dutch iris
LAMIACEAE (LABIATAE) – MINT FAMILY	
**Rosmarinus officinalis*	Rosemary
Salvia apiana	white sage
Salvia mellifera	black sage
MYRTACEAE – MYRTLE FAMILY	
**Calytrix*	starflower
**Eucalyptus tereticornis*	forest red gum
NYCTAGINACEAE – FOUR O'CLOCK FAMILY	
**Bougainvillea* ssp.	Bougainvillea
PAPAVERACEAE – POPPY FAMILY	
Romneya coulteri	Coulter's matilija poppy
PHRYMACEAE – LOPSEED FAMILY	
Mimulus aurantiacus var. *pubescens*	sticky monkeyflower
Mimulus brevipes	slope semaphore
Mimulus guttatus	seep-spring mimulus
Mimulus pilosus	downy monkeyflower
PINACEAE – PINE FAMILY	
**Pinus halepensis*	Aleppo pine
**Pinus pinea*	Italian stone pine
PLATANACEAE – SYCAMORE FAMILY	
**Platanus hybrida*	London planetree

FLORAL COMPENDIUM	
SCIENTIFIC NAME (* introduced/nonnative species)	**COMMON NAME**
Platanus racemosa	western sycamore
PLUMBAGINACEAE – LEADWORT FAMILY	
**Limonium* spp.	Statice
POACEAE (GRAMINEAE) – GRASS FAMILY	
**Arundo donax*	giant reed
**Bromus madritensis*	foxtail brome
**Cortaderia selloana*	Uruguayan pampas grass
**Cynodon dactylon*	Bermuda grass
**Pennisetum setaceum*	fountaingrass
**Zoysia* spp.	Zoysia
POLYGONACEAE – BUCKWHEAT FAMILY	
Eriogonum fasciculatum	California Buckwheat
ROSACEAE – ROSE FAMILY	
Adenostoma fasciculatum	chamise
Heteromeles arbutifolia	toyon
**Photinia x fraseri*	Fraser photinia
**Rosa x* spp.	Ornamental rose
Rubus ursinus	California blackberry
RUTACEAE – RUE FAMILY	
**Citrus x* spp.	Lime tree
SALICACEAE – WILLOW FAMILY	
**Populus nigra*	Lombardy poplar
Salix gooddingii	Goodding's black willow
Salix laevigata	red willow
Salix lasiandra	Pacific willow
Salix lasiolepis	arroyo willow
SAPINDACEAE – SOAPBERRY FAMILY	
**Cupaniopsis anacardioides*	carrotwood tree
SELAGINELLACEAE – SPIKEMOSS FAMILY	
Selaginella bigelovii	Bigelow's spikemoss
SOLANACEAE – NIGHTSHADE FAMILY	
**Nicotiana glauca*	tree tobacco
STRELITZIACEAE – BIRD OF PARADISE FLOWER FAMILY	
**Strelitzia reginae*	Bird of paradise
TAMARICACEAE – TAMARISK FAMILY	
**Tamarix ramosissima*	saltcedar

FLORAL COMPENDIUM	
SCIENTIFIC NAME (* introduced/nonnative species)	**COMMON NAME**
TYPHACEAE – CATTAIL FAMILY	
**Typha domingensis*	cattail
URTICACEAE – NETTLE FAMILY	
Urtica dioica	stinging nettle
VISCACEAE – MISTLETOE FAMILY	
Phoradendron leucarpum	bigleaf mistletoe

FAUNAL COMPENDIUM		
Family	**Scientific Name**	**Common Name**
ARACHNIDA		
Agelenidae	*Agelenopsis* spp.	Funnel Weaver
Theridiidae	*Latrodectus hesperus*	Western Black Widow
INSECTA		
Apidae	*Diadasia* spp.	Cactus Bee
Apidae	*Apis mellifera*	European Honey Bee
Dactylopiidae	*Dactylopius* spp.	Cochineal
Formicidae	*Linepithema humile*	Argentine Ant
AMPHIBIA		
Hylidae	*Pseudacris hypochondriaca*	Baja California Treefrog
AVES		
Aegithalidae	*Psaltriparus minimus*	Bushtit
Corvidae	*Aphelocoma californica*	California Scrub-Jay
Corvidae	*Corvus brachyrhynchos*	American Crow
Fringillidae	*Haemorhous mexicanus*	House Finch
Fringillidae	*Spinus psaltria*	Lesser Goldfinch
Mimidae	*Mimus polyglottos*	Northern Mockingbird
Mimidae	*Toxostoma redivivum*	California Thrasher
Passerellidae	*Melospiza melodia*	Song Sparrow
Passerellidae	*Melozone crissalis*	California Towhee
Passeridae	*Passer domesticus*	House Sparrow
Sylviidae	*Chamaea fasciata*	Wrentit
Trochilidae	*Archilochus alexandri*	Black-Chinned Hummingbird
Trochilidae	*Calypte anna*	Anna's Hummingbird
Troglodytidae	*Campylorhynchus brunneicapillus sandiegensis*	Coastal Cactus Wren
Troglodytidae	*Thryomanes bewickii*	Bewick's Wren
Troglodytidae	*Troglodytes aedon*	House Wren
Tyrannidae	*Empidonax difficilis*	Pacific-slope Flycatcher
Tyrannidae	*Sayornis nigricans*	Black Phoebe
MAMMALIA		
Canidae	*Canis latrans*	Coyote
Cervidae	*Odocoileus hemionus californicus*	California Mule Deer
Leporidae	*Sylvilagus audubonii*	Desert Cottontail

APPENDIX D

PTO Table

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Appendix D:

SPECIAL-STATUS BIOLOGICAL RESOURCES OCCURRING OR POTENTIALLY OCCURRING ON OR IN THE VICINITY (WITHIN 3 MILES) OF THE SADDLEBACK CHURCH CONVERSION PROJECT

Species Name Potential Sites (based on range)	Status[1]			Distribution, Habitat, and Occurrence Potential[2]	Activity / Bloom Period
	Federal	State	CRPR / NCCP		
SENSITIVE VEGETATION COMMUNITIES					
Artemisia californica (California sagebrush scrub) Alliance	–	S5	CSS	The *Artemisia californica* alliance is a CSS community. *Artemisia californica* is dominant or co-dominant in the shrub canopy with *Adenostoma fasciculatum*, *Baccharis pilularis*, *Diplacus aurantiacus*, *Encelia californica*, *Encelia farinosa*, *Eriogonum fasciculatum*, *Hesperoyucca whipplei*, *Isocoma menziesii*, *Keckiella cordifolia*, *Lotus scoparius*, *Opuntia littoralis*, *Rhus integrifolia*, *Salvia apiana*, *Salvia leucophylla*, *Salvia mellifera*, *Sambucus nigra*, and *Toxicodendron diversilobum*. Emergent trees or tall shrubs may be present at low cover. Habitats include slopes that are usually steep and rarely flooded, and low-gradient deposits along streams. Soils are alluvial or colluvial derived and shallow. Elevation ranges from 0 to 1,200m. **Occurs**. California sagebrush scrub present on slope south of developed lands. Habitat quality ranges from high to disturbed. Suitable for CSS species.	–

Species Name Potential Sites (based on range)	Status[1]			Distribution, Habitat, and Occurrence Potential[2]	Activity / Bloom Period
	Federal	State	CRPR / NCCP		
Baccharis piluaris (Coyote brush scrub) Alliance	–	S5	CSS	The *Baccharis piluaris* alliance is a CSS community. *Baccharis pilularis* is dominant to co-dominant in the shrub canopy with *Artemisia californica*, *Ceanothus thyrsiflorus*, *Corylus cornuta*, *Diplacus aurantiacus*, *Eriogonum fasciculatum*, *Eriophyllum staechadifolium*, *Frangula californica*, *Garrya elliptica*, *Gaultheria shallon*, *Holodiscus discolor*, *Lotus scoparius*, *Lupinus arboreus*, *Morella californica*, *Rubus ursinus*, *Salvia apiana*, *Salvia leucophylla*, and *Toxicodendron diversilobum*. Emergent trees may be present at low cover including *Pinus muricata*, *Pseudotsuga menziesii*, *Quercus agrifolia*, or *Umbellularia californica*. Habitats include river mouths, stream sides, terraces, stabilized dunes of coastal bars, spits along the coastline, coastal bluffs, open slopes, and ridges. Soils are variable, sandy to relatively heavy clay. Elevation ranges from 0 to 1,500m. **Occurs**. Two habitat patches occur towards the east end: one adjacent to the proposed connector path and one south of the developed lands. Suitable for CSS species.	–

Species Name Potential Sites (based on range)	Status[1]			Distribution, Habitat, and Occurrence Potential[2]	Activity / Bloom Period
	Federal	State	CRPR / NCCP		
Opuntia littoralis (Coast prickly pear scrub) Alliance	–	S3	CSS	The *Opuntia littoralis* alliance is a CSS community. *Opuntia littoralis* and/or other cacti are dominant or co-dominant in the shrub canopy with *Artemisia californica*, *Cleome isomeris*, *Cneoridium dumosum*, *Cylindropuntia californica*, *Cylindropuntia prolifera*, *Encelia californica*, *Eriogonum fasciculatum*, *Euphorbia misera*, *Hesperoyucca whipplei*, *Lycium* spp., *Malosma laurina*, *Mirabilis laevis* var. *crassifolia*, *Opuntia ×occidentalis*, *Opuntia oricola*, *Opuntia phaeacantha*, *Opuntia ×vaseyi*, *Rhus integrifolia*, *Salvia mellifera*, and *Sambucus nigra*. Emergent trees may be present at low cover, including *Schinus molle*. Habitats include south-facing slopes and headlands. Soils are shallow, loams and clays that may be rocky. Elevation ranges from 0 to 1,200m. **Occurs**. Several patches occur on the slope south of the developed lands. Suitable for CSS species.	–

Species Name Potential Sites (based on range)	Status[1]			Distribution, Habitat, and Occurrence Potential[2]	Activity / Bloom Period
	Federal	State	CRPR / NCCP		
Platanus racemosa (California sycamore woodlands) Alliance	–	S3	–	*Platanus racemosa* is dominant or co-dominant in the tree canopy with *Alnus rhombifolia*, *Juglans californica*, *Populus fremontii*, *Quercus agrifolia*, *Quercus lobata*, *Salix exigua*, *Salix gooddingii*, *Salix laevigata*, *Salix lasiolepis*, *Salix lutea*, *Schinus molle*, and *Umbellularia californica*. Habitats include gullies, intermittent streams, springs, seeps, stream banks, and terraces adjacent to floodplains that are subject to high-intensity flooding. Soils are rocky or cobbly alluvium with permanent moisture at depth. Elevation ranges from 0 to 2,400m. **Occurs**. Landscaped sycamores present on developed lands and along border between developed and CSS habitats.	–
Salix laevigata (Red willow thickets) Alliance	–	S3	–	*Salix laevigata* is dominant or co-dominant in the tree or shrub canopy with *Acer negundo*, *Aesculus californica*, *Alnus rhombifolia*, *Calocedrus decurrens*, *Pinus jeffreyi*, *Pinus sabiniana*, *Platanus racemosa*, *Populus fremontii*, *Quercus agrifolia*, *Quercus chrysolepis*, *Salix gooddingii*, *Salix lasiolepis*, *Salix lucida* ssp. *lasiandra*, and *Sambucus nigra*. Habitats include ditches, floodplains, lake edges, and low-gradient depositions along streams. Elevation ranges from 0 to 1,700m. **Occurs**. One patch occurs on slope south of developed lands among CSS habitats.	–

Species Name Potential Sites (based on range)	Status[1]			Distribution, Habitat, and Occurrence Potential[2]	Activity / Bloom Period
	Federal	State	CRPR / NCCP		
Southern Cottonwood Willow Riparian Forest	–	S3	–	Tall, open, broadleafed winter-deciduous riparian forests dominated by *Populus fremontii*, *Populus trichocarpa*, and several tree willows. Along perennially wet stream reaches of the Tranverse and Peninsular ranges, from Santa Barbara County south to Baja California Norte and east to the edge of the deserts. One location identified in CNDDB approximately 1.75 miles southwest of the Project. **Absent**. This habitat community is not present on or in the immediate vicinity of the Project.	–
PLANTS					
Brodiaea filifolia thread-leaved brodiaea	FT	SE	1B.1	A perennial bulbiferous herb often found on clay soils in chaparral, cismontane woodland, coastal scrub, playas, valley and foothill grassland, and vernal pool habitats. 25-1,120 meters. Records from 1998 are located within the NCCP Open Space approximately 0.5 mile northeast of Project. **Likely**. Suitable habitat present in Aliso Creek floodplain and open areas with clay soils south of the proposed connector path.	Mar-Jun

Species Name Potential Sites (based on range)	Status[1]			Distribution, Habitat, and Occurrence Potential[2]	Activity / Bloom Period
	Federal	State	CRPR / NCCP		
Calochortus catalinae Catalina mariposa lily	–	–	4.2 Identified	A perennial bulbiferous herb found in chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland habitats. 15-700 meters. Three records from 1991, 1998, and 2008 are located in the Santa Ana Mountains approximately 2-3 miles from the Project. **Unlikely**. Although suitable habitat is present, known records are not known from the immediate vicinity.	Feb-Jun
Calochortus weedii var. *intermedius* intermediate mariposa lily	–	–	1B.2 Identified	A perennial bulbiferous herb found in rocky, calcareous areas within chaparral, coastal scrub, and valley and foothill grassland habitats. 105-855 meters. Multiple records located in the Santa Ana Mountains approximately 1.3 to 3 miles from the Project. **Does not occur**. Suitable rocky habitat is not present.	May-Jul
Dudleya multicaulis many-stemmed dudleya	–	–	1B.2	A perennial herb found in clay areas within chaparral, coastal scrub, and valley and foothill grassland habitats. 15-790 meters. One record from 1949 located approximately 2.7 miles southwest of Project. **Unlikely**. Although suitable habitat is present, known records are not known from the immediate vicinity.	Apr-Jul

Species Name Potential Sites (based on range)	Status[1]			Distribution, Habitat, and Occurrence Potential[2]	Activity / Bloom Period
	Federal	State	CRPR / NCCP		
Monardella hypoleuca ssp. *intermedia* intermediate monardella	–	–	1B.3	A perennial rhizomatous herb usually found in the understory of chaparral, cismontane woodland, and lower montane coniferous forest habitats. 400-1,250 meters. Two records from 2008 located in the Santa Ana Mountains approximately 3 miles north of the Project. **Does not occur**. Project is outside the elevation range for this species.	Apr-Sep
Nolina cismontane chaparral nolina	–	–	1B.2	A perennial evergreen shrub found on sandstone or gabbro substrates within chapparal and coastal scrub habitats. 140-1,275 meters. Numerous records ranging from 1.5 to 3 miles from the Project. **Does not occur**. Suitable substrates are not present.	Mar-Jul
Pentachaeta aurea ssp. *allenii* Allen's pentachaeta	–	–	1B.1	An annual herb found in openings of coastal scrub and valley and foothill grassland habitats. 75-520 meters. One recent record from 1992 located at El Toro National Wildlife Refuge approximately 3 miles southwest of the Project. **Unlikely**. Although suitable habitat is present, known records are not known from the immediate vicinity.	Mar-Jun

Species Name Potential Sites (based on range)	Status[1]			Distribution, Habitat, and Occurrence Potential[2]	Activity / Bloom Period
	Federal	State	CRPR / NCCP		
Romneya coulteri Coulter's matilija poppy	–	–	4.2 Identified	A perennial rhizomatous herb found in chaparral and coastal scrub habitats, often in burned areas. 20-1,200 meters. **Occurs**. During the field survey, an occurrence of 30-40 plants was identified along the north edge of Aliso Creek approximately 650 feet south of the Project, coinciding with a historical record from 1990.	Mar-Aug
INVERTEBRATES					
Streptocephalus woottoni Riverside fairy shrimp	FE	–	Identified	A small aquatic crustacean generally restricted to vernal pools and other non-vegetated ephemeral pools greater than 12 inches in depth in Riverside, Orange, and San Diego Counties in southern California and northwestern Baja California, Mexico. Critical habitat occurs approximately 0.2 mile northeast of the Project on NCCP/HCP Open Space. Multiple records within 3 miles of the Project, with the nearest record from 1998 located on critical habitat approximately 0.3 mile northeast. **Unlikely**. No vernal pool habitat observed during field survey.	Jan-Mar
AMPHIBIANS					

Species Name **Potential Sites (based on range)**	**Status[1]**			**Distribution, Habitat, and Occurrence Potential[2]**	**Activity / Bloom Period**
	Federal	**State**	**CRPR / NCCP**		
Anaxyrus californicus arroyo toad	FE	SSC	Identified	Endemic to California and northern Baja California. Ranges west of the desert in coastal areas, from the upper Salinas River system in Monterey County to northwestern Baja California. Inhabits washes, arroyos, sandy riverbanks, riparian areas with willows, sycamores, oaks, cottonwoods. Extremely specialized habitat needs, including exposed sandy streamsides with stable terraces for burrowing with scattered vegetation for shelter, and areas of quiet water or pools free of predatory fishes with sandy or gravel bottoms without silt for breeding. Sedentary and faithful to breeding sites. Critical habitat occurs approximately 2-2.5 miles southeast/east of the Project in Trabuco Creek, although no records have been identified. **Unlikely**. Not known from Aliso Creek.	Jan-Sep

Species Name Potential Sites (based on range)	Status[1]			Distribution, Habitat, and Occurrence Potential[2]	Activity / Bloom Period
	Federal	State	CRPR / NCCP		
Spea hammondii western spadefoot	–	SSC	Identified	Endemic to California and northern Baja California. Ranges from near Redding south throughout the Great Valley and its associated foothills, through the South Coast Ranges into coastal southern California south of the Transverse mountains and west of the Peninsular mountains, into northwest Baja California. Prefers open areas with sandy or gravelly soils, in a variety of habitats including mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains. Rainpools which do not contain bullfrogs, fish, or crayfish are necessary for breeding. Almost completely terrestrial, entering water only to breed. One record from 1992 is located along the stretch of Aliso Creek just south of the Project. **Likely**. Suitable habitat present in Aliso Creek.	Oct-May
REPTILES					

Species Name Potential Sites (based on range)	Status[1]			Distribution, Habitat, and Occurrence Potential[2]	Activity / Bloom Period
	Federal	State	CRPR / NCCP		
Aspidoscelis hyperythra orange-throated whiptail	–	WL	Target	In California, this subspecies ranges from the Santa Ana River in Orange County, and near Colton in San Bernardino County, west of the Peninsular ranges, south almost to the cape region of the Baja Peninsula. Semi-arid brushy areas typically with loose soil and rocks, including washes, streamsides, rocky hillsides, and coastal scrub. Records from 1990 to 2002 are located near the Project. **Likely**. Suitable habitat present on the slope south of Project.	Mar-Aug
Aspidoscelis tigris stejnegeri coastal whiptail	–	SSC	Identified	This subspecies is found in coastal Southern California, mostly west of the Peninsular Ranges and south of the Transverse Ranges, and north into Ventura County. Ranges south into Baja California. Found in a variety of ecosystems, primarily hot and dry open areas with sparse foliage - chaparral, woodland, and riparian areas. One record from 2008 located approximately 2.8 miles west of Project. **Unlikely**. Although suitable habitat is present, known records are not known from the immediate vicinity.	Mar-Aug

Species Name Potential Sites (based on range)	Status[1]			Distribution, Habitat, and Occurrence Potential[2]	Activity / Bloom Period
	Federal	State	CRPR / NCCP		
Crotalus ruber red diamond rattlesnake	–	SSC	Identified	Found in southwestern California, from the Morongo Valley west to the coast and south along the Peninsular ranges to mid Baja California. Inhabits arid scrub, coastal chaparral, oak and pine woodlands, rocky grassland, and cultivated areas. No database records. **Unlikely**. Although suitable habitat is present, known records are not known from the immediate vicinity.	Mar-Oct
Phrynosoma blainvillii coast horned lizard	–	SSC	Identified	Historically found in California along the Pacific coast from the Baja California border west of the deserts and the Sierra Nevada, north to the San Francisco Bay Area, and inland as far north as Shasta Reservoir, and south into Baja California. Inhabits open areas of sandy soil and low vegetation in valleys, foothills and semiarid mountains. Found in grasslands, coniferous forests, woodlands, and chaparral, with open areas and patches of loose soil. Often found in lowlands along sandy washes with scattered shrubs and along dirt roads, and frequently found near ant hills. Two records from the early 1990s within 3 miles of the Project. **Unlikely**. Although suitable habitat is present, known records are not known from the immediate vicinity.	Apr-Oct
BIRDS					

Species Name **Potential Sites (based on range)**	**Status[1]**			**Distribution, Habitat, and Occurrence Potential[2]**	**Activity / Bloom Period**
	Federal	**State**	**CRPR / NCCP**		
Agelaius tricolor tricolored blackbird (nesting colony)	–	CE SSC	–	Species breeds locally west of the Cascade Range, Sierra Nevada, and southeastern deserts from Humboldt and Shasta counties south to extreme southwest San Bernardino County, western Riverside County, and western and southern San Diego County. Primarily breeds in freshwater marshes dominated by cattails (*Typha* spp.) or bulrushes (*Schoenoplectus* spp.). Small breeding colonies in southern California often occur at private and public lakes, reservoirs, and parks surrounded by shopping centers, subdivisions, and other urban development. One nesting colony recorded in 1988 at a pond approximately 2 miles southwest of Project. **Does not occur**. Suitable breeding habitat does not occur in the immediate vicinity of the Project.	Year-round Breeding: Mar-Aug

Species Name Potential Sites (based on range)	Status[1]			Distribution, Habitat, and Occurrence Potential[2]	Activity / Bloom Period
	Federal	State	CRPR / NCCP		
Aimophila ruficeps canescens southern California rufous-crowned sparrow	–	WL	Identified	Occurs throughout much of southwest U.S. and Mexico, but range is often discontinuous, with numerous small, isolated populations. Subspecies *canescens* is a resident in southwestern California on coastal slopes of Transverse and Peninsular Ranges from northwest Los Angeles County south into northwestern Baja California Norte and on San Martín Island. Generally inhabits moderate to steep, dry, rocky, south- or west-facing slopes vegetated with scattered scrub cover interspersed with patches of grasses and forbs or rock outcrops. Shows marked preference for coastal sage scrub dominated by California sagebrush. Three records from 1999 to 2002 from CSS communities near the Project. **Likely**. Suitable habitat present on the slope south of Project.	Year-round Breeding: Mar-Sep
Campylorhynchus brunneicapillus sandiegensis coastal cactus wren	–	SSC	Target	Found throughout southwestern California from the coast to the desert. Subspecies sandiegensis found in coastal sage scrub from southern Orange County south to Baja California. A sedentary species requiring patches of cholla and prickly-pear cactus amidst native brush vegetation. Numerous records from on and around the Project. **Occurs**. Pair observed in *Opuntia littoralis* community on slope south of Project.	Year-round Breeding: Mar-Sep

Species Name **Potential Sites (based on range)**	**Status[1]**			**Distribution, Habitat, and Occurrence Potential[2]**	**Activity / Bloom Period**
	Federal	**State**	**CRPR / NCCP**		
Empidonax traillii extimus Southwestern willow flycatcher (nesting)	FE	SE	Identified	Breeds in the southwest, including southern California, Arizona, New Mexico west of the Rio Grande, southwestern Utah, southern Nevada, and possibly southwestern Colorado. Prefers moist, shrubby areas, often with standing or running water, such as willow thickets. No database records. **Unlikely**. Suitable breeding habitat in Aliso Creek is marginal based on the lack of density and complexity this species prefers. However, migrants could use Aliso Creek as a corridor.	Breeding: May-Sep
Polioptila californica californica coastal California gnatcatcher	FT	SSC	Target	Permanent resident of southern California and Baja California. In U.S., found west of Transverse and Peninsular Ranges in coastal southern California in coastal sage scrub habitat. Numerous records throughout the Project vicinity. Critical habitat occurs less than one mile to the northeast. **Likely**. Suitable breeding habitat is present on the slope south of the Project.	Year-round Breeding: Feb-Aug

Species Name Potential Sites (based on range)	Status[1]			Distribution, Habitat, and Occurrence Potential[2]	Activity / Bloom Period
	Federal	State	CRPR / NCCP		
Vireo bellii pusillus least Bell's vireo	FE	SE	Identified	Breeds from central California south to northern Baja California. Winters in southern Baja California Sur, with some winter records north to southwestern California. Inhabits riparian woodlands. Records from 2007 to 2012 located approximately 2.5 miles west of the Project. **Unlikely**. Although suitable habitat is present, known records are not known from the immediate vicinity	Breeding: Apr-Aug
MAMMALS					
Canis latrans coyote	–	–	Identified	Coyotes are found in all parts of the United States, except for Hawaii. They are also found in Mexico, Central America, and most of Canada. Coyotes can be found in a variety of habitats including fields, plains, and bushy areas. **Occurs**. Sign (scat) observed during field survey along the Aliso Creek corridor.	Year-round

Species Name **Potential Sites (based on range)**	**Status[1]**			**Distribution, Habitat, and Occurrence Potential[2]**	**Activity / Bloom Period**
	Federal	**State**	**CRPR / NCCP**		
Neotoma lepida intermedia San Diego desert woodrat	–	SSC	Identified	Inhabits virtually all of southern California. Common to abundant in Joshua tree, pinyon-juniper, mixed and chamise-redshank chaparral, sagebrush, and most desert habitats. Also found in a variety of other habitats. Particularly abundant in rock outcrops and rocky cliffs and slopes. **Unlikely**. Although suitable habitat is present, known records are not known from the immediate vicinity.	Year-round

[1]Status

Federal

FE: Federally Endangered

FT: Federally Threatened

DL: Delisted

State

SE: State Endangered

ST: State Threatened

SR: State Rare

CE: State Candidate Endangered

CT: State Candidate Threatened

SSC: California Species of Special Concern

FP: Fully Protected

WL: Watch List

DL: Delisted

Vegetation Communities: Ranks are based on a one to five scale, ranging from critically imperiled (S1) to demonstrably secure (S5). S1-S3 communities considered rare.

California Rare Plant Rank (CRPR)

1A: Plants presumed extirpated in California and either rare or extinct elsewhere

1B: Plants rare, threatened, or endangered in California and elsewhere

2A: Plants presumed extirpated in California, but common elsewhere

2B: Plants rare, threatened, or endangered in California, but more common elsewhere

3: Plants about which more information is needed - a review list

4: Plants of limited distribution - a watch list

0.1: Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)

0.2: Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)

0.3: Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

NCCP

Target: “Target” species receive regulatory coverage under the NCCP and treated “as if listed”

Identified: “Identified” species receive regulatory coverage under the NCCP and treated “as if listed”

CSS: Coastal Sage Scrub Community

[2]Occurrence Potential

Special-status species with the potential to occur within the Survey Area were evaluated and classified as one of the following:

Occurs: the species and/or positive sign was observed on-site during site visit or field survey.

Absent: the species and/or positive sign was not observed on-site during focused survey(s) during the appropriate blooming/activity period (and, for plants, observed at a reference population).

Likely: all site features indicate this species is very likely present and should be expected based on geographic range, suitable habitat present, and/or nearby recent historical records.

Unlikely: species could occur, but records of the species are not locally known.

Does Not Occur: species would not occur because the Project site is outside known or current geographic/elevation range, lacks habitat or suitable conditions, and/or there is reasonable certainty to assume absent based on historical records.

Appendix D

Jurisdictional Delineation Report

Environmental Intelligence, LLC

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JURISDICTIONAL DELINEATION REPORT
SADDLEBACK CHURCH CONVERSION PROJECT
ORANGE COUNTY, CALIFORNIA

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LIST OF ACRONYMS AND ABBREVIATIONS

CalEPA	California Environmental Protection Agency
CDFW	California Department of Fish and Wildlife
CCR	California Code of Regulations
CERES	California Environmental Resources Evaluation System
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CSUS	California State University of Sacramento
CWA	Clean Water Act
CWC	California Water Code
CWN	California Watershed Network
DOD	Department of Defense
EI	Environmental Intelligence, LLC
FAC	Facultative Indicator Species for Wetlands
FACW	Facultative Wetland Species for Wetlands
FR	Federal Register
GIS	Geographic Information System
GPS	Global Positioning Systems
HA	Hydrologic Area
HSA	Hydrologic Subarea
HU	Hydrologic Unit
HUC	Hydrologic Unit Code
JD	Jurisdictional Delineation
JDR	Jurisdictional Delineation Report
MOA	Memorandum of Agreement
NOAA	National Oceanic and Atmospheric Administration
NRCS	National Resources Conservation Service
NWPL	National Wetlands Plant List
OBL	Obligate Indicator Species for Wetlands
OCFA	Orange County Fire Authority
OHWM	Ordinary High Water Mark
RGL	Regulatory guidance Letter
RWQCB	Regional Water Quality Control Board
SAA	Lake and Streambed Alteration Agreement
SPN	Special Public Notice
SR	State Route
SSURGO	Soil Survey Geographic Database
STATSGO	State Soil Geographic Database
SWRCB	State Water Resources Control Board
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	United States Geological Survey
WDR	Waste Discharge Requirements
WRCC	Western Regional Climate Center

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1.0 SUMMARY

Environmental Intelligence, LLC (EI) has been retained by Timeless Architecture to conducted a formal jurisdictional delineation for waters of the U.S. and State of California (state) for the Extended Connector Path component of the Saddleback Church Conversion Project (proposed project)

As part of the environmental review process, this jurisdictional delineation report (JDR) outlines and summarizes the latest federal and state guidance and methodologies employed in conducting a formal delineation for jurisdictional waters of the U.S. and state, as well as the results of the fieldwork and the amount, type, and location of the formally delineated potential jurisdictional waters occurring within a delineation survey area (survey area [limits of the proposed project footprint]) of approximately 1.60 acres.

This JDR provides the primary information for the project proponent to achieve compliance with all relevant federal and state resource codes and laws if it is determined that any implementation of the project would result in regulated activities occurring within jurisdictional waters of the U.S. and/or state.

Potential Jurisdictional Waters Occurring within the Survey Area

Waters of the U.S. and State

The survey area does not support waters of the U.S. and state (including wetlands[1]) as regulated by U.S. Army Corps of Engineers (USACE) and Regional Water Quality Control Board (RWQCB).

Waters of the State, Exclusively

Approximately 0.01 acre[2] of aquatic features were formally delineated within the survey area as potential jurisdictional waters of the state, exclusively in the form of southern willow scrub ([as regulated by California Department of Fish and Wildlife [CDFW]), and approximately 0.02 acre is composed of drainage swale (as regulated by CDFW and RWQCB).

Anticipated Impacts

Waters of the State, Exclusively

Based on the results of this delineation it is anticipated that the proposed project activities may result in temporarily and/or permanently impacting approximately 0.01 acre of jurisdictional waters of the state, exclusively (composed of southern willow scrub [in the form of non-wetland riparian associated extent]), as regulated by CDFW.

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[1] As defined by 33 Code of Federal Regulations (CFR) 328.3(c)(4), the 1987 *Corps of Engineers Wetland Delineation Manual* (1987 Manual; Environmental Laboratory 1987), and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (2008 Supplement; Environmental Laboratory 2008).

[2] All acreages are rounded to the nearest hundredth (which may account for minor rounding error).

2.0 INTRODUCTION

2.1 Purpose of Jurisdictional Delineation

The purpose of performing a jurisdictional delineation is to identify the presence or absence (including types, location, boundaries, and acreages) of potential waters of the U.S. and state (including federal and state defined wetlands) within the survey area.

2.2 Delineation Survey Area Location

The approximately 1.6 acre delineation survey area occurs within the coastal region of southern California, within the foothills of the Santa Ana Mountains, approximately 7 miles southwest of the Saddleback formation. The survey area is located within the southwest portion of U.S. Geological Survey (USGS) El Toro Quadrangle (7.5-minute series [USGS 1982]) occurring within the Cañada de Los Alisos Land Grant portions of Section 9, Township 6 South, Range 7 West, San Bernardino Baseline and Meridian (Exhibits 1 and 2 [all Exhibits are included in Appendix A]).

The survey area is specifically located within the northeast portion of Orange County, California and is incorporated within the municipal boundary of the City of Lake Forest. The survey area occurs within the Lake Forest campus of Saddleback Church and is bounded by State Route (SR) 241 to the north, Marguerite Parkway to the east, El Toro Road to the south, and Saddleback Parkway to the west. The approximate geographic center point of the survey area is 33.663166, -117.644832 (Exhibit 2).

2.3 Project Description

Phase I of the proposed project would include the construction of a new two-story, approximately 3,500 seat capacity Worship Center within the established Church campus. Phase II of the proposed project would include the conversion of an existing one-story structure into a two-story facility within the existing building footprint. This existing worship center building would serve as classrooms for up to approximately 900 students. An existing connector path on the south edge of the proposed project would need to be widened to 28 feet along with a Fuel Modification Plan to meet Orange County Fire Authority (OCFA) requirements.

3.0 REGULATORY FRAMEWORK

Aquatic environments and habitats occurring within California are regulated under the following federal and state laws, as applicable to the survey area, and are discussed below.

3.1 Federal Regulations

3.1.1 CLEAN WATER ACT, SECTION 404

Pursuant to Section 404 of the Clean Water Act (CWA), USACE is authorized to regulate any activity that would result in the discharge of dredged or fill material into waters of the U.S., which include those waters listed in 33 Code of Federal Regulations (CFR) Part 328.3 (Definitions).[3,4] The fundamental rationale of Section 404 of the CWA is that no discharge of dredged or fill material should be permitted if there is a practicable alternative that would be less damaging to aquatic resources or if significant degradation would occur to waters of the U.S. (including federally defined wetlands).

USACE, with oversight by the U.S. Environmental Protection Agency (USEPA), has the principal authority to issue CWA Section 404 Permits (40 CFR Part 230). Under two 1989 Memorandums of Agreement (MOAs) between USEPA and the Department of Defense (DOD), USACE is given sole responsibility for making final permit decisions pursuant to Section 404, and 'conducts jurisdictional

[3] 51 FR 41250, November 13, 1986, as amended at 58 FR 45036, August 25, 1993; 80 FR 37104, June 29, 2015; 83 FR 5200, February 6, 2018.

[4] This Definition of 'Water of the U.S.' is based on the 2015 'Clean Water Rule' (80 FR 37053, June 29, 2015) and is applicable in California at the time of the supplemental delineation fieldwork and this writing (South Carolina Coastal Conservation League, et. al. v. Pruitt, 2:18-cv-00330-DCN, (D.S.C. August 16, 2018); USEPA (2018).

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delineations associated with the day-to-day administration of the Section 404 program.' However, USEPA retains the authority to enforce compliance with Section 404 and maintains the power to overrule USACE decisions on the issuance or denial of permits. If there is a dispute about whether an area can be regulated, USEPA has the ultimate authority to determine the actual geographic scope of waters of the U.S. subject to jurisdiction under all sections of the CWA, including the Section 404 regulatory program (USEPA 1989a, 1989b).

3.1.2 CLEAN WATER ACT, SECTION 401

If it is determined that an activity proposed within jurisdictional waters requires a permit pursuant to Section 404 of the CWA, then, pursuant to Section 401 of the CWA, the RWQCB (Region 8) must certify that the discharge will comply with state water quality standards or waive (as applicable) the certification requirement. The RWQCB, as delegated by USEPA, has the principal authority to issue a CWA Section 401 water quality certification or waiver.

Therefore, pursuant to the CWA, water quality standards are provisions of federal (and state) law that define the water quality goals of a water body, or portion thereof, by establishing (a) designated uses of water to be protected, and (b) water quality criteria to protect those uses. Water quality standards are to protect the public health or welfare, enhance the quality of water and serve the purposes of the CWA.[5] Antidegradation policies are also an integral component of federal water quality standards. Water quality standards are enforceable in the bodies of water for which they have been promulgated.

Additionally, under State Water Board Order 2003-0017-DWQ, discharges of dredged or fill material that have received 401 Certification are eligible for Waste Discharge Requirements (WDR) coverage under Section 132609 of the California Water Code (CWC [1969 Porter-Cologne Water Quality Control Act]). These General WDRs fulfill the requirements of Article 4, of Chapter 4 of Division 7 of the CWC for proposed dredge or fill discharges to waters of the U.S. that are regulated under the State's CWA Section 401 authority.

3.2 State Regulations

3.2.1 CALIFORNIA FISH AND GAME CODE, SECTION 1600 ET SEQ.

Pursuant to Section 1600 *et seq*. of the California Fish and Game Code (CFGC), the CDFW regulates activities of an applicant's project that would substantially alter the flow, bed, channel, or bank of streams or lakes unless certain conditions outlined by CDFW are met by the applicant. The limits of CDFW jurisdiction are defined in CFGC Section 1600 *et seq*. as the 'bed, channel, or bank of any river, stream, or lake designated by [CDFW] in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit.' However, in practice, CDFW usually extends its jurisdictional limit and assertion to the top of a bank of a stream, the bank of a lake, or outer edge of the riparian vegetation, whichever is wider.

By long practice, CDFW defines a stream as 'a body of water that flows perennially or episodically and that is defined by the area in which water currently flows, or has flowed, over a given course during the historic hydrologic course regime, and where the width of its course can reasonably be identified by physical or biological indicators.' The '*historic hydrologic regime*' is defined in practice by CDFW as circa 1800 to the present (Brady and Vyverberg 2013).

Section 1601(a)[6] is based on Title 14 California Code of Regulations (CCR) 720, which designates waters under the administration of CDFW to be as follows:

> For the purpose of implementing Sections 1601 and 1603 of the Fish and Game Code, which requires submission to [CDFW] of general plans sufficient to indicate the nature of a project for construction by or on behalf of any person, governmental agency, state or

[5] 40 CFR 130.2(c) and 131.3(I).
[6] Title 14 CCR 720 has long been recognized by CDFW and Case law to include streams with ephemeral flow.

> local, and any public utility, of any project which will divert, obstruct, or change the natural flow or bed of any river, stream, or lake designated by [CDFW], or will use material from the streambeds designated by [CDFW], all rivers, streams, lakes, and streambeds in the State of California, including all rivers, streams, and streambeds which may have intermittent flows of water, are hereby designated for such purpose.

The CDFW links stream protection, conservation, and management with the presence (and/or indirect consideration) of fish, wildlife, and their habitats. In practice, the CDFW defines a stream as follows:

> A body of water that flows perennially, intermittently, or ephemerally and that is defined by the area in which water currently flows or has flowed over a given course during the historic hydrologic regime, and where the width of its course can reasonably be identified by physical or biological indicators (Vyverberg 2010).

In summary, CFGC Section 1600 *et seq.* was enacted to conserve fish and wildlife associated with stream ecosystems. The size of a watershed, the size of its streams, the duration of flows, and the absence of hydrologic connectivity to other waterbodies is immaterial. The CDFW does not consider a stream or watercourse defined by particular flow events, such as bankfull flow or ordinary high water, but rather by the local topography or elevations of the land that confine a stream to a definite course when its waters rise to their highest level. Thus, the watercourse is a stream and its boundaries define the maximal extent or expression of a stream on the landscape. All streams are subject to CDFW jurisdiction (Brady and Vyverberg 2013).

Therefore, semi-arid aquatic features with ephemeral flow can meet CDFW's definition of a jurisdictional stream and can be under CDFW's regulation because these semi-arid aquatic features can support fish and wildlife (directly or indirectly). This is based on CDFW guidance concerning ephemeral streams and, to a lesser extent, developed swales that exhibit short-duration, low-volume flow (Vyverberg 2010). Under this interpretation, CDFW jurisdiction *is not* predicated on the following:

- The morphology of the stream or riverine feature, or how well-defined its banks are;
- The cross-sectional area occupied by particular flow events;
- The time-period between flow events; and
- The constancy of (surface) water flow.

3.2.2 California Water Code, Section 13000 et seq.

Pursuant to Section 13000 *et seq*. of the CWC (the 1969 Porter-Cologne Water Quality Control Act), the RWQCB is authorized to regulate any activity that would result in discharges of waste or fill material into waters of the state, including "isolated" waters and/or wetlands (e.g., vernal pools and seeps), saline waters, and groundwater within the boundaries of the state (CWC Section 13050[e]).

Porter-Cologne authorizes the State Water Resources Control Board (SWRCB) to adopt, review, and revise policies for all waters of the state. It also directs the nine RWQCBs to develop and implement regional Basin Plans that recognize and are designed to maintain the unique characteristics of each region with regard to natural water quality, actual and potential beneficial uses, maintaining water quality, and addressing the water quality problems of that region.[7] According to implementation language in the Basin Plans, the RWQCB's authority to protect water quality from waste discharges is limited to the regulation of 'controllable water quality factors,' those actions, conditions, or circumstances resulting from human activities that may influence the quality of waters of the state and that may be reasonably controlled.

CWC Section 13170 also authorizes the SWRCB to adopt water-quality control plans on its own initiative. The *Water Quality Control Plan for the Santa Ana River Basin* (RWQCB Region 8), as amended, is designed to maintain, preserve, and enhance the quality of water resources. The purpose of the plan is to designate beneficial uses of surface and ground waters, designate water-quality objectives

[7] CWC Section 13050(j).

for the reasonable protection of those uses and establish an implementation plan to achieve the objectives within RWQCB Region 8 (SWQCB 1995, as amended). Designated beneficial uses of state waters that may be protected against degradation include preservation and enhancement of fish, wildlife, designated biological habitats of special significance, and other aquatic resources or preserves (SWQCB 2008).

4.0 ENVIRONMENTAL SETTING

4.1 Vegetation and Cover Types

Vegetation classification is based on the *Preliminary Descriptions of Terrestrial Natural Communities of California* (Holland 1986) cross-referenced with *A Manual of California Vegetation* (CNPS 2018, Sawyer et al. 2009) to describe the existing vegetation communities and cover type(s) occurring within the delineation survey area (Exhibit 3).

A majority of the survey area is developed and supports native and non-native ornamental vegetation (landscaped and irrigated). The undeveloped portions of the survey area support Diegan coastal sage scrub (*Artemisia californica - Salvia mellifera* Shrubland Alliance [California sagebrush - black sage scrub]) and southern willow scrub (*Salix lasiolepis* Shrubland Alliance [Arroyo willow thickets]; Holland 1986, CNPS 2018, Sawyer et al. 2009).

4.2 Geology and Soils

The delineation survey area is not situated above any major groundwater basin. The survey area is primarily underlain by soils composed of alluvial sedimentary deposits and clay enriched parent material/subsoil deposits from coastal plain marine and continental sediments (NRCS 2019a, 2019b, 2019c, 2019d, 2018e; Orange County Water District 2015; Exhibit 4).

4.3 Climate

The region of Lake Forest, CA, where the survey area is located, occurs in the semi-permanent high-pressure zone of the eastern Pacific. The climate in this region is characterized as mild to moderate temperatures and humidity, with precipitation limited to a few storms during the winter season (November through April). The usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds. Although the Lake Forest region has a semi-arid climate, the air near the surface is moist due to the presence of a shallow marine layer (City of Lake Forest 2018; NOAA 2019a, 2019b; WRCC 2019a, 2019b).

In the City of Lake Forest, the climate is typically warm during summer with temperatures in the 70s and cool during winter with temperatures in the 50s. The warmest month of the year is August with an average maximum temperature of 86º F, while the coldest month of the year is January with an average minimum temperature of 43º F. Temperature variations between night and day tend to be moderate, with a difference that can reach 23º F during summer, and an average difference of 24º F during winter. The annual average precipitation in Lake Forest is 12.28 inches. The wettest month of the year is January, with an average rainfall of 2.36 inches (NOAA 2019a, 2019b; WRCC 2019a, 2019b).

4.4 Watersheds

The delineation survey area is located within the southwest portion of the approximately 616.41 Aliso-San Onofre Watershed (Hydrologic Unit Code: [HUC] 18070301). Contained within the Aliso-San Onofre Watershed is the approximately 500-square-mile San Juan Hydrologic Unit (HU: 901.00). Within the San Juan HU is the approximately 62.88-square-mile Laguna Hydrologic Area (HA: 901.10). Within the Laguna HA is the approximately 35.72-square-mile Aliso Hydrologic Subarea (HSA 901.13). All watersheds are located within the approximately 2,882-square-mile RWQCB, Region 8, Santa Ana River Hydrologic Basin Planning Area (RWQCB 1995 [as amended]; Exhibit 5).

4.5 Hydrology

The hydrology of the survey area is driven by precipitation inputs and stormwater infrastructure. While the historical direction of runoff draining into Aliso Creek has remained constant, the Church campus has

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created extensive areas of impervious surfaces and topographic changes which have resulted in altering the hydroperiod, volume, and velocity of stormwater runoff. Within the western portion of the project survey area, stormwater runoff is directed into an armored drainage swale which flows downslope and off-site into coastal sage scrub, where it diffuses into sheetflow and infiltrates into the soil prior to creating a conveyance with Aliso Creek. Within the eastern portion of the survey area, stormwater runoff is directed (via sheetflow and grass buffers from the eastern parking lot and small stormwater culvert outfalls) into a small swale which drains a semi-basin area vegetated with coastal sage scrub. The drainage swale creates a conveyance with an 8-foot box culvert (located at the bottom of the semi-basin), which directs flow downstream and off-site into a small intermittent stream, which then creates a direct conveyance (via road culvert) with Aliso Creek. There are no areas of surface water retention to develop wetland hydrology. The stormwater runoff is composed of low volume, short duration flow along a low gradient. The sandy soil is well drained and promotes rapid infiltration.

5.0 JURISDICTIONAL DELINEATION METHODOLOGY

5.1 Pre-Field Review and Analysis

Prior to conducting the field delineation for potential jurisdictional waters of the U.S. and state (including wetlands) within the survey area, EI ecologist and regulatory specialist Joshua Zinn conducted an extensive desktop review of the survey area. Mr. Zinn reviewed previously prepared biological and environmental reports (including jurisdictional waters assessments), the historical land use of the survey area, local and regional climactic data, and aerial photography (including historical aerials) with topographical configurations and vegetative signatures occurring within the survey area that may suggest the potential or presence of jurisdictional waters of the U.S. and state at the time of the field survey. Post-delineation data were also compared and confirmed. This information was evaluated by consulting the following available sources:

- 7.5-minute El Toro Quadrangle (USGS 1982)
- The web-based National Hydrography Dataset (USGS 2019a)
- The web-based National Water Information System (USGS 2019b)
- 2017 aerial maps of the survey area (U.S. Department of Agriculture [USDA] National Agriculture Imagery Program; USDA 2017a)
- The web-based Plant Database (USDA 2019a)
- The web-based 2016 National Wetland Plant List (NWPL)-Arid West 2016 Regional Wetland Plant List (Lichvar et al. 2016)
- The web-based National Wetlands Inventory Wetlands Mapper (USFWS 2019)
- The web-based California Environmental Resources Evaluation System California Wetlands Information System Wetland Databases and Inventories (CERES 2019)
- The web-based Information Center for the Environment (U.C. Davis 2019a)
- The *Soil Survey of Orange County and Western Part of Riverside County, California*. (Wachtell 1978)
- The web-based Natural Resources Conservation Service (NRCS) Soils Website (NRCS 2019b)
- The web-based NRCS Soils Website (NRCS 2019c)
- The web-based NRCS Web Soil Survey (NRCS 2019d)
- The web-based Soil Survey Geographic Database (SSURGO; NRCS 2019d)
- The web-based U.S. General Soil Map (STATSGO; NRCS 2019e)

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- *Field Indicators of Hydric Soils in the United States-A Guide for Identifying and Delineating Hydric Soils* (USDA 2017b)
- The web-based National List of Hydric Soils (NRCS 2016)
- The web-based Official Soil Series Descriptions (NRCS 2019f)
- The web-based U.S. Hydric Soil Technical Notes (NRCS 2019g)
- The web-based California Soil Resource Lab (U.C. Davis 2019b)
- The web-based Western Regional Climate Center (WRCC 2019a; 2019b)
- The web-based National Water and Climate Center (USDA 2019b)
- The web-based National Weather Service Forecast Office (NOAA 2019a, 2019b)
- The web-based Digital Watershed (USEPA 2019)
- The web-based California Watershed Portal (CalEPA 2019)
- The web-based California Watershed Network (CWN 2019)
- The web-based Office of Water Programs, Water Quality Planning Tool (CSUS 2019)
- The web-based Orange County Geographic Information System (GIS) site (Orange County 2019)

5.2 Formal Field Delineation

An EI ecologist initially conducted a general field reconnaissance of the survey area, identifying areas (including the limits) supporting potential federal and state jurisdictional waters (including wetlands). After the field reconnaissance was completed, the EI ecologist formally delineated potential jurisdictional waters and classified and mapped the riparian and upland habitats occurring within the survey area.

All acquired field data were obtained by recording the presence (including extents, types, and boundaries) of potential jurisdictional waters using an Apple iPad tablet running ESRI Collector for ArcGIS with a sub-meter GPS receiver.

All acquired field data were submitted to EI GIS specialists for post-field processing. Post-field analysis was conducted in tandem by an EI GIS specialist and the ecologists who performed the fieldwork. Trimble GPS Analyst (Version 2.3) GIS software was used to code, define, designate, and edit all acquired GPS field data representing potential jurisdictional waters occurring within the survey area. The dates, EI personnel, and type of activity conducted for this field-based routine jurisdictional delineation are listed in Table 1.

TABLE 1. SURVEY DATES AND PERSONNEL CONDUCTING THE FIELD SURVEYS

Dates	Personnel	Type of Field Activity and Survey
April 29, 2019	Joshua Zinn	General field reconnaissance, formal delineation fieldwork, vegetation mapping and confirming plants to species level.
May 3, 2019	Joshua Zinn	Hydrological connectivity assessment, stormwater infrastructure ground-truthing and post-delineation fieldwork.

5.3 Delineation of Federal Waters

Jurisdictional waters of the U.S. include those waters listed in 33 CFR 328.3 (Definitions of Waters of the United States). If determined present within the survey area (e.g., meeting the federal definition[s]), all waters of the U.S. are delineated to their jurisdictional limits as defined by 33 CFR 328.4 (Limits of Jurisdiction). It was determined through pre-field surveys (remote analysis) and the general field reconnaissance that the survey area had the potential for the presence of, at a minimum, two types of

federally regulated waters (wetlands and tributaries supporting an ordinary high water mark [OHWM]), warranting field assessments composed of the following two delineation methodologies:

1. Formal delineations for waters of the U.S. in the form of wetlands based on the three-parameter method.[8] The three-parameter method for identifying and delineating wetlands is outlined in and in accordance with the latest federal guidance, methodologies, and procedures:
   - *Corps of Engineers Wetlands Delineation* (1987 Manual; Environmental Laboratory 1987);
   - *Regional Supplement to the Corps of Engineers Wetland Delineation Manual*: *Arid West Region* (Version 2.0; 2008 Supplement; Environmental Laboratory 2008)[9];
   - All applicable USACE Regulatory Guidance Letters (RGLs) and Special Public Notices (SPNs) for wetlands;
   - USACE Los Angeles District Minimum Standards for Acceptance of Aquatic Resources Delineation Reports (USACE 2017a); and
   - Updated Map and Drawing Standards for the South Pacific Division Regulatory Program (USACE 2016).

In accordance with the 1987 Manual and the 2008 Regional Supplement, wetland delineation criteria, primary field indicators, and best professional judgment were used for the collection of data pertinent to assessment of the mandatory technical criteria. Field data were recorded in the 2008 Supplement Wetland Determination Data Forms – Arid West Region (Version 2.0), which is appropriate for application of both the 1987 Manual and the 2008 Supplement "routine" method (Environmental Laboratory 1987, 2008; Tiner 1999). Copies of the prepared Arid West region Data Forms are included in Appendix B.

2. Formal delineations for waters of the U.S. in the form of non-wetland tributaries, as defined by 33 CFR 328.3(c)(3), and based on field indicators to define and identify the jurisdictional lateral extent of the tributary based on the ordinary high water mark (OHWM), as defined by 33 CFR 238.3(c)(6), federal guidance, methodologies, and procedures, including the following:
   - *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual* (Lichvar and McColley 2008);
   - *Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (Curtis and Lichvar 2010)[10];
   - *Review and Synopsis of Natural and Human Controls on Fluvial Channel Processes in the Arid West Channels* (Lichvar and Field 2007);
   - *Distribution of Ordinary High Water Mark (OHWM) Indicators and their Reliability in Identifying the Limits of "Waters Of The United States" in Arid Southwestern Channels* (Lichvar et al. 2006);
   - *Channel Classification across Arid West Landscapes in Support of OHW Delineation* (Lefebvre et al. 2013), and

[8] The three-parameter method requires the simultaneous presence (co-occurrence) of wetland hydrology, hydric soil, and hydrophytic vegetation for an area to be classified as a wetland (Environmental Laboratory 1987).

[9] The 1987 Manual and 2008 Regional Supplement are guidance documents for delineating waters in the form of wetlands only. The portion of the delineated survey area containing aquatic features used 2008 Supplement Data Forms to document the presence/absence of wetlands, but not the presence of *jurisdictional waters* possessing OHWM or "other waters" of the U.S.

[10] Datasheets from this field delineation manual were utilized in tandem with other relevant USACE OHWM delineation manuals.

- All applicable USACE RGLs for OHWM other waters[11].

In accordance with the USACE delineation manual *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual* (Lichvar and McColley 2008), OHWM delineation criteria, primary field indicators, and best professional judgment were used for the collection of data pertinent to assessment of the mandatory technical criteria to determine and delineate the lateral jurisdictional extent of OHWM. Field data were recorded in the 2010 *Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (Curtis and Lichvar 2010; Updated OHWM Datasheet). Copies of the prepared OHWM Datasheet are included in Appendix C.

5.4 Delineation of State Waters

In addition to pre-field and formal routine jurisdictional delineation efforts for federally defined waters, potential waters of the state were also assessed and delineated within the survey area. Two state agencies may have jurisdiction over aquatic features occurring within the survey area (CDFW and RWQCB), each with its own definition and method(s) of delineating potential jurisdictional waters under their purview, as summarized below.

Aquatic Features Under the Purview of CDFW

The limits of CDFW jurisdiction are defined in CFGC Section 1600 *et seq*. as the 'bed, channel, or bank of any river, stream, or lake designated by [CDFW] in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit.'

As addressed above (Section 3.2), in practice, CDFW usually extends its jurisdictional limit to the top of a stream, the bank of a lake, or the outer edge of the riparian vegetation, whichever is wider. Riparian habitats do not always have identifiable hydric soils or clear evidence of wetland hydrology as defined by USACE. Therefore, CDFW jurisdictional boundaries often extend beyond USACE jurisdictional boundaries, which sometimes include only portions of the riparian habitat adjacent to a river, stream, or lake. Jurisdictional boundaries under CFGC Section 1600 *et seq*. (CDFW's Lake and Streambed Alteration Program) may encompass an area that is greater than that under the jurisdiction of USACE.

Therefore, the formal field delineation for regulated aquatic features under the purview of CDFW is based on the CFGC Section 1600 *et seq*. definition, relevant state regulations, CDFW regulatory practice, and past CDFW field guidance to delineate the:

1. Identifiable streambed and streambank (including swale features[12]);
2. Associated (and/or dependent) riparian vegetation to an identifiable stream.

Aquatic Features Under the Purview of RWQCB

For jurisdictional water features occurring within the survey area, RWQCB jurisdiction was delineated based on the presence of aquatic features that simultaneously meet the definition for waters of the state (CWC Section 13050[e]) and present 'beneficial use' as outlined in the *Water Quality Control Plan Santa Ana River Basin Region* (RWQCB 1995 [as amended]). Therefore, the entire stream- and/or tributary bed was considered under the purview of RWQCB if it was determined that any type of aquatic and/or

[11] RGL 88-06; RGL 05-05.

[12] Often swales do not have a developed bed and bank. Instead, swales have a smooth, subtle transition from the "head" of the swale to the "bed" of the swale, with no clear impressionable line or shelving (e.g., OHWM) resulting from surface water flow. In some cases, swales may still contribute to a surface hydrologic connection between upland and aquatic features if they are identifiable and are part of a network (and, thus, may be considered jurisdictional under the purview of CDFW [e.g., "waters of state interest"]). The field delineation considered swales as microtopographic features that convey surface water in low volume and short duration (hours to days, usually in sheetflow within the swale feature) and associated with, and contribute to, the downstream development of riverine systems (Hauer and Lamberti 2007).

aquatic-related features occurring within the survey area would present 'beneficial use.' In this case, the aquatic feature would be delineated (this would include all ephemeral tributaries, including swales, occurring within the survey area). Therefore, based on this understanding, potential jurisdictional waters under the purview of RWQCB meets the definition for waters of the state *and* presents a 'beneficial use' as outlined and defined in the *Basin Plan*.

6.0 RESULTS

6.1 Waters of the U.S.

6.1.1 FEDERALLY DEFINED WETLAND

The survey area does not support wetland waters of the U.S. Each of the three potential wetland parameters (and their co-occurrence) not occurring were recorded and documented within the survey area (Table 2). Specific findings for dominant hydrophytic vegetation, hydric soils, and wetland hydrology are discussed in detail below. Please see the prepared Arid West region Data Form documenting the absence of all three wetland parameters (Appendix B).

TABLE 2. SURVEY RESULTS FOR WATERS OF THE U.S. AND STATE IN THE FORM OF FEDERALLY DEFINED WETLAND OCCURRING WITHIN THE SURVEY AREA

Field Data Point	Vegetation Community/Cover Type	Dominant Hydrophytic Vegetation[a]	Hydric Soils	Wetland Hydrology	Potential Federal Water	Potential State Water
T1.1	Southern Willow Scrub	No	No	No	No	No

[a] This riparian vegetation community does not support federally defined wetland vegetation criteria (See Section 6.1, below).

Hydrophytic Vegetation

Only those plant species that form hydrophytic plant communities within the survey area that are listed within the USACE 2016 NWPL[13] (Lichvar and Kartesz 2016; Lichvar et al. 2016) or have the potential for being considered as hydrophytic are addressed herein. As addressed above, this JDR uses the Holland Code Classification System (Holland 1986) cross-referenced with *A Manual of California Vegetation* (Sawyer and Keeler-Wolf 2008, Sawyer et al. 2009) to describe riparian and wetland (e.g., hydrophytic) vegetation communities occurring within the delineation survey area. Where vegetation contains a mixture of component and indicator species from two or more communities outlined in Holland (1986) and Sawyer and Keeler-Wolf (2009), the indicator species that appears with the greatest vegetation coverage (absolute dominance based on percent cover) was used to identify the vegetation community.

An area was determined to support federally defined wetland vegetation criteria if more than 50% of the dominant species was listed as Obligate Wetland (OBL), Facultative Wetland (FACW), or Facultative (FAC) species on the USACE 2016 NWPL.[14] Vegetation was assessed using the '50/20 Rule' to determine dominant species.[15] By definition, dominant species are the most abundant plant species (when ranked in descending order of abundance and cumulatively totaled) that immediately exceed 50% of the

[13] FR V. 77 No. 90, May 9, 2012.

[14] Based on Reed (1988) and Lichvar et al. (2012), OBL: Occur almost always in wetlands (99% occurrence in wetlands), FACW: Usually occur in wetlands but occasionally found in non-wetlands (67-99% occurrence in wetlands), FAC: Equally likely to occur in wetlands and non-wetlands (34-66% occurrence in wetlands).

[15] The 50/20 Rule is a dominance ratio. When using the 50/20 Rule, greater than 50% of the plants must be FAC, FACW or OBL species. The cumulative total of all dominant plants must be equal to or greater than 50% of the areal coverage of the plot, and any plant species that equals or exceeds 20% of the total percentage areal coverage of the plot is also considered a dominant plant. If no plant species equals or exceeds 20% of the cumulative total areal coverage of the plot, the dominant plants, ranked in decreasing order of abundance and summed, exceed 50% of the plot's areal coverage when added together (Federal Interagency Committee for Wetland Delineation 1989).

total dominance measure (e.g., basal area or areal coverage) for the stratum, plus any additional species that individually compose 20% or more of the total dominance measure for the stratum (Tiner 1999).

The riparian vegetation community and its corresponding acreage occurring within the survey area is summarized in Table 3. Hydrophytic plant species associated with this vegetation community occurring within the survey area are listed in Table 4. Although not dominated by hydrophytes, the riparian floristic association (e.g., riparian vegetation community) is discussed below and best corresponds to the following:

1. Southern Willow Scrub (Holland Code 63320 [Holland 1986]) or *Salix lasiolepis* Shrubland Alliance (Arroyo Willow Thickets; Sawyer et al. 2009; Exhibit 3).

TABLE 3. RIPARIAN VEGETATION COMMUNITIES OCCURRING WITHIN THE SURVEY AREA[a]

Vegetation Community (Holland 1986)	Vegetation Community (Sawyer and Keeler-Wolf 2008)	Acreage within the Survey Area[b]
Southern Willow Scrub (Holland Code 63320)	*Salix lasiolepis* Shrubland Alliance (Arroyo Willow Thickets)	0.01
Total		**0.01**

[a] The southern willow scrub vegetation community occurring within the survey area does not meet the definition of a hydrophytic (e.g., wetland) vegetation community and/or waters of the U.S. in the form of federally defined wetland.
[b] In acres.

TABLE 4. HYDROPHYTIC PLANT SPECIES OBSERVED WITHIN THE SURVEY AREA[a]

Scientific Name	Common Name	NWPL Indictor Status[a, b]
Tree Species Growth Habit		
Salix lasiolepis	arroyo willow	Facultative Wetland (FACW)
Shrub Species Growth Habit		
Baccharis salicifolia	mulefat	Facultative (FAC)
Nicotiana glauca	tree tobacco	FAC
Herbaceous Species Growth Habit		
Sonchus asper	milk thistle	FAC
Urtica dioica ssp. *holosericea*	hoary nettle	FAC

[a] Based on the NWPL (Lichvar and Kartesz 2016, Lichvar et al. 2016).
[b] The 2008 Supplement does not use ± facultative values. Only plant species with hydrophytic indicators of OBL, FACW, and FAC will be considered for the definition of federally defined wetland (e.g., the hydrophytic plant community wetland parameter; Environmental Laboratory 1987).

Southern Willow Scrub (Holland Code 63320)

Southern willow scrub is a dense, broad-leaved, winter-deciduous riparian thicket dominated by several species of willows (*Salix* spp.) in association with mulefat. Scattered individuals of cottonwood and California sycamore may exist as canopy emergents. This is an early seral community that requires periodic flooding for its maintenance. In the absence of periodic flooding, this community would develop into a riparian woodland or forest. This vegetation community forms dense, structurally diverse thickets of young willows (roughly one to 10 years old), and this differentiates southern willow scrub from other willow-dominated vegetation types comprised of mature willows of tree-stature. The herbaceous layer in southern willow scrub is typically depauperate. Southern willow scrub can be populated by both riparian, transitional-riparian, and upland shrub species. Characteristic species also occurring and observed in this vegetation community include juvenile hydrophytic tree species (≤10-years in age) such as California sycamores (*Platanus racemosa*) and Fremont's cottonwood (*Populus fremontii*), and both riparian and transitional-upland shrub and herbaceous species such as coyote brush (Baccharis pilularis), black sage

(*Salvia melifera*), deerweed (*Acmispon glaber*), desert wild grape (*Vitis girdiana*), tree tobacco (*Nicotiana glauca*), tamarisk (*Tamarix* spp.), Italian ryegrass (*Lolium multiflorum*) and non-native bromes (*Bromus* sp.). Southern willow scrub occurs on loose, flood-deposited, sandy or fine alluvium along stream channels (Holland 1986, Sawyer et al. 2009).

Within the survey area the southern willow scrub occurs within the lowest point of the semi-basin, at the terminus of the drainage swale, and abuts the 8-foot stormwater box culvert. The vegetation community is not dominated by hydrophytes. The understory of the southern willow scrub is composed of (in descending order of occurrence) coyote brush, California sagebrush (*Artemisia californica*), tree tobacco (*Nicotiana glauca*), black sage, black elderberry (*Sambucus nigra*), pampas grass (*Cortaderia selloana),* common cryptantha (*Cryptantha intermedia*), Canadian horseweed (*Erigeron canadensis*), and red brome (*Bromus madritensis*). The southern willow scrub supports a sparse herbaceous layer (the majority of the floor of this vegetation community is predominantly bare ground).

This southern willow scrub vegetation community does not meet the federally defined wetland vegetation criteria where more than 50% of the dominant species are listed as OBL, FACW, and/or FAC (Environmental Laboratory 1987, Lichvar and Kartesz 2016, Lichvar et al. 2016). Please see the prepared Arid West region Data Form documenting the absence of a dominant hydrophytic (e.g., wetland) vegetation community (Appendix B).

Hydric Soils

Only those soils within the survey area that are listed as hydric, have diagnostic hydric properties and/or features, have hydric inclusions, meet the criteria and/or definition for a hydric soil, or have the potential for being hydric by definition are addressed herein. Based on available soil surveys and sub-surface field investigations within the survey area it has been determine that the survey area does not support hydric soils (Wachtell 1978; NRCS 2012, 2016, 2019a-f; USDA 2017b). Please see the prepared Arid West region Data Form documenting the absence of hydric soils (Appendix B).

Wetland Hydrology

Wetland hydrology is essentially a result of watershed-driven processes of hydrological inputs from precipitation that provide sufficient groundwater and/or surface flows to support hydrophytic plants. Areas with evident characteristics of wetland hydrology are those where the presence of water has an overriding influence on characteristics of vegetation and soils due to anaerobic and reducing conditions, respectively (Environmental Laboratory 1987).

USACE has set a quantitative wetland hydrology threshold as it applies to all types of nontidal wetlands (Environmental Laboratory 1987).[16] Specifically, an area has wetland hydrology if it is inundated or saturated to the surface continuously for at least 5% of the growing season in most years (50% probability of recurrence).[17]

The swale and well-drained soils occurring within a downward gradient do not retain surface water to develop wetland hydrology through prolonged inundation. Please see the prepared Arid West region Data Form documenting the absence of wetland hydrology (Appendix B)

[16] Criteria, limits, and thresholds for wetland hydrology are defined for nontidal wetlands in the 1987 Manual.

[17] The growing season in Southern California is estimated to be 365 days a year; therefore, an area has wetland hydrology if it is inundated or saturated to the surface continuously for 18 days.

6.1.2 Federally Defined Tributary Waters

The survey area does not support tributary waters of the U.S. The swale feature does not meet the federal definition of a tributary nor exhibit OHWM indicators.[18] Please see the prepared OHWM Datasheet documenting the absence of OHWM indicators (Appendix C).

6.1.3 Non-jurisdictional Features of the U.S.

In taking into account federal definitions of waters of the U.S. (e.g., 33 CFR 328.3[19]) and procedural guidance discussed herein, several features occurring within the survey area were determined by this JDR not to be potential waters of the U.S. The features observed and noted during the formal field delineation and not considered jurisdictional in this report are the following:

1. All non-wetland swale features (tributary features which do not exhibit an OHWM as defined by 33 CFR Part 328.3[c][6] and identified in RGL 05-05).
2. Erosional features, including gullies, rills, and other ephemeral features that do not meet the definition of tributary, non-wetland swales, and lawfully constructed grassed waterways.
3. Stormwater control features constructed to convey, treat, or store stormwater that are created in dry land.
4. Artificial, constructed lakes and ponds created in dry land such as settling basins.

6.2 Potential Waters of the State

The collective area of potential waters of the state, exclusively that occur within the survey area totals approximately 0.03 acre. Of this total, approximately 0.02 acre (265 linear feet) is composed of drainage swale and approximately 0.01 acre is composed of associated riparian extent (southern willow scrub). The types of exclusive state waters that compose these totals within the survey area are listed in Table 5.

An overview of location and distribution of potential jurisdictional waters of the state, exclusively, delineation field data points and locations of the field photographs taken during the April/May 2019 field delineation within the survey area are provided in Exhibit 6. Details of the location and distribution of potential jurisdictional waters of the state, exclusively, delineation field data points. and locations of the field photographs taken during the field delineation occurring within the survey area are provided in Exhibits 6A through 6C. Representative survey area photographs of the field delineation are included in Appendix D.

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[18] As characterized by the presence of the physical indicators of a bed and banks and an ordinary high water mark. These physical indicators demonstrate there is volume, frequency, and duration of flow sufficient to create a bed and banks and an ordinary high water mark, and thus to qualify as a tributary.

[19] 33 CFR 33 328.3 (b) as applicable to what occurs within the survey area.

TABLE 5. POTENTIAL WATERS OF THE STATE OCCURRING WITHIN THE SURVEY AREA

Type of Potential Water	Type of Habitat (Holland 1986)	Type of Habitat (Cowardin et al. 1979)	Amount of Resource in Survey Area (Acre/Linear Feet)	Regulatory Purview
Potential Waters of the State, Exclusively				
Riparian Extent	Southern Willow Scrub (63320)[a]	Palustrine; Scrub/Shrub Broad-leaved, Deciduous, Seasonally Flooded, Fresh	0.01	CDFW
Swale	N/A[b]	Riverine; Intermittent, Streambed, Vegetated, Temporarily Flooded, Fresh	0.02 (265 Linear Feet)	CDFW and RWQCB[c]
Total Potential Waters of the State, Exclusively			**0.03**	

[a] The southern willow scrub does not meet the federal definition of wetlands (e.g., where all three parameters of dominant hydrophytic vegetation, hydric soil, and wetland hydrology co-occur).
[b] Both the *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986) and *A Manual of California Vegetation* (CNPS 2018; Sawyer et al. 2009) do not provide classifications for abiotic features.
[c] Per 33 CFR 328.3(b)(4)(vi) non-wetland swales are not considered jurisdictional waters of the U.S. as they lack an identifiable OHWM.

7.0 ANTICIPATED IMPACTS

Based on the results of this delineation and the proposed project description, anticipated impacts may occur to the southern willow scrub as a result of thinning related to the Fuel Modification Plan (Exhibit 7).

8.0 REQUISITE PERMITTING

Fuel modification and regular maintenance of the fuel zone may be considered an impact as it would relate to the southern willow scrub and thus may require a CFGC Section 1600 *et seq*. Lake and Streambed Alteration Agreement (SAA) if planned activities would result in the substantial, adverse impacts to this CDFW jurisdictional aquatic habitat.

8.1 CFGC Section 1600 et seq. Permitting

A submission of a Notification of Lake or Streambed Alteration to the CDFW South Coast Region Field office for issuance of an SAA prior to commencement of the proposed project work could be required. Submitting the Lake or Streambed Alteration Notification (Notification) to the CDFW South Coast Region for the proposed project also allows CDFW to determine whether aquatic features, under their regulatory administration will become 'substantially, adversely affected' under CFGC Section 1602(a), and to provide guidance on requisite and appropriate compensatory mitigation for any unavoidable impacts to these aquatic resources as a result of the proposed project activities.

Submitting a Notification may also enable CDFW to determine that no SAA and/or compensatory mitigation (see below) would be required for activities related to the proposed project.

9.0 COMPENSATORY MITIGATION

Compensatory mitigation may be necessary to offset unavoidable impacts to jurisdictional aquatic resources (e.g., trimming/thinning the southern willow scrub) as related to the proposed project Fuel Modification Plan as mandated/required by OCFA.

Compensatory mitigation must be, to the extent practicable, sufficient to replace lost aquatic resource functions. Compensatory mitigation related to jurisdictional aquatic habitat (e.g., southern willow scrub) may be required for all permanent (and temporary) impacts to jurisdictional aquatic habitat and is usually conditional to any SAA issued by CDFW. The amount of compensatory mitigation would be determined through consultation and permit processing with CDFW.

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DRAFT

APPENDIX A
EXHIBITS

DRAFT

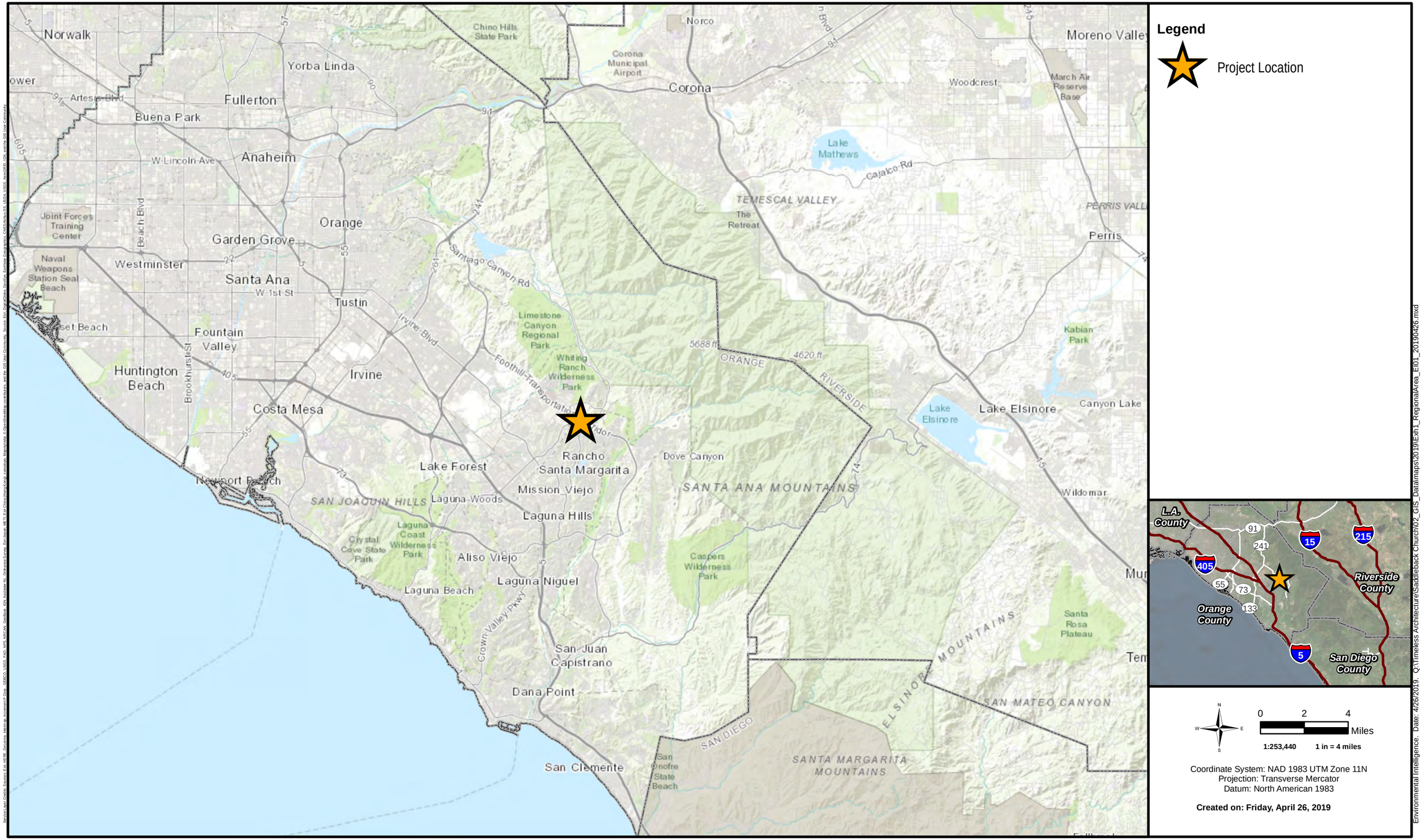
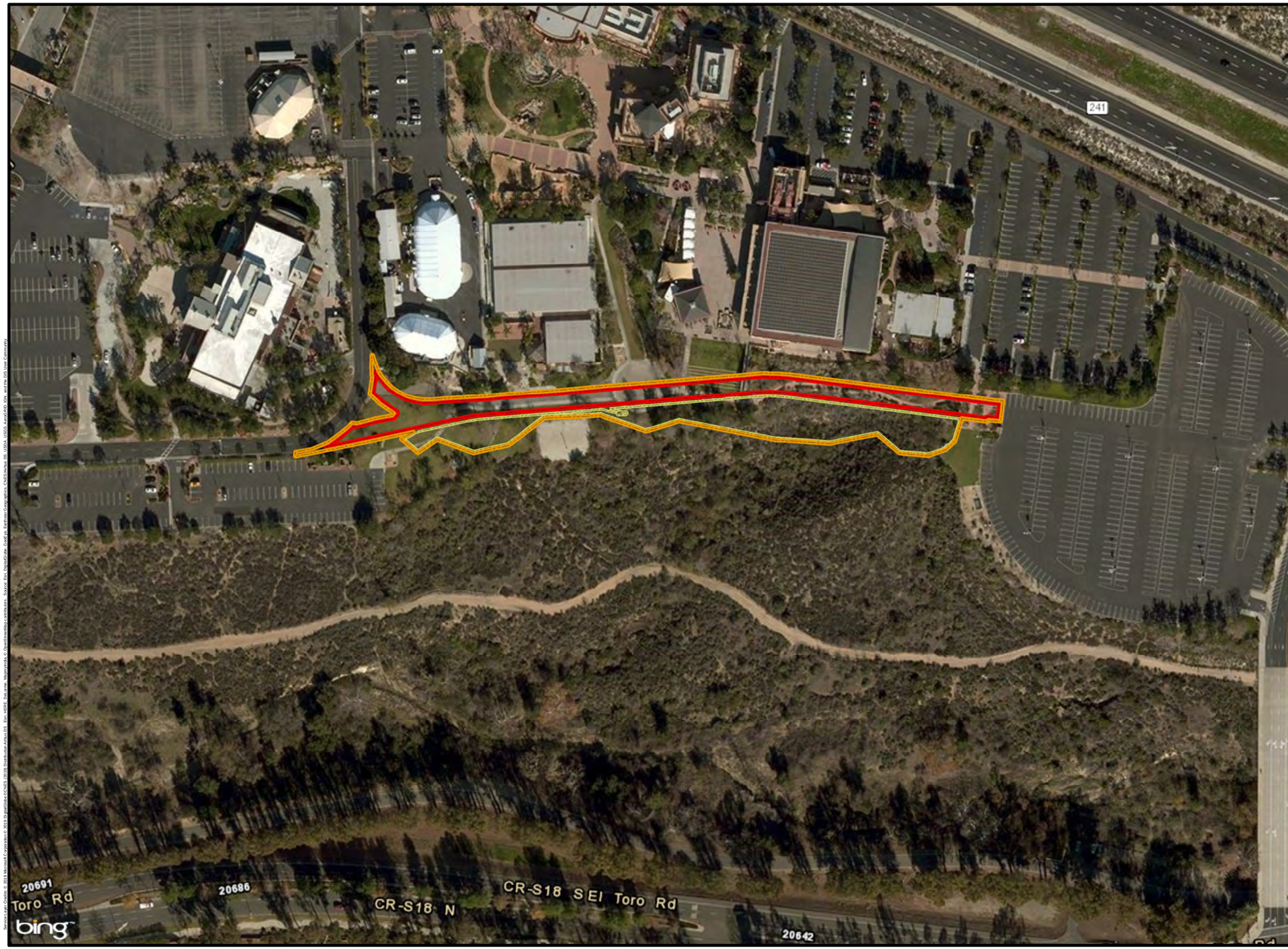


Exhibit 1. Regional Area

Saddleback Church Conversion Project | Orange County, CA



Legend

- Survey Area
- Fuel Modification Zone
- Proposed Connector Path

N W E S

0 75 150 Feet

1:1,800 1 in = 150 feet

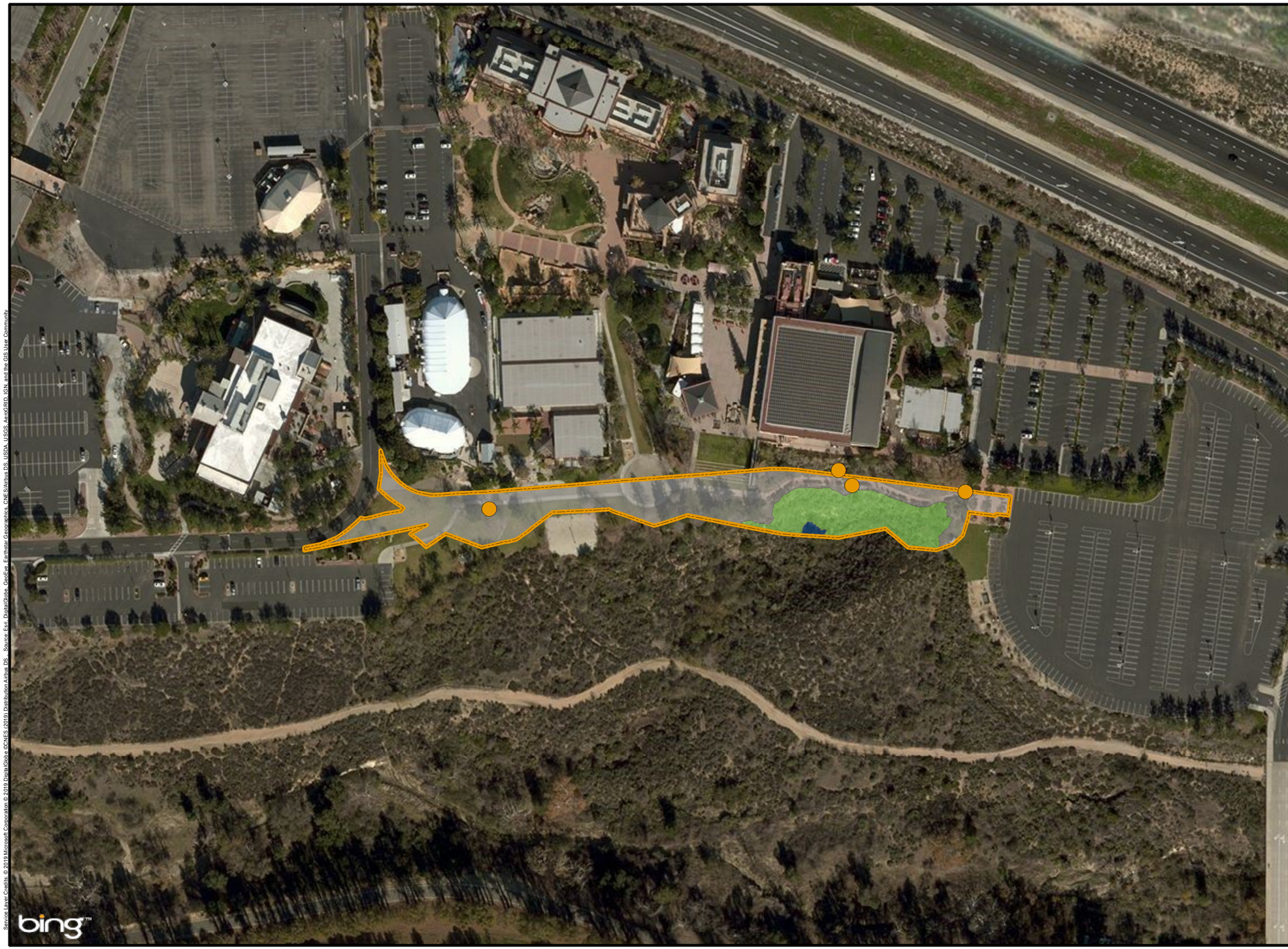
Coordinate System: NAD 1983 UTM Zone 11N
Projection: Transverse Mercator
Datum: North American 1983

Created on: Wednesday, May 1, 2019

Environmental Intelligence. Date: 5/1/2019, Q:\Timeless Architecture\Saddleback Church\02_GIS_Data\maps\2019\Exh2_Vicinity_EI01_20190426.mxd

Exhibit 2. Project Vicinity

Saddleback Church Conversion Project | Orange County, CA



Legend

Survey Area

Species Observations

Coast Live Oak (*Quercus agrifolia*)

Coastal Sage Scrub

Artemisia californica Alliance

Non-Coastal Sage Scrub Communities/Land Cover

Salix lasiolepis Alliance

Developed/Ornamental/Landscaped

N
W E
S

0 100 200 Feet

1:1,800 1 in = 150 feet

Coordinate System: NAD 1983 UTM Zone 11N
Projection: Transverse Mercator
Datum: North American 1983

Created on: Thursday, June 20, 2019

Service Layer Credits: © 2019 Microsoft Corporation © 2019 DigitalGlobe ©CNES (2019) Distribution Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Environmental Intelligence. Date: 6/20/2019. Q:\Timeless Architecture\Saddleback Church\02_GIS_Data\maps\2019\Ex\3_Vegetation_EI02_20190426.mxd

Exhibit 3, Vegetation Mapping and Habitat Assessment Results
Saddleback Church Conversion Project | Orange County, CA

Legend

- Survey Area

USGS Soil Types

- Cieneba sandy loam, 30 to 75 percent slopes, eroded
- Myford sandy loam, 9 to 15 percent slopes
- Myford sandy loam, 9 to 30 percent slopes, eroded

N
W E
S

0 75 150 Feet

1:1,800 1 in = 150 feet

Coordinate System: NAD 1983 UTM Zone 11N
Projection: Transverse Mercator
Datum: North American 1983

Created on: Friday, April 26, 2019

Service Layer Credits: © 2019 Microsoft Corporation © 2019 DigitalGlobe ©CNES (2019) Distribution Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Environmental Intelligence. Date: 4/26/2019. Q:\Timeless Architecture\Saddleback Church\02_GIS_Data\maps\2019\Ex\4_Soils_EI01_20190426.mxd

Exhibit 4, Soil Types

Saddleback Church Conversion Project | Orange County, CA

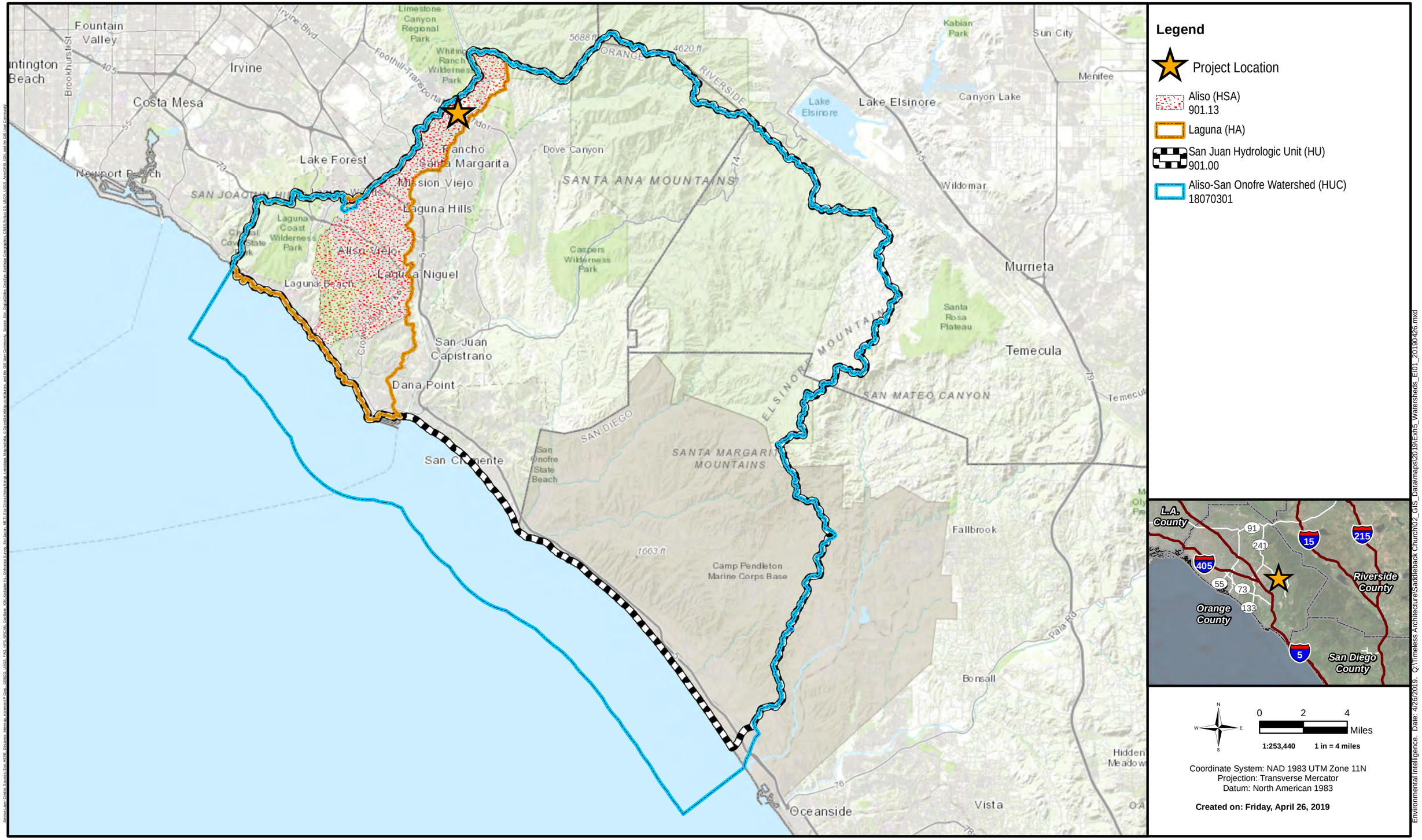


Exhibit 5. Project Location within Local Hydrologic Designations
Saddleback Church Conversion Project | Orange County, CA

Exhibit 6. Waters Assessment Results - Overview

Saddleback Church Conversion Project | Orange County, CA

Legend

- Photo Point
- T1.1 (Non-Wetland Confirmation Point)
- Other Data Points
- JD Survey Area

CDFW and RWQCB Jurisdiction

- 3' Swale
- Armoured Stormwater Swale

CDFW Jurisdiction Only

- Southern Willow Scrub

N
W E
S

0 15 30
Feet

1:360 1 in = 30 feet

Coordinate System: NAD 1983 UTM Zone 11N
Projection: Transverse Mercator
Datum: North American 1983

Created on: Thursday, June 20, 2019

Service Layer Credits: © 2019 Microsoft Corporation © 2019 DigitalGlobe ©CNES (2019) Distribution Airbus DS, Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Environmental Intelligence. Date: 6/20/2019. Q:\Timeless Architecture\Saddleback Church\02_GIS_Data\maps\2019\Ex16A-C_JD_Result_Details_EI01_20190501.mxd

Exhibit 6A . Waters Assessment Results

Saddleback Church Conversion Project | Orange County, CA

Legend

- Photo Point
- T1.1 (Non-Wetland Confirmation Point)
- Other Data Points
- JD Survey Area

CDFW and RWQCB Jurisdiction

- 3' Swale
- Armoured Stormwater Swale

CDFW Jurisdiction Only

- Southern Willow Scrub

N
W E
S

0 15 30
Feet

1:360 1 in = 30 feet

Coordinate System: NAD 1983 UTM Zone 11N
Projection: Transverse Mercator
Datum: North American 1983

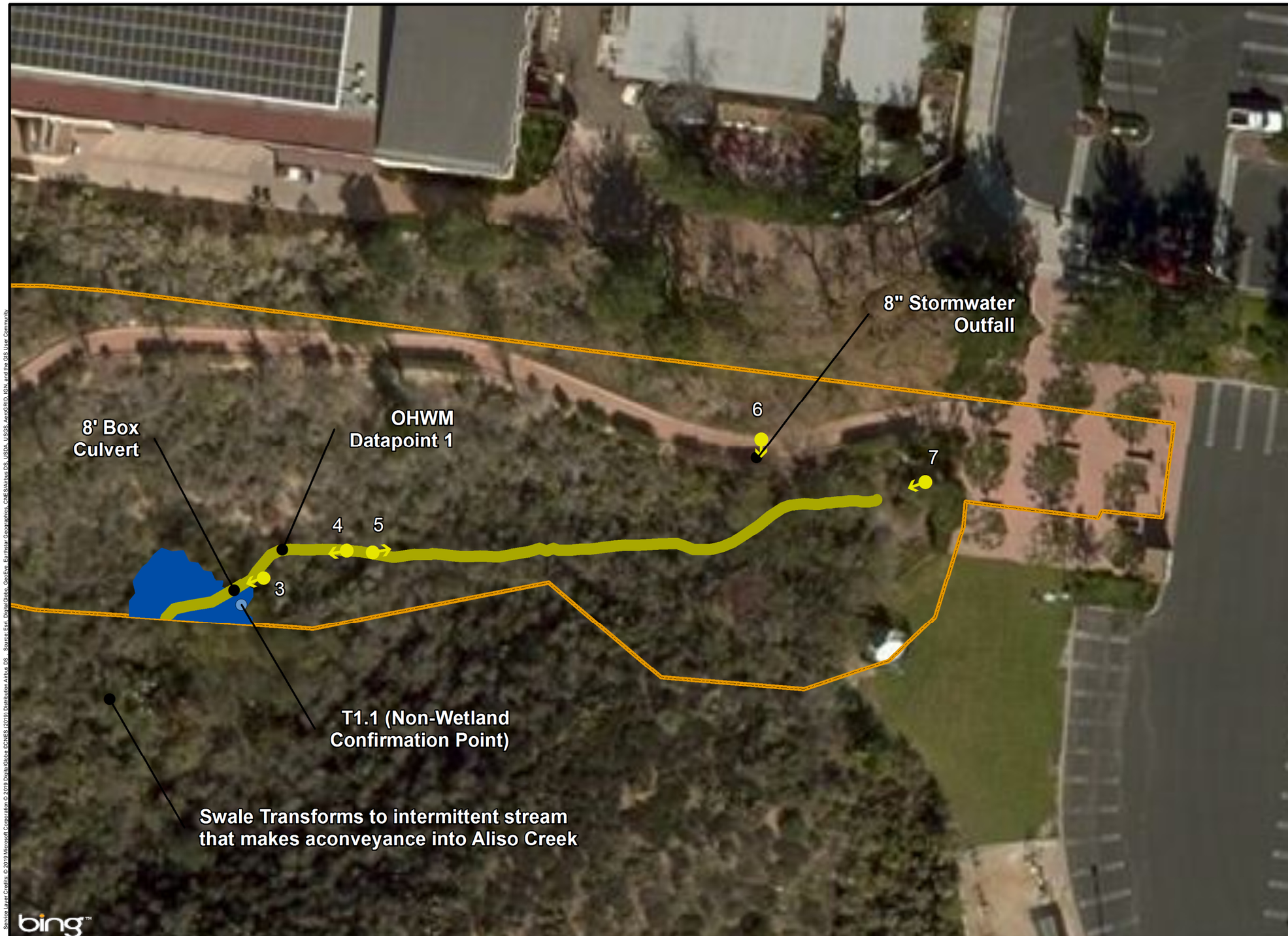
Created on: Thursday, June 20, 2019

Service Layer Credits: © 2019 Microsoft Corporation © 2019 DigitalGlobe ©CNES (2019) Distribution Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Environmental Intelligence. Date: 6/20/2019. Q:\Timeless Architecture\Saddleback Church\02_GIS_Data\maps\2019\Ex#6A-C_JD_Result_Details_EI01_20190501.mxd

Exhibit 6B . Waters Assessment Results

Saddleback Church Conversion Project | Orange County, CA



Legend

- Photo Point
- T1.1 (Non-Wetland Confirmation Point)
- Other Data Points
- JD Survey Area

CDFW and RWQCB Jurisdiction

- 3' Swale
- Armoured Stormwater Swale

CDFW Jurisdiction Only

- Southern Willow Scrub

0 15 30 Feet

1:360 1 in = 30 feet

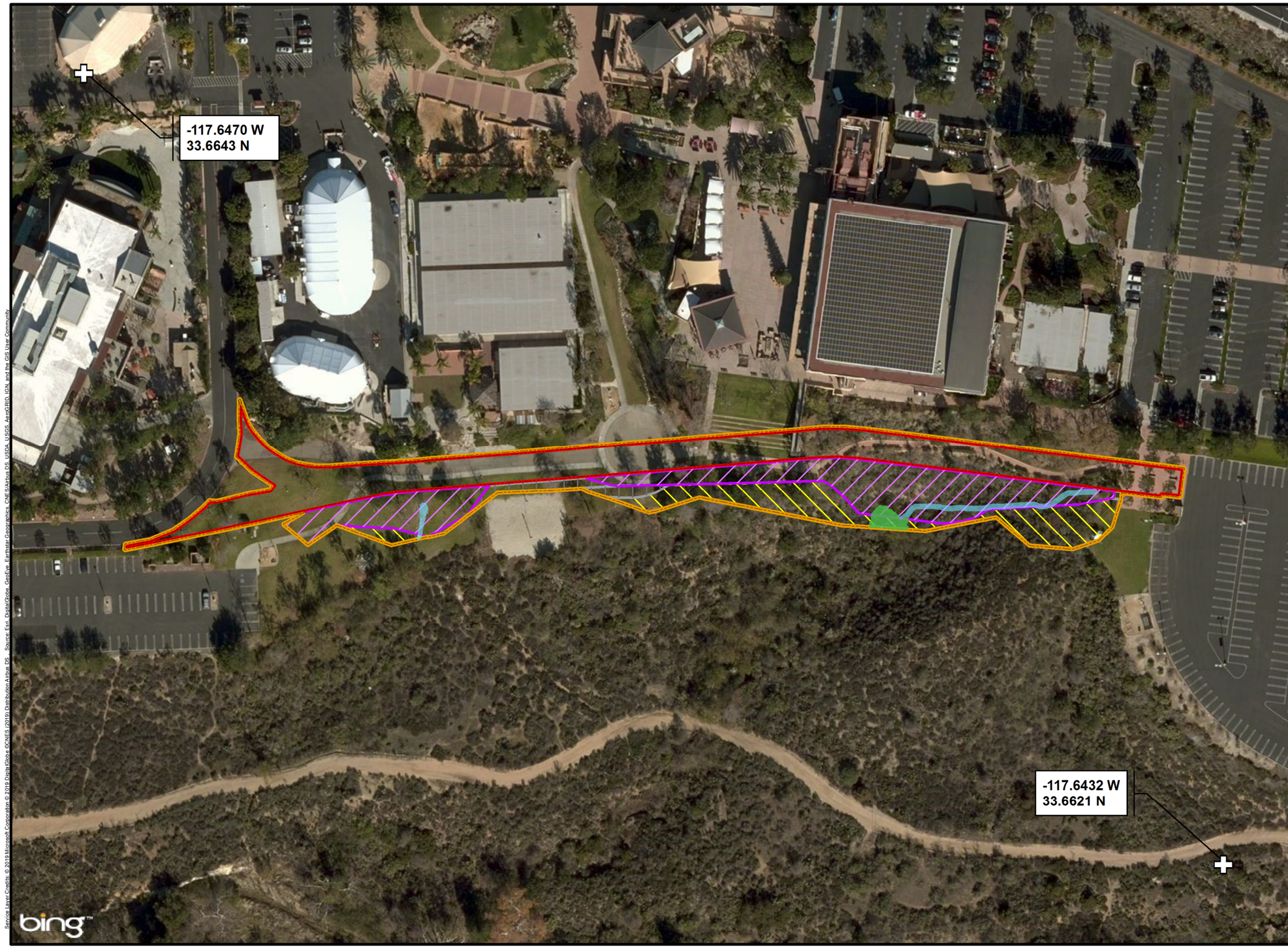
Coordinate System: NAD 1983 UTM Zone 11N
Projection: Transverse Mercator
Datum: North American 1983

Created on: Thursday, June 20, 2019

Service Layer Credits: © 2019 Microsoft Corporation © 2019 DigitalGlobe ©CNES (2019) Distribution Airbus DS, ... Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Environmental Intelligence. Date: 6/20/2019. Q:\Timeless Architecture\Saddleback Church\02_GIS_Data\maps\2019\Ex\fig6A-C_JD_Result_Details_EI01_20190501.mxd

Exhibit 6C . Waters Assessment Results
Saddleback Church Conversion Project | Orange County, CA



Legend

- Survey Area
- Proposed Connector Path

Fuel Modication Zone

- FMZ Restoration Zone
- FMZ Irrigated Zone
- FMZ Thinning Zone

No Impacts

- No Impacts to RWQCB Jurisdiction (FMZ Creation will not Impact Constructed Swales)

Potential Impacts

- Impacts to CDFW jurisdiction Only (0.01 ac)

N
W E
S

0 50 100 Feet

1:1,200 1 in = 100 feet

Coordinate System: NAD 1983 UTM Zone 11N
Projection: Transverse Mercator
Datum: North American 1983

Created on: Thursday, June 20, 2019

Service Layer Credits: © 2019 Microsoft Corporation © 2019 DigitalGlobe, ©CNES (2019) Distribution Airbus DS, Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Environmental Intelligence. Date: 6/20/2019. Q:\Timeless Architecture\Saddleback Church\02_GIS_Data\maps\2018\Exhibits\Exh7_JD_Impacts_EI02_20190619.mxd

Exhibit 7. Potential Impacts to Jurisdictional Waters

Saddleback Church Conversion Project | Orange County, CA

DRAFT

APPENDIX B

WETLAND DETERMINATION DATA FORMS – ARID WEST REGION (VERSION 2.0)

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Saddleback Church Conversion Project City/County: Lake Forest/Orange Sampling Date: 04/29/19

Applicant/Owner: Saddleback Church State: CA Sampling Point: T1.1

Investigator(s): J. Zinn Section, Township, Range: Cañada de Los Alisos Land Grant S9 T6S R7W

Landform (hillslope, terrace, etc.): Sloped basin Local relief (concave, convex, none): Concave Slope (%): 6

Subregion (LRR): C - Mediterranean California Lat: 33.663045 Long: -117.644260 Datum: NAD 83

Soil Map Unit Name: Cieneba sandy loam, 30 to 75 percent slopes, eroded NWI classification: PSSA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ◉ No ◯ (If no, explain in Remarks.)

Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ No ◯

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ◯	No ◉	
Hydric Soil Present?	Yes ◯	No ◉	**Is the Sampled Area within a Wetland?** Yes ◯ No ◉
Wetland Hydrology Present?	Yes ◯	No ◉	

Remarks: Non-wetland confirmation point abutting swale that drains basin feature. Field data point is taken within coastal sage scrub vegetation community that is transforming to small southern willow scrub stack that surround large stormwater box culvert intake. Please photos 3 through 6 in Appendix B.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Salix laevigata*	5	Yes	FAC
2.			
3.			
4.			
Total Cover:	5 %		
Sapling/Shrub Stratum			
1. *Baccharis pilularis*	45	Yes	Not Listed
2. *Nicotiana glauca*	10	No	FAC
3. *Artemisia californica*	10	No	UPL
4. *Salvia mellifera*	5	No	FACU
5. *Sambucus nigra*	≤5	No	UPL
Total Cover:	70 %		
Herb Stratum			
1. *Erigeron canadensis*	5	Yes	FACU
2. *Cortaderia selloana*	≤5	Yes	FACU
3. *Cryptantha intermedia*	≤5	Yes	UPL
4. *Sonchus asper*	≤5	Yes	FAC
5. *Bromus madritensis*	≤5	Yes	UPL
6.			
7.			
8.			
Total Cover:	5 %		
Woody Vine Stratum			
1. *N/A*			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum 55 % % Cover of Biotic Crust 0 %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
Total Number of Dominant Species Across All Strata:	7	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	28.6 %	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species		x 2 =	0
FAC species	15	x 3 =	45
FACU species	10	x 4 =	40
UPL species	55	x 5 =	275
Column Totals:	80 (A)		360 (B)

Prevalence Index = B/A = 4.50

Hydrophytic Vegetation Indicators:

- ◉ Dominance Test is >50%
- ◉ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ◯ No ◉

Remarks: Coastal sage scrub transforming towards southern willow scrub at large stormwater box culvert intake nearby.

SOIL

Sampling Point: T1.1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 3/2	100	N/A	N/A			Sandy loam	Rocky area

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Rocks

Depth (inches): 12

Hydric Soil Present? Yes ○ No ◉

Remarks: No hydric soil indicators observed. Soil unit mapped at the point of investigation is Cieneba sandy loam, 30 to 75 percent slopes, eroded (which is not listed as hydric by the NRCS). The point of investigation is located within a swale feature which does not contribute to the development of hydric indicators based upon low volume-short duration winter flows from precipitation inputs and runoff.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches): 0
Water Table Present?	Yes ○	No ◉	Depth (inches): Unknown
Saturation Present? (includes capillary fringe)	Yes ○	No ◉	Depth (inches): 0

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
N/A.

Remarks: No wetland hydrology indicators observed. Downward gradient of basin and swale underlain by sandy soils (high infiltration rate) does not retain water for wetland hydrology to develop.

APPENDIX C

ARID WEST EPHEMERAL AND INTERMITTENT STREAMS OHWM DATASHEETS – UPDATED VERSION

DRAFT

Arid West Ephemeral and Intermittent Streams OHWM Datasheet (OHWM Field Datapoint 1)

Project: Saddleback Church Conversion Project
Project Number: N/A
Stream: N/A (confirmation of no OHWM indicators)
Investigator(s): J. Zinn

Date: 04-29-19 **Time:** 1230
Town: Lake Forest **State:** CA
Photo begin file#: Photo 4 **Photo end file#:** 5

Y ☒/ N ☐ Do normal circumstances exist on the site?

Y ☒ / N ☐ Is the site significantly disturbed?

Location Details: Drainage swale which is a tributary to Aliso Creek (an ephemeral Stream). See Exhibits 6 (Results) and 6C (Mapsheet Detail)

Projection: Transverse Mercator **Datum:** NAD 83
Coordinates: 33.663091/-117.644220

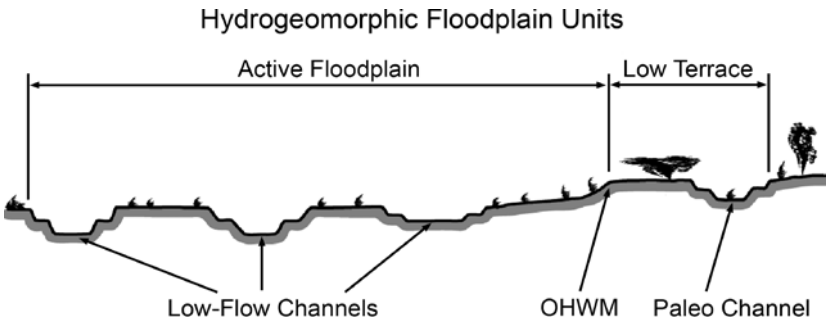
Potential anthropogenic influences on the channel system: Point of investigation is located within a concave topographical basin (with a NE-SW aspect) that receives stormwater inputs (from 8-inch culvert draining a portion of the Church facility [to the north] and sheetflow from parking lot [to the east]). The low point of basin is occupied by a drainage swale that directs low volume-short duration stormwater flow into large stormwater culvert that directs stormwater southwest to eventually create a conveyance with Aliso Creek (see Exhibit 2 [Vicinity] and Exhibit 6 [Results]).

Brief site description: Paved walkway that traverses through landscaped area between Church facility and undeveloped basin populated by coastal sage scrub. Basin supports drainage swale which directs stormwater runoff into stormwater culvert. Stormwater culvert directs runoff into Aliso Creek.

Checklist of resources (if available):

☒ Aerial photography Dates: 1902 through 2016
☒ Topographic maps
☒ Geologic maps
☒ Vegetation maps
☒ Soils maps
☒ Rainfall/precipitation maps
☒ Existing delineation(s) for site
☒ Global positioning system (GPS)
☒ Other studies

☐ Stream gage data
Gage number:
Period of record:
☐ History of recent effective discharges
☐ Results of flood frequency analysis
☐ Most recent shift-adjusted rating
☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event



Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.

4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:

☒ Mapping on aerial photograph ☒ GPS
☒ Digitized on computer ☐ Other:

Project ID: Saddleback JDLR **Cross Section ID: 1** **Date:** 04-29-19 **Time: 1230**

Cross section drawing: Swale presents no OHWM indicators and is populated by coastal sage scrub vegetation community
No active floodplain. Top of bank averages approximately 3-foot in width

Low-flow channel is the swale.
No shelving or clear line on the 'banks'

Swale ranges from 1 to 4-feet in depth

OHWM

GPS point: 33.663091/-117.644220

Indicators:

- ☐ Change in average sediment texture
- ☐ Change in vegetation species
- ☐ Change in vegetation cover
- ☐ Break in bank slope
- ☐ Other: _____
- ☒ Other: Headwaters proto-channel. Linear concave feature. Channel supports more thatch and herbaceous vegetation than sediment_____

Comments:

This field data point occurs within swale feature that does not present OHWM field indicators. Swale is a concave linear feature that supports low volume short duration flow. Feature is populated by coastal sage scrub species.

Floodplain unit: ☐ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: _____

Total veg cover: _____ % Tree: 5 % Shrub: 85 % Herb: 5 %

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☒ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

There is no floodplain unit at the point of investigation. Swale occurs as a linear lowpoint. No OHWM indicators. Smooth transition from thalweg to top of bank.

APPENDIX D

JURISDICTIONAL DELINEATION FIELD PHOTOGRAPH LOG

DRAFT

Photo 1: Looking north at 12-inch stormwater culvert outfall and armored stormwater swale (ditch) that flows into upland.

Photo 2: Looking south at stormwater swale (ditch) that conveys into upland. Note development of willow and mulefat at terminus of swale.

Photo 3: Looking southwest at 8-foot wide stormwater box culvert.

Photo 4: Looking southwest at floor of swale. Note small conveyance pipe (unknown use and if operational).

Photo 5: Looking northeast at swale. Note minor sediment sorting and dead vegetation.

Photo 6: Looking south at 8-inch stormwater outfall above incised swale.

Photo 7: Looking west at swale inception. Note dead mulefat within swale.

Appendix E

Preliminary Geotechnical Investigation and Percolation Testing Report

P.A. & ASSOCIATES, INC.

March 12, 2018
Project File No. 218111-101

SOIL ENGINEERING
GEOLOGY
MATERIAL TESTING
ENVIRONMENTAL

Mr. Jim Thayer
C/O Ms. Pam Reimer
Saddleback Church
1 Saddleback Parkway
Lake Forest, CA 92630

Subject: Preliminary Geotechnical Investigation & Percolation Testing
Proposed New Worship Center, Access Road, Parking Lot, and Bioswale
Saddleback Church
1 Saddleback Parkway
City of Lake Forest, California

References: Appendix F

Dear Mr. Thayer:

We are pleased to submit the results of our preliminary geotechnical investigation for the subject project at Saddleback Church. The proposed improvements include a new Worship Center, access road, parking lot, and bioswale. This report is based on our review of the referenced reports, subsurface exploration, and engineering review and analysis.

In general, the site appears suitable for the proposed improvements from a geotechnical standpoint. The construction of the subject site is not anticipated to have an adverse geotechnical effect on adjacent properties, and it is our professional opinion that the site is surficially and grossly stable provided that our attached findings and recommendations are incorporated into the design and construction of the project. This report documents our findings, conclusions, and recommendations.

We appreciate the opportunity to be of service. Should questions arise pertaining to any portion of this report, please contact this firm, in writing for further clarification.

Respectfully,
P.A. & Associates, Inc.

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PRELIMINARY GEOTECHNICAL INVESTIGATION
& PERCOLATION TESTING

FOR

PROPOSED NEW WORSHIP CENTER, ACCESS ROAD, PARKING, & BIOSWALE
SADDLEBACK CHURCH
1 SADDLEBACK PARKWAY
CITY OF LAKE FOREST, CALIFORNIA

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PROJECT FILE NO. 218111-101

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PROPOSED NEW WORSHIP CENTER, ACCESS ROAD, PARKING, & BIOSWALE
SADDLEBACK CHURCH
1 SADDLEBACK PARKWAY
CITY OF LAKE FOREST, CALIFORNIA

1.0 INTRODUCTION

This report presents a summary of findings, conclusions, and recommendations based on our preliminary geotechnical investigation and review of the referenced reports for the proposed new Worship Center, access road, parking lot, and bioswale at Saddleback Church, 1 Saddleback Parkway, in the City of lake Forest, California (see Site Vicinity Map, Figure 1 on the following page).

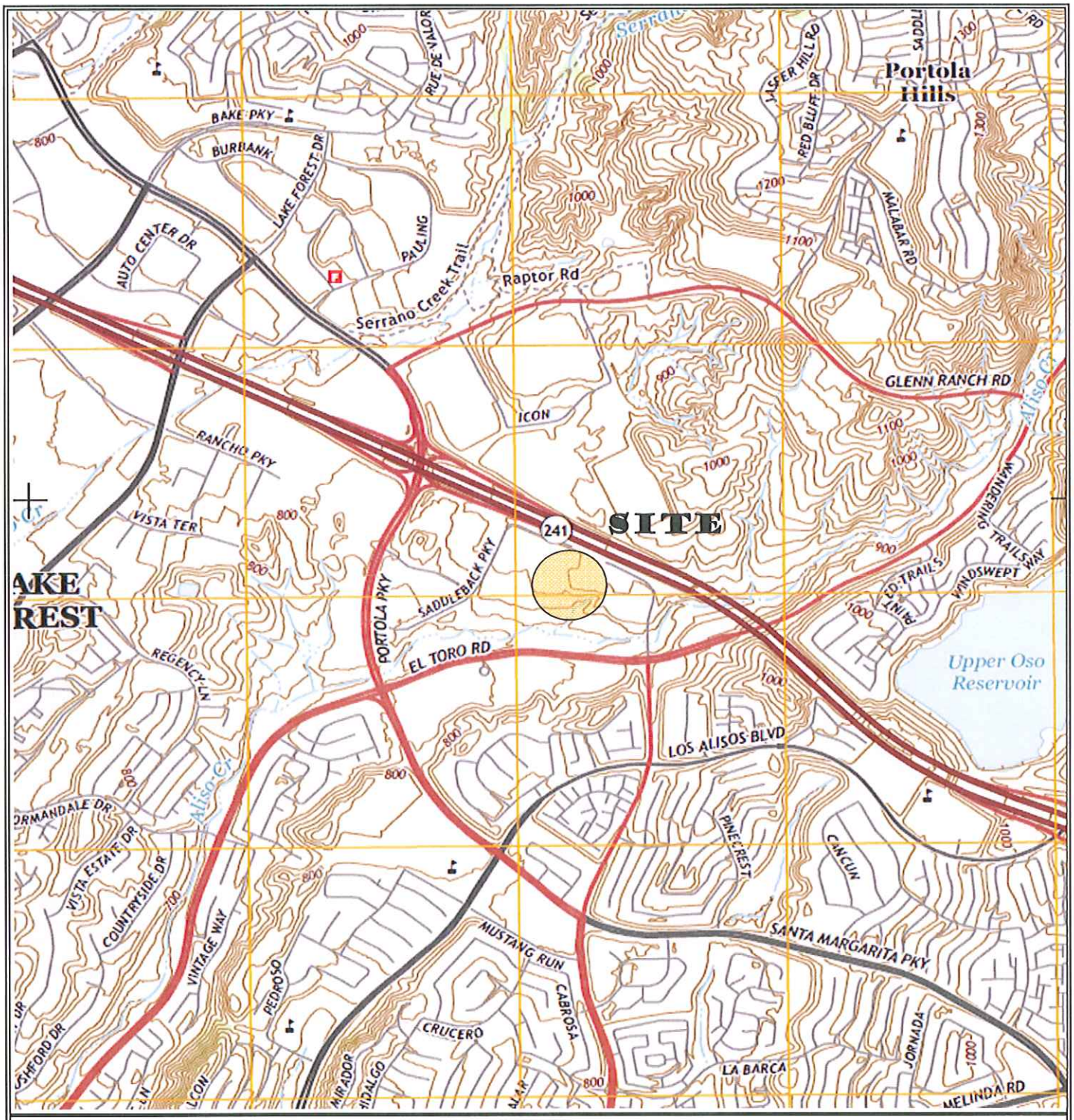
1.1 Purpose and Scope

This geotechnical report was performed in order to obtain geotechnical data pertinent to improvement of the site with a new Worship Center building with access road and parking lot, and provide design recommendations for the proposed bioswale. The procedures used in this investigation consisted of:

- Review of referenced reports and available published and unpublished geotechnical documentation pertaining to the subject site,
- Sub-surface exploration, logging and soil sampling with hollow stem auger;
- Correlative laboratory testing;
- Geotechnical review and analysis;
- Percolation rate testing of the proposed bioswale location; and,
- Preparation of this report, illustrations, and plans.

1.2 Objective of this Report

The purpose of this report is to summarize our findings, provide conclusions as to the overall suitability of the project site, and present recommendations for improvement from a geotechnical standpoint. The field investigation was undertaken on February 23 & 24, 2018.



Reference:	**USGS Lake Forest 7.5 Min. Quadrangle Map, Los Angeles Region, 2015**
Scale:	1:24,000

TN* / MN 14°

P.A. & ASSOCIATES, Inc.

TITLE:	**SITE VICINITY MAP**			**FIGURE NO.:**
PROJECT:	**1 Saddleback Pkwy., Lake Forest, California**			**1**
PROJECT NO:	**218111-101**	DATE: **3/12/2018**	BY: jmr	

1.3 Site Description

The New Worship Center site is located west of the existing Worship Center on the grounds of Saddleback Church. The church campus is located within a triangular area bounded by El Toro Road on the south, Marguerite Pkwy. on the east, Portola Pkwy. on the northwest, and the Transportation Corridor (Toll Rd.) on the northeast. Aliso Creek is incised along the northern side of El Toro Road on the order of 45 feet below the new road site. The site (campus park) is currently landscaped with a closely mowed lawn, which is partially surrounded by trees and bushes. A children's playground is located on the north end of the lawn, and several facilities for relaxation and recreation are present on and adjacent to the park. The lawn drains southward with topographic relief of about 4 feet, and, at the southern edge, slopes down roughly 9 feet at 2:1 H:V to the existing road. The existing east-west trending road bounds the park on its southern side. On the eastern side of the park, a narrow landscaped slot that is assumed to have originally been an access road from the existing road on the south, ramps up to the playground at the northern end. The ramp was found to be paved with concrete below the turf on the eastern side of the walkway. Two large capacity tents for assembly of overflow worshippers were occupying the parking lot on the west side of the park at the time of our investigation. See the attached site plan, Figure A-1-1, in Appendix A.

1.4 Use of Report

This report was prepared at the request of the client for the exclusive use of Saddleback Church and their design consultants for improvement of the site. Use of this report by others and for purposes other than those stated herein may be subject to misinterpretation, and is therefore not recommended. P.A. & Associates should review the project plans as they become available for applicability and compliance with recommendations presented.

1.5 Planned Land Use

Based upon our review of the site plan, it is our understanding that the proposed new Worship Center building will comprise 71,454 sf., or about double the size of the existing Worship Center, which will be converted to a an adult education center. The new Worship Center building is planned west of the existing, replacing the campus park, and will lie about 10 feet lower in elevation than the existing Worship Center. A new southern access road is planned extending from Loop Road at the Creek Parking Lot to the Bridge Parking Lot, east of the existing Worship Center, and a bioswale is planned across and below the new road toward Aliso Creek. Also, on the western side of the new Worship Center site where assembly tents are currently placed on the pavement, a new parking lot with 60 parking spaces is planned.

2.0 GENERAL GEOLOGY AND SUBSURFACE CONDITIONS

2.1 Regional Geology

The project is situated in Orange County within the northwestern portion of the Peninsular Ranges Geomorphic Province of Southern California. The Peninsular Ranges Geomorphic Province consists of a series of ridges that extend approximately 900 miles from the Los Angeles basin southeastward to the tip of Baja California, Mexico. This Province is approximately 80 to 100 miles wide east to west and is bounded on the north by the Transverse Ranges and the east by the Salton Trough. The dominant features of the Peninsular Ranges consist of northwest-trending fault zones. Tectonic uplift of and faulting within the Peninsular Ranges, caused by oblique convergence between the Pacific and North American Plates, began during the Pliocene. Faulting within the Peninsular Ranges has manifested itself as a series of right-lateral northwest trending transform faults (e.g., Palos Verdes, Newport-Inglewood, Norwalk-Anaheim Hills, Whittier-Elsinore, San Jacinto and San Andreas faults). In addition, numerous discontinuous north-south trending faults have been mapped within the northern portion of the Peninsular Ranges. Several of these faults within the Peninsular Ranges are considered active or potentially active pursuant to the guidelines of the Alquist-Priolo Earthquake Fault Zoning Act (1994). The regional geologic setting is shown on Figure 2 (page 5).

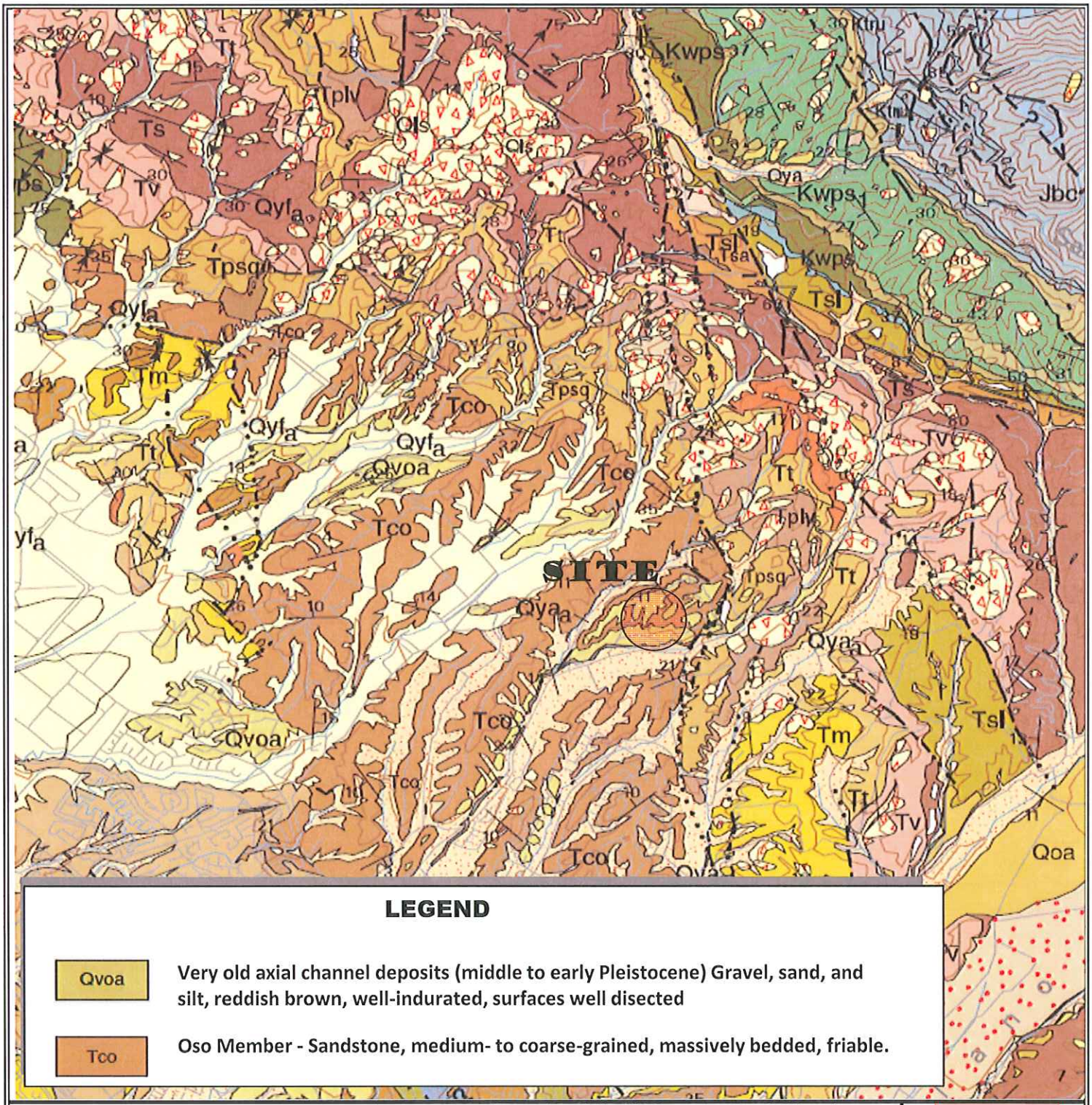
The materials underlying the proposed Worship Center site and vicinity are mapped as bedrock of the Tertiary Capistrano Formation - Oso Member. Portions and very old axial channel deposits. The regional geologic setting is shown in Figure 2 (page 5).

2.2 Earth Materials

Earth materials encountered during our exploration were classified in accordance with the Unified Soil Classification System (see Appendix A-2). The boring logs and site plan are attached in Appendix A.

2.3 Artificial Fill (Af)

The proposed Worship Center building site is underlain by approximately 0.5' to 5' of artificial fill derived from sandstone of the Capistrano Formation – Oso Member. Less than a foot of silty pea gravel covers the triangular playground at the northern end of the site, and about 4 inches of turf cover most of the park. The underlying fill encountered in the proposed Worship Center footprint generally consisted of pale yellow and pale gray (nearly white) silty and clayey medium-grained sand that was moist and medium dense in-place. Fill materials encountered in our borings adjacent to the existing road, also location of proposed new road, contained coarse gravel and consisted of yellowish brown



Reference:	USGS Geologic Map of the Santa Ana 30'x60' Quadrangle, California, compiled by D.M.Morton, 2004 OPEN-FILE REPORT 99-172				TN ★ / MN 14°
Scale:	1:50,000				
P.A. & ASSOCIATES, Inc.	TITLE:	**GEOLOGIC SITE VICINITY MAP**			FIGURE NO.:
	PROJECT:	**1 Saddleback Pkwy., Lake Forest, California**			**2**
	PROJECT NO:	**218111-101**	DATE: **3/12/2018**	BY: jmr	

and yellowish reddish brown gravely sands or sands with some gravel that were generally moist and dense.

2.4 Quaternary Very Old Axial Channel Deposits (Qvoa)

Portions of the existing road are underlain by early to middle Pleistocene very old axial channel deposits (see Geological Vicinity Map on page 5), which typically consist of gravels sands and silts. The alluvial soils encountered in our borings along the existing road consisted of reddish brown gravely clayey sand. The alluvium was generally dense in-place.

2.5 Capistrano Formation – Oso Member (Tco)

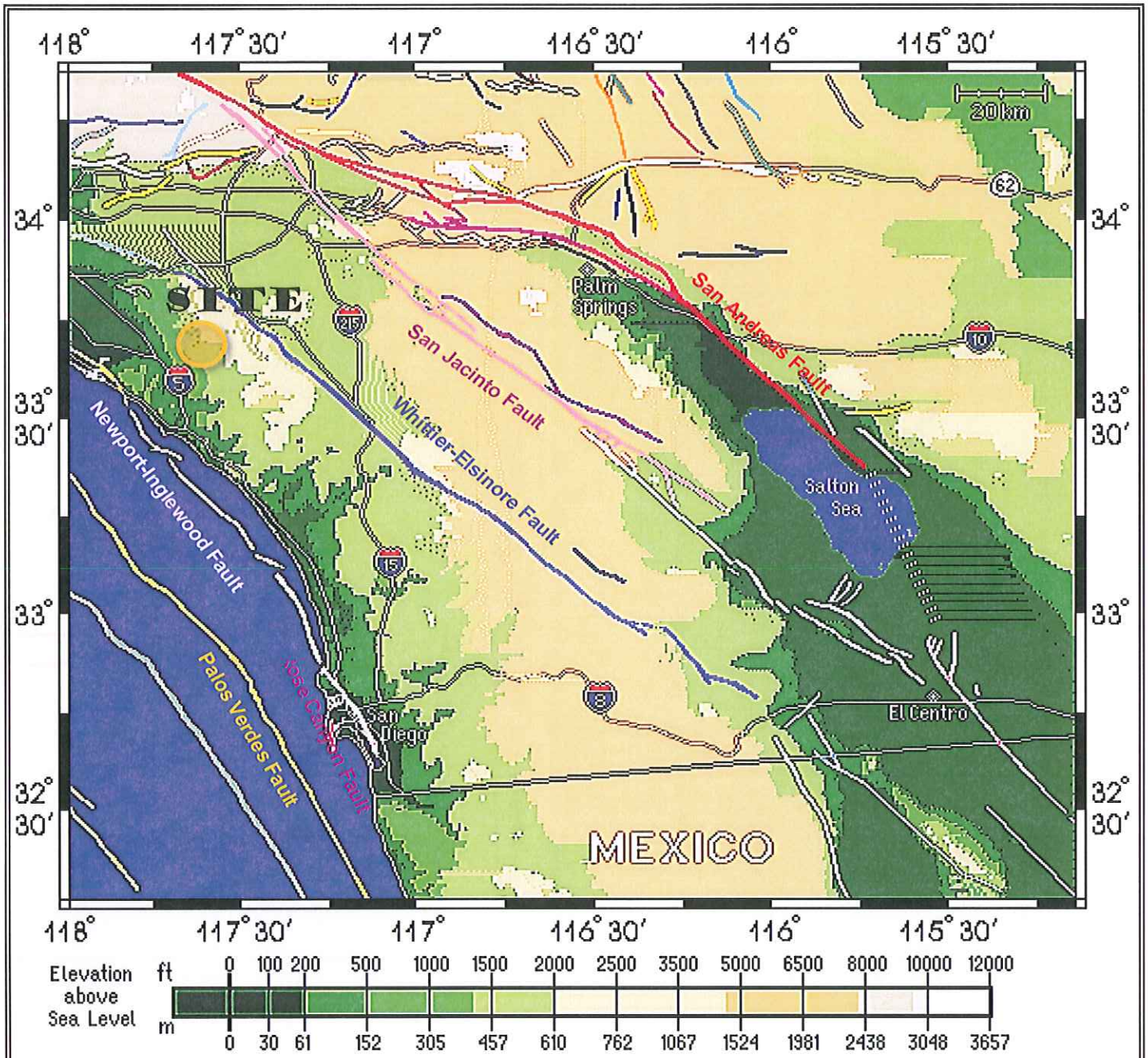
Sandstone of the Capistrano Formation – Oso Member was encountered at depths ranging from 0.5' to 5' below the surface of the improvement areas. The sandstone bedrock was pale yellow and pale gray (White), massively bedded, medium-grained, friable, feldspahic, quartzose, contained abundant biotite. Occasional ¼" dark brown clay and cemented layers were encountered.

2.6 Groundwater and Caving

Groundwater and caving were not encountered in our subsurface borings to a maximum depth of 30 feet.

2.7 Fault Zones

The site is not currently located within an Alquist-Priolo Earthquake Fault Zone. It may, however, be expected to experience moderate to potentially severe ground shaking from earthquakes generated on the Newport-Inglewood, Whittier-Elsinore and San Andreas Faults which are present within 100 kilometers of the site. The site may also experience lesser ground shaking from earthquakes on other faults within the southern California region. See Fault Map, Fig. 2, on page 7. Active or potentially active faults are not known to transect the site.



Reference: Southern California Earthquake Center

0 40 km

North

P.A. & ASSOCIATES, Inc.

TITLE:	**ACTIVE FAULTS OF S. CALIFORNIA MAP**		FIGURE NO.:
PROJECT:	**1 Saddleback Pkwy., Lake Forest, California**		**3**
PROJECT NO: **218111-101**	DATE: **3/12/2018**	BY: jmr	

3.0 SOILS ENGINEERING

Based on our subsurface investigation, soils underlying the site generally consist of silty and clayey medium-grained sands that overlie sandstone bedrock. In general, most of the site is covered with soils that appear to have moderate cohesion and very low expansion potential.

3.1 Classification

Field classifications were verified in the laboratory by visual examination. The final soil classifications are described in accordance with the Unified Soil Classification System and are shown on the boring logs.

3.2 Maximum Density - Optimum Moisture

Maximum density and optimum moisture were determined on representative samples secured from our subsurface explorations in accordance with ASTM Test Designation D-1557. The results of these tests are presented in the Summary of Laboratory Testing in Appendix B.

3.3 In-Place Moisture and Density

In-place moisture and density were determined in accordance with ASTM Test Designation D-2937. Samples were obtained in our exploration borings in steel cylinders (rings) of known volume, sealed on-site, and transported to our laboratory for testing. Results are shown on the exploration logs in Appendix A.

3.4 Direct Shear Test

Soil strength was determined for soils samples in accordance with ASTM Test Designation D-3080. The direct shear machine employed was a conventional single shear, strain-controlled device. Strain rates of approximately 0.005 inches per minute were utilized for remold samples. Results of these tests are utilized in determining stability analyses of the site and allowable soil bearing values. The result of these tests indicated a maximum cohesion of 50 psf, with a corresponding internal friction angle of 32 degrees. These tests are summarized in Appendix B.

3.5 Expansion Potential

Expansion potential was tested in accordance with ASTM Test Designation D-4829. In general, soils sampled during our field exploration exhibited a very low expansion potential.

However, corroborative expansion tests should be performed after grading. The expansion test results are summarized in Appendix B.

4.0 CONCLUSIONS

4.1 Feasibility of Development

From a geotechnical standpoint, development of this site is considered feasible. The proposed improvements should not have an adverse effect on the Saddleback campus or adjacent properties and structures provided that our conclusions and recommendations, together with the builder's standard of care, are taken into consideration under the supervision of a representative of this firm.

4.2 Earth Materials

The earth materials encountered on the site below turf and pavement generally consisted of artificial fill comprising medium dense silty and clayey sands ranging in thickness of 0.5' to 5 ' from north to south. The finished floor elevation (829') planned for the Worship Center is at about the same elevation as the existing northern elevation of the proposed building footprint; therefore, the lower portion of the park lawn will be raised maximum of about 4 feet to achieve building pad grade, and the eastern ramp area and existing southern road area adjacent to the park slopes will be raised maximum of about 15 feet. In order to prevent a bedrock/fill transition on the pad and provide a uniform foundation for the new building, the existing fill should be removed to bedrock or acceptable fill and replaced to grade with fill possessing a minimum of 92 percent relative compaction.

Based on our findings, the proposed foundations may be designed for a very low expansion potential. However, corroborative expansion tests should be performed after grading.

4.3 Possible Near-Source Earthquake Events

The subject site is not located within a State of California earthquake seismic hazard zone, with a potential for earthquake induced displacement as determined in compliance with the Seismic Hazards Mapping Act (the Act) of 1990 (Public Resources Code, Chapter 7.8, Division 2); however, the site is located in a seismically active area, and the potential for strong ground motion in the project area is considered significant; the site is located 16 km southwest of the of the causative near-source Elsinore Fault – Glen Ivy Segment, and is expected to experience Magnitude 6.8 Mw, Moment Magnitude with

Mercalli Intensity of VII from a major earthquake and Peak Ground Acceleration (PGA_M) of 0.526g with a 2% probability of exceedance in 50 years (USGS Earthquake Hazards Program website tool). Seismic criteria for a near source event should be considered in the design of the structure. Based on available information from our field investigation and geologic publications, the likelihood of significant surface fault rupture or ground deformation at the site is considered to be relatively low.

4.4 Groundwater

No groundwater was encountered in our borings to depth of 30 feet below the surface and no groundwater was encountered by others (Reference No.1) to depth of 36.5 feet, drilled from an elevation about 20 feet below the site. Groundwater. Historic high groundwater maps for El Toro Quadrangle (CGS website) indicate groundwater is deeper than 50 feet (Reference No.1).

4.5 Liquefaction

Liquefaction is a phenomenon that occurs in saturated, cohesionless (usually sandy) soils in which the soils undergo transformation from a solid to a liquid state because of increased interstitial pore pressure and reduced effective stress. This typically occurs in the upper 30 feet during ground shaking such as during an earthquake event. The site is underlain by shallow bedrock and should be considered to possess no liquefaction potential.

4.6 Percolation Rates

The subsurface materials encountered in the percolation testing study area consisted of clayey sand and sandy clay in the top five feet. We tested the percolation rate of the underlying sandstone from depth of 5 feet to 15 feet.

For the percolation rate testing, one 8-inch diameter test hole was excavated, and rate of percolation efficiency was studied in accordance with pertinent technical guidelines (Reference No.16). The test hole (B-10) was advanced to depth of 15 feet below the existing ground surface to the proposed bioswale infiltration surface, and two inches of gravel were placed in the bottom of the test hole. The percolation test hole was filled with water, and from a fixed reference point, the drop in water level was measured after 25 minutes during which less than six inches of water seeped away. The test hole was presoaked overnight, and on the following morning, the test was run for six hours with measurements taken at 30 minute intervals. The critical rate is the stabilized final reading; the field percolation test data sheets summarizing the readings is attached in Appendix C.

The percolation rates were calculated in accordance with percolation test methods provided in the Technical Guidance Document Appendices (Reference No. 16). The final percolation test reading and infiltration rate is shown in Table I, below:

TABLE I

FINAL PERCOLATION TEST RESULTS

Test Hole No.	Depth of Test (ft)*	Percolation Rate (min/inch)	Tested Infiltration Rate (inches/ hour)
B- 10	15	15.0	0.066

*Depth of hole at time of test

Infiltration rate was calculated using the conversion equation: $I_t = \lambda H(60r)/\ \lambda t(r+2H_{avg})$

Where: λt = time interval
r = test hole radius
λH = change in height over time interval
H_{avg} = average head height over time interval
I_t = tested infiltration rate

Infiltration Rate Calculations:

Test Hole B-10

$I_t = \lambda H(60r)/\ \lambda t(r+2H_{avg})$ = (2 in) (60min/hr)(4in)/ (30min)((4)+(2(120in)) = 0.066 in/hr

Based on the low percolation rate of underlying soils in the proposed bioswale area and concerns for long term filtration performance, the tested infiltration rate of 0.066, as determined in accordance with approved infiltration rate assessment methods (Reference No.16) for use in sizing the proposed infiltration facility, does not meet County of Orange requirements for approval.

This infiltration report is based on the project as described and the geotechnical data obtained for the field tests performed at the locations indicated on the plan. The materials encountered on the project site are believed representative of the total study area. Our firm should be notified of any pertinent change in the project plans, or if subsurface conditions are encountered which differ from those described in this report, as this may require re-evaluation of our recommendations. This report has not been prepared for use by parties or projects other than those named or described herein. It may not contain sufficient information for other parties or other purposes. Since our investigation is based on the site materials observed and engineering analysis, the conclusions and recommendations presented herein are professional opinions. These opinions have been derived in accordance with current standards of practices, and no warranty is expressed or implied.

5.0 RECOMMENDATIONS

The construction proposed for the site is considered geotechnically feasible. Grading and foundation plans should take into account the appropriate geotechnical conditions of the site.

5.1 Grading

Prior to the start of grading, all debris, vegetation, and other deleterious materials should be stripped and legally disposed of off site.

5.2 Sub-Surface Soil Preparation (Worship Center)

After clearing the site, the loose or soft soil and artificial fill possessing less than 92 percent relative compaction within the proposed building pad and 5-feet beyond should be removed to acceptable fill or competent bedrock and replaced with 92 percent compacted soil to a minimum depth of 3 feet below the existing grade or the proposed footings, whichever is lower. If the bottom of the excavated area possesses less than 92 percent compaction, the project soils engineer may require further removal.

Subgrade material in the proposed walkways and driveways or parking areas should be overexcavated to at least 12 inches below the bottom of the slabs.

5.3 Scarification

All exposed surfaces, including overexcavated surfaces, should be scarified 12 inches, moisture-conditioned, and compacted to 92 percent relative compaction, as tested in accordance with ASTM Test Method D-1557.

5.4 Import and Fill Material Usage

Should importation of fill be desirable, the material should be primarily granular, with very low expansion potential, having an expansion index less than 20. All import should be inspected, and tested as necessary by the Soils Engineer prior to importation to the site.

5.5 Fill

Native soils are acceptable for utilization as structural fill. All fill soils shall be placed in maximum 6-inch lifts compacted to at least 92 percent relative compaction.

5.6 Trench Backfill

All trenches should be backfilled with soils compacted mechanically to at least 90 percent relative compaction. Trenches deeper than 2 feet should be tested progressively as fill is placed. Care should be taken not to damage utility lines. The site soils are considered suitable for use as trench backfill, provided they are at or near optimum moisture. The walls of temporary construction trenches are expected to be stable when excavated nearly vertical, with only minor shoring, provided the total depth does not exceed about 4.5 feet. Shoring of excavation walls or flattening of slopes may be required, if greater depth is necessary.

All work associated with shoring must minimally confirm to Cal-OSHA and local safety codes.

5.7 Slopes

Slopes are to be made at an inclination of 2:1 or shallower. Fill slopes should be properly keyed, benched and recompacted as follows:

5.7.1 Key Excavation

Key excavation should be a minimum of 15 feet in width and 2 feet deep at the toe in competent bedrock. The key should be cut into competent material to be determined by the Soils Engineer and Engineering Geologist.

5.7.2 Benching

Benches should be cut a minimum of 10 feet wide, or one equipment width, whichever is greater, and should be excavated into competent bedrock, as approved by the Engineering Geologist. Unless otherwise approved by the Engineering Geologist, bench excavations should be at least 4 feet in height, measured from the elevation of the bench at the bottom of the cut to the top of the excavated surface and should exposed at least 4 feet of competent material. Typical benching details are shown in Figure 3-D, in Appendix D.

5.7.3 Backcuts

Backcuts of the slope fill should not exceed 1:1 (Horizontal : Vertical) in steepness.

5.7.4 Subdrain Installation

A canyon drain should be provided along the drainage path with perforated pipe installed to the key and solid pipe from back of key to outlet. See Figure D-5, Appendix D for canyon drain detail.

In general, fill slopes should be provided with subdrains, Appendix D, Figure D-3 and D-4. Installation requirements should be established during site grading, as recommended by the Soils Engineer or Engineering Geologist. The following recommendations or equivalent system for subdrain installation may be used.

(1) Swale bottoms should be overexcavated to competent bedrock as determined by the Soils Engineer or Engineering Geologist.

(2) A trench 3 feet wide and 2 feet deep should be constructed along the bottom of each swale.

(3) The trench should be lined with Mirafi 140N filter fabric, or approved equal, lapped and sewn according to the manufacturer's specifications.

(4) Two inches of gravel should be placed in the bottom of the trench.

(5) A 6-inch perforated PVC pipe, Schedule 40, should be placed on the gravel, with the perforations at the 5-O-clock and 7-O-clock position, at a minimum slope of 2 percent. For more detail see Appendix D.

(6) The trench should then be filled with approved material, see material specification on Appendix D.

(7) The filter fabric should be wrapped and lapped a minimum of 6 inches on the top.

(8) Trench should be backfilled with granular soils and compacted and to at least 90 percent relative compaction.

Where required by the Soils Engineer or Engineering Geologist, subdrains should be installed in accordance with recommendations as specified in this report.

5.8 Suggested Preliminary Pavement Section (Parking Lot)

Based on an assumed R-Value of 25, the State of California Highway Department design procedures, and Assumed Traffic Index = 5.5 for automobile and light truck traffic for parking and driveways, 7.5 for light heavy truck traffic and heavy traffic of light vehicles, interior streets, and parking areas, the following preliminary pavement sections are suggested, further evaluation should be performed at the conclusion of rough grading:

Auto and light truck traffic for parking and driveway areas
Traffic Index (TI) = 5.5
Asphalt Concrete (AC) = **4.0 inches**
Aggregate Base (AB) Class II = **6.0 inches**

Light heavy truck traffic & heavy traffic of light vehicles, interior streets & loading docks
Traffic Index (TI) = 7.5.
Asphalt Concrete (AC) = **6.0 inches**
Aggregate Base (AB) Class II = **8.0 inches**

AB and AC should be compacted to a minimum of 95 percent relative compaction. AC should be compacted in layers not exceeding 3.5 inches. During grading operations, exposed subgrade material should be tested for R-Value for confirmation.

As an alternative to asphalt pavement section for heavy trucks traffic, an 8-inch concrete slab over 4 inches of crushed aggregate base may be used. Slabs should be reinforced with No. 4 rebar at 18 inches on center, each way. Sawcuts (or cold joints) should be made at maximum of 10 feet intervals each way, with a maximum length to width ratio of 2.

5.9 Curbs, Gutters, Medians, and Driveways

Curbs, gutters, medians, and driveways without heavy truck usage should be a minimum of 6 inches in thickness. The proposed flow lines (curb, gutters) should be underlain by 6 inches of crushed Aggregate Base (AB) with a minimum of 95 percent relative compaction. Crushed Aggregate Base should be compacted in layers not exceeding 6 inches.

5.10 Geotechnical Observation and Testing

Based on the City of Lake Forest's quality control requirements and desired quality control, observation and testing by our representative are recommended for the activities specified on the following page:

- During clearing of the site;
- During rough and precise grading of the site;
- During footing excavation for building and/or any excavation;
- During backfill of utility trenches;
- During stormwater infiltration trench installation;
- During sub-base, aggregate base, and paving asphalt placement;
- When any unusual geotechnical conditions are encountered

6.0 FOUNDATION RECOMMENDATIONS

6.1 Continuous and Square Pad Footings

Continuous footings should be minimum of 18 inches wide and 24 inches deep for one and two stories. Square pad footings should be founded at least 24 inches below lowest adjacent grade, and should have a minimum dimension of 24 inches square. All continuous footings should be reinforced with minimum of two No.5 bar on top and two at the bottom. Spread footings should be reinforced with minimum of No.5 bars spaced 12 inches on-center each-way, unless determined otherwise by the Structural Engineer.

All of the isolated pad footings should be inter-connected through an 18-inches deep and 18-inches wide grade beam system.

6.2 Bearing Capacity (Continuous and Square Pad Footings)

Continuous footings may be designed with an allowable bearing capacity of 2000 pounds per square foot. Square pad footings may be designed with an allowable bearing capacity of 2100 pounds per square foot. These values may be increased by 150 psf for each additional width or depth of footing to a maximum of 2600 psf.

6.3 Short-term Seismic or Wind Loads

When designing for short duration wind or seismic loads, the above values can be increased by one-third.

6.4 Retaining Walls

6.4.1 Passive Pressure

Passive earth pressure may be computed as an equivalent fluid having a density of 300 pounds per cubic foot (pcf), with a maximum earth pressure of 2000 psf. An allowable coefficient of friction between soil and concrete of 0.3 may be used with dead load forces. When combining passive pressure and friction resistance, the passive pressure competent should be reduced by one-third.

6.4.2 Active Earth Pressure

Active earth pressure may be computed as an equivalent fluid having a density of 42 pcf and 58 pcf for level and not steeper than 2Horizontal:1Vertical slope backfill respectively. All of the retaining walls should be designed to resist any adjacent structural surcharge load, in addition to the active or at rest pressure. Based on peak horizontal ground acceleration motion of the site with 10% probability of exceedance in 50 years and simplified Mononobe-Okabe Seismic Analyses, an earthquake load of 19.5 pcf equivalent fluid pressure may be applied to the retaining structures for walls over 6 feet in height. Load should be zero at the top of footing increasing linearly to maximum wall height (top of backfill), with resultant total seismic load acting approximately at 0.6 times the wall height. When short term seismic load is added, the design safety factor may be reduced to 1.2, and bearing value and passive resistance may be increased by 1/3. Backfill of the retaining walls should be granular material with a minimum sand equivalence of 40 (S.E.>40). A 4-inch perforated schedule 40 PVC pipe installed with at least a 1.5% slope and 4 inches of Caltrans Class II permeable material (or compatible material) on the bottom and 12 inches on the sides and top of the pipe should be included in the designs for walls higher than 18 inches in-order to prevent build-up of hydrostatic pressure. Exterior retaining wall should be backfilled with a minimum of 12 inches of relatively impermeable (native silty soils) in order to prevent penetration of the surficial water into the retaining wall backfill. For graphic demonstration of retaining wall detail refer to Figure C-1, Appendix C.

6.4.3 At Rest Pressure

When movement on top of the retaining wall is restricted (Pinned or Fixed), at rest pressure may be computed as an equivalent fluid having a density of 52 pounds per cubic foot. For backfill specifics, refer to 6.4.2.

Water proofing design and inspection of the retaining structures is beyond the scope of our work.

6.5 Seismic Recommendations

The structural design at the site should conform to the most recent 2016 California Building Code requirements for Region 1 and the most recent design standards of the Structural Engineers Association of California. Based on the materials encountered and the project site coordinates (Lat. 33.663678°N, Long. -117.645641°W), the following ASCE 7-10 Standard seismic recommendations are made:

- Site Class = C, CBC 2016, Table 1613.5.2;
- S_S = 1.449; CBC 2016, Section 1613.5.1;
- S_1 = 0.539; CBC 2016, Section 1613.5.1;
- F_a = 1.0, CBC 2016, Table 1613.5.3(1);
- F_v = 1.3, CBC 2016, Table 1613.5.3(2);
- S_{MS} = 1.449, CBC 2016, Section 1613.5.3;
- S_{M1} = 0.701, CBC 2016, Section 1613.5.3;
- S_{DS} = 0.966, CBC 2016, Section 1613.5.4;
- S_{D1} = 0.467, CBC 2016, Section 1613.5.4;
- Seismic Design Category is D, CBC 2016, Table 1613.5.6(1&2);

6.6 Slabs-on-Grade

Slabs should be at least 5 inches in thickness and should be reinforced with No.4 bars at 18 inches on-center each-way. Interior slabs on grade in living areas and areas with floor cover should underlain by 15-mil plastic moisture barrier with two-inches of sand between the Visqueen and the slab and one inch of sand under. Four inches of crushed rock should be placed under all slab areas. Sawcuts (or cold joints) should be made on all exterior slabs, walkways and driveways, at maximum of 10 feet intervals each way, with a maximum length to width ratio of 2.

6.7 Settlement

Subject to implementation of recommendations contained herein, structures may be expected to settle a maximum of three quarters of an inch with a differential settlement of one-quarter inch over 20 feet horizontal distance. Most of settlement may be expected to occur during construction.

6.8 Type of Cement

Based on corrosivity testing by others (Reference #1), concrete in contact with onsite soil is expected to negligible sulfate exposure; however, the onsite soil is considered moderate to severely corrosive to ferrous metals.

Cement to be used in the concrete that is in contact with on-site soils should be determined after the completion of grading operations. In lieu of water-soluble sulfate testing, sulfate resistant cement consisting of Type V cement with minimum compressive strength of 4500 psi and a maximum water to cement ratio of 0.45 should be specified (Table 19-A-4 of Uniform Building Code).

6.9 Temporary Shoring/Bracing

For shoring/bracing of temporary cut surfaces steeper than 1H:1V higher than 4 feet, we recommend trapezoidal/triangular distribution of earth pressure. For design detail, please refer to Appendix D, Fig. D-1.

6.10 Surface Drainage Provisions

Positive surface gradients should be maintained away from planned structures, berm areas, etc., such that water is not allowed to flow uncontained on site, and should be contained in approved drainage devices. The ground immediately adjacent to the foundation shall be sloped away from the building at a slope of not less than one unit vertical in 20 units horizontal (5 percent slope) for a minimum distance of 10 feet (3048 mm) measured perpendicular to the face of the wall.

If any physical obstructions or lot lines prohibit 10 feet (3048 mm) of horizontal distance, a 5 percent slope shall be provided to an approved alternative method of diverting water away from the foundation. Swales used for this purpose shall be sloped a minimum of 2 percent where located within 10 feet (3048 mm) of the building foundation. Impervious surfaces within 10 feet (3048 mm) of the building foundation shall be sloped a minimum of 2 percent away from the building.

Exception: Where climatic or soil conditions warrant, the slope of the ground away from the building foundation shall be permitted to be reduced to not less than one unit vertical in 48 units horizontal (2-percent slope). The procedure used to establish the final ground level adjacent to the foundation shall account for additional settlement of the backfill.

Construction plans shall indicate how the site grading or drainage system will manage all surface water flows to keep water from entering buildings in accordance with the California Green Building Standards Code (CALGreen), Chapter 4.

6.11 Planters & Roof Drains

Planters adjacent to the foundation system should be provided with adequate drainage systems such as tub to prevent any moisture penetration into the subsurface soil. The roof drains should be connected to approved devices or drainage areas.

7.0 CLOSURE

7.1 Uniformity of Conditions

The recommendations and opinions expressed in this report reflect P.A. & Associates best estimate of the project requirements based on an evaluation of the subsurface soil conditions encountered at the subsurface exploration locations and the assumption that the soil conditions do not deviate appreciably from those encountered. It should be recognized that the performance of the slopes, slabs and foundations may be influenced by undisclosed and unforeseen variations in the soil conditions that may occur in intermediate and unexplored subsurface areas. Any unusual conditions not covered in this report that may be encountered during grading and construction should be brought to the immediate attention of the Soils Engineer and/or Engineering Geologist so that we may make modifications to our recommendations if necessary.

7.2 Time Limitations

The findings of this report are valid as of this date. Changes in the condition of a property can, however, occur with the passage of time, whether they are due to natural processes or the work of man on this or adjacent properties. In addition, changes in the state-of-the-art and/or government codes may occur. Due to such changes, the findings of this report may be invalidated wholly or in part by changes beyond our control. Therefore, this report should not be relied upon after a period of one year without a review by us verifying the validity of the herein contained conclusions and recommendations.

7.3 Professional Standard

In the performance of our professional services, P.A. & Associates complies with the standard of care and skill normally exercised under similar circumstances by members of our profession currently practicing under similar conditions in the same or similar localities. The client recognizes that subsurface conditions may vary from those encountered at the locations where our borings, surveys and explorations are made, and that P.A. & Associates

data, interpretations, and recommendations are based solely on the information obtained by us. We will be responsible for those data, interpretations and recommendations, but shall not be responsible for the interpretations by others of the information developed. Our services consist of professional consultation and observation only, and no warranty is expressed, implied, or intended in connection with the work performed by us, by the furnishing of oral or written reports or findings.

APPENDIX A

BORING LOGS

APPENDIX A-1

FIELD EXPLORATION

Subsurface Exploration

The site exploration program was performed on the dates shown on the accompanying record of field exploration log sheets. Subsurface exploration was conducted in order to visually identify subgrade conditions, sample in-situ moisture and density, and other salient properties. Excavation locations were selected based on the proposed development concept relevance and necessity of subsurface data, and accessibility. The number and depth of these excavations are considered adequate for estimation of subsurface conditions and characteristics, based on the development concept discussed in the text of the accompanying report.

Excavation Log Sheets

Exploration borings are graphically shown on the following log sheets. Each log shows the total depth achieved, the materials encountered, their observed engineering properties, results of correlative laboratory tests, and the presence, if any, of groundwater, and the relative competency of excavation walls.

Classification

Earth materials encountered in the excavations were described in accordance with A.S.T.M. Test Designation D- 2487, visual classification of soils or aggregate rock mixtures, per the Unified Soil Classification System (U.S.C.S.). This classification system is explained on Page A-2 of Appendix A.

Sampling

Selected samples from these excavations were collected on site and transported to the laboratory in sealed containers in order to preserve field conditions. Relatively undisturbed samples for in-place soil moisture, density, shear strength, swell and/or consolidation potential were contained utilizing driven steel tubes or brass rings. Bulk samples were also obtained for determination of maximum density and optimum moisture, as well as for preparation of removed samples for selected laboratory tests. Laboratory testing procedures are described in Appendix B-1. Laboratory test results are shown on the accompanying log sheets, commencing with Figure A-3, and is shown in table format beginning with Figure B-2 in Appendix B.

Use of Logs

Subsurface data depicted on the accompanying logs represent subgrade conditions relevant to the specific location and date shown on Figure A-1-1 and the log sheets, respectively. Between exploratory excavations, subsurface conditions can and do change with respect to vertical and lateral extent, subsequent precipitation, land use, and other conditions. Interpretation of these logs by others is solely at the risk of the user. These logs document conditions which were used, in part, to form the basis of findings, conclusions and recommendations presented in the text of the accompanying report, and may have no relevance to other applications.

APPENDIX A-2

UNIFIED SOIL CLASSIFICATION SYSTEM

COARSE GRAINED SOILS (More than 50 percent of material is LARGER than No. 200 sieve size.)

GW Well-graded gravel, gravel-sand mixtures, little or no fines

GP Poorly graded gravel or gravel-sand mixtures, little or no fines

GM Silty gravel, gravel-sand-silt mixtures

GC Clayey gravel, gravel-sand-clay mixtures

SW Well-graded sands, gravelly sands, little or no fines

SP Poorly graded sands or gravelly sands, little or no fines

SM Silty sands, sand-silt mixtures

SC Clayey sands, sand-clay mixtures

FINE GRAINED SOILS (More than 50 percent of material is SMALLER than 200 sieve size)

ML Inorganic Silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity

CL Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays

OL Organic silts and organic silty clays of low plasticity

MH Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts

CH Inorganic clays of high plasticity, fat clays

OH Organic clays of high plasticity, organic silts

Pt Peat and other highly organic soils

Boundary Classifications: Soils possessing characteristics of two groups are designated by combinations of group symbols.

Particle Size Limits

< No. 200	Silt or Clay
No. 200 to No. 40	Fine Sand
No. 40 to No. 10	Medium Sand
No. 10 to No. 4	Coarse Sand
No. 4 to 3/4 inch	Fine Gravel
3/4 inch to 3 inch	Coarse Gravel
3 inch to 12 inch	Cobbles
> 12 inches	Boulders

Date: 1/23/2018	Logged By: JMR	Equipment: CME55	Sheet: 1 of 1	Boring No: B-1
Location: Figure A-1-1	Engineer: PA	Hammer: Std	No Groundwater Encountered	Total Depth: 5 ft.

Depth (ft.)	Blow Count	Sample Type	Moisture (%)	Dry Density	Visual Log	Soil Class	Material Description	Laboratory Test Results
	per 12"						**6.5" Asphalt Concrete (AC) No Aggregate Base (AB)**	
						SM	Fill - **Silty Sand**, dark yellowish brown, moist, dense.	
1	81/10"	R	5.3	123.2			Tco - **Sandstone**, Pale yellow (White), massive, medium-grained, friable, feldspahic, quartzose, abundant biotite.	Expansion Potential = Very Low, Index = 1 Max. Dry Density= 127 pcf, Optimum Moisture= Internal Friction Angle = 32 degrees Cohesion = 50 psf
2								
3								
4								
5								
6							**TD 5 ft.** **No Caving** **No Groundwater Encountered**	
7								
8								
9								
10								
11								
12								
13								

NOTE: Please refer to Figure A-2 for Explanation of symbols.

P. A. & ASSOCIATES, INC.

TITLE:	LOG OF EXPLORATORY BORING			FIGURE NO.:
PROJECT:	1 Saddleback Parkway, Lake Forest, California			A-3
PROJECT NO: 218111-101	DATE 3/12/2018	BY: jmr		

Date: 1/23/2018	Logged By: JMR	Equipment: CME55	Sheet: 1 of 1	Boring No: B-2
Location: Figure A-1-1	Engineer: PA	Hammer: Std	No Groundwater Encountered	Total Depth: 5 ft.

Depth (ft.)	Blow Count	Sample Type	Moisture (%)	Dry Density	Visual Log	Soil Class	Material Description	Laboratory Test Results
	per 12"						**5" Asphalt Concrete (AC) No Aggregate Base (AB)**	
1	52	R	7.4	126.4		SM	Fill - **Silty Sand**, dark yellowish brown to yellowish brown, moist, medium dense.	
2							Tco - **Sandstone**, Pale yellow (White), massive, medium-grained, friable, feldspahic, quartzose, abundant biotite.	
3								
4								
5								
6							**TD 5 ft.** **No Caving** **No Groundwater Encountered**	
7								
8								
9								
10								
11								
12								
13								

NOTE: Please refer to Figure A-2 for Explanation of symbols.

P. A. & ASSOCIATES, INC.

TITLE:	LOG OF EXPLORATORY BORING			FIGURE NO.:
PROJECT:	1 Saddleback Parkway, Lake Forest, California			A-4
PROJECT NO:	218111-101	DATE 3/12/2018	BY: jmr	

Date: 1/23/2018	Logged By: JMR	Equipment: CME55	Sheet: 1 of 1	Boring No: B-3
Location: Figure A-1-1	Engineer: PA	Hammer: Std	No Groundwater Encountered	Total Depth: 11.5 ft.

Depth (ft.)	Blow Count	Sample Type	Moisture (%)	Dry Density	Visual Log	Soil Class	Material Description	Laboratory Test Results
	per 12"						Turf	
1						SC	Fill - **Clayey Sand**, yellowish brown, moist, medium dense, medium-grained.	
2	45	R	8.9	114.8				
3								
4							Tco - **Sandstone**, Pale gray (White), massive, medium-grained, friable, feldspahic, quartzose, abundant biotite, occasional 1/4 " dark brown clay seams .	
5	97	R	7.8	124.1				
6							1/4" cemented interbeds	
7	51	R	9.0	126.0			occasional dark brown clay 1/4" interbeds	
8								
9								
10	59	R	7.0	126.1				
11							1/4" cemented interbeds	
12							**TD 11.5 ft.** **No Caving** **No Groundwater Encountered**	
13								

NOTE: Please refer to Figure A-2 for Explanation of symbols.

P. A. & ASSOCIATES, INC.

TITLE:	LOG OF EXPLORATORY BORING			FIGURE NO.:
PROJECT:	**1 Saddleback Parkway, Lake Forest, California**			**A-5**
PROJECT NO:	**218111-101**	DATE **3/12/2018**	BY: jmr	

Date: 1/23/2018	Logged By: JMR	Equipment: CME55	Sheet: 1 of 1	Boring No: B-4
Location: Figure A-1-1	Engineer: PA	Hammer: Std	No Groundwater Encountered	Total Depth: 5 ft.

Depth (ft.)	Blow Count	Sample Type	Moisture (%)	Dry Density	Visual Log	Soil Class	Material Description	Laboratory Test Results
	per 12"						Turf	
1						SM	Fill - **Silty Sand with trace fine and coarse Gravel**, yellowish brown, moist, medium dense, medium-grained.	
2	50	R	11.5	119.2				
3								
							Tco - **Sandstone**, Pale yellow (White), massive, medium-grained, friable, feldspahic, quartzose, abundant biotite.	
4								
5								
6							**TD 5 ft.** **No Caving** **No Groundwater Encountered**	
7								
8								
9								
10								
11								
12								
13								

NOTE: Please refer to Figure A-2 for Explanation of symbols.

P. A. & ASSOCIATES, INC.

TITLE:	LOG OF EXPLORATORY BORING			FIGURE NO.:
PROJECT:	1 Saddleback Parkway, Lake Forest, California			A-6
PROJECT NO: 218111-101	DATE 3/12/2018	BY: jmr		

Date: 1/23/2018	Logged By: JMR	Equipment: CME55	Sheet: 1 of 1	Boring No: B-5
Location: Figure A-1-1	Engineer: PA	Hammer: Std	No Groundwater Encountered	Total Depth: 5 ft.

Depth (ft.)	Blow Count	Sample Type	Moisture (%)	Dry Density	Visual Log	Soil Class	Material Description	Laboratory Test Results
	per 12"					GP/GM	Fill - **Pea Gravel/Silty Pea Gravel,** moist, dark yellowish brown, dense.	
1						SM	Fill - **Silty Sand with trace fine Gravel**, yellowish brown, moist, medium dense, medium-grained.	
2	62	R	7.1	129.3				
3							Tco - **Sandstone**, Pale yellow (White), massive, medium-grained, friable, feldspahic, quartzose, abundant biotite.	
4								
5								
6							**TD 5 ft.** **No Caving** **No Groundwater Encountered**	
7								
8								
9								
10								
11								
12								
13								

NOTE: Please refer to Figure A-2 for Explanation of symbols.

P. A. & ASSOCIATES, INC.

TITLE:	LOG OF EXPLORATORY BORING			FIGURE NO.:
PROJECT:	1 Saddleback Parkway, Lake Forest, California			A-7
PROJECT NO: 218111-101	DATE 3/12/2018	BY: jmr		

Date: 1/23/2018	Logged By: JMR	Equipment: CME55	Sheet: 1 of 1	Boring No: B-6
Location: Figure A-1-1	Engineer: PA	Hammer: Std	No Groundwater Encountered	Total Depth: 3 ft.

Depth (ft.)	Blow Count	Sample Type	Moisture (%)	Dry Density	Visual Log	Soil Class	Material Description	Laboratory Test Results
	per 12"						Turf	
1							Tco - **Sandstone**, Pale yellow (White), massive, medium-grained, friable, feldspahic, quartzose, abundant biotite.	
2	75/11"	R	7.9	118.4				
3								
4							**TD 3 ft.** **No Caving** **No Groundwater Encountered**	
5								
6								
7								
8								
9								
10								
11								
12								
13								

NOTE: Please refer to Figure A-2 for Explanation of symbols.

P. A. & ASSOCIATES, INC.

TITLE:	LOG OF EXPLORATORY BORING			FIGURE NO.:
PROJECT:	1 Saddleback Parkway, Lake Forest, California			A-8
PROJECT NO:	218111-101	DATE 3/12/2018	BY: jmr	

Date: 1/23/2018	Logged By: JMR	Equipment: CME55	Sheet: 1 of 1	Boring No: B-7
Location: Figure A-1-1	Engineer: PA	Hammer: Std	No Groundwater Encountered	Total Depth: 5 ft.

Depth (ft.)	Blow Count	Sample Type	Moisture (%)	Dry Density	Visual Log	Soil Class	Material Description	Laboratory Test Results
	per 12"						Turf	
1						SM	Fill - **Silty Sand**, yellowish brown, moist, medium dense, medium-grained.	
2	65	R	8.6					
3							Tco - **Sandstone**, Pale yellow (White), massive, medium-grained, friable, feldspahic, quartzose, abundant biotite.	
4								
5								
6							**TD 5 ft.** **No Caving** **No Groundwater Encountered**	
7								
8								
9								
10								
11								
12								
13								

NOTE: Please refer to Figure A-2 for Explanation of symbols.

P. A. & ASSOCIATES, INC.

TITLE:	LOG OF EXPLORATORY BORING			FIGURE NO.:
PROJECT:	1 Saddleback Parkway, Lake Forest, California			A-9
PROJECT NO: 218111-101	DATE 3/12/2018	BY: jmr		

Date: 1/23/2018	Logged By: JMR	Equipment: CME55	Sheet: 1 of 1	Boring No: B-8
Location: Figure A-1-1	Engineer: PA	Hammer: Std	No Groundwater Encountered	Total Depth: 8 ft.

Depth (ft.)	Blow Count	Sample Type	Moisture (%)	Dry Density	Visual Log	Soil Class	Material Description	Laboratory Test Results
	per 12"						Turf	
1						SC	**Fill - Clayey Sand**, yellowish brown, moist, medium dense, medium-grained.	
2	64	R	7.4	127.8				
3								
4							Tco - **Sandstone**, Pale gray (White), massive, medium-grained, friable, feldspahic, quartzose, abundant biotite, occasional 1/4 " dark brown clay seams .	
5	53	R	9.0	125.6				
6								
7	63/10"	R	8.9	114.4			1/4" cemented interbed	
8								
9							**TD 8 ft.** **No Caving** **No Groundwater Encountered**	
10								
11								
12								
13								

NOTE: Please refer to Figure A-2 for Explanation of symbols.

P. A. & ASSOCIATES, INC.

TITLE:	LOG OF EXPLORATORY BORING			FIGURE NO.:
PROJECT:	**1 Saddleback Parkway, Lake Forest, California**			**A-10**
PROJECT NO: **218111-101**	DATE **3/12/2018**	BY: jmr		

Date: 1/23/2018	Logged By: JMR	Equipment: CME55	Sheet: 1 of 1	Boring No: B-9
Location: Figure A-1-1	Engineer: PA	Hammer: Std	No Groundwater Encountered	Total Depth: 6.5 ft.

Depth (ft.)	Blow Count	Sample Type	Moisture (%)	Dry Density	Visual Log	Soil Class	Material Description	Laboratory Test Results
	per 12"						Ground cover (succulents)	
1						SM	Fill - **Silty Sand with some fine and coarse Gravel**, gray, moist, medium dense, medium-grained.	
2							some fine rounded gravel	
3						SC	Fill -**Clayey Sand**, dark gray, moist, medium dense, medium-grained.	
4								
5	68	R	7.5	109.6			Tco - **weathered Sandstone**, pale reddish yellow and pale yellow (White), massive, medium-grained, friable, feldspahic,	
6								
7							**TD 6.5 ft.** **No Caving** **No Groundwater Encountered**	
8								
9								
10								
11								
12								
13								

NOTE: Please refer to Figure A-2 for Explanation of symbols.

P. A. & ASSOCIATES, INC.

TITLE:	LOG OF EXPLORATORY BORING			FIGURE NO.:
PROJECT:	1 Saddleback Parkway, Lake Forest, California			A-11
PROJECT NO: 218111-101	DATE 3/12/2018	BY: jmr		

Date: 1/23/2018	Logged By: JMR	Equipment: CME55	Sheet: 1 of 1	Boring No: B-10
Location: Figure A-1-1	Engineer: PA	Hammer: Std	No Groundwater Encountered	Total Depth: 15 ft.

Depth (ft.)	Blow Count	Sample Type	Moisture (%)	Dry Density	Visual Log	Soil Class	Material Description	Laboratory Test Results
	per 12"						Turf	
						SC	Alluvium? - **Clayey Sand**, very dark brown, moist, loose, medium-grained.	Expansion Potential = Very Low, Index = 15 Max. Dry Density=123 pcf, Optimum
						SC/CL	Residual Soil - **Clayey Sand/Sandy Clay**, yellowish brown to dark brown, moist, firm, medium-grained.	
5	93/9"	R	9.0	130.7				
							Tco - **Sandstone**, Pale yellow (White), massive, medium-grained, friable, feldspahic, quartzose, abundant biotite.	
							Percolation Test Boring **Test from 5' to 10'**	
10								
15								
							TD 15 ft. **No Caving** **No Groundwater Encountered**	
20								
25								

NOTE: Please refer to Figure A-2 for Explanation of symbols.

P. A. & ASSOCIATES, INC.

TITLE:	LOG OF EXPLORATORY BORING			FIGURE NO.:
PROJECT:	1 Saddleback Parkway, Lake Forest, California			A-12
PROJECT NO: 218111-101	DATE 3/12/2018	BY: jmr		

Date: 1/23/2018	Logged By: JMR	Equipment: CME55	Sheet: 1 of 1	Boring No: B-11
Location: Figure A-1-1	Engineer: PA	Hammer: Std	No Groundwater Encountered	Total Depth: 11.5 ft.

Depth (ft.)	Blow Count	Sample Type	Moisture (%)	Dry Density	Visual Log	Soil Class	Material Description	Laboratory Test Results
	per 12"						Turf	
1						SC	Fill - **Clayey Sand with some fine and coarse Gravel,** gray/brown, moist, medium dense, medium-grained.	
2								
3								
4								
5	53	R	10.1	108.8				
6								
7								
8								
9								
10	64	R	9.2	108.3				
11								
12							**TD 11.5 ft.** **No Caving** **No Groundwater Encountered**	
13								

NOTE: Please refer to Figure A-2 for Explanation of symbols.

P. A. & ASSOCIATES, INC.

TITLE:	LOG OF EXPLORATORY BORING			FIGURE NO.:
PROJECT:	**1 Saddleback Parkway, Lake Forest, California**			**A-13**
PROJECT NO:	**218111-101**	DATE **3/12/2018**	BY: jmr	

Date: 1/23/2018	Logged By: JMR	Equipment: CME55	Sheet: 1 of 1	Boring No: B-12
Location: Figure A-1-1	Engineer: PA	Hammer: Std	No Groundwater Encountered	Total Depth: 6.5 ft.

Depth (ft.)	Blow Count	Sample Type	Moisture (%)	Dry Density	Visual Log	Soil Class	Material Description	Laboratory Test Results
	per 12"						Turf	
1						SC	**Fill - Clayey Sand with some Gravel**, yellowish brown and yellowish reddish brown, moist, medium dense to dense,	
2								
3								
4								
5	63	R	10.7	119.8				
6						SC	Qvoa? - **Clayey Sand with some Gravel**, yellowish reddish brown, moist, dense, medium-grained, roots.	
7								
8							**TD 6.5 ft.** **No Caving** **No Groundwater Encountered**	
9								
10								
11								
12								
13								

NOTE: Please refer to Figure A-2 for Explanation of symbols.

P. A. & ASSOCIATES, INC.

TITLE:	LOG OF EXPLORATORY BORING			FIGURE NO.:
PROJECT:	1 Saddleback Parkway, Lake Forest, California			A-14
PROJECT NO: 218111-101	DATE 3/12/2018	BY: jmr		

Date: 1/23/2018	Logged By: JMR	Equipment: CME55	Sheet: 1 of 2	Boring No: B-13
Location: Figure A-1-1	Engineer: PA	Hammer: Std	No Groundwater Encountered	Total Depth: 30 ft.

Depth (ft.)	Blow Count	Sample Type	Moisture (%)	Dry Density	Visual Log	Soil Class	Material Description	Laboratory Test Results
	per 12"						Turf	
						SC	Fill - **Clayey Sand**, yellowish brown, moist, medium dense, medium-grained.	
							Tco - **Sandstone**, Pale gray (White), massive, medium-grained, friable, feldspahic, quartzose, abundant biotite.	
5	75/11"	R	9.4	115.7				
10	57	R	8.8	124.4				
15								
20	50/5"	R	2.1	97.9				
25							grinding rock, powder cuttings at 25'	

NOTE: Please refer to Figure A-2 for Explanation of symbols.

P. A. & ASSOCIATES, INC.

TITLE:	LOG OF EXPLORATORY BORING			FIGURE NO.:
PROJECT:	1 Saddleback Parkway, Lake Forest, California			A-15
PROJECT NO: 218111-101	DATE 3/12/2018	BY: jmr		

Date: 1/23/2018	Logged By: JMR	Equipment: CME55	Sheet: 2 of 2	Boring No: B-13
Location: Figure A-1-1	Engineer: PA	Hammer: Std	No Groundwater Encountered	Total Depth: 30 ft.

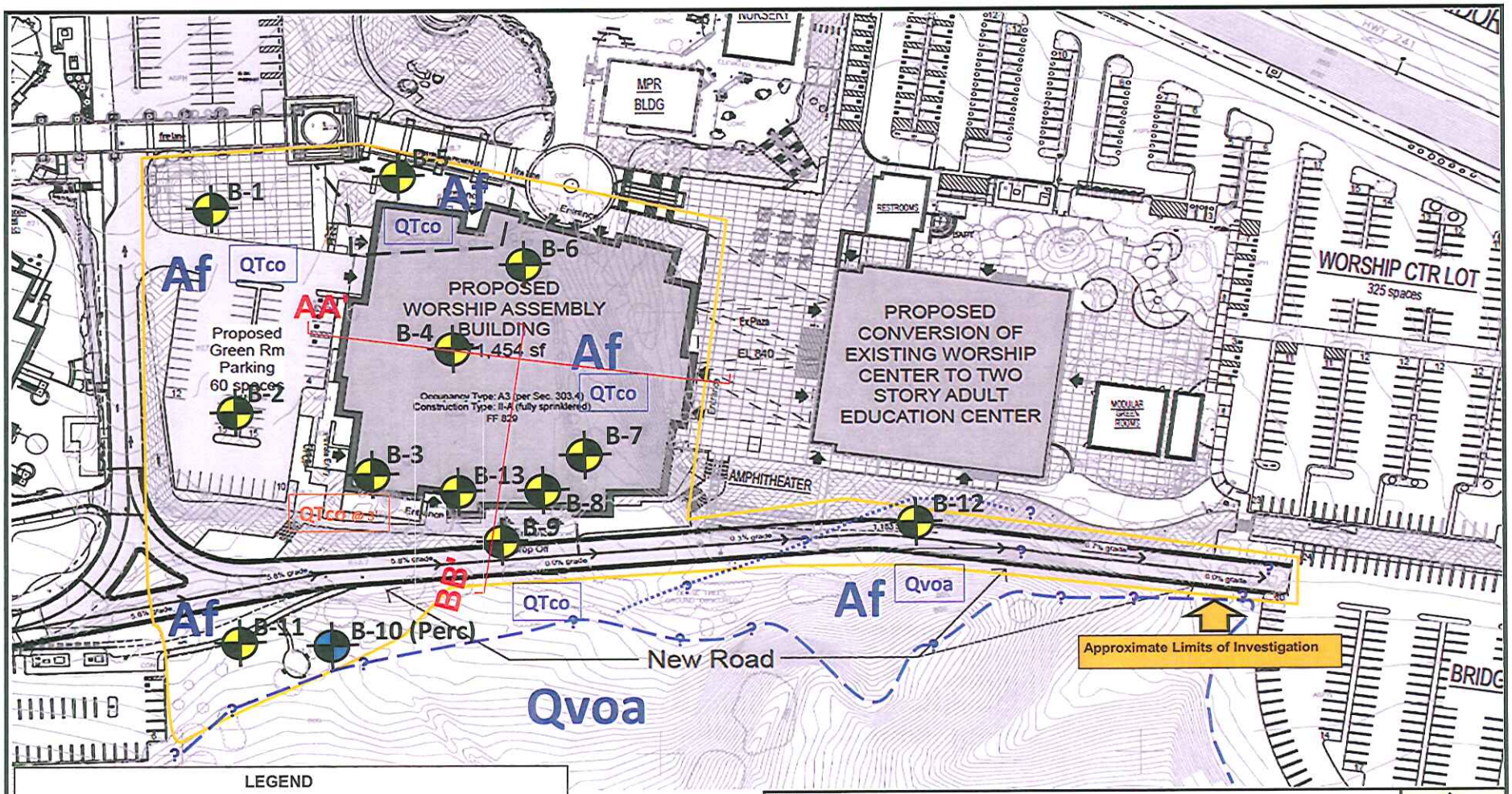
Depth (ft.)	Blow Count	Sample Type	Moisture (%)	Dry Density	Visual Log	Soil Class	Material Description	Laboratory Test Results
	per 12"						Tco - **Sandstone**, Pale yellow (White), massive, medium-grained, friable, feldspahic, quartzose, abundant biotite.	
30								
							TD 30 ft. **No Caving** **No Groundwater Encountered**	
35								
40								
45								
50								

NOTE: Please refer to Figure A-2 for Explanation of symbols.

P. A. & ASSOCIATES, INC.

TITLE:	LOG OF EXPLORATORY BORING				FIGURE NO.:
PROJECT:	1 Saddleback Parkway, Lake Forest, California				A-16
PROJECT NO:	218111-101	DATE	3/12/2018	BY: jmr	

GEOTECHNICAL PLAN



LEGEND

Af	Artificial Fill
Qvoa	Very Old Axial Channel Deposits
Tco	Tertiary Capistrano Formation - Oso Member
B-13	Approximate Boring Location
B-10 (Perc)	Approximate Percolation Test Boring Location

Reference: Campus Plan prepared by Timeless Architecture, Inc.

Scale: 0 50' 100' 200'

North

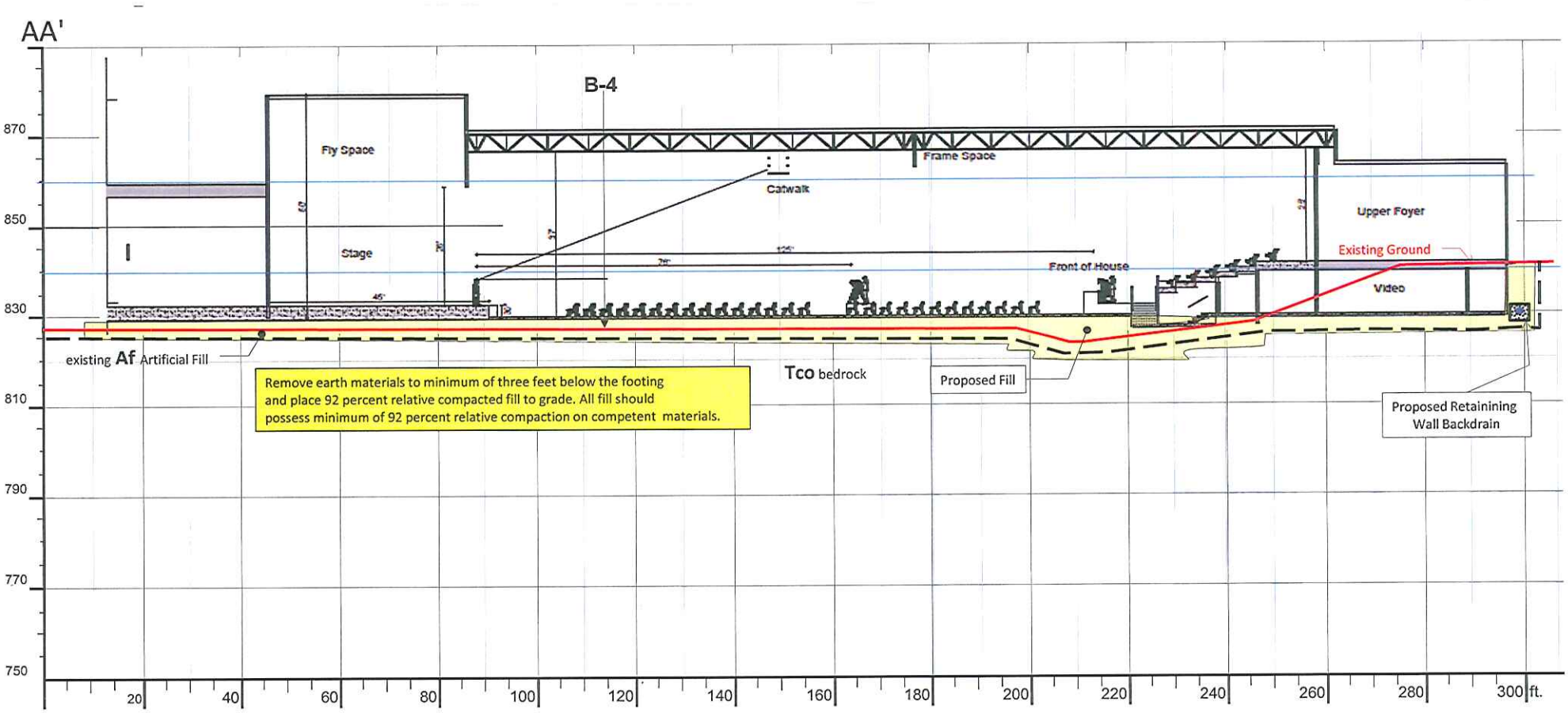
P.A. & ASSOCIATES, Inc.

TITLE: BORING LOCATION PLAN

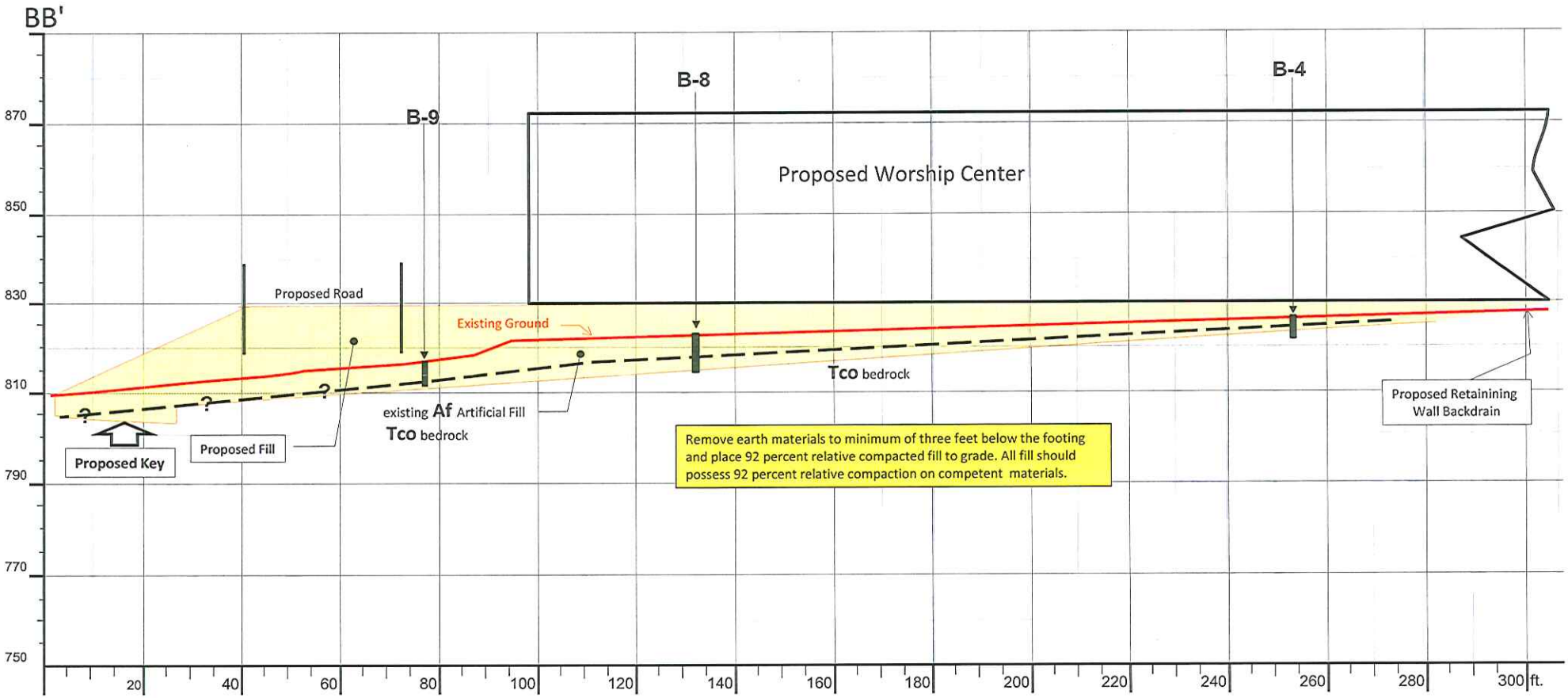
PROJECT: 1 Saddleback Parkway, Lake Forest, California

PROJECT NO: 218111-101 DATE: 3/12/2018 BY: jr

FIGURE NO.: A-1-1



Reference:	Building Section A301, by Timeless Architecture, Inc.			
Scale:				FIGURE NO.:
P.A. & ASSOCIATES, Inc.	TITLE:	GEOTECHNICAL CROSS SECTION AA'		A-1-2
	PROJECT:	1 Saddleback Parkway, Lake Forest, California		
	PROJECT NO: 218111-101	DATE: 3/12/2018	BY: jmr	



Reference:	Campus Plan prepared by Timeless Architecture. Inc.			
Scale:				FIGURE NO.:
P.A. & ASSOCIATES, Inc.	TITLE:	GEOTECHNICAL CROSS SECTION BB'		A-1-3
	PROJECT:	1 Saddleback Parkway, Lake Forest, California		
	PROJECT NO: 218111-101	DATE: 3/12/2018	BY: jmr	

APPENDIX B

LABORATORY TESTING

APPENDIX B-1

LABORATORY TESTING PROGRAM

Laboratory tests were performed on selected samples in accordance with one or more of the standard testing methods shown below. A summary of laboratory test results follows, beginning with Appendix B-2. Discussion, conclusions and recommendations pertaining to these results may be found in the text of the accompanying report.

Unified Building Code

No. 18-2 Expansion Potential

State of California
Department of Transportation
(CALTRANS)

No. 216 In-Place Soil Density
No. 301 Resistance (R-Value)

American Standards
for Testing and Materials
(A.S.T.M)

D4829-11	Expansion Potential
D-421-85(2007)	Grain Size Analysis - Mechanical Method
D-422-63(2007)e2	Grain Site Analysis - Hydrometer Method
D-698-12e2	Moisture, Density
D-854-14	Specific Gravity
D-1556/- D-1556M-15e1	In-Place Soil Density - Sand Cone
D-1557-12e1	Maximum Density and Optimum Moisture
D-1883-16	California Bearing Ratio
D-4254-16	Relative Density
D-2166/D2166M-16	Unconfined Compression
D-2216-10	Water Content Determination
D-2419-14	Sand Equivalence Testing
D-2435/D2435M-11	Consolidation Testing
D-2487-11	Unified Soil Classification System
D-2937-10	In-Place Soil Density - Driven Tube
D-3080/D3080M-11	Direct Shear
D-4318-10e1	Liquid and Plastic Limits and Plasticity Index
D-4253-16	Maximum Index Density
D-4254-16	Maximum Index Density

APPENDIX B-2

LABORATORY TESTING PROGRAM

Expansion Test Results

Location	Depth (Feet)	Soil Type	Expansion Index	Expansion Potential
B-1	1-5	Sand, medium-grained pale yellow (white)	1	Very Low
B-3	1-5	Clayey Sand, medium-grained yellowish brown	15	Very Low

Maximum Dry Density - Optimum Moisture

Location	Depth (ft)	Soil Type	Maximum Dry Density	Optimum Moisture
B-1	1-5	Sand, medium-grained pale yellow (white)	127.0 pcf.	8.5 %
B-10	1-5	Clayey Sand, medium-grained dark brown	123.0 pcf.	9.5 %

Direct Shear Strength

Location	Depth (ft)	Soil Type	Internal Friction Angle	Cohesion (psf)
B-1	1-5	Sand, medium-grained pale yellow (white)	32 degrees	50

APPENDIX B2 (Continued)

LABORATORY TEST SUMMARY

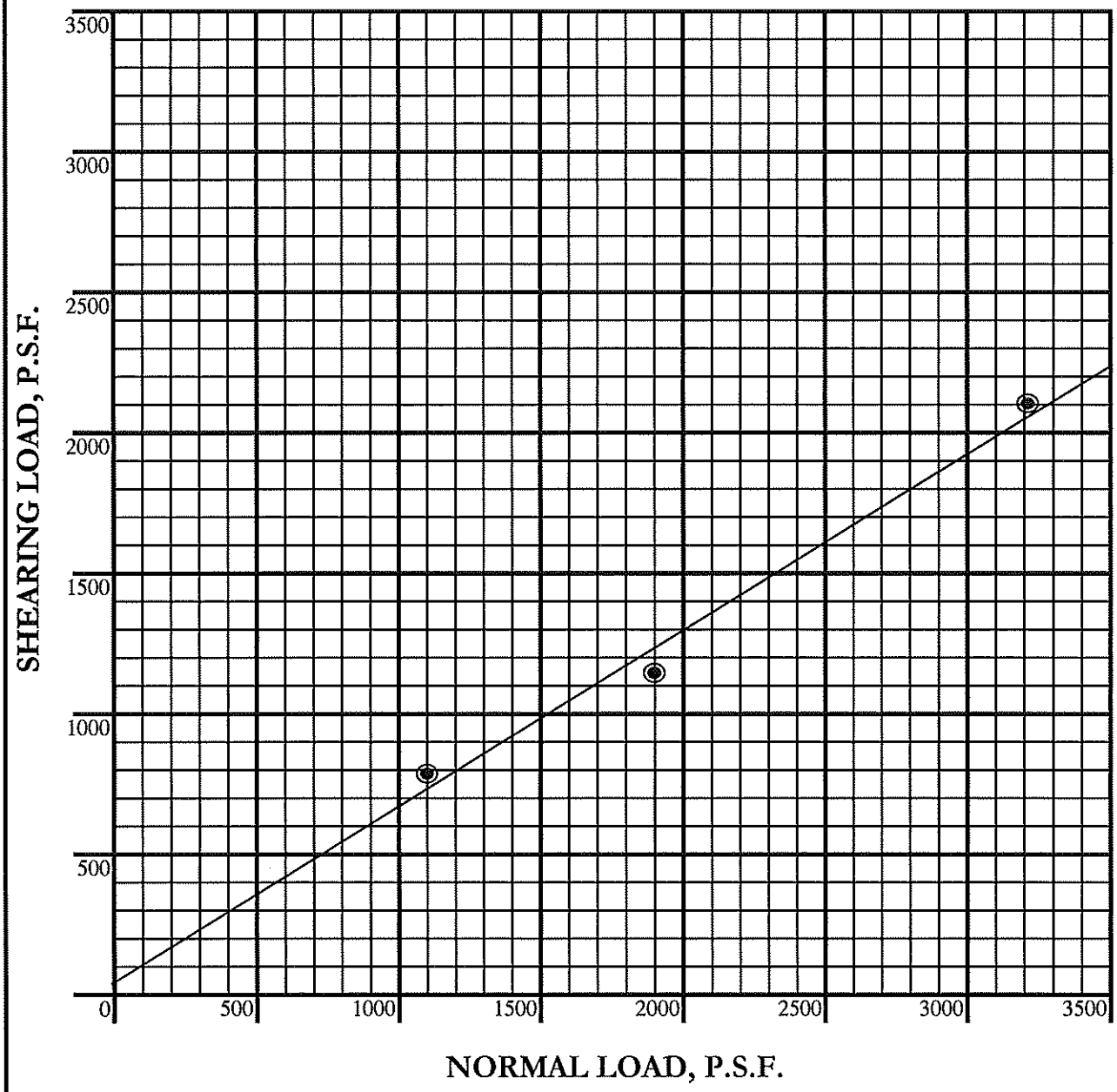
Sieve Analysis

Location	Depth (ft.)	Percent finer than ¾" (.75", 19 mm)	Percent finer than No.4 (.187", 4.75 mm)	Percent finer than No.16 (0.0459", 1.19 mm)
B-10	1-5	100.0%	95.9%	86.6%

Location	Depth (ft.)	Percent finer than No.40 (0.0165", 420 microns)	Percent finer than No.100 (0.0058", 0.147 mm)	Percent finer than No.200 (0.0029", 0.075 mm)
B-10	3-7	69.2%	43.7%	37.3%

PLATE B-3

DIRECT SHEAR SUMMARY



PROJECT NO.	218111-101
CLIENT NAME	Saddleback Church
BORING NO.	B-1
DEPTH	1-5 ft.
SATURATED	NO YES x
UNDISTURBED	
REMOLDED TO	90 %

P. A. & ASSOCIATES, INC.

INTERNAL FRICTION ANGLE 32°

COHESION 50 **P.S.F.**

APPENDIX C

PERCOLATION TEST DATA SHEET

Perc Test Data Sheet

Project: Saddleback Church Worship Center			Project File No.: 218111-101
Test Hole No.B-10	Tested by: DAJR	USCS: SP	Date: 2/24/2018
Depth of Hole (8" Dia.) as Drilled: 15 ft.		Before Test: 15 ft.	After Test: 15 ft.

Trial No.	Start Time	Stop Time	Time Interval (min)	Initial Depth to Water (in.)	Final Depth to Water (in.)	△ In Water Level (in.)	Greater than or Equal to 6"? (y/n)
1	9:05 AM	9:30 AM	25	5.00	8.75	3.75	n

If two consequtive measurements show that six inches of water seep away in less than 25 minutes, the test shall be run for an additional hour with measurements taken every ten minutes. Oherwise, presoak fill overnight. Obtain at least twelve measurements per hole over at least six hours (approximately 30 minute intervals) with a precision of at least 0.25".

Trial No.	Start Time	Stop Time	Time Interval (min)	Initial Depth to Water (in.)	Final Depth to Water (in.)	△ In Water Level (in.)	Percolation Rate (min./in.)
1	9:00 AM	9:30 AM	30	5.00	8.50	3.50	8.57
2	9:30 AM	10:00 AM	30	5.00	8.25	3.25	9.23
3	10:00 AM	10:30 AM	30	5.00	8.10	3.10	9.68
4	10:30 AM	11:00 AM	30	5.00	7.75	2.75	10.91
5	11:00 AM	11:30 AM	30	5.00	7.50	2.50	12.00
6	11:30 AM	12:00 PM	30	5.00	7.25	2.25	13.33
7	12:00 PM	12:30 PM	30	5.00	7.25	2.25	13.33
8	12:30 PM	1:00 PM	30	5.00	7.20	2.20	13.64
9	1:00 PM	1:30 PM	30	5.00	7.00	2.00	15.00
10	1:30 PM	2:00 PM	30	5.00	7.10	2.10	14.29
11	2:00 PM	2:30 PM	30	5.00	7.00	2.00	15.00
12	2:30 PM	3:00 PM	30	5.00	7.00	2.00	15.00
13							
14							
15							

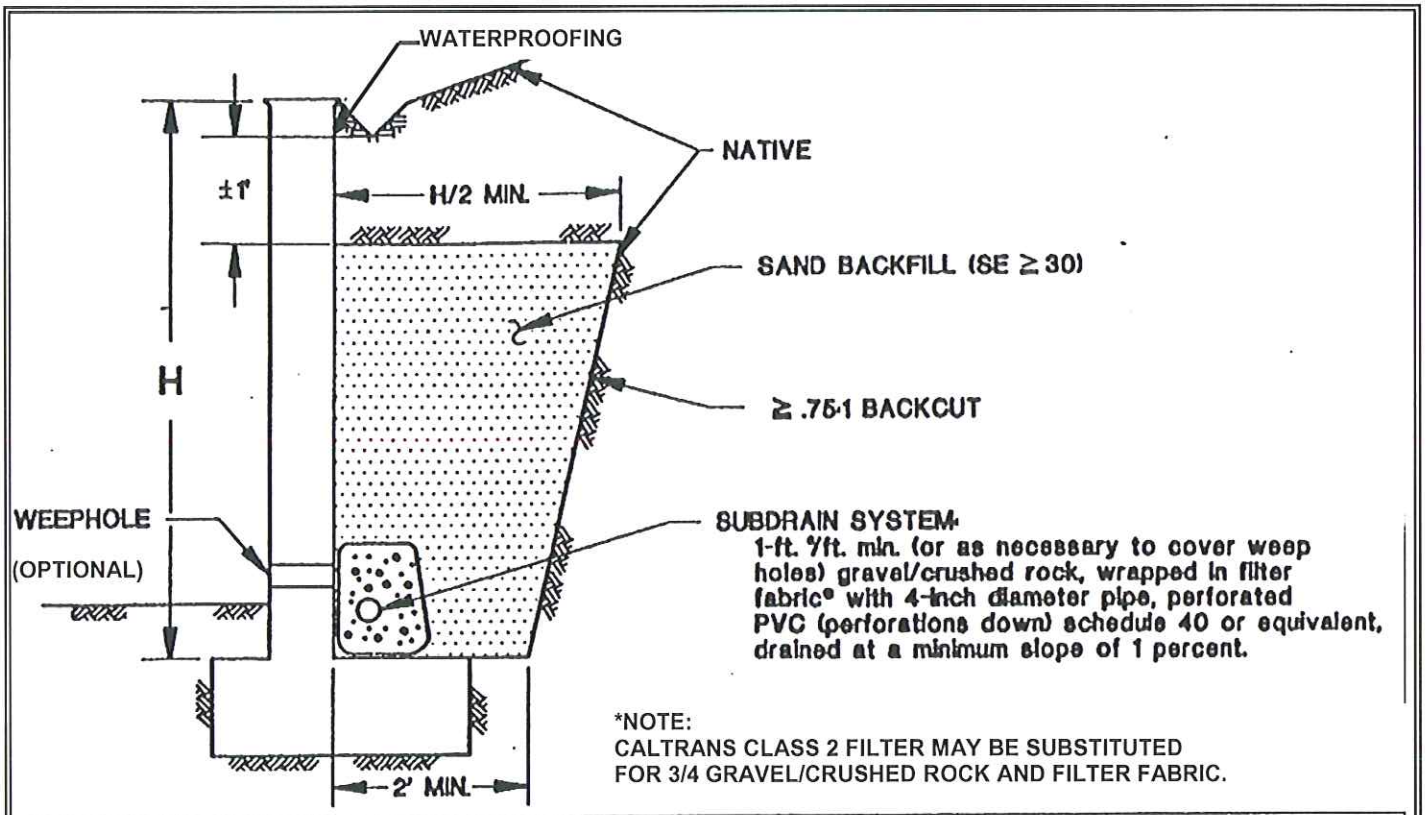
P. A. & ASSOCIATES, INC.

Plate No.1

APPENDIX D

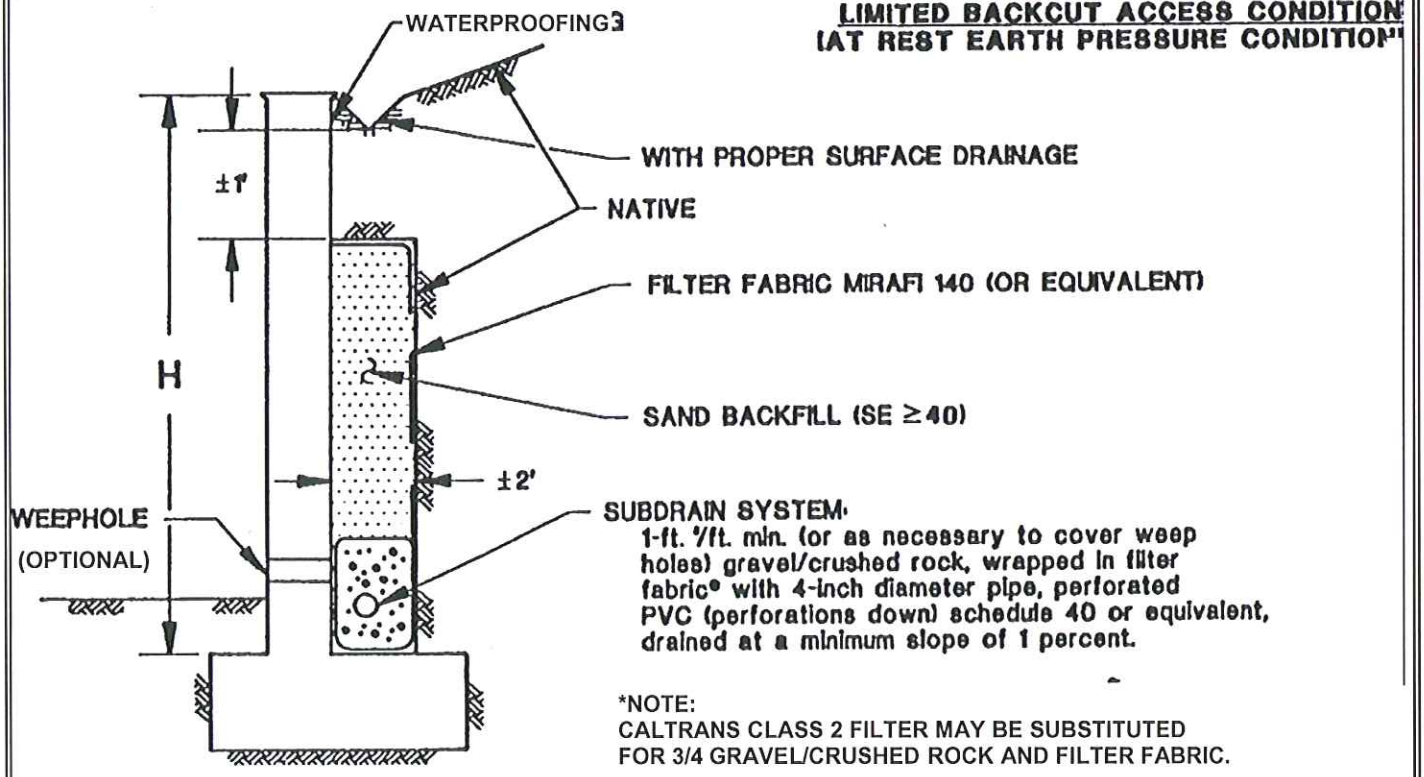
TYPICAL RETAINING WALL, TEMPORARY SHORING AND BRACING DESIGN

KEYWAY AND BENCHING SUBDRAIN INSTALLATION & CANYON SUBDRAIN DETAILS



*NOTE:
CALTRANS CLASS 2 FILTER MAY BE SUBSTITUTED
FOR 3/4 GRAVEL/CRUSHED ROCK AND FILTER FABRIC.

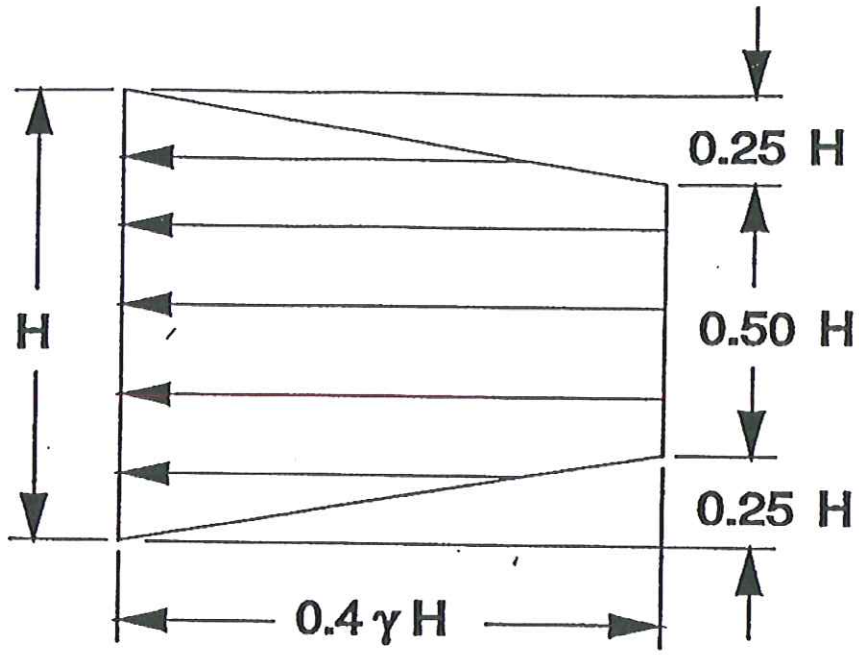
LIMITED BACKCUT ACCESS CONDITION
(AT REST EARTH PRESSURE CONDITION)



*NOTE:
CALTRANS CLASS 2 FILTER MAY BE SUBSTITUTED
FOR 3/4 GRAVEL/CRUSHED ROCK AND FILTER FABRIC.

INFORMATION DEPICTED ON THIS DETAIL IS FOR TYPICAL CONDITIONS AND SUBJECT TO CHANGE BY THE GEOTECHNICAL CONSULTANT.

P.A. & ASSOCIATES, Inc.	TITLE:	TYPICAL RETAINING WALL DETAILS		FIGURE NO.:
	PROJECT:	1 Saddleback Pkwy., Lake Forest, California		D-1
	PROJECT NO: 218111-101	DATE: 3/12/2018	BY: jmr	

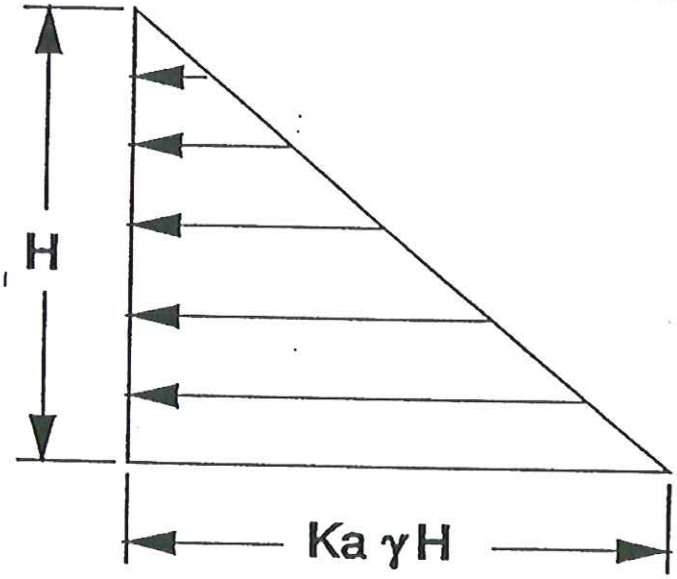


(1) Braced

Where:

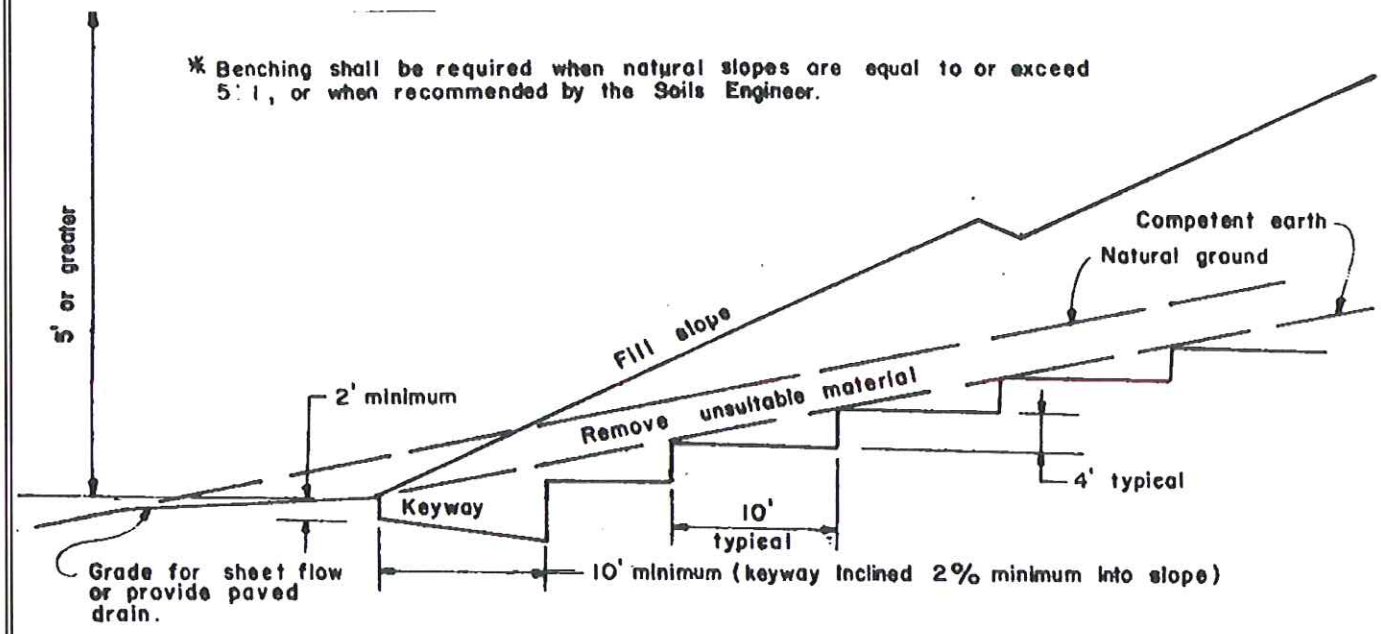
Ka= 0.26

γ =125 pcf

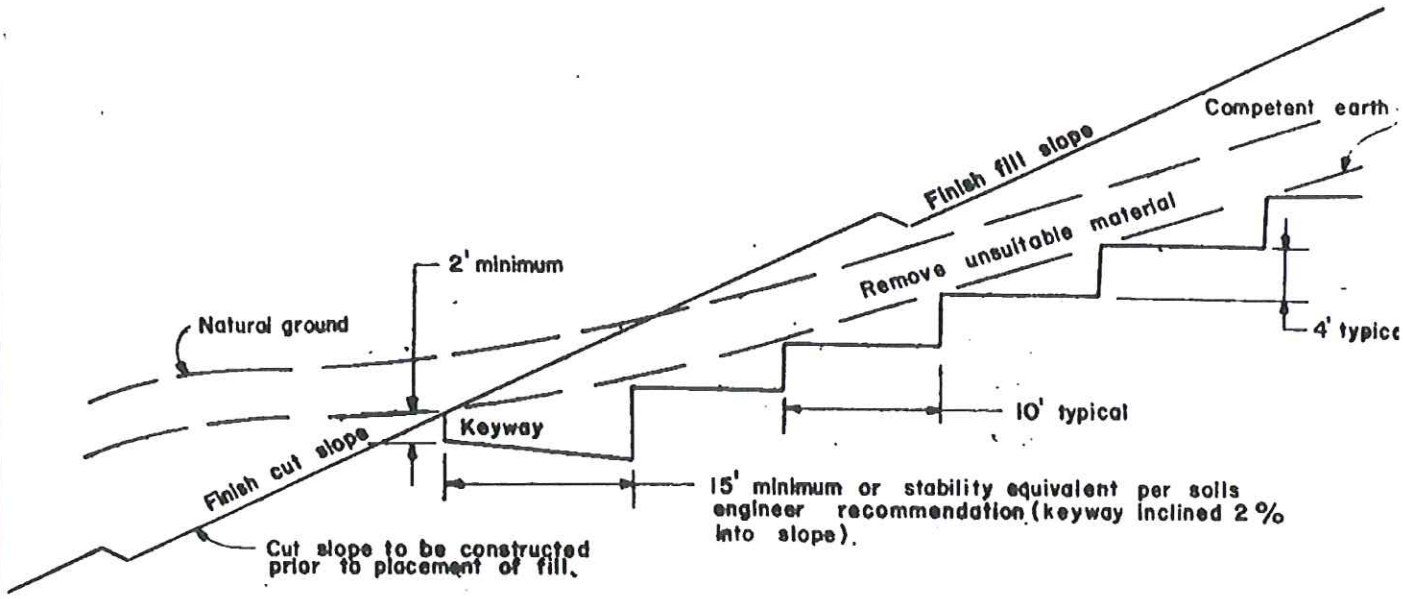


(2) Shored

P.A. & ASSOCIATES, Inc.	TITLE: TEMPORARY SHORING & BRACING DESIGN			FIGURE NO.:
	PROJECT: 1 Saddleback Pkwy., Lake Forest, California			D-2
	PROJECT NO: 218111-101	DATE: 3/12/2018	BY: jmr	

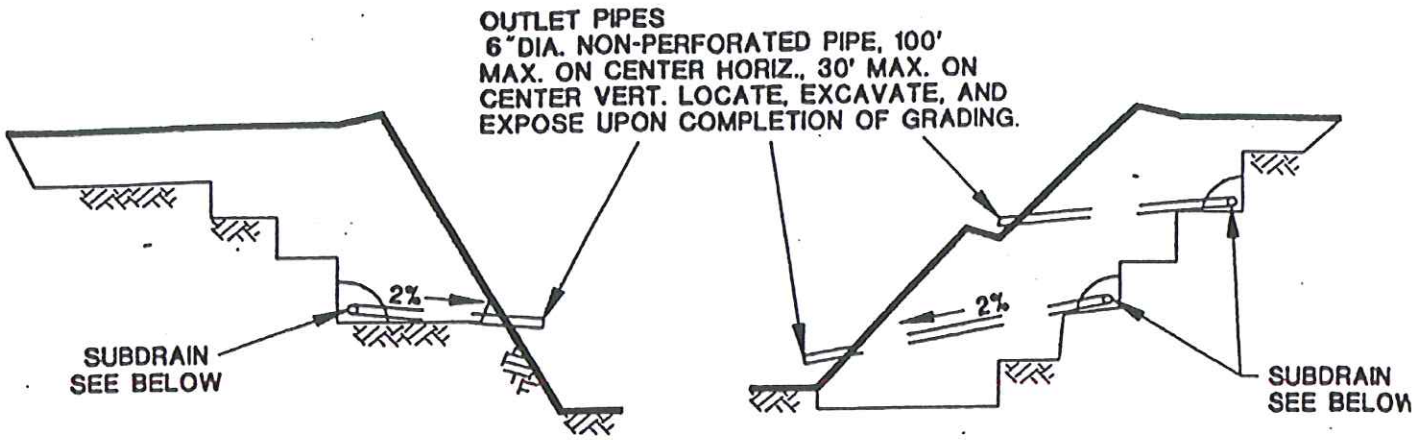


BENCHED FILL OVER NATURAL*



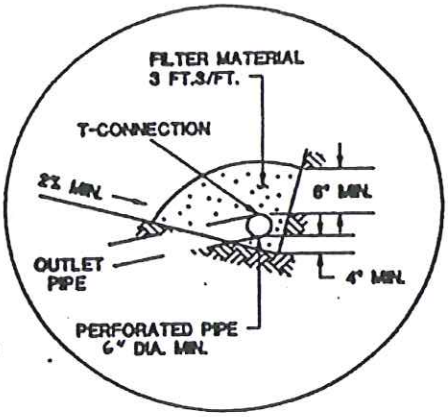
BENCHED FILL · OVER CUT

P.A. & ASSOCIATES, Inc.	TITLE:	KEYWAY & BENCH FILL OVER CUT			FIGURE NO.:
	PROJECT:	1 Saddleback Pkwy., Lake Forest, California			D-3
	PROJECT NO:	218111-101	DATE: 3/12/2018	BY: jmr	

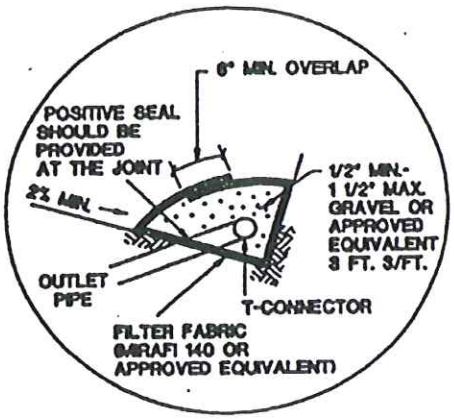


TYPICAL KEYWAY SUBDRAIN

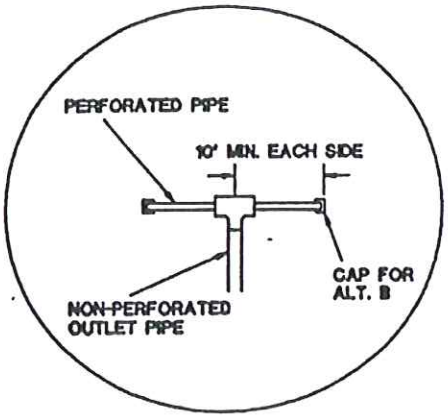
TYPICAL BUTTRESS SUBDRAINS



ALTERNATE A



ALTERNATE B



T-CONNECTION

FILTER MATERIAL:
Filter material shall be Class 2 permeable material per State of California Standard Specifications, or approved alternate.
Class 2 grading as follows:

SIEVE SIZE	PERCENT PASSING
1"	100
3/4"	90-100
3/8"	40-100
No. 4	25-40
No. 8	18-33
No. 30	5-15
No. 50	0-7
No. 200	0-3

NOTES:

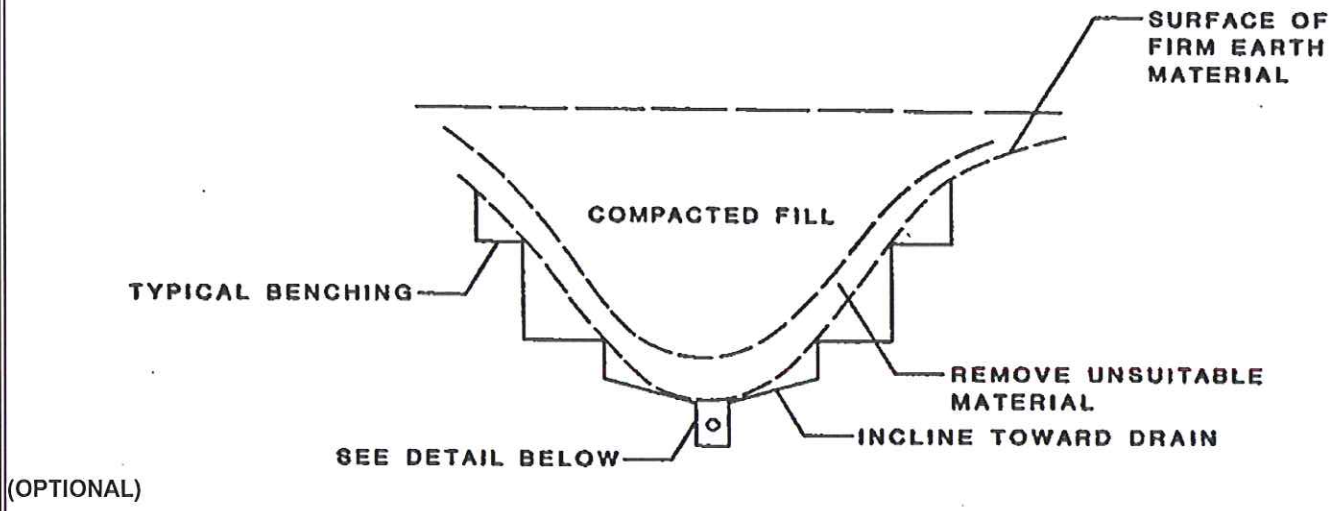
Trench for outlet pipes to be backfilled with on-site soil.

SUBDRAIN INSTALLATION: Subdrain pipe shall be installed with perforations down or non-perforated pipe shall be used at locations designed by the geotechnical consultant.

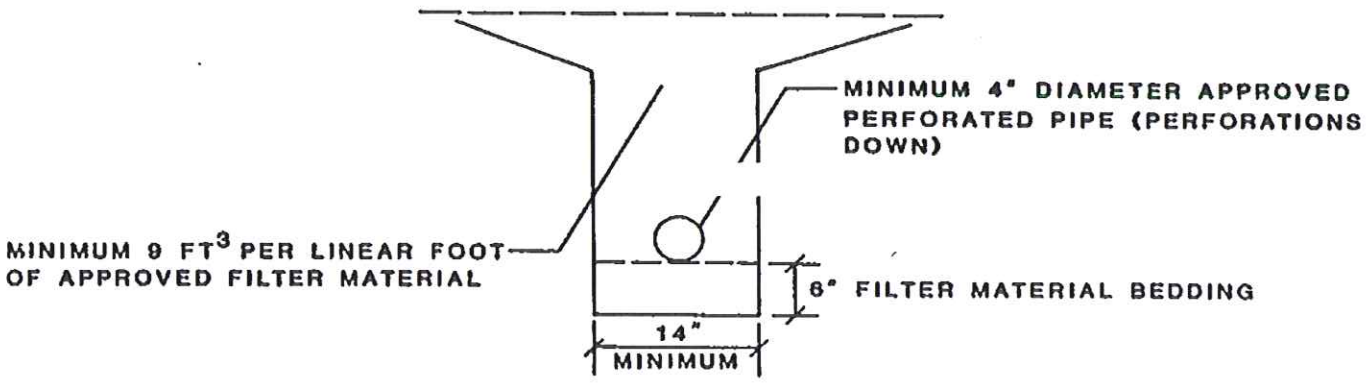
SUBDRAIN TYPE: Subdrain type shall be ASTM C508 Asbestos Cement Pipe (ACP) or ASTM D2751, SDR 35 or ASTM D1527, Schedule 40 Acrylonitrile Butadiene Styrene (ABS) or ASTM D3034 SDR 35 or ASTM D1785, Schedule 40 Polyvinyl Schloride Plastic (PVC) pipe or approved equivalent.

INFORMATION DEPICTED ON THIS DETAIL ARE FOR TYPICAL CONDITIONS AND SUBJECT TO CHANGE BY THE GEOTECHNICAL CONSULTANT

P.A. & ASSOCIATES, Inc.	TITLE: TYPICAL SUBDRAIN INSTALLATION DETAIL			FIGURE NO.:
	PROJECT: 1 Saddleback Pkwy., Lake Forest, California			D-4
	PROJECT NO: 218111-101	DATE: 3/12/2018	BY: jmr	



DETAIL



FILTER MATERIAL TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUAL:

SIEVE SIZE	PERCENTAGE
1"	100
3/4"	90-100
3/8"	40-100
NO.4	25-40
NO.30	5-15
NO.50	0-7
NO.200	0-3

APPROVED PIPE TO BE SCHEDULE 40 POLY-VINYL-CHLORIDE (P.V.C.) OR APPROVED EQUAL. MINIMUM CRUSH STRENGTH 1000 psi

PIPE DIAMETER TO MEET THE FOLLOWING CRITERIA, SUBJECT TO FIELD REVIEW BASED ON ACTUAL GEOTECHNICAL CONDITIONS ENCOUNTERED DURING GRADING

LENGTH OF RUN	PIPE DIAMETER
UPPER 500'	4"
NEXT 1000'	6"
> 1500'	8"

P.A. & ASSOCIATES, Inc.	TITLE:	TYPICAL CANYON SUBDRAIN DETAIL			FIGURE NO.:
	PROJECT:	1 Saddleback Pkwy., Lake Forest, California			D-5
	PROJECT NO:	218111-101	DATE: 3/12/2018	BY: jmr	

APPENDIX E

RECOMMENDED GRADING SPECIFICATIONS
GENERAL PROVISIONS

NEW WORSHIP CENTER
SADDLEBACK CHURCH, 1 SADDLEBACK PARKWAY
LAKE FOREST, ORANGE COUNTY, CALIFORNIA

RECOMMENDED GRADING SPECIFICATIONS: GENERAL PROVISIONS

GENERAL INTENT

The intent of these specifications is to establish procedures for clearing and compacting natural ground, preparing areas to be filled, and placing and compacting fill soils to the grades shown on the grading plans currently in preparation. The recommendations contained in this preliminary Geotechnical Investigation are a part of the Recommended Grading Specifications and shall supersede the provisions contained hereafter in case of conflict. These specifications shall only be used in conjunction with the geotechnical report for which they are a part. No deviation from these specifications will be allowed, except where specified in the geotechnical report or in other written communication signed by the Soils Engineer and Engineering Geologist.

OBSERVATION AND TESTING

It is recommended that P.A. and Associates be retained as the Geotechnical Consultant to observe and test the earthwork in accordance with these specifications. It is necessary that the Soils Engineer and/or Engineering Geologist or his representative provide adequate observations so that he may provide an opinion as to whether the work was or was not accomplished as specified. Therefore, it shall be the responsibility of the contractor to assist us and to keep them apprised of work schedules, changes, new information, and other relevant data so that they may provide these opinions. In the event that any unusual conditions not covered by these provisions or the Preliminary Geotechnical Investigation are encountered during the grading operations, the Soils Engineer and/or Engineering Geologist shall be contacted for further recommendations.

If in the opinion of this firm, substandard conditions are encountered, such as: questionable or unsuitable soil, unacceptable moisture content, inadequate compaction, adverse weather, etc., construction shall be temporarily halted until the conditions are remedied or corrected or we shall recommend rejection of this work in accordance with the clients wishes.

Test methods used to determine the degree of compaction shall be performed in accordance with the following American Society for Testing and Materials (ASTM) test methods:

Maximum Density & Optimum Moisture Content - ASTM D-1557.
Density of Soil In-Place - ASTM D-1557 or ASTM D-2992.

All densities shall be expressed in terms of Relative Compaction as determined by the foregoing ASTM testing procedures.

PREPARATION OF AREAS TO RECEIVE FILL

All vegetation, brush and debris derived from clearing operations shall be removed, and legally disposed of off-site. All areas disturbed by site grading should be left in a neat and finished appearance, free from unsightly debris.

After clearing or benching, the natural ground in areas to be filled shall be scarified to a depth of 6 inches for the minimum degree of compaction as set forth in our preliminary geotechnical report. All loose soils should be removed to firm natural ground which shall be determined by the field Engineer/Geologist.

When the slope of the natural ground-receiving fill exceeds 20% or 5:1 (horizontal to vertical), the original ground shall be stepped or benched. Benches shall be cut to a firm competent soil condition. The key at the top of the slope shall be at least 15 feet wide or 1-1/2 times the equipment width, whichever is greater, and shall be sloped back into the hillside at a gradient of not less than two (2) percent. All other benches should be at least 10 feet wide. The horizontal portion of each bench shall be compacted prior to receiving fill as specified herein for compacted natural ground. Vertical separations between benches shall be at least 3 feet. Ground slopes flatter than 20% shall be benched when considered necessary by our on-site representative.

Any abandoned structures encountered during grading operations should be totally removed. All underground utilities to be abandoned beneath any proposed structure and/or surface improvement should be removed from within 10 feet of the structure or improvement and be properly capped off. The resulting depressions from the described procedures should be backfilled with acceptable soil that is compacted to the requirements of the Soils Engineer. This includes, but is not limited to, septic tanks, fuel tanks, sewer lines or leach lines, storm drains, water lines or other utilities. Any buried structures or utilities not to be abandoned should be brought to the immediate attention of the Soils Engineer, so that he may determine if any Special Recommendations will be necessary.

FILL MATERIAL

Materials to be placed in the fill shall be approved by the Soils Engineer and/or Engineering Geologist and shall be free of vegetable matter and other deleterious substances. Granular soil shall contain sufficient fine material to fill the voids. The definition and disposition of oversized rocks, expansive and/or detrimental soils are covered in the geotechnical report if expected. Expansive soils, soils of poor gradation, or soils with low strength characteristics may be thoroughly mixed with other soils to provide satisfactory fill material, but only with the explicit consent of the Soils Engineer. Any import material shall be approved by the Soils Engineer and/or Engineering Geologist before being brought to the site.

PLACING AND COMPACTION OF FILL

Approved fill material shall be placed in areas prepared to receive fill in layers not to exceed 6 inches in compacted thickness. Each layer shall have a uniform moisture content in the range that will allow the compaction effort to be efficiently applied to receive the specified degree of compaction. Each layer shall be uniformly compacted to a minimum specified degree of compaction with equipment of adequate size to economically compact the layer. Compaction equipment should either be specifically designed for soil compaction or be of proven reliability. The minimum degree of compaction to be achieved is specified in the recommendations contained in this report.

When the structural fill material includes rocks, no rocks will be allowed to nest and all voids must be carefully filled with soil such that the minimum degree of compaction recommended in the Special Provisions is achieved. The maximum size and spacing of rock permitted in structural fills and in non-structural fills, if allowed, are discussed in the geotechnical report, when applicable.

Field observation and compaction tests to estimate the degree of compaction of the fill will be taken by the Soils Engineer or his representative. The location and frequency of the tests shall be at the Soils Engineer's discretion. When the compaction test indicates that a particular layer is less than the required degree of compaction, the layer shall be reworked to the satisfaction of the Soils Engineer or his on-site representative and until the desired relative compaction has been obtained.

Fill slopes shall be compacted by means of sheepsfoot rollers or other suitable equipment. Compaction by sheepsfoot rollers shall be at vertical intervals of not greater than four feet. In addition, fill slopes at ratios of two horizontal to one vertical unit or flatter, should be gridrolled or track walked. Steeper fill slopes, which have been specifically approved by the governing agency and this office, shall be over-built and cut-back to finish contours after the slope has been constructed. Slope compaction operations shall result in all fill material which has been approved by the governing agency having a relative compaction of at least 90% of maximum dry density or that specified in the attached report.

The compaction operation of the slopes shall be continued until the Soils Engineer is of the opinion that the slopes will be stable with regard to surficial stability.

Slope tests will be made by the Soils Engineer or his on-site representative during construction of the slopes to determine if the required compaction is being achieved. Where failing tests or other field problems arise, the Contractor will be notified immediately of such conditions by written communication from the Soils Engineer or his representative in the form of a daily field report.

If the method of achieving the required slope compaction selected by the Contractor fails to produce the necessary results, the Contractor shall rework or rebuild such slopes until the required degree of compaction is obtained, at no cost to the client or P.A. & Associates.

ENGINEERING OBSERVATION

Field observation by the Soils Engineer or his representative shall be made during the filling and compacting operations so that he can express his opinion regarding the conformance of the grading with acceptable standards of practice. The presence of the Soils Engineer or his representative for the observation and testing shall not release the Grading Contractor from his duty to compact all fill material to the specified degree of compaction.

SEASON LIMITS

Fill shall not be placed during unfavorable weather conditions. When work is interrupted by heavy rain, filling operations shall not be resumed until the proper moisture content and density of the fill materials can be achieved. Damaged site conditions resulting from weather or acts of God shall be repaired before acceptance of work by P.A. and Associates.

APPENDIX F

REFERENCES

References

1. Geotechnical Investigation for the Proposed Multi-Purpose Venue, Student Zone, and Central Plant at Saddleback Church, One Saddleback Parkway, City of Lake Forest, California, by Leighton and Associates, Inc., Project No. 010374-005, dated June 29, 2005.

2. Response to Geotechnical Report Review Sheet by County of Orange Planning and Development Services Department, dated December 16, 1997, Precise Grading Plan Review, Proposed Temporary Parking Lot, Saddleback Community Church, Foothill Ranch, California, by Petra Geotechnical, Inc., JN 409-97, dated January 6, 1998.

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9. Geologic Map of the Santa Ana 30'x60' Quadrangle, California, by compiled by D.M. Morton, Open-File Report 99-172, dated 2004.

10 Barrows, Allan G., 1974, A Review of the Geology and Earthquake History of the Newport-Inglewood Structural Zone, Southern California, California Division of Mines and Geology, Special Report 114.

11. Seismic Hazard Zones Report for the El Toro 7.5-Mimute Quadrangle, Orange County, California., California Division of Mines and Geology, Seismic Hazard Zones Report 047, dated 2000.

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15. Appendix D Approved Infiltration Rate Assessment Methods

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Appendix F

Phase I Environmental Site Assessment

LOS ANGELES - TULSA - CLEVELAND
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V/F (800) 704-4193 WWW.PRIORITY1ENVIRONMENTAL.COM

JANUARY 26, 2017
PROJECT # P1E 2017-11-009

SUBJECT SITE
1 SADDLEBACK PARKWAY,
LAKE FOREST, CA 92630
APN: 104-143-12
LAT: 33.663675, LONG: -117.645244

PHASE 1 ENVIRONMENTAL SITE ASSESSMENT REPORT

PREPARED FOR:
SADDLEBACK CHURCH
1 SADDLEBACK PARKWAY
LAKE FOREST, CA 92630

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January 26, 2018
P1E 2017-11-009

Saddleback Church
1 Saddleback Parkway,
Lake Forest, CA 92630
jim@tmlsarc.com

Subject: Phase 1 Environmental Site Assessment for
1 Saddleback Parkway,
Lake Forest, CA 92630
APN: 104-143-12
Orange County
Lat: 33.663675, Long: -117.645244

Dear Mr. Johnson:
As requested by Mr. Johnson, we have prepared an Environmental Site Assessment (Phase 1) for the property located at 1 Saddleback Parkway, Lake Forest, CA 92630. The property is identified by the Assessor's Parcel Number (APN) 104-143-12. This report was produced in accordance with the American Society for Testing and Materials (ASTM) Standard Practice for Environmental Site Assessments: Phase 1 Environmental Site Assessments Process (ASTM 1527-13) and is in general compliance with the All Appropriate Inquiries (AAI) rule.

1.0 EXECUTIVE SUMMARY

A Phase 1 Environmental Site Assessment has been conducted for the subject property, the Opinion, Conclusions and Recommendations are provided below.

Findings

1) **Site Legal Description:** The subject property consists of one parcel, located at 1 Saddleback Parkway, Lake Forest, CA 92630. The property is identified by the Assessor's Parcel Number (APN) 104-143-12.

2) **Site History:** Prior to 1994, the subject property was vacant land. In 1994, the property was developed into Saddleback Christen Community Church and was greatly expanded between 1999 and 2003. Additional structures were added and removed between 2003 and 2016.

3) **Site Observation:** The subject property is currently a Religious Center with a Nursery, Elementary School and High School. No significant staining was observed throughout the outdoor grounds of the subject property.

4) **Summary of Historical Maps and Aerial Photographs:** Based on the aerial photos, topographic maps of the site and the assessor records, the subject properties' building were constructed between 1999 and 2009. Three buildings located near the south center of the property were removed in 2016.

5) **Local Records Review:** No records were found with the Orange County Health Care Agency, Environmental Health Division.

6) **EDR Findings for Subject Site:** The subject property was listed in the Environmental Records searched under the HAZNET, NPDES, and ECHO databases.

7) **EDR Radius Report Findings:**

EDR reports two (2) RCRA-SQG sites within the searched parameters of the subject property.
EDR reports one (1) ENVIROSTOR site within the searched parameters of the subject property.
EDR reports one (1) SWF/LF site within the searched parameters of the subject property.
EDR reports two (2) LUST sites within the searched parameters of the subject property.
EDR reports one (1) UST site within the searched parameters of the subject property.
EDR reports one (1) AST site within the searched parameters of the subject property.
EDR reports one (1) HIST UST site within the searched parameters of the subject property.
EDR reports two (2) RCRA-NonGen sites within the searched parameters of the subject property.
EDR reports one (1) US MINES site within the searched parameters of the subject property.
EDR reports one (1) ECHO site within the searched parameters of the subject property.
EDR reports one (1) HAZNET site within the searched parameters of the subject property.
EDR reports one (1) HIST CORTESE site within the searched parameters of the subject property.
EDR reports one (1) NPDES site within the searched parameters of the subject property.
EDR reports one (1) Notify 65 site within the searched parameters of the subject property.
Two (2) Orphan Sites were reviewed. Both sites were not within the searched radius of the subject property.

Opinions

8) **General Site Condition:** The subject property is currently a Religious Center and has been since 1994. The visual site inspection did not observe any Recognized Environmental Conditions related to the subject property.

9) **EDR Radius Report Review:** The cases listed in the EDR report are not anticipated to impact the subject property at this time, based on the type of listings, distance to the subject site, and additional information located in Geotracker and EnviroStor databases.

Conclusions

10) We have performed a Phase 1 Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-13 for the subject property, which consists of consists of one parcel, located at 1 Saddleback Parkway, Lake Forest, CA 92630. The property is identified by the Assessor's Parcel Number (APN) 104-143-12. The subject property was listed in the Environmental Records searched under the HAZNET, NPDES, and ECHO databases. Any exceptions to, or deletions from, this practice are described in the Limitations Section of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the subject property.

Recommendations

Additional Environmental Investigations are not recommended at this time.

2.0 INTRODUCTION

2.1 Location and Legal Description

The subject property consists of one parcel, located at 1 Saddleback Parkway, Lake Forest, CA 92630. The property is identified by the Assessor's Parcel Number (APN) 104-143-12. A site vicinity map and a generalized location map are located on in Appendix 9.2.

2.2 Site and Vicinity General Characteristics

The subject property is located in the foothills of the Santa Ana Mountains, in the City of Lake Forest, in Orange County, California. The site is located along the south side of the Foothill Transportation Corridor (241 Toll Road). The site is located just northeast of the intersections of Portola Parkway and El Toro Road. The surrounding properties consist of open space to the east and south. Church parking to the west, and the Foothill Transportation Corridor Toll Road to the north with industrial warehouses beyond.

2.3 Description of Improvements on Property

The subject property consists of an approximately 40 acres parcel currently owned by Saddleback Community Church. Improvements on the property include; A Worship center, Children's Ministry Center, Nursery Building, several small Café Buildings, Student Center (Refinery), three restroom buildings, Grill House, 3 large tent structures, green house room, and several smaller storage buildings and sheds.

Asphalt parking is located on the northeast, north, northwest, west and southwest perimeters of the property. Asphalt roads, Tram only roads, walkways, and access roads connect the subject street to the different buildings located on the subject property. Landscaping is located throughout the property and consists of planters, trees, and landscaped lawns.

2.4 Current Uses of Adjoining Properties

Direction	Type of Use
North	241 Toll Road – Foothill Transportation Corridor.
East	Open Space.
South	Open Space.
West	Church Parking Lots.

2. 5 Purpose

The purpose of this Phase 1 Environmental Site Assessment is to identify to the extent feasible recognized environmental conditions (REC) in connection with the property. Following the processes prescribed by the AAI rule and in ASTM Standard E1527-13, Standard Practice for Environmental Site Assessments: Phase 1 Environmental Site Assessment process.

- As defined by ASTM E1527-13, §1.1.1, the term "recognized environmental conditions" is defined as follows: *"The presence or likely presence of any hazardous substance or petroleum products in, on or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the*

environment; or (3) under conditions that pose a material threat of a future release to the environment. De minimis conditions are not recognized environmental conditions."

- As defined by ASTM E1527-13, §3.2.18, the term "controlled recognized environmental condition" is defined as follows: *"A recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls)."*

- As defined by ASTM E1527-13, §3.2.42, the term "*historical recognized environmental condition"* is defined as follows: *"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 (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls)."*

2.6 Detailed Scope-of-Work

The scope of work performed for this Phase 1 Environmental report includes:

- Collecting and reviewing available environmental related information concerning the property and other data pertinent to the specific site per the ASTM standard 1527;

- Conducting a site visit to observe current site uses, observe adjacent land use, and gather data on possible spills, or misuse of chemicals that could be considered a REC;

- Contracting appropriate regulatory personnel, and reviewing regulatory files regarding the property in question.

No additional non-scope considerations per Section 13 of ASTM 1527-13 were included in this Phase 1 Report including sections 13.1.5.1 to 13.1.5.14.

2.7 Significant Assumptions

No Significant assumptions were made in this assessment.

2.8 Limitations and Exceptions

Limitations

This report is applicable only for the project and site studied. Report findings and statements of professional opinion do not constitute a guarantee or warranty, expressed or implied. This report contains information and data provided by others and Priority One Environmental, Inc. in no way warrants the accuracy or completeness of the information provided by those sources. Our services are performed in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions. This report is prepared using the ASTM Standard E1527-13 and includes several inherent limitations, including but not limited

to: Section 4.5.1 - Uncertainty Not Eliminated, Section 4.5.2 - Not Exhaustive, Section 7.4 - No Sampling, and Section 7.5.2.1 - Reliance.

Exceptions

No exceptions to or deviations from the ASTM standard 1527-13 were made during the course of our work except for the following:

- *No Interviews were conducted with local agencies as part of this assessment. Relevant local agencies for the area have policies of referring requests for interviews to their file review departments.*

These limitations are not anticipated to represent a significant data gap for the investigation.

2.9 Special Terms and Conditions

We have been authorized by **Mr. Johnson** to perform a Phase 1 environmental site assessment of the subject property. It is our understanding that **Mr. Johnson** will use the information contained in the report for due diligence and innocent landowner's protection under CERCLA. Without prior written consent of the client, Priority One Environmental, Inc. will keep confidential and not disclose to any person or entity, and data or information provided by the client or generated in conjunction with the performance of this study, except when required by law. Provisions of confidentiality shall not apply to data or information obtained from the public domain or acquired from third parties not under obligation to the client to maintain confidentiality.

2.10 User Reliance

This report was prepared for the exclusive use of **Mr. Johnson and Saddleback Church**. No other person or entity is entitled to rely upon this report without the specific written authorization of Priority One Environmental, Inc. Such reliance is a subject to the same limitations, terms, and conditions as the original contract with the client. Priority One Environmental, Inc. specifically disclaims any responsibility for any unauthorized use of this report. Based on the ASTM standard this Phase 1 report is reliable for 180 days from the date the work was conducted.

3.0 USER PROVIDED INFORMATION

3.1 Title Records

Primarily Title Report was not provided by the client for the use in preparing this report.

3.2 Environmental Liens or Activity and Use Limitations

No Additional information was provided identifying actual knowledge of environmental liens or activity and use limitations recorded against the subject property. No environmental liens placed by the federal environmental agency under CERCLA regulations for the subject site was found during a record search on available government records. The California State Department of Toxic Substances website EnviroStor was searched and no environmental liens placed by the State environmental agency for the subject site was found.

3.3 Specialized Knowledge

No information was provided identifying specialized knowledge or experience that is material to recognized environmental conditions in connection with the subject property.

3.4 Commonly Known or Reasonably Ascertainable Information

No information was provided identifying knowledge of commonly known or reasonably ascertainable information related to the subject property.

3.5 Valuation Reduction for Environmental Issues

No Information was provided identifying knowledge of valuation reduction of the subject property.

3.6 Owner, Property Manager, and Occupant Information

Information provided by the owner of the subject property is discussed in Section 6.0 of this report.

3.7 Reason for Performing Phase 1

The Phase 1 has been requested by the client for the use in a proposed development project on the property.

3.8 Other

No other information was provided for review related to the subject property.

4.0 RECORDS REVIEW

4.1 EDR Map Findings

The subject property is located at 1 Saddleback Parkway, Lake Forest, CA 92630. The property is identified by the Assessor's Parcel Number (APN) 104-143-12. The subject property was listed in the Environmental Records searched under the HAZNET, NPDES, and ECHO databases.

EDR MAP FINDING SUMMARY								
DATABASE	**SEARCH DISTANCE (MILES)**	**TARGET PROPERTY**	**<1/8**	**1/8-1/4**	**1/4-1/2**	**1/2 - 1**	**>1**	**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	0.001		0	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
SEMS	0.500		0	0	0	NR	NR	0
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0

EDR MAP FINDING SUMMARY								
DATABASE	**SEARCH DISTANCE (MILES)**	**TARGET PROPERTY**	**<1/8**	**1/8-1/4**	**1/4-1/2**	**1/2 - 1**	**>1**	**PLOTTED**
Federal CERCLIS NFRAP site List								
SEMS-ARCHIVE	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		2	0	NR	NR	NR	2
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	0.001		0	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	0	1	NR	1
State and Tribal landfill and/or ***solid waste disposal site lists***								
SWF/LF	0.500		1	0	0	NR	NR	1
State and tribal leaking storage tank lists								
LUST	0.500		2	0	0	NR	NR	2
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	1	NR	NR	NR	1
AST	0.250		0	1	NR	NR	NR	1
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								
VCP	0.500		0	0	0	NR	NR	0
INDIAN 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								

EDR MAP FINDING SUMMARY								
DATABASE	**SEARCH DISTANCE (MILES)**	**TARGET PROPERTY**	**<1/8**	**1/8-1/4**	**1/4-1/2**	**1/2 - 1**	**>1**	**PLOTTED**
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	0.001		0	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US CDL	0.001		0	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
CDL	0.001		0	NR	NR	NR	NR	0
US HIST CDL	0.001		0	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		1	0	NR	NR	NR	1
SWEEPS UST	0.250		0	0	NR	NR	NR	0
Local Land Records								
LIENS 2	0.001		0	NR	NR	NR	NR	0
LIENS	0.001		0	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
CHMIRS	0.001		0	NR	NR	NR	NR	0
LDS	0.001		0	NR	NR	NR	NR	0
MCS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	2	NR	NR	NR	2
DOT OPS	0.001		0	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	1	NR	NR	NR	1
TRIS	0.001		0	NR	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0

EDR MAP FINDING SUMMARY								
DATABASE	**SEARCH DISTANCE (MILES)**	**TARGET PROPERTY**	**<1/8**	**1/8-1/4**	**1/4-1/2**	**1/2 - 1**	**>1**	**PLOTTED**
FTTS	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
UIC	0.001		0	NR	NR	NR	NR	0
NPDES	0.001	1	0	NR	NR	NR	NR	1
Cortese	0.500		0	0	0	0	NR	0
HIST CORTESE	0.500		1	0	0	NR	NR	1
CUPA Listings	0.250		0	0	NR	NR	NR	0
Notify 65	1.000		0	0	0	1	NR	1
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
ENF	0.001		0	NR	NR	NR	NR	0
Los Angeles Co. HMS	0.250		0	0	NR	NR	NR	0
LA Co. Site Mitigation	0.001		0	NR	NR	NR	NR	0
HAZNET	0.001	1	0	NR	NR	NR	NR	1
EMI	0.001		0	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
MWMP	0.250		0	0	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
HWT	0.250		0	0	NR	NR	NR	0
HWP	1.000		0	0	0	0	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
WDS	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0

EDR MAP FINDING SUMMARY								
DATABASE	**SEARCH DISTANCE (MILES)**	**TARGET PROPERTY**	**<1/8**	**1/8-1/4**	**1/4-1/2**	**1/2 - 1**	**>1**	**PLOTTED**
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
ECHO	0.001	1	0	NR	NR	NR	NR	1
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR US Hist Auto Stat	0.125		0	NR	NR	NR	NR	0
EDR US Hist Cleaners	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LUST	0.001		0	NR	NR	NR	NR	0
RGA LF	0.001		0	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								

For the full name, description, and the date each of the databases were last updated, please refer to the Government Record section of the EDR® Report.

4.2 Subject Site

EDR Reports the site was listed in three databases: HAZNET, NPDES, and ECHO. The subject property is listed under the name Emergency Clay Mound & Roadway Slope Stabilization.
NPDES: Number CAS000002, Facility Status: Active. Program Type: Construction. Effective Date of Regulatory Measure 5/31/2005.

Echo: Identifier: 110080089913, Minor: General Permit Covered Facility, Status: Expired, Areas: Storm Water Construction, permit expiration date: 9/2/2014.

HAZNET.			
Year	**Waste Categories**	**Disposal**	**Tons**
2013	Not reported	Storage, Bulking, and/or Transfer off site – no treatment/recovery	0.0834
2013	Not reported	Storage, Bulking, and/or Transfer off site – no treatment/recovery	0.2501
2013	Not reported	Storage, Bulking, and/or Transfer off site – no treatment/recovery	1.417
2013	Not Reported	Storage, Bulking, and/or Transfer off site – no treatment/recovery	0.02085

4.3 Surrounding Properties

Thirteen (13) sites were listed in the EDR Radius Report, these sites were reviewed. Nearby Sites are discussed below:

OC Public Works Portola Yard LVTO is 20791 El Toro Road (495' to the southeast) and is listed under SWF/LF database. Activity at the site is limited volume transfer operation. Land use name is residential and industrial. Category is transfer/processing. Accepted waste is construction/demolition.

Standard Concrete is located at 20851 El Toro Road (560' to the south-southeast) and is listed under LUST, HIST CORTESE, RCRA-SQG, HIST UST, FINDS, ECHO, EMI, and WDS databases. The status of the LUST is completed – case closed as of 1987, the potential media affected is soil only and the potential contaminants of concern is diesel. The leak was discovered during a tank closure event. The file has been discarded, case closed. According to the HIST UST database, one 20,000-gallon UST containing diesel was installed in 1980. No Violations were found under the RCRA-SQG database listings.

El Toro Materials Company is located at west of the subject property and is listed under US MINES database. The site is listed as Non-coal mining. The mine status is abandoned as of 2010. Several citations were issued for the site in 2003, 2005, and 2006, the status of the citations is closed.

4.4 Orphan Properties

Two (2) Orphan Sites were reviewed. Both sites were not within the searched radius of the subject property.

4.5 Physical Setting Sources

According to the most recent USGS Topographic map covering to subject property and vicinity, the subject site is overall slopes downward to the southwest and the center of the property lies at approximately 846' above sea level. The regional topography slopes to the southwest.

According to EDR GEOCHECK the site is mapped as a Loam soils with a mix of Hydrologic Group Classification of Class D and C. Class D is defined as soils with very slow infiltration rates. Soils are clayey, have a high-water table, or are shallow to an imperious layer. The soils have a high corrosion potential versus uncoated steel. Class C is defined as soils with slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures. The soils have a low corrosion potential versus uncoated steel.

According to State Database: CA Radon, the subject site is located within zipcode: 92630. Zipcode 92360 had ninety (90) tests taken with zero (0) above >4 pCi/L. Federal EPA Radon Zone for Orange County is 2. No interior or exterior radon measurements were performed as part of this report.

4.6 Sanborn Insurance Maps

An attempt was made by EDR to obtain Sanborn Insurance Company maps for the period covering the years 1860 through the present in order to determine what types of activities were conducted on the subject property and on adjoining properties. No Sanborn maps were found.

4.7 Historical Aerial Photographs

Aerial photographs of the subject property provided by EDR were reviewed as part of this investigation.

Subject Property	The subject property is vacant hillside land with natural creeks flowing from north to south from 1938 to 1990. By 1994, two asphalt parking areas and a structure have been developed on the north and northwest portions of the property. Additional, the small shed structure in the southwest corner of the property is existing. By 2005, the existing Worship building, Youth Ministry building, nursery building, 3 tents structures and the three buildings between the Worship center and tent structure have been developed. By 2009, the Refinery building has been developed. In 2016, the three buildings between the Worship center and tent structures have been removed.
Property to North	The property to the north is a vacant hillside land from 1938 to 1990. By 1994, the toll road is under development along the north perimeter of the property. By 2005, the toll road is existing along the north side of the property and the industrial warehouses to the north are existing. The properties to the north appears similar from 2005 to 2012.
Property to East	From 1938 to 2012, Aliso Creek flows southward along the east perimeter of the property and then curves to the west along the south side of the property.
Property to West	The property to the west is hillside land from 1938 to 1967, by 1974 a gravel pit operation is active on the property to the west. The gravel pit operation is active from at least 1974 to 2005. By 2009, the property has been redeveloped into additional church buildings and parking lots.
Property to South	South of the subject property is Aliso Creek, which is open space from 1938 to 2017.

These photos are included in the Appendix.

4.8 Historical Topographic Maps

Topographic maps of the subject property provided by EDR were reviewed as part of this investigation.

YEAR(S)	DESCRIPTION.
1902	The topography in 1902 trends to the southwest.
1942, 1949, 1950	By 1942, Aliso Creek is mapped to the south and Aliso Avenue is existing to the south of the creek. No structures are mapped on the subject site. Elevation in the area of the subject site ranges from 750’ on the southwest side to 900’ on the north side of the property.
1968, 1978, 1981	Several trails are mapped on the west and south sides of the subject property. The gravel pits are mapped to the west of the subject property.
1982	The gravel pits are fully mapped to their full extent to the west.

1997	Several roads are existing on the west side of the property with a large structure located near the northeast property line. The Toll Road to the north is under construction.
2012	Current Topographic Map.

These maps are included in the Appendix.

4.9 City Directories

A search of local historical city directories was conducted by EDR for the subject property. The review included directories in five-year intervals from 1920 to 2006 (as available).

- Subject site: 1 Saddleback Parkway.

YEAR(S)	LISTED USES.
2014	Global Peace Fund. Loza Waterworks. Pastorscom Purpose Driven Ministries. Saddleback Valley Community Church.
2010	Global Peace Fund. Life Impact Ministries International. Pastorscom Purpose Driven Ministries. Saddleback Valley Community Church. Sandles Church. Venture Beyond.
2005	Saddleback Valley Community Church. Sakred Church. Sattleback Church. Tesoro Hills Church.
2000	Saddleback Valley Community Church.
1995	Saddleback Valley Community Church.

No additional records were identified for the subject property based on the address provided. The surrounding properties are listed in detail in the attached Directory Search.

4.10 Building Records

DATE OF PERMIT	PERMIT
1995	Expand Modular Classrooms.
1999	Cert. of Occupancy, 50,198 Sqft Church, 9,205 sqft parking garage.
2003	Preschool Classrooms/Assembly Room.
2004	Storage Area, 563 sqft.
2005	Open Air Storage Area (Pavilion)
2008	2-story Jr. High, High School age ministry recreation facility.
2009	Student Zone Grill.
2010	100 sqft Atrium to color/freezer area.

Based on the aerial photos, topographic maps of the site and the assessor records, the subject properties' building were constructed between 1999 and 2009. Three buildings located near the south center of the property were removed in 2016.

5.0 SUBJECT PROPERTY RECONNAISSANCE

A visual reconnaissance of the subject property was conducted on Friday, December 1, 2017 by Mr. Paul Robinson. Photographs of the subject property are attached to this report in Appendix.

5.1 Methodology and Limiting Conditions

The periphery of the subject property was inspected. A detailed inspection was conducted of all major site features visible from the public portions of the property. Interiors of the subject buildings were not inspected.

5.2 Subject Property Reconnaissance

Observations made during the site visit are summarized in the following table:

SITE VISIT OBSERVATIONS	
Current Use of Property	Saddleback Valley Community Church and School.
Evidence of Past Uses of Property?	No past use is identifiable.
Potable Water Source	City Water
Sewage Disposal Source	City Sewer
Topography of property and vicinity	Stepped, graded pads with overall slope to the south-southwest
Current use of adjoining properties	NORTH: Toll Road, and industrial warehouses beyond. WEST: Church Parking and additional buildings.

	EAST: Aliso Creek. SOUTH: Aliso Creek, El Toro Road and Residential housing tract beyond.		
Past Uses of Surrounding Properties?	No past use is identifiable.		
Observation Check List			
Type	**Observed**	**Not Observed**	**Notes**
Odors		X	
Transformers (Pad Mounted)	X		Several throughout property.
USTs		X	
ASTs		X	
Fuel Island		X	
In-ground Hydraulic Hoist		X	
Hazardous Waste Storage		X	
Hazardous Waste Treatment		X	
Hazardous Waste Disposal		X	
Major Spills		X	
Major Leaks		X	
Significant Staining		X	
Distressed Vegetation		X	
Stocked Piled Soils		X	
Waste treatment Unit/Clarifier	X		Stormwater treatment
Solid Waste Disposal		X	
Wells		X	
Underground Pipelines		X	
Pits, Ponds, and/or Lagoons		X	
Herbicide and/or Pesticide		X	
Asbestos-Containing Material (ACM)		X	
Lead-Based Paint (LBP)		X	

5.3 Detailed Observations

Odors - Indoor and Visible Emissions
No unusual smells, obnoxious odors, or visual emissions were observed during the inspection of the subject property.

Asbestos-Containing Material (ACM)
Asbestos-containing building materials were banned in 1978 by the federal government. The buildings were built between 1999 and 2010, therefore, the potential of Asbestos being present at the subject site is very low. No sampling was performed as this was outside the limits of the current contract.

Lead-Based Paint (LBP)
In 1978, the federal government banned the use of lead-based paint in residential applications. The buildings were built between 1999 and 2010, therefore, the potential of lead-based paint being present at the subject site is very low. No sampling was performed as this was outside the limits of the current contract.

Polychlorinated Biphenyl (PCB's)
PCB manufacturing in the United States was discontinued in 1978. Pad-Mounted transformers were found in the vicinity of the subject building, appearing in good condition without any sign of leakage.

Pools of Liquid of Chemicals
No pools or excessive ponding of liquid or chemicals were observed during the visual site inspection.

Underground Storage Tank (UST)
The visual inspection of the subject site revealed no evidence of surface or above ground (e.g., fill pipe, vent pipes, fill connections, concrete pads, saw cuts, sumps, spill containment device, leak detection device, etc.) features normally associated with underground storage tanks (UST's).

Aboveground Storage Tank
The visual inspection of the subject site revealed no evidence of surface or above ground (e.g., fill pipe, vent pipes, fill connections, concrete pads, saw cuts, concrete pad, drains in vicinity, etc.) features normally associated with aboveground storage tanks (AST's). Visual observation also includes the inspection to identify any surface markings indicating the existence of aboveground product pipelines. No evidence for the presence of on-site aboveground storage tank was identified.

The visual inspection of the subject site observed the use of numerous small Propone Tanks for gas barbeques which appeared to be in good condition at the time of the inspection.

Fuel Islands
The visual inspection of the subject site revealed no evidence of fuel islands or dispensers either in operation or abandoned.

Hydraulic Hoist Unit
The visual inspection of the subject site revealed no presence of underground hydraulic hoist units within the subject site premise.

Hazardous Materials/Petroleum Products Storage & Handling
During the visual site inspection, no containers storing automotive or industrial batteries, pesticides, paints or chemicals, seemingly exhibiting toxic hazards were observed. No significant oil or chemical staining was observed to be present around any containers.

Other Containers
No other containers indicating any sign of environmental concern were observed during the site inspection.

Hazardous Waste Treatment, Storage, Disposal (TSD)
No storage, treatment, or disposal of hazardous waste was found during the visual site inspection.

Major Spills, Leaks or Staining
The visual site inspection did not reveal any evidence of on-site or off-site spills, leakages, or staining significant enough to pose immediate environmental concern onto the subject property. No significantly stained catch basins, drip pads, or sumps were observed. There were no major spills around surface drains, pipes, gutters, spouts, or tubes, if any, at the time of the visual site inspection.

No staining or surface staining on the bare soil or unpaved lands were identified during the visual site inspection.

Distress Vegetation
Planters and vegetation in the vicinity of and within the subject site were found well maintained on bare soil or within separate planers in relatively good appearance with no sign of chemical stress or unnatural appearance.

Stockpiled Soils
The site inspection did not reveal any evidence of stockpiled soils on the ground of subject property.

Wastewater Treatment Unit/Clarifier
No underground industrial wastewater treatment facility, i.e., clarifier was observed on the subject property during the site visit.

A Stormwater treatment system is located in the southwest parking lot (Refinery Parking lot).

Storm water drainage system in the close proximity of the subject area did not identify any abnormal accumulation of petroleum or chemical run-off or foreign materials. No unusual blockage of the storm-water control system was observed during visual site inspection on the outdoor parking lot, roof of subject building, or surface areas.

Solid Waste Disposal
There were no observations of improper activities of treatment of disposal of hazardous, medical, or toxic wastes being performed at the subject site.

Wells
The site walk-through did not discover any irrigation wells, injection wells, abandoned wells, groundwater monitoring wells, dry wells septic wells, oil wells, gas wells, domestic water wells, or other monitoring wells on the subject site premise.

Underground Pipelines
The visual site inspection did not reveal any evidence of underground pipelines beneath the ground of the subject property, other than public utility lines such as sewer, power, and electric lines, for which public "dig-alert" service would easily identify upon 48-hour telephone notice in advance.

Pits, Ponds, Lagoons
No visible evidence of wetlands, such as pits, ponds, lagoons, or any other water bodies, was observed within the subject property's boundary lines.

Herbicides/Pesticides
No evidence of herbicide or pesticide use on the subject property was observed during the visual site inspection.

6.0 INTERVIEWS

An attempt has been made to obtain historical as well as current information relative to the subject property from several individuals and local agencies. The objective of the interview process is to obtain any information indicating recognized environmental conditions in connection with the subject site.

6.1 Interview with Owner or Site Manager

An Environmental Questionnaire and Disclosure Statement were sent to Mr. James Thayer, on Friday, November 17, 2017. The questionnaire was completed and returned on January 16, 2018. No environmental concerns were identified.

6.2 Interview with Local Government Officials

County Environmental Health Department

The County of Orange Health Care Agency Environmental Health Division, was contacted as part of the records review of the subject property. No records were found.

GEOTRACKER/ENVIROSTOR Database Review

The GEOTRACKER database and the ENVIROSTOR database were reviewed for any additional information available in regards to the subject property. Additional information was located for the sites listed in the EDR Radius Report and are discussed in Section 4.3.

Interview with Others

No additional interviews were conducted in this assessment.

7.0 EVALUATIONS

7.1 Findings

1) **Site Legal Description:** The subject property consists of one parcel, located at 1 Saddleback Parkway, Lake Forest, CA 92630. The property is identified by the Assessor's Parcel Number (APN) 104-143-12.

2) **Site History:** Prior to 1994, the subject property was vacant land. In 1994, the property was developed into Saddleback Christen Community Church and was greatly expanded between 1999 and 2003. Additional structures were added and removed between 2003 and 2016.

3) **Site Observation:** The subject property is currently a Religious Center with a Nursery, Elementary School and High School. No significant staining was observed throughout the outdoor grounds of the subject property.

4) **Summary of Historical Maps and Aerial Photographs:** Based on the aerial photos, topographic maps of the site and the assessor records, the subject properties' building were constructed between 1999 and 2009. Three buildings located near the south center of the property were removed in 2016.

5) **Local Records Review:** No records were found with the Orange County Health Care Agency, Environmental Health Division.

6) **EDR Findings for Subject Site:** The subject property was listed in the Environmental Records searched under the HAZNET, NPDES, and ECHO databases.

7) **EDR Radius Report Findings:**

   EDR reports two (2) RCRA-SQG sites within the searched parameters of the subject property.
   EDR reports one (1) ENVIROSTOR site within the searched parameters of the subject property.
   EDR reports one (1) SWF/LF site within the searched parameters of the subject property.

EDR reports two (2) LUST sites within the searched parameters of the subject property.
EDR reports one (1) UST site within the searched parameters of the subject property.
EDR reports one (1) AST site within the searched parameters of the subject property.
EDR reports one (1) HIST UST site within the searched parameters of the subject property.
EDR reports two (2) RCRA-NonGen sites within the searched parameters of the subject property.
EDR reports one (1) US MINES site within the searched parameters of the subject property.
EDR reports one (1) ECHO site within the searched parameters of the subject property.
EDR reports one (1) HAZNET site within the searched parameters of the subject property.
EDR reports one (1) HIST CORTESE site within the searched parameters of the subject property.
EDR reports one (1) NPDES site within the searched parameters of the subject property.
EDR reports one (1) Notify 65 site within the searched parameters of the subject property.
Two (2) Orphan Sites were reviewed. Both sites were not within the searched radius of the subject property.

7.2 Opinions

8) **General Site Condition:** The subject property is currently a Religious Center and has been since 1994. The visual site inspection did not observe any Recognized Environmental Conditions related to the subject property.

9) **EDR Radius Report Review:** The cases listed in the EDR report are not anticipated to impact the subject property at this time, based on the type of listings, distance to the subject site, and additional information located in Geotracker and EnviroStor databases.

7.3 Conclusions

1) We have performed a Phase 1 Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-13 for the subject property, which consists of consists of one parcel, located at 1 Saddleback Parkway, Lake Forest, CA 92630. The property is identified by the Assessor's Parcel Number (APN) 104-143-12. The subject property was listed in the Environmental Records searched under the HAZNET, NPDES, and ECHO databases. Any exceptions to, or deletions from, this practice are described in the Limitations Section of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the subject property.

7.4 Recommendations

Additional Environmental Investigations are not recommended at this time.

7.5 References

- Environmental Data resources, Inc (EDR) Report
- ASTM Standard E1527-13 - Phase 1 Standard
- U.S. Geological Survey Topographic Maps
- State Water Resources Control Board, GEOTRACKER (geotracker.waterboards.ca.gov)
- Department of Toxic Substance Control, ENVIROSTOR (www.envirostor.dtsc.ca.gov)

7.6 Professional Signature

According to Code of Federal Regulations CFR - Title 40 §312.10, Environmental Professional is defined as:

> *"(1) a person who possess sufficient specific education, training, and experience necessary to exercise professional judgment to develop opinions and conclusions regarding conditions indicative of releases or threatened releases (see §312.1(c)) on, at, in, or to a property, sufficient to meet the objectives and performance factors in §312.20(e) and (f).*
>
> *(2) Such a person must:*
>
> *(i) hold a current professional engineer's or Professional Geologist's license or registration from a state, tribe, or U.S. territory (or the Commonwealth of Puerto Rico) and have the equivalent of three (3) years of full-time relevant experience; or*
>
> *(ii) Be licensed or certified by the federal government, a state, tribe, or U.S. territory (or the Commonwealth of Puerto Rico) to perform environmental inquiries as defined in §312.21 and have the equivalent of three (3) years of full-time relevant experience; or*
>
> *(iii) Have a Baccalaureate or higher degree from an accredited institution of higher education in a discipline of engineering or science and the equivalent of five (5) years of full-time relevant experience; or*
>
> *(iv) Have the equivalent of ten (10) years of full-time relevant experience".*

We declare to the best of our professional knowledge and belief, we have met the definition of Environmental Professional as defined in §312.10 of 40 CFR 312. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR 312.

It has been a pleasure to be of service. If any questions arise, please contact our office.

Sincerely,

Paul J. Robinson
Environmental Professional
Priority One Environmental, Inc.

8.0 NON-SCOPE SERVICES

No additional services as listed in the ASTM Standard 1527-13 have been requested in writing and placed under contract in regards to this assessment. Including, but not limited to Asbestos testing of material at the site, and drug lab uses of the site.

9.0 APPENDIX

- 9.1 Photographs of subject site.
- 9.2 Site Figures: Site Vicinity Map, Site Topographic Map, Site Parcel Map.
- 9.3 EDR Sanborn Map Search.
- 9.4 EDR Topographic Map Package.
- 9.5 EDR Historical Aerial Photographic Package.
- 9.6 EDR Radius Report.
- 9.7 EDR City Directory Search.
- 9.8 Local Agency Records (If any were found and reviewed).
- 9.9 Professional Qualifications (Resume).

9.1 Photos

Photo #1: View of Promenade looking towards Worship Building.

Photo #2: View of walkway along south side of Children's Ministry Center.

Photo #3: View of walkway between Nursery and Children's Ministry Center.

Photo #4: View of northeast side of Refinery Building.

Photo #5: View of southeast side of Refinery Building.

Photo #6: View of grill house building on southeast side of Refinery Building.

Photo #7: View of Tent 1, Tent 3, and bathroom bungalow structure near the south center portion of the property.

Photo #8: View of north side of tent 3.

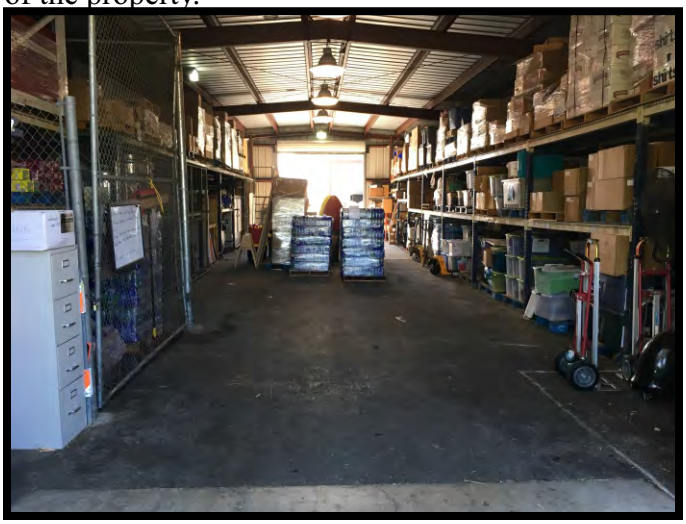

Photo #9: View of storage building on west side of tent 3.

Photo #10: View of stormwater treatment manhole covers in southwest Refinery parking lot.

Photo #11: View looking northeast from southwest Refinery parking lot.

Photo #12: View of Saddleback Parkway looking north from southwest corner of property.

Photo #13: View of Saddleback Parkway looking southwest from southwest corner of subject site.

Photo #14: View of storage shed in parking lot along the southwest most edge of property.

Photo #15: View of horse stalls on southwest side of property adjacent to Aliso Creek.

Photo #16: View of Aliso Creek open space to south of subject property.

Photo #17: View of Aliso Creek open space to south of subject property (view from south of Worship Building).

Photo #18: View of current roadway/walkway along south side of property (area of proposed new road).

Photo #19: View of open area near center of property (area of proposed new Worship Building)

Photo #20: View of volleyball court along south property line.

Photo #21: View of southeast parking lot.

Photo #22: View of northeast parking lot.

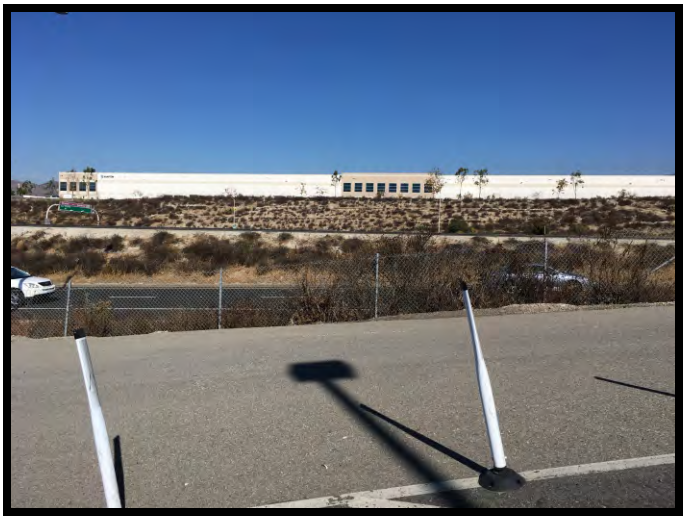

Photo #23: View of Toll Road 241 to north and warehouse structure beyond.

Photo #24: View of directory map.

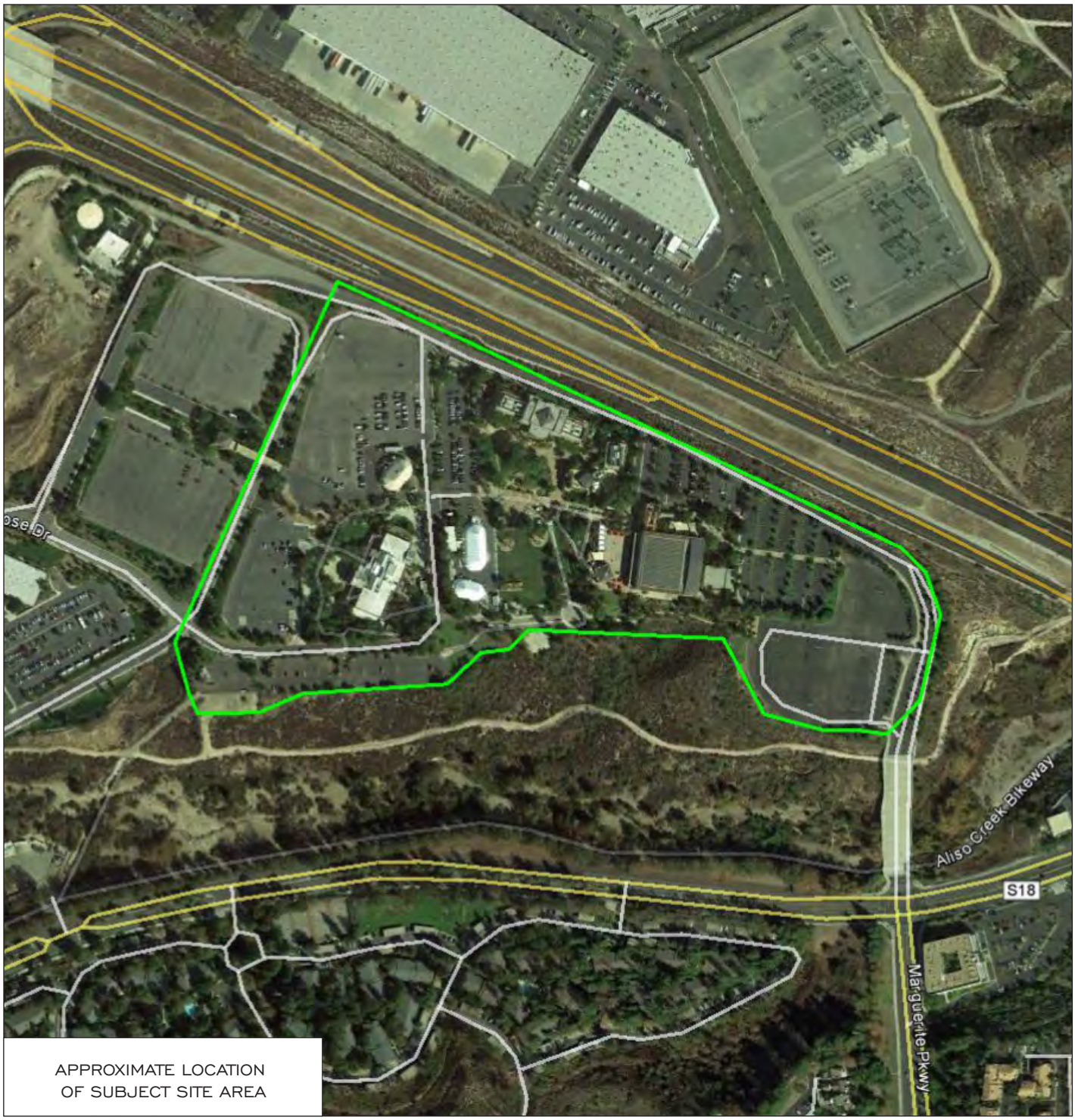

Figure 1 - Vicinity Map

PRIORITY ONE ENVIRONMENTAL
LOS ANGELES - TULSA - CLEVELAND
19528 VENTURA BOULEVARD, # 268, LOS ANGELES, CALIFORNIA 91356
V/F (800) 704-4193 WWW.PRIORITY1ENVIRONMENTAL.COM

N
W E
S

FIGURE 1

Figure 2 - Location Map

PRIORITY ONE ENVIRONMENTAL
LOS ANGELES - TULSA - CLEVELAND
19528 VENTURA BOULEVARD, # 268, LOS ANGELES, CALIFORNIA 91356
V/F (800) 704-4193 WWW.PRIORITY1ENVIRONMENTAL.COM

N
W E
S

FIGURE 2

Figure 3 - Parcel Map

PRIORITY ONE ENVIRONMENTAL
LOS ANGELES - TULSA - CLEVELAND
19528 VENTURA BOULEVARD, # 268, LOS ANGELES, CALIFORNIA 91356
V/F (800) 704-4193 WWW.PRIORITY1ENVIRONMENTAL.COM

N
W E
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FIGURE 3

P1E-17-11-009

1 Saddleback Parkway

Lake Forest, CA 92630

Inquiry Number: 5112840.3

November 20, 2017

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

11/20/17

Site Name:	Client Name:
P1E-17-11-009	Priority One Environmental, Inc.
1 Saddleback Parkway	19528 Ventura Boulevard, #268
Lake Forest, CA 92630	Tarzana, CA 91356
EDR Inquiry # 5112840.3	Contact: Paul Robinson

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Priority One Environmental, Inc. were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

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:

Certification # 43CE-4B1C-B3BE

PO # P1E-17-11-009

Project P1E-17-11-009

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.

Sanborn® Library search results

Certification #: 43CE-4B1C-B3BE

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

The Sanborn Library LLC Since 1866™

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P1E-17-11-009

1 Saddleback Parkway

Lake Forest, CA 92630

Inquiry Number: 5112840.4

November 20, 2017

EDR Historical Topo Map Report

with QuadMatch™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

11/20/17

Site Name:	Client Name:
P1E-17-11-009	Priority One Environmental, Inc.
1 Saddleback Parkway	19528 Ventura Boulevard, #268
Lake Forest, CA 92630	Tarzana, CA 91356
EDR Inquiry # 5112840.4	Contact: Paul Robinson

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Priority One Environmental, Inc. were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:

P.O.# P1E-17-11-009

Project: P1E-17-11-009

Coordinates:

Latitude:	33.663461 33° 39' 48" North
Longitude:	-117.645217 -117° 38' 43" West
UTM Zone:	Zone 11 North
UTM X Meters:	440181.17
UTM Y Meters:	3725028.93
Elevation:	844.48' above sea level

Maps Provided:

2012	1942
1997	1935
1982	1902
1981	
1978	
1968, 1973	
1950, 1954	
1949	

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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2012 Source Sheets

Santiago Peak
2012
7.5-minute, 24000

Lake Forest
2012
7.5-minute, 24000

1997 Source Sheets

Santiago Peak
1997
7.5-minute, 24000
Aerial Photo Revised 1994

El Toro
1997
7.5-minute, 24000
Aerial Photo Revised 1994

1982 Source Sheets

Santiago Peak
1982
7.5-minute, 24000
Aerial Photo Revised 1980

El Toro
1982
7.5-minute, 24000
Aerial Photo Revised 1980

1981 Source Sheets

El Toro
1981
7.5-minute, 24000
Aerial Photo Revised 1978

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1978 Source Sheets

El Toro
1978
7.5-minute, 24000
Aerial Photo Revised 1974

1968, 1973 Source Sheets

El Toro
1968
7.5-minute, 24000
Aerial Photo Revised 1967

Santiago Peak
1973
7.5-minute, 24000
Aerial Photo Revised 1973

1950, 1954 Source Sheets

El Toro
1950
7.5-minute, 24000
Aerial Photo Revised 1946

Santiago Peak
1954
7.5-minute, 24000
Aerial Photo Revised 1949

1949 Source Sheets

El Toro
1949
7.5-minute, 24000
Aerial Photo Revised 1946

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1942 Source Sheets

SANTIAGO PEAK
1942
15-minute, 50000

1935 Source Sheets

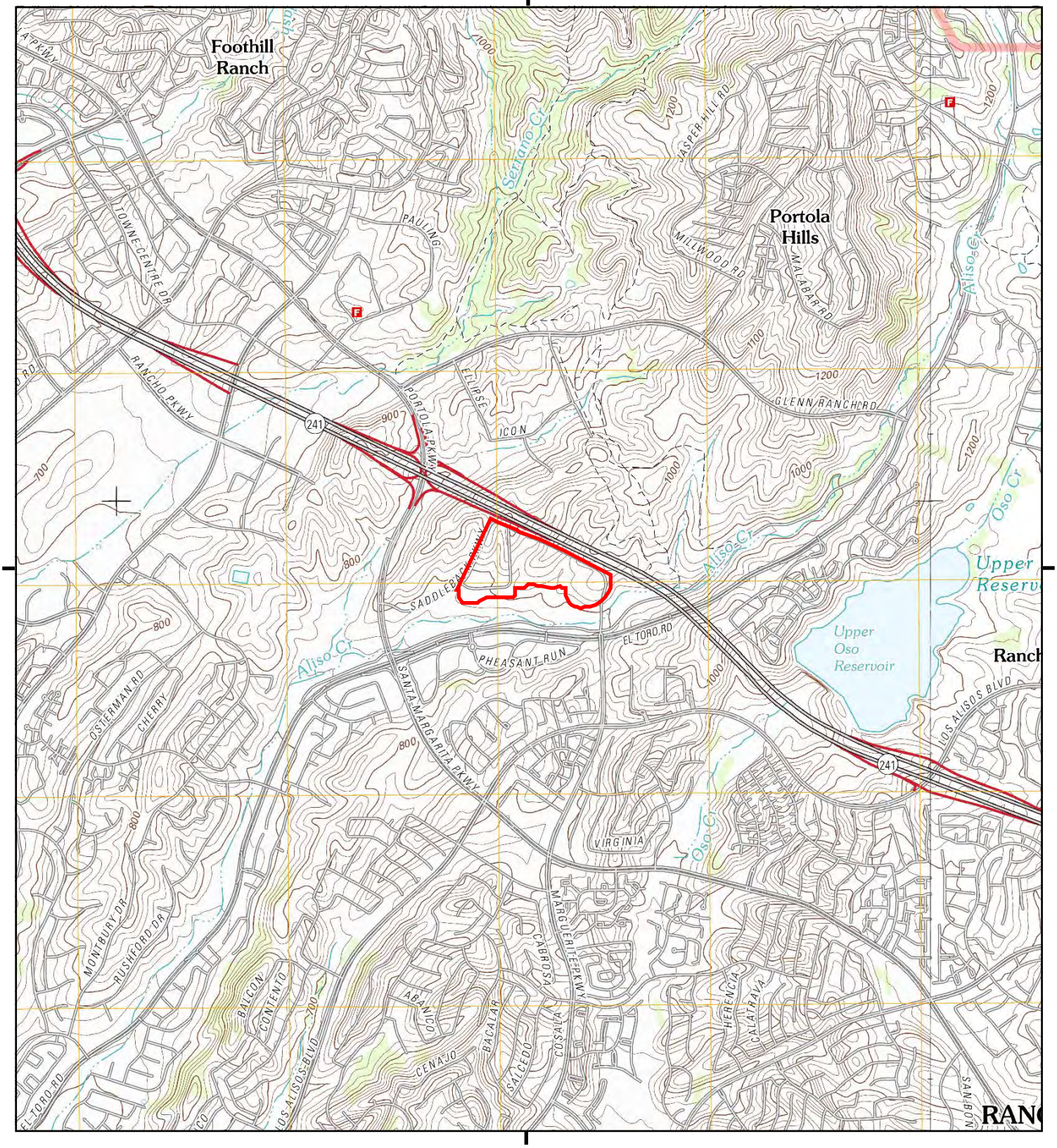
El Toro
1935
7.5-minute, 31680

1902 Source Sheets

Corona
1902
30-minute, 125000

Historical Topo Map

2012



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

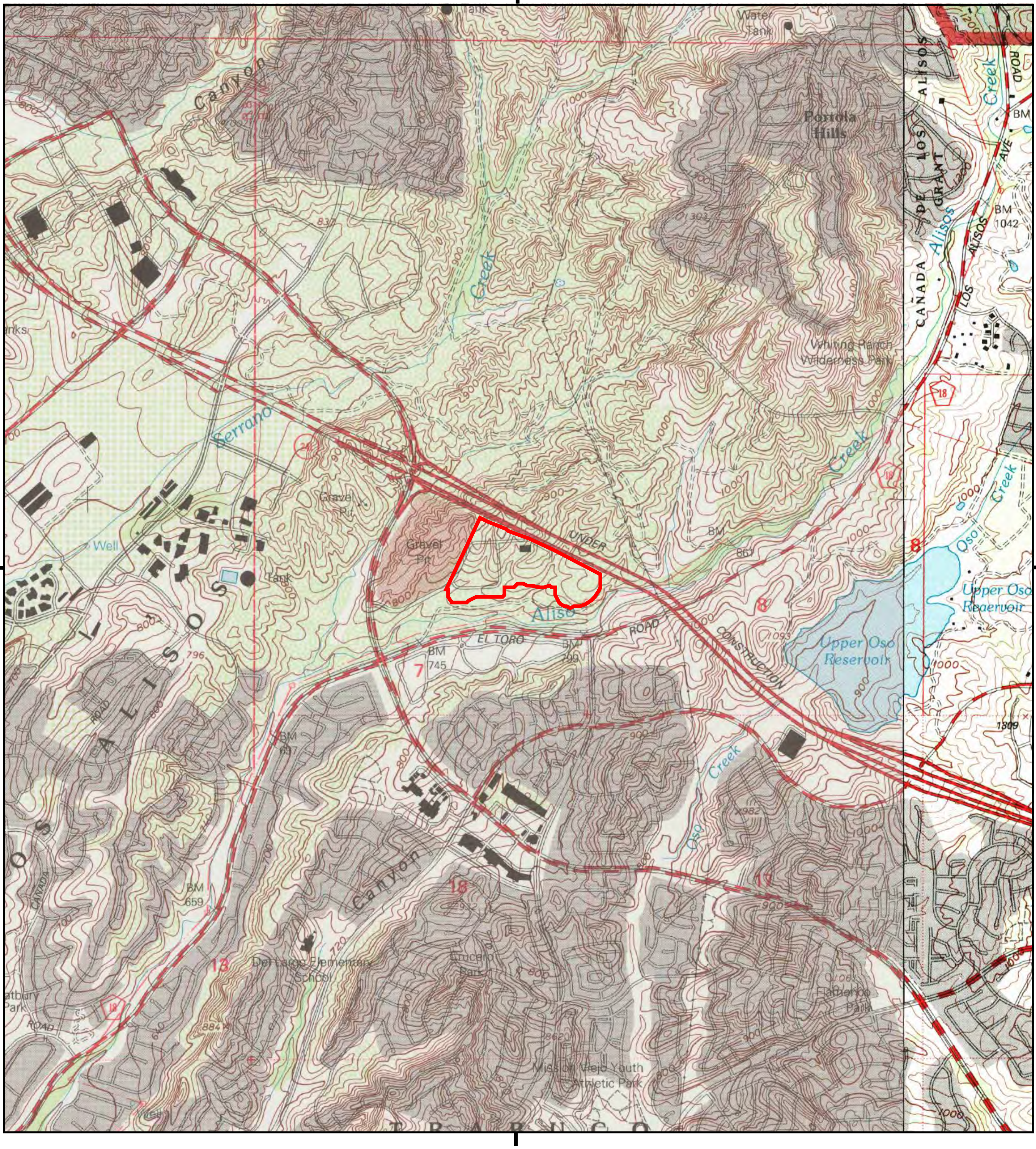
TP, Lake Forest, 2012, 7.5-minute
E, Santiago Peak, 2012, 7.5-minute

SITE NAME: P1E-17-11-009
ADDRESS: 1 Saddleback Parkway
Lake Forest, CA 92630
CLIENT: Priority One Environmental, Inc.

N

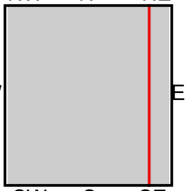
Historical Topo Map

1997



This report includes information from the following map sheet(s).

0 Miles	0.25
0.5	1
1.5	



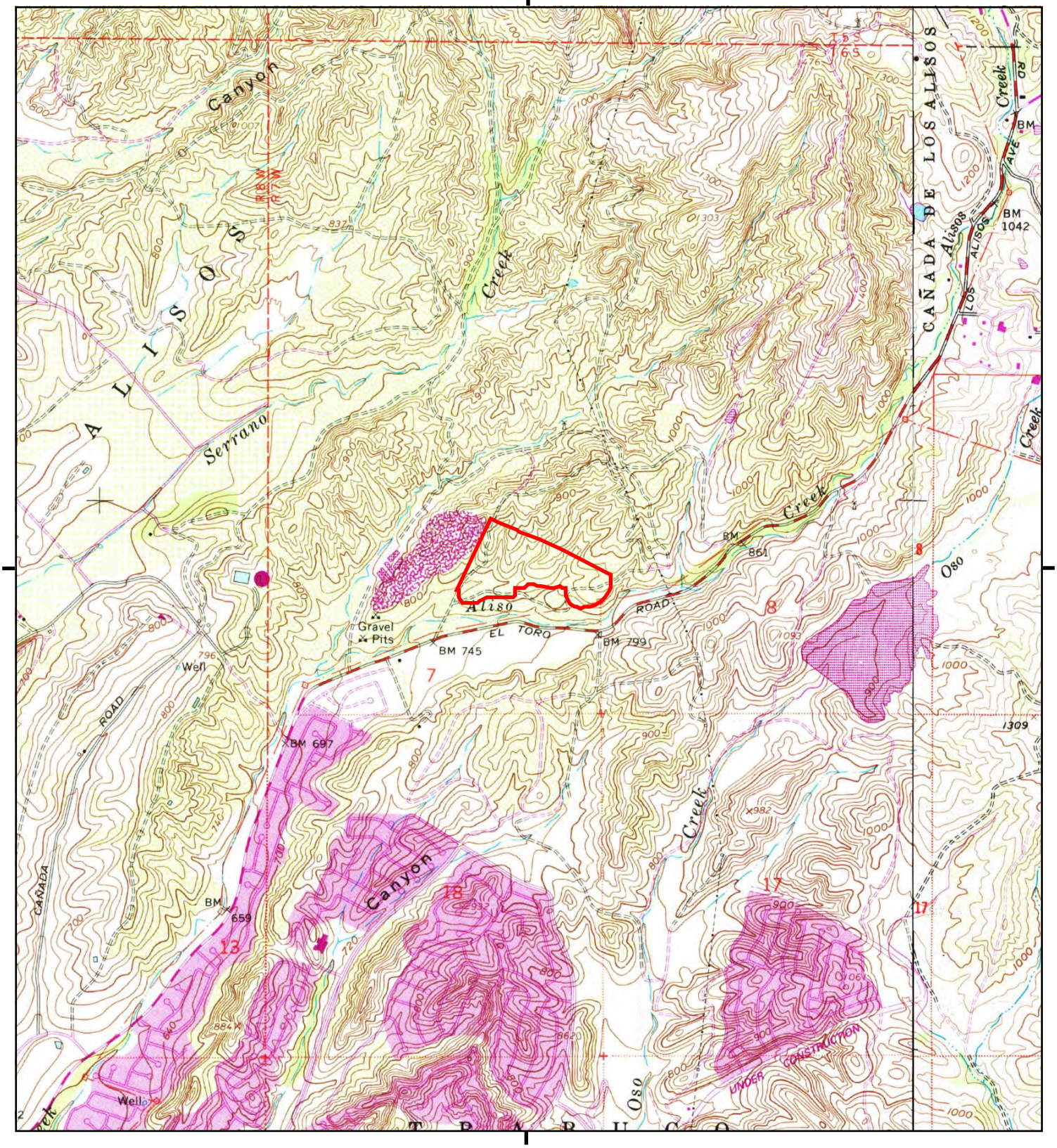
TP, El Toro, 1997, 7.5-minute
E, Santiago Peak, 1997, 7.5-minute

SITE NAME: P1E-17-11-009
ADDRESS: 1 Saddleback Parkway
Lake Forest, CA 92630
CLIENT: Priority One Environmental, Inc.

N

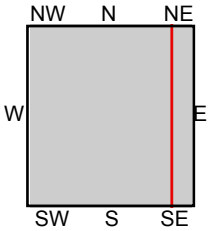
Historical Topo Map

1982



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5



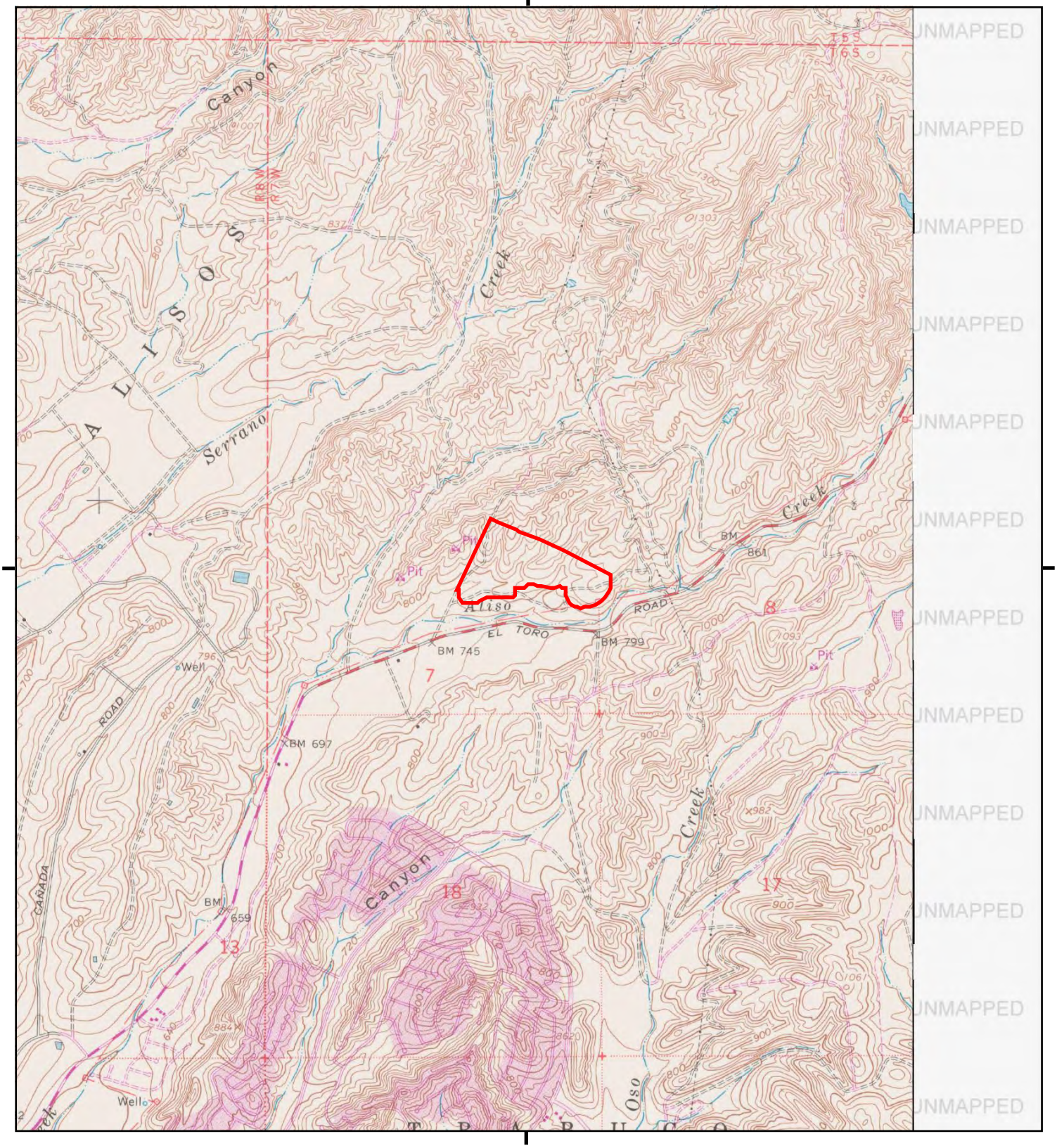
TP, El Toro, 1982, 7.5-minute
E, Santiago Peak, 1982, 7.5-minute

SITE NAME: P1E-17-11-009
ADDRESS: 1 Saddleback Parkway
Lake Forest, CA 92630
CLIENT: Priority One Environmental, Inc.

N

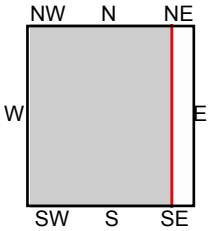
Historical Topo Map

1981



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5



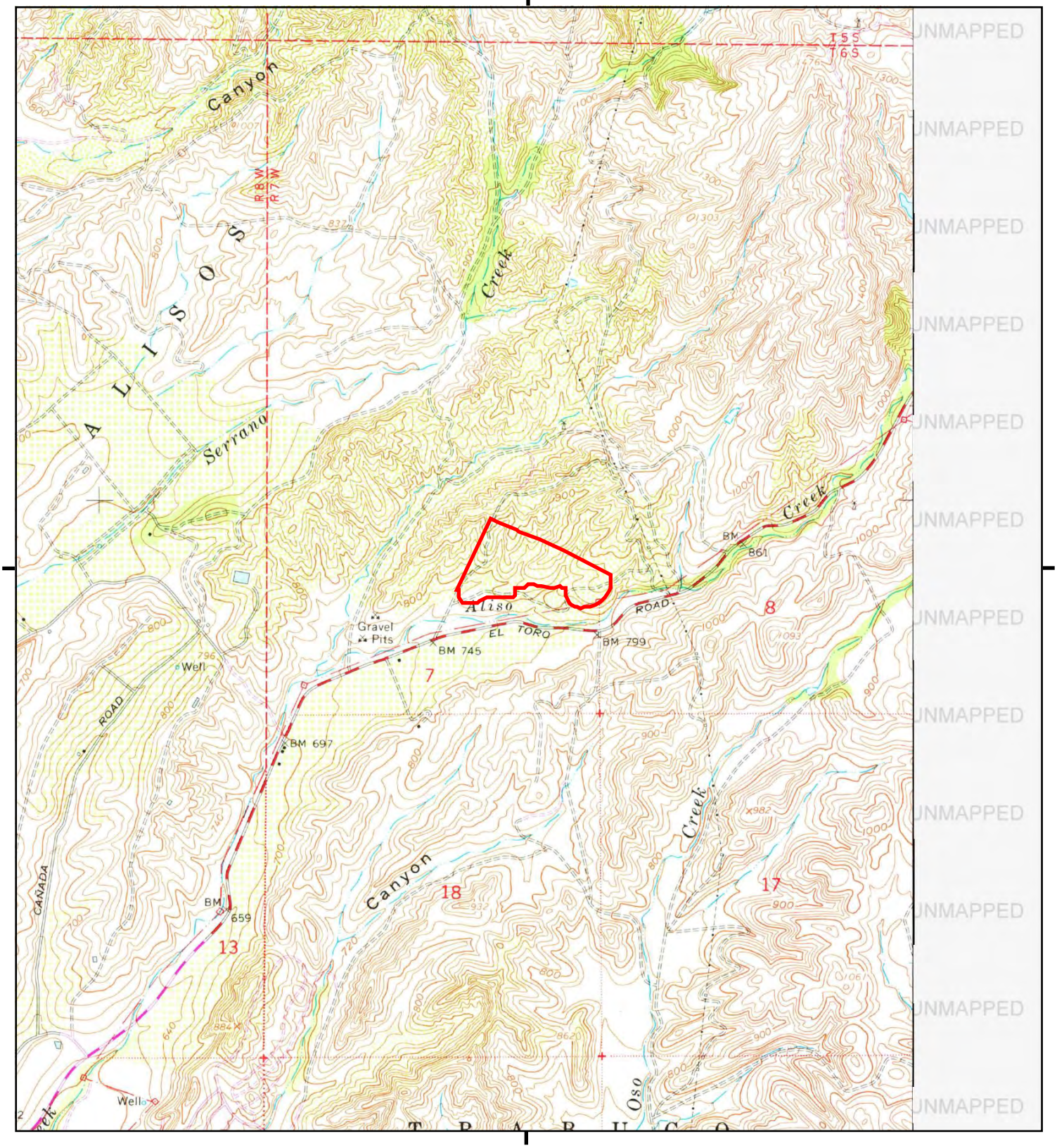
TP, El Toro, 1981, 7.5-minute

SITE NAME: P1E-17-11-009
ADDRESS: 1 Saddleback Parkway
Lake Forest, CA 92630
CLIENT: Priority One Environmental, Inc.

N

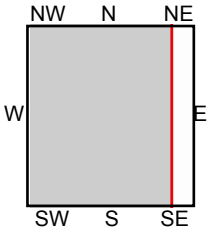
Historical Topo Map

1978



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5



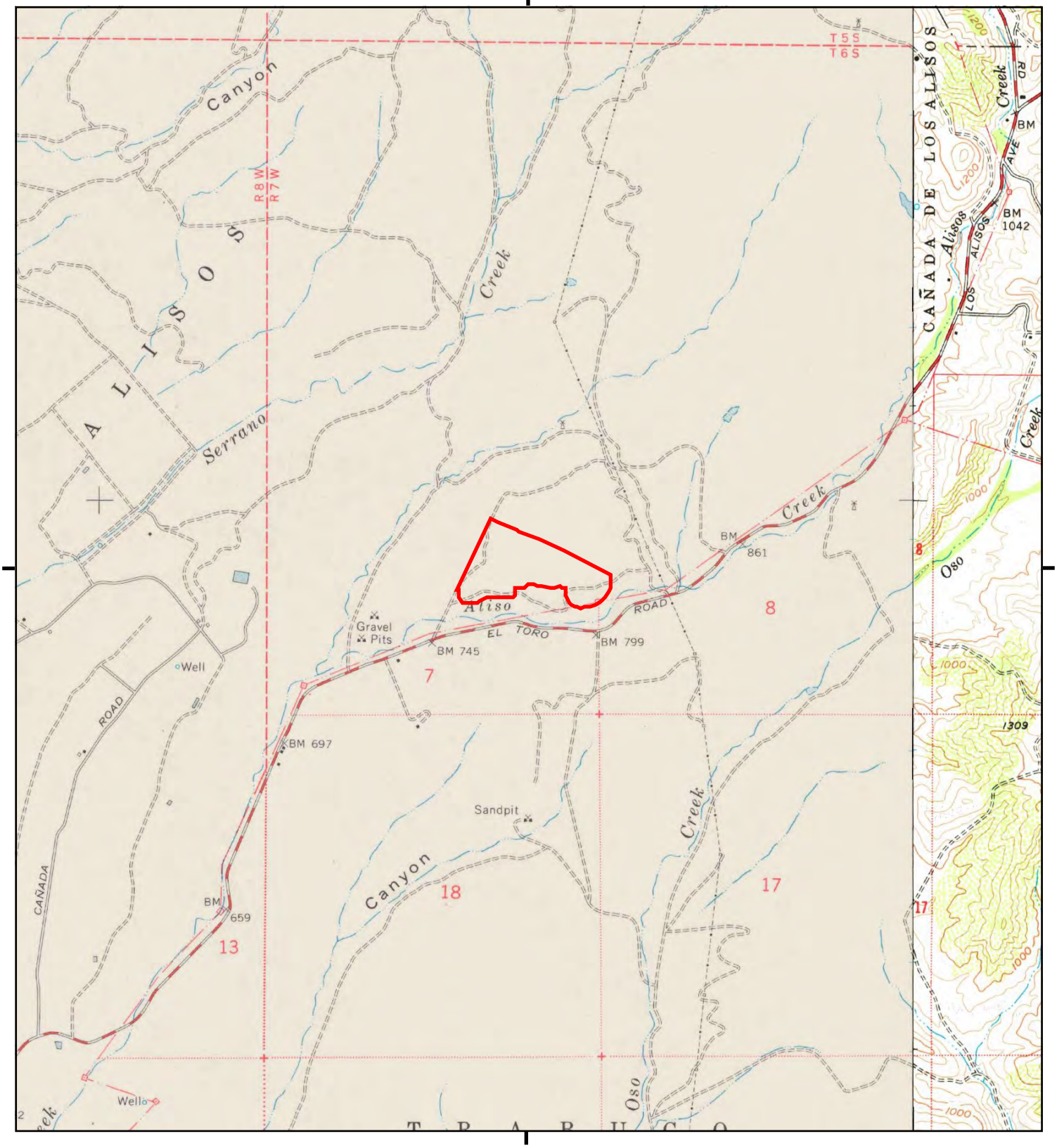
TP, El Toro, 1978, 7.5-minute

SITE NAME: P1E-17-11-009
ADDRESS: 1 Saddleback Parkway
Lake Forest, CA 92630
CLIENT: Priority One Environmental, Inc.

N

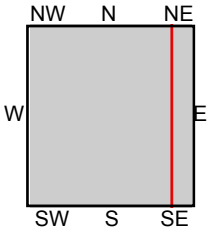
Historical Topo Map

1968, 1973



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5



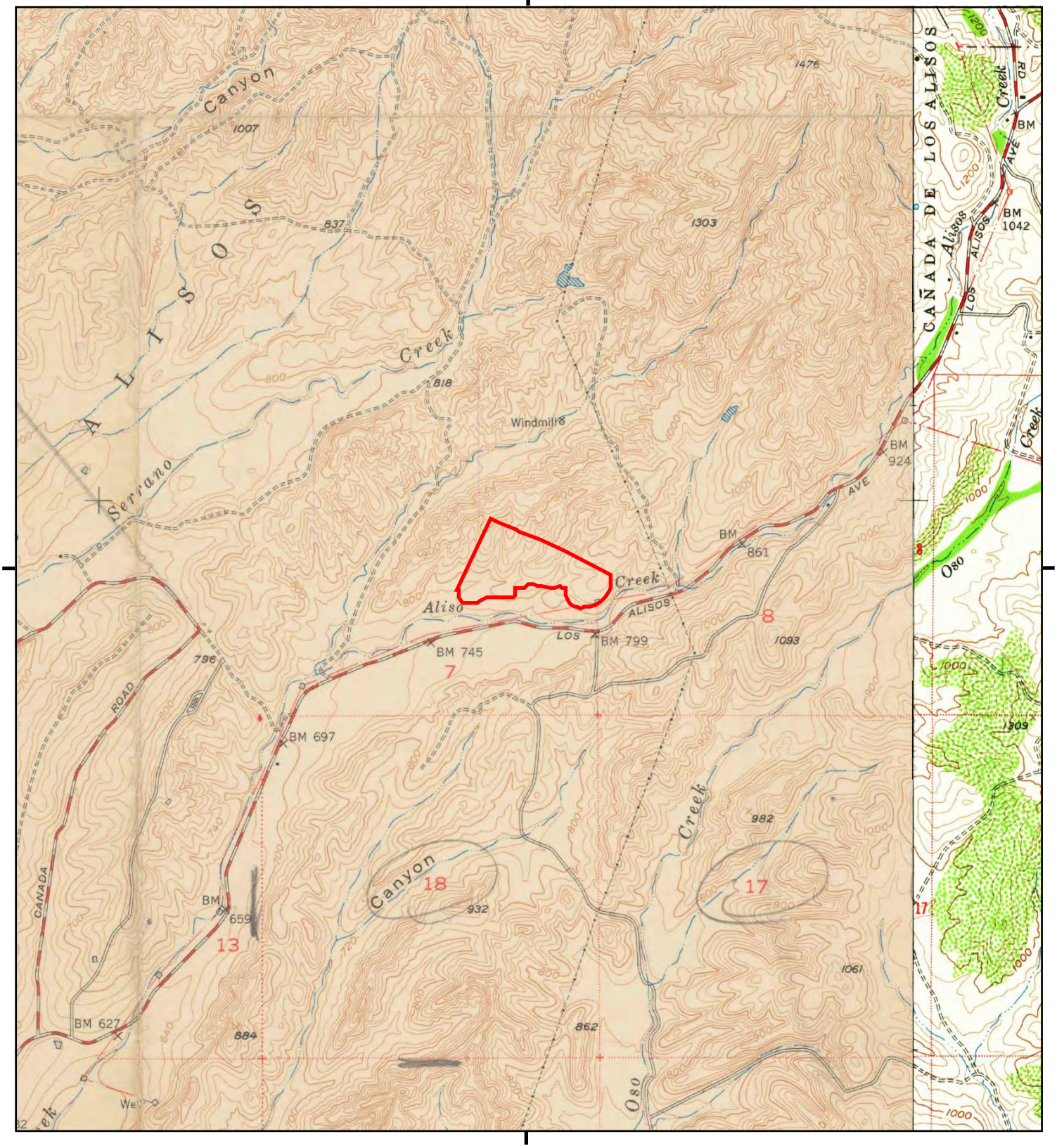
TP, El Toro, 1968, 7.5-minute
E, Santiago Peak, 1973, 7.5-minute

SITE NAME: P1E-17-11-009
ADDRESS: 1 Saddleback Parkway
Lake Forest, CA 92630
CLIENT: Priority One Environmental, Inc.

N

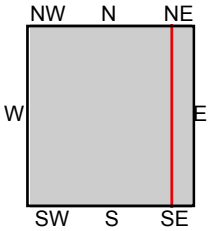
Historical Topo Map

1950, 1954



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5



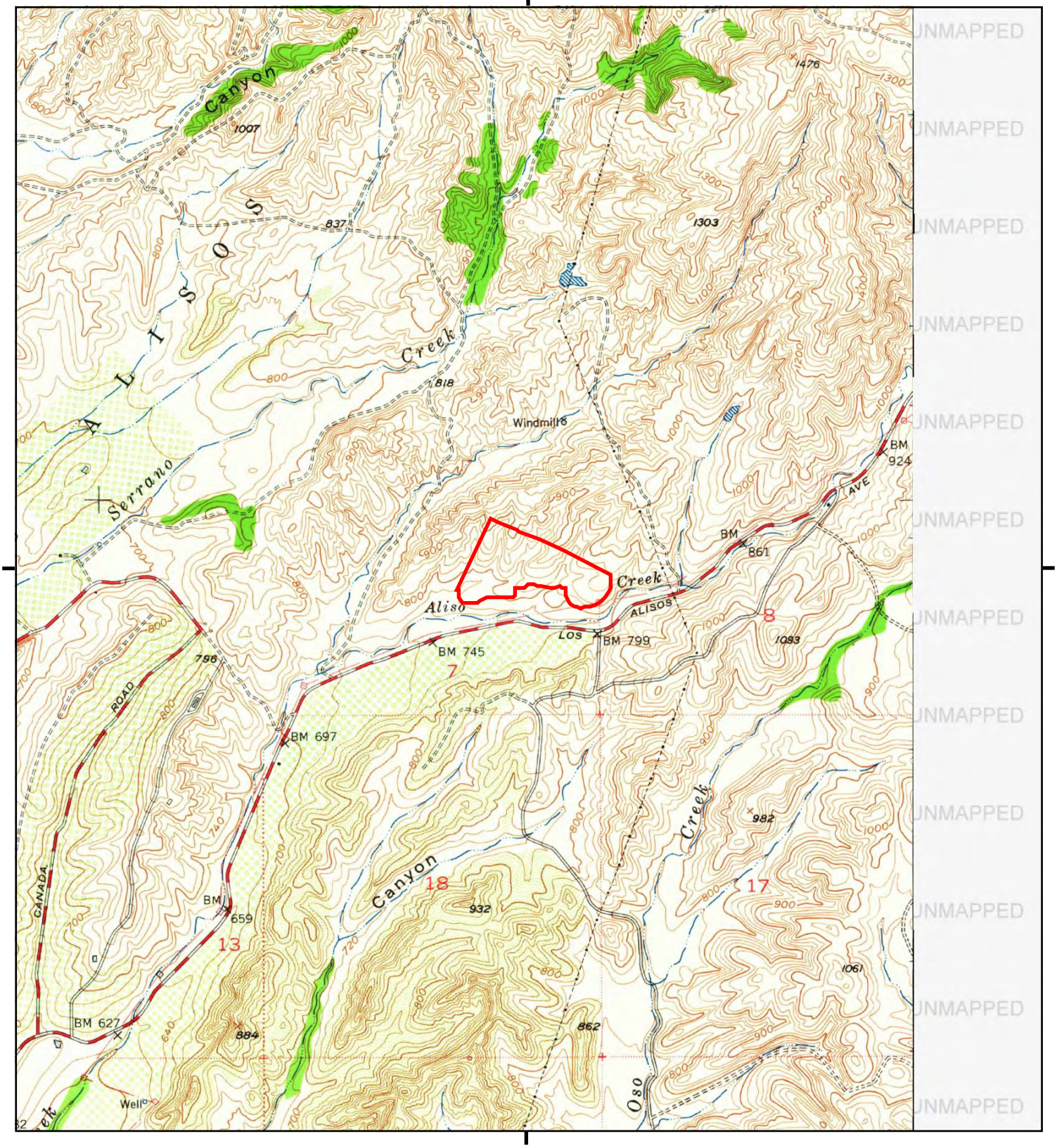
TP, El Toro, 1950, 7.5-minute
E, Santiago Peak, 1954, 7.5-minute

SITE NAME: P1E-17-11-009
ADDRESS: 1 Saddleback Parkway
Lake Forest, CA 92630
CLIENT: Priority One Environmental, Inc.

N

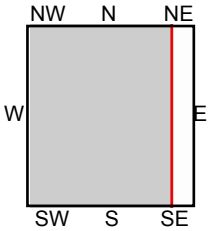
Historical Topo Map

1949



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5



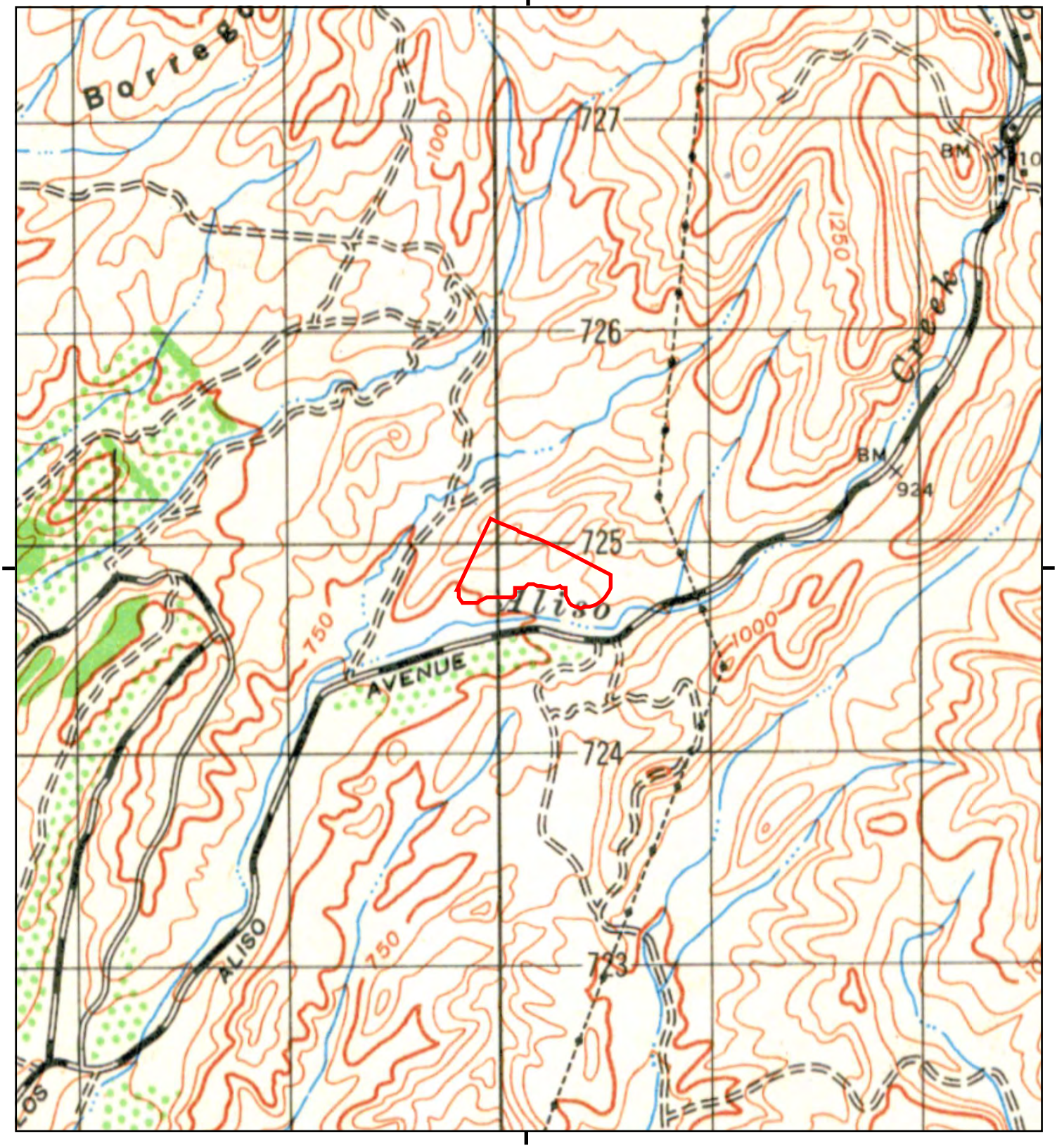
TP, El Toro, 1949, 7.5-minute

SITE NAME: P1E-17-11-009
ADDRESS: 1 Saddleback Parkway
Lake Forest, CA 92630
CLIENT: Priority One Environmental, Inc.

N

Historical Topo Map

1942



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

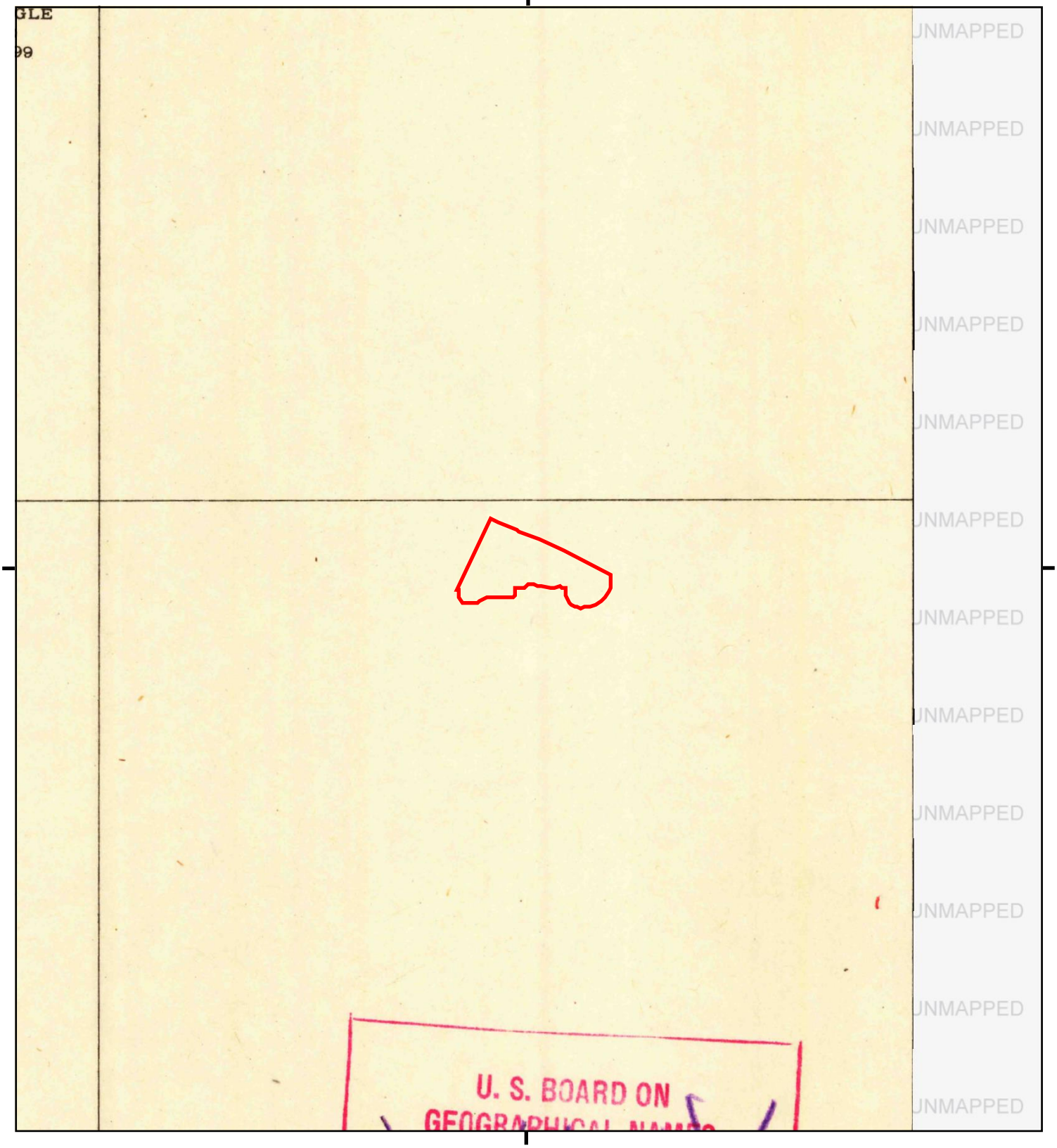
TP, SANTIAGO PEAK, 1942, 15-minute

SITE NAME: P1E-17-11-009
ADDRESS: 1 Saddleback Parkway
Lake Forest, CA 92630
CLIENT: Priority One Environmental, Inc.

N

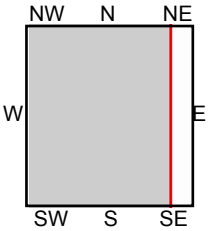
Historical Topo Map

1935



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5



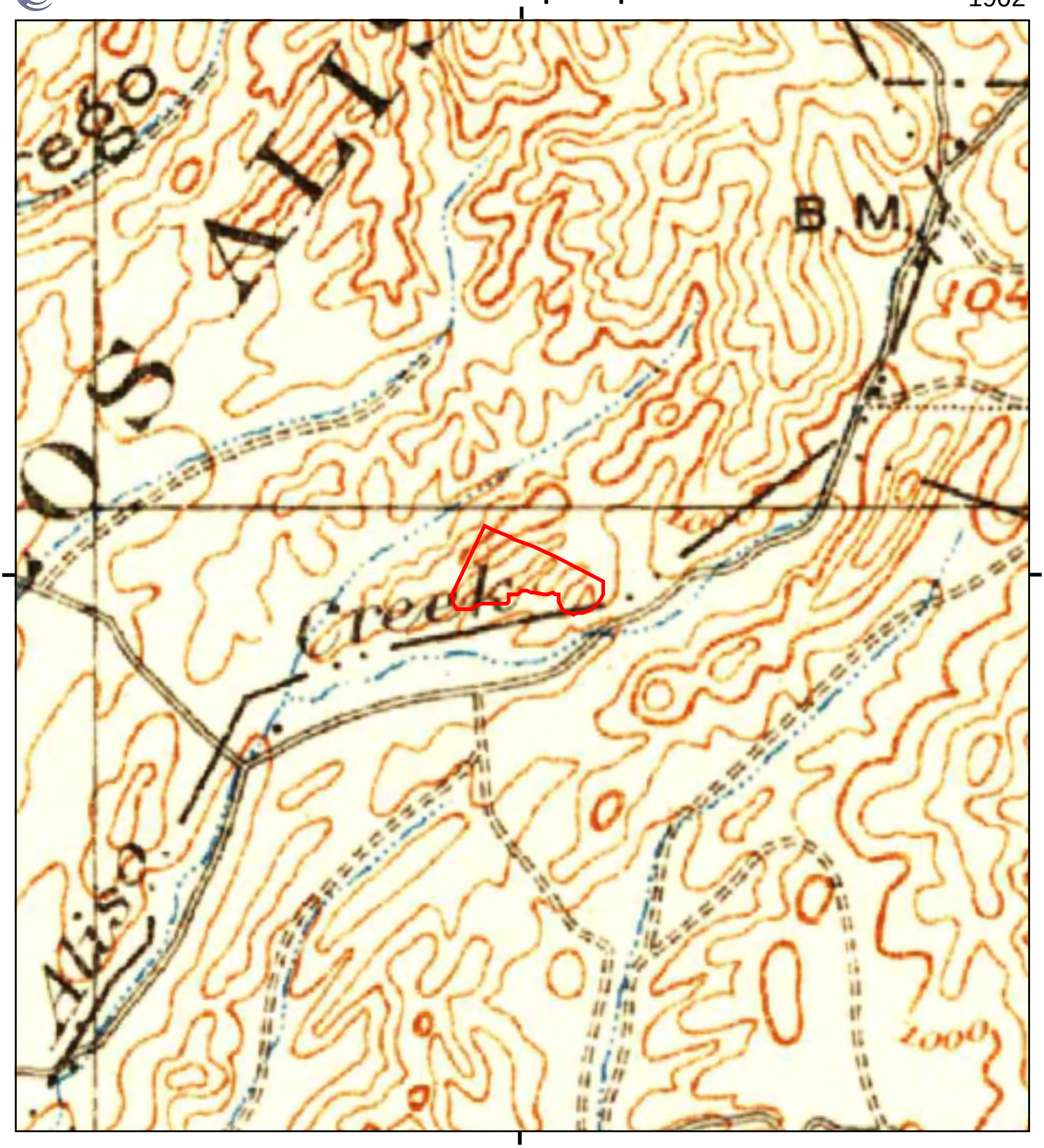
TP, El Toro, 1935, 7.5-minute

SITE NAME: P1E-17-11-009
ADDRESS: 1 Saddleback Parkway
Lake Forest, CA 92630
CLIENT: Priority One Environmental, Inc.

N

Historical Topo Map

1902



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Corona, 1902, 30-minute

SITE NAME: P1E-17-11-009
ADDRESS: 1 Saddleback Parkway
Lake Forest, CA 92630
CLIENT: Priority One Environmental, Inc.

N

P1E-17-11-009

1 Saddleback Parkway

Lake Forest, CA 92630

Inquiry Number: 5112840.9

November 21, 2017

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

11/21/17

Site Name:

P1E-17-11-009
1 Saddleback Parkway
Lake Forest, CA 92630
EDR Inquiry # 5112840.9

Client Name:

Priority One Environmental, Inc.
19528 Ventura Boulevard, #268
Tarzana, CA 91356
Contact: Paul Robinson

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Search Results:

Year	*Scale*	*Details*	*Source*
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2010	1"=500'	Flight Year: 2010	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2005	1"=500'	Flight Year: 2005	USDA/NAIP
1994	1"=500'	Acquisition Date: June 01, 1994	USGS/DOQQ
1990	1"=500'	Flight Date: August 29, 1990	USDA
1981	1"=500'	Flight Date: January 01, 1981	USGS
1974	1"=500'	Flight Date: January 01, 1974	USGS
1967	1"=500'	Flight Date: May 07, 1967	USGS
1952	1"=500'	Flight Date: December 12, 1952	USDA
1949	1"=500'	Flight Date: May 05, 1949	USDA
1946	1"=500'	Flight Date: December 29, 1946	USGS
1938	1"=500'	Flight Date: June 21, 1938	USDA

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INQUIRY #: 5112840.9
YEAR: 2012
= 500'
N
EDR

ProLogis
INQUIRY #: 5112840.9
YEAR: 2010
= 500'
N
EDR

ProLogis
INQUIRY #: 5112840.9
YEAR: 2009
= 500'
N
EDR

ProLogis
INQUIRY #: 5112840.9
YEAR: 2005
= 500'
N
EDR

INQUIRY #: 5112840.9
YEAR: 1994
= 500'
N
EDR

INQUIRY #: 5112840.9
YEAR: 1990
= 500'
N
EDR

INQUIRY #: 5112840.9

YEAR: 1981

= 500'

N

EDR

Subject boundary not shown because it exceeds image extent or image is not georeferenced.

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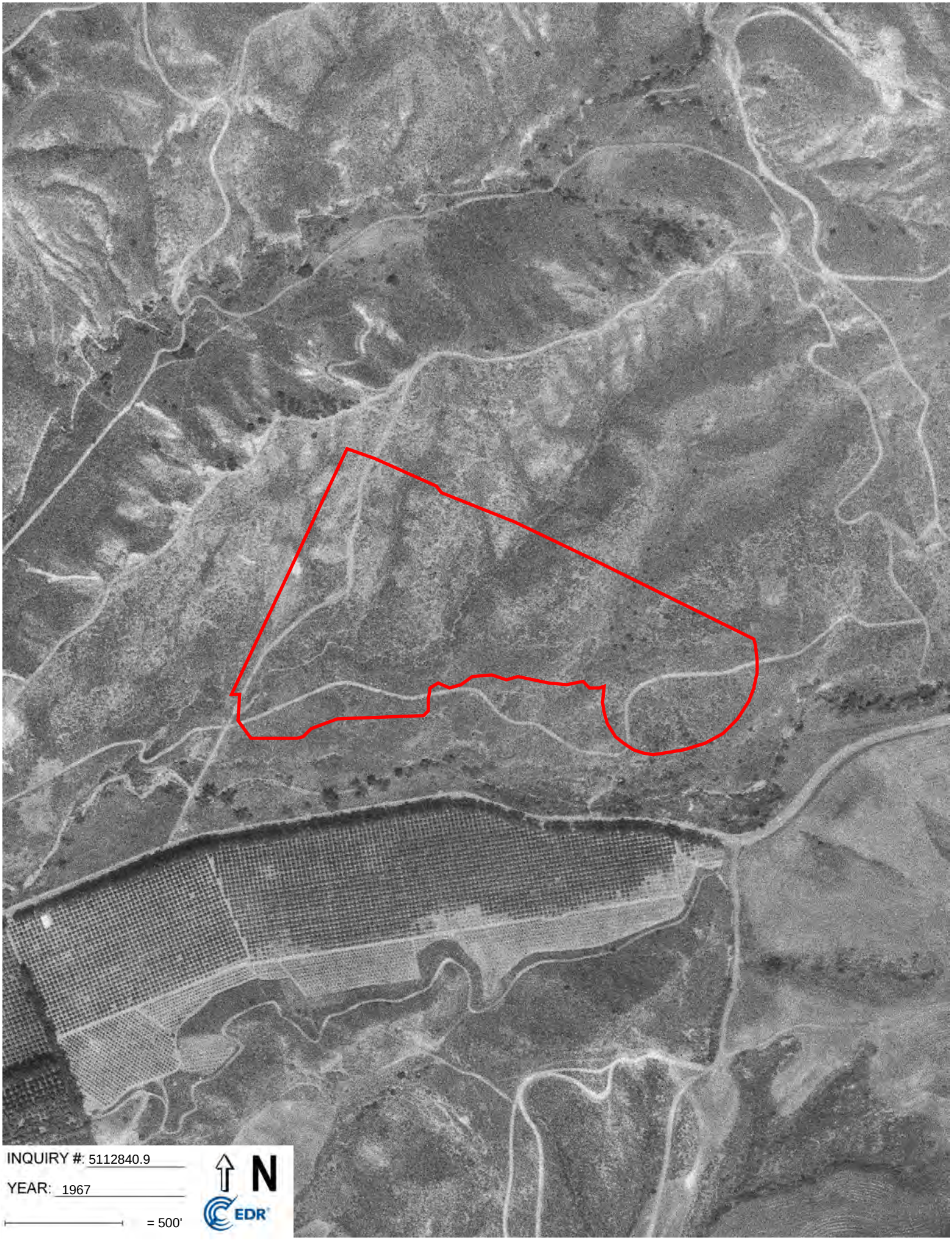
YEAR: 1974
= 500'
N
EDR
Subject boundary not shown because it exceeds image extent or image is not georeferenced.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YEAR: 1967
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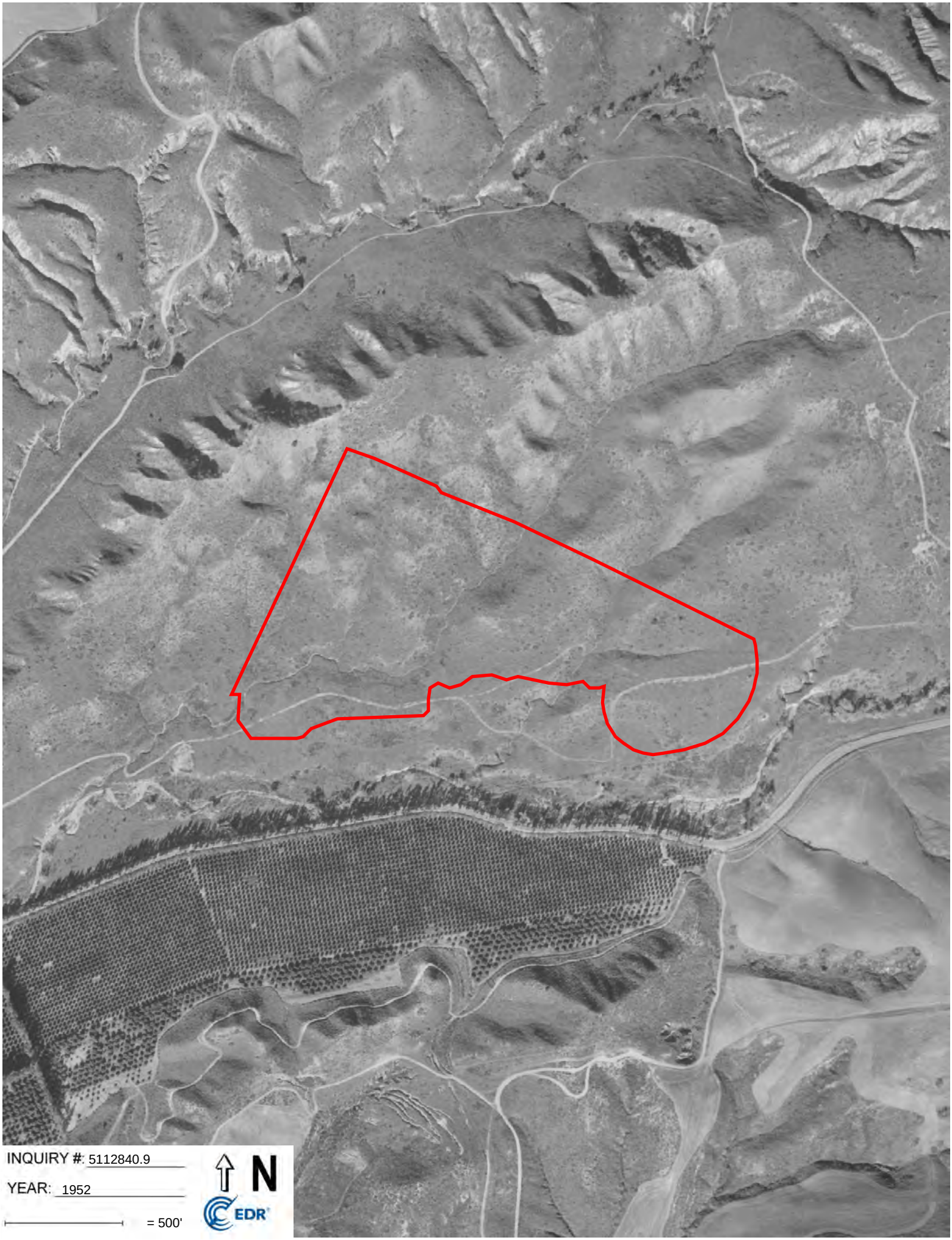
EDR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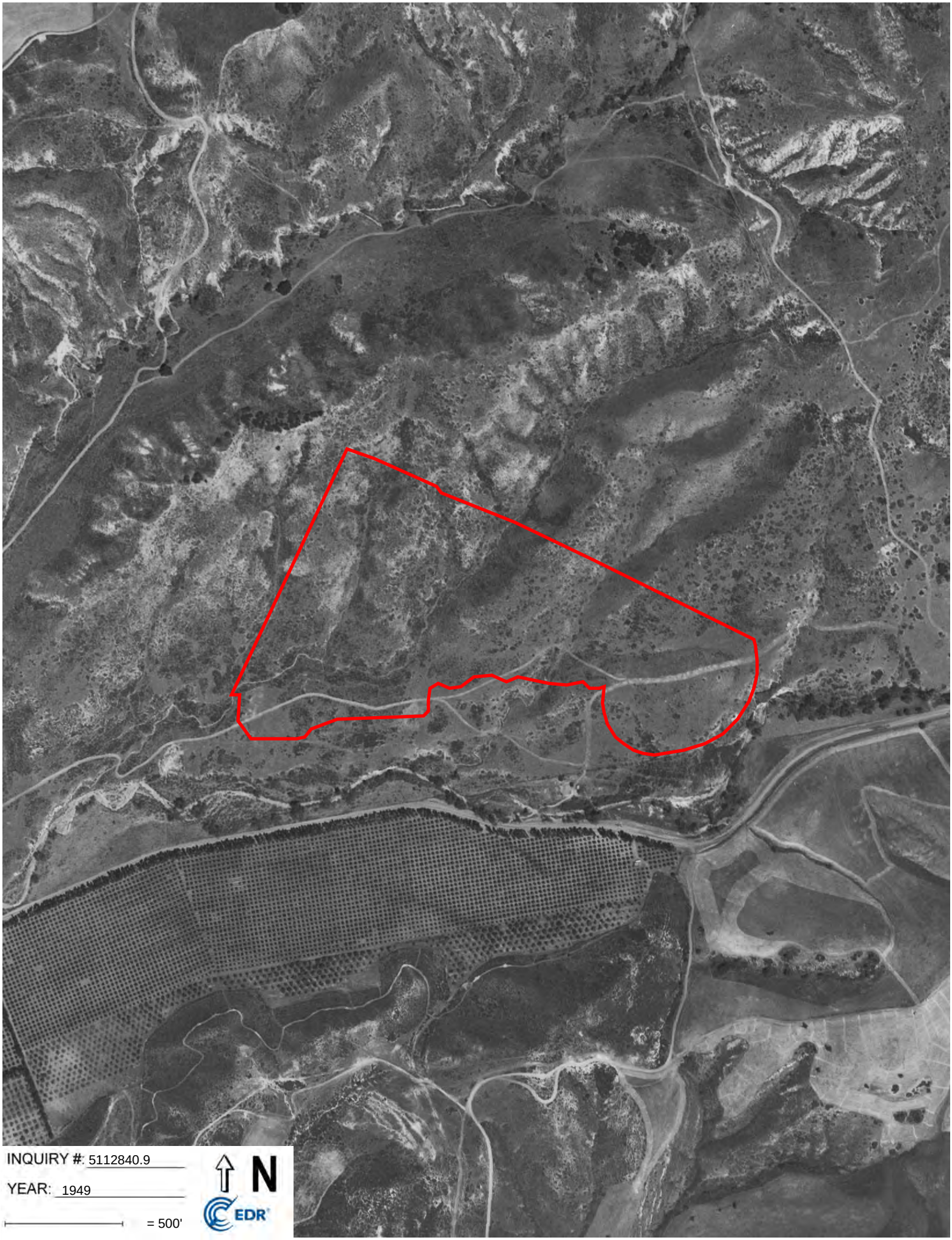
EDR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YEAR: 1949
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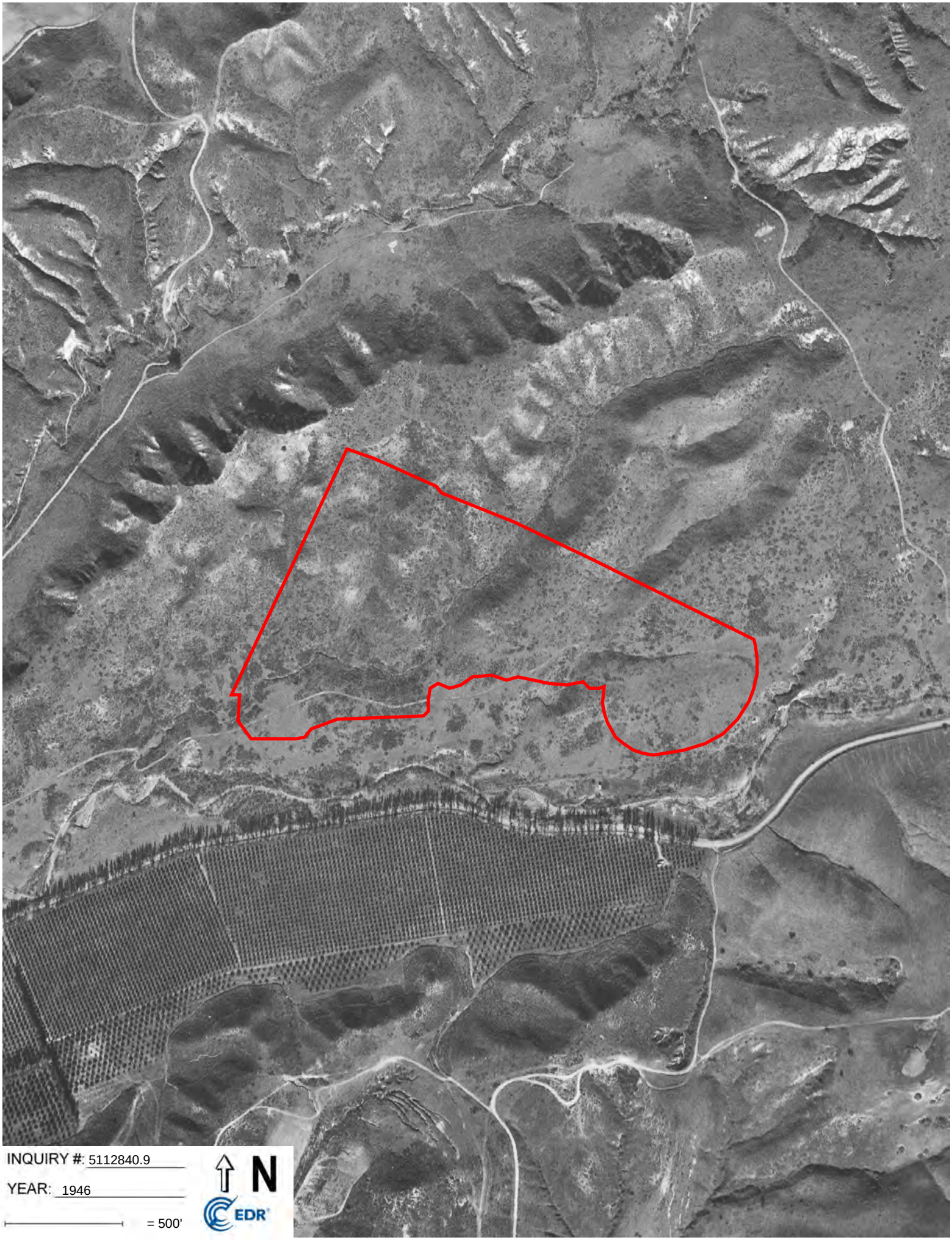
EDR


INQUIRY #: 5112840.9
YEAR: 1946
= 500'
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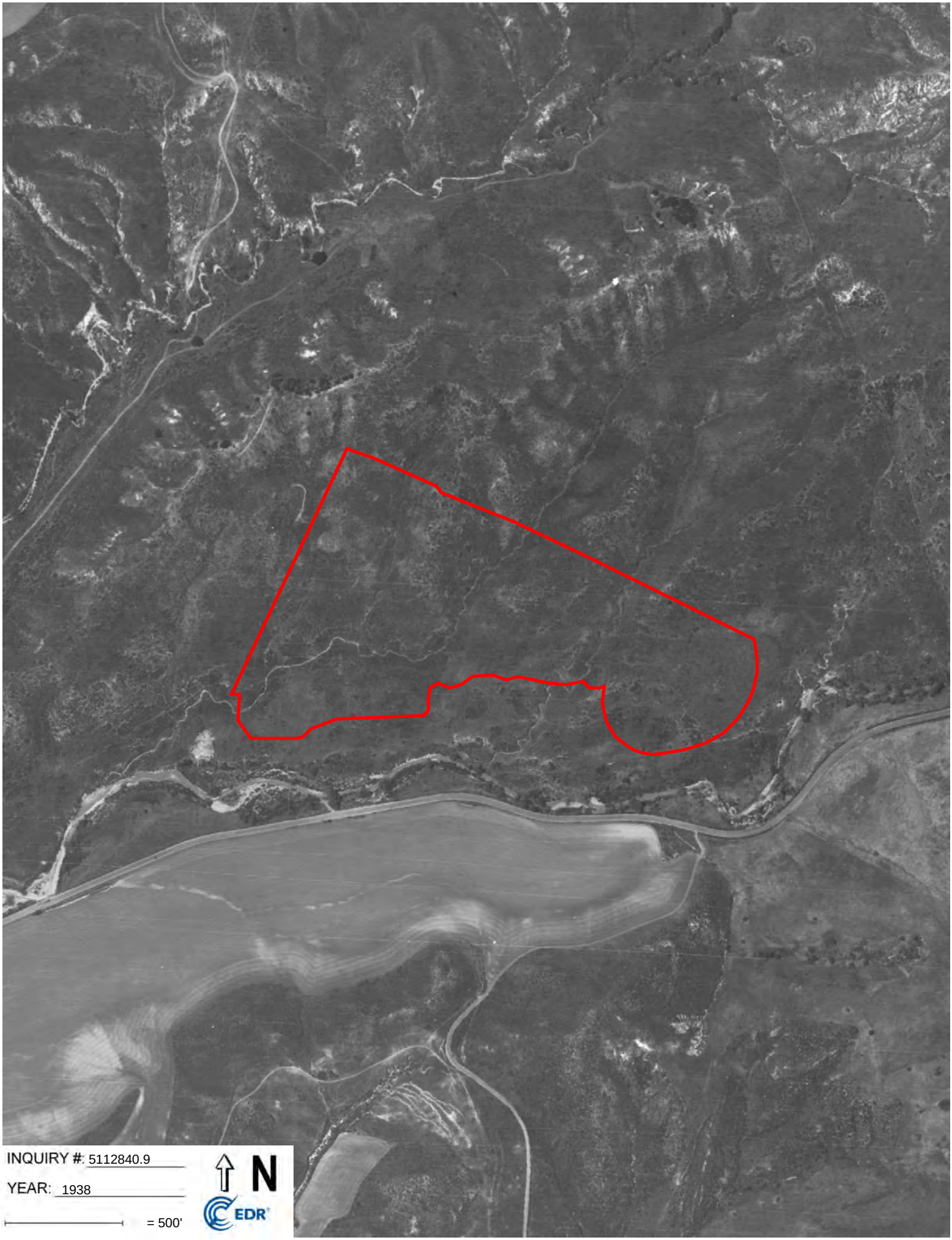
EDR


INQUIRY #: 5112840.9
YEAR: 1938
= 500'
N
EDR

P1E-17-11-009
1 Saddleback Parkway
Lake Forest, CA 92630

Inquiry Number: 5112840.2s
November 20, 2017

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Map Findings Summary	4
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Orphan Summary	42
Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

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Physical Setting Source Summary	A-2
Physical Setting SSURGO Soil Map	A-5
Physical Setting Source Map	A-13
Physical Setting Source Map Findings	A-15
Physical Setting Source Records Searched	PSGR-1

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

1 SADDLEBACK PARKWAY
LAKE FOREST, CA 92630

COORDINATES

Latitude (North):	33.6634610 - 33˚ 39' 48.45''
Longitude (West):	117.6452170 - 117˚ 38' 42.78''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	440179.8
UTM Y (Meters):	3724835.5
Elevation:	846 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5636489 EL TORO, CA
Version Date:	2012
East Map:	5636483 SANTIAGO PEAK, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140603
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
1 SADDLEBACK PARKWAY
LAKE FOREST, CA 92630

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	EMERGENCY CLAY MOUND	1 SADDLEBACK PKWY	HAZNET, NPDES		TP
A2	EMERGENCY CLAY MOUND	1 SADDLEBACK PKWY	ECHO		TP
3	OC PUBLIC WORKS PORT	20791 EL TORO ROAD	SWF/LF	Lower	495, 0.094, SE
B4	STANDARD CONCRETE	20851 EL TORO RD	LUST, HIST CORTESE	Lower	560, 0.106, SSE
B5	STANDARD CONCRETE CO	20851 ELTORO RD	RCRA-SQG, LUST, HIST UST, FINDS, ECHO, EMI, WDS	Lower	560, 0.106, SSE
B6	CALMAT CO EL TORO	20851 EL TORO RD STE	RCRA-SQG	Lower	560, 0.106, SSE
C7	COX COMMUNICATIONS -	20 ICON	AST	Lower	1209, 0.229, NNW
C8	ALACER CORP A SUBSID	80 ICON RD	RCRA NonGen / NLR	Lower	1209, 0.229, NNW
9	EL TORO MATERIALS CO		US MINES	Lower	1230, 0.233, WNW
D10	SHAHKOT PETROLEUM AR	29080 PORTOLA PKWY	UST	Lower	1261, 0.239, WSW
D11	ARCO FACILITY NO 065	29080 PORTOLA PKWY	RCRA NonGen / NLR, FINDS, ECHO	Lower	1261, 0.239, WSW
12	CORNER OF LOS ALISOS	SANTA MARGARITA PKWY	Notify 65	Higher	1676, 0.317, South
13	TRABUCO HILLS HIGH S	27501 MUSTANG RUN	ENVIROSTOR, SCH	Lower	3375, 0.639, SSW

EXECUTIVE SUMMARY

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
EMERGENCY CLAY MOUND 1 SADDLEBACK PKWY LAKE FOREST, CA 92630	HAZNET GEPAID: CAL000381407 NPDES Facility Status: Active	N/A
EMERGENCY CLAY MOUND 1 SADDLEBACK PKWY LAKE FOREST, CA 92630	ECHO	N/A

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

FEDERAL FACILITY..... Federal Facility Site Information listing
SEMS..... Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE..... Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

EXECUTIVE SUMMARY

Federal RCRA generators list

RCRA-LQG..... RCRA - Large Quantity Generators
RCRA-CESQG..... RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS..... Land Use Control Information System
US ENG CONTROLS..... Engineering Controls Sites List
US INST CONTROL..... Sites with Institutional Controls

Federal ERNS list

ERNS..... Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE..... State Response Sites

State and tribal leaking storage tank lists

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land
SLIC..... Statewide SLIC Cases

State and tribal registered storage tank lists

FEMA UST..... Underground Storage Tank Listing
INDIAN UST..... Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

VCP..... Voluntary Cleanup Program Properties
INDIAN VCP..... Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS..... Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT..... Waste Management Unit Database
SWRCY..... Recycler Database
HAULERS..... Registered Waste Tire Haulers Listing
INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands
DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations
ODI..... Open Dump Inventory
IHS OPEN DUMPS..... Open Dumps on Indian Land

EXECUTIVE SUMMARY

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL	Delisted National Clandestine Laboratory Register
HIST Cal-Sites	Historical Calsites Database
SCH	School Property Evaluation Program
CDL	Clandestine Drug Labs
Toxic Pits	Toxic Pits Cleanup Act Sites
US CDL	National Clandestine Laboratory Register

Local Lists of Registered Storage Tanks

SWEEPS UST	SWEEPS UST Listing
CA FID UST	Facility Inventory Database

Local Land Records

LIENS	Environmental Liens Listing
LIENS 2	CERCLA Lien Information
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
Orange Co. Industrial Site	List of Industrial Site Cleanups
SPILLS 90	SPILLS 90 data from FirstSearch

Other Ascertainable Records

FUDS	Formerly Used Defense Sites
DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing

EXECUTIVE SUMMARY

DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	Indian Reservations
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US AIRS	Aerometric Information Retrieval System Facility Subsystem
ABANDONED MINES	Abandoned Mines
FINDS	Facility Index System/Facility Registry System
UXO	Unexploded Ordnance Sites
DOCKET HWC	Hazardous Waste Compliance Docket Listing
FUELS PROGRAM	EPA Fuels Program Registered Listing
CA BOND EXP. PLAN	Bond Expenditure Plan
Cortese	"Cortese" Hazardous Waste & Substances Sites List
CUPA Listings	CUPA Resources List
DRYCLEANERS	Cleaner Facilities
EMI	Emissions Inventory Data
ENF	Enforcement Action Listing
Financial Assurance	Financial Assurance Information Listing
ICE	ICE
HWP	EnviroStor Permitted Facilities Listing
HWT	Registered Hazardous Waste Transporter Database
MINES	Mines Site Location Listing
MWMP	Medical Waste Management Program Listing
PEST LIC	Pesticide Regulation Licenses Listing
PROC	Certified Processors Database
UIC	UIC Listing
WASTEWATER PITS	Oil Wastewater Pits Listing
WDS	Waste Discharge System
WIP	Well Investigation Program Case List

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	EDR Proprietary Manufactured Gas Plants
EDR Hist Auto	EDR Exclusive Historical Auto Stations
EDR Hist Cleaner	EDR Exclusive Historical 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.

EXECUTIVE SUMMARY

STANDARD ENVIRONMENTAL RECORDS

Federal RCRA generators list

RCRA-SQG: 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.

A review of the RCRA-SQG list, as provided by EDR, and dated 09/13/2017 has revealed that there are 2 RCRA-SQG sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
STANDARD CONCRETE CO	***20851 ELTORO RD***	***SSE 0 - 1/8 (0.106 mi.)***	***B5***	***14***
CALMAT CO EL TORO	20851 EL TORO RD STE	SSE 0 - 1/8 (0.106 mi.)	B6	20

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 07/31/2017 has revealed that there is 1 ENVIROSTOR site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
TRABUCO HILLS HIGH S	***27501 MUSTANG RUN***	***SSW 1/2 - 1 (0.639 mi.)***	***13***	***39***
Facility Id: 70000043				
Status: No Action Required				

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Integrated Waste Management Board's Solid Waste Information System (SWIS) database.

A review of the SWF/LF list, as provided by EDR, has revealed that there is 1 SWF/LF site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
OC PUBLIC WORKS PORT	20791 EL TORO ROAD	SE 0 - 1/8 (0.094 mi.)	3	12
Database: SWF/LF (SWIS), Date of Government Version: 08/14/2017				

EXECUTIVE SUMMARY

Facility ID: 30-AB-0450
Operational Status: Active
Regulation Status: Notification

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the LUST list, as provided by EDR, has revealed that there are 2 LUST sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
STANDARD CONCRETE	***20851 EL TORO RD***	***SSE 0 - 1/8 (0.106 mi.)***	***B4***	***13***
Database: LUST, Date of Government Version: 09/11/2017				
Database: ORANGE CO. LUST, Date of Government Version: 08/07/2017				
Status: Completed - Case Closed				
Facility Id: 86UT214				
Global Id: T0605902593				
STANDARD CONCRETE CO	***20851 ELTORO RD***	***SSE 0 - 1/8 (0.106 mi.)***	***B5***	***14***
Database: LUST REG 9, Date of Government Version: 03/01/2001				
Closed Date: 6/18/87				
Status: Case Closed				
Case Number: 9UT508				

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, has revealed that there is 1 UST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
SHAHKOT PETROLEUM AR	29080 PORTOLA PKWY	WSW 1/8 - 1/4 (0.239 mi.)	D10	37
Database: UST, Date of Government Version: 09/11/2017				
Database: ORANGE CO. UST, Date of Government Version: 08/07/2017				
Facility Id: FA0052944				
Facility Id: FA0052944				

AST: A listing of aboveground storage tank petroleum storage tank locations.

A review of the AST list, as provided by EDR, and dated 07/06/2016 has revealed that there is 1 AST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
COX COMMUNICATIONS -	20 ICON	NNW 1/8 - 1/4 (0.229 mi.)	C7	21

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Registered Storage Tanks

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there is 1 HIST UST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
STANDARD CONCRETE CO Facility Id: 00000011714	***20851 ELTORO RD***	***SSE 0 - 1/8 (0.106 mi.)***	***B5***	***14***

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 09/13/2017 has revealed that there are 2 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
ALACER CORP A SUBSID	80 ICON RD	NNW 1/8 - 1/4 (0.229 mi.)	C8	22
ARCO FACILITY NO 065	***29080 PORTOLA PKWY***	***WSW 1/8 - 1/4 (0.239 mi.)***	***D11***	***37***

US MINES: Mines Master Index File. The source of this database is the Dept. of Labor, Mine Safety and Health Administration.

A review of the US MINES list, as provided by EDR, has revealed that there is 1 US MINES site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
EL TORO MATERIALS CO Database: US MINES, Date of Government Version: 07/31/2017		WNW 1/8 - 1/4 (0.233 mi.)	9	31

EXECUTIVE SUMMARY

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
STANDARD CONCRETE Reg Id: 9UT508	***20851 EL TORO RD***	***SSE 0 - 1/8 (0.106 mi.)***	***B4***	***13***

Notify 65: 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.

A review of the Notify 65 list, as provided by EDR, and dated 06/16/2017 has revealed that there is 1 Notify 65 site within approximately 1 mile of the target property.

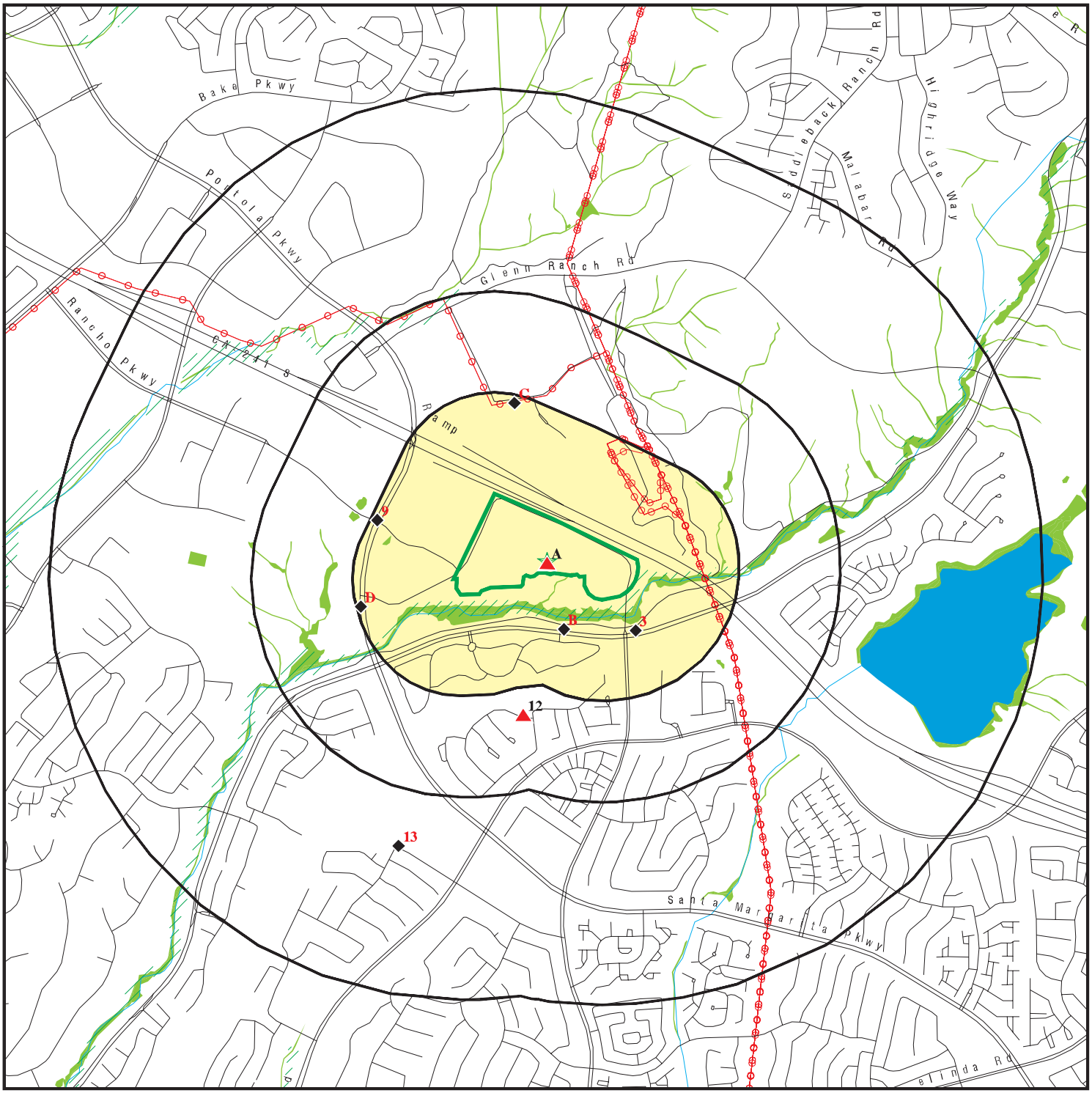
Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CORNER OF LOS ALISOS	SANTA MARGARITA PKWY	S 1/4 - 1/2 (0.317 mi.)	12	39

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 2 records.

Site Name	Database(s)
CREATIVE LANDSCAPING	LUST, HIST CORTESE
USMCAS EL TORO UST 404	LUST

OVERVIEW MAP - 5112840.2S



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

Power transmission lines

100-year flood zone

500-year flood zone

National Wetland Inventory

State Wetlands

Upgradient Area

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: P1E-17-11-009 ADDRESS: 1 Saddleback Parkway Lake Forest CA 92630 LAT/LONG: 33.663461 / 117.645217	CLIENT: Priority One Environmental, Inc. CONTACT: Paul Robinson INQUIRY #: 5112840.2s DATE: November 20, 2017 3:08 pm

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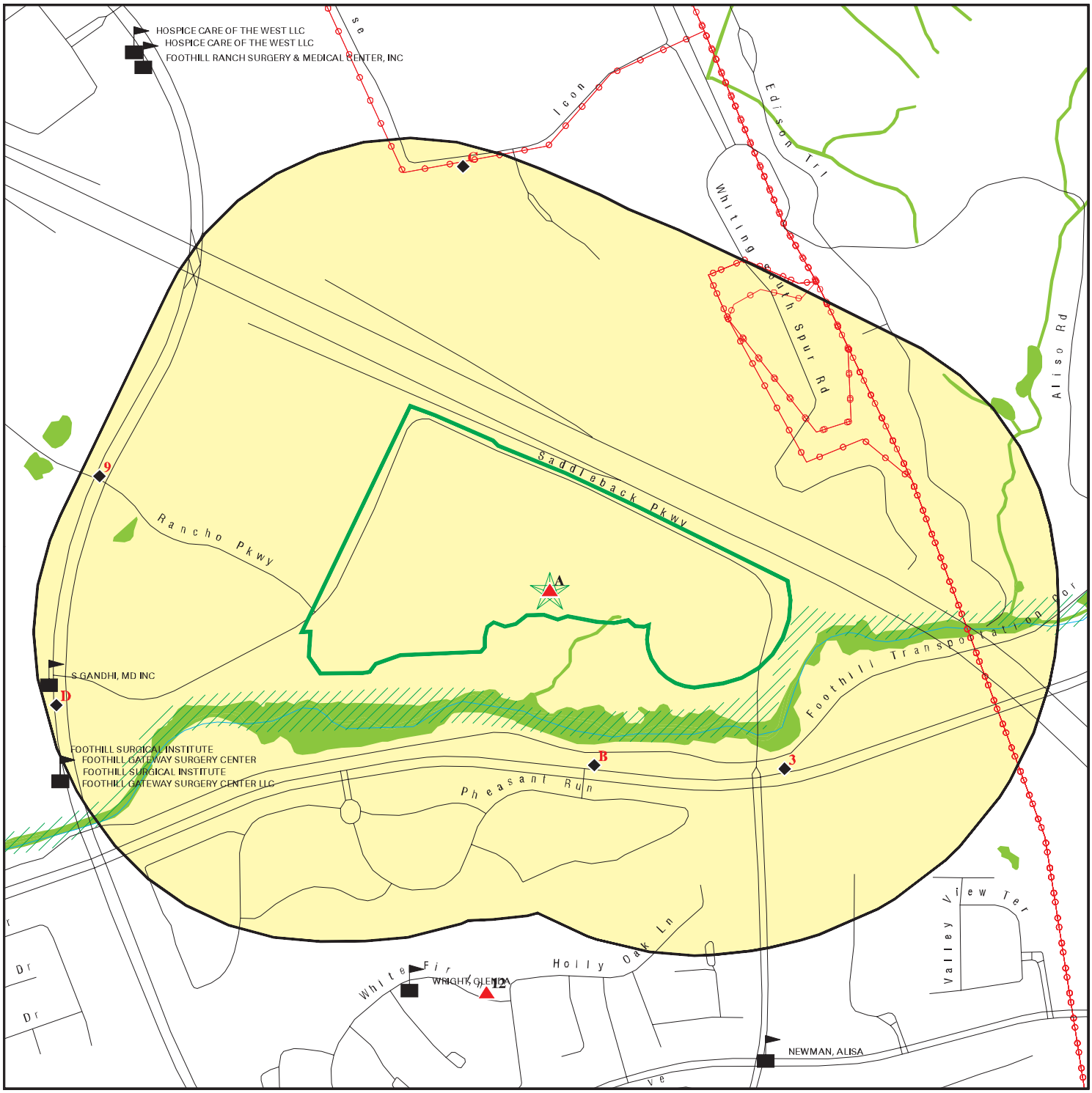
DETAIL MAP - 5112840.2S



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 1/8 1/4 1/2 Miles

Indian Reservations BIA

Power transmission lines

100-year flood zone

500-year flood zone

National Wetland Inventory

State Wetlands

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: P1E-17-11-009	CLIENT: Priority One Environmental, Inc.
ADDRESS: 1 Saddleback Parkway Lake Forest CA 92630	CONTACT: Paul Robinson INQUIRY #: 5112840.2s
LAT/LONG: 33.663461 / 117.645217	DATE: November 20, 2017 3:18 pm

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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	0.001		0	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	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		2	0	NR	NR	NR	2
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.001		0	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	0	1	NR	1
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		1	0	0	NR	NR	1
State and tribal leaking storage tank lists								
LUST	0.500		2	0	0	NR	NR	2

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
INDIAN LUST	0.500		0	0	0	NR	NR	0
SLIC	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	1	NR	NR	NR	1
AST	0.250		0	1	NR	NR	NR	1
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	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								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	0.001		0	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	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
CDL	0.001		0	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		0	0	NR	NR	NR	0
HIST UST	0.250		1	0	NR	NR	NR	1
CA FID UST	0.250		0	0	NR	NR	NR	0
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0
LIENS 2	0.001		0	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	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
CHMIRS	0.001		0	NR	NR	NR	NR	0
LDS	0.001		0	NR	NR	NR	NR	0
MCS	0.001		0	NR	NR	NR	NR	0
Orange Co. Industrial Site	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	2	NR	NR	NR	2
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	0.001		0	NR	NR	NR	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	1	NR	NR	NR	1
ABANDONED MINES	0.001		0	NR	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
ECHO	0.001	1	0	NR	NR	NR	NR	1
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	0	NR	NR	0
CUPA Listings	0.250		0	0	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	0.001		0	NR	NR	NR	NR	0
ENF	0.001		0	NR	NR	NR	NR	0
Financial Assurance	0.001		0	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
HAZNET	0.001	1	0	NR	NR	NR	NR	1
ICE	0.001		0	NR	NR	NR	NR	0
HIST CORTESE	0.500		1	0	0	NR	NR	1
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.001		0	NR	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	0.001	1	0	NR	NR	NR	NR	1
PEST LIC	0.001		0	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	1	0	NR	1
UIC	0.001		0	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	0.001		0	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		3	7	5	1	1	0	17

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 Target Property | **EMERGENCY CLAY MOUND & ROADWAY SLOPE STABILIZATION** | **HAZNET** | **S109442815**
1 SADDLEBACK PKWY | **NPDES** | **N/A**
LAKE FOREST, CA 92630

Site 1 of 2 in cluster A

Actual: 846 ft.

HAZNET:

envid:	S109442815
Year:	2013
GEPAID:	CAL000381407
Contact:	MATT PARMERLEE
Telephone:	9496098000
Mailing Name:	Not reported
Mailing Address:	1 SADDLEBACK PKWY
Mailing City,St,Zip:	LAKE FOREST, CA 92630
Gen County:	Orange
TSD EPA ID:	CAD028409019
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.0834
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Not reported

envid:	S109442815
Year:	2013
GEPAID:	CAL000381407
Contact:	MATT PARMERLEE
Telephone:	9496098000
Mailing Name:	Not reported
Mailing Address:	1 SADDLEBACK PKWY
Mailing City,St,Zip:	LAKE FOREST, CA 92630
Gen County:	Orange
TSD EPA ID:	AZR000501510
TSD County:	99
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.2501
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Not reported

envid:	S109442815
Year:	2013
GEPAID:	CAL000381407
Contact:	MATT PARMERLEE
Telephone:	9496098000
Mailing Name:	Not reported
Mailing Address:	1 SADDLEBACK PKWY
Mailing City,St,Zip:	LAKE FOREST, CA 92630
Gen County:	Orange
TSD EPA ID:	AZR000501510
TSD County:	99
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)

EMERGENCY CLAY MOUND & ROADWAY SLOPE STABILIZATION (Continued) **S109442815**

Tons:	1.417
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Not reported

envid:	S109442815
Year:	2013
GEPAID:	CAL000381407
Contact:	MATT PARMERLEE
Telephone:	9496098000
Mailing Name:	Not reported
Mailing Address:	1 SADDLEBACK PKWY
Mailing City,St,Zip:	LAKE FOREST, CA 92630
Gen County:	Orange
TSD EPA ID:	CAD028409019
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.02085
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Not reported

NPDES:

Npdes Number:	CAS000002
Facility Status:	Active
Agency Id:	0
Region:	9
Regulatory Measure Id:	288087
Order No:	2009-0009-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	9 30C334509
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	05/31/2005
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Saddleback Valley Community
Discharge Address:	1 Saddleback Pkwy
Discharge City:	Lake Forest
Discharge State:	California
Discharge Zip:	92630
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported

EMERGENCY CLAY MOUND & ROADWAY SLOPE STABILIZATION (Continued) **S109442815**

OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	9
Regulatory Measure Id:	288087
Order No:	Not reported
Regulatory Measure Type:	Construction
Place Id:	Not reported
WDID:	9 30C334509
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported

EMERGENCY CLAY MOUND & ROADWAY SLOPE STABILIZATION (Continued) **S109442815**

Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	05/09/2008
PROCESSED DATE:	05/31/2005
STATUS CODE NAME:	Active
STATUS DATE:	05/31/2005
PLACE SIZE:	43
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Michael Post
FACILITY CONTACT TITLE:	Maintenance Manager
FACILITY CONTACT PHONE:	949-609-8064
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	mikep@saddleback.com
OPERATOR NAME:	Saddleback Valley Community
OPERATOR ADDRESS:	1 Saddleback Pkwy
OPERATOR CITY:	Lake Forest
OPERATOR STATE:	California
OPERATOR ZIP:	92630
OPERATOR CONTACT NAME:	Michael Post
OPERATOR CONTACT TITLE:	Maintenance Manager
OPERATOR CONTACT PHONE:	949-609-8064
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	mikep@saddleback.com
OPERATOR TYPE:	Other
DEVELOPER NAME:	Saddleback Valley Community
DEVELOPER ADDRESS:	1 Saddleback Pkwy
DEVELOPER CITY:	Lake Forest
DEVELOPER STATE:	California
DEVELOPER ZIP:	92630
DEVELOPER CONTACT NAME:	Michael Post
DEVELOPER CONTACT TITLE:	Maintenance Manager
CONSTYPE LINEAR UTILITY IND:	N
EMERGENCY PHONE NO:	949-400-6593
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	N
CONSTYPE BELOW GROUND IND:	N
CONSTYPE CABLE LINE IND:	N
CONSTYPE COMM LINE IND:	N
CONSTYPE COMMERTIAL IND:	N
CONSTYPE ELECTRICAL LINE IND:	N
CONSTYPE GAS LINE IND:	N
CONSTYPE INDUSTRIAL IND:	N
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	N
CONSTYPE RECONS IND:	N
CONSTYPE RESIDENTIAL IND:	N
CONSTYPE TRANSPORT IND:	N
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	N
CONSTYPE WATER SEWER IND:	N
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Michael Post

EMERGENCY CLAY MOUND & ROADWAY SLOPE STABILIZATION (Continued) **S109442815**

CERTIFIER TITLE: Assistant Dir Of Transportation
CERTIFICATION DATE: 18-MAY-10
PRIMARY SIC: Not reported
SECONDARY SIC: Not reported
TERTIARY SIC: Not reported

A2 Target Property | **EMERGENCY CLAY MOUND & ROADWAY SLOPE STABILIZATION** | **ECHO** | **1023692873**
1 SADDLEBACK PKWY | **N/A**
LAKE FOREST, CA 92630

Site 2 of 2 in cluster A

Actual: 846 ft.

ECHO:
Envid: 1023692873
Registry ID: 110070089913
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110070089913

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3 SE < 1/8 0.094 mi. 495 ft. | **OC PUBLIC WORKS PORTOLA YARD LVTO** | **SWF/LF** | **S110128088**
20791 EL TORO ROAD | **N/A**
LAKE FOREST, CA

Relative: Lower

Actual: 804 ft.

SWF/LF (SWIS):
Region: STATE
Facility ID: 30-AB-0450
Lat/Long: 33.66112 / -117.65092
Owner Name: Orange County Public Works Department
Owner Telephone: 7149550245
Owner Address: John Harris
Owner Address2: 2301 N. Glassell St.
Owner City,St,Zip: Orange, CA 92865
Operational Status: Active
Operator: Orange County Public Works Department
Operator Phone: 7149550245
Operator Address: John Harris
Operator Address2: 2301 N. Glassell St.
Operator City,St,Zip: Orange, CA 92865
Permit Date: 01/07/2010
Permit Status: Notification
Permitted Acreage: $0.00
Activity: Limited Volume Transfer Operation
Regulation Status: Notification
Landuse Name: Residential,Industrial
GIS Source: Map
Category: Transfer/Processing
Unit Number: 01
Inspection Frequency: Annual
Accepted Waste: Construction/demolition
Closure Date: Not reported
Closure Type: Not reported
Disposal Acreage: Not reported
SWIS Num: 30-AB-0450
Waste Discharge Requirement Num: Not reported
Program Type: Not reported
Permitted Throughput with Units: 30

OC PUBLIC WORKS PORTOLA YARD LVTO (Continued) **S110128088**

Actual Throughput with Units: Cu Yards/day
Permitted Capacity with Units: 500
Remaining Capacity: Not reported
Remaining Capacity with Units: Cu Yards/year
Lat/Long: 33.66112 / -117.65092

B4 STANDARD CONCRETE **LUST** **S103641069**
SSE 20851 EL TORO RD **HIST CORTESE** **N/A**
< 1/8 LAKE FOREST, CA 92630
0.106 mi.
560 ft. **Site 1 of 3 in cluster B**

Relative:
Lower

Actual:
781 ft.

LUST:
Lead Agency: ORANGE COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0605902593
Global Id: T0605902593
Latitude: 33.6611874
Longitude: -117.6454705
Status: Completed - Case Closed
Status Date: 06/18/1987
Case Worker: KL
RB Case Number: 9UT508
Local Agency: ORANGE COUNTY LOP
File Location: Local Agency
Local Case Number: 86UT214
Potential Media Affect: Under Investigation
Potential Contaminants of Concern: Diesel
Site History: Not reported

LUST:
Global Id: T0605902593
Contact Type: Local Agency Caseworker
Contact Name: JAMES STROZIER
Organization Name: ORANGE COUNTY LOP
Address: 1241 E. DYER ROAD SUITE 120
City: SANTA ANA
Email: jstrozier@ochca.com
Phone Number: 7144336273

Global Id: T0605902593
Contact Type: Local Agency Caseworker
Contact Name: KEVIN LAMBERT
Organization Name: ORANGE COUNTY LOP
Address: 1241 E DYER ROAD SUITE 120
City: SANTA ANA
Email: klambert@ochca.com
Phone Number: 7144336261

LUST:
Global Id: T0605902593
Status: Completed - Case Closed
Status Date: 06/18/1987

Global Id: T0605902593
Status: Open - Case Begin Date
Status Date: 06/18/1987

STANDARD CONCRETE (Continued) **S103641069**

ORANGE CO. LUST:

Region:	ORANGE
Facility Id:	86UT214
Released Substance:	Diesel fuel oil and additives, Nos.1-D, 2-D, 2-4
Date Closed:	06/18/1987
Record ID:	RO0001050

HIST CORTESE:

Region:	CORTESE
Facility County Code:	30
Reg By:	LTNKA
Reg Id:	9UT508

B5 **STANDARD CONCRETE CO** **RCRA-SQG** **1000310566**
SSE **20851 ELTORO RD** **LUST** **CAD981662646**
< 1/8 **EL TORO, CA 92630** **HIST UST**
0.106 mi. **FINDS**
560 ft. **Site 2 of 3 in cluster B** **ECHO**
EMI
Relative: **WDS**
Lower

Actual:
781 ft.

RCRA-SQG:

Date form received by agency:	07/11/1991
Facility name:	STANDARD CONCRETE CO
Facility address:	20851 ELTORO RD EL TORO, CA 92630
EPA ID:	CAD981662646
Mailing address:	20851 EL TORO RD EL TORO, CA 92630
Contact:	CARDORA GREG
Contact address:	20851 ELTORO RD EL TORO, CA 92630
Contact country:	US
Contact telephone:	714-951-1592
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	STANDARD CONCRETE MLT INC.
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	415-555-1212
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

STANDARD CONCRETE CO (Continued) **1000310566**

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED
	NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	415-555-1212
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
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:	No
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

LUST REG 9:

Region:	9
Status:	Case Closed
Case Number:	9UT508
Local Case:	86UT214
Substance:	Diesel
Qty Leaked:	Not reported
Abate Method:	Not reported
Local Agency:	Orange
How Found:	Tank Closure
How Stopped:	Close Tank
Source:	Other Source
Cause:	Spill
Lead Agency:	Local Agency
Case Type:	Soil only
Date Found:	10/24/1986
Date Stopped:	10/24/1986
Confirm Date:	11/10/1986
Submit Workplan:	Not reported
Prelim Assess:	/ /
Desc Pollution:	Not reported
Remed Plan:	/ /
Remed Action:	Not reported
Began Monitor:	Not reported
Release Date:	11/10/1986

STANDARD CONCRETE CO (Continued) **1000310566**

Enforce Date: Not reported
Closed Date: 6/18/87
Enforce Type: Not reported
Pilot Program: LOP
Basin Number: 901.20
GW Depth: 11'
Beneficial Use: Not reported
NPDES Number: Not reported
Priority: Not reported
File Dispn: File discarded, case closed
Interim Remedial Actions: Yes
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

HIST UST:

File Number: 0002EE83
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0002EE83.pdf
Region: STATE
Facility ID: 00000011714
Facility Type: Other
Other Type: READY MIX CONCRETE Y
Contact Name: MIKE RICHARDSON
Telephone: 7149513732
Owner Name: STANDARD CONCRETE PRODUCTS
Owner Address: 117 W 4TH ST.
Owner City,St,Zip: SANTA ANA, CA 92705
Total Tanks: 0001

Tank Num: 001
Container Num: #1
Year Installed: 1980
Tank Capacity: 00020000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: 1/4
Leak Detection: Stock Inventor

Click here for Geo Tracker PDF:

FINDS:

Registry ID: 110002741711

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

STANDARD CONCRETE CO (Continued) **1000310566**

ECHO:

Envid:	1000310566
Registry ID:	110002741711
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110002741711

EMI:

Year:	1987
County Code:	30
Air Basin:	SC
Facility ID:	17708
Air District Name:	SC
SIC Code:	1442
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:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	1990
County Code:	30
Air Basin:	SC
Facility ID:	17708
Air District Name:	SC
SIC Code:	1442
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:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	4
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	1
Part. Matter 10 Micrometers and Smllr Tons/Yr:	1

Year:	1993
County Code:	30
Air Basin:	SC
Facility ID:	17708
Air District Name:	SC
SIC Code:	1442
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:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	1
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	2
Part. Matter 10 Micrometers and Smllr Tons/Yr:	1

STANDARD CONCRETE CO (Continued) **1000310566**

Year:	1995
County Code:	30
Air Basin:	SC
Facility ID:	17708
Air District Name:	SC
SIC Code:	1442
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:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	1
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	2
Part. Matter 10 Micrometers and Smllr Tons/Yr:	1

Year:	1997
County Code:	30
Air Basin:	SC
Facility ID:	17708
Air District Name:	SC
SIC Code:	1442
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:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	1
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	1998
County Code:	30
Air Basin:	SC
Facility ID:	17708
Air District Name:	SC
SIC Code:	1442
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:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	1
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	1999
County Code:	30
Air Basin:	SC
Facility ID:	17708
Air District Name:	SC
SIC Code:	1442

STANDARD CONCRETE CO (Continued) **1000310566**

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:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	1
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2000
County Code:	30
Air Basin:	SC
Facility ID:	17708
Air District Name:	SC
SIC Code:	1442
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:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	1
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2001
County Code:	30
Air Basin:	SC
Facility ID:	17708
Air District Name:	SC
SIC Code:	1442
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:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	1
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

WDS:

Facility ID:	San Diego 30I001336
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board

STANDARD CONCRETE CO (Continued) **1000310566**

Subregion:	9
Facility Telephone:	9494541771
Facility Contact:	PACE COREY
Agency Name:	CALMAT CO
Agency Address:	PO Box 2950
Agency City,St,Zip:	Los Angeles 900510950
Agency Contact:	CHIU PETER
Agency Telephone:	3232582777
Agency Type:	Private
SIC Code:	0
SIC Code 2:	Not reported
Primary Waste Type:	Not reported
Primary Waste:	Not reported
Waste Type2:	Not reported
Waste2:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	Not reported
POTW:	Not reported
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

B6 **CALMAT CO EL TORO** **RCRA-SQG** **1001075686**
SSE **20851 EL TORO RD STE 100** **CAR000008243**
< 1/8 **EL TORO, CA 92630**
0.106 mi.
560 ft. **Site 3 of 3 in cluster B**

Relative:
Lower

Actual:
781 ft.

RCRA-SQG:

Date form received by agency:	01/17/1996
Facility name:	CALMAT CO EL TORO
Facility address:	20851 EL TORO RD STE 100 EL TORO, CA 92630
EPA ID:	CAR000008243
Contact:	THOMAS LOWRY
Contact address:	PO BOX 2950 TERMINAL ANNEX LOS ANGELES, CA 90051
Contact country:	US
Contact telephone:	213-258-2777
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous

CALMAT CO EL TORO (Continued) **1001075686**

waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	CALMAT CO
Owner/operator address:	PO BOX 2950 TERMINAL ANNEX LOS ANGELES, CA 90051
Owner/operator country:	Not reported
Owner/operator telephone:	213-258-2777
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
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:	No
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

C7 **COX COMMUNICATIONS - ICON** **AST** **A100419104**
NNW **20 ICON** **N/A**
1/8-1/4 **FOOTHILL RANCH, CA 92610**
0.229 mi.
1209 ft. **Site 1 of 2 in cluster C**

Relative:
Lower

Actual:
839 ft.

AST:

Certified Unified Program Agencies:	Not reported
Owner:	Cox Communications California, LLC
Total Gallons:	Not reported
CERSID:	10653871
Facility ID:	Not reported
Business Name:	COX COMMUNICATIONS ORGANIZATIONAL ACCOUNT
Phone:	949-563-8911
Fax:	Not reported
Mailing Address:	1922 Avenida del Oro/Attn: Environmental Services
Mailing Address City:	Oceanside
Mailing Address State:	CA
Mailing Address Zip Code:	92056
Operator Name:	Cox Communications - Icon
Operator Phone:	949-563-8911
Owner Phone:	949-563-8911

COX COMMUNICATIONS - ICON (Continued) **A100419104**

Owner Mail Address:	5159 Federal Blvd.
Owner State:	CA
Owner Zip Code:	92105
Owner Country:	United States
Property Owner Name:	Not reported
Property Owner Phone:	Not reported
Property Owner Mailing Address:	Not reported
Property Owner City:	Not reported
Property Owner Stat :	Not reported
Property Owner Zip Code:	Not reported
Property Owner Country:	Not reported
EPAID:	CAL000411710

C8 NNW 1/8-1/4 0.229 mi. 1209 ft. **ALACER CORP A SUBSIDIARY OF PFIZER INC** **RCRA NonGen / NLR** **1016447623**
80 ICON RD **CAR000242156**
FOOTHILL RANCH, CA 92610

Site 2 of 2 in cluster C

Relative: Lower

Actual: 839 ft.

RCRA NonGen / NLR:

Date form received by agency:	02/29/2016
Facility name:	ALACER CORP A SUBSIDIARY OF PFIZER INC
Facility address:	80 ICON RD FOOTHILL RANCH, CA 92610
EPA ID:	CAR000242156
Contact:	JOHN WALLS
Contact address:	80 ICON RD FOOTHILL RANCH, CA 92610
Contact country:	US
Contact telephone:	949-268-8831
Contact email:	JOHN.WALLS@PFIZER.COM
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	PFIZER INC
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	01/31/2012
Owner/Op end date:	Not reported

Owner/operator name:	PFIZER INC
Owner/operator address:	235 E 42ND ST NEW YORK, NY 10017
Owner/operator country:	US
Owner/operator telephone:	212-733-2323
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported

ALACER CORP A SUBSIDIARY OF PFIZER INC (Continued) **1016447623**

Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/31/2012
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: No
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

. Waste code: 141
. Waste name: Off-specification, aged, or surplus inorganics

. Waste code: 214
. Waste name: Unspecified solvent mixture

. Waste code: 331
. Waste name: Off-specification, aged, or surplus organics

. Waste code: 341
. Waste name: Organic liquids (nonsolvents) with halogens

. Waste code: 791
. Waste name: Liquids with pH < 2

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: F001
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F002

ALACER CORP A SUBSIDIARY OF PFIZER INC (Continued) **1016447623**

. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F004
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: CRESOLS, CRESYLIC ACID, AND NITROBENZENE; AND THE STILL BOTTOMS FROM THE RECOVERY OF THESE SOLVENTS; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Historical Generators:
Date form received by agency: 02/05/2016
Site name: ALACER CORPORATION, A SUBSIDIARY OF PFIZER INC
Classification: Large Quantity Generator

. Waste code: 122
. Waste name: Alkaline solution without metals (pH > 12.5)

. Waste code: 141
. Waste name: Off-specification, aged, or surplus inorganics

. Waste code: 181
. Waste name: Other inorganic solid waste

. Waste code: 214
. Waste name: Unspecified solvent mixture

ALACER CORP A SUBSIDIARY OF PFIZER INC (Continued) **1016447623**

. Waste code: 331
. Waste name: Off-specification, aged, or surplus organics

. Waste code: 341
. Waste name: Organic liquids (nonsolvents) with halogens

. Waste code: 352
. Waste name: Other organic solids

. Waste code: 551
. Waste name: Laboratory waste chemicals

. Waste code: 725
. Waste name: Liquids with mercury > 20 mg/l

. Waste code: 791
. Waste name: Liquids with pH < 2

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

. Waste code: D011
. Waste name: SILVER

. Waste code: D018
. Waste name: BENZENE

. Waste code: D022
. Waste name: CHLOROFORM

. Waste code: D038
. Waste name: PYRIDINE

. Waste code: F001
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

ALACER CORP A SUBSIDIARY OF PFIZER INC (Continued) **1016447623**

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: P030
. Waste name: CYANIDES (SOLUBLE CYANIDE SALTS), NOT OTHERWISE SPECIFIED

. Waste code: U002
. Waste name: 2-PROPANONE (I) (OR) ACETONE (I)

. Waste code: U003
. Waste name: ACETONITRILE (I,T)

. Waste code: U044
. Waste name: CHLOROFORM (OR) METHANE, TRICHLORO-

. Waste code: U107
. Waste name: 1,2-BENZENEDICARBOXYLIC ACID, DIOCTYL ESTER (OR) DI-N-OCTYL PHTHALATE

. Waste code: U117
. Waste name: ETHANE, 1,1'-OXYBIS-(I) (OR) ETHYL ETHER (I)

. Waste code: U123
. Waste name: FORMIC ACID (C,T)

. Waste code: U154
. Waste name: METHANOL (I) (OR) METHYL ALCOHOL (I)

. Waste code: U188

ALACER CORP A SUBSIDIARY OF PFIZER INC (Continued) **1016447623**

. Waste name: PHENOL

. Waste code: U196
. Waste name: PYRIDINE

. Waste code: U218
. Waste name: ETHANETHIOAMIDE (OR) THIOACETAMIDE

. Waste code: U220
. Waste name: BENZENE, METHYL- (OR) TOLUENE

. Waste code: U404
. Waste name: ETHANAMINE, N,N-DIETHYL- (OR) TRIETHYLAMINE

Date form received by agency: 09/23/2013
Site name: ALACER CORP A SUBSIDIARY OF PFIZER INC
Classification: Small Quantity Generator

. Waste code: 141
. Waste name: Off-specification, aged, or surplus inorganics

. Waste code: 214
. Waste name: Unspecified solvent mixture

. Waste code: 331
. Waste name: Off-specification, aged, or surplus organics

. Waste code: 341
. Waste name: Organic liquids (nonsolvents) with halogens

. Waste code: 791
. Waste name: Liquids with pH < 2

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: F001
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2,

ALACER CORP A SUBSIDIARY OF PFIZER INC (Continued) **1016447623**

TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F004
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: CRESOLS, CRESYLIC ACID, AND NITROBENZENE; AND THE STILL BOTTOMS FROM THE RECOVERY OF THESE SOLVENTS; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Biennial Reports:

Last Biennial Reporting Year: 2017

Annual Waste Handled:

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.
Amount (Lbs): 6530

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE

ALACER CORP A SUBSIDIARY OF PFIZER INC (Continued) **1016447623**

DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.
Amount (Lbs): 2406

Waste code: D003
Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.
Amount (Lbs): 1226

Waste code: D007
Waste name: CHROMIUM
Amount (Lbs): 1226

Waste code: D008
Waste name: LEAD
Amount (Lbs): 1226

Waste code: D009
Waste name: MERCURY
Amount (Lbs): 1227

Waste code: D011
Waste name: SILVER
Amount (Lbs): 1226

Waste code: D022
Waste name: CHLOROFORM
Amount (Lbs): 1226

Waste code: D038
Waste name: PYRIDINE
Amount (Lbs): 1226

Waste code: F003
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Amount (Lbs): 4400

Waste code: F005
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Amount (Lbs): 4400

ALACER CORP A SUBSIDIARY OF PFIZER INC (Continued) **1016447623**

Waste code: P030
Waste name: CYANIDES (SOLUBLE CYANIDE SALTS), NOT OTHERWISE SPECIFIED
Amount (Lbs): 1226

Waste code: U002
Waste name: ACETONE (I)
Amount (Lbs): 2000

Waste code: U003
Waste name: ACETONITRILE (I,T)
Amount (Lbs): 1226

Waste code: U044
Waste name: CHLOROFORM
Amount (Lbs): 1226

Waste code: U107
Waste name: 1,2-BENZENEDICARBOXYLIC ACID, DIOCTYL ESTER
Amount (Lbs): 1226

Waste code: U117
Waste name: ETHANE, 1,1'-OXYBIS-(I)
Amount (Lbs): 1226

Waste code: U123
Waste name: FORMIC ACID (C,T)
Amount (Lbs): 1226

Waste code: U154
Waste name: METHANOL (I)
Amount (Lbs): 2000

Waste code: U188
Waste name: PHENOL
Amount (Lbs): 1226

Waste code: U196
Waste name: PYRIDINE
Amount (Lbs): 1226

Waste code: U218
Waste name: ETHANETHIOAMIDE
Amount (Lbs): 1226

Waste code: U220
Waste name: BENZENE, METHYL-
Amount (Lbs): 2000

Waste code: U404
Waste name: ETHANAMINE, N,N-DIETHYL- (OR) TRIETHYLAMINE
Amount (Lbs): 1226

Violation Status: No violations found

9 WNW 1/8-1/4 0.233 mi. 1230 ft. | **EL TORO MATERIALS CO** | **US MINES** | **1011976210** **N/A**

ORANGE (County), CA

Relative: Lower

Actual: 773 ft.

US MINES:

Mine ID:	0402884
SIC code(s):	144200 000000 000000 000000 000000 000000
Entity name:	EL TORO MATERIALS CO
Company:	EL TORO MATERIALS CO
Status:	4
Status date:	20101117
Operation Class:	non-Coal Mining
Number of shops:	0
Number of plants:	0
Latitude:	33 39 54
Longitude:	117 39 09

Violations Details:

Violation Number:	6354183
Date Issued:	12/08/2003
Mine Status:	Abandoned
Status Date:	11/17/2010
Action Type:	104(a)
Date Abated:	12/10/2003
Citation/Order:	Citation
Sig and Sub Designation:	Y
Proposed Penalty:	144
Paid Penalty:	144
Assessment Status code:	Closed
Assess. Case Status code:	Proposed
Assessment Amount:	144
Year:	2003

Violation Number:	6354180
Date Issued:	12/08/2003
Mine Status:	Abandoned
Status Date:	11/17/2010
Action Type:	104(a)
Date Abated:	12/08/2003
Citation/Order:	Citation
Sig and Sub Designation:	N
Proposed Penalty:	60
Paid Penalty:	60
Assessment Status code:	Closed
Assess. Case Status code:	Proposed
Assessment Amount:	60
Year:	2003

Violation Number:	6354181
Date Issued:	12/08/2003
Mine Status:	Abandoned
Status Date:	11/17/2010
Action Type:	104(a)
Date Abated:	12/08/2003
Citation/Order:	Citation
Sig and Sub Designation:	N
Proposed Penalty:	60

EL TORO MATERIALS CO (Continued) **1011976210**

Paid Penalty:	60
Assessment Status code:	Closed
Assess. Case Status code:	Proposed
Assessment Amount:	60
Year:	2003

Violation Number:	6354182
Date Issued:	12/08/2003
Mine Status:	Abandoned
Status Date:	11/17/2010
Action Type:	104(a)
Date Abated:	12/10/2003
Citation/Order:	Citation
Sig and Sub Designation:	N
Proposed Penalty:	60
Paid Penalty:	60
Assessment Status code:	Closed
Assess. Case Status code:	Proposed
Assessment Amount:	60
Year:	2003

Violation Number:	6354178
Date Issued:	12/08/2003
Mine Status:	Abandoned
Status Date:	11/17/2010
Action Type:	104(a)
Date Abated:	02/09/2004
Citation/Order:	Citation
Sig and Sub Designation:	N
Proposed Penalty:	60
Paid Penalty:	60
Assessment Status code:	Closed
Assess. Case Status code:	Proposed
Assessment Amount:	60
Year:	2003

Violation Number:	6354179
Date Issued:	12/08/2003
Mine Status:	Abandoned
Status Date:	11/17/2010
Action Type:	104(a)
Date Abated:	12/08/2003
Citation/Order:	Citation
Sig and Sub Designation:	N
Proposed Penalty:	60
Paid Penalty:	60
Assessment Status code:	Closed
Assess. Case Status code:	Proposed
Assessment Amount:	60
Year:	2003

Violation Number:	6351694
Date Issued:	09/23/2003
Mine Status:	Abandoned
Status Date:	11/17/2010
Action Type:	104(a)
Date Abated:	09/23/2003

EL TORO MATERIALS CO (Continued) **1011976210**

Citation/Order:	Citation
Sig and Sub Designation:	Y
Proposed Penalty:	321
Paid Penalty:	321
Assessment Status code:	Closed
Assess. Case Status code:	Proposed
Assessment Amount:	321
Year:	2003

Violation Number:	6351677
Date Issued:	09/16/2003
Mine Status:	Abandoned
Status Date:	11/17/2010
Action Type:	104(a)
Date Abated:	09/16/2003
Citation/Order:	Citation
Sig and Sub Designation:	N
Proposed Penalty:	60
Paid Penalty:	60
Assessment Status code:	Closed
Assess. Case Status code:	Proposed
Assessment Amount:	60
Year:	2003

Violation Number:	6351678
Date Issued:	09/16/2003
Mine Status:	Abandoned
Status Date:	11/17/2010
Action Type:	104(a)
Date Abated:	09/16/2003
Citation/Order:	Citation
Sig and Sub Designation:	N
Proposed Penalty:	226
Paid Penalty:	60
Assessment Status code:	Closed
Assess. Case Status code:	Proposed
Assessment Amount:	60
Year:	2003

Violation Number:	6397135
Date Issued:	09/07/2006
Mine Status:	Abandoned
Status Date:	11/17/2010
Action Type:	104(a)
Date Abated:	09/07/2006
Citation/Order:	Citation
Sig and Sub Designation:	N
Proposed Penalty:	305.00
Paid Penalty:	305.00
Assessment Status code:	Closed
Assess. Case Status code:	Proposed
Assessment Amount:	305.00
Year:	2006

Violation Number:	6397134
Date Issued:	09/06/2006
Mine Status:	Abandoned

EL TORO MATERIALS CO (Continued) **1011976210**

Status Date:	11/17/2010
Action Type:	104(a)
Date Abated:	09/06/2006
Citation/Order:	Citation
Sig and Sub Designation:	N
Proposed Penalty:	963.00
Paid Penalty:	867.00
Assessment Status code:	Closed
Assess. Case Status code:	Proposed
Assessment Amount:	867.00
Year:	2006

Violation Number:	6397133
Date Issued:	09/06/2006
Mine Status:	Abandoned
Status Date:	11/17/2010
Action Type:	104(a)
Date Abated:	09/06/2006
Citation/Order:	Citation
Sig and Sub Designation:	N
Proposed Penalty:	723.00
Paid Penalty:	0.41
Assessment Status code:	Closed
Assess. Case Status code:	Proposed
Assessment Amount:	60.00
Year:	2006

Violation Number:	6397132
Date Issued:	09/06/2006
Mine Status:	Abandoned
Status Date:	11/17/2010
Action Type:	104(a)
Date Abated:	09/07/2006
Citation/Order:	Citation
Sig and Sub Designation:	N
Proposed Penalty:	350.00
Paid Penalty:	0.00
Assessment Status code:	Closed
Assess. Case Status code:	Proposed
Assessment Amount:	0.00
Year:	2006

Violation Number:	6397130
Date Issued:	09/06/2006
Mine Status:	Abandoned
Status Date:	11/17/2010
Action Type:	104(a)
Date Abated:	09/06/2006
Citation/Order:	Citation
Sig and Sub Designation:	Y
Proposed Penalty:	723.00
Paid Penalty:	723.00
Assessment Status code:	Closed
Assess. Case Status code:	Proposed
Assessment Amount:	723.00
Year:	2006

EL TORO MATERIALS CO (Continued) **1011976210**

Violation Number:	6397131
Date Issued:	09/06/2006
Mine Status:	Abandoned
Status Date:	11/17/2010
Action Type:	104(a)
Date Abated:	09/06/2006
Citation/Order:	Citation
Sig and Sub Designation:	Y
Proposed Penalty:	375.00
Paid Penalty:	375.00
Assessment Status code:	Closed
Assess. Case Status code:	Proposed
Assessment Amount:	375.00
Year:	2006

Violation Number:	6376765
Date Issued:	08/31/2005
Mine Status:	Abandoned
Status Date:	11/17/2010
Action Type:	104(g)(1)
Date Abated:	08/31/2005
Citation/Order:	Order
Sig and Sub Designation:	Y
Proposed Penalty:	878.00
Paid Penalty:	878.00
Assessment Status code:	Closed
Assess. Case Status code:	Proposed
Assessment Amount:	878.00
Year:	2005

Violation Number:	6376764
Date Issued:	08/31/2005
Mine Status:	Abandoned
Status Date:	11/17/2010
Action Type:	104(g)(1)
Date Abated:	08/31/2005
Citation/Order:	Order
Sig and Sub Designation:	N
Proposed Penalty:	437.00
Paid Penalty:	437.00
Assessment Status code:	Closed
Assess. Case Status code:	Proposed
Assessment Amount:	437.00
Year:	2005

Violation Number:	6376766
Date Issued:	08/31/2005
Mine Status:	Abandoned
Status Date:	11/17/2010
Action Type:	104(g)(1)
Date Abated:	08/31/2005
Citation/Order:	Order
Sig and Sub Designation:	Y
Proposed Penalty:	878.00
Paid Penalty:	878.00
Assessment Status code:	Closed
Assess. Case Status code:	Proposed

EL TORO MATERIALS CO (Continued) **1011976210**

Assessment Amount:	878.00
Year:	2005

Violation Number:	6376759
Date Issued:	08/30/2005
Mine Status:	Abandoned
Status Date:	11/17/2010
Action Type:	104(a)
Date Abated:	08/30/2005
Citation/Order:	Citation
Sig and Sub Designation:	N
Proposed Penalty:	60.00
Paid Penalty:	60.00
Assessment Status code:	Closed
Assess. Case Status code:	Proposed
Assessment Amount:	60.00
Year:	2005

Violation Number:	6376763
Date Issued:	08/30/2005
Mine Status:	Abandoned
Status Date:	11/17/2010
Action Type:	104(a)
Date Abated:	08/30/2005
Citation/Order:	Citation
Sig and Sub Designation:	N
Proposed Penalty:	60.00
Paid Penalty:	60.00
Assessment Status code:	Closed
Assess. Case Status code:	Proposed
Assessment Amount:	60.00
Year:	2005

EL TORO MATERIALS CO (Continued) **1011976210**

Click this hyperlink while viewing on your computer to access
41 additional US_MINES: record(s) in the EDR Site Report.

D10 **SHAHKOT PETROLEUM ARCO** **UST** **U003920411**
WSW **29080 PORTOLA PKWY** **N/A**
1/8-1/4 **LAKE FOREST, CA 92630**
0.239 mi.
1261 ft. **Site 1 of 2 in cluster D**

Relative:
Lower

Actual:
802 ft.

UST:

Facility ID:	FA0052944
Permitting Agency:	Orange County Environmental Health
Latitude:	33.66268
Longitude:	-117.65371

ORANGE CO. UST:
Facility ID: FA0052944

D11 **ARCO FACILITY NO 06540** **RCRA NonGen / NLR** **1006805680**
WSW **29080 PORTOLA PKWY** **FINDS** **CAR000131003**
1/8-1/4 **LAKE FOREST, CA 92630** **ECHO**
0.239 mi.
1261 ft. **Site 2 of 2 in cluster D**

Relative:
Lower

Actual:
802 ft.

RCRA NonGen / NLR:

Date form received by agency:	02/19/2009
Facility name:	ARCO FACILITY NO 06540
Facility address:	29080 PORTOLA PKWY LAKE FOREST, CA 92630
EPA ID:	CAR000131003
Mailing address:	25971 TOWNE CENTRE DR FOOTHILL RANCH, CA 92610
Contact:	JACKIE DOUGHERTY
Contact address:	25971 TOWNE CENTRE DR FOOTHILL RANCH, CA 92610
Contact country:	US
Contact telephone:	949-460-5200
Contact email:	JACKIE@BELSHIRE.COM
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	BP WEST COAST PRODUCTS LLC
Owner/operator address:	Not reported Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	12/18/2002
Owner/Op end date:	Not reported

ARCO FACILITY NO 06540 (Continued) **1006805680**

Owner/operator name: BP WEST COAST PRODUCTS LLC
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 12/18/2002
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: No
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

Historical Generators:
Date form received by agency: 01/08/2003
Site name: ARCO FACILITY NO 06540
Classification: Small Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D018
. Waste name: BENZENE

Violation Status: No violations found

FINDS:

Registry ID: 110014377281

Environmental Interest/Information System
California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA

ARCO FACILITY NO 06540 (Continued) **1006805680**

program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1006805680
Registry ID:	110014377281
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110014377281

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12 South 1/4-1/2 0.317 mi. 1676 ft. **CORNER OF LOS ALISOS BLVD. & SANTA MARGARITA PKWY. MISSION VIEJO, CA 90305** **Notify 65** **S100178423 N/A**

Relative: Higher

Actual: 846 ft.

NOTIFY 65:

Date Reported:	Not reported
Staff Initials:	Not reported
Board File Number:	Not reported
Facility Type:	Not reported
Discharge Date:	Not reported
Issue Date:	Not reported
Incident Description:	Not reported

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13 SSW 1/2-1 0.639 mi. 3375 ft. **TRABUCO HILLS HIGH SCHOOL 27501 MUSTANG RUN MISSION VIEJO, CA 92691** **ENVIROSTOR SCH** **S118757352 N/A**

Relative: Lower

Actual: 758 ft.

ENVIROSTOR:

Facility ID:	70000043
Status:	No Action Required
Status Date:	10/12/2005
Site Code:	404649
Site Type:	School Investigation
Site Type Detailed:	School
Acres:	6.4
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Not reported
Supervisor:	Javier Hinojosa
Division Branch:	Southern California Schools & Brownfields Outreach
Assembly:	73
Senate:	36
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	School District
Latitude:	33.65448
Longitude:	-117.6514
APN:	837-551-01

TRABUCO HILLS HIGH SCHOOL (Continued) **S118757352**

Past Use: NONE
Potential COC: NONE SPECIFIED No Contaminants found
Confirmed COC: NONE SPECIFIED
Potential Description: NMA
Alias Name: 837-551-01
Alias Type: APN
Alias Name: 404649
Alias Type: Project Code (Site Code)
Alias Name: 70000043
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 10/12/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 10/04/2005
Comments: No Action

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

SCH:

Facility ID: 70000043
Site Type: School Investigation
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 6.4
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Not reported
Supervisor: Javier Hinojosa
Division Branch: Southern California Schools & Brownfields Outreach
Site Code: 404649
Assembly: 73
Senate: 36
Special Program Status: Not reported
Status: No Action Required
Status Date: 10/12/2005
Restricted Use: NO
Funding: School District
Latitude: 33.65448

TRABUCO HILLS HIGH SCHOOL (Continued) **S118757352**

Longitude:	-117.6514
APN:	837-551-01
Past Use:	NONE
Potential COC:	NONE SPECIFIED, No Contaminants found
Confirmed COC:	NONE SPECIFIED
Potential Description:	NMA
Alias Name:	837-551-01
Alias Type:	APN
Alias Name:	404649
Alias Type:	Project Code (Site Code)
Alias Name:	70000043
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	10/12/2005
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Phase 1
Completed Date:	10/04/2005
Comments:	No Action
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: 2 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
EL TORO	S105180834	USMCAS EL TORO UST 404	USMCAS EL TORO UST 404		LUST
TRABUCO CANYON	S102428474	CREATIVE LANDSCAPING	19120 EL TORO RD	92679	LUST, HIST CORTESE

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: 05/30/2017
Date Data Arrived at EDR: 06/08/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 99

Source: EPA
Telephone: N/A
Last EDR Contact: 11/03/2017
Next Scheduled EDR Contact: 01/15/2018
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: 05/30/2017
Date Data Arrived at EDR: 06/09/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 98

Source: EPA
Telephone: N/A
Last EDR Contact: 11/03/2017
Next Scheduled EDR Contact: 01/15/2018
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: 05/30/2017	Source: EPA
Date Data Arrived at EDR: 06/09/2017	Telephone: N/A
Date Made Active in Reports: 09/15/2017	Last EDR Contact: 11/03/2017
Number of Days to Update: 98	Next Scheduled EDR Contact: 01/15/2018
	Data Release Frequency: Quarterly

Federal CERCLIS list

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: 11/07/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/05/2017	Telephone: 703-603-8704
Date Made Active in Reports: 04/07/2017	Last EDR Contact: 10/06/2017
Number of Days to Update: 92	Next Scheduled EDR Contact: 01/15/2018
	Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list 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). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 07/11/2017	Source: EPA
Date Data Arrived at EDR: 07/21/2017	Telephone: 800-424-9346
Date Made Active in Reports: 10/06/2017	Last EDR Contact: 11/03/2017
Number of Days to Update: 77	Next Scheduled EDR Contact: 01/29/2018
	Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS 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 the 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. The 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 potential NPL site.

Date of Government Version: 07/11/2017
Date Data Arrived at EDR: 07/28/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 70

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 11/03/2017
Next Scheduled EDR Contact: 01/29/2018
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: 09/13/2017
Date Data Arrived at EDR: 09/26/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 10

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
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: 09/13/2017
Date Data Arrived at EDR: 09/26/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 10

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
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: 09/13/2017
Date Data Arrived at EDR: 09/26/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 10

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
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: 09/13/2017
Date Data Arrived at EDR: 09/26/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 10

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
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: 09/13/2017
Date Data Arrived at EDR: 09/26/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 10

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

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: 05/22/2017
Date Data Arrived at EDR: 06/13/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 94

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 11/08/2017
Next Scheduled EDR Contact: 02/26/2018
Data Release Frequency: Varies

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: 08/10/2017
Date Data Arrived at EDR: 08/30/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/30/2017
Next Scheduled EDR Contact: 12/11/2017
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: 08/10/2017
Date Data Arrived at EDR: 08/30/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/30/2017
Next Scheduled EDR Contact: 12/11/2017
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: 09/18/2017
Date Data Arrived at EDR: 09/21/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 22

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 09/21/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Quarterly

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: 07/31/2017
Date Data Arrived at EDR: 08/01/2017
Date Made Active in Reports: 08/15/2017
Number of Days to Update: 14

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 10/31/2017
Next Scheduled EDR Contact: 02/12/2018
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: 07/31/2017
Date Data Arrived at EDR: 08/01/2017
Date Made Active in Reports: 08/15/2017
Number of Days to Update: 14

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 10/31/2017
Next Scheduled EDR Contact: 02/12/2018
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: 08/14/2017
Date Data Arrived at EDR: 08/17/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 35

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 11/14/2017
Next Scheduled EDR Contact: 02/26/2018
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

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

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 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: Leaking Underground Fuel Tank Report (GEOTRACKER)
Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 09/11/2017
Date Data Arrived at EDR: 09/12/2017
Date Made Active in Reports: 11/09/2017
Number of Days to Update: 58

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 09/12/2017
Next Scheduled EDR Contact: 12/25/2017
Data Release Frequency: Quarterly

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 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 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 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 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 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 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

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 10/07/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 11/07/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Quarterly

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: 04/13/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
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: 04/14/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
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: 04/24/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
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: 10/14/2016
Date Data Arrived at EDR: 01/27/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 98

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Semi-Annually

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: 04/14/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

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: 04/26/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

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: 05/01/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

SLIC: Statewide SLIC Cases (GEOTRACKER)
Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 09/11/2017
Date Data Arrived at EDR: 09/12/2017
Date Made Active in Reports: 11/09/2017
Number of Days to Update: 58

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/12/2017
Next Scheduled EDR Contact: 12/25/2017
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

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 05/15/2017
Date Data Arrived at EDR: 05/30/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 136

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 10/13/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 09/11/2017
Date Data Arrived at EDR: 09/12/2017
Date Made Active in Reports: 11/08/2017
Number of Days to Update: 57

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 09/12/2017
Next Scheduled EDR Contact: 12/25/2017
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: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 09/25/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Quarterly

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: 10/01/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
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: 05/02/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

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: 04/25/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
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: 10/14/2016
Date Data Arrived at EDR: 01/27/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 98

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Semi-Annually

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: 04/14/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
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: 05/01/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

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: 04/13/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

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: 04/26/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
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: 07/31/2017
Date Data Arrived at EDR: 08/01/2017
Date Made Active in Reports: 08/15/2017
Number of Days to Update: 14

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 10/31/2017
Next Scheduled EDR Contact: 02/12/2018
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: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 09/25/2017
Next Scheduled EDR Contact: 01/08/2018
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

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfieds Sites Listing
A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 09/21/2017
Date Data Arrived at EDR: 09/21/2017
Date Made Active in Reports: 11/09/2017
Number of Days to Update: 49

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 09/21/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Quarterly

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: 06/19/2017
Date Data Arrived at EDR: 06/20/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 87

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 09/20/2017
Next Scheduled EDR Contact: 01/01/2018
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

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: 11/06/2017
Next Scheduled EDR Contact: 02/19/2018
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 09/11/2017
Date Data Arrived at EDR: 09/12/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 9

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 09/12/2017
Next Scheduled EDR Contact: 12/25/2017
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 05/30/2017
Date Data Arrived at EDR: 05/31/2017
Date Made Active in Reports: 08/15/2017
Number of Days to Update: 76

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 11/09/2017
Next Scheduled EDR Contact: 02/26/2018
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: 10/30/2017
Next Scheduled EDR Contact: 02/12/2018
Data Release Frequency: Varies

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: 10/20/2017
Next Scheduled EDR Contact: 02/05/2018
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

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 11/03/2017
Next Scheduled EDR Contact: 02/12/2018
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register
A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 07/13/2017
Date Data Arrived at EDR: 09/06/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 30

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/30/2017
Next Scheduled EDR Contact: 12/11/2017
Data Release Frequency: No Update Planned

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: 07/31/2017
Date Data Arrived at EDR: 08/01/2017
Date Made Active in Reports: 08/15/2017
Number of Days to Update: 14

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 10/31/2017
Next Scheduled EDR Contact: 02/12/2018
Data Release Frequency: Quarterly

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: 06/30/2017
Date Data Arrived at EDR: 08/18/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 34

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 10/10/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: Varies

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

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: 07/13/2017
Date Data Arrived at EDR: 09/06/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 30

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/30/2017
Next Scheduled EDR Contact: 12/11/2017
Data Release Frequency: Quarterly

Local Lists of Registered Storage Tanks

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

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 06/02/2017
Date Data Arrived at EDR: 06/06/2017
Date Made Active in Reports: 08/25/2017
Number of Days to Update: 80

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 11/07/2017
Next Scheduled EDR Contact: 12/11/2017
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

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

Local Land Records

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 08/31/2017
Date Data Arrived at EDR: 09/05/2017
Date Made Active in Reports: 11/08/2017
Number of Days to Update: 64

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/31/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Varies

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: 07/11/2017
Date Data Arrived at EDR: 07/26/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 11/03/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Semi-Annually

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: 09/05/2017
Date Data Arrived at EDR: 09/06/2017
Date Made Active in Reports: 11/08/2017
Number of Days to Update: 63

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 09/06/2017
Next Scheduled EDR Contact: 12/18/2017
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: 09/21/2017
Date Data Arrived at EDR: 09/21/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 22

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 09/21/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Quarterly

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: 05/09/2017
Date Data Arrived at EDR: 07/26/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 57

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing (GEOTRACKER)

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 09/11/2017
Date Data Arrived at EDR: 09/12/2017
Date Made Active in Reports: 11/09/2017
Number of Days to Update: 58

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/12/2017
Next Scheduled EDR Contact: 12/25/2017
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 09/11/2017
Date Data Arrived at EDR: 09/12/2017
Date Made Active in Reports: 11/09/2017
Number of Days to Update: 58

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/12/2017
Next Scheduled EDR Contact: 12/25/2017
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 / No Longer Regulated

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: 09/13/2017
Date Data Arrived at EDR: 09/26/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 10

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Quarterly

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: 01/31/2015
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 08/25/2017
Next Scheduled EDR Contact: 12/04/2017
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: 10/13/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: Semi-Annually

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: 10/11/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: N/A

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: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 11/17/2017
Next Scheduled EDR Contact: 02/26/2018
Data Release Frequency: Varies

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: 05/10/2017
Date Data Arrived at EDR: 05/17/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 121

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 11/01/2017
Next Scheduled EDR Contact: 01/08/2018
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: 11/06/2017
Next Scheduled EDR Contact: 02/19/2018
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: 04/22/2013
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 11/09/2017
Next Scheduled EDR Contact: 02/19/2018
Data Release Frequency: Varies

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: 09/22/2017
Next Scheduled EDR Contact: 01/01/2018
Data Release Frequency: Every 4 Years

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: 12/31/2014
Date Data Arrived at EDR: 11/24/2015
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 133

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 08/23/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Annually

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: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Annually

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: 09/27/2017
Date Data Arrived at EDR: 10/12/2017
Date Made Active in Reports: 10/20/2017
Number of Days to Update: 8

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 11/03/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Annually

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: 02/01/2017
Date Data Arrived at EDR: 02/09/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 10/23/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

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

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: 11/03/2017
Next Scheduled EDR Contact: 02/19/2018
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: 06/01/2017
Date Data Arrived at EDR: 06/09/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 126

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 10/13/2017
Next Scheduled EDR Contact: 01/22/2018
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: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 10/11/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: Quarterly

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: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
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: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

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: 08/30/2016
Date Data Arrived at EDR: 09/08/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 43

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 10/16/2017
Next Scheduled EDR Contact: 11/20/2017
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant 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: 10/03/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Varies

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: 09/08/2017
Next Scheduled EDR Contact: 12/18/2017
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: 10/26/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

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: 10/02/2017
Date Data Arrived at EDR: 10/05/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 10/05/2017
Next Scheduled EDR Contact: 01/15/2018
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

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: 10/31/2017
Next Scheduled EDR Contact: 02/12/2018
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: 06/30/2017
Date Data Arrived at EDR: 08/03/2017
Date Made Active in Reports: 10/20/2017
Number of Days to Update: 78

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 09/25/2017
Next Scheduled EDR Contact: 01/08/2018
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: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 09/21/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Biennially

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: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 10/11/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 12/23/2016
Date Data Arrived at EDR: 12/27/2016
Date Made Active in Reports: 02/17/2017
Number of Days to Update: 52

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 11/02/2017
Next Scheduled EDR Contact: 02/19/2018
Data Release Frequency: Varies

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: 06/23/2017
Date Data Arrived at EDR: 10/11/2017
Date Made Active in Reports: 11/03/2017
Number of Days to Update: 23

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 10/10/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites
A listing of former lead smelter site locations.

Date of Government Version: 05/30/2017
Date Data Arrived at EDR: 06/09/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 98

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 11/03/2017
Next Scheduled EDR Contact: 01/15/2018
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

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: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data
A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

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: 07/31/2017
Date Data Arrived at EDR: 08/30/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 44

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 08/30/2017
Next Scheduled EDR Contact: 12/11/2017
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing
This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 09/01/2017
Next Scheduled EDR Contact: 12/11/2017
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 09/01/2017
Next Scheduled EDR Contact: 12/11/2017
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 09/25/2017
Date Data Arrived at EDR: 09/26/2017
Date Made Active in Reports: 10/20/2017
Number of Days to Update: 24

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 09/25/2017
Next Scheduled EDR Contact: 12/25/2017
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: 07/23/2017
Date Data Arrived at EDR: 09/06/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 9

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 09/06/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 02/13/2017
Date Data Arrived at EDR: 02/15/2017
Date Made Active in Reports: 11/03/2017
Number of Days to Update: 261

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 09/21/2017
Next Scheduled EDR Contact: 12/11/2017
Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 09/02/2017
Date Data Arrived at EDR: 09/06/2017
Date Made Active in Reports: 10/20/2017
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 09/06/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites
A listing of unexploded ordnance site locations

Date of Government Version: 10/25/2016
Date Data Arrived at EDR: 06/02/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 133

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 10/16/2017
Next Scheduled EDR Contact: 01/29/2018
Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 08/17/2017
Date Data Arrived at EDR: 08/17/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 29

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 08/17/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

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

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: 09/21/2017
Date Data Arrived at EDR: 09/21/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 22

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 09/21/2017
Next Scheduled EDR Contact: 01/01/2018
Data Release Frequency: Quarterly

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: 08/02/2017
Date Data Arrived at EDR: 08/08/2017
Date Made Active in Reports: 10/16/2017
Number of Days to Update: 69

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 08/08/2017
Next Scheduled EDR Contact: 12/18/2017
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: 12/31/2015
Date Data Arrived at EDR: 03/21/2017
Date Made Active in Reports: 08/15/2017
Number of Days to Update: 147

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 09/22/2017
Next Scheduled EDR Contact: 01/01/2018
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: 08/18/2017
Date Data Arrived at EDR: 08/22/2017
Date Made Active in Reports: 10/24/2017
Number of Days to Update: 63

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 11/01/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 07/21/2017
Date Data Arrived at EDR: 07/25/2017
Date Made Active in Reports: 10/17/2017
Number of Days to Update: 84

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 10/23/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

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: 08/15/2017
Date Data Arrived at EDR: 08/22/2017
Date Made Active in Reports: 10/25/2017
Number of Days to Update: 64

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 11/09/2017
Next Scheduled EDR Contact: 02/26/2018
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. This database begins with calendar year 1993.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 07/12/2017
Date Made Active in Reports: 10/17/2017
Number of Days to Update: 97

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 10/10/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 08/21/2017
Date Data Arrived at EDR: 08/22/2017
Date Made Active in Reports: 10/25/2017
Number of Days to Update: 64

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 08/22/2017
Next Scheduled EDR Contact: 12/04/2017
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

HWP: EnviroStor Permitted Facilities Listing
Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 08/21/2017
Date Data Arrived at EDR: 08/22/2017
Date Made Active in Reports: 10/25/2017
Number of Days to Update: 64

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/22/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

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: 10/10/2017
Date Data Arrived at EDR: 10/10/2017
Date Made Active in Reports: 10/17/2017
Number of Days to Update: 7

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 10/10/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing
A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 09/11/2017
Date Data Arrived at EDR: 09/12/2017
Date Made Active in Reports: 11/01/2017
Number of Days to Update: 50

Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 09/12/2017
Next Scheduled EDR Contact: 12/25/2017
Data Release Frequency: Quarterly

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: 09/01/2017
Date Data Arrived at EDR: 09/06/2017
Date Made Active in Reports: 11/08/2017
Number of Days to Update: 63

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 09/06/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 08/14/2017
Date Data Arrived at EDR: 08/17/2017
Date Made Active in Reports: 10/17/2017
Number of Days to Update: 61

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 11/14/2017
Next Scheduled EDR Contact: 02/26/2018
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing
A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 09/05/2017
Date Data Arrived at EDR: 09/06/2017
Date Made Active in Reports: 11/08/2017
Number of Days to Update: 63

Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 09/06/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Quarterly

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 09/11/2017
Date Data Arrived at EDR: 09/12/2017
Date Made Active in Reports: 10/18/2017
Number of Days to Update: 36

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 09/12/2017
Next Scheduled EDR Contact: 12/25/2017
Data Release Frequency: Quarterly

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: 06/16/2017
Date Data Arrived at EDR: 06/20/2017
Date Made Active in Reports: 10/17/2017
Number of Days to Update: 119

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 09/18/2017
Next Scheduled EDR Contact: 01/01/2018
Data Release Frequency: No Update Planned

UIC: UIC Listing
A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 01/20/2017
Date Data Arrived at EDR: 03/14/2017
Date Made Active in Reports: 05/03/2017
Number of Days to Update: 50

Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 09/12/2017
Next Scheduled EDR Contact: 12/25/2017
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing
Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water board?s review found that more than one-third of the region?s active disposal pits are operating without permission.

Date of Government Version: 04/15/2015
Date Data Arrived at EDR: 04/17/2015
Date Made Active in Reports: 06/23/2015
Number of Days to Update: 67

Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 10/13/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: Varies

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: 11/14/2017
Next Scheduled EDR Contact: 03/05/2018
Data Release Frequency: Quarterly

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: 09/25/2017
Next Scheduled EDR Contact: 01/08/2018
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 Hist Auto: EDR Exclusive Historical Auto 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 Hist Cleaner: EDR Exclusive Historical 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

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: 09/22/2017
Date Data Arrived at EDR: 09/22/2017
Date Made Active in Reports: 10/10/2017
Number of Days to Update: 18

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 09/21/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 10/11/2017
Date Data Arrived at EDR: 10/12/2017
Date Made Active in Reports: 11/08/2017
Number of Days to Update: 27

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 10/10/2017
Next Scheduled EDR Contact: 04/24/2047
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA Facility List

Cupa Facility List

Date of Government Version: 09/13/2017
Date Data Arrived at EDR: 09/15/2017
Date Made Active in Reports: 11/14/2017
Number of Days to Update: 60

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 08/31/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA Facility Listing

Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 09/18/2017
Next Scheduled EDR Contact: 10/23/2017
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 08/31/2017
Date Data Arrived at EDR: 09/05/2017
Date Made Active in Reports: 11/08/2017
Number of Days to Update: 64

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 09/05/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 08/07/2017
Date Data Arrived at EDR: 08/08/2017
Date Made Active in Reports: 10/16/2017
Number of Days to Update: 69

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 11/01/2017
Next Scheduled EDR Contact: 02/19/2018
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 08/17/2017
Date Data Arrived at EDR: 08/22/2017
Date Made Active in Reports: 10/25/2017
Number of Days to Update: 64

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 10/30/2017
Next Scheduled EDR Contact: 02/12/2018
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List
Cupa Facility list

Date of Government Version: 10/31/2017
Date Data Arrived at EDR: 11/01/2017
Date Made Active in Reports: 11/14/2017
Number of Days to Update: 13

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 10/25/2017
Next Scheduled EDR Contact: 02/12/2018
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 08/18/2017
Date Data Arrived at EDR: 08/22/2017
Date Made Active in Reports: 10/24/2017
Number of Days to Update: 63

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 10/30/2017
Next Scheduled EDR Contact: 02/12/2018
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: 10/03/2017
Date Data Arrived at EDR: 10/06/2017
Date Made Active in Reports: 11/15/2017
Number of Days to Update: 40

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 09/27/2017
Next Scheduled EDR Contact: 01/15/2018
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 10/25/2017
Date Data Arrived at EDR: 10/27/2017
Date Made Active in Reports: 11/15/2017
Number of Days to Update: 19

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 10/23/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

HUMBOLDT COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 08/03/2017
Date Data Arrived at EDR: 08/08/2017
Date Made Active in Reports: 10/16/2017
Number of Days to Update: 69

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 11/14/2017
Next Scheduled EDR Contact: 03/05/2018
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 10/23/2017
Date Data Arrived at EDR: 10/24/2017
Date Made Active in Reports: 11/15/2017
Number of Days to Update: 22

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 10/23/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 06/08/2017
Date Data Arrived at EDR: 06/09/2017
Date Made Active in Reports: 08/04/2017
Number of Days to Update: 56

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 11/14/2017
Next Scheduled EDR Contact: 03/05/2018
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 08/07/2017
Date Data Arrived at EDR: 08/08/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 44

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 11/01/2017
Next Scheduled EDR Contact: 02/19/2018
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: 09/22/2017
Date Data Arrived at EDR: 09/22/2017
Date Made Active in Reports: 10/16/2017
Number of Days to Update: 24

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 11/14/2017
Next Scheduled EDR Contact: 03/05/2018
Data Release Frequency: Varies

LAKE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 11/09/2017
Date Data Arrived at EDR: 11/10/2017
Date Made Active in Reports: 11/15/2017
Number of Days to Update: 5

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 10/16/2017
Next Scheduled EDR Contact: 01/29/2018
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 07/24/2017
Date Data Arrived at EDR: 07/26/2017
Date Made Active in Reports: 10/16/2017
Number of Days to Update: 82

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 10/23/2017
Next Scheduled EDR Contact: 02/05/2018
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: 09/18/2017
Next Scheduled EDR Contact: 01/01/2018
Data Release Frequency: No Update Planned

HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 10/11/2017
Date Data Arrived at EDR: 10/12/2017
Date Made Active in Reports: 10/17/2017
Number of Days to Update: 5

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 10/10/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 07/17/2017
Date Data Arrived at EDR: 07/18/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 65

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 10/17/2017
Next Scheduled EDR Contact: 01/29/2018
Data Release Frequency: Varies

City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 04/21/2017
Date Made Active in Reports: 10/09/2017
Number of Days to Update: 171

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 10/16/2017
Next Scheduled EDR Contact: 01/29/2018
Data Release Frequency: Varies

Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 06/21/2017
Date Data Arrived at EDR: 06/23/2017
Date Made Active in Reports: 10/30/2017
Number of Days to Update: 129

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 11/14/2017
Next Scheduled EDR Contact: 01/29/2018
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 21

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 10/16/2017
Next Scheduled EDR Contact: 01/29/2018
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: 03/09/2017
Date Data Arrived at EDR: 03/10/2017
Date Made Active in Reports: 05/03/2017
Number of Days to Update: 54

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 10/23/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Annually

City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 07/11/2017
Date Data Arrived at EDR: 07/14/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 69

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 10/10/2017
Next Scheduled EDR Contact: 01/22/2018
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: 10/26/2017
Date Data Arrived at EDR: 10/27/2017
Date Made Active in Reports: 11/06/2017
Number of Days to Update: 10

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 11/14/2017
Next Scheduled EDR Contact: 03/05/2018
Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 09/28/2017
Date Data Arrived at EDR: 10/05/2017
Date Made Active in Reports: 11/08/2017
Number of Days to Update: 34

Source: Public Works Department Waste Management
Telephone: 415-473-6647
Last EDR Contact: 09/27/2017
Next Scheduled EDR Contact: 01/15/2018
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 10/02/2017
Date Data Arrived at EDR: 10/03/2017
Date Made Active in Reports: 10/17/2017
Number of Days to Update: 14

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 11/14/2017
Next Scheduled EDR Contact: 03/05/2018
Data Release Frequency: Varies

MONO COUNTY:

CUPA Facility List
CUPA Facility List

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/06/2017
Date Made Active in Reports: 10/16/2017
Number of Days to Update: 40

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 08/08/2017
Next Scheduled EDR Contact: 12/11/2017
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 06/22/2017
Date Data Arrived at EDR: 06/23/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 47

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 08/21/2017
Next Scheduled EDR Contact: 12/04/2017
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: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 08/24/2017
Next Scheduled EDR Contact: 12/11/2017
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: 08/24/2017
Date Data Arrived at EDR: 08/25/2017
Date Made Active in Reports: 10/27/2017
Number of Days to Update: 63

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 08/24/2017
Next Scheduled EDR Contact: 12/11/2017
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 11/02/2017
Date Data Arrived at EDR: 11/07/2017
Date Made Active in Reports: 11/15/2017
Number of Days to Update: 8

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 10/25/2017
Next Scheduled EDR Contact: 02/12/2018
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 08/07/2017
Date Data Arrived at EDR: 08/11/2017
Date Made Active in Reports: 10/11/2017
Number of Days to Update: 61

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 11/06/2017
Next Scheduled EDR Contact: 02/19/2018
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 08/07/2017
Date Data Arrived at EDR: 08/11/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 41

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 11/06/2017
Next Scheduled EDR Contact: 02/19/2018
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 08/07/2017
Date Data Arrived at EDR: 08/09/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 43

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 11/07/2017
Next Scheduled EDR Contact: 02/19/2018
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 09/05/2017
Date Data Arrived at EDR: 09/06/2017
Date Made Active in Reports: 11/08/2017
Number of Days to Update: 63

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 08/31/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA Facility List
Plumas County CUPA Program facilities.

Date of Government Version: 10/23/2017
Date Data Arrived at EDR: 11/03/2017
Date Made Active in Reports: 11/15/2017
Number of Days to Update: 12

Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 11/01/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 10/11/2017
Date Data Arrived at EDR: 10/12/2017
Date Made Active in Reports: 11/09/2017
Number of Days to Update: 28

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 09/18/2017
Next Scheduled EDR Contact: 01/01/2018
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 10/12/2017
Date Data Arrived at EDR: 10/12/2017
Date Made Active in Reports: 11/08/2017
Number of Days to Update: 27

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 09/18/2017
Next Scheduled EDR Contact: 01/01/2018
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: 08/02/2017
Date Data Arrived at EDR: 10/03/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 3

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 10/03/2017
Next Scheduled EDR Contact: 01/15/2018
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: 08/02/2017
Date Data Arrived at EDR: 10/03/2017
Date Made Active in Reports: 11/16/2017
Number of Days to Update: 44

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 10/03/2017
Next Scheduled EDR Contact: 01/15/2018
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 11/01/2017
Date Data Arrived at EDR: 11/03/2017
Date Made Active in Reports: 11/17/2017
Number of Days to Update: 14

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 11/01/2017
Next Scheduled EDR Contact: 02/19/2018
Data Release Frequency: Varies

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: 08/31/2017
Date Data Arrived at EDR: 09/19/2017
Date Made Active in Reports: 11/16/2017
Number of Days to Update: 58

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 11/06/2017
Next Scheduled EDR Contact: 02/19/2018
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: 09/05/2017
Date Data Arrived at EDR: 09/06/2017
Date Made Active in Reports: 11/08/2017
Number of Days to Update: 63

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 09/06/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Quarterly

Solid Waste Facilities
San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 58

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 10/23/2017
Next Scheduled EDR Contact: 02/05/2018
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: 08/31/2017
Next Scheduled EDR Contact: 12/18/2017
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: 11/01/2017
Next Scheduled EDR Contact: 02/19/2018
Data Release Frequency: Quarterly

Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 05/03/2017
Date Data Arrived at EDR: 05/08/2017
Date Made Active in Reports: 08/25/2017
Number of Days to Update: 109

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 11/01/2017
Next Scheduled EDR Contact: 02/19/2018
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: 10/03/2017
Date Data Arrived at EDR: 10/06/2017
Date Made Active in Reports: 10/10/2017
Number of Days to Update: 4

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 08/28/2017
Next Scheduled EDR Contact: 01/01/2018
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 08/18/2017
Date Data Arrived at EDR: 08/22/2017
Date Made Active in Reports: 10/25/2017
Number of Days to Update: 64

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 11/14/2017
Next Scheduled EDR Contact: 03/05/2018
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: 09/15/2017
Date Data Arrived at EDR: 09/19/2017
Date Made Active in Reports: 10/17/2017
Number of Days to Update: 28

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 09/07/2017
Next Scheduled EDR Contact: 12/25/2017
Data Release Frequency: Annually

Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 09/15/2017
Date Data Arrived at EDR: 09/19/2017
Date Made Active in Reports: 11/09/2017
Number of Days to Update: 51

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 09/07/2017
Next Scheduled EDR Contact: 12/25/2017
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: 11/14/2017
Next Scheduled EDR Contact: 03/05/2018
Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List
Cupa facility list

Date of Government Version: 08/07/2017
Date Data Arrived at EDR: 08/10/2017
Date Made Active in Reports: 10/16/2017
Number of Days to Update: 67

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 11/14/2017
Next Scheduled EDR Contact: 03/05/2018
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: 08/24/2017
Next Scheduled EDR Contact: 12/11/2017
Data Release Frequency: Annually

Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 08/07/2017
Date Data Arrived at EDR: 08/15/2017
Date Made Active in Reports: 10/24/2017
Number of Days to Update: 70

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 11/01/2017
Next Scheduled EDR Contact: 02/19/2018
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List
CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 11/14/2017
Next Scheduled EDR Contact: 03/05/2018
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 11/14/2017
Next Scheduled EDR Contact: 03/05/2018
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: 09/26/2017
Date Data Arrived at EDR: 09/27/2017
Date Made Active in Reports: 11/10/2017
Number of Days to Update: 44

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 09/25/2017
Next Scheduled EDR Contact: 12/25/2017
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 09/26/2017
Date Data Arrived at EDR: 09/27/2017
Date Made Active in Reports: 11/08/2017
Number of Days to Update: 42

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 09/25/2017
Next Scheduled EDR Contact: 12/25/2017
Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List
Cupa Facility list

Date of Government Version: 09/25/2017
Date Data Arrived at EDR: 09/27/2017
Date Made Active in Reports: 11/16/2017
Number of Days to Update: 50

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 09/25/2017
Next Scheduled EDR Contact: 01/01/2018
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: 10/03/2017
Date Data Arrived at EDR: 10/06/2017
Date Made Active in Reports: 11/10/2017
Number of Days to Update: 35

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 09/25/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 11/01/2017
Date Data Arrived at EDR: 11/10/2017
Date Made Active in Reports: 11/16/2017
Number of Days to Update: 6

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 10/16/2017
Next Scheduled EDR Contact: 01/29/2018
Data Release Frequency: Varies

SUTTER COUNTY:

Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 08/31/2017
Date Data Arrived at EDR: 09/05/2017
Date Made Active in Reports: 11/08/2017
Number of Days to Update: 64

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 08/31/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA Facility List
Cupa facilities

Date of Government Version: 07/19/2017
Date Data Arrived at EDR: 08/11/2017
Date Made Active in Reports: 10/16/2017
Number of Days to Update: 66

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 11/14/2017
Next Scheduled EDR Contact: 02/19/2018
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 10/23/2017
Date Data Arrived at EDR: 10/24/2017
Date Made Active in Reports: 11/16/2017
Number of Days to Update: 23

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 10/23/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

TULARE COUNTY:

CUPA Facility List
Cupa program facilities

Date of Government Version: 09/27/2017
Date Data Arrived at EDR: 09/28/2017
Date Made Active in Reports: 10/16/2017
Number of Days to Update: 18

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 11/14/2017
Next Scheduled EDR Contact: 02/19/2018
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 10/24/2017
Date Data Arrived at EDR: 10/25/2017
Date Made Active in Reports: 11/16/2017
Number of Days to Update: 22

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 10/23/2017
Next Scheduled EDR Contact: 02/05/2018
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: 06/26/2017
Date Data Arrived at EDR: 08/03/2017
Date Made Active in Reports: 10/16/2017
Number of Days to Update: 74

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 10/23/2017
Next Scheduled EDR Contact: 02/05/2018
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: 09/27/2017
Next Scheduled EDR Contact: 01/15/2018
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: 11/08/2017
Next Scheduled EDR Contact: 02/26/2018
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: 06/26/2017
Date Data Arrived at EDR: 08/03/2017
Date Made Active in Reports: 10/17/2017
Number of Days to Update: 75

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 10/23/2017
Next Scheduled EDR Contact: 02/05/2018
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: 08/28/2017
Date Data Arrived at EDR: 09/12/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 9

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 09/12/2017
Next Scheduled EDR Contact: 12/25/2017
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 09/27/2017
Date Data Arrived at EDR: 10/02/2017
Date Made Active in Reports: 11/14/2017
Number of Days to Update: 43

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 09/27/2017
Next Scheduled EDR Contact: 01/15/2018
Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 11/08/2017
Date Data Arrived at EDR: 11/10/2017
Date Made Active in Reports: 11/16/2017
Number of Days to Update: 6

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 10/25/2017
Next Scheduled EDR Contact: 02/12/2018
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: 07/28/2017
Date Data Arrived at EDR: 08/18/2017
Date Made Active in Reports: 11/14/2017
Number of Days to Update: 88

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 11/14/2017
Next Scheduled EDR Contact: 02/26/2018
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 04/11/2017
Date Made Active in Reports: 07/27/2017
Number of Days to Update: 107

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 10/05/2017
Next Scheduled EDR Contact: 01/22/2018
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: 10/01/2017
Date Data Arrived at EDR: 11/01/2017
Date Made Active in Reports: 11/13/2017
Number of Days to Update: 12

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 11/01/2017
Next Scheduled EDR Contact: 02/12/2018
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 07/25/2017
Date Made Active in Reports: 09/25/2017
Number of Days to Update: 62

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 10/16/2017
Next Scheduled EDR Contact: 01/29/2018
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 06/19/2015
Date Made Active in Reports: 07/15/2015
Number of Days to Update: 26

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 11/16/2017
Next Scheduled EDR Contact: 03/05/2018
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 04/13/2017
Date Made Active in Reports: 07/14/2017
Number of Days to Update: 92

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 09/11/2017
Next Scheduled EDR Contact: 12/25/2017
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: PennWell Corporation
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data
Source: PennWell Corporation
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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 was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

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.

State Wetlands Data: Wetland Inventory
Source: Department of Fish & Game
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

P1E-17-11-009
1 SADDLEBACK PARKWAY
LAKE FOREST, CA 92630

TARGET PROPERTY COORDINATES

Latitude (North):	33.663461 - 33˚ 39' 48.46''
Longitude (West):	117.645217 - 117˚ 38' 42.78''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	440179.8
UTM Y (Meters):	3724835.5
Elevation:	846 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5636489 EL TORO, CA
Version Date:	2012
East Map:	5636483 SANTIAGO PEAK, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

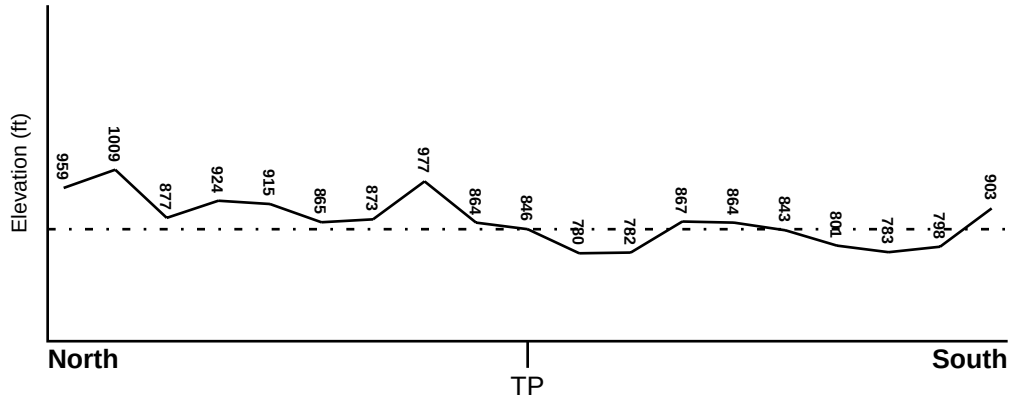
TOPOGRAPHIC INFORMATION

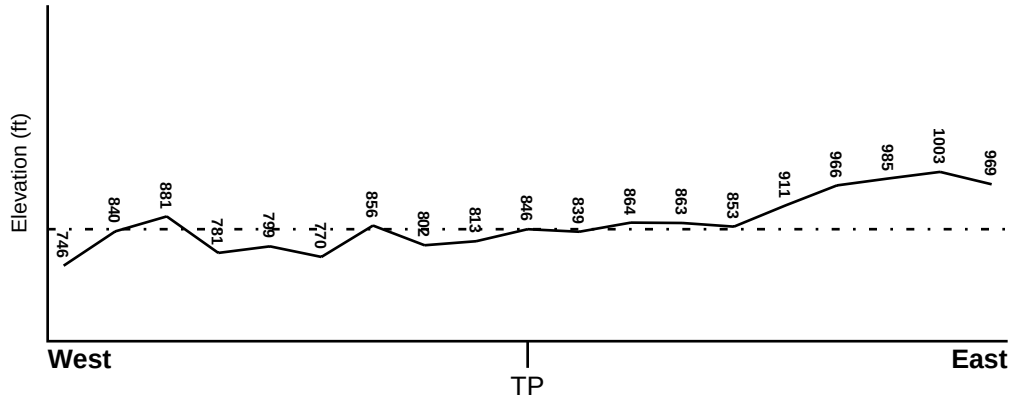
Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General South

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES





Target Property Elevation: 846 ft.

0 1/2 1 Miles

Source: Topography has been determined from the USGS 7.5' 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.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
06059C0317J	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06059C0316J	FEMA FIRM Flood data
06059C0318J	FEMA FIRM Flood data
06059C0319J	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
EL TORO	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

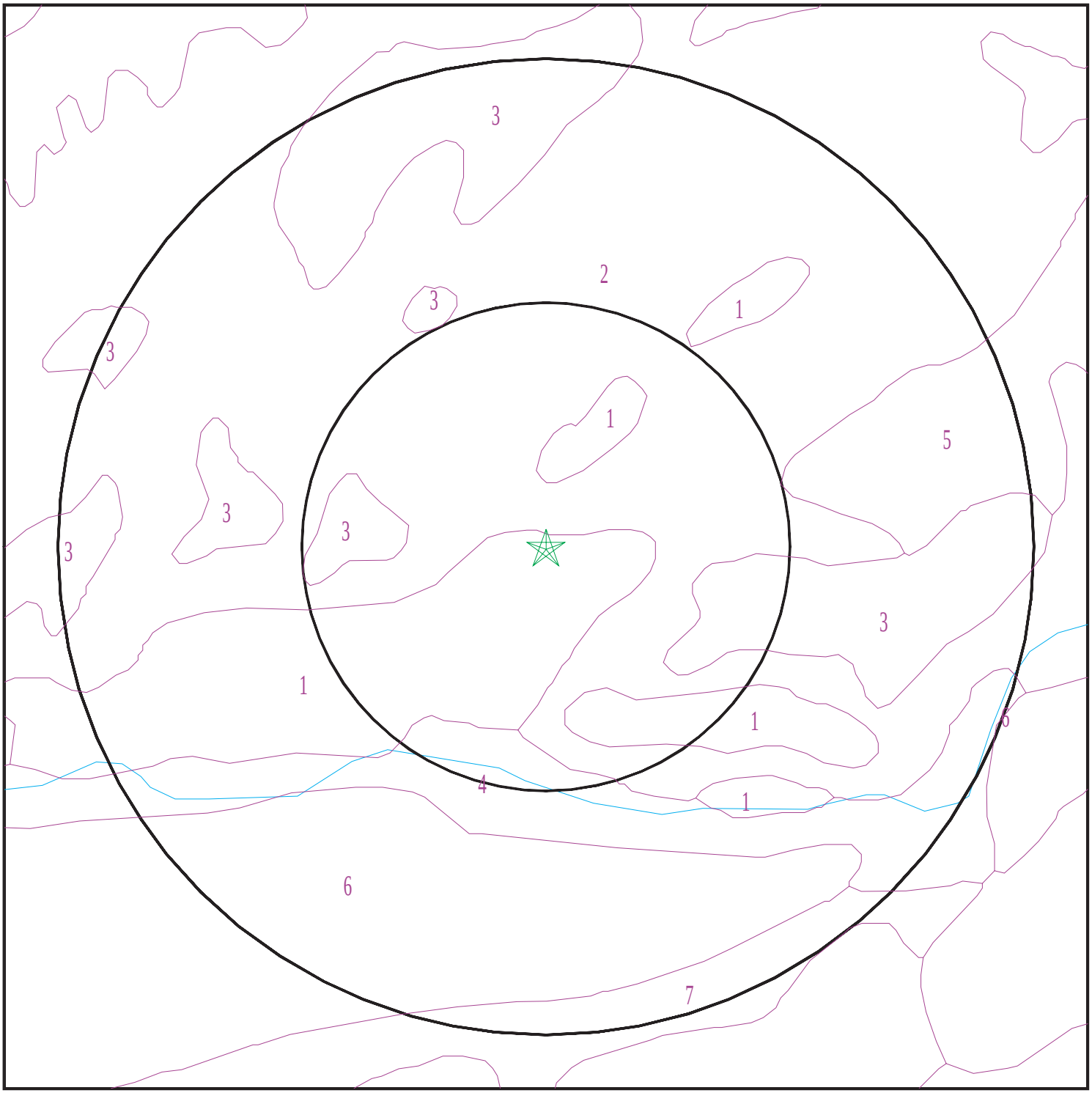
Era:	Cenozoic
System:	Tertiary
Series:	Eocene
Code:	Te *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 5112840.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME: P1E-17-11-009 ADDRESS: 1 Saddleback Parkway Lake Forest CA 92630 LAT/LONG: 33.663461 / 117.645217	CLIENT: Priority One Environmental, Inc. CONTACT: Paul Robinson INQUIRY #: 5112840.2s DATE: November 20, 2017 3:20 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: MYFORD

Soil Surface Texture: sandy loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 42 Min: 14	Max: 6 Min: 5.1
2	11 inches	18 inches	sandy clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 0.42 Min: 0.01	Max: 8.4 Min: 5.6
3	18 inches	27 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 0.42 Min: 0.01	Max: 8.4 Min: 5.6

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
4	27 inches	70 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 0.42 Min: 0.01	Max: 8.4 Min: 6.1
5	70 inches	79 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6.5 Min: 6.1

Soil Map ID: 2

Soil Component Name: CIENEBA

Soil Surface Texture: sandy loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 42 Min: 14	Max: 7.3 Min: 5.6

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	7 inches	11 inches	weathered bedrock	Not reported	Not reported	Max: 0.42 Min: 0	Max: Min:

Soil Map ID: 3

Soil Component Name: MYFORD

Soil Surface Texture: sandy loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 42 Min: 14	Max: 6 Min: 5.1
2	7 inches	11 inches	sandy clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 0.42 Min: 0.01	Max: 8.4 Min: 5.6

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
3	11 inches	20 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 0.42 Min: 0.01	Max: 8.4 Min: 5.6
4	20 inches	64 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 0.42 Min: 0.01	Max: 8.4 Min: 6.1
5	64 inches	79 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6.5 Min: 6.1

Soil Map ID: 4

Soil Component Name: RIVERWASH

Soil Surface Texture: sand

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class:
Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 31 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	5 inches	sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand.	Max: 141 Min: 42	Max: Min:
2	5 inches	59 inches	stratified coarse sand to sandy loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: Min:

Soil Map ID: 5

Soil Component Name: CIENEBA

Soil Surface Texture: sandy loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	16 inches	sandy loam	Not reported	Not reported	Max: 42 Min: 14	Max: 7.3 Min: 5.6

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	16 inches	20 inches	weathered bedrock	Not reported	Not reported	Max: Min:	Max: Min:

Soil Map ID: 6

Soil Component Name: SORRENTO

Soil Surface Texture: loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 8.4 Min: 6.1
2	11 inches	61 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14.11 Min: 1	Max: 8.4 Min: 7.9

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
3	61 inches	72 inches	stratified loamy fine sand to silt loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 8.4 Min: 7.9

Soil Map ID: 7

Soil Component Name: CAPISTRANO

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	27 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 5.6
2	27 inches	64 inches	fine sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 5.6

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 0.001 miles
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

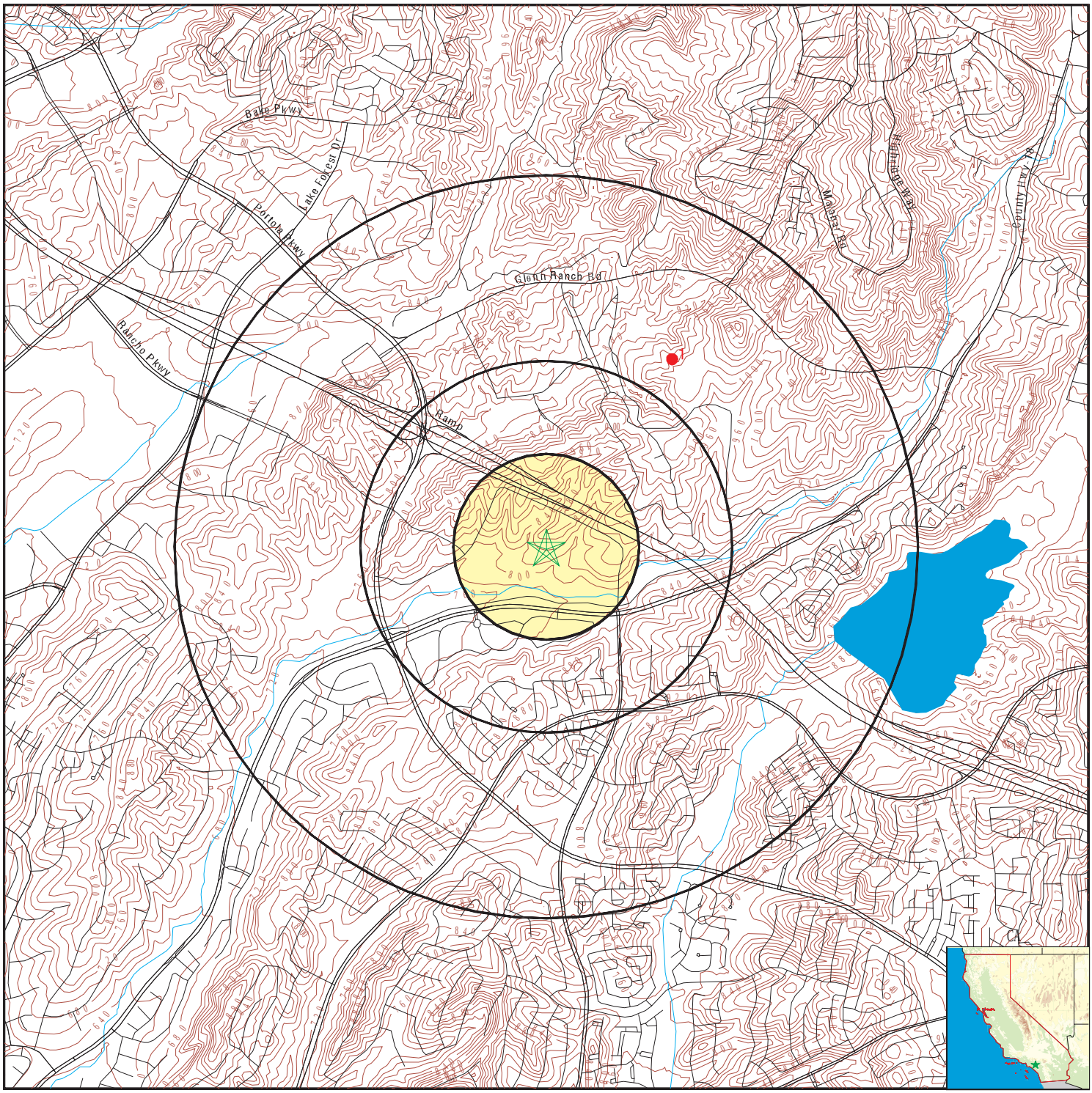
MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	CAOG11000217769	1/2 - 1 Mile NE

PHYSICAL SETTING SOURCE MAP - 5112840.2s



0 1/4 1/2 1 Miles

- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

N

SITE NAME: P1E-17-11-009	CLIENT: Priority One Environmental, Inc.
ADDRESS: 1 Saddleback Parkway Lake Forest CA 92630	CONTACT: Paul Robinson
LAT/LONG: 33.663461 / 117.645217	INQUIRY #: 5112840.2s
	DATE: November 20, 2017 3:20 pm

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Map ID Direction Distance	Database	EDR ID Number
1 **NE** **1/2 - 1 Mile**	**OIL_GAS**	**CAOG11000217769**

District nun:	1	Api number:	05900974
Blm well:	N	Redrill can:	Not Reported
Dryhole:	Y	Well status:	P
Operator name:	Era Oil Co.		
County name:	Orange	Fieldname:	Any Field
Area name:	Any Area	Section:	8
Township:	06S	Range:	07W
Base meridian:	SB	Elevation:	Not Reported
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Glenn Ranch 2	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000217769		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
92630	90	0

Federal EPA Radon Zone for ORANGE County: 3

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 92630

Number of sites tested: 2

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.400 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

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.

State Wetlands Data: Wetland Inventory
Source: Department of Fish & Game
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW[R] Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Department of Conservation
Telephone: 916-323-1779
Oil and Gas well locations in the state.

RADON

State Database: CA Radon
Source: Department of Health Services
Telephone: 916-324-2208
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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P1E-17-11-009
1 Saddleback Parkway
Lake Forest, CA 92630

Inquiry Number: 5112840.5
November 22, 2017

The EDR-City Directory Image Report

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

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SECTION

Executive Summary

Findings

City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report 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 Report includes a search of available city directory data at 5 year intervals.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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Data by infoUSA®

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RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	Target Street	Cross Street	Source
2014	☑	☐	EDR Digital Archive
2010	☑	☐	EDR Digital Archive
2005	☑	☐	EDR Digital Archive
2000	☑	☐	EDR Digital Archive
1995	☑	☐	EDR Digital Archive
1992	☐	☐	EDR Digital Archive
1985	☐	☐	Haines Criss-Cross Directory
1980	☐	☐	Haines Criss-Cross Directory
1975	☐	☐	Haines Criss-Cross Directory
1972	☐	☐	Haines Criss-Cross Directory

FINDINGS

TARGET PROPERTY STREET

1 Saddleback Parkway
Lake Forest, CA 92630

Year	CD Image	Source	
SADDLEBACK PKWY			
2014	pg A1	EDR Digital Archive	
2010	pg A2	EDR Digital Archive	
2005	pg A3	EDR Digital Archive	
2000	pg A4	EDR Digital Archive	
1995	pg A5	EDR Digital Archive	
1992	-	EDR Digital Archive	Street not listed in Source
1985	-	Haines Criss-Cross Directory	Street not listed in Source
1980	-	Haines Criss-Cross Directory	Street not listed in Source
1975	-	Haines Criss-Cross Directory	Street not listed in Source
1972	-	Haines Criss-Cross Directory	Street not listed in Source

FINDINGS

CROSS STREETS

No Cross Streets Identified

City Directory Images

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SADDLEBACK PKWY 2014

1	GLOBAL PEACE FUND LOZA WATERWORKS PASTORSCOM PURPOSE DRIVEN MINISTRIES SADDLEBACK VALLEY COMMUNITY CH

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SADDLEBACK PKWY 2010

1	GLOBAL PEACE FUND LIFE IMPACT MINISTRIES INTL PASTORSCOM PURPOSE DRIVEN MINISTRIES SADDLEBACK VALLEY COMMUNITY CH SANDLES CHURCH VENTURE BEYOND

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SADDLEBACK PKWY 2005

1	SADDLEBACK VALLEY COMMUNITY CH
	SAKRED CHURCH
	SATTLEBACK CHURCH
	TESORO HILLS CHURCH

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SADDLEBACK PKWY 2000

1 SADDLEBACK VLY CMNTY CHURCH

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SADDLEBACK PKWY 1995

1 SADDLEBACK VLY CMNTY CHURCH

COUNTY OF ORANGE
HEALTH CARE AGENCY

PUBLIC HEALTH SERVICES
ENVIRONMENTAL HEALTH

Excellence
Integrity
Service

MARK A. REFOWITZ
DIRECTOR

DAVID M. SOULELES, MPH
DEPUTY AGENCY DIRECTOR

DENISE FENNESSY, REHS
DIRECTOR
ENVIRONMENTAL HEALTH

MAILING ADDRESS:
1241 E. DYER RD., #120
SANTA ANA, CA 92705-5611

TELEPHONE: (714) 433-6000
FAX: (714) 754-1732
E-MAIL: ehealth@ochca.com

12/18/2017

NO RECORDS

PRIORITY ONE ENVIRONMENTAL
PAUL ROBINSON
19528 VENTURA BLVD., #268
TARZANA CA 91356-

RE: EHD REQ #: 29015
1 SADDLEBACK PARKWAY, LAKE FOREST CA

This office is in receipt of your request for copies of records. We were unable to locate any records on the above location..

It is understood that such records could exist under another spelling, name or classification, but with the information furnished to our office and to the best of our knowledge, no such records exist in our files.

NOTE: The cities of Anaheim, Fullerton, Orange and Santa Ana monitor their own Underground Storage

The Health Care Agency may not be the only source of records. Please check with the Fire Department, the Water Quality Control Board and/or the State Department of Health Services.

If you have any question, please call this office at (714) 433-6022.

Environmental Health Records Unit

Orange County TAX ID: 95-6000-928W

CITY OF LAKE FOREST
DECEMBER 20, 1991

25550 Commercentre Drive #100
Lake Forest, CA 92630
Phone: (949)461-3400 Fax: (949)461-3512

BUILDING PERMIT

Issued Date: 8/5/2010

Address: 1 SADDLEBACK ~~CHURCH RD~~ PARKWAY
LAKE FOREST, CA 92630-8700
Main Permit: Yes
Construction Type: 5B

Parcel: 104-143-12
Square Feet: 100
Valuation: $ 1,000
Occupancy Group: F-1

Business Name: Saddleback Church
Application Date: 7/20/2010
Code in Effect: 2007 CBC
Describe Work: New Addition: 100 SF Atrium to Cooler / Freezer Area (Saddleback Church)

Contractor Name	Company	Address	Phone
OWNER BUILDER	OWNER/BUILDER	CA	

Contact Type	Name	Phone
Owner	Saddleback Church	(949)609-8064
Applicant	Mike Post	(949)609-8064

OWNER-BUILDER DECLARATION

I hereby affirm under penalty of perjury that I am exempt from the Contractors License Law for the following reason (Sec. 7031.5, Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Sec. 7000) of Div. 3 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Sec. 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500).):

☑ I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his or her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he or she did not build or improve for the purpose of sale.).

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) license pursuant to the Contractors License Law.).

☐ I am exempt under Section _____ B.&P.C. for this reason

8-5-10 Mike Post
Date Signature of Owner

LICENSED CONTRACTORS DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

License Class _____ License Number _____ Expiration Date _____

Date _____ Signature of Contractor _____

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations:

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

☐ I have and will maintain workers' compensation insurance, as required by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier _____

Policy No. _____

☒ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers' compensation provisions of Sec. 3700 of the Labor Code, I shall forthwith comply with those provisions.

8-5-10 Mike Post
Date Signature of Applicant

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C.).

Lenders Name _____

Lenders Address _____

I certify that I have read this application and state that the above information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection purposes.

8-5-10 Mike Post
Date Signature of Applicant or Agent

Fees Paid

Invoice Total	Amt Paid	Amt Due
$ 881.50	$ 881.50	$ 0.00

Inspections

Insp Type	IVR
B22 - Rated Shaft Construction	146
B18 - Exterior Lath	138
1st Grout Lift	160
B16 - Insulation/Weather Stripping	134
B7 - 1st Level Floor Sheathing	118
B14 - Framing 8/26/10 BW	132
B3 - Foundation/Trench Forms 8/9/10 LB	110
B1 - Location & Setbacks 8/9/10 LB	100
B11 - Concrete Deck LB	125
B28 - Final Building 7/30/14 BW	199
B25 - Planning Dept. Approval	190
B8 - 2nd Level Floor Sheathing	120
B12 - Steel Framing	130
B24 - Lot Drainage	155
B23 - T-Bar Ceilings	150
Soils Engineer's Approval	105
B21 - Rated Opening Protection	144
2nd Grout Lift	162
B27 - Public Works Dept. Approval	195
B10 - Roof Sheathing	124
B9 - 3rd Level Floor Sheathing	122
[illegible]	164
B[illegible] - Structural Concrete/Slab on Grade	112
B17 - Interior Lath / Drywall	136
B20 - Rated Wall Assemblies	142
B19 - Rated Floor/Ceiling Assemblies	140

FINALED

EXPIRATION

Every permit shall expire by limitation and become null and void if the building or work authorized by such permit is not commenced within 180 days from the date of such permit, or if the building or work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of 180 days.

BUILDING PERMIT APPLICATION

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☐ I, as owner of the property, or my employees with wages as their sole compensation will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professions Code. The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his or her own employees, provided that such improvements are not intended or offered for sale If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he or she did not build or improve for the purpose of sale)

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☐ I am exempt under Section _____, B &P C. for this reason

Date _____ Signature of Owner _____

LICENSED CONTRACTORS DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect

B — License Class; 301814 — License Number; 2-28-03 — Expiration Date

9-18-01 — Date; [signature] — Signature of Contractor

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations

☒ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Section 3700 of the Labor Code for the performance of the work for which this permit is issued

☐ I have and will maintain workers' compensation insurance, as required by Sec 3700 of the Labor Code, for the performance of the work for which this permit is issued My workers' compensation insurance carrier and policy number are

Carrier: AMERICAN SAFETY CAS.

Policy No. CLW 5204993

(This section need not be completed if the permit is for one hundred dollars ($100) or less)

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers' compensation provisions of Sec 3700 of the Labor Code I shall forthwith comply with those provisions

9-18-01 — Date; [signature] — Signature of Applicant

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100 000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

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Lender's Name _____

Lender's Address _____

I certify that I have read this application and state that the above information is correct I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection purposes

9-18-01 — Date; [signature] — Signature of Applicant or Agent

---

CITY OF LAKE FOREST

23161 Lake Center Drive #100, Lake Forest, CA 92630
Counter Hours M-Th, 8am to 12pm & 1pm to 6pm
And alternate Fridays 8am to 12pm & 1pm to 5pm
Inspector's Hours 8am to 9am
Inspection Request Line: (949) 461-3468

SITE ADDRESS: 1 SADDLEBACK PARKWY, LAKE FOREST, CA 92630

ASSESSOR PARCEL NUMBER

BOOK ____ PAGE ____ PARCEL ____

ADDITIONAL INFORMATION / LEGAL DESCRIPTION

PROPERTY OWNER: SADDLEBACK CHURCH

MAILING ADDRESS: 1 SADDLEBACK PARKWAY

CITY: LAKE FOREST — STATE: CA — ZIP: 92630

PHONE NUMBER: 949.609.8016

ARCHITECT OR ENGINEER'S NAME: BURCHARD DESIGN GROUP — LICENSE NO: C13795

ADDRESS: 23582 BIRTCHER DR.

CITY: LAKE FOREST — STATE: CA — ZIP: 92630

PHONE NUMBER: 949.837.5159

APPLICANT / CONTACT PERSON: AL BURCHARD c/o B.D.G.

PHONE NUMBER: 949.837.5159

CONTRACTOR'S NAME: FULLMER COMPANIES

ADDRESS: 1725 SOUTH GROVE AVE

CITY: ONTARIO — STATE: CA — ZIP: 91761

PHONE NUMBER: 909.947.9967

EXPIRATION

Every permit shall expire by limitation and become null and void if the building or work authorized by such permit is not commenced within 180 days from the date of such permit, or if the building or work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of 180 days

---

DESCRIPTION OF WORK: PRE-SCHOOL - CLASSROOMS ON TWO FLOORS @ EA. END, AND ASSEMBLY ROOMS (3 FLOORS) AT CENTER OF BUILDING. Bldg #A

OCC GROUP	TYPE(S) OF CONSTRUCTION	NO OF STORIES
A2.1/B/E-3	II 1 HR	3

SQUARE FOOTAGE: 58,400 — FIRE SPRINKLERS REQUIRED: YES / NO

STATISTICAL CLASSIFICATION NO: 326 — UNIT(S): — CODE IN EFFECT: 1997

SPECIAL CONDITIONS / PLANNING FILE NO

$ 6,573,360.00 INITIAL VALUATION — $ _____ REVISED VALUATION

PLAN CHECK FEE $ 13,463.55

ADDITIONAL PLAN CHECK FEE $

PLAN CHECK NO	INITIALS	DATE
022652	RF	7-9-01
ADDITIONAL PLAN CHECK NO	INITIALS	DATE

CK NO

☐ SCHOOL FEES PAID ☐ FIRE AUTHORITY APPR
☐ HOA APPR. OBTAINED ☐ HEALTH DEPT APPR
☐ PUBLIC WORKS APPR ☐ WATER DISTRICT APPR
☐ SCAQMD APPR. ☐

BUILDING PERMIT FEE $ 20,707.74

ISSUANCE FEE $ 15.40

SMIP FEE $ 1380.40

(20,723.14) $

$

TOTAL BUILDING PERMIT FEE $ 22,103.54

PERMIT NO	INITIALS	DATE
[redacted]	RF	9-18-01
023465		11-21-02

CK NO

NO	INSPECTION	DATE	INSPECTOR
	REQUIRED BUILDING INSPECTIONS AND APPROVALS		
B1	Location and setbacks		
B2	Soils Engineer's Approval		
B3	*Foundation/Trench forms*		
B4	Structural concrete slab on grade		
B5	Raised floor framing		
B6	Under floor insulation		
B7	First level floor sheathing		
B8	Second level floor sheathing		
B9	Third level floor sheathing		
B10	Roof sheathing		
B11	Concrete block		
	1st Grout lift		
	2nd Grout lift		
	3rd Grout lift		
	4th Grout lift		
B12	Steel framing		
B13	Fire Dept frame inspection		
B14	Building Dept frame inspection		
B15	Fire sprinkler hangers		
B16	Insulation/weather stripping		
B17	Interior lath and/or drywall	8-1-02	RC
B18	Exterior lath		
B19	Rated floor/Ceiling assemblies		
B20	Rated wall assemblies		
B21	Rated opening protection		
B22	Rated shaft construction		
B23	T-bar ceilings	8/29/02	BN
B24	Lot drainage		
B25	Planning Dept. Approval		
B26	Fire Dept. Approval		
B27	Public Works Dept. Approval		
B28	Final Building inspection approval		

DESCRIBE COMPLETELY THE INTENDED USE OF ALL SPACE APPLICABLE TO THIS BUILDING PERMIT:

The following statement must be signed by the Building owner.

(When approved by the Building Official, the owner's agent may sign for permits other than the initial or shell building permit.)

Will the applicant or future building occupant handle a hazardous material or mixture containing a hazardous material equal to or greater than the amounts specified on the hazardous materials information guide?

☐ YES ☐ NO

If the answer to the question was yes, will the proposed building or modified facility be within 1000 feet of the outer boundary of a school?

☐ YES ☐ NO

Will the intended use of the building by the applicant or future building occupant require a permit for construction or modification from the South Coast Air Quality Management District (SCAQMD)? (See permitting checklist for guidelines.)

☐ YES ☐ NO

I have read the hazardous material information guide and the SCAQMD permitting checklist. I understand my requirement under the State of California Health and Safety Code Section 25505,25533 and 25634 concerning hazardous materials reporting

☐ OWNER ☐ AGENT

NAME _____ SIGNATURE _____

INSPECTION NOTES:

PADS OK TO POUR SEE PLANS RC 9-26-01
GRADE BEAMS S2.1(A) OK TO POUR 10-3-01
11/30/01 - Panel Ins^n See Att List Gm
12-6-01 - PANEL OK SEE CARD CR OK TO POUR DECK 2ND FLOOR
5-2-02 2ND GROUT LIFT AT VAULT OK
5/2/02 Building C Pre Duct okd to wrap BN
1st & 2nd Fl westwing Rough Frame, Plumb, elect
okd 5/30/02 BN OK TO WRAP 1ST FLOOR
6-27-02 1ST & 2ND FLOOR EAST WING FRAME OK
Eastwing 2nd Fl D/W okd only 7/3/02 BN
Pop out Framing okd 7/3/02 BN
1st Fl Frame + Second Fl Frame okd Center section
1st & 2nd Fl center section Insulation okd 7/16/02 BN
2st Fl D/W center section okd 7/18/02 BN
1st & 2nd Fl center section Frame okd 7/23/02 BN
Ground level Ext Corridor soffet Frame & elect okd 7/24/02 BN

Rev 3/25/99

1st & Second Fl Lobby Insulation
7/24/02 BN

1st & 2nd Fl center section D/W okd 7/25/02 BN

3rd Fl center section Frame roush elect, Plumb okd 7/30/02 BN

1st Fl exterior corridor Lid D/W okd 7/30/02 BN

1st Fl east & west wing T-Bar okd 8/8/02 BN

8/14/02 2ND FLR T-BAR - MINOR COR - SEE MARKED PLANS

8/15/02 1ST FLR T-BAR OK JB

8/29/02 3rd Fl T-Bar center section BN

CITY OF LAKE FOREST

Celebrating 10 Years of Cityhood

Mayor
Richard T. Dixon

Mayor Pro Tem
Peter Herzog

Council Members
Kathryn McCullough
Marcia Rudolph
Helen Wilson

City Manager
Robert C. Dunek

www.ci.lake-forest.ca.us

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Lake Forest, Remember the Past ~ Challenge the Future

DRUG USE IS LIFE ABUSE

23161 Lake Center Drive, Suite 1[redacted]
Lake Forest, CA 92630
(949) 461-3400
City Hall Fax: (949) 461-3511
Building/Planning/Public Works Fax: (949) 461-3512

CERTIFICATE OF OCCUPANCY
CITY OF LAKE FOREST
BUILDING & SAFETY DIVISION

This Certificate issued pursuant to the requirements of Section 109.3 of the City Building Code Certifying that this structure has been inspected for compliance with the requirements of this code For the group and division of occupancy and the use for which the proposed occupancy is classified. For the following:

Building Permit No 23465 **Occupancy Group** A2.1/B/E-3 **Type of Construction** II 1-HR

Description PRE SCHOOL CLASSROOMS/ASSEMBLY ROOM

Building Address 1 SADDLEBACK PARKWAY

Name of Business or Store Name SADDLEBACK CHURCH

Owner of Building SADDLEBACK CHURCH

Address 1 SADDLEBACK PARKWAY, LAKE FOREST, CA 92630

JAMES BROGAN
Building Official

By: James Brogan

Date: JANUARY 29, 2003

POST IN A CONSPICUOUS PLACE AND DO NOT REMOVE UNLESS APPROVED BY THE CHIEF BUILDING OFFICIAL

CITY OF LAKE FOREST

BUILDING DIVISION

STREET NO. (7): 1

STREET NAME (35): SADDLEBACK

Place Unit # in I-6

DOC/TYPE (4): [X] PERMITS [ ] PLANS [ ] OTHER

DOC/DESC: **MAJOR PERMIT # (8):** 23465

- [ ] GRADING (G)
- [X] BUILDING (B)
- [ ] PLUMBING (P)
- [ ] MECHANICAL (M)
- [ ] ELECTRICAL (E)
- [X] CERTIFICATE OF OCCUPANCY (O)
- [ ] SOILS REPORT (G)
- [ ] STRUCTURAL CALCULATIONS (S)
- [ ] ENERGY CALCULATIONS (E)
- [ ] ACOUSTICAL REPORT (A)
- [X] MISCELLANEOUS (M)

PROJ/DESC (9): (X ONLY ONE ITEM)

[ ] SFD NEW	[ ] MFD NEW	[X] NONRES NEW
[ ] SFD ADD	[ ] MFD ADD	[ ] NONRES ADD
[ ] SFD ALTER	[ ] MFD ALTER	[ ] NONRES SIGN
[ ] SFD REPAIR	[ ] MFD REPAIR	[ ] NONRES REPAIR
[ ] SFD MISC	[ ] MFD MISC	[ ] NONRES MISC
[ ] GAR NEW	[ ] POOL/SPA	[ ] COMM T.I.
[ ] GAR ADD	[ ] PATIO COVER	[ ] REROOF

PROJ/NAME (12): SADDLEBACK CHURCH

FINAL DATE Y M D *2003 01 29*

TOTAL PAGES: *3*

REFERENCE TO PLANS ON APER. CARDS:

[X] NO [ ] YES

BUILDING PERMIT APPLICATION

OWNER-BUILDER DECLARATION

I hereby affirm under penalty of perjury that I am exempt from the Contractors License Law for the following reason (Sec 7031.5, Business and Professions Code Any city or county which requires a permit to construct alter, improve demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Sec 7000) of Div 3 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption Any violation of Sec. 7031 5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500).)

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Date _____ Signature of Owner

LICENSED CONTRACTORS DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect

License Class: B — License Number: 301814 — Expiration Date: 2-28-03

Date: 9-18-01 — Signature of Contractor: [signature]

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations

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Carrier: AMERICAN SAFETY CAS.

Policy No: CIW 52024993

(This section need not be completed if the permit is for one hundred dollars ($100) or less)

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Date: 9-18-01 — Signature of Applicant: [signature]

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

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Lender's Name _____

Lender's Address _____

I certify that I have read this application and state that the above information is correct I agree to comply with all city and county ordinances and state laws relating to building construction and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection purposes

Date: 9-18-01 — Signature of Applicant or Agent: [signature]

CITY OF LAKE FOREST — DECEMBER 20, 1991

CITY OF LAKE FOREST

23161 Lake Center Drive #100, Lake Forest, CA 92630
Counter Hours: M-Th 8am to 12pm & 1pm to 6pm
And alternate Fridays, 8am to 12pm & 1pm to 5pm
Inspector's Hours 8am to 9am
Inspection Request Line (949) 461-3468

B&C

SITE ADDRESS: ONE SADDLEBACK PRKWY, LAKE FOREST CA 92630

ASSESSOR PARCEL NUMBER

BOOK _____ PAGE _____ PARCEL _____

ADDITIONAL INFORMATION / LEGAL DESCRIPTION

PROPERTY OWNER: SADDLEBACK CHURCH

MAILING ADDRESS: 1 SADDLEBACK PARKWAY

CITY: LAKE FOREST — STATE: CA — ZIP: 92630

PHONE NUMBER: 949.609.8016

ARCHITECT'S OR ENGINEER'S NAME: BURCHARD DESIGN GROUP — LICENSE NO: C13795

ADDRESS: 23682 BIRCHER DR.

CITY: LAKE FOREST — STATE: CA — ZIP: 92630

PHONE NUMBER: 949.837.5159

APPLICANT / CONTACT PERSON: AL BURCHARD c/o BURCHARD D.G.

PHONE NUMBER: 949.837.5159

CONTRACTOR'S NAME: FULLMER COMPANIES

ADDRESS: 1725 SOUTH GROVE AVE.

CITY: ONTARIO — STATE: CA — ZIP: 91761

PHONE NUMBER: 909.947.9467

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---

DESCRIPTION OF WORK: NURSERY / MULTI-PURPOSE BLDG PRE-SCHOOL CLASSROOMS AND ASSEMBLY ROOM. ALSO HAVE ROOF DECK @ 3RD FLOOR.

OCC GROUP: A2.1/B/E3 — TYPE(S) OF CONSTRUCTION: II / 1HR — NO OF STORIES: 3

SQUARE FOOTAGE: 33,150 — FIRE SPRINKLERS REQUIRED: YES / NO

STATISTICAL CLASSIFICATION NO: 326 — UNIT(S): 40 — CODE IN EFFECT: 1997

SPECIAL CONDITIONS / PLANNING FILE NO

INITIAL VALUATION: $ 2,679,800 — REVISED VALUATION: $ _____

PLAN CHECK FEE: $ 7,892.49

ADDITIONAL PLAN CHECK FEE: $ _____

PLAN CHECK NO	INITIALS	DATE
022651	RF	7-9-01
ADDITIONAL PLAN CHECK NO	INITIALS	DATE
	CK NO	

☐ SCHOOL FEES PAID ☐ FIRE AUTHORITY APPR
☐ HOA APPR OBTAINED ☐ HEALTH DEPT APPR
☐ PUBLIC WORKS APPR ☐ WATER DISTRICT APPR
☐ SCAQMD APPR ☐ _____

BUILDING PERMIT FEE: $ 12,134.82

ISSUANCE FEE: $ 15.40

SMIP FEE: $ 562.59

(12,150.22) $ _____

$ _____

TOTAL BUILDING PERMIT FEE: $ 12,712.81

PERMIT NO	INITIALS	DATE
023473	RF	9-18-01
FINALED BY: [signature]	CK NO	DATE 1-29-03

NO.	INSPECTION	DATE	INSPECTOR

REQUIRED BUILDING INSPECTIONS AND APPROVALS

B1	Location and setbacks		
B2	Soils Engineer's Approval		
B3	Foundation/Trench forms		
B4	Structural concrete slab on grade		
B5	Raised floor framing		
B6	Under floor insulation		
B7	First level floor sheathing		
B8	Second level floor sheathing		
B9	Third level floor sheathing		
B10	Roof sheathing		
B11	Concrete block		
	1st Grout lift		
	2nd Grout lift	G	
	3rd Grout lift		
	4th Grout lift		
B12	Steel framing		
B13	Fire Dept. frame inspection		
B14	Building Dept. frame inspection		
B15	Fire sprinkler hangers		
B16	Insulation/weather stripping		
B17	Interior lath and/or drywall		
B18	Exterior lath		
B19	Rated floor/Ceiling assemblies		
B20	Rated wall assemblies		
B21	Rated opening protection		
B22	Rated shaft construction		
B23	T-bar ceilings		
B24	Lot drainage		
B25	Planning Dept. Approval		
B26	Fire Dept. Approval		
B27	Public Works Dept. Approval		
B28	Final Building inspection approval		

DESCRIBE COMPLETELY THE INTENDED USE OF ALL SPACE APPLICABLE TO THIS BUILDING PERMIT:

The following statement must be signed by the Building owner.

(When approved by the Building Official, the owner's agent may sign for permits other than the initial or shell building permit.)

Will the applicant or future building occupant handle a hazardous material or mixture containing a hazardous material equal to or greater than the amounts specified on the hazardous materials information guide?

☐ YES ☐ NO

If the answer to the question was yes, will the proposed building or modified facility be within 1000 feet of the outer boundary of a school?

☐ YES ☐ NO

Will the intended use of the building by the applicant or future building occupant require a permit for construction or modification from the South Coast Air Quality Management District (SCAQMD)? (See permitting checklist for guidelines.)

☐ YES ☐ NO

I have read the hazardous material information guide and the SCAQMD permitting checklist. I understand my requirement under the State of California Health and Safety Code Section 25505,25533, and 25534 concerning hazardous materials reporting

☐ OWNER ☐ AGENT

NAME _____ SIGNATURE _____

INSPECTION NOTES: PADS OK TO POUR SEE PLANS 9-24-01 [illegible]
10-4-01 SLAB A & B OK TO POUR [illegible]
11-7-01 FINISH FOOTINGS AT B & C OK [illegible]

T.C.O. ISSUED 6-28-02 [illegible]

Rev. 3/25/99

BUILDING "A"

PLUMBING PERMIT APPLICATION

OWNER-BUILDER DECLARATION

I hereby affirm under penalty of perjury that I am exempt from the Contractors License Law for the following reason (Sec 7031.5, Business and Professions Code Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Sec 7000) of Div. 3 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption Any violation of Sec 7031 5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500).)

☐ I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec 7044 Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his or her own employees, provided that such improvements are not intended or offered for sale If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he or she did not build or improve for the purpose of sale)

☐ I, as owner of the property am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) license pursuant to the Contractors License Law)

☐ I am exempt under Section _____, B &P.C for this reason

_____

Date _____ Signature of Owner

LICENSED CONTRACTORS DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect

B — License Class
301814 — License Number
2-28-03 — Expiration Date

9-18-01 — Date
Stephen L. Cole — Signature of Contractor

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations:

☒ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued

☐ I have and will maintain workers' compensation insurance, as required by Sec 3700 of the Labor Code, for the performance of the work for which this permit is issued My workers' compensation insurance carrier and policy number are.

Carrier: AMERICAN SAFETY CAS.

Policy No: CIW 5204913
(This section need not be completed if the permit is for one hundred dollars ($100) or less)

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers' compensation provisions of Sec 3700 of the Labor Code, I shall forthwith comply with those provisions.

9-18-01 — Date
Stephen L. Cole — Signature of Applicant

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C.).

Lender's Name _____

Lender's Address _____

I certify that I have read this application and state that the above information is correct I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection purposes.

9-11-01 — Date
Signature of Applicant or Agent

CITY OF LAKE FOREST — DECEMBER 20, 1991

CITY OF LAKE FOREST

23161 Lake Center Drive #100, Lake Forest, CA 92630
Counter Hours M-Th, 8am to 12pm & 1pm to 6pm
And alternate Fridays, 8am to 12pm & 1pm to 5pm
Inspector's Hours 8 am to 9am
Inspection Request Line, (949) 461-3468

SITE ADDRESS: ONE SADDLEBACK PARKWAY, LAKE FOREST, CA 92630

ASSESSOR PARCEL NUMBER

BOOK PAGE PARCEL

ADDITIONAL INFORMATION / LEGAL DESCRIPTION

PROPERTY OWNER: SADDLEBACK CHURCH

MAILING ADDRESS: ONE SADDLEBACK PARKWAY

CITY: LAKE FOREST — STATE: CA — ZIP: 92630

PHONE NUMBER: 949.609.8013

ARCHITECTS OR ENGINEER'S NAME: PZS ENGINEERING — LICENSE NO: M25683

ADDRESS: 5000 EAST SPRING STREET

CITY: LONG BEACH — STATE: CA — ZIP: 90815

PHONE NUMBER: 562.997.2999

APPLICANT / CONTACT PERSON: SASSAN YAZDEADEH

PHONE NUMBER: 562.997.2999

CONTRACTOR'S NAME: FULLMER COMPANIES

ADDRESS: 1725 SOUTH GROVE AVENUE

CITY: ONTARIO — STATE: CA — ZIP: 91761

PHONE NUMBER: 909.947.9467

EXPIRATION

Every permit shall expire by limitation and become null and void if the building or work authorized by such permit is not commenced within 180 days from the date of such permit, or if the building or work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of 180 days

APPLICANT TO FILL IN QUANTITY (PLEASE PRINT OR TYPE)

QTY	DESCRIPTION	FEE
1	Backflow Prevention Device	8.80
	Bath Tub	
	Clothes Washer	
3	Dishwasher	26.40
1	Floor Sink	8.80
	Gas Regulator	
1	Gas System Outlets 2	8.80
	Additional Gas Outlets over 5 per system	
4	Hose Bibbs	35.20
10	Lavatory	88.00
18	Roof Drain	158.40
82	Sinks	721.60
	Showers	
	Sprinkler System (per meter)	
	Sprinkler Piping System (future use)	
	Sprinkler Piping (additional / alteration / repair)	
	Standpipes (wet / dry / combination)	
	Temporary Gas Service/Work	
24	Toilets	211.20
4	Trap Primers	35.20
6	Urinals	52.80
2	Water Heaters	17.60
	Yard Water Distribution System	

PLUMBING PERMIT SUBTOTAL $ 1,372.80

PLUMBING PLAN CHECK FEE $ 892.32

PLAN CHECK NO	INITIALS	DATE
023466	CK NO RF	9-18-01

PLUMBING PERMIT FEE $ 1,372.80

ISSUANCE FEE $ 15.40

TOTAL PLUMBING PERMIT FEE $ 1,388.20

PERMIT NO	INITIALS	DATE
023467	CK NO RF	9-18-01

FINALED BY	DATE
RC	11-21-02

$ 2280.52

NO	INSPECTION	DATE	INSPECTOR
	REQUIRED PLUMBING INSPECTIONS AND APPROVALS		
P1	Underground/Floor Plumbing	9-19-01	RC
P2	Water Service		
	Plastic _____ Metal _____		
P3	Rough Plumbing		
P4	Rough Gas System		
P7	Water Heater		
P8	Lawn Sprinklers		
P9	Gas Test		
P10	Gas Final		
P11	Final Plumbing Inspection		
	Utility Released		

INSPECTION NOTES:

1st + Second Fl east wing Plumb top out
okd 6/26/02 BM
Chiller system Pressure test complete
Building okd 7/3/02 BM
1st + 2nd Fl Plumb Center Section okd
7/12/02 BM
1st + 2nd Fl center section Rough plmb okd 7/23/02

Rev 4/8/99

BLDG "A"

ELECTRICAL PERMIT APPLICATION

OWNER-BUILDER DECLARATION

I hereby affirm under penalty of perjury that I am exempt from the Contractors License Law for the following reason (Sec 7031.5, Business and Professions Code Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Sec 7000) of Div. 3 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption Any violation of Sec 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500).)

☐ I, as owner of the property or my employees with wages as their sole compensation will do the work, and the structure is not intended or offered for sale (Sec. 7044 Business and Professions Code. The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his or her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion the owner-builder will have the burden of proving that he or she did not build or improve for the purpose of sale)

☐ I, as owner of the property am exclusively contracting with licensed contractors to construct the project (Sec 7044, Business and Professions Code The Contractors License Law does not apply to an owner of property who builds or improves thereon and who contracts for such projects with a contractor(s) license pursuant to the Contractors License Law)

☐ I am exempt under Section _____, B & P C for this reason

Date _____ Signature of Owner

LICENSED CONTRACTORS DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect

License Class: B — License Number: 301814 — Expiration Date: 2-28-02

Date: 9-18-01 — Signature of Contractor: [signature]

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations

☒ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued

☐ I have and will maintain workers compensation insurance, as required by Sec 3700 of the Labor Code, for the performance of the work for which this permit is issued My workers' compensation insurance carrier and policy number are

Carrier: AMERICAN SAFETY CAS.

Policy No: CW 5204993

(This section need not be completed if the permit is for one hundred dollars ($100) or less)

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers' compensation provisions of Sec 3700 of the Labor Code, I shall forthwith comply with those provisions

Date: 9-18-01 — Signature of Applicant: [signature]

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ C)

Lender's Name _____

Lender's Address _____

I certify that I have read this application and state that the above information is correct I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection purposes

Date: 9-11-01 — Signature of Applicant or Agent: [signature]

CITY OF LAKE FOREST

23161 Lake Center Drive #100 Lake Forest, CA 92630
Counter Hours: M-Th 8am to 12pm & 1pm to 6pm
And alternate Fridays, 8am to 12pm & 1pm to 5pm
Inspector's Hours 8am to 9am
Inspection Request Line: (949) 461-3468

SITE ADDRESS: ONE SADDLEBACK PARKWAY LAKE FOREST, CA 92630

ASSESSOR PARCEL NUMBER

BOOK _____ PAGE _____ PARCEL _____

ADDITIONAL INFORMATION / LEGAL DESCRIPTION

PROPERTY OWNER: SADDLEBACK CHURCH

MAILING ADDRESS: ONE SADDLEBACK PARKWAY

CITY: LAKE FOREST — STATE: CA — ZIP: 92630

PHONE NUMBER: 949.609.8013

ARCHITECT OR ENGINEER'S NAME: OMB ELEC. ENG. INC. — LICENSE NO: 8964

ADDRESS: 8659 RESEARCH DR. #100

CITY: IRVINE — STATE: CA — ZIP: 92618

PHONE NUMBER: 949.753.1553

APPLICANT / CONTACT PERSON: DENNIS McDAY

PHONE NUMBER: 949.753.1553

CONTRACTOR'S NAME: FULLMER COMPANIES

ADDRESS: 1925 SOUTH GROVE AVENUE

CITY: ONTARIO — STATE: CA — ZIP: 91761

PHONE NUMBER: 909.947.9967

EXPIRATION

Every permit shall expire by limitation and become null and void if the building or work authorized by such permit is not commenced within 180 days from the date of such permit, or if the building or work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of 180 days.

APPLICANT TO FILL IN QUANTITY (PLEASE PRINT OR TYPE)

	EACH	QTY	FEE
OUTLETS Rec 431 Light ____ Sw. 272	20		22.00
Total 703 (additional over 20)	683		546.40
LIGHTING FIXTURES	20		22.00
Total 1305 (additional over 20)	1285		1028.00
FIXED APPLIANCE (NOT OVER 1 HP)			
3 Dishwasher; 3 Disposal; 4 Fan; Water Heater; Clotheswasher; Heater; Other; FAU; 2 A/C; Oven; Hood; Range; Dryer			166.80
POWER APPARATUS (IN HP, KW, or KVA)			
15 Up to and including 1			208.50
9 From 1 up to and including 10			111.60
4 From 10 up and including 50			69.60
1 From 50 up to and including 100; Over 100			
SERVICES, SWITCH BOARDS & SUB.			
1 400 1000 AMPS < 600 volts			69.50
15 Electrical Subpanel			208.50
2 Switchboard Change or Additions			70.80
0 - 399 AMPS < 600 volts; Over 1000 AMPS < 600 volts; Over 600 volt rating (all amperages); Service Meter; Temp Power Pole			
SIGNS Sign with 1 Transformer; Addtl Sign & 1 Transformer; Addtl. Transformer / Flasher / Timer; Altering / Changing Letter on Sign			
TIME CLOCKS		3	15.00
RELOCATED BUILDING ELECTRICAL			
BUSWAYS (each 100 ft or fraction thereof)			

ELECTRICAL PERMIT SUBTOTAL $ 2,538.70

PLAN CHECK FEE $ 1,650.15

PLAN CHECK NO	INITIALS	DATE
023468	RF (CK NO)	9-18-01

ELECTRICAL PERMIT FEE $ 2,538.70

ISSUANCE FEE $ 15.40

TOTAL ELECTRICAL PERMIT FEE $ 2,554.10

PERMIT NO	INITIALS	DATE
023460	RF (CK NO)	9-18-01

FINALED BY	DATE
[signature]	9.10.02

$4204.25

NO	INSPECTION	DATE	INSPECTOR
	REQUIRED ELECTRICAL INSPECTIONS AND APPROVALS		
E1	Temp Power Pole		
E2	System Ground		
	Ground Rod		
	Water Pipe		
	X UFER	11-7-01	RE
E3	Underground Electrical	9-19-01	RE
E4	Rough Wiring		
E5	Rough Conduit		
E6	Bonding Water and Gas		
E7	Service		
E8	Final Electrical Inspection		
	Utility Released		
	Temporary Power Released		

INSPECTION NOTES:

L-16 - SWITCH GEAR TORQUE TEST OK RE

L-25-02 ROUGH ELEC IN #B 1ST FLOOR SOFFIT OK

Rev 4/8/99

BUILDING "A"

MECHANICAL PERMIT APPLICATION

OWNER-BUILDER DECLARATION

I hereby affirm under penalty of perjury that I am exempt from the Contractors License Law for the following reason (Sec 7031.5 Business and Professions Code Any city or county which requires a permit to construct alter improve, demolish, or repair any structure prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Sec 7000) of Div 3 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption Any violation of Sec 7031 5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500))

☐ I, as owner of the property or my employees with wages as their sole compensation will do the work and the structure is not intended or offered for sale (Sec 7044 Business and Professions Code The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his or her own employees provided that such improvements are not intended or offered for sale If, however the building or improvement is sold within one year of completion the owner-builder will have the burden of proving that he or she did not build or improve for the purpose of sale)

☐ I, as owner of the property am exclusively contracting with licensed contractors to construct the project (Sec. 7044 Business and Professions Code The Contractors License Law does not apply to an owner of property who builds or improves thereon and who contracts for such projects with a contractor(s) license pursuant to the Contractors License Law)

☐ I am exempt under Section _____ B & P C for this reason

Date _____ Signature of Owner

LICENSED CONTRACTORS DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code and my license is in full force and effect

B — License Class
301814 — License Number
7-28-03 — Expiration Date

9.18.01 — Date
Signature of Contractor

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations

☒ I have and will maintain a certificate of consent to self-insure for workers compensation as provided for by Section 3700 of the Labor Code for the performance of the work for which this permit is issued

☐ I have and will maintain workers' compensation insurance as required by Sec 3700 of the Labor Code for the performance of the work for which this permit is issued My workers' compensation insurance carrier and policy number are

Carrier AMERICAN SAFETY CAS.

Policy No CIN 5204993
(This section need not be completed if the permit is for one hundred dollars ($100) or less)

☐ I certify that in the performance of the work for which this permit is issued I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers compensation provisions of Sec 3700 of the Labor Code I shall forthwith comply with those provisions

9.18.01 — Date
Signature of Applicant

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000), IN addition TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec 3097, Civ C)

Lender's Name _____

Lender's Address _____

I certify that I have read this application and state that the above information is correct I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection purposes

9.11.01 — Date
Signature of Applicant or Agent

CITY OF LAKE FOREST — DECEMBER 20, 1991

CITY OF LAKE FOREST

23161 Lake Center Drive #100 Lake Forest CA 92630
Counter Hours M-Th 8am to 12pm & 1pm to 6pm
And alternate Fridays 8am to 12pm & 1pm to 5pm
Inspector's Hours 8 am to 9am
Inspection Request Line (949) 461-3468

SITE ADDRESS: ONE SADDLEBACK PARKWAY, LAKE FOREST, CA 92630

ASSESSOR PARCEL NUMBER

BOOK _____ PAGE _____ PARCEL _____

ADDITIONAL INFORMATION / LEGAL DESCRIPTION

PROPERTY OWNER: SADDLEBACK CHURCH

MAILING ADDRESS: ONE SADDLEBACK PARKWAY

CITY: LAKE FOREST — STATE: CA — ZIP: 92630

PHONE NUMBER: 949.609.8013

ARCHITECT'S OR ENGINEER'S NAME: P2S ENGINEERING SASSAN YAZDIZADEH — LICENSE NO: M23683

ADDRESS: 5000 EAST SPRING STREET

CITY: LONG BEACH — STATE: CA — ZIP: 90815

PHONE NUMBER: 562.497.2999

APPLICANT / CONTACT PERSON: SASSAN YAZDIZADEH

PHONE NUMBER: 562.497.2999

CONTRACTOR'S NAME: FULLMER COMPANIES

ADDRESS: 1725 SOUTH GROVE AVENUE

CITY: ONTARIO — STATE: CA — ZIP: 91761

PHONE NUMBER: 909.947.7467

EXPIRATION

Every permit shall expire by limitation and become null and void if the building or work authorized by such permit is not commenced within 180 days from the date of such permit or if the building or work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of 180 days

APPLICANT TO FILL IN QUANTITY (PLEASE PRINT OR TYPE)

QTY.	DESCRIPTION	FEE
	EACH FURNACE OR A/C COMPRESSOR	
	Up to 100 000 BTU	
	100,000 BTU but not over 500,000 BTU	
	Over 500,000 BTU	
365	AIR INLETS AND OUTLETS	—
	INSTALLATION, RELOCATION,	
	REPLACEMENT OF VENTS	
6	AIR HANDLING UNIT(S) (2000 - 10 000 CFM)	129.00
	First 10 units (incl ducts)	
	11 or more units (incl ducts)	
2	AIR HANDLING UNIT(S) >10,000CFM	86.00
	EVAPORATIVE COOLER(S)	
4	VENTILATION FAN(S) Serving (1) Register	
	First 10 Fans	45.60
	11 fans or more	
	VENTILATION SYSTEM (not part of A/C System)	
	COMMERCIAL KITCHEN HOOD(S)	
	RESIDENTIAL KITCHEN HOOD(S)	
	SPRAY BOOTH(S)	
4	BATH FAN(S)	45.60
9	FIRE DAMPER(S)	—
	MANUFACTURED FIREPLACE(S)	
4	ALTERATION OF EXISTING SYSTEMS	86.00

MECHANICAL PERMIT SUBTOTAL $ 392.20

PLAN CHECK FEE $ 254.93

PLAN CHECK NO	INITIALS	DATE
023470	CK NO RF	9.18.01

MECHANICAL PERMIT FEE $ 392.20

ISSUANCE FEE $ 15.40

TOTAL MECHANICAL PERMIT FEE $ 407.60

PERMIT NO	INITIALS	DATE
023471	CK NO RF	9.18.01

FINALED BY	DATE
R	9.10.02

$ 662.53

NO	INSPECTION	DATE	INSPECTOR
	REQUIRED MECHANICAL INSPECTIONS AND APPROVALS		
M1	FAU/Wall Furnace		
M2	Combustion Air Openings		
M3	Duct Work		
M4	AC/Compressor		
M5	Thermostat		
M6	Fire Dampers		
M7	Smoke Detection Devices		
M8	Manufactured Fireplace		
M9	Commercial Hood		
M10	Final Mechanical Inspection		

INSPECTION NOTES:

CHILLED WATER LINES OK (120 PSI) C
1st Fl & 2nd Fl eastwing Mech Pre Duct Rap 5/13/02 BN
1st FL BLDG A EAST OK TO WRAP DUCTS C
1st Fl Build A center section Prewrap oked 6/24/02 BN
2nd & 3rd Fl Prewrap center section 7/8/02 BN

Rev 3/25/99

CITY OF LAKE FOREST

23161 Lake Center Drive #100
Lake Forest, CA 92630
Counter Hours: M-TH, 8am-12pm & 1pm-6pm
Alternate Fridays, 8am-12pm & 1pm-5pm
Inspector's Hours: 8am-9:30am
Inspection Request Line: (949) 461-3468

SEWER/SEPTIC PERMIT APPLICATION

OWNER-BUILDER DECLARATION

I hereby affirm under penalty of perjury that I am exempt from the Contractors License Law for the following reason (Sec 7031 5 Business and Professions Code Any city or county which requires a permit to construct alter improve demolish or repair any structure prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Sec 7000) of Div 3 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption Any violation of Sec 7031 5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500))

☒ I, as owner of the property, or my employees with wages as their sole compensation will do the work, and the structure is not intended or offered for sale (Sec 7044, Business and Professions Code The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his or her own employees provided that such improvements are not intended or offered for sale If, however the building or improvement is sold within one year of completion the owner-builder will have the burden of proving that he or she did not build or improve for the purpose of sale)

☐ I as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec 7044, Business and Professions Code The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) license pursuant to the Contractors License Law)

☐ I am exempt under Section _____, B &P C for this reason

9.18.01 Date — Signature of Owner

LICENSED CONTRACTORS DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code and my license is in full force and effect

License Class _____ License Number _____ Expiration Date _____

Date _____ Signature of Contractor

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations

☐ I have and will maintain a certificate of consent to self insure for workers' compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued

☐ I have and will maintain workers compensation insurance as required by Sec 3700 of the Labor Code, for the performance of the work for which this permit is issued My workers' compensation insurance carrier and policy number are

Carrier _____

Policy No _____
(This section need not be completed if the permit is for one hundred dollars ($100) or less)

☒ I certify that in the performance of the work for which this permit is issued I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers' compensation provisions of Sec 3700 of the Labor Code, I shall forthwith comply with those provisions

9.18.01 Date — Signature of Applicant

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100 000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES

CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec 3097 Civ C)

Lender's Name _____

Lender's Address _____

I certify that I have read this application and state that the above information is correct I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above mentioned property for inspection purposes

9.18.01 Date — Signature of Applicant or Agent

SITE ADDRESS: 1 SADDLEBACK PARKWAY

ASSESSOR PARCEL NUMBER

BOOK _____ PAGE _____ PARCEL _____

ADDITIONAL INFORMATION / LEGAL DESCRIPTION

PROPERTY OWNER: SADDLEBACK CHURCH

MAILING ADDRESS: 1 SADDLEBACK PARKWAY

CITY: LAKE FOREST STATE: CA ZIP: 92630

PHONE NUMBER: 949. 609. 8012

ARCHITECT'S OR ENGINEER'S NAME _____ LICENSE NUMBER _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

PHONE NUMBER _____

APPLICANT / CONTACT PERSON _____

PHONE NUMBER _____

CONTRACTOR'S NAME: SADDLEBACK CHURCH

ADDRESS _____

CITY _____ STATE _____ ZIP _____

PHONE NUMBER _____

CONNECTION DATA

MAP _____ BOOK _____ PAGE _____

STATION _____ DEPTH _____

MANHOLE REFERENCE _____ UPPER _____ LOWER _____

TYPE OF CONSTRUCTION _____ Y _____ CURB _____ P.L.

LENGTH FROM M.L. TO P.L. _____

APPLICANT TO FILL IN QUANTITY (PLEASE PRINT OR TYPE)

QTY	DESCRIPTION	FEE
1	Connection of sewer to public sewer	27.80
	Connection of additional work to existing sewer	
	Connection of sewer to private disposal system	
	Installation of private disposal system	
	Installation of greywater system	
	Disconnection /Abandonment of disposal system	
	Repair/Alteration of disposal system	

SEWER PERMIT SUBTOTAL $ _____

SEWER PLAN CHECK FEE $ _____

PLAN CHECK NO	INITIALS / CK NO	DATE

SEWER PERMIT FEE $ 27.80

ISSUANCE FEE $ 15.40

TOTAL SEWER PERMIT FEE $ 43.20

PERMIT NO	INITIALS / CK NO	DATE
023472	RF	9.18.01

FINALED BY	DATE
RR	11-21-02

NO.	INSPECTION	DATE	INSPECTOR
	REQUIRED SEWER/SEPTIC INSPECTIONS AND APPROVALS		
P5	Sewer		
P6	Private Sewage Disposal System		
	Disconnect, Plug and Abandon House Sewer		
	Backfill Septic Tank		
	Backfill Seepage Pits(s)		
	Backfill Cesspool(s)		
	Clean Outs to Grade		

SEWER MAP

INSPECTION NOTES:

rev. 11/97

BUILDINGS "B", "C" AND EQUIP. YARD.

PLUMBING PERMIT APPLICATION

OWNER-BUILDER DECLARATION

I hereby affirm under penalty of perjury that I am exempt from the Contractors License Law for the following reason (Sec 7031 5, Business and Professions Code Any city or county which requires a permit to construct, alter, improve, demolish or repair any structure prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Sec 7000) of Div 3 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption Any violation of Sec 7031 5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500))

☐ I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec 7044, Business and Professions Code The Contractors License Law does not apply to an owner of property who builds or improves thereon and who does such work himself or herself or through his or her own employees provided that such improvements are not intended or offered for sale If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he or she did not build or improve for the purpose of sale)

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec 7044, Business and Professions Code. The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) license pursuant to the Contractors License Law).

☐ I am exempt under Section _____, B &P C for this reason

Date _____ Signature of Owner

LICENSED CONTRACTORS DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect

License Class: B License Number: 301814 Expiration Date: 2-28-02

Date: 9-18-01 Signature of Contractor: [signature]

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations

☒ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued

☐ I have and will maintain workers' compensation insurance, as required by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued My workers' compensation insurance carrier and policy number are.

Carrier: AMERICAN SAFETY CAS.

Policy No: CWI 5204993

(This section need not be completed if the permit is for one hundred dollars ($100) or less)

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers' compensation provisions of Sec 3700 of the Labor Code, I shall forthwith comply with those provisions.

Date: 9-18-01 Signature of Applicant: [signature]

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3708 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ C.)

Lender's Name _____

Lender's Address _____

I certify that I have read this application and state that the above information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection purposes.

Date: 9-18-01 Signature of Applicant or Agent: [signature]

CITY OF LAKE FOREST — DECEMBER 28, 1991

CITY OF LAKE FOREST

23161 Lake Center Drive #100, Lake Forest, CA 92630
Counter Hours M-Th, 8am to 12pm & 1pm to 6pm
And alternate Fridays, 8am to 12pm & 1pm to 5pm
Inspectors Hours 8 am to 9am
Inspection Request Line, (949) 461-3468

SITE ADDRESS: ONE SADDLEBACK PARKWAY, LAKE FOREST, CA 92630

ASSESSOR PARCEL NUMBER

BOOK PAGE PARCEL

ADDITIONAL INFORMATION / LEGAL DESCRIPTION

PROPERTY OWNER: SADDLEBACK CHURCH

MAILING ADDRESS: ONE SADDLEBACK PARKWAY

CITY: LAKE FOREST STATE: CA ZIP: 92630

PHONE NUMBER: 949.609.8013

ARCHITECT'S OR ENGINEER'S NAME: P2S ENGINEERING LICENSE NO: M25683

ADDRESS: 5000 EAST SPRING STREET

CITY: LONG BEACH STATE: CA ZIP: 90815

PHONE NUMBER: 562.997.2999

APPLICANT / CONTACT PERSON: SASSAN YAZDIZADEH

PHONE NUMBER: 562.997.2999

CONTRACTOR'S NAME: FULLMER COMPANIES

ADDRESS: 1725 SOUTH GROVE AVENUE

CITY: ONTARIO STATE: CA ZIP: 91761

PHONE NUMBER: 909.947.9967

EXPIRATION

Every permit shall expire by limitation and become null and void if the building or work authorized by such permit is not commenced within 180 days from the date of such permit, or if the building or work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of 180 days

APPLICANT TO FILL IN QUANTITY (PLEASE PRINT OR TYPE)

QTY	DESCRIPTION	FEE
4	Backflow Prevention Device	35.20
	Bath Tub	
1	Clothes Washer	8.80
3	Dishwasher	26.40
3	Floor Sink	26.40
	Gas Regulator	
1	Gas System Outlets 5	8.80
	Additional Gas Outlets over 5 per system	
7	Hose Bibbs	61.60
20	Lavatory	176.00
8	Roof Drain	70.40
9	Sinks	79.20
	Showers	
	Sprinkler System (per meter)	
	Sprinkler Piping System (future use)	
	Sprinkler Piping (additional / alteration / repair)	
	Standpipes (wet / dry / combination)	
	Temporary Gas Service/Work	
13	Toilets	114.40
5	Trap Primers	44.00
4	Urinals	35.20
2	Water Heaters	17.60
	Yard Water Distribution System	

PLUMBING PERMIT SUBTOTAL $ 704.00

PLUMBING PLAN CHECK FEE $ 457.60

PLAN CHECK NO	INITIALS	DATE
023474	CK NO RF	9-18-01

PLUMBING PERMIT FEE $ 704.00

ISSUANCE FEE $ 15.40

TOTAL PLUMBING PERMIT FEE $ 719.40

PERMIT NO	INITIALS	DATE
023475	CK NO RF	9-18-01

FINALED BY	DATE
11-21-02	RC

1.177

NO	INSPECTION	DATE	INSPECTOR
	REQUIRED PLUMBING INSPECTIONS AND APPROVALS		
P1	Underground/Floor Plumbing	9-19-01	RC
P2	Water Service		
	Plastic _____ Metal _____		
P3	Rough Plumbing		
P4	Rough Gas System		
P7	Water Heater		
P8	Lawn Sprinklers		
P9	Gas Test		
P10	Gas Final		
P11	Final Plumbing Inspection		
	Utility Released		

INSPECTION NOTES:

4-1-02 ROUGH PLUMB (RESTROOM WALLS ONLY) OK BLDG C RC
4/3/02 Rough Plumb 1st + 2nd Floors oked BN
4/22/02 Build B & C Hot water piping oked 4/22/02 BN
4-23-02 ROUGH ELEC IN SOFFIT OK RC
4/24/02 GAS TEST OKD (BLDG B)
4/24/02 CHILLWATER TEST OKD BLDG B&C [illegible]

Rev 4/8/99

BLDGS. "B" AND "C"

ELECTRICAL PERMIT APPLICATION

OWNER-BUILDER DECLARATION

I hereby affirm under penalty of perjury that I am exempt from the Contractors License Law for the following reason (Sec 7031.5, Business and Professions Code Any city or county which requires a permit to construct, alter improve, demolish or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Sec 7000) of Div 3 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption Any violation of Sec 7031 5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500))

☐ I as owner of the property, or my employees with wages as their sole compensation, will do the work and the structure is not intended or offered for sale (Sec 7044 Business and Professions Code The Contractors License Law does not apply to an owner of property who builds or improves thereon and who does such work himself or herself or through his or her own employees provided that such improvements are not intended or offered for sale If, however, the building or improvement is sold within one year of completion the owner-builder will have the burden of proving that he or she did not build or improve for the purpose of sale.)

☐ I as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec 7044, Business and Professions Code The Contractors License Law does not apply to an owner of property who builds or improves thereon and who contracts for such projects with a contractor(s) license pursuant to the Contractors License Law)

☐ I am exempt under Section _____, B.&P C for this reason

Date _____ Signature of Owner

LICENSED CONTRACTORS DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code and my license is in full force and effect

B — License Class; 301814 — License Number; 2-28-03 — Expiration Date

9-18-01 — Date; Signature of Contractor

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations

☒ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Section 3700 of the Labor Code for the performance of the work for which this permit is issued

☐ I have and will maintain workers' compensation insurance, as required by Sec 3700 of the Labor Code, for the performance of the work for which this permit is issued My workers' compensation insurance carrier and policy number are

Carrier AMERICAN SAFETY CAS.

Policy No. CLW 5204993

(This section need not be completed if the permit is for one hundred dollars ($100) or less)

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers' compensation provisions of Sec 3700 of the Labor Code, I shall forthwith comply with those provisions

9-18-01 — Date; Signature of Applicant

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3708 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec 3097, Civ. C)

Lender's Name _____

Lender's Address _____

I certify that I have read this application and state that the above information is correct I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection purposes

7-11-01 — Date; Signature of Applicant or Agent

CITY OF LAKE FOREST

23161 Lake Center Drive #100 Lake Forest CA 92630
Counter Hours M-Th, 8am to 12pm & 1pm to 6pm
And alternate Fridays 8am to 12pm & 1pm to 5pm
Inspector's Hours 8am to 9am
Inspection Request Line (949) 461-3468

SITE ADDRESS: ONE SADDLEBACK PARKWAY, LAKE FOREST, CA 92630

ASSESSOR PARCEL NUMBER

BOOK PAGE PARCEL

ADDITIONAL INFORMATION / LEGAL DESCRIPTION

PROPERTY OWNER: SADDLEBACK CHURCH

MAILING ADDRESS: ONE SADDLEBACK PARKWAY

CITY: LAKE FOREST STATE: CA ZIP: 92630

PHONE NUMBER: 949.609.8613

ARCHITECT'S OR ENGINEER'S NAME: DMB ELEC. ENG. INC. LICENSE NO: 8964

ADDRESS: 8659 RESEARCH DR. #100

CITY: IRVINE STATE: CA ZIP: 92618

PHONE NUMBER: 949.753.1553

APPLICANT / CONTACT PERSON: DENNIS McVAY

PHONE NUMBER: 949.753.1553

CONTRACTOR'S NAME: FULLMER COMPANIES

ADDRESS: 1725 SOUTH GROVE AVENUE

CITY: ONTARIO STATE: CA ZIP: 91761

PHONE NUMBER: 909.947.9467

EXPIRATION

Every permit shall expire by limitation and become null and void if the building or work authorized by such permit is not commenced within 180 days from the date of such permit, or if the building or work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of 180 days

APPLICANT TO FILL IN QUANTITY (PLEASE PRINT OR TYPE)

	EACH	QTY	FEE
OUTLETS Rec. 197 Light ____ Sw 99	20		22.00
Total 288 (additional over 20)	268		214.40
LIGHTING FIXTURES	20		22.00
Total 567 (additional over 20)	547		437.60
FIXED APPLIANCE (NOT OVER 1 HP)			
___ Water Heater; ___ FAU; 3 Dishwasher; ___ A/C; 1 Clotheswasher; 2 Oven; 1 Disposal; ___ Hood; ___ Heater; ___ Range; 5 Fan; 1 Dryer; 1 Other			180.70
POWER APPARATUS (IN HP, KW, or KVA)			
___ Up to and including 1; ___ From 1 up to and including 10; ___ From 10 up and including 50; ___ From 50 up to and including 100; ___ Over 100			
SERVICES, SWITCH BOARDS & SUB.			
1 0 - 399 AMPS < 600 volts			27.90
1 400 - 1000 AMPS < 600 volts			27.90
___ Over 1000 AMPS < 600 volts; ___ Over 600 volt rating (all amperages); ___ Service Meter; ___ Electrical Subpanel			35.40
1 Switchboard Change or Additions; ___ Temp. Power Pole			
SIGNS ___ Sign with 1 Transformer; ___ Addt'l Sign & 1 Transformer; ___ Addt'l Transformer / Flasher / Timer; ___ Altering / Changing Letter on Sign			
TIME CLOCKS		2	10.00
RELOCATED BUILDING ELECTRICAL			
BUSWAYS (each 100 ft or fraction thereof)			

ELECTRICAL PERMIT SUBTOTAL $ 977.90

PLAN CHECK FEE $ 635.63

PLAN CHECK NO	INITIALS	DATE
023476	CK NO RF	9-18-01

ELECTRICAL PERMIT FEE $ 977.90

ISSUANCE FEE $ 15.40

TOTAL ELECTRICAL PERMIT FEE $ 993.30 ~~$ 993.30~~

PERMIT NO	INITIALS	DATE
023477	CK NO RF	9-18-01

FINALED BY	DATE
11-21-02	PC

$1628.93

NO	INSPECTION	DATE	INSPECTOR
	REQUIRED ELECTRICAL INSPECTIONS AND APPROVALS		
E1	Temp Power Pole		
E2	System Ground		
	Ground Rod		
	Water Pipe		
	X UFER 2ea	10-3-01	RC
E3	Underground Electrical	9-19-01	RC
E4	Rough Wiring		
E5	Rough Conduit		
E6	Bonding Water and Gas		
E7	Service		
E8	Final Electrical Inspection		
	Utility Released		
	Temporary Power Released		

INSPECTION NOTES:

BOND WIRE FOR BATHSHOWER OK RC
1st & 2nd Fl east wing rough wire oked 6/26/02 BC
Trans Ground oked 7/3/02 BC
1st Fl center section Rough wire oked o/-y 7/12/02 BC
2nd Fl center section Rough wire oked 7/18/02 BC
1st & 2nd Fl Rough elect oked center section 7/23/02 BC
2ND FLR ABOVE CLG OK 8/14 JD
8/15/02 1ST FLR ABOVE CLG & ELECT SERVICE & SUB PANEL LOCK OFFS OK

Rev 4/8/99

BUILDINGS "B", "C" AND EQUIP YARD.

MECHANICAL PERMIT APPLICATION

OWNER-BUILDER DECLARATION

I hereby affirm under penalty of perjury that I am exempt from the Contractors License Law for the following reason (Sec 7031 5 Business and Professions Code Any city or county which requires a permit to construct, alter, improve demolish or repair any structure prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Sec 7000) of Div. 3 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption Any violation of Sec 7031 5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500))

☐ I, as owner of the property or my employees with wages as their sole compensation will do the work, and the structure is not intended or offered for sale (Sec 7044 Business and Professions Code The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his or her own employees, provided that such improvements are not intended or offered for sale If however the building or improvement is sold within one year of completion the owner-builder will have the burden of proving that he or she did not build or improve for the purpose of sale)

☐ I as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec 7044, Business and Professions Code The Contractors License Law does not apply to an owner of property who builds or improves thereon and who contracts for such projects with a contractor(s) license pursuant to the Contractors License Law.)

☐ I am exempt under Section _____ B &P C for this reason

Date _____ Signature of Owner

LICENSED CONTRACTORS DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code and my license is in full force and effect

B — License Class
301814 — License Number
2-28-03 — Expiration Date
9-18-01 — Date
Signature of Contractor

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations

☒ I have and will maintain a certificate of consent to self-insure for workers' compensation as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued

☐ I have and will maintain workers' compensation insurance, as required by Sec 3700 of the Labor Code, for the performance of the work for which this permit is issued My workers' compensation insurance carrier and policy number are

Carrier AMERICAN SAFETY CAS.

Policy No. CIW 5204993
(This section need not be completed if the permit is for one hundred dollars ($100) or less)

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California and agree that if I should become subject to the workers' compensation provisions of Sec 3700 of the Labor Code, I shall forthwith comply with those provisions

9-18-01 — Date
Signature of Applicant

WARNING. FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100 000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec 3097 Civ C)

Lender's Name _____

Lender's Address _____

I certify that I have read this application and state that the above information is correct I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection purposes.

9-18-01 — Date
Signature of Applicant or Agent

CITY OF LAKE FOREST — DECEMBER 20, 1991

CITY OF LAKE FOREST

23161 Lake Center Drive #100, Lake Forest, CA 92630
Counter Hours M-Th, 8am to 12pm & 1pm to 6pm
And alternate Fridays, 8am to 12pm & 1pm to 5pm
Inspector's Hours 8 am to 9am
Inspection Request Line (949) 461-3468

SITE ADDRESS: ONE SADDLEBACK PARKWAY, LAKE FOREST, CA 92630

ASSESSOR PARCEL NUMBER
BOOK PAGE PARCEL

ADDITIONAL INFORMATION / LEGAL DESCRIPTION

PROPERTY OWNER: SADDLEBACK CHURCH

MAILING ADDRESS: ONE SADDLEBACK PARKWAY

CITY: LAKE FOREST — STATE: CA — ZIP: 92630

PHONE NUMBER: 949.609.8013

ARCHITECT'S OR ENGINEER'S NAME: P2S ENGINEERING — LICENSE NO: M25683

ADDRESS: 5000 EAST SPRING STREET

CITY: LONG BEACH — STATE: CA — ZIP: 90815

PHONE NUMBER: 562.497.2999

APPLICANT / CONTACT PERSON: SASSAN YAZDIZADEH

PHONE NUMBER: 562.497.2999

CONTRACTOR'S NAME: FULLMER COMPANIES

ADDRESS: 1725 SOUTH GROVE AVENUE

CITY: ONTARIO — STATE: CA — ZIP: 91761

PHONE NUMBER: 909.947.9967

EXPIRATION

Every permit shall expire by limitation and become null and void if the building or work authorized by such permit is not commenced within 180 days from the date of such permit, or if the building or work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of 180 days

APPLICANT TO FILL IN QUANTITY (PLEASE PRINT OR TYPE)

QTY.	DESCRIPTION	FEE
	EACH FURNACE OR A/C COMPRESSOR	
	Up to 100,000 BTU	
	100 000 BTU but not over 500,000 BTU	
	Over 500,000 BTU	
138	AIR INLETS AND OUTLETS	/
	INSTALLATION, RELOCATION,	
	REPLACEMENT OF VENTS	
2	AIR HANDLING UNIT(S)	
	(2000 - 10 000 CFM)	43.00
	First 10 units (incl ducts)	
	11 or more units (incl ducts)	
	AIR HANDLING UNIT(S) >10,000CFM	
	EVAPORATIVE COOLER(S)	
4	VENTILATION FAN(S) Serving (1) Register	
	First 10 Fans	44.40
	11 fans or more	
	VENTILATION SYSTEM (not part of A/C System)	
	COMMERCIAL KITCHEN HOOD(S)	
	RESIDENTIAL KITCHEN HOOD(S)	
	SPRAY BOOTH(S)	
1	BATH FAN(S)	11.40
22	FIRE DAMPER(S)	/
	MANUFACTURED FIREPLACE(S)	
4	ALTERATION OF EXISTING SYSTEMS	86.00

MECHANICAL PERMIT SUBTOTAL $ 184.80

PLAN CHECK FEE $ 120.12

PLAN CHECK NO	INITIALS	DATE
023478	RF (CK NO)	9-18-01

MECHANICAL PERMIT FEE $ 184.80

ISSUANCE FEE $ 15.40

TOTAL MECHANICAL PERMIT FEE $ 200.20

PERMIT NO	INITIALS	DATE
023479	RF (CK NO)	9-18-01

FINALED BY	DATE
	11-21-02

320.32

NO	INSPECTION	DATE	INSPECTOR

REQUIRED MECHANICAL INSPECTIONS AND APPROVALS

M1	FAU/Wall Furnace		
M2	Combustion Air Openings		
M3	Duct Work		
M4	AC/Compressor		
M5	Thermostat		
M6	Fire Dampers		
M7	Smoke Detection Devices		
M8	Manufactured Fireplace		
M9	Commercial Hood		
M10	Final Mechanical Inspection		

INSPECTION NOTES:

4-16 @ DUCTS OK TO WRAP IN SHAFT

Rev 3/25/08

CITY OF LAKE FOREST

23161 Lake Center Drive #100
Lake Forest, CA 92630
Counter Hours: M-TH, 8am-12pm & 1pm-6pm
Alternate Fridays, 8am-12pm & 1pm-5pm
Inspector's Hours: 8am-9:30am
Inspection Request Line: (949) 461-3468

SEWER/SEPTIC PERMIT APPLICATION

OWNER-BUILDER DECLARATION

I hereby affirm under penalty of perjury that I am exempt from the Contractors License Law for the following reason (Sec 7031 5, Business and Professions Code Any city or county which requires a permit to construct alter improve demolish, or repair any structure prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Sec. 7000) of Div 3 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption Any violation of Sec 7031 5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500))

[X] I as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec 7044, Business and Professions Code The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his o her own employees provided that such improvements are not intended or offered for sale If however, the building or improvement is sold within one year of completion the owner builder will have the burden of proving that he or she did not build or improve for the purpose of sale)

[ ] I, as owner of the property am exclusively contracting with licensed contractors to construct the project (Sec 7044, Business and Professions Code The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) license pursuant to the Contractors License Law)

[ ] I am exempt under Section _____, B &P C for this reason

9·18·01 Date — Signature of Owner

LICENSED CONTRACTORS DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code and my license is in full force and effect

License Class _____ License Number _____ Expiration Date _____

Date _____ Signature of Contractor

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations

[ ] I have and will maintain a certificate of consent to self insure for workers' compensation as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued

[ ] I have and will maintain workers compensation insurance as required by Sec 3700 of the Labor Code, for the performance of the work for which this permit is issued My workers' compensation insurance carrier and policy number are.

Carrier _____

Policy No _____

(This section need not be completed if a permit is for one hundred dollars ($100) or less)

[X] I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers compensation provisions of Sec 3700 of the Labor Code I shall forthwith comply with those provisions

9·18·01 Date — Signature of Applicant

WARNING FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec 3097, Civ. C)

Lender's Name _____

Lender's Address _____

I certify that I have read this application and state that the above information is correct I agree to comply with all city and county ordinances and state laws relating to building construction and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection purposes

9·18·01 Date — Signature of Applicant or Agent

SITE ADDRESS: 1 SADDLEBACK PARKWAY

ASSESSOR PARCEL NUMBER

BOOK _____ PAGE _____ PARCEL _____

ADDITIONAL INFORMATION / LEGAL DESCRIPTION

PROPERTY OWNER: SADDLEBACK CHURCH

MAILING ADDRESS: 1 SADDLEBACK PARKWAY

CITY: LAKE FOREST STATE: CA ZIP: 92630

PHONE NUMBER: 949 · 609 · 8012

ARCHITECT'S OR ENGINEER'S NAME _____ LICENSE NUMBER _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

PHONE NUMBER _____

APPLICANT / CONTACT PERSON _____

PHONE NUMBER _____

CONTRACTOR'S NAME: SADDLEBACK CHURCH

ADDRESS _____

CITY _____ STATE _____ ZIP _____

PHONE NUMBER _____

CONNECTION DATA

MAP _____ BOOK _____ PAGE _____

STATION _____ DEPTH _____

MANHOLE REFERENCE _____ UPPER / LOWER

TYPE OF CONSTRUCTION _____ Y _____ CURB _____ P L

LENGTH FROM M L TO P L

APPLICANT TO FILL IN QUANTITY (PLEASE PRINT OR TYPE)

QTY	DESCRIPTION	FEE
1	Connection of sewer to public sewer	27.80
	Connection of additional work to existing sewer	
	Connection of sewer to private disposal system	
	Installation of private disposal system	
	Installation of greywater system	
	Disconnection /Abandonment of disposal system	
	Repair/Alteration of disposal system	

SEWER PERMIT SUBTOTAL $ _____

SEWER PLAN CHECK FEE $ _____

PLAN CHECK NO _____ INITIALS _____ DATE _____ CK NO _____

SEWER PERMIT FEE $ 27.80

ISSUANCE FEE $ 15.40

TOTAL SEWER PERMIT FEE $ 43.20

PERMIT NO 023480 INITIALS RF CK NO _____ DATE 9·18·01

FINALED BY RC DATE 11-21-02

NO.	INSPECTION	DATE	INSPECTOR
	REQUIRED SEWER/SEPTIC INSPECTIONS AND APPROVALS		
P5	Sewer		
P6	Private Sewage Disposal System		
	Disconnect, Plug and Abandon House Sewer		
	Backfill Septic Tank		
	Backfill Seepage Pits(s)		
	Backfill Cesspool(s)		
	Clean Outs to Grade		

SEWER MAP

INSPECTION NOTES:

rev. 11/97

CERTIFICATE OF OCCUPANCY
CITY OF LAKE FOREST
BUILDING & SAFETY DIVISION

This Certificate issued pursuant to the requirements of Section 109.3 of the City Building Code Certifying that this structure has been inspected for compliance with the requirements of this code For the group and division of occupancy and the use for which the proposed occupancy is classified. For the following:

Building Permit No 23473 **Occupancy Group** A2.1/B/E-3 **Type of Construction** II 1 HR

Description CLASSROOMS AND ASSEMBLY ROOM

Building Address 1 SADDLEBACK PARKWAY

Name of Business or Store Name SADDLEBACK CHURCH

Owner of Building SADDLEBACK CHURCH

Address 1 SADDLEBACK PARKWAY, LAKE FOREST, CA 92630

JAMES BROGAN
Building Official

By: Jam Brogan

Date: JANUARY 29, 2003

POST IN A CONSPICUOUS PLACE AND DO NOT REMOVE UNLESS APPROVED BY THE CHIEF BUILDING OFFICIAL

(* Grill *)

BUILDING PERMIT APPLICATION

OWNER-BUILDER DECLARATION

I hereby affirm under penalty of perjury that I am exempt from the Contractors License Law for the following reason (Sec. 7031.5, Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Sec. 7000) of Div. 3 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Sec. 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500).):

☐ I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his or her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he or she did not build or improve for the purpose of sale.).

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) license pursuant to the Contractors License Law.).

☐ I am exempt under Section _____, B.&P.C. for this reason

Date _____ Signature of Owner

LICENSED CONTRACTORS DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

B, C27, C-53-A 774996 [redacted]

License Class: B, C27, C-53-A — License Number: 774996 — Expiration Date: 12/09

Date: 12/20/07 — Signature of Contractor

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations:

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

☐ I have and will maintain workers' compensation insurance, as required by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier: AIG

Policy No.: 1383671

(This section need not be completed if the permit is for one hundred dollars ($100) or less).

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers' compensation provisions of Sec. 3700 of the Labor Code, I shall forthwith comply with those provisions.

12/20/07 — Date — Signature of Applicant

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C.).

Lender's Name _____

Lender's Address _____

I certify that I have read this application and state that the above information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection purposes.

12/20/07 — Date — Signature of Applicant or Agent

CITY OF LAKE FOREST

25550 Commercentre Drive #100, Lake Forest, CA 92630
Counter Hours: M-Th, 8am to 12pm & 1pm to 6pm
And alternate Fridays, 8am to 12pm & 1pm to 5pm
Inspector's Hours: 8am to 9am
Inspection Request Line: (949) 461-3468

SITE ADDRESS: ONE SADDLEBACK PARKWAY

ASSESSOR PARCEL NUMBER — BOOK: 90 — PAGE: 399 — PARCEL:

ADDITIONAL INFORMATION / LEGAL DESCRIPTION: PORTIONS OF PARCELS 1 & 2 MAP 90-399 BOOK 278 PAGE 12-19

PROPERTY OWNER: SADDLEBACK CHURCH

MAILING ADDRESS: ONE SADDLEBACK PARKWAY

CITY: LAKE FOREST — STATE: CA — ZIP: 92610

PHONE NUMBER: 949-609-8000

ARCHITECT'S OR ENGINEER'S NAME — LICENSE NO.

ADDRESS

CITY — STATE — ZIP

PHONE NUMBER

APPLICANT / CONTACT PERSON: TIM LOZA

PHONE NUMBER: (949) 903-1013

CONTRACTOR'S NAME: TIM LOZA

ADDRESS: 5 ROCKY ROAD

CITY: LAKE FOREST — STATE: CA — ZIP: 92610

PHONE NUMBER: (949) 903-1013

EXPIRATION

Every permit shall expire by limitation and become null and void if the building or work authorized by such permit is not commenced within 180 days from the date of such permit, or if the building or work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of 180 days.

DESCRIPTION OF WORK: AMENDMENT TO PERMIT #44137 STUDENT ZONE @ SVCC - (STUDENT ZONE GRILL)

OCC. GROUP: B — TYPE(S) OF CONSTRUCTION: TYPE V NON RATED — NO. OF STORIES: 1

SQUARE FOOTAGE: 890 SQFT. — FIRE SPRINKLERS REQUIRED: YES ☐ NO ☑

STATISTICAL CLASSIFICATION NO.: 015 — UNIT(S): — CODE IN EFFECT: 2001 CBC

SPECIAL CONDITIONS / PLANNING FILE NO.

INITIAL VALUATION: $ 50,000 — REVISED VALUATION: $

PLAN CHECK FEE: $ 452.07

ADDITIONAL PLAN CHECK FEE: $

PLAN CHECK NO.: 047688 — INITIALS: NF — DATE: 12.21.07 — CK NO.

ADDITIONAL PLAN CHECK NO. — INITIALS — DATE — CK NO.

☐ SCHOOL FEES PAID ☑ FIRE AUTHORITY APPR.
☐ HOA APPR. OBTAINED ☐ HEALTH DEPT. APPR.
☐ PUBLIC WORKS APPR. ☐ WATER DISTRICT APPR.
☐ SCAQMD APPR. ☐

FINALED

BUILDING PERMIT FEE: $ 585.00

ISSUANCE FEE: $ 30.00

SMIP FEE: $ 18.90

MICROFILM: $ 83.20

$

TOTAL BUILDING PERMIT FEE: $ 717.10 ~~$ 708.20~~

PERMIT NO. — INITIALS: NF — DATE: 7.17.08

FINALED BY: B Nelson — CK NO. — DATE: 4/20/09

NO.	INSPECTION	DATE	INSPECTOR
	REQUIRED BUILDING INSPECTIONS AND APPROVALS		
B1	Location and setbacks		
B2	Soils Engineer's Approval		
B3	Foundation/Trench forms	7/22/08	B Nelson
B4	Structural concrete slab on grade	10/22/08	[illegible]
B5	Raised floor framing		
B6	Under floor insulation		
B7	First level floor sheathing		
B8	Second level floor sheathing		
B9	Third level floor sheathing		
B10	Roof sheathing		
B11	Concrete block		
	1st Grout lift		
	2nd Grout lift		
	3rd Grout lift		
	4th Grout lift		
B12	Steel framing		
B13	Fire Dept frame inspection		
B14	Building Dept. frame inspection	2/19/09	BNelson
B15	Fire sprinkler hangers		
B16	Insulation/weather stripping		
B17	Interior lath and/or drywall		
B18	Exterior lath		
B19	Rated floor/Ceiling assemblies		
B20	Rated wall assemblies		
B21	Rated opening protection		
B22	Rated shaft construction		
B23	T-bar ceilings	12/11/08	B Nelson
B24	Lot drainage		
B25	Planning Dept. Approval		
B26	Fire Dept. Approval		
B27	Public Works Dept. Approval		
B28	Final Building inspection approval	4/20/09	BNelson

DESCRIBE COMPLETELY THE INTENDED USE OF ALL SPACE APPLICABLE TO THIS BUILDING PERMIT:

The following statement must be signed by the Building owner.

(When approved by the Building Official, the owner's agent may sign for permits other than the initial or shell building permit.)

Will the applicant or future building occupant handle a hazardous material or mixture containing a hazardous material equal to or greater than the amounts specified on the hazardous materials information guide?

☐ YES ☐ NO

If the answer to the question was yes, will the proposed building or modified facility be within 1000 feet of the outer boundary of a school?

☐ YES ☐ NO

Will the intended use of the building by the applicant or future building occupant require a permit for construction or modification from the South Coast Air Quality Management District (SCAQMD)? (See permitting checklist for guidelines.)

☐ YES ☐ NO

I have read the hazardous material information guide and the SCAQMD permitting checklist. I understand my requirement under the State of California Health and Safety Code Section 25505,25533, and 25634 concerning hazardous materials reporting.

☐ OWNER ☐ AGENT

NAME _____ SIGNATURE _____

INSPECTION NOTES:

6 Columns and stem wall oked to Place Concret 7/28/08 B Nelson

oked to Do Training only 1/22/09 BNelson

Rev. 3/25/99

7-3-08 UNDERSLAB ONLY – SUBJECT IRWD APPROVAL

PLUMBING PERMIT APPLICATION

OWNER-BUILDER DECLARATION

I hereby affirm under penalty of perjury that I am exempt from the Contractors License Law for the following reason (Sec. 7031.5, Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Sec. 7000) of Div. 3 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Sec. 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500).):

☐ I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his or her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he or she did not build or improve for the purpose of sale.).

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) license pursuant to the Contractors License Law.).

☐ I am exempt under Section _____, B.&P.C. for this reason

Date _____ Signature of Owner

LICENSED CONTRACTORS DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

A, B, C-27, C-53 — License Class
274979 — License Number
12/09 — Expiration Date
7/3/08 — Date
Signature of Contractor

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations:

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

☒ I have and will maintain workers' compensation insurance, as required by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier: AIG

Policy No.: 13836711

(This section need not be completed if the permit is for one hundred dollars ($100) or less).

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers' compensation provisions of Sec. 3700 of the Labor Code, I shall forthwith comply with those provisions.

7/3/08 — Date
Signature of Applicant

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C.).

Lender's Name _____

Lender's Address _____

I certify that I have read this application and state that the above information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection purposes.

Date _____ Signature of Applicant or Agent

CITY OF LAKE FOREST — DECEMBER 20, 1991

CITY OF LAKE FOREST

25550 Commercentre Drive #100, Lake Forest, CA 92630
Counter Hours: M-Th, 8am to 12pm & 1pm to 6pm
And alternate Fridays, 8am to 12pm & 1pm to 5pm
Inspector's Hours: 8 am to 9am
Inspection Request Line: (949) 461-3468

SITE ADDRESS: 1 SADDLEBACK PARKWAY, LAKE FOREST CA 92630

ASSESSOR PARCEL NUMBER

BOOK _____ PAGE _____ PARCEL _____

ADDITIONAL INFORMATION / LEGAL DESCRIPTION

PROPERTY OWNER: SADDLEBACK COMMUNITY CHURCH

MAILING ADDRESS: 1 SADDLEBACK PKWY

CITY: LAKE FOREST — STATE: CA — ZIP: 92630

PHONE NUMBER

ARCHITECT'S OR ENGINEER'S NAME: CARL J. LOZA — LICENSE NO.

ADDRESS: 13566 DONAT AVE

CITY: NORWALK — STATE: CA. — ZIP: 90650

PHONE NUMBER: 562 863 1437

APPLICANT / CONTACT PERSON: TIM LOZA

PHONE NUMBER: 949 903-1013

CONTRACTOR'S NAME: SADDLEBACK DEVELOPMENT CORP

ADDRESS: 5 ROCKY ROAD

CITY: LAKE FOREST — STATE: CA — ZIP: 92630

PHONE NUMBER: 949 609 8260

EXPIRATION

Every permit shall expire by limitation and become null and void if the building or work authorized by such permit is not commenced within 180 days from the date of such permit, or if the building or work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of 180 days.

APPLICANT TO FILL IN QUANTITY (PLEASE PRINT OR TYPE)

QTY.	DESCRIPTION	FEE
	Backflow Prevention Device	
	Bath Tub	
	Clothes Washer	
	Dishwasher	
	Floor Sink	
	Gas Regulator	
	Gas System Outlets	
	Additional Gas Outlets over 5 per system	
	Hose Bibbs	
	Lavatory	
	Roof Drain	
	Sinks	
	Showers	
	Sprinkler System (per meter)	
	Sprinkler Piping System (future use)	
	Sprinkler Piping (additional / alteration / repair)	
	Standpipes (wet / dry / combination)	
	Temporary Gas Service/Work	
	Toilets	
	Trap Primers	
	Urinals	
	Water Heaters	
	Yard Water Distribution System	
1	U/G PLUMBING UTILITIES FOR STUDENT GRILL	

PLUMBING PERMIT SUBTOTAL $ 1,212.00

PLUMBING PLAN CHECK FEE $

PLAN CHECK NO. — INITIALS — DATE — CK NO.

PLUMBING PERMIT FEE $ 1,212.00

ISSUANCE FEE $ 30.00

MICROFILM 50.00

TOTAL PLUMBING PERMIT FEE $ 1,292.00

PERMIT NO. 048949 — INITIALS RF — CK NO. — DATE 7.3.08

FINALED BY B Allen — DATE 4/20/09

FINALED

NO.	INSPECTION	DATE	INSPECTOR
	REQUIRED PLUMBING INSPECTIONS AND APPROVALS		
P1	Underground/Floor Plumbing	7/17/08	B Nelson
P2	Water Service		
	Plastic _____ Metal _____		
P3	Rough Plumbing		
P4	Rough Gas System		
P7	Water Heater		
P8	Lawn Sprinklers		
P9	Gas Test		
P10	Gas Final		
P11	Final Plumbing Inspection	9/20/09	B Nelson
	Utility Released		

Plumb in shotcrete wall
okay to cover 9/23/08 B Nelson

INSPECTION NOTES:

Rev. 4/8/99

ELECTRICAL PERMIT APPLICATION

OWNER-BUILDER DECLARATION

I hereby affirm under penalty of perjury that I am exempt from the Contractors License Law for the following reason (Sec. 7031.5, Business and Professions Code Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Sec. 7000) of Div. 3 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Sec. 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500).):

☐ I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his or her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he or she did not build or improve for the purpose of sale.)

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) license pursuant to the Contractors License Law.).

☐ I am exempt under Section _____, B.&P.C. for this reason

Date _____ Signature of Owner

LICENSED CONTRACTORS DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect

License Class	License Number	Expiration Date
B, C-21	653A 870126	12/10

11-21-08 Date — Signature of Contractor

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations:

☐ I have and will maintain a certificate of consent to self-insure for workers compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

☒ I have and will maintain workers' compensation insurance, as required by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are

Carrier AIG

Policy No. 3425578

(This section need not be completed if the permit is for one hundred dollars ($100) or less).

☐ I certify that in the performance of the work for which this permit is issued I shall not employ any person in any manner so as to become subject to the workers compensation laws of California, and agree that if I should become subject to the workers' compensation provisions of Sec. 3700 of the Labor Code, I shall forthwith comply with those provisions.

11-21-08 Date — Signature of Applicant

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C.)

Lender's Name _____

Lender's Address _____

I certify that I have read this application and state that the above information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection purposes.

11-21-08 Date — Signature of Applicant or Agent

CITY OF LAKE FOREST — DECEMBER 20, 1991

CITY OF LAKE FOREST

25550 Commercentre Drive #100, Lake Forest, CA 92630
Counter Hours: M-Th, 8am to 11:45am & 1pm to 6pm
And alternate Fridays, 8am to 11:45am & 1pm to 5pm
Inspector's Hours: 8:30am to 9am
Inspection Request Line: (949) 461-3468

SITE ADDRESS: 1 Saddleback Parkway

ASSESSOR PARCEL NUMBER

BOOK — PAGE — PARCEL

ADDITIONAL INFORMATION / LEGAL DESCRIPTION: "GRILL"

PROPERTY OWNER: Saddleback Church

MAILING ADDRESS: 1 Saddleback Parkway

CITY: Lake Forest — STATE: Ca — ZIP: 92630

PHONE NUMBER: 949-689-9912

ARCHITECT'S OR ENGINEER'S NAME — LICENSE NO.

ADDRESS

CITY — STATE — ZIP

PHONE NUMBER

APPLICANT / CONTACT PERSON

PHONE NUMBER

CONTRACTOR'S NAME: Saddleback Development

ADDRESS

CITY: Lake Forest — STATE: Ca — ZIP: 92630

PHONE NUMBER

EXPIRATION

Every permit shall expire by limitation and become null and void if the building or work authorized by such permit is not commenced within 180 days from the date of such permit, or if the building or work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of 180 days

APPLICANT TO FILL IN QUANTITY (PLEASE PRINT OR TYPE)

	EACH	QTY.	FEE
OUTLETS			
Rec: 26 Light ~~32~~ Sw. 6	20		260.00
Total: _____ (additional over 20)	34		82.10
LIGHTING FIXTURES			
Total: 22 (additional over 20)			
FIXED APPLIANCE (NOT OVER 1 HP)			
$ Water Heater; Dishwasher; Clotheswasher; Disposal; Heater; Fan; Other; FAU; 1 A/C; Oven; 1 Hood; Range; Dryer			77.50
POWER APPARATUS (IN HP, KW, or KVA)			
Up to and including 1; From 1 up to and including 10; From 10 up and including 50; From 50 up to and including 100; Over 100			
SERVICES, SWITCH BOARDS & SUB.			
1 0 - 399 AMPS < 600 volts; 400 - 1000 AMPS < 600 volts; Over 1000 AMPS < 600 volts; Over 600 volt rating (all amperages); Service Meter; Electrical Subpanel; Switchboard Change or Additions; Temp. Power Pole			35.75
SIGNS			
Sign with 1 Transformer; Addt'l. Sign & 1 Transformer; Addt'l. Transformer / Flasher / Timer; Altering / Changing Letter on Sign			
TIME CLOCKS			
RELOCATED BUILDING ELECTRICAL			
BUSWAYS (each 100 ft or fraction thereof)			

ELECTRICAL PERMIT SUBTOTAL $ _____

PLAN CHECK FEE $ _____

PLAN CHECK NO.	INITIALS	DATE
	CK NO.	

ELECTRICAL PERMIT FEE $ 363.35

ISSUANCE FEE $ 30.00

TOTAL ELECTRICAL PERMIT FEE $ 393.35

PERMIT NO.	INITIALS	DATE
049954	CK NO. NT	11-21-08

FINALED BY	DATE
B Gruber	

FINALED

NO.	INSPECTION	DATE	INSPECTOR
	REQUIRED ELECTRICAL INSPECTIONS AND APPROVALS		
E1	Temp Power Pole		
E2	System Ground		
	Ground Rod		
	Water Pipe		
	UFER		
E3	Underground Electrical		
E4	Rough Wiring	9/23/08	Bnelson
E5	Rough Conduit		
E6	Bonding Water and Gas		
E7	Service		
E8	Final Electrical Inspection	9/20/09	Bnelson
	Utility Released		
	Temporary Power Released		

INSPECTION NOTES:

Rev. 4/8/99

MECHANICAL PERMIT APPLICATION

OWNER-BUILDER DECLARATION

I hereby affirm under penalty of perjury that I am exempt from the Contractors License Law for the following reason (Sec. 7031.5, Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Sec. 7000) of Div. 3 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Sec. 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500).):

☐ I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his or her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he or she did not build or improve for the purpose of sale.).

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) license pursuant to the Contractors License Law.).

☐ I am exempt under Section _____, B.&P.C. for this reason

_____

12/9/08 — Date — Signature of Owner

LICENSED CONTRACTORS DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

C-20 C-38

License Class — License Number — Expiration Date

Date — Signature of Contractor

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations:

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

☒ I have and will maintain workers' compensation insurance, as required by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier: STATE Fund

Policy No.: 0006 946 - 2007

(This section need not be completed if the permit is for one hundred dollars ($100) or less).

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers' compensation provisions of Sec. 3700 of the Labor Code, I shall forthwith comply with those provisions.

12/9/08 — Date — Signature of Applicant

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C.).

Lender's Name _____

Lender's Address _____

I certify that I have read this application and state that the above information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection purposes.

12/9/08 — Date — Signature of Applicant or Agent

CITY OF LAKE FOREST — DECEMBER 20, 1991

CITY OF LAKE FOREST

25550 Commercentre Drive #100, Lake Forest, CA 92630
Counter Hours: M-Th, 8am to 12pm & 1pm to 6pm
And alternate Fridays, 8am to 12pm & 1pm to 5pm
Inspector's Hours: 8 am to 9am
Inspection Request Line: (949) 461-3468

SITE ADDRESS: 1 SADDLEBACK PKWY

ASSESSOR PARCEL NUMBER — BOOK — PAGE — PARCEL

ADDITIONAL INFORMATION / LEGAL DESCRIPTION: SADDLE BACK Grill

PROPERTY OWNER: SADDLE BACK Development

MAILING ADDRESS: 5 ROCKY Rd

CITY: LAKE FOREST — STATE: CA — ZIP: ~~920~~

PHONE NUMBER: (949) 689-9912

ARCHITECT'S OR ENGINEER'S NAME — LICENSE NUMBER

ADDRESS

CITY — STATE — ZIP

PHONE NUMBER

APPLICANT / CONTACT PERSON: AIRE RITE AC & Refrigeration

PHONE NUMBER: (714) 895-2338 X120

CONTRACTOR'S NAME: JOE Martinez

ADDRESS: 15122 BOLSA CHICA ST.

CITY: Huntington Bch — STATE: CA — ZIP: 92649

PHONE NUMBER: (714) 330-5474

EXPIRATION

Every permit shall expire by limitation and become null and void if the building or work authorized by such permit is not commenced within 180 days from the date of such permit, or if the building or work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of 180 days.

APPLICANT TO FILL IN QUANTITY (PLEASE PRINT OR TYPE)

QTY.	DESCRIPTION	FEE
	AIR HANDLING UNIT < or + 5,000 CFM	
1	AIR HANDLING UNIT > 5,000 CFM	48.75
	AIR CONDITIONING OR HEAT PUMPS Up TO 5 Tons/HP	
1	Over 5 Tons/HP	84.50
8	AIR INLETS AND OUTLETS	—
	APPLIANCE VENT(S)	
	EVAPORATIVE COOLER	
1	COOLING / REHEATING COIL / ELECT. STRIP	19.50
	FURNANCE (floor / floor mounted / recessed)	
	FURNACE WITH DUCTS & VENTS Up to 100,000 BTU	
	More than 100,00 BTU	
2	HOOD WITH ATTACHED FANS/DUCTS	21.50
	INCINERATOR	
	MANUFACTURED FIREPLACE(S)	
	REPAIR / ALTERATION / ADDITION (to boiler, compressor, or absorption system) Up to 5HP or 100,000 BTU	
	More than 5HP or 100,000 BTU	
	REPAIR / ALTERATION / ADDITION TO HEATING / COOLING SYSTEMS INCLUDING CONTROLS OR REGISTERS	
2	VENTILATING FAN(S)	39.00
	VENTILATING SYSTEM(S)	

MECHANICAL PERMIT SUBTOTAL $ _____

PLAN CHECK FEE $ _____

PLAN CHECK NO. — INITIALS — DATE — CK NO.

MECHANICAL PERMIT FEE $ 263.25

ISSUANCE FEE $ 30.00

TOTAL MECHANICAL PERMIT FEE $ 293.25

PERMIT NO. 050022 — INITIALS — CK NO. PF — DATE 12.9.08

FINALED BY — DATE 4/20/09

NO.	INSPECTION	DATE	INSPECTOR
	REQUIRED MECHANICAL INSPECTIONS AND APPROVALS		
M1	FAU/Wall Furnace		
M2	Combustion Air Openings		
M3	Duct Work	12/11/08	B Roth
M4	AC/Compressor		
M5	Thermostat		
M6	Fire Dampers		
M7	Smoke Detection Devices		
M8	Manufactured Fireplace		
M9	Commercial Hood		
M10	Final Mechanical Inspection	4/20/09	[illegible]

INSPECTION NOTES:

Rev. 3/25/99

862 D7 FS

BUILDING PERMIT APPLICATION

OWNER-BUILDER DECLARATION

I hereby affirm under penalty of perjury that I am exempt from the Contractors License Law for the following reason (Sec. 7031.5, Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Sec. 7000) of Div. 3 of the Business and Professions Code) or that he or she is exempt therefrom and the basis *for the alleged exemption.* Any violation of Sec. 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500).):

☐ I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his or her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he or she did not build or improve for the purpose of sale.).

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) license pursuant to the Contractors License Law.).

☐ I am exempt under Section _____, B.&P.C. for this reason

Date _____ Signature of Owner

LICENSED CONTRACTORS DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

A·B·C-27·C53 870126 12/31/07

License Class / License Number / Expiration Date

4/5/06 Signature of Contractor

Date

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations:

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

☑ I have and will maintain workers' compensation insurance, as required by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier A.I.G.

Policy No. ~~3280757~~ 3422721

(This section need not be completed if the permit is for one hundred dollars ($100) or less).

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers' compensation provisions of Sec. 3700 of the Labor Code, I shall forthwith comply with those provisions.

11/8/06 Signature of Applicant

Date

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C.).

Lender's Name _____

Lender's Address _____

I certify that I have read this application and state that the above information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection purposes.

11/08/06 Signature of Applicant or Agent

Date

CITY OF LAKE FOREST

25550 Commercentre Drive #100, Lake Forest, CA 92630
Counter Hours: M-Th, 8am to 12pm & 1pm to 6pm
And alternate Fridays, 8am to 12pm & 1pm to 5pm
Inspector's Hours: 8am to 9am
Inspection Request Line: (949) 461-3468

SITE ADDRESS: ONE SADDLEBACK PARKWAY, LAKE FOREST, CA 92630

ASSESSOR PARCEL NUMBER

BOOK PAGE PARCEL

ADDITIONAL LOCATION / LEGAL DESCRIPTION

Student Zone

PROPERTY OWNER: SADDLEBACK CHURCH

MAILING ADDRESS: ONE SADDLEBACK PARKWAY

CITY: LAKE FOREST STATE: CA ZIP: 92630

PHONE NUMBER: (949) 609-8000

ARCHITECT'S OR ENGINEER'S NAME: BRIAN COHNER LICENSE NO: C15314

SADDLEBACK DEVELOPMENT CORP

ADDRESS: 5 ROCKY ROAD

CITY: LAKE FOREST STATE: CA ZIP: 92630

PHONE NUMBER: (949) 609-8258

APPLICANT / CONTACT PERSON: CHRIS ARNOLD

PHONE NUMBER: (949) 609-8019

CONTRACTOR'S NAME: SADDLEBACK DEVELOPMENT CORP.

ADDRESS: 5 ROCKY ROAD

CITY: LAKE FOREST STATE: CA ZIP: 92630

PHONE NUMBER: (949) 609-8260

EXPIRATION

Every permit shall expire by limitation and become null and void if the building or work authorized by such permit is not commenced within 180 days from the date of such permit, or if the building or work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of 180 days.

DESCRIPTION OF WORK: 2 STORY JR HIGH, HIGH SCHOOL AGE MINISTRY / RECREATION FACILITY

OCC. GROUP	TYPE(S) OF CONSTRUCTION	NO OF STORIES
A2.1	TYPE III	2

SQUARE FOOTAGE: 45,000 FIRE SPRINKLERS REQUIRED: (YES) NO

STATISTICAL CLASSIFICATION: NO 319 UNIT(S): CODE IN EFFECT: CBC 2001

SPECIAL CONDITIONS / PLANNING FILE NO

$ 11,000,000 INITIAL VALUATION $ _____ REVISED VALUATION

PLAN CHECK FEE $ 19,674.07

ADDITIONAL PLAN CHECK FEE $ _____

PLAN CHECK NO.	INITIALS	DATE
041865	CK NO. RF	4.5.06
ADDITIONAL PLAN CHECK NO	INITIALS / CK NO	DATE

☐ SCHOOL FEES PAID ☐ FIRE AUTHORITY APPR.
☐ HOA APPR. OBTAINED ☐ HEALTH DEPT. APPR.
☐ PUBLIC WORKS APPR. ☐ WATER DISTRICT APPR.
☐ SCAQMD APPR. ☐ _____

BUILDING PERMIT FEE	$ 30,264.86
ISSUANCE FEE	$ 15.40
SMIP FEE	$ 2,310.00
(30,280.26)	$ _____
	$ _____
TOTAL BUILDING PERMIT FEE	$ 32,590.26

PERMIT NO	INITIALS	DATE
044187	CK NO RF	11.8.06
FINALED BY		DATE
B Nelson		9/15/08

NO.	INSPECTION	DATE	INSPECTOR
	REQUIRED BUILDING INSPECTIONS AND APPROVALS		
B1	Location and setbacks		
B2	Soils Engineer's Approval		
B3	Foundation/Trench forms		
B4	Structural concrete slab on grade		
B5	Raised floor framing		
B6	Under floor insulation		
B7	First level floor sheathing		
B8	Second level floor sheathing		
B9	Third level floor sheathing		
B10	Roof sheathing		
B11	Concrete block		
	1st Grout lift		
	2nd Grout lift		
	3rd Grout lift		
	4th Grout lift		
B12	Steel framing		
B13	Fire Dept frame inspection		
B14	Building Dept. frame inspection		
B15	Fire sprinkler hangers		
B16	Insulation/weather stripping		
B17	Interior lath and/or drywall		
B18	Exterior lath	11/28/07	B Nelson
B19	Rated floor/Ceiling assemblies		
B20	Rated wall assemblies		
B21	Rated opening protection		
B22	Rated shaft construction		
B23	T-bar ceilings		
B24	Lot drainage		
B25	Planning Dept. Approval		
B26	Fire Dept. Approval		
B27	Public Works Dept. Approval		
B28	Final Building inspection approval	9/15/08	B Nelson

DESCRIBE COMPLETELY THE INTENDED USE OF ALL SPACE APPLICABLE TO THIS BUILDING PERMIT:

The following statement must be signed by the Building owner.

(When approved by the Building Official, the owner's agent may sign for permits other than the initial or shell building permit.)

Will the applicant or future building occupant handle a hazardous material or mixture containing a hazardous material equal to or greater than the amounts specified on the hazardous materials information guide?

☐ YES ☐ NO

If the answer to the question was yes, will the proposed building or modified facility be within 1000 feet of the outer boundary of a school?

☐ YES ☐ NO

Will the intended use of the building by the applicant or future building occupant require a permit for construction or modification from the South Coast Air Quality Management District (SCAQMD)? (See permitting checklist for guidelines.)

☐ YES ☐ NO

I have read the hazardous material information guide and the SCAQMD permitting checklist. I understand my requirement under the State of California Health and Safety Code Section 25505,25533, and 25634 concerning hazardous materials reporting.

☐ OWNER ☐ AGENT

NAME _____ SIGNATURE _____

INSPECTION NOTES: 3-15-07 pad ftgs line 2, C to F, 3 A to F, B 4 to 7, A 4.5 to 7, C at 7 and 8, 1.5 C to E. lf 3-20-07 pad ftgs 2 to 9 from F to G lf 3-28-07 pad ftgs from 6.5 to P and 1.5 to 9 lf 5-8-07 grade beam rebar bn A, B, E, 7, C2F + H2L stair ftg at N2.5 and at 9 from E2F lf 5-16-07 grade beam rebar bns. H, J, N, P, 3 from K2M and stair ftgs lf Footing for stem wall between A and B (3 to 6) ok 5-25-07 S.D 6-4-07 stemwall rebar A-B-3-7 lf 6-18-07 SOG rebar platform btwn A-B lf 6-25-07 pad ftgs stair #5 stem walls stage area lf 7-9-07 Mech pad on roof lf 7-11-07 S.O.G. rebar B+E, 3 to 7 lf 7-20-07 2nd floor deck ok to place lf 7-26-07 roof curb - dirt roof wall rebar partial stem walls lf 8-6-07 partial ftg and curb lf

8-29-07 Ftng Appr. @ planter/wall. [illegible]

Rebar between (G and H3) and between Section (2 and 3) ok 9-26-07 S.D

" " section (4 and 5) and " section between (E and 3) " " S.D

Footing rebar in section (N to P and 7 to 4.5) ok

" " " " (H3 to K and Line 3) ok

" " " " (A to B and " 3 to 4.5) ok

Gread beam " " (3 and Line 4.5) ok

9-27-07 S.D

Rev. 3/25/99

PLUMBING PERMIT APPLICATION

OWNER-BUILDER DECLARATION

I hereby affirm under penalty of perjury that I am exempt from the Contractors License Law for the following reason (Sec. 7031.5, Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Sec. 7000) of Div. 3 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Sec. 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500).):

☐ I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his or her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he or she did not build or improve for the purpose of sale.).

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) license pursuant to the Contractors License Law.).

☐ I am exempt under Section _____, B.&P.C. for this reason

Date _____ Signature of Owner

LICENSED CONTRACTORS DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

A, B, C-27, C-53 | #870126 | 12/28/07
License Class | License Number | Expiration Date

3/20/07
Date | Signature of Contractor

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations:

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

☒ I have and will maintain workers' compensation insurance, as required by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier A.I.G.

Policy No. #34227721

(This section need not be completed if the permit is for one hundred dollars ($100) or less).

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers' compensation provisions of Sec. 3700 of the Labor Code, I shall forthwith comply with those provisions.

3/20/07
Date | Signature of Applicant

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C.).

Lender's Name _____

Lender's Address _____

I certify that I have read this application and state that the above information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection purposes.

3/20/07
Date | Signature of Applicant or Agent

CITY OF LAKE FOREST

25550 Commercentre Drive #100, Lake Forest, CA 92630
Counter Hours: M-Th, 8am to 12pm & 1pm to 6pm
And alternate Fridays, 8am to 12pm & 1pm to 5pm
Inspector's Hours: 8 am to 9am
Inspection Request Line: (949) 461-3468

SITE ADDRESS
ONE SADDLEBACK PARKWAY
LAKE FOREST, CA 92630

ASSESSOR PARCEL NUMBER
BOOK | PAGE | PARCEL

ADDITIONAL INFORMATION / LEGAL DESCRIPTION

PROPERTY OWNER
SADDLEBACK CHURCH

MAILING ADDRESS
ONE SADDLEBACK PARKWAY

CITY	STATE	ZIP
LAKE FOREST	CA	92630

PHONE NUMBER
(949) 609-8000

ARCHITECT'S OR ENGINEER'S NAME: SASSAN YAZDIZADEH
P2S ENGINEERING
LICENSE NO. M0225683

ADDRESS
5000 E. SPRING STREET

CITY	STATE	ZIP
LONG BEACH	CA	90815

PHONE NUMBER
(562) 497-2999

APPLICANT / CONTACT PERSON
SASSAN YAZDIZADEH

PHONE NUMBER
(562) 497-2999

CONTRACTOR'S NAME
SADDLEBACK DEVELOPMENT CORP.

ADDRESS
5 ROCKY ROAD

CITY	STATE	ZIP
LAKE FOREST	CA	92630

PHONE NUMBER
(949) 609-8260

EXPIRATION

Every permit shall expire by limitation and become null and void if the building or work authorized by such permit is not commenced within 180 days from the date of such permit, or if the building or work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of 180 days.

APPLICANT TO FILL IN QUANTITY (PLEASE PRINT OR TYPE)

QTY	DESCRIPTION	FEE
1	Backflow Prevention Device	8.00
	Bath Tub	
	Clothes Washer	
	Dishwasher	
4	Floor Sink	32.20
1	Gas Regulator	8.00
1	Gas System 2 Outlets	8.00
	Additional Gas Outlets over 5 per system	
9	Hose Bibbs	79.20
14	Lavatory	123.20
13	Roof Drain	114.40
3	Sinks	26.40
1	Showers	8.80
1	Sprinkler System (per meter)	8.80
	Sprinkler Piping System (future use)	
	Sprinkler Piping (additional / alteration / repair)	
	Standpipes (wet / dry / combination)	
	Temporary Gas Service/Work	
17	Toilets	149.60
22	Trap Primers	193.60
5	Urinals	44.00
11	Water Heaters Elec. Instantaneous	96.80
	Yard Water Distribution System	

PLUMBING PERMIT SUBTOTAL $ 906.40

PLUMBING PLAN CHECK FEE $

PLAN CHECK NO.	INITIALS / CK NO.	DATE

PLUMBING PERMIT FEE $ 906.40

ISSUANCE FEE $ 15.40

TOTAL PLUMBING PERMIT FEE $ 921.80

PERMIT NO.	INITIALS / CK NO.	DATE
045372	AT	3.20.07

FINALED BY	DATE
	9/15/08

NO.	INSPECTION	DATE	INSPECTOR
	REQUIRED PLUMBING INSPECTIONS AND APPROVALS		
P1	Underground/Floor Plumbing		
P2	Water Service		
	Plastic _____ Metal _____		
P3	Rough Plumbing		
P4	Rough Gas System		
P7	Water Heater		
P8	Lawn Sprinklers		
P9	Gas Test		
P10	Gas Final		
P11	*Final Plumbing Inspection*	9/15/08	B Nelson
	Utility Released		

INSPECTION NOTES:

1st Fl Plumb top out Bathrooms DWV and water lines 10/30/07 B Nelson
2nd Fl Plumb DWV Bathroom 10/30/07 B Nelson
Roof Drains okd 11/26/07 B Nelson
Green Room Bathroom Rough Plumb 11/27/07 B Nelson

Rev. 4/8/99

ELECTRICAL PERMIT APPLICATION

OWNER-BUILDER DECLARATION

I hereby affirm under penalty of perjury that I am exempt from the Contractors License Law for the following reason (Sec. 7031.5, Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Sec. 7000) of Div. 3 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Sec. 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500).):

☐ I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his or her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he or she did not build or improve for the purpose of sale.).

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) license pursuant to the Contractors License Law.).

☐ I am exempt under Section _____, B.&P.C. for this reason

Date _____ Signature of Owner

LICENSED CONTRACTORS DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

A, B, C-27, C-53 — License Class
#876126 — License Number
12/28/07 — Expiration Date

3/20/07 — Date
Signature of Contractor

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations:

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

☒ I have and will maintain workers' compensation insurance, as required by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier: A.I.G.

Policy No.: #34222721

(This section need not be completed if the permit is for one hundred dollars ($100) or less)

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers' compensation provisions of Sec. 3700 of the Labor Code, I shall forthwith comply with those provisions.

3/20/07 — Date
Signature of Applicant

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C.).

Lender's Name _____

Lender's Address _____

I certify that I have read this application and state that the above information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection purposes.

3/20/07 — Date
Signature of Applicant or Agent

CITY OF LAKE FOREST — DECEMBER 20, 1991

CITY OF LAKE FOREST

25550 Commercentre Drive #100, Lake Forest, CA 92630
Counter Hours: M-Th, 8am to 12pm & 1pm to 6pm
And alternate Fridays, 8am to 12pm & 1pm to 5pm
Inspector's Hours: 8am to 9am
Inspection Request Line: (949) 461-3468

SITE ADDRESS: ONE SADDLEBACK PARKWAY, LAKE FOREST, CA 92630

ASSESSOR PARCEL NUMBER
BOOK / PAGE / PARCEL

ADDITIONAL INFORMATION / LEGAL DESCRIPTION

PROPERTY OWNER: SADDLEBACK CHURCH

MAILING ADDRESS: ONE SADDLEBACK PARKWAY

CITY: LAKE FOREST — STATE: CA — ZIP: 92630

PHONE NUMBER: (949) 609-8000

ARCHITECT'S OR ENGINEER'S NAME: ~~DENNIS~~ JEFF MOVERMYER — LICENSE NO: E8964
OMB ELECTRICAL ENGINEERS

ADDRESS: 8825 RESEARCH DRIVE

CITY: IRVINE — STATE: CA — ZIP: 92618

PHONE NUMBER: (949) 753-1553

APPLICANT / CONTACT PERSON: CHRIS ARNOLD

PHONE NUMBER: (949) 609-8019

CONTRACTOR'S NAME: SADDLEBACK DEVELOPMENT CORP

ADDRESS: 5 ROCKY ROAD

CITY: LAKE FOREST — STATE: CA — ZIP: 92630

PHONE NUMBER: (949) 609-8260

EXPIRATION

Every permit shall expire by limitation and become null and void if the building or work authorized by such permit is not commenced within 180 days from the date of such permit, or if the building or work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of 180 days.

APPLICANT TO FILL IN QUANTITY (PLEASE PRINT OR TYPE)

	EACH	QTY.	FEE
OUTLETS			
Rec: 339 Light 845 Sw. 103	20		22.00
Total: _____ (additional over 20)	1267		1,013.60
LIGHTING FIXTURES			
Total: _____ (additional over 20)			
FIXED APPLIANCE (NOT OVER 1 HP)			
____ Water Heater ____ FAU			
____ Dishwasher ____ A/C			
____ Clotheswasher ____ Oven			
____ Disposal ____ Hood			
____ Heater ____ Range			
____ Fan ____ Dryer			
____ Other _____			
POWER APPARATUS (IN HP, KW, or KVA)			
11 Up to and including 1			66.00
____ From 1 up to and including 10			
2 From 10 up and including 50			55.00
____ From 50 up to and including 100			
____ Over 100			
SERVICES, SWITCH BOARDS & SUB.			
____ 0 - 399 AMPS < 600 volts			
____ 400 - 1000 AMPS < 600 volts			
1 Over 1000 AMPS < 600 volts			69.50
____ Over 600 volt rating (all amperages)			
____ Service Meter			
19 Electrical Subpanel			264.10
____ Switchboard Change or Additions			
____ Temp. Power Pole			
SIGNS			
____ Sign with 1 Transformer			
____ Addt'l. Sign & 1 Transformer			
____ Addt'l. Transformer / Flasher / Timer			
____ Altering / Changing Letter on Sign			
TIME CLOCKS		1	5.00
RELOCATED BUILDING ELECTRICAL			
BUSWAYS (each 100 ft or fraction thereof)			

ELECTRICAL PERMIT SUBTOTAL $ 1,496.00

PLAN CHECK FEE $ _____

PLAN CHECK NO. | INITIALS | CK NO. | DATE

ELECTRICAL PERMIT FEE $ 1,496.00

ISSUANCE FEE $ 15.40

TOTAL ELECTRICAL PERMIT FEE $ 1,511.40

PERMIT NO.: C45373 — INITIALS: AF — CK NO. — DATE: 3.20.07

FINALED BY: B Nelson — DATE: 9/15/08

NO.	INSPECTION	DATE	INSPECTOR
	REQUIRED ELECTRICAL INSPECTIONS AND APPROVALS		
E1	Temp Power Pole		
E2	System Ground		
	Ground Rod		
	Water Pipe		
	UFER		
E3	Underground Electrical		
E4	Rough Wiring		
E5	Rough Conduit		
E6	Bonding Water and Gas		
E7	Service		
E8	Final Electrical Inspection	9/15/08	B Nelson
	Utility Released		
	Temporary Power Released		

INSPECTION NOTES:

✓ Building Permit for approvals
Panel Release old 4/23/08 B Nelson
energize sub service Gear 4/23/08 B Nelson
Panel release for elevator + Lighting circuits 4/23/08 B Nelson

Rev. 4/8/99

MECHANICAL PERMIT APPLICATION

OWNER-BUILDER DECLARATION

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Date _____ Signature of Owner

LICENSED CONTRACTORS DECLARATION

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ABC-27653 #870126 12/28/07

License Class | License Number | Expiration Date

3/20/07 [signature]

Date | Signature of Contractor

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations:

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☒ I have and will maintain workers' compensation insurance, as required by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier A.I.G.

Policy No. #3422721

(This section need not be completed if the permit is for one hundred dollars ($100) or less)

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers' compensation provisions of Sec. 3700 of the Labor Code, I shall forthwith comply with those provisions.

3/20/07 [signature]

Date | Signature of Applicant

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CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C.).

Lender's Name _____

Lender's Address _____

I certify that I have read this application and state that the above information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection purposes.

3/20/07 [signature]

Date | Signature of Applicant or Agent

CITY OF LAKE FOREST

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And alternate Fridays, 8am to 12pm & 1pm to 5pm
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SITE ADDRESS
ONE SADDLEBACK PARKWAY
LAKE FOREST, CA 92630

ASSESSOR PARCEL NUMBER
BOOK | PAGE | PARCEL

ADDITIONAL INFORMATION / LEGAL DESCRIPTION

PROPERTY OWNER
SADDLEBACK CHURCH

MAILING ADDRESS
ONE SADDLEBACK PARKWAY

CITY	STATE	ZIP
LAKE FOREST	CA	92630

PHONE NUMBER
(949) 609-8000

ARCHITECT'S OR ENGINEER'S NAME	LICENSE NUMBER
SASSAN YAZDIZADEH P2S ENGINEERING	M022583

ADDRESS
5000 E. SPRING STREET

CITY	STATE	ZIP
LONG BEACH	CA	90815

PHONE NUMBER
(562) 497-2999

APPLICANT / CONTACT PERSON
SASSAN YAZDIZADEH

PHONE NUMBER
(562) 497-2999

CONTRACTOR'S NAME
SADDLEBACK DEVELOPMENT CORP.

ADDRESS
5 ROCKY ROAD

CITY	STATE	ZIP
LAKE FOREST	CA	92630

PHONE NUMBER
(949) 609-8260

EXPIRATION

Every permit shall expire by limitation and become null and void if the building or work authorized by such permit is not commenced within 180 days from the date of such permit, or if the building or work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of 180 days.

APPLICANT TO FILL IN QUANTITY (PLEASE PRINT OR TYPE)

QTY.	DESCRIPTION	FEE
	AIR HANDLING UNIT < or + 5,000 CFM	
2	AIR HANDLING UNIT > 5,000 CFM	86.00
	AIR CONDITIONING OR HEAT PUMPS Up TO 5 Tons/HP	
	Over 5 Tons/HP	
270	AIR INLETS AND OUTLETS	
1	APPLIANCE VENT(S)	13.90
	EVAPORATIVE COOLER	
32	COOLING / REHEATING COIL / ELECT. STRIP	364.80
	FURNANCE (floor / floor mounted / recessed)	
	FURNACE WITH DUCTS & VENTS Up to 100,000 BTU	
	More than 100,00 BTU	
	HOOD WITH ATTACHED FANS/DUCTS	
	INCINERATOR	
	MANUFACTURED FIREPLACES(S)	
	REPAIR / ALTERATION / ADDITION (to boiler, compressor, or absorption system) Up to 5HP or 100,000 BTU	
	More than 5HP or 100,000 BTU	
	REPAIR / ALTERATION / ADDITION TO HEATING / COOLING SYSTEMS INCLUDING CONTROLS OR REGISTERS	
11	VENTILATING FAN(S)	125.40
	VENTILATING SYSTEM(S)	

MECHANICAL PERMIT SUBTOTAL $ 590.10

PLAN CHECK FEE $

PLAN CHECK NO.	INITIALS / CK NO.	DATE

MECHANICAL PERMIT FEE $ 590.10

ISSUANCE FEE $ 15.40

TOTAL MECHANICAL PERMIT FEE $ 605.50

PERMIT NO.	INITIALS / CK NO.	DATE
045374	NF	3.20.07

FINALED BY	DATE
B Nelson	9/15/08

NO.	INSPECTION	DATE	INSPECTOR
	REQUIRED MECHANICAL INSPECTIONS AND APPROVALS		
M1	FAU/Wall Furnace		
M2	Combustion Air Openings		
M3	Duct Work	6/10/08	B Nelson
M4	AC/Compressor		
M5	Thermostat		
M6	Fire Dampers		
M7	Smoke Detection Devices		
M8	Manufactured Fireplace	6/10/08	B Nelson
M9	Commercial Hood		
M10	Final Mechanical Inspection	9/15/08	B Nelson

INSPECTION NOTES:

BUILDING PERMIT APPLICATION

OWNER-BUILDER DECLARATION

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☐ I am exempt under Section _____, B.&P.C. for this reasor

Date _____ Signature of Owner

LICENSED CONTRACTORS DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions o Chapter 9 (commencing with Section 7000) of Division 3 of the Business anc Professions Code, and my license is in full force and effect

B, C-27, C-53, A — License Class
870126 — License Number
12/31/07 — Expiration Date

8/1/07 — Date
Signature of Contractor

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations

☐ I have and will maintain a certificate of consent to self-insure for workers compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued

☑ I have and will maintain workers' compensation insurance, as requirec by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are

Carrier: AIG

Policy No.: 3425578

(This section need not be completed if the permit is for one hundred dollars ($100) or less).

☐ I certify that in the performance of the work for which this permit is issued shall not employ any person in any manner so as to become subject to the workers compensation laws of California, and agree that if I should become subject to the workers' compensation provisions of Sec. 3700 of the Labor Code, I shall forthwith comply with those provisions.

8/1/07 — Date
Signature of Applicant

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000), IN addition TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C.)

Lender's Name _____

Lender's Address _____

I certify that I have read this application and state that the above information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection purposes

Date _____ Signature of Applicant or Agent

CITY OF LAKE FOREST — DECEMBER 20, 1991

CITY OF LAKE FOREST

25550 Commercentre Drive #100, Lake Forest, CA 92630
Counter Hours: M-Th, 8am to 11:45am & 1pm to 6pm
And alternate Fridays, 8am to 11:45am & 1pm to 5pm
Inspector's Hours: 8:30am to 9am
Inspection Request Line: (949) 461-3468

SITE ADDRESS: ONE SADDLEBACK PARKWAY

ASSESSOR PARCEL NUMBER
BOOK _____ PAGE _____ PARCEL _____

ADDITIONAL INFORMATION / LEGAL DESCRIPTION

PROPERTY OWNER: SADDLEBACK CHURCH

MAILING ADDRESS: ONE SADDLEBACK PARKWAY

CITY: LAKE FOREST — STATE: CA — ZIP: 92630

PHONE NUMBER: (949) 609-8000

ARCHITECT'S OR ENGINEER'S NAME: BRIAN CONNER — LICENSE NO.: C15314

ADDRESS

CITY — STATE — ZIP

PHONE NUMBER

APPLICANT / CONTACT PERSON: CHRIS ARNOLD

PHONE NUMBER: (949) 244-1993

CONTRACTOR'S NAME: TIM LOZA

ADDRESS: 5 ROCKY ROAD

CITY: LAKE FOREST — STATE: CA — ZIP: 92630

PHONE NUMBER: (949) 609-8282

EXPIRATION

Every permit shall expire by limitation and become null and void if the building or work authorized by such permit is not commenced within 180 days from the date of such permit, or if the building or work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of 180 days

---

DESCRIPTION OF WORK: ADD THE FOLLOWING TO THE EXISTING STUDENT ZONE PROJECT: INDOOR BASKETBALL 1470 S.F. STORAGE 170 S.F. 2ND FLR OFFICE 230 S.F. 2ND FLR. GREEN RM 670 S.F.

OCC. GROUP: A3 — TYPE(S) OF CONSTRUCTION: III - 1HR. — NO OF STORIES

SQUARE FOOTAGE: 2560 — FIRE SPRINKLERS REQUIRED: YES / NO

STATISTICAL CLASSIFICATION NO.: 437 — UNIT(S) — CODE IN EFFECT: 2001 CBC

SPECIAL CONDITIONS / PLANNING FILE NO

$ 400,000 INITIAL VALUATION — $ _____ REVISED VALUATION

PLAN CHECK FEE $ 2,020.87

ADDITIONAL PLAN CHECK FEE $

PLAN CHECK NO.	INITIALS	DATE
046456	CK NO. AF	7.6.07

ADDITIONAL PLAN CHECK NO.	INITIALS	DATE
	CK NO.	

☐ SCHOOL FEES PAID ☐ FIRE AUTHORITY APPR.
☐ HOA APPR. OBTAINED ☐ HEALTH DEPT. APPR.
☐ PUBLIC WORKS APPR. ☐ WATER DISTRICT APPR.
☐ SCAQMD APPR. ☐ _____

BUILDING PERMIT FEE $ 3,101.37
ISSUANCE FEE $ 15.40
SMIP FEE $ 84.00
(3,116.77) $
$
TOTAL BUILDING PERMIT FEE $ 3,200.77

PERMIT NO.	INITIALS	DATE
046722	CK NO. AF	8.1.07

FINALED BY: B Nelson — DATE: 9/15/08

NO.	INSPECTION	DATE	INSPECTOR
	REQUIRED BUILDING INSPECTIONS AND APPROVALS		
B1	Location and setbacks		
B2	Soils Engineer's Approval		
B3	Foundation/Trench forms		
B4	Structural concrete slab on grade		
B5	Raised floor framing		
B6	Under floor insulation		
B7	First level floor sheathing		
B8	Second level floor sheathing		
B9	Third level floor sheathing		
B10	Roof sheathing		
B11	Concrete block		
	1st Grout lift		
	2nd Grout lift		
	3rd Grout lift		
	4th Grout lift		
B12	Steel framing		
B13	Fire Dept frame inspection		
B14	Building Dept. frame inspection		
B15	Fire sprinkler hangers		
B16	Insulation/weather stripping		
B17	Interior lath and/or drywall		
B18	Exterior lath		
B19	Rated floor/Ceiling assemblies		
B20	Rated wall assemblies		
B21	Rated opening protection		
B22	Rated shaft construction		
B23	T-bar ceilings		
B24	Lot drainage		
B25	Planning Dept. Approval		
B26	Fire Dept. Approval		
B27	Public Works Dept. Approval		
B28	Final Building inspection approval	9/15/08	B Nehr

DESCRIBE COMPLETELY THE INTENDED USE OF ALL SPACE APPLICABLE TO THIS BUILDING PERMIT:

The following statement must be signed by the Building owner.

(When approved by the Building Official, the owner's agent may sign for permits other than the initial or shell building permit.)

Will the applicant or future building occupant handle a hazardous material or mixture containing a hazardous material equal to or greater than the amounts specified on the hazardous materials information guide?

☐ YES ☐ NO

If the answer to the question was yes, will the proposed building or modified facility be within 1000 feet of the outer boundary of a school?

☐ YES ☐ NO

Will the intended use of the building by the applicant or future building occupant require a permit for construction or modification from the South Coast Air Quality Management District (SCAQMD)? (See permitting checklist for guidelines.)

☐ YES ☐ NO

I have read the hazardous material information guide and the SCAQMD permitting checklist. I understand my requirement under the State of California Health and Safety Code Section 25505,25533, and 25634 concerning hazardous materials reporting.

☐ OWNER ☐ AGENT

NAME _____ SIGNATURE _____

INSPECTION NOTES:

8-12-07 Foundation for ret. wall @ Restrooms Ft

Rev 3/25/99

STUDENT ZONE, #2
SEWER PERMIT

SEWER/SEPTIC PERMIT APPLICATION

OWNER-BUILDER DECLARATION

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Date _____ Signature of Owner _____

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A, B, C-27, C-53 License Class; #870126 License Number; 12/28/07 Expiration Date

3/20/07 Date; Signature of Contractor

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Carrier A.I.G.

Policy No. #34-22721

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3/20/07 Date; Signature of Applicant

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3/20/07 Date; Signature of Applicant or Agent

CITY OF LAKE FOREST
25550 Co[illegible] Centre Drive #100,
Lake Forest, CA 92630
Counter Hours: M-Th: 8am to 12pm & 1pm to 6pm
And alternate Fridays: 8am to 12pm & 1pm to 5pm
Inspection Request Line: (949) 461-3468

SITE ADDRESS: 1 SADDLEBACK PKWY.

ASSESSOR PARCEL NUMBER

BOOK PAGE PARCEL

ADDITIONAL INFORMATION / LEGAL DESCRIPTION

PROPERTY OWNER: SADDLEBACK CHURCH

MAILING ADDRESS: 1 SADDLEBACK PKWY.

CITY: LAKE FOREST STATE: CA ZIP: 92630

PHONE NUMBER

ARCHITECT'S OR ENGINEER'S NAME: SADDLEBACK DEV. CORP. - BRIAN CONNER LICENSE NUMBER

ADDRESS: 5 ROCKY RD.

CITY: LAKE FOREST STATE: CA ZIP: 92630

PHONE NUMBER: 949 306-1039

APPLICANT / CONTACT PERSON: SADDLEBACK DEVPT. - GEOFF EHRLICH

PHONE NUMBER: 949 609-8274

CONTRACTOR'S NAME: SADDLEBACK DEV. CORP. - TIM LOZA

ADDRESS: 5 ROCKY RD.

CITY: LAKE FOREST STATE: CA ZIP: 92630.

PHONE NUMBER: 949-903-1013

EXPIRATION

Every permit shall expire by limitation and become null and void if the building or work authorized by such permit is not commenced within 180 days from the date of such permit, or if the building or work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of 180 days.

CONNECTION DATA

MAP BOOK PAGE

STATION DEPTH

MANHOLE REFERENCE UPPER COVER

TYPE OF CONSTRUCTION Y CURB P.L.

LENGTH FROM M.L. TO P.L.

APPLICANT TO FILL IN QUANTITY (PLEASE PRINT OR TYPE)

QTY.	DESCRIPTION	FEE
1	Connection of sewer to public sewer	55.60
	Connection of additional work to existing sewer	
N/A	Connection of sewer to private disposal system	
N/A	Installation of private disposal system	
N/A	Installation of greywater system	
N/A	Disconnection /Abandonment of disposal system	
N/A	Repair/Alteration of disposal system	

SEWER PERMIT SUBTOTAL $

SEWER PLAN CHECK FEE $

PLAN CHECK NO. INITIALS DATE

CK NO.

SEWER PERMIT FEE $ 55.60

ISSUANCE FEE $ 15.40

TOTAL SEWER PERMIT FEE $ 71.00

PERMIT NO. 045375 INITIALS NF DATE 3.20.07

FINALED BY B Nelson DATE 9/15/08

NO.	INSPECTION	DATE	INSPECTOR
	REQUIRED SEWER/SEPTIC INSPECTIONS AND APPROVALS		
P5	Sewer		
P6	Private Sewage Disposal System		
	Disconnect, Plug and Abandon House Sewer		
	Backfill Septic Tank		
	Backfill Seepage Pit(s)		
	Backfill Cesspool(s)		
	Clean Outs to Grade		

SEWER MAP

INSPECTION NOTES:

Rev. 4/8/99

PLUMBING PERMIT APPLICATION

OWNER-BUILDER DECLARATION

I hereby affirm under penalty of perjury that I am exempt from the Contractors License Law for the following reason (Sec. 7031.5, Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Sec. 7000) of Div. 3 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Sec. 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500).):

☐ I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his or her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he or she did not build or improve for the purpose of sale.).

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) license pursuant to the Contractors License Law.).

☐ I am exempt under Section _____, B.&P.C. for this reason

Date _____ Signature of Owner

LICENSED CONTRACTORS DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

B-C-27 C53-A 777916 12/09

License Class 4 License Number Expiration Date

Date _____ Signature of Contractor

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations:

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

☒ I have and will maintain workers' compensation insurance, as required by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier AIG

Policy No. 1383671

(This section need not be completed if the permit is for one hundred dollars ($100) or less)

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers' compensation provisions of Sec. 3700 of the Labor Code, I shall forthwith comply with those provisions.

3/31 08

Date _____ Signature of Applicant

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C.).

Lender's Name _____

Lender's Address _____

I certify that I have read this application and state that the above information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection purposes.

3/31 08

Date _____ Signature of Applicant or Agent

CITY OF LAKE FOREST

CITY OF LAKE FOREST DECEMBER 20, 1991

25000 Commercentre Drive #100, Lake Forest, CA 92630
Counter Hours: M-Th, 8am to 12pm & 1pm to 6pm
And alternate Fridays, 8am to 12pm & 1pm to 5pm
Inspector's Hours: 8 am to 9am
Inspection Request Line: (949) 461-3468

SITE ADDRESS: #1 SADDLEBACK PKWY

ASSESSOR PARCEL NUMBER

BOOK PAGE PARCEL

ADDITIONAL INFORMATION / LEGAL DESCRIPTION

PROPERTY OWNER: SADDLEBACK CHURCH

MAILING ADDRESS: #1 SADDLEBACK PKWY

CITY: LAKE FOREST STATE: CA ZIP: 92630

PHONE NUMBER: 949 609-8000

ARCHITECT'S OR ENGINEER'S NAME: BRIAN CONNOR LICENSE NO

ADDRESS

CITY STATE ZIP

PHONE NUMBER

APPLICANT / CONTACT PERSON: SADDLEBACK DEV.

PHONE NUMBER: TIM LOZA

CONTRACTOR'S NAME: #5 ROCKY RD

ADDRESS

CITY: LAKE FOREST STATE: CA ZIP: 92610

PHONE NUMBER: 949-903-1013

EXPIRATION

Every permit shall expire by limitation and become null and void if the building or work authorized by such permit is not commenced within 180 days from the date of such permit, or if the building or work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of 180 days.

APPLICANT TO FILL IN QUANTITY (PLEASE PRINT OR TYPE)

QTY.	DESCRIPTION	FEE
	Backflow Prevention Device	
	Bath Tub	
	Clothes Washer	
	Dishwasher	
	Floor Sink	
	Gas Regulator	
	Gas System Outlets	
	Additional Gas Outlets over 5 per system	
	Hose Bibbs	
	Lavatory	
	Roof Drain	
	Sinks	
	Showers	
	Sprinkler System (per meter)	
	Sprinkler Piping System (future use)	
	Sprinkler Piping (additional / alteration / repair)	
	Standpipes (wet / dry / combination)	
	Temporary Gas Service/Work	
	Toilets	
	Trap Primers	
	Urinals	
	Water Heaters	
	Yard Water Distribution System	
1	GAS METER RELOCATE	55.60

PLUMBING PERMIT SUBTOTAL $

PLUMBING PLAN CHECK FEE $

PLAN CHECK NO INITIALS CK NO DATE

PLUMBING PERMIT FEE $ 55.60

ISSUANCE FEE $ 15.40

TOTAL PLUMBING PERMIT FEE $ 71.00

PERMIT NO 048260 INITIALS CC CK NO DATE 3/31/08

FINALED BY B Nelson DATE 9/15/08

NO.	INSPECTION	DATE	INSPECTOR
	REQUIRED PLUMBING INSPECTIONS AND APPROVALS		
P1	Underground/Floor Plumbing		
P2	Water Service		
	Plastic _____ Metal _____		
P3	Rough Plumbing		
P4	Rough Gas System		
P7	Water Heater		
P8	Lawn Sprinklers		
P9	Gas Test	4/15/08	B Nelson
P10	Gas Final		
P11	Final Plumbing Inspection	9/15/08	B Nelson
	Utility Released		

INSPECTION NOTES:

BUILDING PERMIT APPLICATION

OWNER-BUILDER DECLARATION

I hereby affirm under penalty of perjury that I am exempt from the Contractors License Law for the following reason (Sec. 7031.5, Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Sec. 7000) of Div. 3 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Sec. 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500)):

☐ I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his or her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he or she did not build or improve for the purpose of sale.).

☒ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) license pursuant to the Contractors License Law).

☐ I am exempt under Section _____, B.&P.C. for this reason

_____

X 10/19/04 [signature]
Date Signature of Owner

LICENSED CONTRACTORS DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

License Class _____ License Number _____ Expiration Date _____

Date _____ Signature of Contractor

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations:

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

☐ I have and will maintain workers' compensation insurance, as required by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier _____

Policy No. _____
(This section need not be completed if the permit is for one hundred dollars ($100) or less)

☒ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers' compensation provisions of Sec. 3700 of the Labor Code, I shall forthwith comply with those provisions.

X 10/19/04 [signature]
Date Signature of Applicant

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C.).

Lender's Name _____

Lender's Address _____

I certify that I have read this application and state that the above information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection purposes.

X 10/19/04 [signature]
Date Signature of Applicant or Agent

CITY OF LAKE FOREST
25550 Commercentre Drive #100, Lake Forest, CA 92630
Counter Hours: M-Th, 8am to 12pm & 1pm to 6pm
And alternate Fridays, 8am to 12pm & 1pm to 5pm
Inspector's Hours: 8am to 9am
Inspection Request Line: (949) 461-3468

SITE ADDRESS: 1 SADDLEBACK PARKWAY

ASSESSOR PARCEL NUMBER
BOOK _____ PAGE _____ PARCEL _____

ADDITIONAL INFORMATION / LEGAL DESCRIPTION

PROPERTY OWNER: SADDLEBACK CHURCH

MAILING ADDRESS: 1 SADDLEBACK PARKWAY

CITY: LAKE FOREST STATE: CA ZIP: 92630

PHONE NUMBER: 949.609.8012

ARCHITECT'S OR ENGINEER'S NAME _____ LICENSE NO _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

PHONE NUMBER _____

APPLICANT / CONTACT PERSON _____

PHONE NUMBER _____

CONTRACTOR'S NAME owner builder

ADDRESS _____

CITY _____ STATE _____ ZIP _____

PHONE NUMBER _____

EXPIRATION

Every permit shall expire by limitation and become null and void if the building or work authorized by such permit is not commenced within 180 days from the date of such permit, or if the building or work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of 180 days.

DESCRIPTION OF WORK: CONSTRUCTION OF 563 ☐ OF STORAGE AREA

OCC. GROUP	TYPE(S) OF CONSTRUCTION	NO OF STORIES

SQUARE FOOTAGE _____ FIRE SPRINKLERS REQUIRED YES _____ NO _____

STATISTICAL CLASSIFICATION NO. 0/S UNIT(S) 40 CODE IN EFFECT 2001 CBC

SPECIAL CONDITIONS / PLANNING FILE NO _____

$ 3600 INITIAL VALUATION $ _____ REVISED VALUATION

PLAN CHECK FEE $ 76.07

ADDITIONAL PLAN CHECK FEE $ _____

PLAN CHECK NO	INITIALS	DATE
036252	JB	10/19/04
ADDITIONAL PLAN CHECK NO	INITIALS	DATE

CK NO _____ CK NO _____

☐ SCHOOL FEES PAID ☐ FIRE AUTHORITY APPR.
☐ HOA APPR. OBTAINED ☐ HEALTH DEPT. APPR.
☐ PUBLIC WORKS APPR. ☐ WATER DISTRICT APPR.
☐ SCAQMD APPR. ☐ _____

BUILDING PERMIT FEE $ 83.27

ISSUANCE FEE $ 15.40

SMIP FEE $ .63

$ _____

98.67 $ _____

TOTAL BUILDING PERMIT FEE $ 99.30

PERMIT NO.	INITIALS	DATE
036253	MT	10/19/04
FINALED BY	CK NO	DATE
[signature]		1/10/05

175.37

NO.	INSPECTION	DATE	INSPECTOR
	REQUIRED BUILDING INSPECTIONS AND APPROVALS		
B1	Location and setbacks		
B2	Soils Engineer's Approval		
B3	Foundation/Trench forms	10-25-06	[illegible]
B4	Structural concrete slab on grade	10-25-06	[illegible]
B5	Raised floor framing		
B6	Under floor insulation		
B7	First level floor sheathing		
B8	Second level floor sheathing		
B9	Third level floor sheathing		
B10	Roof sheathing		
B11	Concrete block		
	1st Grout lift		
	2nd Grout lift		
	3rd Grout lift		
	4th Grout lift		
B12	Steel framing		
B13	Fire Dept frame inspection		
B14	Building Dept. frame inspection		
B15	Fire sprinkler hangers		
B16	Insulation/weather stripping		
B17	Interior lath and/or drywall		
B18	Exterior lath		
B19	Rated floor/Ceiling assemblies		
B20	Rated wall assemblies		
B21	Rated opening protection		
B22	Rated shaft construction		
B23	T-bar ceilings		
B24	Lot drainage		
B25	Planning Dept. Approval		
B26	Fire Dept. Approval		
B27	Public Works Dept. Approval		
B28	Final Building inspection approval		

DESCRIBE COMPLETELY THE INTENDED USE OF ALL SPACE APPLICABLE TO THIS BUILDING PERMIT:

The following statement must be signed by the Building owner.

(When approved by the Building Official, the owner's agent may sign for permits other than the initial or shell building permit.)

Will the applicant or future building occupant handle a hazardous material or mixture containing a hazardous material equal to or greater than the amounts specified on the hazardous materials information guide?

☐ YES ☐ NO

If the answer to the question was yes, will the proposed building or modified facility be within 1000 feet of the outer boundary of a school?

☐ YES ☐ NO

Will the intended use of the building by the applicant or future building occupant require a permit for construction or modification from the South Coast Air Quality Management District (SCAQMD)? (See permitting checklist for guidelines.)

☐ YES ☐ NO

I have read the hazardous material information guide and the SCAQMD permitting checklist. I understand my requirement under the State of California Health and Safety Code Section 25505,25533, and 25634 concerning hazardous materials reporting.

☐ OWNER ☐ AGENT

NAME _____ SIGNATURE _____

INSPECTION NOTES:

Rev. 3/25/99

D-7

BUILDING PERMIT APPLICATION

OWNER-BUILDER DECLARATION

I hereby affirm under penalty of perjury that I am exempt from the Contractors License Law for the following reason (Sec. 7031.5, Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Sec. 7000) of Div. 3 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Sec. 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500)):

☐ I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his or her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he or she did not build or improve for the purpose of sale.).

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) license pursuant to the Contractors License Law).

☐ I am exempt under Section _____, B &P.C. for this reason

Date _____ Signature of Owner

LICENSED CONTRACTORS DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

B&C-27,053 774796 2-28-05
License Class / License Number / Expiration Date

1-10-05
Date / Signature of Contractor

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations:

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

☐ I have and will maintain workers' compensation insurance, as required by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier A.I.G.

Policy No. 1383671

(This section need not be completed if the permit is for one hundred dollars ($100) or less)

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers' compensation provisions of Sec. 3700 of the Labor Code, I shall forthwith comply with those provisions.

1-10-05
Date / Signature of Applicant

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C.).

Lender's Name _____

Lender's Address _____

I certify that I have read this application and state that the above information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection purposes.

1-10-05
Date / Signature of Applicant or Agent

CITY OF LAKE FOREST

25550 Commercentre Drive #100, Lake Forest, CA 92630
Counter Hours: M-Th, 8am to 12pm & 1pm to 6pm
And alternate Fridays, 8am to 12pm & 1pm to 5pm
Inspector's Hours: 8am to 9am
Inspection Request Line: (949) 461-3468

SITE ADDRESS: 1 SADDLEBACK PKWY.

ASSESSOR PARCEL NUMBER
BOOK PAGE PARCEL

ADDITIONAL INFORMATION / LEGAL DESCRIPTION

PROPERTY OWNER: SADDLEBACK CHURCH

MAILING ADDRESS: 1 SADDLEBACK PKWY.
CITY: LAKE FOREST STATE: CA ZIP: 92630
PHONE NUMBER: 949-609-8000

ARCHITECT'S OR ENGINEER'S NAME: SADDLEBACK DEVELOPMENT CORP. - BRIAN CONNER LICENSE NO: C15314
ADDRESS: 1 SADDLEBACK PKWY.
CITY: LAKE FOREST STATE: CA ZIP: 92630
PHONE NUMBER: 949-609-8274

APPLICANT / CONTACT PERSON: GEOFF CHEVLIN, S.D.C.
PHONE NUMBER: 949 609 8274

CONTRACTOR'S NAME: SADDLEBACK DEV. CORP. TIM LOZA
ADDRESS: 1 SADDLEBACK PKWY.
CITY: LAKE FOREST STATE: CA ZIP: 92630
PHONE NUMBER:

EXPIRATION

Every permit shall expire by limitation and become null and void if the building or work authorized by such permit is not commenced within 180 days from the date of such permit, or if the building or work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of 180 days.

DESCRIPTION OF WORK: NEW OPEN-AIR STRUCTURE w/ ENCLOSED STORAGE ROOM & RETAINING STRUCTURE FOR DECK EXTENSION ±8' HIGH & 188 LF STRUCTURAL SLAB

OCC. GROUP: A-3 TYPE(S) OF CONSTRUCTION: V-N NO OF STORIES: 1

SQUARE FOOTAGE: ~~2445~~ 3000 SF FIRE SPRINKLERS REQUIRED: YES / NO

STATISTICAL CLASSIFICATION NO: 329 UNIT(S) CODE IN EFFECT: 2001 CBC

SPECIAL CONDITIONS / PLANNING FILE NO

INITIAL VALUATION: $ 61,841.00 REVISED VALUATION: $

PLAN CHECK FEE: $ 518.87

ADDITIONAL PLAN CHECK FEE: $

PLAN CHECK NO.	INITIALS	DATE
037134	RF (CK NO)	1-10-05
ADDITIONAL PLAN CHECK NO.	INITIALS (CK NO)	DATE

☐ SCHOOL FEES PAID ☐ FIRE AUTHORITY APPR.
☐ HOA APPR. OBTAINED ☐ HEALTH DEPT. APPR.
☐ PUBLIC WORKS APPR. ☐ WATER DISTRICT APPR.
☐ SCAQMD APPR. ☐

BUILDING PERMIT FEE: $ 790.56

ISSUANCE FEE: $ 15.40

SMIP FEE: $ 12.81

(805.96) $

$

TOTAL BUILDING PERMIT FEE: $ 818.77

PERMIT NO	INITIALS	DATE
037135	RF (CK NO)	1-10-05
FINALED BY		DATE
		6-7-05

NO.	INSPECTION	DATE	INSPECTOR
	REQUIRED BUILDING INSPECTIONS AND APPROVALS		
B1	Location and setbacks		
B2	Soils Engineer's Approval		
B3	Foundation/Trench forms		
B4	Structural concrete slab on grade		
B5	Raised floor framing		
B6	Under floor insulation		
B7	First level floor sheathing		
B8	Second level floor sheathing		
B9	Third level floor sheathing		
B10	Roof sheathing		
B11	Concrete block		
	1st Grout lift		
	2nd Grout lift		
	3rd Grout lift		
	4th Grout lift		
B12	Steel framing		
B13	Fire Dept frame inspection		
B14	Building Dept. frame inspection	3-9-05	
B15	Fire sprinkler hangers		
B16	Insulation/weather stripping		
B17	Interior lath and/or drywall		
B18	Exterior lath		
B19	Rated floor/Ceiling assemblies		
B20	Rated wall assemblies		
B21	Rated opening protection		
B22	Rated shaft construction		
B23	T-bar ceilings		
B24	Lot drainage		
B25	Planning Dept. Approval		
B26	Fire Dept. Approval		
B27	Public Works Dept. Approval		
B28	Final Building inspection approval		

DESCRIBE COMPLETELY THE INTENDED USE OF ALL SPACE APPLICABLE TO THIS BUILDING PERMIT:

The following statement must be signed by the Building owner.

(When approved by the Building Official, the owner's agent may sign for permits other than the initial or shell building permit)

Will the applicant or future building occupant handle a hazardous material or mixture containing a hazardous material equal to or greater than the amounts specified on the hazardous materials information guide?

☐ YES ☐ NO

If the answer to the question was yes, will the proposed building or modified facility be within 1000 feet of the outer boundary of a school?

☐ YES ☐ NO

Will the intended use of the building by the applicant or future building occupant require a permit for construction or modification from the South Coast Air Quality Management District (SCAQMD)? (See permitting checklist for guidelines)

☐ YES ☐ NO

I have read the hazardous material information guide and the SCAQMD permitting checklist. I understand my requirement under the State of California Health and Safety Code Section 25505,25533, and 25634 concerning hazardous materials reporting

☐ OWNER ☐ AGENT

NAME _____ SIGNATURE _____

INSPECTION NOTES:

Rev 3/25/99

ELECTRICAL PERMIT APPLICATION

OWNER-BUILDER DECLARATION

I hereby affirm under penalty of perjury that I am exempt from the Contractors License Law for the following reason (Sec. 7031.5, Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Sec. 7000) of Div. 3 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Sec. 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500).):

☐ I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his or her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he or she did not build or improve for the purpose of sale).

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) license pursuant to the Contractors License Law).

☐ I am exempt under Section _____, B &P C. for this reason

Date _____ Signature of Owner

LICENSED CONTRACTORS DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

B/C27, C53 — 774796 — 2-28-05

License Class — License Number — Expiration Date

1-10-05 — Date — Signature of Contractor

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations:

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

☐ I have and will maintain workers' compensation insurance, as required by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier A.I.G.

Policy No 1383671

(This section need not be completed if the permit is for one hundred dollars ($100) or less)

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers' compensation provisions of Sec. 3700 of the Labor Code, I shall forthwith comply with those provisions.

1-10-05 — Date — Signature of Applicant

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C.).

Lender's Name _____

Lender's Address _____

I certify that I have read this application and state that the above information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection purposes.

1-10-05 — Date — Signature of Applicant or Agent

CITY OF LAKE FOREST — DECEMBER 29, 1991

CITY OF LAKE FOREST

25550 Commercentre Drive #100, Lake Forest, CA 92630
Counter Hours: M-Th, 8am to 12pm & 1pm to 6pm
And alternate Fridays, 8am to 12pm & 1pm to 5pm
Inspector's Hours: 8am to 9am
Inspection Request Line: (949) 461-3468

SITE ADDRESS: 1 SADDLEBACK PKWY - PAVILION

ASSESSOR PARCEL NUMBER

BOOK — PAGE — PARCEL

ADDITIONAL INFORMATION / LEGAL DESCRIPTION

PROPERTY OWNER: SADDLEBACK CHURCH

MAILING ADDRESS: 1 SADDLEBACK PKWY.

CITY: LAKE FOREST — STATE: CA — ZIP: 92630

PHONE NUMBER: 949 609-8274

ARCHITECT OR ENGINEER'S NAME: SADDLEBACK DEV. CORP. BRIAN CONNER — LICENSE NO: C-15314

ADDRESS: 1 SADDLEBACK PKWY.

CITY: LAKE FOREST — STATE: CA — ZIP: 92630

PHONE NUMBER: 949 609-8274

APPLICANT / CONTACT PERSON: GEOFF CHEVLIN, S.D.C.

PHONE NUMBER: (949) 609-8274

CONTRACTOR'S NAME: S.D.C - TIM LOZA

ADDRESS: 1 SADDLEBACK PKWY.

CITY: LAKE FOREST — STATE: CA — ZIP: 92630

PHONE NUMBER

EXPIRATION

Every permit shall expire by limitation and become null and void if the building or work authorized by such permit is not commenced within 180 days from the date of such permit, or if the building or work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of 180 days.

APPLICANT TO FILL IN QUANTITY (PLEASE PRINT OR TYPE)

	EACH	QTY	FEE
OUTLETS Rec: 12 Light 40 Sw. 6		20	22.00
Total: _____ (additional over 20)		39	31.30
LIGHTING FIXTURES			
Total: _____ (additional over 20)			
FIXED APPLIANCE (NOT OVER 1 HP)			
____ Water Heater ____ FAU			
____ Dishwasher ____ A/C			
____ Clotheswasher ____ Oven			
____ Disposal ____ Hood			
____ Heater ____ Range			
____ Fan ____ Dryer			
____ Other _____			
POWER APPARATUS (IN HP, KW, or KVA)			
75 KVA TRANF			
____ Up to and including 1			
____ From 1 up to and including 10			
____ From 10 up and including 50			
1 From 50 up to and including 100			53.70
____ Over 100			
SERVICES, SWITCH BOARDS & SUB.			
____ 0 - 399 AMPS < 600 volts			
____ 400 - 1000 AMPS < 600 volts			
____ Over 1000 AMPS < 600 volts			27.80
____ Over 600 volt rating (all amperages)			
____ Service Meter			
1 Electrical Subpanel			35.40
____ Switchboard Change or Additions			
____ Temp Power Pole			
SIGNS			
____ Sign with 1 Transformer			
____ Addt'l. Sign & 1 Transformer			
____ Addt'l. Transformer / Flasher / Timer			
____ Altering / Changing Letter on Sign			
TIME CLOCKS			
RELOCATED BUILDING ELECTRICAL			
BUSWAYS (each 100 ft or fraction thereof)			

ELECTRICAL PERMIT SUBTOTAL $ _____

PLAN CHECK FEE $ _____

PLAN CHECK NO — INITIALS — DATE

CK NO

ELECTRICAL PERMIT FEE $ 170.10

ISSUANCE FEE $ 15.40

TOTAL ELECTRICAL PERMIT FEE $ 185.50

PERMIT NO 037136 — INITIALS JB/RF — DATE 1/10/04

CK NO

FINALED BY — DATE 6-7-05

NO.	INSPECTION	DATE	INSPECTOR
	REQUIRED ELECTRICAL INSPECTIONS AND APPROVALS		
E1	Temp Power Pole		
E2	System Ground		
	Ground Rod		
	Water Pipe		
	UFER		
E3	Underground Electrical		
E4	Rough Wiring		
E5	Rough Conduit		
E6	Bonding Water and Gas		
E7	Service		
E8	Final Electrical Inspection		
	Utility Released		
	Temporary Power Released		

INSPECTION NOTES:

Rev 4/8/99

SHELL BLDG

BUILDING PERMIT APPLICATION

OWNER-BUILDER DECLARATION

I hereby affirm under penalty of perjury that I am exempt from the Contractors License Law for the following reason (SEC 7031.5 Business and Professions Code Any city or county which requires a permit to construct alter improve, demolish or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Sec 7000) of Division 3 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption Any violation of Section 7031 5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500))

☐ I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professions Code. The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his or her own employees provided that such improvements are not intended or offered for sale. If however, the building or improvement is sold within one year of completion the owner-builder will have the burden of proving that he or she did not build or improve for *the purpose of sale*)

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec 7044 Business and Professions Code The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractors License Law)

☐ *I am exempt under Section* _____ *B &P C for this reason*

Date _____ *Signature of Owner*

LICENSED CONTRACTORS DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect

X

License Class	License Number	Expiration Date
B	551190	12/31/98

Date 29/1/98 Signature of Contractor

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Section 3700 of the Labor Code for the performance of the *work for which this permit is issued*

☒ I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code for the performance of the work for which this permit is issued My workers' compensation insurance carrier and policy number are

X

Carrier Clarendon National

Policy No 01KR5392239 1/1/98-1/1/99

(This section need not be completed if the permit is for one hundred dollars ($100) or less)

I certify that in the performance of the work for which this permit is issued, I shall *not employ any person in any manner so as to become subject to the workers' compensation* laws of California, and agree that if I should become subject to the workers compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions

29/1/98 Date Signature of Applicant

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec 3097 Civ. C)

Lender's Name _____

Lender's Address _____

I certify that I have read this application and state that the above information is correct I agree to comply with all city and county ordinances and state laws relating to building construction and hereby authorize representatives of this City to enter upon the above-mentioned property for inspection purposes

X 29/1/98 Date Signature of Applicant

CITY OF LAKE FOREST

23161 Lake Center Drive #100
Lake Forest, CA 92630
Counter Hours 1:00 p.m. to 6:00 p.m., M-TH
Inspector's Hours 8-9 a.m. & 1-2 p.m.
Inspection Request (714) 461-3468

SITE ADDRESS: 20802 SADDLEBACK PARK

ASSESSOR PARCEL NUMBER: PARCEL 6-7-7-SLAA (BOOK / PAGE / PARCEL)

ADDITIONAL INFORMATION / LEGAL DESCRIPTION:

PROPERTY OWNER: SADDLEBACK CHURCH

MAILING ADDRESS: 23456 MADERO #100

CITY: M.V. STATE: CA ZIP: 92691

PHONE NUMBER: (714) 581-5683

ARCHITECT'S OR ENGINEER'S NAME: LPA LICENSE NO:

ADDRESS: 17848 SKY PARK CIR

CITY: IRV STATE: CA ZIP: 92614

PHONE NUMBER: 260-1180 X159

APPLICANT / CONTACT PERSON: LPA/GLORIA BROMING

PHONE NUMBER: (714) 260-1180 X159

CONTRACTOR'S NAME: MORSE CONTRACTORS INC

ADDRESS: 3003 DOW AVE #202 ~~MOSS CO~~

CITY: TUSTIN STATE: CA ZIP: 92680

PHONE NUMBER: 544-3003

597-1861 Mark

DESCRIPTION OF WORK: New Shell Bldg ~~[illegible]~~ 50,198 ft 3 parking garage 9,205 ft.

OCC. GROUP	TYPE(S) OF CONSTRUCTION	NO. OF STORIES
A-3 B-3	V-N	

SQUARE FOOTAGE: 59,403 ft FIRE SPRINKLERS: YES / NO

STATISTICAL CLASSIFICATION NO: 321 UNIFORM CODE EFFECT: 1994 UBC

INITIAL VALUATION: $ 1,250 MILL. REVISED VALUATION: $

PLAN CHECK FEE: $ 4,958.82

ADDITIONAL PLAN CHECK FEE: $

PLAN CHECK NO	INITIALS	DATE
10159	JDP RECT. NO 10444	12/24/97
ADDITIONAL PLAN CHECK NO	INITIALS / RECT. NO	DATE

☑ SCHOOL FEES PAID ☐ HEALTH DEPT. APPROVAL
☐ HOA APPR. OBTAINED ☑ FIRE DEPT. APPROVAL
☐ PUBLIC WORKS APPR ☑ WATER DIST. APPROVAL
☐ SCAQMD ☐

PLANNING DEPARTMENT APPROVAL: DATE:

PROJECT ENTITLEMENT:

BUILDING PERMIT FEE	$	7621.36
ISSUANCE FEE	$	15.40
SMIP FEE	$	262.50
	$	
	$	
TOTAL BUILDING PERMIT FEE (7636.76)	$	7899.26

PERMIT NO	INITIALS	DATE
11902	CD RECT. NO	7-29-98
FINALED BY: Nancy Black		DATE: 10/19/99

PLUMBING PERMIT APPLICATION

OWNER-BUILDER DECLARATION

I hereby affirm under penalty of perjury that I am exempt from the Contractors License Law for the following reason (SEC. 7031.5, Business and Professions Code Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Sec 7000) of Division 3 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500))

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☐ I am exempt under Section _____, B &P.C for this reason

Date _____ Signature of Owner _____

LICENSED CONTRACTORS DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect

License Class: B License Number: 551190 Expiration Date: 12/31/00

Date: 3/3/99 Signature of Contractor: K Kuckuowski

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued

☒ I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued My workers' compensation insurance carrier and policy number are.

Carrier: Clarendon National Ins. Co.

Policy No: 01KR5392239

(This section need not be completed if the permit is for one hundred dollars ($100) or less)

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California and agree that if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions

Date: 3/3/99 Signature of Applicant: K Kuckuowski

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec 3097, Civ C)

Lender's Name _____

Lender's Address _____

I certify that I have read this application and state that the above information is correct I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this City to enter upon the above-mentioned property for inspection purposes

Date: 3/3/99 Signature of Applicant: K Kuckuowski

CITY OF LAKE FOREST

23161 Lake Center Drive #100
Lake Forest CA 92630
Counter Hours 1 00 p m to 6 00 p m M-TH
Inspector's Hours 8-9 a m & 1 2 p m
Inspection Request (714) 461-3468

SITE ADDRESS: 20802 SADDLEBACK PKWY

ASSESSOR PARCEL NUMBER: PARCEL 6-7-7-SLAA
BOOK PAGE PARCEL

ADDITIONAL INFORMATION / LEGAL DESCRIPTION

PROPERTY OWNER: SADDLEBACK CHURCH

MAILING ADDRESS: 23456 MADERO #100
CITY: M.V. STATE: CA ZIP: 92691

PHONE NUMBER: (714) 581-5683

ARCHITECT'S OR ENGINEERS NAME: LPA LICENSE NO:

ADDRESS: 17848 SKY PARK CR
CITY: IRV STATE: CA ZIP: 92614

PHONE NUMBER: 260-1180 X159

APPLICANT / CONTACT PERSON: LPA / GLORIA BROWNING

PHONE NUMBER: 260-1180 X159

CONTRACTOR'S NAME: MORSE CONSTRUCTORS INC

ADDRESS: 3003 OLD AVE. #202
CITY: TUSTIN STATE: CA ZIP: 92680

PHONE NUMBER: 544-3003

TT.

FOR APPLICANT TO FILL IN (PLEASE PRINT OR TYPE)

QTY	DESCRIPTION	FEE
	Backflow Prevention Device	
	Bath Tub	
	Clothes Washer	
	Dishwasher	
1	Disposal	8.80
1	Floor Sinks	8.80
	Gas Regulator	
	Gas System _____ Outlets	
	Additional Gas Outlets over 5 per system	
	Floor Drains	
	Hose Bibbs	
2	Lavatories	17.60
	Roof Drains	
7	Sinks	61.60
	Showers	
	Sprinkler System (per meter) Residential/Commerical	
	Sprinkler Piping System (underground for future use)	
	Sprinkler Piping (addition/alteration/repair)	
	Standpipes (wet dry, or combination)	
	Temporary Gas Service/Work	
2	Toilets	17.60
1	Trap Primers	8.80
	Urinals	
1	Water Heater	8.80
	Yard Water Distribution System	

PLUMBING PERMIT SUBTOTAL $ 132.00

PLAN CHECK FEE $ [redacted]

PLAN CHECK NO	INITIALS	DATE
	CK NO	

PLUMBING PERMIT FEE $ 132.00

PERMIT ISSUANCE FEE $ 15.40

TOTAL PLUMBING PERMIT FEE $ 147.40

PERMIT NO	INITIALS	DATE
13953	CD	3/3/99
FINALED BY		DATE
[signature]		10-11-99

NO	INSPECTION	DATE	INSPECTOR
	REQUIRED PLUMBING INSPECTIONS AND APPROVALS		
P1	Underground/Floor Plumbing		
P2	Water Service		
	Plastic _____ Metal _____		
P3	Rough Plumbing	6-8-99	
P4	Rough Gas System		
P7	Water Heater		
P8	Lawn Sprinklers		
P9	Gas Test		
P10	Gas Final		
P11	Final Plumbing Inspection	10-11-99	
	Utility Released		

INSPECTION NOTES:

TI

MECHANICAL PERMIT APPLICATION

OWNER-BUILDER DECLARATION

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☐ I am exempt under Section _____ B &P.C for this reason

Date _____ Signature of Owner

LICENSED CONTRACTORS DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect

License Class: B — License Number: 551190 — Expiration Date: 12/31/00

Date: 3/3/99 — Signature of Contractor: K Suckrowski

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations

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Carrier: Clarendon National Ins. Co.

Policy No: OIKR5392239

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Date: 3/3/99 — Signature of Applicant: K Suckrowski

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Lender's Name _____

Lender's Address _____

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Date: 3/3/99 — Signature of Applicant: K Suckrowski

CITY OF LAKE FOREST

23161 Lake Center Drive #100
Lake Forest, CA 92630
Counter Hours. 1.00 p m to 6 00 p m , M-TH
Inspector's Hours. 8-9 a m & 1-2 p.m.
Inspection Request (714) 461-3468

SITE ADDRESS: 20802 SADDLEBACK

ASSESSOR PARCEL NUMBER: PARCEL 6-7-7-SLAA

BOOK / PAGE / PARCEL

ADDITIONAL INFORMATION / LEGAL DESCRIPTION

PROPERTY OWNER: SADDLEBACK CHURCH

MAILING ADDRESS: 23456 MADERO #100

CITY: M.V. — STATE: CA — ZIP: 92691

PHONE NUMBER: 581-5683

ARCHITECT'S OR ENGINEER'S NAME: LPA — LICENSE NO

ADDRESS: 17848 SKY PARK CR

CITY: IRV. — STATE: CA — ZIP: 92651

PHONE NUMBER: 260-1180 X159

APPLICANT / CONTACT PERSON: GLORIA BROMING

PHONE NUMBER: 260-1180 X159

CONTRACTOR'S NAME: MORSE

ADDRESS: 3002 DOW AVE #202

CITY: TUSTIN — STATE: CA — ZIP: 92680

PHONE NUMBER: 544-3003

FOR APPLICANT TO FILL IN (PLEASE PRINT OR TYPE)

NO.	UNIT OR ITEM	FEE
	EACH FURNANCE / BURNER W/ DUCTS & VENTS	
	Up to 100,000 BTU	
	More than 100,000 BTU	
300	AIR INLETS AND OUTLETS	~~340.00~~
	EVAPORATIVE COOLER	
	VENTILATING FAN(S)	
1	VENTILATING SYSTEM(S)	21.50
2	INCINERATOR (Residential / Commercial)	192.20
	COOLING / REHEATING COIL / ELECTRICAL STRIP	
	INCIDENTAL GAS PIPING	
	FURNACES (Floor/Floor Mounted/Recessed)	
	APPLIANCE VENT(S)	
	REPAIR / ALTERATION / ADDITION TO HEATING OR COOLING SYSTEMS INCLUDING CONTROLS OR REGISTERS	
1	AIR HANDLING UNIT - 5 000 CFM OR LESS	21.50
	AIR HANDLING UNIT - > 5 000 CFM	
	REPAIR / ALTERATION / ADDITION TO BOILER, COMPRESSOR OR ABSORPTION SYSTEM	
	Up to 5HP or 100 000 BTU	
	More than 5HP or 100,000 BTU	
	AIR CONDITIONING OR HEAT PUMPS	
	Up to 5 Tons/HP	
1	Over 5 Tons/HP	81.00
	HOOD WITH ATTACHED FANS / DUCTS	

MECHANICAL PERMIT SUBTOTAL $ 2947.00

PLAN CHECK FEE 205.53 $ 1915.55

PLAN CHECK NO. 10162 — INITIALS SJP — RECT. NO 10444 — DATE 12/24/97

MECHANICAL PERMIT FEE $ 316.20

PERMIT ISSUANCE FEE $ 15.40

TOTAL MECHANICAL PERMIT FEE $ 331.60

PERMIT NO 13054 — INITIALS LD — RECT. NO — DATE 3/3/99

FINALED BY Wang Blank — DATE 10-11-99

NO	INSPECTION	DATE	INSPECTOR
	REQUIRED MECHANICAL INSPECTIONS AND APPROVALS		
M1	FAU/Wall Furnace		
M2	Combustion Air Openings		
M3	Duct Work		
M4	AC/Compressor		
M5	Thermostat		
M6	Fire Dampers		
M7	Smoke Detection Devices		
M8	Manufactured Fireplace		
M9	Commercial Hood		
M10	Final Mechanical Inspection	10-11-99	[illegible]

INSPECTION NOTES:

BUILDING PERMIT APPLICATION

OWNER-BUILDER DECLARATION

I hereby affirm under penalty of perjury that I am exempt from the Contractors License Law for the following reason (SEC. 7031.5, Business and Professions Code. Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Sec. 7000) of Division 3 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500).)

☐ I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his or her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he or she did not build or improve for the purpose of sale.)

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractors License Law.)

☐ I am exempt under Section _____, B.&P.C. for this reason

Date _____ Signature of Owner _____

LICENSED CONTRACTORS DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

License Class _____ License Number _____ Expiration Date _____

Date _____ Signature of Contractor _____

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations:

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

☐ I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier _____

Policy No. _____

(This section need not be completed if the permit is for one hundred dollars ($100) or less).

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.

Date _____ Signature of Applicant _____

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C.).

Lender's Name _____

Lender's Address _____

I certify that I have read this application and state that the above information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this City to enter upon the above-mentioned property for inspection purposes.

Date _____ Signature of Applicant _____

CITY OF LAKE FOREST

23161 Lake Center Drive #100
Lake Forest, CA 92630
Counter Hours: 8:00am to 12:00pm
1:00pm to 6:00pm (Mon. - Thurs.)
Closed alternate Fridays
Inspector's Hours: 8:00am to 9:30am
Inspection Request: (949) 461-3488

SITE ADDRESS: 20802 SADDLEBACK PARK

ASSESSOR PARCEL NUMBER: [redacted]

APN: 104-143-37

BOOK _____ PAGE _____ PARCEL _____

ADDITIONAL INFORMATION / LEGAL DESCRIPTION

PROPERTY OWNER: D+D GEBHARD

MAILING ADDRESS: 22005 FAIRVIEW

CITY: SANTA ANA STATE: CA ZIP: 92704

PHONE NUMBER: (714) 434-1190

ARCHITECT'S OR ENGINEER'S NAME: LPA INC. LICENSE NO.

ADDRESS: 17848 SKY PARK CR.

CITY: IRVINE STATE: CA ZIP: 92614

PHONE NUMBER: (949) 261-1001

APPLICANT / CONTACT PERSON: GLORIA BROWNING

PHONE NUMBER: (949) 260-1180 X159

CONTRACTOR'S NAME: NORSE CONTRACTORS INC.

ADDRESS: 3190 AIRPORT LOOP DR. #5

CITY: COSTA MESA STATE: CA ZIP: 92626

PHONE NUMBER: (714) 545-3003 X112

DESCRIPTION OF WORK: [redacted]
ON SITE SUBDRAIN, STORM DRAIN
RELOCATION AT FIRE DRIVE AISLE
VALUATION [redacted] $43,650.—

OCC. GROUP	TYPE(S) OF CONSTRUCTION	NO. OF STORIES

SQUARE FOOTAGE _____ FIRE SPRINKLERS ☐ YES ☐ NO

STATISTICAL CLASSIFICATION NO. _____ UNIT(S) _____ CODE IN EFFECT _____

INITIAL VALUATION: $ 43,650 REVISED VALUATION: $ _____

PLAN CHECK FEE: $ 109.33

ADDITIONAL PLAN CHECK FEE: $ _____

PLAN CHECK NO.	INITIALS	DATE
13357	CO	1-12-99
ADDITIONAL PLAN CHECK NO.	INITIALS	DATE

RECT. NO _____

☐ SCHOOL FEES PAID ☐ HEALTH DEPT. APPROVAL
☐ HOA APPR. OBTAINED ☐ FIRE DEPT. APPROVAL
☐ PUBLIC WORKS APPR ☐ WATER DIST. APPROVAL
☐ SCAQMD ☐ _____

PLANNING DEPARTMENT APPROVAL _____ DATE _____

PROJECT ENTITLEMENT _____

BUILDING PERMIT FEE $ _____

ISSUANCE FEE $ _____

SMIP FEE $ _____

$ _____

$ _____

TOTAL BUILDING PERMIT FEE $ _____

PERMIT NO.	INITIALS	DATE

RECT. NO _____

ISSUED BY _____ DATE _____

SEWER/SEPTIC PERMIT APPLICATION

OWNER-BUILDER DECLARATION

I hereby affirm under penalty of perjury that I am exempt from the Contractor's License Law for the following reason (SEC. 7031.5, Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to provisions of the Contractors License Law (Chapter 9 (commencing with Sec. 7000) of Div. 3 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500.).

☐ I as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his or her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he or she did not build or improve for the purpose of sale.).

☐ I, as owner of the property, am exclusively contracting with a licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who

☐ I am exempt under Section _____ B.&P.C. for this reason

Signature of Applicant or Agent _____ Date _____

LICENSED CONTRACTORS DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provision of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

Gary R. Nenadal — Signature of Applicant or Agent — Date 1/12/99

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations

☐ I have and will maintain a certificate of consent of self-insure for workers' compensation as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

☒ I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier: Copy On File

Policy No.:

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers' compensation provision of Sec. 3700 of the Labor Code, I shall forthwith comply with those provisions.

Gary R. Nenadal — Signature of Applicant or Agent — Date 1/12/99

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UN-LAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C.).

Lender's Name _____

Lender's Address _____

I certify that I have read this application and state that the above information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this City to enter upon the above-mentioned property for inspection purposes.

Gary R. Nenadal (Norse) — Signature of Applicant or Agent — Date 1/12/99

CITY OF LAKE FOREST

23778 Mercury Road
Lake Forest, CA 92630
Hours: 1:00 p.m. to 6:00 p.m.
Monday, Wednesday & Thursday
Inspection Request (714) 707-5583

SITE ADDRESS: 20802 Saddleback Parkway

ASSESSOR PARCEL NUMBER

BOOK | PAGE | PARCEL

ADDITIONAL INFORMATION / LEGAL DESCRIPTION: A.P.N 104-143-37

PROPERTY OWNER: South Shores Development

MAILING ADDRESS: 2200 S. Fairview

CITY	STATE	ZIP
Santa Ana	CA.	92704

PHONE NUMBER: (714) 434-1190

PRINCIPAL DESIGNER'S NAME	LICENSE NO.
M.C.E. - Rich Moore	23971

ADDRESS: 1100 South Coast Highway

CITY	STATE	ZIP
Laguna Beach	CA.	92651

PHONE NUMBER: (949) 376-6407

APPLICANT / CONTACT PERSON: Gary Nenadal - Norse Cont.

PHONE NUMBER: (714) 545-3003 x 112 / 949 597-1861

CONTRACTOR'S NAME: Norse Contractors Inc.

ADDRESS: ~~30~~ 3190 Airport Loop Drive #F

CITY	STATE	ZIP
Costa Mesa	CA	92626

PHONE NUMBER: (714) 545-3003 x 112

LICENSE CLASS	LICENSE NUMBER	EXPIRATION DATE
B-1	551190	March 2000

CONNECTION DATA

Map: Book Page

Station Depth

Manhole Reference Upper / Lower

Type of Connection: Y. Curb P.L.

Length from M.L. to P.L.:

FOR APPLICANT TO FILL IN (PLEASE PRINT OR TYPE)

QTY.	DESCRIPTION	FEE
	Connection of house sewer to public sewer	
	Connection of additional work to existing sewer	
	Connection of sewer to private disposal system	27.90
	Installation of private disposal system	
	Installation of greywater system	
	Disconnection or abandonment of disposal system	
	Repair or alteration of disposal system	

SUBTOTAL	$	27.90
PLAN CHECK FEE	$	
ADDITIONAL PLAN CHECK FEE	$	
PERMIT ISSUANCE FEE	$	15.40
TOTAL SEWER/SEPTIC PERMIT FEE	$	43.30

	INITIALS	DATE
PLAN CHECK NO	CK NO	
ADDITIONAL PLAN CHECK NO	CK NO	
PERMIT NO:	CD 7804	1-12-99
FINALED BY: Nancy Black		10-11-99

NO.	INSPECTION	DATE	INSPECTOR
	REQUIRED SEWER/SEPTIC INSPECTIONS AND APPROVALS		
P5	Sewer	1/29/99	[illegible]
P6	Private Sewage Disposal System		
	Disconnect, Plug and Abandon House Sewer		
	Backfill Septic Tank		
	Backfill Seepage Pit(s)		
	Backfill Cesspool(s)		

SEWER MAP

INSPECTION NOTES:

T.I.

ELECTRICAL PERMIT APPLICATION

OWNER-BUILDER DECLARATION

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☐ I, as owner of the property or my employees with wages as their sole compensation will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professions Code The Contractors License Law does not apply to an owner of property who builds or improves thereon and who does such work himself or herself or through his or her own employees provided that such improvements are not intended or offered for sale If, however the building or improvement is sold within one year of completion the owner-builder will have the burden of proving that he or she did not build or improve for the purpose of sale)

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☐ I am exempt under Section _____ B &P C for the reason

Date _____ Signature of Owner

LICENSED CONTRACTORS DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect

C10 — License Class
331064 — License Number
8-31-2000 — Expiration Date
2-26-99 — Date
Signature of Contractor

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations:

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation as provided for by Section 3700 of the Labor Code for the performance of the work for which this permit is issued

☒ I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued My workers' compensation insurance carrier and policy number are

Carrier American Auto Ins Co.
Policy No WP 80787170

(This section need not be completed if the permit is for one hundred dollars ($100) or less)

☐ I certify that in the performance of the work for which this permit is issued I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions

2-26-99 — Date
Signature of Applicant

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CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec 3097 Civ C)

Lenders Name _____

Lenders Address _____

I certify that I have read this application and state that the above information is correct I agree to comply with all city and county ordinances and state laws relating to building construction and hereby authorize representatives of this City to enter upon the above-mentioned property for inspection purposes

2-26-99 — Date
Signature of Applicant

CITY OF LAKE FOREST

23161 Lake Center Drive #100
Lake Forest, CA 92630
Counter Hours: 1 00 p m to 6 00 p m M-TH
Inspector's Hours 8-9 a m & 1-2 p m
Inspection Request (714) 461-3468

SITE ADDRESS: 20802 SADDLEBACK PKWY

ASSESSOR PARCEL NUMBER: PARCEL 6-7-7-SLAA
BOOK PAGE PARCEL

ADDITIONAL INFORMATION / LEGAL DESCRIPTION

PROPERTY OWNER: SADDLEBACK CHURCH

MAILING ADDRESS: 23456 MADERO #100
CITY: M.V. STATE: CA ZIP: 92691

PHONE NUMBER: (714) 581-5683

ARCHITECT'S OR ENGINEER'S NAME: LPA LICENSE NO

ADDRESS: 17840 SKY PARK CR.
CITY: IRV STATE: CA ZIP: 92614

PHONE NUMBER: 260-1180 X159

APPLICANT / CONTACT PERSON: HAL CAUSEY
~~LPA / GLORIA BROWNING~~

PHONE NUMBER: ~~260-1180 X159~~ 949-855-9610

CONTRACTOR'S NAME: ~~MORSE CONTRACTORS INC.~~

ADDRESS: ~~3002 DOW AVE #202~~
~~1400 E. COAST HWY STE 21~~

CITY: TUSTIN STATE: CA ZIP: 92680

PHONE NUMBER: ~~544-3003~~

FOR APPLICANT TO FILL IN (PLEASE PRINT OR TYPE)

	EACH	NO	FEE
OUTLETS: Rec ~~953~~ 911 Sw 5 Total ~~963~~ 916	1.10	20	22.-
Additional over 20	.80	~~816~~	716.80
LIGHTING FIXTURES Total ~~1057~~ 866	1.10	20	22.-
Additional over 20	.80	~~809~~	~~$529.60~~
FACTORY WIRED APPLIANCES		846	676.80
1 Dishwasher; 24 Disposal	13.90	3	41.70
POWER APPARATUS (In HP, KW, or KVA): 2 Up to and including 1	13.90	2	27.80
SERVICE AND SWITCHBOARD SECTIONS: 1 Over 1000 AMPS < 600 Volts			1500.00
SIGNS: 1 Sign with 1 Transformer			
TIME CLOCK(S)			
RELOCATED BUILDING ELECTRICAL			
BUSWAYS (each 100 feet or fraction thereof)			

ELECTRICAL PERMIT SUBTOTAL $ 1507.10
PLAN CHECK FEE $ 979.61

PLAN CHECK NO 10161A — INITIALS SDP — DATE 12/24/97
RECT. NO 10444

ELECTRICAL PERMIT FEE $ 1507.10
PERMIT ISSUANCE FEE $ 15.40
TOTAL ELECTRICAL PERMIT FEE $ 1522.50

PERMIT NO 7750 — INITIALS — DATE 2/26/99
RECT. NO

FINALED BY — DATE 10/11/99

CAUSEY ELECTRIC, INC 3 VANDERBILT, IRVINE CA 92618
949-855-9610

NO.	INSPECTION	DATE	INSPECTOR
	REQUIRED ELECTRICAL INSPECTIONS AND APPROVALS		
E1	Temp Power Pole		
E2	System Ground		
	Ground Rod		
	Water Pipe		
	UFER		
E3	Underground Electrical		
E4	Rough Wiring		
E5	Rough Conduit		
E6	Bonding Water and Gas		
E7	Service		
E8	Final Electrical Inspection	10-11-99	Clancy
	Utility Released		
	Temporary Power Released		

INSPECTION NOTES:

Roof plugs OK LH 3/11/99

ELECTRICAL PERMIT APPLICATION

OWNER-BUILDER DECLARATION

I hereby affirm under penalty of perjury that I am exempt from the Contractors License Law for the following reason (SEC 7031 5, Business and Professions Code. Any city or county which requires a permit to construct, alter improve, demolish or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Sec 7000) of Division 3 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption Any violation of Section 7031 5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500).).

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☐ I am exempt under Section _____, B &P.C. for this reason

Date _____ Signature of Owner _____

LICENSED CONTRACTORS DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect

X C10 — License Class
331064 — License Number
8-31-~~99~~00 — Expiration Date

2-26-99 — Date
Jean Reagan — Signature of Contractor

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation as provided for by Section 3700 of the Labor Code for the performance of the work for which this permit is issued

☒ I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued My workers' compensation insurance carrier and policy number are:

Carrier American Auto Ins. Co.

Policy No WP 80787170

(This section need not be completed if the permit is for one hundred dollars ($100) or less)

☐ I certify that in the performance of the work for which this permit is issued I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions

2-26-99 — Date
Jean Reagan — Signature of Applicant

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000). IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec 3097, Civ C).

Lender's Name _____

Lender's Address _____

I certify that I have read this application and state that the above information is correct I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this City to enter upon the above-mentioned property for inspection purposes

2-26-99 — Date
Jean Reagan — Signature of Applicant

CITY OF LAKE FOREST

23161 Lake Center Drive #100
Lake Forest CA 92630
Counter Hours 1.00 p m to 6 00 p m , M-TH
Inspector's Hours 8-9 a.m & 1-2 p m
Inspection Request (714) 461-3468

SITE ADDRESS: 20862 SADDLEBACK PRKWY

ASSESSOR PARCEL NUMBER: PARCEL 6-7-7 SLAA
BOOK PAGE PARCEL

ADDITIONAL INFORMATION / LEGAL DESCRIPTION

PROPERTY OWNER: SADDLEBACK CHURCH

MAILING ADDRESS: 23456 MADERO #100
CITY: M.V. STATE: CA ZIP: 92691

PHONE NUMBER: 714 581-5683

ARCHITECTS OR ENGINEERS NAME: LPA INC. LICENSE NO.

ADDRESS: 17848 SKY PARK CR
CITY: IRV STATE: CA ZIP: 92614

PHONE NUMBER: (714) 760-1180 X159

APPLICANT / CONTACT PERSON: HAL CAUSEY ~~LPA / GLORIA BROWNING~~

PHONE NUMBER: ~~(714) 760 1180 X159~~ 949-855-9610

CONTRACTOR'S NAME: ~~MORSE CONTRACTORS INC.~~

ADDRESS: ~~3002 DOW AVE #202~~
CITY: ~~TUSTIN~~ STATE: CA ZIP: ~~92680~~

PHONE NUMBER: (714) 544-3003

CAUSEY ELECTRIC, INC 3 VANDERBILT, IRVINE CA 92618
949-855-9610

FOR APPLICANT TO FILL IN (PLEASE PRINT OR TYPE)

	EACH	NO	FEE
OUTLETS Rec 42 Sw 5 Total 47	1.10	20	22.—
Additional over 20	.80	27	21.60
LIGHTING FIXTURES Total 191	1.10	20	22.—
Additional over 20	.80	171	136.80
FACTORY WIRED APPLIANCES			
____ Water Heater ____ FAU			
____ Dishwasher ____ A/C			
____ Clothes washer ____ Oven			
____ Disposal ____ Hood			
____ Heater ____ Range			
____ Fan ____ Dryer			
____ Other ____			
POWER APPARATUS (In HP, KW, or KVA)			
____ Up to and including 1			
____ From 1 up to and including 10			
____ From 10 up to and including 50			
____ From 50 up to and including 100			
____ Over 100			
SERVICE AND SWITCHBOARD SECTIONS			
____ 0 - 399 AMPS < 600 Volts			
____ 400 - 1000 AMPS < 600 Volts			
1 Over 1000 AMPS < 600 Volts			55.70
____ Over 600 Volt Rating (all amperages)			
____ Service Meter			
____ Electric Subpanel			
____ Switchboard Change or Additions			
SIGNS			
____ Sign with 1 Transformer			
____ Add sign & 1 Transformer			
____ Add'l Transformer / Flasher / Timer			
____ Altering / Changing Letter on Sign			
TIME CLOCK(S)			
RELOCATED BUILDING ELECTRICAL			
BUSWAYS (each 100 feet or fraction thereof)			
			258.10

ELECTRICAL PERMIT SUBTOTAL $ ~~[illegible]~~
PLAN CHECK FEE $ 159.97

PLAN CHECK NO. 10444B INITIALS JDP RECT 60444 DATE 12/24/97

ELECTRICAL PERMIT FEE $ 258.10
PERMIT ISSUANCE FEE $ 15.40
TOTAL ELECTRICAL PERMIT FEE $ 273.50

PERMIT NO 97281 INITIALS CV DATE 2/26/99
FINALED BY Doug Clark DATE 10/11/98

NO	INSPECTION	DATE	INSPECTOR
	REQUIRED ELECTRICAL INSPECTIONS AND APPROVALS		
E1	Temp Power Pole		
E2	System Ground		
	Ground Rod		
	Water Pipe		
	UFER		
E3	Underground Electrical		
E4	Rough Wiring		
E5	Rough Conduit		
E6	Bonding Water and Gas		
E7	Service		
E8	Final Electrical Inspection	10-11-99	
	Utility Released		
	Temporary Power Released		

INSPECTION NOTES:

BUILDING PERMIT APPLICATION

OWNER-BUILDER DECLARATION

I hereby affirm under penalty of perjury that I am exempt from the Contractors License Law for the following reason (SEC 7031.5 Business and Professions Code. Any city or county which requires a permit to construct, alter improve demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Sec 7000) of Division 3 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption Any violation of Section 7031 5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500))

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[ ] I am exempt under Section _____ B &P C. for this reason

Date _____ Signature of Owner _____

LICENSED CONTRACTORS DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code and my license is in full force and effect

License Class: B — License Number: 716521 — Expiration Date: 12/99

Date: 12/15/98 — Signature of Contractor: [signature]

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations

[✓] I have and will maintain a certificate of consent to self-insure for workers compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued

[✓] I have and will maintain workers' compensation insurance as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued My workers' compensation insurance carrier and policy number are

Carrier: State Compensation Insurance Fund.

Policy No: 1441359 - 98

(This section need not be completed if the permit is for one hundred dollars ($100) or less)

[ ] I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California and agree that if I should become subject to the workers compensation provisions of Section 3700 of the Labor Code I shall forthwith comply with those provisions.

Date _____ Signature of Applicant _____

WARNING. FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000). IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES

CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec 3097 Civ. C)

Lender's Name _____

Lender's Address _____

I certify that I have read this application and state that the above information is correct I agree to comply with all city and county ordinances and state laws relating to building construction and hereby authorize representatives of this City to enter upon the above-mentioned property for inspection purposes

Date: 12/15/98 — Signature of Applicant: [signature]

CITY OF LAKE FOREST

23161 Lake Center Drive #100
Lake Forest, CA 92630
Counter Hours. 8.00am to 12:00pm
1:00pm to 6:00pm (Mon. - Thurs.)
Closed alternate Fridays
Inspector's Hours: 8 00am to 9:30am
Inspection Request. (949) 461-3468

SITE ADDRESS: ONE SADDLEBACK PKWY

ASSESSOR PARCEL NUMBER

BOOK _____ PAGE _____ PARCEL _____

ADDITIONAL INFORMATION / LEGAL DESCRIPTION

PROPERTY OWNER

MAILING ADDRESS

CITY _____ STATE _____ ZIP _____

PHONE NUMBER: 288-6200

ARCHITECT'S OR ENGINEER'S NAME _____ LICENSE NO _____

ADDRESS

CITY _____ STATE _____ ZIP _____

PHONE NUMBER

APPLICANT / CONTACT PERSON: ~~[illegible]~~ MEL

PHONE NUMBER: 288-6200

CONTRACTOR'S NAME

ADDRESS

CITY _____ STATE _____ ZIP _____

PHONE NUMBER

DESCRIPTION OF WORK: REVISION

OCC GROUP _____ TYPE(S) OF CONSTRUCTION _____ NO OF STORIES _____

SQUARE FOOTAGE _____ FIRE SPRINKLERS YES _____ NO _____

STATISTICAL CLASSIFICATION: NO — UNIT(S) _____ CODE IN EFFECT: 94-UBC

INITIAL VALUATION $ _____ REVISED VALUATION $ _____

PLAN CHECK FEE $ 109.33

ADDITIONAL PLAN CHECK FEE $ 109.33

PLAN CHECK NO	INITIALS	DATE
12989	CD	11-25-98
RECT. NO		

ADDITIONAL PLAN CHECK NO	INITIALS	DATE
3140	CD	12/15/98
RECT. NO		

- [✓] SCHOOL FEES PAID
- [✓] HOA APPR OBTAINED
- [✓] PUBLIC WORKS APPR
- [✓] SCAQMD
- [✓] HEALTH DEPT. APPROVAL
- [✓] FIRE DEPT APPROVAL
- [✓] WATER DIST APPROVAL

PLANNING DEPARTMENT APPROVAL _____ DATE _____

PROJECT ENTITLEMENT

BUILDING PERMIT FEE $ _____

ISSUANCE FEE $ _____

SMIP FEE $ _____

$ _____

$ _____

TOTAL BUILDING PERMIT FEE $ _____

Plan check only

PERMIT NO	INITIALS	DATE
RECT. NO		

FINALED BY: Doug Blair — DATE: 10/19/99

NO.	INSPECTION	DATE	INSPECTOR

REQUIRED BUILDING INSPECTIONS AND APPROVALS

B1	Location and setbacks		
B2	Soils Engineer's Approval		
B3	Foundation/Trench forms		
B4	Structural concrete slab on grade		
B5	Raised floor framing		
B6	Under floor insulation		
B7	First level floor sheathing		
B8	Second level floor sheathing		
B9	Third level floor sheathing		
B10	Roof sheathing		
B11	Concrete block		
	1st Grout lift		
	2nd Grout lift		
	3rd Grout lift		
	4th Grout lift		
B12	Steel framing		
B13	Fire Dept frame inspection		
B14	Building Dept. frame inspection		
B15	Fire sprinkler hangers		
B16	Insulation/weather stripping		
B17	Interior lath and/or drywall		
B18	Exterior lath		
B19	Rated floor/Ceiling assemblies		
B20	Rated wall assemblies		
B21	Rated opening protection		
B22	Rated shaft construction		
B23	T-bar ceilings		
B24	Lot drainage		
B25	Planning Dept. Approval		
B26	Fire Dept. Approval		
B27	Public Works Dept. Approval		
B28	Final Building inspection approval	10/19/99	[illegible]

DESCRIBE COMPLETELY THE INTENDED USE OF ALL SPACE APPLICABLE TO THIS BUILDING PERMIT:

The following statement must be signed by the Building owner.

(When approved by the Building Official, the owner's agent may sign for permits other than the initial or shell building permit.)

Will the applicant of future building occupant handle a hazardous material or mixture containing a hazardous material equal to or greater than the amounts specified on the hazardous materials information guide?

☐ YES ☐ NO

If the answer to the question was yes, will the proposed building or modified facility be within 1000 feet of the outer boundary of a school?

☐ YES ☐ NO

Will the intended use of the building by the applicant or future building occupant require a permit for construction or modification from the South Coast Air Quality Management District (SCAQMD)? (See permitting checklist for guidelines.)

☐ YES ☐ NO

I have read the hazardous material information guide and the SCAQMD permitting checklist. I understand my requirement under the State of California Health and Safety Code Section 25505,25533, and 25634 concerning hazardous materials reporting.

☐ OWNER ☐ AGENT

NAME _____ SIGNATURE _____

INSPECTION NOTES:

rev. 11/97

MALKOFF AND ASSOCIATES
18456 Lincoln Circle • Villa Park, California 92861 • Fax (714)288-6210 • (714)288-6200

MEMORANDUM

To: Gayle Ackerman, City of Lake Forest

From: Mel Malkoff, M&A

Date: November 25, 1998

Subject: Saddleback Church: Removal of V-Ditch on Temporary Parking Lot

Gayle, as a follow-on to our meeting in regard to the removal of the V-ditch along two edges of the Church's temporary parking lot at the east end of the property, I am transmitting three sets of plans per our discussions and the recommendations of Jim McGirr and Craig Price.

The plans show plugging the drain pipe, adding weep holes through the curb, and drilling drain holes in the bottom of the ditch. It will then be backfilled with approx. 85 cy of dirt and landscaped.

Please let me now as soon as these plans are ready for pickup. Thanks for your help in removing this health and safety liability!!

cc: Eric Nielsen
Karen Kelly

8709 V-ditch Removal.doc

CERTIFICATE OF OCCUPANCY
CITY OF LAKE FOREST
BUILDING & SAFETY DIVISION

This Certificate issued pursuant to the requirements of Section 109.3 of the City Building Code Certifying that this structure has been inspected for compliance with the requirements of this code For the group and division of occupancy and the use for which the proposed occupancy is classified. For the following:

Building Permit No 11902 **Occupancy Group** A-3/B/S-3 **Type of Construction** VN

Description A 50,198 sq. ft. Church and 9,205 sq. ft. Parking Garage

Building Address One Saddleback Parkway

Name of Business or Store Name Saddleback Church

Owner of Building Saddleback Church

Address 23456 Madero, #100, Mission Viejo, CA 92691

Steve Widmeyer
Building Official

By: Nancy Blue

Date: October 20, 1999

POST IN A CONSPICUOUS PLACE

BUILDING PERMIT APPLICATION

CITY OF LAKE FOREST

23161 Lake Center Drive #100
Lake Forest, CA 92630
Counter Hours: 8:00am to 12:00pm
1:00pm to 6:00pm (Mon. - Thurs.)
Closed alternate Fridays
Inspector's Hours 8:00am to 9:30am
Inspection Request: (949) 461-3468

OWNER-BUILDER DECLARATION

I hereby affirm under penalty of perjury that I am exempt from the Contractors License Law for the following reason (SEC 7031.5, Business and Professions Code Any city or county which requires a permit to construct, alter improve demolish, or repair any structure prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Sec 7000) of Division 3 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500))

☐ I as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec 7044, Business and Professions Code. The Contractors License Law does not apply to an owner of property who builds or improves thereon and who does such work himself or herself or through his or her own employees provided that such improvements are not intended or offered for sale If however, the building or improvement is sold within one year of completion the owner builder will have the burden of proving that he or she did not build or improve for the purpose of sale)

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec 7044, Business and Professions Code The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractors License Law)

☐ I am exempt under Section _____ B &P C for this reason

Date _____ Signature of Owner

LICENSED CONTRACTORS DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect

License Class: C-16 License Number: 470399 Expiration Date: 3/2001

Date: 5-11-99 Signature of Contractor

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Section 3700 of the Labor Code for the performance of the work for which this permit is issued

☐ I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code for the performance of the work for which this permit is issued My workers' compensation insurance carrier and policy number are

Carrier: CAL Fireman INDEMNITY

Policy No: H6041990D

(This section need not be completed if the permit is for one hundred dollars ($100) or less).

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code I shall forthwith comply with those provisions

5-11-99 Date Signature of Applicant

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000). IN ADDITION TO THE COST OF COMPENSATION DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec 3097, Civ. C)

Lender's Name _____

Lender's Address _____

I certify that I have read this application and state that the above information is correct I agree to comply with all city and county ordinances and state laws relating to building construction and hereby authorize representatives of this City to enter upon the above-mentioned property for inspection purposes

5-11-99 Date Signature of Applicant

SITE ADDRESS: 20802 Saddleback Pkwy

ASSESSOR PARCEL NUMBER: BOOK _____ PAGE _____ PARCEL _____

ADDITIONAL INFORMATION / LEGAL DESCRIPTION

PROPERTY OWNER: Richard & Deborah Gebhard

MAILING ADDRESS: 1137 Mariner Drive

CITY: Laguna Beach STATE: CA ZIP: 92651

PHONE NUMBER: N/A

ARCHITECT OR ENGINEERS NAME: N/A LICENSE NO

ADDRESS

CITY STATE ZIP

PHONE NUMBER

APPLICANT / CONTACT PERSON: United Fire Protection, Inc

PHONE NUMBER: 714 966-6696

CONTRACTOR'S NAME: United Fire Protection, Inc

ADDRESS: 2005-A So. Occidental Ave

CITY: Santa Ana STATE: CA ZIP: 92707

PHONE NUMBER: 714 966-6696

DESCRIPTION OF WORK: Sprinklers New 515 Heads

OCC GROUP | TYPE(S) OF CONSTRUCTION | NO OF STORIES

SQUARE FOOTAGE | FIRE SPRINKLERS YES (circled) NO

STATISTICAL CLASSIFICATION: NO 015 | UNIT(S): 40 | CODE IN EFFECT: 1994 UBC

$ 24,000 INITIAL VALUATION $ _____ REVISED VALUATION

21,000

PLAN CHECK FEE $ _____

ADDITIONAL PLAN CHECK FEE $ _____

PLAN CHECK NO | INITIALS | DATE

RECT NO

ADDITIONAL PLAN CHECK NO | INITIALS | DATE

RECT NO

☐ SCHOOL FEES PAID ☐ HEALTH DEPT APPROVAL

☐ HOA APPR OBTAINED ☐ FIRE DEPT APPROVAL

☐ PUBLIC WORKS APPR ☐ WATER DIST APPROVAL

☐ SCAQMD ☐ _____

PLANNING DEPARTMENT APPROVAL | DATE

PROJECT ENTITLEMENT

BUILDING PERMIT FEE $ 436.92

ISSUANCE FEE $ 15.40

SMIP FEE $ _____

CITY OF LAKE FOREST
05/11/99 3:34pm
14657
MAY99 00004063
452.32

$ _____

TOTAL BUILDING PERMIT FEE $ 452.32

PERMIT NO: 14657 | INITIALS: MT | DATE: 5-11-99

RECT NO

FINALED BY | DATE

NO.	INSPECTION	DATE	INSPECTOR

REQUIRED BUILDING INSPECTIONS AND APPROVALS

B1	Location and setbacks		
B2	Soils Engineer's Approval		
B3	Foundation/Trench forms		
B4	Structural concrete slab on grade		
B5	Raised floor framing		
B6	Under floor insulation		
B7	First level floor sheathing		
B8	Second level floor sheathing		
B9	Third level floor sheathing		
B10	Roof sheathing		
B11	Concrete block		
	1st Grout lift		
	2nd Grout lift		
	3rd Grout lift		
	4th Grout lift		
B12	Steel framing		
B13	Fire Dept. frame inspection		
B14	Building Dept. frame inspection		
B15	Fire sprinkler hangers		
B16	Insulation/weather stripping		
B17	Interior lath and/or drywall		
B18	Exterior lath		
B19	Rated floor/Ceiling assemblies		
B20	Rated wall assemblies		
B21	Rated opening protection		
B22	Rated shaft construction		
B23	T-bar ceilings		
B24	Lot drainage		
B25	Planning Dept. Approval		
B26	Fire Dept. Approval		
B27	Public Works Dept. Approval		
B28	Final Building inspection approval		

DESCRIBE COMPLETELY THE INTENDED USE OF ALL SPACE APPLICABLE TO THIS BUILDING PERMIT:

The following statement must be signed by the Building owner.

(When approved by the Building Official, the owner's agent may sign for permits other than the initial or shell building permit.)

Will the applicant of future building occupant handle a hazardous material or mixture containing a hazardous material equal to or greater than the amounts specified on the hazardous materials information guide?

☐ YES ☐ NO

If the answer to the question was yes, will the proposed building or modified facility be within 1000 feet of the outer boundary of a school?

☐ YES ☐ NO

Will the intended use of the building by the applicant or future building occupant require a permit for construction or modification from the South Coast Air Quality Management District (SCAQMD)? (See permitting checklist for guidelines.)

☐ YES ☐ NO

I have read the hazardous material information guide and the SCAQMD permitting checklist. I understand my requirement under the State of California Health and Safety Code Section 25505,25533, and 25634 concerning hazardous materials reporting.

☐ OWNER ☐ AGENT

NAME _____ SIGNATURE _____

INSPECTION NOTES:

rev. 11/97

NO	INSPECTION	DATE	INSPECTOR
	REQUIRED BUILDING INSPECTIONS AND APPROVALS		
B1	Location and setbacks		
B2	Soils Engineer's Approval		
B3	Foundation/Trench forms		
B4	Structural concrete slab on grade		
B5	Raised floor framing		
B6	Under floor insulation		
B7	First level floor ~~sheathing~~ Pour		
B8	Second level floor ~~sheathing~~ Pour	12/7/98	
B9	Third level floor sheathing		
B10	Roof ~~sheathing~~ Pour		
B11	Concrete block		
	1st Grout lift		
	2nd Grout lift		
	3rd Grout lift		
	4th Grout lift		
B12	Steel framing		
B13	Fire Dept frame inspection		
B14	Building Dept frame inspection		
B15	Fire sprinkler hangers		
B16	Insulation/weather stripping		
B17	Interior lath and/or drywall		
B18	Exterior lath		
B19	Rated floor/Ceiling assemblies		
B20	Rated wall assemblies		
B21	Rated opening protection		
B22	Rated shaft construction		
B23	T-bar ceilings		
B24	Lot drainage		
B25	Planning Dept Approval		
B26	Fire Dept Approval		
B27	Public Works Dept. Approval		
B28	Final Building inspection approval	10/19/99	

DESCRIBE COMPLETELY THE INTENDED USE OF ALL SPACE APPLICABLE TO THIS BUILDING PERMIT:

The following statement must be signed by the Building owner.

(When approved by the Building Official, the owner's agent may sign for permits other than the initial or shell building permit.)

Will the applicant of future building occupant handle a hazardous material or mixture containing a hazardous material equal to or greater than the amounts specified on the hazardous materials information guide?

☐ YES ☐ NO

If the answer to the question was yes, will the proposed building or modified facility be within 1000 feet of the outer boundary of a school?

☐ YES ☐ NO

Will the intended use of the building by the applicant or future building occupant require a permit for construction or modification from the South Coast Air Quality Management District (SCAQMD)? (See permitting checklist for guidelines.)

☐ YES ☐ NO

I have read the hazardous material information guide and the SCAQMD permitting checklist. I understand my requirement under the State of California Health and Safety Code Section 25505,25533 and 25634 concerning hazardous materials reporting.

☐ OWNER ☐ AGENT

NAME SIGNATURE

INSPECTION NOTES: LOWER PAD PRENGTER FTGS OK TO SLURRY 8-25-98 Don Moore
OK TO SLURRY FTGS ON LINES D 3-5 & A 2-6. 8-26-98 Don Moore
3 PF-7 FTGS NOTED ON PLANS OK 9-16-98 Don Moore
4-4" CONDUIT FOR ELEC SVC OK. 9-17-98 Don Moore
ARCHES 3 SIDES & FRONT FRAME 2ND FLOOR OK 3/9/99 RC

Shell

PLUMBING PERMIT APPLICATION

OWNER-BUILDER DECLARATION

I hereby affirm under penalty of perjury that I am exempt from the Contractors License Law for the following reason (SEC 7031.5 Business and Professions Code Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure *prior to its issuance, also requires the applicant for such permit to file a signed statement that* he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Sec 7000) of Division 3 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption Any violation of Section 7031 5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500))

☐ I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec 7044 Business and Professions Code. The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his or her own employees provided that such improvements are not intended or offered for sale If, however, the building or improvement is sold within one year of completion the owner-builder will have the burden of proving that he or she did not build or improve for the purpose of sale)

☐ I, as owner of the property am exclusively contracting with licensed contractors to construct the project (Sec 7044 Business and Professions Code. The Contractors License *Law does not apply to an owner of property who builds or improves thereon* and who contracts for such projects with a contractor(s) licensed pursuant to the Contractors License Law)

☐ I am exempt under Section _____ B &P C for this reason

Date _____ Signature of Owner _____

LICENSED CONTRACTORS DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect

License Class	License Number	Expiration Date
B	551190	12/31/98

Date 29/1/98 Signature of Contractor

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations

☐ I have and will maintain a certificate of consent to self-insure for workers compensation as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued

☒ I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued My workers' compensation insurance carrier and policy number are

Carrier Clarendon National

Policy No OLKR539 2239 1/1/98 - 1/1/99

(This section need not be completed if the permit is for one hundred dollars ($100) or less)

☐ I certify that in the performance of the work for which this permit is issued I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions

29/1/98 Date Signature of Applicant

WARNING. FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000). IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec 3097 Civ C.).

Lenders Name _____

Lenders Address _____

I certify that I have read this application and state that the above information is correct I agree to comply with all city and county ordinances and state laws relating to building construction and hereby authorize representatives of this City to enter upon the above-mentioned property for inspection purposes

29/1/98 Date Signature of Applicant

CITY OF LAKE FOREST

23161 Lake Center Drive #100
Lake Forest, CA 92630
Counter Hours: 1 00 p.m to 6 00 p m. M-TH
Inspector's Hours 8-9 a m & 1-2 p m
Inspection Request (714) 461-3468

SITE ADDRESS: 20802 SADDLEBACK PKWY

ASSESSOR PARCEL NUMBER: PARCEL 6-7-7-SLAA

BOOK PAGE PARCEL

ADDITIONAL INFORMATION / LEGAL DESCRIPTION

PROPERTY OWNER: SADDLEBACK CHURCH

MAILING ADDRESS: 23456 MADERO #100

CITY: M.V. STATE: CA ZIP: 92691

PHONE NUMBER: (714) 581-5683

ARCHITECTS OR ENGINEERS NAME: LPA LICENSE NO

ADDRESS: 17848 SKY PARK CR.

CITY: IRV STATE: CA ZIP: 92614

PHONE NUMBER: 260-1180 X159

APPLICANT / CONTACT PERSON: LPA / GLORIA BROMING

PHONE NUMBER: 260-1180 X159

CONTRACTOR'S NAME: B. MORSE CONTRACTORS INC

ADDRESS: 3003 DOW AVE #202 ~~1100 S. COAST HWY STE 211~~

CITY: TUSTIN STATE: CA ZIP: 92680

PHONE NUMBER: 544-3003

FOR APPLICANT TO FILL IN (PLEASE PRINT OR TYPE)

QTY	DESCRIPTION	FEE
1	Backflow Prevention Device	8.80
	Bath Tub	
	Clothes Washer	
	Dishwasher	
	Disposal	
1	Floor Sinks	8.80
	Gas Regulator	
1	Gas System 1 Outlets	8.80
	Additional Gas Outlets over 5 per system	
4	Floor Drains	35.20
2	Hose Bibbs	17.60
8	Lavatories	70.40
8	Roof Drains	70.40
—	Sinks	
	Showers	
1	Sprinkler System (per meter) Residential/Commerical	8.80
	Sprinkler Piping System (underground-for future use)	
	Sprinkler Piping (addition/alteration/repair)	
	Standpipes (wet dry or combination)	
	Temporary Gas Service/Work	
17	Toilets	105.60
4	Trap Primers	35.20
4	Urinals	35.20
4	Water Heater	35.20
	Yard Water Distribution System	

PLUMBING PERMIT SUBTOTAL $ _____

PLAN CHECK FEE $ _____

PLAN CHECK NO	INITIALS	DATE
	CK NO	

PLUMBING PERMIT FEE $ 440.00

PERMIT ISSUANCE FEE $ 15.40

TOTAL PLUMBING PERMIT FEE 455.40

PERMIT NO	INITIALS	DATE
11899	CK NO	7-29-98
FINALED BY		DATE 10-11-99

NO	INSPECTION	DATE	INSPECTOR
	REQUIRED PLUMBING INSPECTIONS AND APPROVALS		
P1	Underground/Floor Plumbing		
P2	Water Service		
	Plastic _____ Metal _____		
P3	Rough Plumbing		
P4	Rough Gas System		
P7	Water Heater		
P8	Lawn Sprinklers		
P9	Gas Test		
P10	Gas Final		
P11	Final Plumbing Inspection	10-11-99	
	Utility Released		

INSPECTION NOTES:

CORE + SHELL

ELECTRICAL PERMIT APPLICATION

OWNER-BUILDER DECLARATION

I hereby affirm under penalty of perjury that I am exempt from the Contractors License Law for the following reason (SEC. 7031.5, Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Sec. 7000) of Division 3 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500).):

☐ I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professions Code. The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his or her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he or she did not build or improve for the purpose of sale.)

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractors License Law.)

☐ I am exempt under Section _____, B & P C. for this reason

_____

Date _____ Signature of Owner

LICENSED CONTRACTORS DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

License Class	License Number	Expiration Date
B	557190	12/98

Date 29 Jul 98 Signature of Contractor

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations:

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

☒ *I have and will maintain workers' compensation insurance, as required by Section* 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier: Clarendon National

Policy No. OIKR539223 9 1/1/98-1/1/99

(This section need not be completed if the permit is for one hundred dollars ($100) or less)

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.

29 Jul 98 Date Signature of Applicant

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000). IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C.)

Lender's Name _____

Lender's Address _____

I certify that I have read this application and state that the above information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this City to enter upon the above-mentioned property for inspection purposes.

29 Jul 98 Date Signature of Applicant

CITY OF LAKE FOREST

23161 Lake Center Drive #100
Lake Forest, CA 92630
Counter Hours: 1:00 p.m. to 6:00 p.m., M-TH
Inspector's Hours: 8-9 a.m. & 1-2 p.m.
Inspection Request (714) 461-3468

SITE ADDRESS: 20802 SADDLE BACK PRKWY

ASSESSOR PARCEL NUMBER: PARCEL 6-7-7-SAA

BOOK / PAGE / PARCEL

ADDITIONAL INFORMATION / LEGAL DESCRIPTION

PROPERTY OWNER: SADDLEBACK CHURCH

MAILING ADDRESS: 23456 MADERO #100

CITY: M.V. STATE: CA ZIP: 92691

PHONE NUMBER:

ARCHITECTS OR ENGINEERS NAME: LPA LICENSE NO.

ADDRESS: 17848 SKY PARK CR.

CITY: IRV STATE: CA ZIP: 92614

PHONE NUMBER: 260-1180 X159

APPLICANT / CONTACT PERSON: LPA / GLORIA BROMINE

PHONE NUMBER: 260-1180 X159

CONTRACTOR'S NAME: NORSE CONTRACTORS INC

ADDRESS: 3002 DOW AVE #202

CITY: TUSTIN STATE: CA ZIP: 92680

PHONE NUMBER: 544-3003

FOR APPLICANT TO FILL IN (PLEASE PRINT OR TYPE)

	EACH	NO	FEE
OUTLETS			
Rec ____ Sw ____ Total ____			
Additional over 20			
LIGHTING FIXTURES Total ____			
Additional over 20			
FACTORY WIRED APPLIANCES			
____ Water Heater ____ FAU; ____ Dishwasher ____ A/C; ____ Clotheswasher ____ Oven; 2 Disposal ____ Hood; ____ Heater ____ Range; ____ Fan ____ Dryer; ____ Other			27.80
POWER APPARATUS (In HP, KW, or KVA)			
____ Up to and including 1; 2 From 1 up to and including 10; ____ From 10 up to and including 50; ____ From 50 up to and including 100; ____ Over 100			27.80
SERVICE AND SWITCHBOARD SECTIONS			
____ 0 - 399 AMPS < 600 Volts; ____ 400 - 1000 AMPS < 600 Volts; ____ Over 1000 AMPS < 600 Volts; ____ Over 600 Volt Rating (all amperages); ____ Service Meter; ____ Electric Subpanel; ____ Switchboard Change or Additions			
SIGNS			
____ Sign with 1 Transformer; ____ Add sign & 1 Transformer; ____ Addt'l Transformer / Flasher / Timer; ____ Altering / Changing Letter on Sign			
TIME CLOCK(S)			
RELOCATED BUILDING ELECTRICAL			
BUSWAYS (each 100 feet or fraction thereof)			

ELECTRICAL PERMIT SUBTOTAL $ _____

PLAN CHECK FEE $ _____

PLAN CHECK NO	INITIALS / RECT. NO	DATE

ELECTRICAL PERMIT FEE $ 55.60

PERMIT ISSUANCE FEE $ 15.40

TOTAL ELECTRICAL PERMIT FEE $ 71.00

PERMIT NO.	INITIALS / RECT. NO	DATE
11900	CO	7-29-98

FINALED BY	DATE
Nancy Black	10-11-99

NO	INSPECTION	DATE	INSPECTOR
	REQUIRED ELECTRICAL INSPECTIONS AND APPROVALS		
E1	Temp Power Pole		
E2	System Ground		
	Ground Rod		
	Water Pipe		
	UFER		
E3	Underground Electrical	11/10/98	[illegible]
E4	Rough Wiring		
E5	Rough Conduit		
E6	Bonding Water and Gas		
E7	Service		
E8	Final Electrical Inspection	10-11-99	[illegible]
	Utility Released		
	Temporary Power Released		

INSPECTION NOTES:

shell

MECHANICAL PERMIT APPLICATION

OWNER-BUILDER DECLARATION

I hereby affirm under penalty of perjury that I am exempt from the Contractors License Law for the following reason (SEC 7031 5, Business and Professions Code. Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Sec 7000) of Division 3 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500)):

☐ I as owner of the property, or my employees with wages as their sole compensation, will do the work and the structure is not intended or offered for sale (Sec 7044, Business and Professions Code The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his or her own employees provided that such improvements are not intended or offered for sale If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he or she did not build or improve for the purpose of sale.)

☐ I as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044 Business and Professions Code The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractors License Law)

☐ I am exempt under Section _____ B &P.C. for this reason

Date _____ Signature of Owner _____

LICENSED CONTRACTORS DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code and my license is in full force and effect

License Class	License Number	Expiration Date
B	551190	12/31/98

Date 29 Jul 98 Signature of Contractor

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Section 3700 of the Labor Code for the performance of the work for which this permit is issued

☒ I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are

Carrier Clarendon National

Policy No OIKR539223 9 1/1/98 - 1/1/99

(This section need not be completed if the permit is for one hundred dollars ($100) or less)

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California and agree that if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions

Date 29 Jul 98 Signature of Applicant

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000), IN addition TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec 3097, Civ C)

Lender's Name _____

Lender's Address _____

I certify that I have read this application and state that the above information is correct I agree to comply with all city and county ordinances and state laws relating to building construction and hereby authorize representatives of this City to enter upon the above-mentioned property for inspection purposes.

X Date 29 Jul 98 Signature of Applicant

CITY OF LAKE FOREST

23161 Lake Center Drive #100
Lake Forest, CA 92630
Counter Hours: 1:00 p m to 6 00 p m , M-TH
Inspector's Hours: 8-9 a m & 1-2 p m
Inspection Request (714) 461-3468

SITE ADDRESS: 20802 SADDLEBACK PARKWAY

ASSESSOR PARCEL NUMBER: PARCEL 6-7-7-54A

BOOK PAGE PARCEL

ADDITIONAL INFORMATION / LEGAL DESCRIPTION

PROPERTY OWNER: SADDLEBACK CHURCH

MAILING ADDRESS: 23456 MADERO #100

CITY: M.V. STATE: CA ZIP: 92691

PHONE NUMBER: 581-5683

ARCHITECTS OR ENGINEERS NAME: LPA LICENSE NO

ADDRESS: 17848 SKY PARK CR

CITY: IRV STATE: CA ZIP: 92614

PHONE NUMBER: 260-1180 X159

APPLICANT / CONTACT PERSON: LPA / GLORIA BROMING

PHONE NUMBER: 260-1180 X159

CONTRACTOR'S NAME: MORSE CONTRACTORS INC

ADDRESS: 3009 DOW AVE #200 ~~1100 S. COAST HWY SEC 111~~

CITY: TUSTIN STATE: CA ZIP: 92680

PHONE NUMBER: 544-3003

FOR APPLICANT TO FILL IN (PLEASE PRINT OR TYPE)

NO.	UNIT OR ITEM	FEE
	EACH FURNANCE / BURNER W/ DUCTS & VENTS	
	Up to 100,000 BTU	
1	More than 100,000 BTU	56.70
16	AIR INLETS AND OUTLETS	Ø
	EVAPORATIVE COOLER	
	VENTILATING FAN(S)	
1	VENTILATING SYSTEM(S)	21.50
	INCINERATOR (Residential / Commercial)	
	COOLING / REHEATING COIL / ELECTRICAL STRIP	
	INCIDENTAL GAS PIPING	
	FURNACES (Floor/Floor Mounted/Recessed)	
	APPLIANCE VENT(S)	
	REPAIR / ALTERATION / ADDITION TO HEATING OR COOLING SYSTEMS INCLUDING CONTROLS OR REGISTERS	
	AIR HANDLING UNIT - 5 000 CFM OR LESS	
2	AIR HANDLING UNIT - > 5 000 CFM	86.—
	REPAIR / ALTERATION / ADDITION TO BOILER, COMPRESSOR OR ABSORPTION SYSTEM	
	Up to 5HP or 100,000 BTU	
	More than 5HP or 100 000 BTU	
	AIR CONDITIONING OR HEAT PUMPS	
	Up to 5 Tons/HP	
	Over 5 Tons/HP	
	HOOD WITH ATTACHED FANS / DUCTS	

MECHANICAL PERMIT SUBTOTAL $ 163.80

PLAN CHECK FEE $ 106.08

PLAN CHECK NO 10613 INITIALS SB REC'D NO 0922 DATE 3/9/98

MECHANICAL PERMIT FEE $ 163 20

PERMIT ISSUANCE FEE $ 15 40

TOTAL MECHANICAL PERMIT FEE $ 178 60

PERMIT NO 11901 INITIALS CD REC'D NO DATE 7-29-98

FINALED BY Doug Black DATE 10-11-99

NO	INSPECTION	DATE	INSPECTOR
	REQUIRED MECHANICAL INSPECTIONS AND APPROVALS		
M1	FAU/Wall Furnace		
M2	Combustion Air Openings		
M3	Duct Work		
M4	AC/Compressor		
M5	Thermostat		
M6	Fire Dampers		
M7	Smoke Detection Devices		
M8	Manufactured Fireplace		
M9	Commercial Hood		
M10	Final Mechanical Inspection	10-11-99	[illegible]

INSPECTION NOTES:

BUILDING PERMIT APPLICATION

CITY OF LAKE FOREST

23161 Lake Center Drive #100
Lake Forest, CA 92630
Counter Hours: 8:00am to 12:00pm
1:00pm to 6.00pm (Mon. - Thurs.)
Closed alternate Fridays
Inspector's Hours: 8 00am to 9 30am
Inspection Request: (949) 461-3468

OWNER-BUILDER DECLARATION

I hereby affirm under penalty of perjury that I am exempt from the Contractors License Law for the following reason (SEC 7031 5, Business and Professions Code Any city or county which requires a permit to construct alter, improve demolish, or repair any structure prior to its issuance also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Sec 7000) of Division 3 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption Any violation of Section 7031 5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500))

☐ I, as owner of the property or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec 7044, Business and Professions Code The Contractors License Law does not apply to an owner of property who builds or improves thereon and who does such work himself or herself or through his or her own employees, provided that such improvements are not intended or offered for sale If however the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he or she did not build or improve for the purpose of sale)

☐ I, as owner of the property am exclusively contracting with licensed contractors to construct the project (Sec 7044, Business and Professions Code The Contractors License Law does not apply to an owner of property who builds or improves thereon and who contracts for such projects with a contractor(s) licensed pursuant to the Contractors License Law)

☐ I am exempt under Section _____, B &P.C for this reason

Date _____ Signature of Owner _____

LICENSED CONTRACTORS DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect

License Class _____ License Number _____ Expiration Date _____

Date _____ Signature of Contractor _____

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation as provided for by Section 3700 of the Labor Code for the performance of the work for which this permit is issued

☐ I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code for the performance of the work for which this permit is issued My workers' compensation insurance carrier and policy number are

Carrier _____

Policy No _____

(This section need not be completed if the permit is for one hundred dollars ($100) or less)

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California and agree that if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code I shall forthwith comply with those provisions

Date _____ Signature of Applicant _____

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec 3097 Civ. C)

Lender's Name _____

Lender's Address _____

I certify that I have read this application and state that the above information is correct I agree to comply with all city and county ordinances and state laws relating to building construction and hereby authorize representatives of this City to enter upon the above-mentioned property for inspection purposes

Date _____ Signature of Applicant _____

SITE ADDRESS: 20802 SADDLEBACK PARK

ASSESSOR PARCEL NUMBER: [redacted]
APN: 164-143-37
BOOK PAGE PARCEL

ADDITIONAL INFORMATION / LEGAL DESCRIPTION

PROPERTY OWNER: D+D GEBHARD

MAILING ADDRESS: 22005. FAIRVIEW

CITY: SANTA ANA STATE: CA ZIP: 92704

PHONE NUMBER: (714) 434-1190

ARCHITECTS OR ENGINEERS NAME: LPA INC. LICENSE NO:

ADDRESS: 17848 SKY PARK CR.

CITY: IRVINE STATE: CA ZIP: 92614

PHONE NUMBER: (949) 261-1001

APPLICANT / CONTACT PERSON: GLORIA BROMING

PHONE NUMBER: (949) 260-1180 X159

CONTRACTOR'S NAME: NORSE CONTRACTORS INC.

ADDRESS: 3190 AIRPORT LOOP DR. #5

CITY: COSTA MESA STATE: CA ZIP: 92626

PHONE NUMBER: (714) 545-3003 X112

DESCRIPTION OF WORK: ~~[illegible]~~ ~~ON SITE [illegible]~~ ON SITE SUBDRAIN, STORM DRAIN RELOCATION AT THE DRIVE AISLE. VALUATION ~~[illegible]~~ $43,650.—

OCC GROUP	TYPE(S) OF CONSTRUCTION	NO OF STORIES

SQUARE FOOTAGE: FIRE SPRINKLERS: YES NO

STATISTICAL CLASSIFICATION: NO UNIT(S): 70 CODE IN EFFECT: 94 UBC

INITIAL VALUATION: $ 43,650 REVISED VALUATION: $

PLAN CHECK FEE: $ 109.33

ADDITIONAL PLAN CHECK FEE: $ 327.99

PLAN CHECK NO	INITIALS	DATE
13357	CA	1-12-99
RECT NO		

ADDITIONAL PLAN CHECK NO	INITIALS	DATE
13481	CA	1-25-99
RECT NO		

☐ SCHOOL FEES PAID ☐ HEALTH DEPT APPROVAL
☐ HOA APPR. OBTAINED ☐ FIRE DEPT APPROVAL
☐ PUBLIC WORKS APPR ☐ WATER DIST APPROVAL
☐ SCAQMD ☐ _____

PLANNING DEPARTMENT APPROVAL DATE

PROJECT ENTITLEMENT

BUILDING PERMIT FEE $

ISSUANCE FEE

SMIP FEE

Plan Ck only

TOTAL BUILDING PERMIT FEE $

PERMIT NO	INITIALS	DATE
RECT NO		

FINALED BY: Doug Black DATE: 10/19/99

NO	INSPECTION	DATE	INSPECTOR
	REQUIRED BUILDING INSPECTIONS AND APPROVALS		
B1	Location and setbacks		
B2	Soils Engineer's Approval		
B3	Foundation/Trench forms		
B4	Structural concrete slab on grade		
B5	Raised floor framing		
B6	Under floor insulation		
B7	First level floor sheathing		
B8	Second level floor sheathing		
B9	Third level floor sheathing		
B10	Roof sheathing		
B11	Concrete block		
	1st Grout lift		
	2nd Grout lift		
	3rd Grout lift		
	4th Grout lift		
B12	Steel framing		
B13	Fire Dept frame inspection		
B14	Building Dept frame inspection		
B15	Fire sprinkler hangers		
B16	Insulation/weather stripping		
B17	Interior lath and/or drywall		
B18	Exterior lath		
B19	Rated floor/Ceiling assemblies		
B20	Rated wall assemblies		
B21	Rated opening protection		
B22	Rated shaft construction		
B23	T-bar ceilings		
B24	Lot drainage		
B25	Planning Dept Approval		
B26	Fire Dept Approval		
B27	Public Works Dept Approval		
B28	Final Building inspection approval	10/19/99	Dang

DESCRIBE COMPLETELY THE INTENDED USE OF ALL SPACE APPLICABLE TO THIS BUILDING PERMIT:

The following statement must be signed by the Building owner.

(When approved by the Building Official, the owner's agent may sign for permits other than the initial or shell building permit.)

Will the applicant of future building occupant handle a hazardous material or mixture containing a hazardous material equal to or greater than the amounts specified on the hazardous materials information guide?

☐ YES ☐ NO

If the answer to the question was yes, will the proposed building or modified facility be within 1000 feet of the outer boundary of a school?

☐ YES ☐ NO

Will the intended use of the building by the applicant or future building occupant require a permit for construction or modification from the South Coast Air Quality Management District (SCAQMD)? (See permitting checklist for guidelines.)

☐ YES ☐ NO

I have read the hazardous material information guide and the SCAQMD permitting checklist. I understand my requirement under the State of California Health and Safety Code Section 25505, 25533, and 25634 concerning hazardous materials reporting.

☐ OWNER ☐ AGENT

NAME _____ SIGNATURE _____

INSPECTION NOTES:

BUILDING PERMIT APPLICATION

CITY OF LAKE FOREST

23161 Lake Center Drive #100
Lake Forest, CA 92630
Counter Hours 8:00am to 12.00pm
1:00pm to 6:00pm (Mon. - Thurs.)
Closed alternate Fridays
Inspector's Hours: 8.00am to 9:30am
Inspection Request: (949) 461-3468

OWNER-BUILDER DECLARATION

I hereby affirm under penalty of perjury that I am exempt from the Contractors License Law for the following reason (SEC 7031.5 Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Sec 7000) of Division 3 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption Any violation of Section 7031 5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500).).

☐ I as owner of the property, or my employees with wages as their sole compensation will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professions Code The Contractors License Law does not apply to an owner of property who builds or improves thereon and who does such work himself or herself or through his or her own employees provided that such improvements are not intended or offered for sale If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he or she did not build or improve for the purpose of sale)

☐ I as owner of the property am exclusively contracting with licensed contractors to construct the project (Sec 7044, Business and Professions Code The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractors License Law)

☐ I am exempt under Section _____, B &P.C for this reason

Date _____ Signature of Owner _____

LICENSED CONTRACTORS DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect

License Class _____ License Number _____ Expiration Date _____

Date _____ Signature of Contractor _____

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued

☐ I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code for the performance of the work for which this permit is issued My workers' compensation insurance carrier and policy number are

Carrier _____

Policy No _____

(This section need not be completed if the permit is for one hundred dollars ($100) or less)

☐ I certify that in the performance of the work for which this permit is issued I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions

Date _____ Signature of Applicant _____

WARNING FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec 3097, Civ C)

Lenders Name _____

Lenders Address _____

I certify that I have read this application and state that the above information is correct I agree to comply with all city and county ordinances and state laws relating to building construction and hereby authorize representatives of this City to enter upon the above-mentioned property for inspection purposes

Date _____ Signature of Applicant _____

SITE ADDRESS: ONE SADDLEBACK PARK

ASSESSOR PARCEL NUMBER: 20802 SADDLEBACK PARKWAY

BOOK _____ PAGE _____ PARCEL _____

ADDITIONAL INFORMATION / LEGAL DESCRIPTION

PROPERTY OWNER: GEBHARD

MAILING ADDRESS: 2200 S. FAIRVIEW

CITY: Santa Ana STATE: CA ZIP: 92704

PHONE NUMBER: (7) 434-1190

ARCHITECT'S OR ENGINEER'S NAME: LPA INC LICENSE NO.

ADDRESS: 17848 Skyline Cir

CITY: Irvine STATE: CA ZIP: 92614

PHONE NUMBER

APPLICANT / CONTACT PERSON: Gloria Browning

PHONE NUMBER: 260-1180 x 159

CONTRACTOR'S NAME: NORSE Contractors

ADDRESS: 3190 Airport Loop Dr #5

CITY: Costa Mesa STATE: CA ZIP: 92626

PHONE NUMBER: (7)545 3003 X112

DESCRIPTION OF WORK: REVISION TO APPROVED PLAN PERMIT #

OCC GROUP | TYPE(S) OF CONSTRUCTION | NO OF STORIES

SQUARE FOOTAGE | FIRE SPRINKLERS YES NO

STATISTICAL CLASSIFICATION NO | UNIT(S) | CODE IN EFFECT

$ Hrly INITIAL VALUATION $ _____ REVISED VALUATION

PLAN CHECK FEE $ 109.33

ADDITIONAL PLAN CHECK FEE $ 2405.26

PLAN CHECK NO	INITIALS	DATE
12941	CD	11-17-98
ADDITIONAL PLAN CHECK NO	INITIALS	DATE
13482	CD	1-25-99

RECT NO

☐ SCHOOL FEES PAID ☐ HEALTH DEPT APPROVAL
☐ HOA APPR OBTAINED ☐ FIRE DEPT APPROVAL
☐ PUBLIC WORKS APPR. ☐ WATER DIST APPROVAL
☐ SCAQMD ☐ _____

PLANNING DEPARTMENT APPROVAL | DATE

PROJECT ENTITLEMENT

BUILDING PERMIT FEE $

ISSUANCE FEE

SMIP FEE $

Plan check only

$

$

TOTAL BUILDING PERMIT FEE $

PERMIT NO	INITIALS	DATE
	RECT NO	
FINALED BY Doug Black		DATE 10/19/99

NO.	INSPECTION	DATE	INSPECTOR

REQUIRED BUILDING INSPECTIONS AND APPROVALS

B1	Location and setbacks		
B2	Soils Engineer's Approval		
B3	Foundation/Trench forms		
B4	Structural concrete slab on grade		
B5	Raised floor framing		
B6	Under floor insulation		
B7	First level floor sheathing		
B8	Second level floor sheathing		
B9	Third level floor sheathing		
B10	Roof sheathing		
B11	Concrete block		
	1st Grout lift		
	2nd Grout lift		
	3rd Grout lift		
	4th Grout lift		
B12	Steel framing		
B13	Fire Dept. frame inspection		
B14	Building Dept. frame inspection		
B15	Fire sprinkler hangers		
B16	Insulation/weather stripping		
B17	Interior lath and/or drywall		
B18	Exterior lath		
B19	Rated floor/Ceiling assemblies		
B20	Rated wall assemblies		
B21	Rated opening protection		
B22	Rated shaft construction		
B23	T-bar ceilings		
B24	Lot drainage		
B25	Planning Dept. Approval		
B26	Fire Dept. Approval		
B27	Public Works Dept. Approval		
B28	Final Building inspection approval	10/19/99	Dang

DESCRIBE COMPLETELY THE INTENDED USE OF ALL SPACE APPLICABLE TO THIS BUILDING PERMIT:

The following statement must be signed by the Building owner.

(When approved by the Building Official, the owner's agent may sign for permits other than the initial or shell building permit.)

Will the applicant of future building occupant handle a hazardous material or mixture containing a hazardous material equal to or greater than the amounts specified on the hazardous materials information guide?

☐ YES ☐ NO

If the answer to the question was yes, will the proposed building or modified facility be within 1000 feet of the outer boundary of a school?

☐ YES ☐ NO

Will the intended use of the building by the applicant or future building occupant require a permit for construction or modification from the South Coast Air Quality Management District (SCAQMD)? (See permitting checklist for guidelines.)

☐ YES ☐ NO

I have read the hazardous material information guide and the SCAQMD permitting checklist. I understand my requirement under the State of California Health and Safety Code Section 25505,25533, and 25634 concerning hazardous materials reporting.

☐ OWNER ☐ AGENT

NAME _____ SIGNATURE _____

INSPECTION NOTES:

rev 11/97

BUILDING PERMIT APPLICATION

OWNER-BUILDER DECLARATION

I hereby affirm under penalty of perjury that I am exempt from the Contractors License Law for the following reason (SEC 7031 5, Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Sec 7000) of Division 3 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption Any violation of Section 7031 5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500)):

☐ I, as owner of the property, or my employees with wages as their sole compensation will do the work and the structure is not intended or offered for sale (Sec 7044, Business and Professions Code. The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his or her own employees provided that such improvements are not intended or offered for sale If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he or she did not build or improve for the purpose of sale)

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec 7044, Business and Professions Code The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractors License Law.).

☐ I am exempt under Section _____, B &P C for this reason

Date _____ Signature of Owner

LICENSED CONTRACTORS DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect

B — License Class
551190 — License Number
12/31/00 — Expiration Date

3/3/99 — Date
Signature of Contractor

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued

☒ I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code for the performance of the work for which this permit is issued My workers' compensation insurance carrier and policy number are

Carrier: Clarendon National Ins. Co.

Policy No: 01KR5392339

(This section need not be completed if the permit is for one hundred dollars ($100) or less)

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers compensation provisions of Section 3700 of the Labor Code I shall forthwith comply with those provisions

3/3/99 — Date
Signature of Applicant

WARNING. FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE. INTEREST, AND ATTORNEY'S FEES.

CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec 3097 Civ C)

Lender's Name _____

Lender's Address _____

I certify that I have read this application and state that the above information is correct I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this City to enter upon the above-mentioned property for inspection purposes

3/3/99 — Date
Signature of Applicant

CITY OF LAKE FOREST

23161 Lake Center Drive #100
Lake Forest, CA 92630
Counter Hours 1:00 p m to 6 00 p m , M-TH
Inspector's Hours 8-9 a m & 1-2 p m
Inspection Request (714) 461-3468

SITE ADDRESS: 20802 SADDLEBACK PRKWY

ASSESSOR PARCEL NUMBER: PARCEL 6-7-7-SLAA
BOOK / PAGE / PARCEL

ADDITIONAL INFORMATION / LEGAL DESCRIPTION:

PROPERTY OWNER: SADDLEBACK CHURCH

MAILING ADDRESS: 23456 MADERO
CITY: M.V. STATE: CA ZIP: 92691

PHONE NUMBER: 581-5683

ARCHITECT'S OR ENGINEER'S NAME: LPA
LICENSE NO:

ADDRESS: 17848 SKY PARK CR.
CITY: IRV STATE: CA ZIP: 92614

PHONE NUMBER: 260-1180 X159

APPLICANT / CONTACT PERSON: LPA / GLORIA BROMING

PHONE NUMBER: 260-1180 x159

CONTRACTOR'S NAME: MORSE CONSULTANTS INC.

ADDRESS: 3002 DOW AVE #202
CITY: STATE: ZIP: 92680

PHONE NUMBER: 544-3003

DESCRIPTION OF WORK: Tenant Improvement
~~[illegible]~~
Office 48,893 ft, assembly 1,305 ft NEW BLDG / TI

OCC GROUP	TYPE(S) OF CONSTRUCTION	NO OF STORIES
B, A-3, S-3	V-N	2

SQUARE FOOTAGE: 50,198 ft
FIRE SPRINKLERS: YES / NO
STATISTICAL CLASSIFICATION NO: 437.
VALUATION: 70
CODE IN EFFECT: 1994 UBC

INITIAL VALUATION: $ ~~125~~ TILL.. 1,977,000.
REVISED VALUATION

PLAN CHECK FEE: $ 6,659.27
ADDITIONAL PLAN CHECK FEE: $ 437.32

PLAN CHECK NO	INITIALS	DATE
10160	JJP RECT. NO 1044	12/24/97
ADDITIONAL PLAN CHECK NO	INITIALS	DATE
13955	CD RECT NO	3/3/99

- ☐ SCHOOL FEES PAID
- ☐ HOA APPR. OBTAINED
- ☐ PUBLIC WORKS APPR
- ☐ SCAQMD
- ☐ HEALTH DEPT. APPROVAL
- ☐ FIRE DEPT APPROVAL
- ☑ WATER DIST APPROVAL
- ☐ _____

PLANNING DEPARTMENT APPROVAL: DATE:

PROJECT ENTITLEMENT:

BUILDING PERMIT FEE: $ 10,237.11
ISSUANCE FEE: $ 15.40
SMIP FEE: $ 415.17
$
$
TOTAL BUILDING PERMIT FEE: $ 10252.51 10,667.68

PERMIT NO	INITIALS	DATE
13952	CD REAT NO	3/3/99
FINALED BY		DATE
Nancy Blank		10/19/99

NO	INSPECTION	DATE	INSPECTOR

REQUIRED BUILDING INSPECTIONS AND APPROVALS

B1	Location and setbacks		
B2	Soils Engineer's Approval		
B3	Foundation/Trench forms		
B4	Structural concrete slab on grade		
B5	Raised floor framing		
B6	Under floor insulation		
B7	First level floor sheathing		
B8	Second level floor sheathing		
B9	Third level floor sheathing		
B10	Roof sheathing		
B11	Concrete block		
	1st Grout lift		
	2nd Grout lift		
	3rd Grout lift		
	4th Grout lift		
B12	Steel framing		
B13	Fire Dept frame inspection		
B14	Building Dept frame inspection		
B15	Fire sprinkler hangers		
B16	Insulation/weather stripping		
B17	Interior lath and/or drywall		
B18	Exterior lath		
B19	Rated floor/Ceiling assemblies		
B20	Rated wall assemblies		
B21	Rated opening protection		
B22	Rated shaft construction		
B23	T-bar ceilings		
B24	Lot drainage		
B25	Planning Dept Approval		
B26	Fire Dept Approval		
B27	Public Works Dept. Approval		
B28	Final Building inspection approval	10/19/99	[illegible]

DESCRIBE COMPLETELY THE INTENDED USE OF ALL SPACE APPLICABLE TO THIS BUILDING PERMIT:

The following statement must be signed by the Building owner.

(When approved by the Building Official the owner's agent may sign for permits other than the initial or shell building permit)

Will the applicant of future building occupant handle a hazardous material or mixture containing a hazardous material equal to or greater than the amounts specified on the hazardous materials information guide?

☐ YES ☐ NO

If the answer to the question was yes will the proposed building or modified facility be within 1000 feet of the outer boundary of a school?

☐ YES ☐ NO

Will the intended use of the building by the applicant or future building occupant require a permit for construction or modification from the South Coast Air Quality Management District (SCAQMD)? (See permitting checklist for guidelines)

☐ YES ☐ NO

I have read the hazardous material information guide and the SCAQMD permitting checklist I understand my requirement under the State of California Health and Safety Code Section 25505,25533, and 25634 concerning hazardous materials reporting

☐ OWNER ☐ AGENT

NAME _____ SIGNATURE _____

INSPECTION NOTES:

A-920

PERMIT NUMBER

NR940767

County of Orange

ENVIRONMENTAL MANAGEMENT AGENCY

REGULATION

NON-RESIDENTIAL BLDG

PERMITS/PLAN CHECK
300 N. FLOWER STREET
SANTA ANA, CA 92702-4048
(714) 834-2626

INSPECTION OFFICE
22921 TRITON WAY
LAGUNA HILLS, CA 92653
(714)472-7979
FOR INSPECTIONS CALL (714) 472-7922

Legal Descr: 90399- 1- -
Status: ISSUED
Job Addr: 1 SADDLEBACK PK FTHL
Issued: 12/13/1994
Addl Addr Info: .
Cross Strts: EL TORO
Electric Meters(qty):
Present Use: CHURCH

DESCRIPTION OF WORK

App Type: ADD Rltd Pmt: Grd Pmt Rqrd? N
Description:EXPAND 2 EXIST. MODULAR CLASSROOMS FOR CHURCH Bld Cd Yr:1991

Occupancy	Type	Factor	Sq. Feet	Valuation
Churches	Type V N	15.00	2,880	43,200.00
Table Date: 01/16/1993		Total Valuation:		43,200.00
Occ Grp/Sq Ft: A2.1 = 2880 /	=	/	= /	=
		Total Fees:		1,112.25

APPLICANT BRANDALL MODULAR CORP Phone: 714 965-0032
19744 BEACH BLVD., HUNT. BCH.__ 92648
CONTRACTOR BRANDALL MODULAR CORP Phone: 714 965-0032
19744 BEACH BLVD., HUNT. BCH.__ 92648
OWNER SADDLE VALLEY COMM CHURCH Phone: 714-581-7614
23456 MADERO, STE:100, MISSION VIEJO, 92690

COMMENTS

ZONING INFORMATION

Zoning: PC /PA 11 & 17 - IND.& O APN: 10414138
PC/SP: FOOTHILL RANCH Rltd Pln Appl: SP 92-048P
# of Stories: Structure Ht: .00
Prkng Rqrd: # Prkng Provided: Flood Pln:
SETBACK EAVE PROJ CAA:
Center Line Strt: Census Trct:
Front Prop Line: Supv Dist: 3
Side Yard Right: Census Cls Cd: 437
Side Yard Left: # Units: 001 # Bldgs: 001
Rear Yard to P/L: Setbk Comm: SEE PLAN

APPROVALS

Item: 01000 ZONING APPROVAL Dept: PLANNING Division:
12/13/1994 GILLB Action: APPR BY REG
Item: 02000 PLAN CHECK APPROVAL Dept: REGULATE Division: BL
12/13/1994 KOMAEEM Action: APPR HCH

THIS PERMIT SHALL BE VOID AND OF NO FURTHER FORCE OR EFFECT IF WORK IS NOT COMMENCED WITHIN 180 DAYS FROM DATE OF ISSUANCE OR IF WORK IS SUSPENDED OR ABANDONED FOR A PERIOD OF 180 DAYS OR MORE AFTER WORK IS COMMENCED.

White-Regulation Yellow-Customer Pink-Finance Gold-Distribution Card-Job Site

MAR 0 3 1995

STRUCTURAL	DATE	INSPECTOR
A-1	1-13-95	Smart
Foundation, Location	2-2-95	Flores
Pre-Slab/Comp Reinf		
Underfill/Floor Joist		
Masonry, Grout Lift		
Fireplace		
Roof Framer Sheath	2-22-95	Flores
Shear Panel/Holdwn		
Framing		
Insulation		
Drywall		
Firewall		
Exterior Lath		
T-Bar/D-Stop		
Plaster Brown Coat		
Final Structural	3-2-95	Flores

ELECTRICAL	DATE	INSPECTOR
Underground		
UFER		
Fixtures/T-Bar Ceiling		
Rough Wiring		
Service		
Temp Power Const		
Work-with Release		
House Meter		
Final Electrical		

GENERAL	DATE	INSPECTOR
Zoning		
Fire		
Solar		
Sign		
Fire Alarm		
Electric Co Notified		
Gas Co. Notified		
Cert. of Occupancy		

PLUMBING	DATE	INSPECTOR
Underground Soil		
Underground Water		
Water Service		
Sewer		
Septic Tank		
Seep Pit/Leach Fld		
Rough Plumbing		
Yard Gas Piping		
Gas Test		
Water Heater		
Fire Main U.G.		
Fire Sprinkler U G		
Fire Sprinkler Rough		
Fire Sprinkler Final		
Final Plumbing		

POOL/SPA	DATE	INSPECTOR
Location - Steel		
Main Drain		
Electric Bonding		
PRE-GUNITE		
Undgrd Electric		
Gas Piping Test		
Rough Plumbing		
PRE-DECK		
Electrical Final		
Plumbing Final		
Fencing Final		
PRE-PLASTER		
Pool Light		
Final Pool/Spa		

MECHANICAL	DATE	INSPECTOR
Underground		
Rough		
Metal Fireplace		
Combined Vent		
Air Conditioning		
Final Mechanical		

REMARKS

PERMIT NUMBER

LICENSED CONTRACTOR DECLARATION

I hereby affirm that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect

Date _____ Contractor Signature _____

WORKERS' COMPENSATION DECLARATION

I hereby affirm that I have a certificate of consent to self-insure or a certificate of Workers' Compensation Insurance, or a certified copy thereof (Sec. 3[illegible])

Verified by [signature]

Date _____ Applicant Signature _____

CERTIFICATE OF EXEMPTION FROM WORKERS' COMPENSATION INSURANCE

(This section need not be completed if the value of the work permitted is three hundred dollars ($300) or less)
I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Workers' Compensation Laws of California.

Date _____ Applicant Signature _____

NOTICE TO APPLICANT: If, after making this Certificate of Exemption, you should become subject to Workers' Compensation provisions of the Labor Code, you must forthwith comply with such provisions or this permit shall be deemed revoked.

OWNER-BUILDER DECLARATION

I hereby affirm that I am exempt from the Contractors License Law for the following reason (Sec. 7031.5, Business and Professions Code. Any city or county which requires a permit to construct, alter, improve, demolish or repair any structure prior to its issuance also requires the applicant for such a permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code) or that he or she is exempt therefrom and the basis of the exemption)

___ I, as owner of the property, or my employees with wages and their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professions Code. The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his or her own employees, provided that such improvements are not intended or offered for sale).

___ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code. The Contractors License Law does not apply to the owner of property who builds or improves thereon and who contracts for such projects with a contractor(s) licensed pursuant to the Contractors License Law).

___ I am exempt under Sec. _____ B & PC for this reason _____

Date _____ Owner Signature _____

CONSTRUCTION LENDING AGENCY

I hereby affirm that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C).

Lender's Name _____

Lender's Address _____

I certify that I have read this application and state that the information above is correct. I agree to comply with all county ordinances and state laws relating to building construction and hereby authorize representatives of this County to enter upon the above mentioned property for inspection purposes.

Date 12-13-94 **Print Name** GEORGE LUNG

Applicant/Agent Signature [signature]

County of Orange

CENTRAL OFFICE
300 N. FLOWER STREET
SANTA ANA, CA 92702-4048
(714)834-2626

ENVIRONMENTAL MANAGEMENT AGENCY
REGULATION

REGIONAL OFFICE
22921 TRITON WAY
LAGUNA HILLS, CA 92653
(714) 472-7979

CERTIFICATE OF USE AND OCCUPANCY

BUILDING PERMIT NUMBER: NR940767 **ISSUE DATE: 03/02/1995**

Job Address(es):
1 SADDLEBACK PK FTHL
Additional Address Information:

Parcel(s):
90399 1 00/00/00

Issued to Owner: SADDLE VALLEY COMM CHURCH
Phone: 714-581-7614

Description of Use:
EXPAND 2 EXIST. MODULAR CLASSROOMS FOR CHURCH

Occupancy Class:

Occupancy	Type	Factor	Sq. Feet	Valuation
Churches	Type V N	15.00	2,880	43,200.00
Table Date: 01/16/1993		Total Valuation:		43,200.00

The building described herein has been inspected and found to comply with provisions of all County of Orange ordinances applicable thereto.

Robert F. Wingard
County Building Official
County of Orange
Environmental Management Agency

This is a legal document and must be given to the legal owner or purchaser.
Mail to:

SADDLE VALLEY COMM CHURCH
23456 MADERO
STE:100
MISSION VIEJO,
92690

CITY OF LAKE FOREST

BUILDING DIVISION

STREET NO. (7): **1**

STREET NAME (35): **SADDLEBACK PKWY**

Place Unit # in I-6

DOC/TYPE (4): [X] PERMITS [ ] PLANS [ ] OTHERS

DOC/DESC:	**MAJOR PERMIT # (8):** **NR940767**
[ ] GRADING (G)	[ ] SOILS REPORT (G)
[X] BUILDING (B)	[ ] STRUCTURAL CALCULATIONS (S)
[ ] PLUMBING (P)	[ ] ENERGY CALCULATIONS (E)
[ ] MECHANICAL (M)	[ ] ACOUSTICAL REPORT (A)
[ ] ELECTRICAL (E)	[X] MISCELLANEOUS (M)
[X] CERTIFICATE OF OCCUPANCY (O)	

PROJ/DESC (9): (X ONLY ONE ITEM)

[ ] SFD NEW	[ ] MFD NEW	[ ] NONRES NEW
[ ] SFD ADD	[ ] MFD ADD	[ ] NONRES ADD
[ ] SFD ALTER	[ ] MFD ALTER	[ ] NONRES SIGN
[ ] SFD REPAIR	[ ] MFD REPAIR	[ ] NONRES REPAIR
[ ] SFD MISC	[ ] MFD MISC	[X] NONRES MISC
[ ] GAR NEW	[ ] POOL/SPA	[ ] COMM T.I.
[ ] GAR ADD	[ ] PATIO COVER	[ ] REROOF

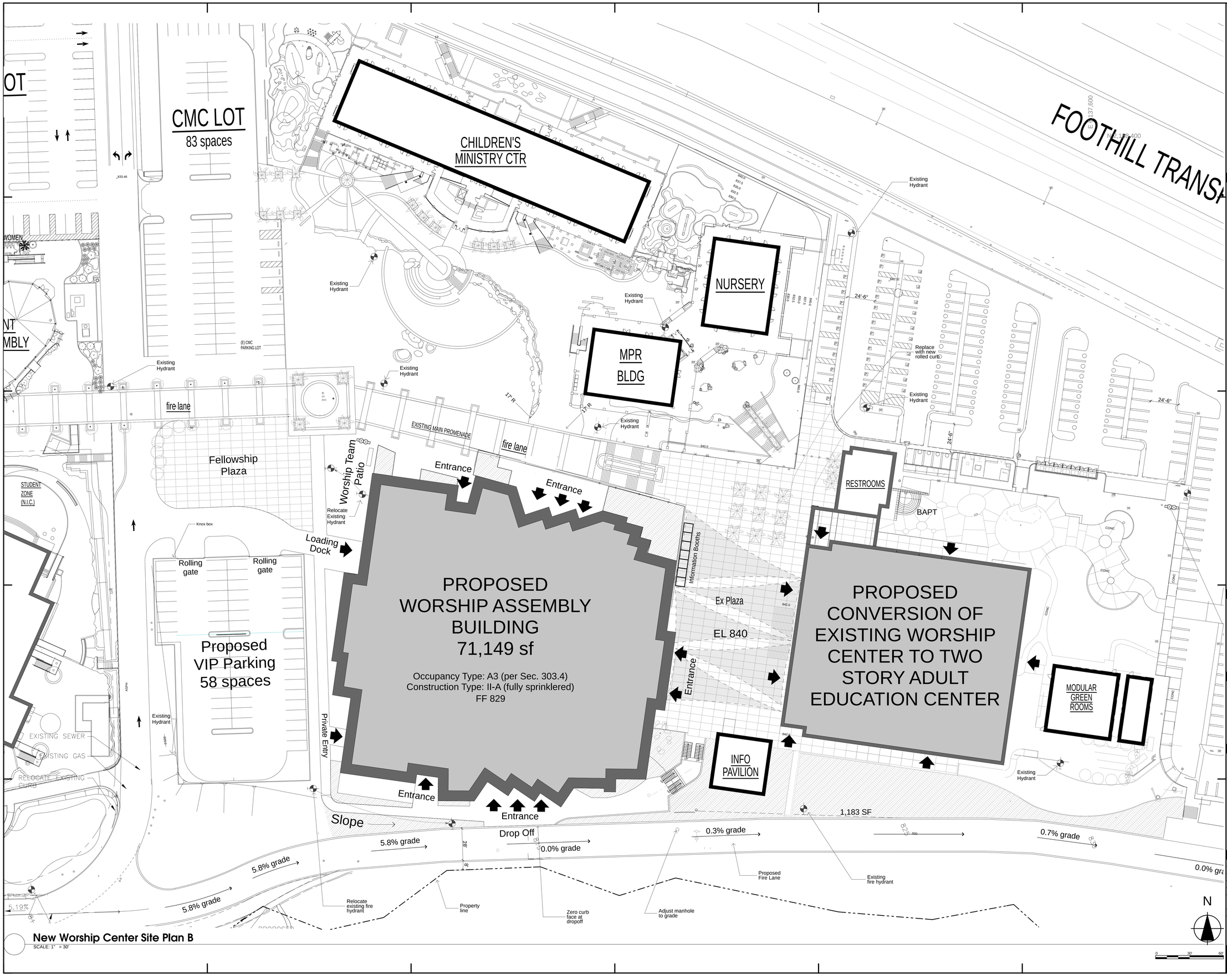
PROJ/NAME (12): ***SADDLEBACK CHURCH***

FINAL DATE Y M D ***UNKNOWN***

TOTAL PAGES: **2**

REFERENCE TO PLANS ON APER. CARDS:

[X] NO [ ] YES



New Worship Center Site Plan B

SCALE: 1" = 30'

teamwork://i5-iMac-Thane-Right.local/16042 Saddleback New Worship Center

TIMELESS ARCHITECTURE • INC

9891 IRVINE CENTER DRIVE · SUITE 140
IRVINE · CALIFORNIA · 92618
TEL:949·831·8110 FAX:949·951·2820
EMAIL: MAIN@TMLSARC.COM

CONSULTANT

STAMPS

LICENSED ARCHITECT · JAMES M. THAYER · C-015575 · REN. 2-28-17 · STATE OF CALIFORNIA

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PROJECT

Saddleback Church Worship Center

SITE ADDRESS:
1 Saddleback Parkway
Lake Forest, CA 92630

MAILING ADDRESS:

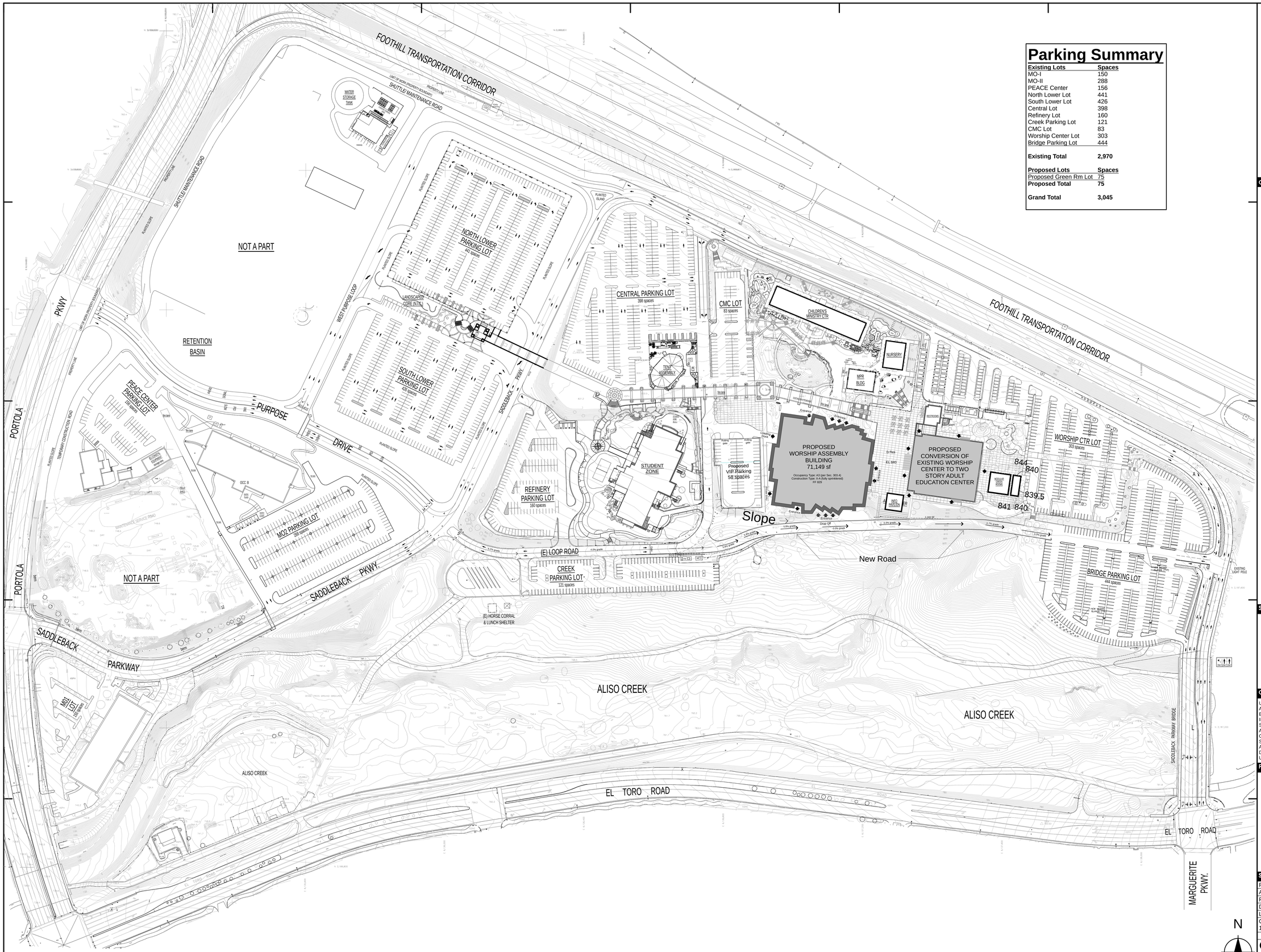
PH 949.609.8000

SHEET DATA

PROJECT #	16042
APN:	104-143-12
PDF DATE:	11/2/17-8:41 AM
DRAWN BY:	
LAST SAVED BY:	iMac i7
CAD FILENAME	
16042 Saddleback New Worship Center [i5-iMac-Tha	

Site Plan

A010



Parking Summary

Existing Lots	Spaces
MO-I	150
MO-II	288
PEACE Center	156
North Lower Lot	441
South Lower Lot	426
Central Lot	398
Refinery Lot	160
Creek Parking Lot	121
CMC Lot	83
Worship Center Lot	303
Bridge Parking Lot	444
Existing Total	**2,970**
Proposed Lots	**Spaces**
Proposed Green Rm Lot	75
Proposed Total	**75**
Grand Total	**3,045**

Campus Plan B

SCALE: 1" =100'

TIMELESS ARCHITECTURE • INC

9891 IRVINE CENTER DRIVE · SUITE 140
IRVINE · CALIFORNIA · 92618
TEL:949·831·8110 FAX:949·951·2820
EMAIL: MAIN@TMLSARC.COM

CONSULTANT

STAMPS

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PROJECT

Saddleback Church Worship Center

SITE ADDRESS:
1 Saddleback Parkway
Lake Forest, CA 92630

MAILING ADDRESS:

PH 949.609.8000

SHEET DATA

PROJECT #	16042
APN:	104-143-12
PDF DATE:	11/2/17-4:05 PM
DRAWN BY:	
LAST SAVED BY:	iMac i5 SSD
CAD FILENAME	
16042 Saddleback New Worship Center [i5-iMac-Tha	

Campus Plan

A011

teamwork://i5-iMac-Thane-Right.local/16042 Saddleback New Worship Center

PRIORITY ONE ENVIRONMENTAL
LOS ANGELES - TULSA - CLEVELAND
19528 VENTURA BOULEVARD, # 268, LOS ANGELES, CALIFORNIA 91356
V/F (800) 704-4193 WWW.PRIORITY1ENVIRONMENTAL.COM

Paul J. Robinson

Priority1environmental@gmail.com

Professional Employment History

- **Priority One Environmental, Inc.,** Los Angeles, CA **(Owner)**
  Corporate President / Office Director, 2015 - Present
  Managing the operation of an environmental phase one site assessment firm.

- **Dynamic Earth Consultants, Inc.**, Reseda, CA (Co-Owner)
  Corporate President / Office Director, 2010 to 2015
  Managing the operation of a geotechnical and environmental consulting firm.

- **Enviro-Assess Inc.**, Bonners Ferry, ID
  Field Technician (Part Time), 2011 to 2013
  Performing environmental site assessment and inspection

- **Brian A. Robinson & Associates, Inc.**, Tarzana, CA
  Staff Engineer / Office Manager, 2010 to 2013
  Field Technician / Office Manager, 2008 to 2010
  Laboratory Technician / Field Technician, 2004 to 2008
  Assisting in the management and operation of a geotechnical and environmental consulting firm.

Education

- **California State University, Northridge, CA**
  Bachelor of Arts, Geography, 2009

Professional Experience

- Analyze and evaluate geologic, environmental and engineering site characteristics.
- Perform geologic, environmental and engineering field investigations, laboratory testing, and in-field quality assurance testing.
- Write geologic, environmental and engineering reports; computer drafting; review reports and literature.
- Prepare complex reports for clients ensuring full compliance with city and county codes.
- Communicate professionally with clients, professionals, and officials to ensure effective project completion.
- Schedule appointments, estimate project costs, determine project deadlines and manage customer projects.
- Prepare proposals, invoices and receipts for clients, manage company bookkeeping.
- Office management and receptionist skills: time and employee management, supply management, filing, phone work, typing, maintain company website and manage company advertizing.

Additional Skills and Knowledge

Windows XP, Vista, 7 and 8; Max OS X; MS Word, Excel, PowerPoint; Word Perfect; Quattro Pro; CorelDraw X5; Adobe Creative Suite 6 (i.e. Illustrator & Photoshop); ESRI (i.e. ArcGIS, ArcMap, ArcCatalog).

Appendix G

Preliminary Water Quality Management Plan

PRELIMINARY

Water Quality Management Plan (WQMP)

Worship Center

Saddleback Valley Community Church

Prepared for:

Saddleback Valley Community Church

1 Saddleback Parkway

Lake Forest, California 92630

949 609 8000

Prepared by:

BURGESS ENGINEERING GROUP

27758 Santa Margarita Parkway Suite 284
Mission Viejo, California 92691
949 588 8801 949 588 7216 (Fax)

May 31, 2018

Project Owner's Certification			
Permit/Application No.		Grading Permit No.	
Tract/Parcel Map No.	Tract 90399, Parcel 1	Building Permit No.	
CUP, SUP, and/or APN (Specify Lot Numbers if Portions of Tract)			104-143-12

This Water Quality Management Plan (WQMP) has been prepared for The Saddleback Valley Community Church by The Burgess Engineering Group. The WQMP is intended to comply with the requirements of the local NPDES Stormwater Program requiring the preparation of the plan.

The undersigned, while it owns the subject property, is responsible for the implementation of the provisions of this plan and will ensure that this plan is amended as appropriate to reflect up-to- date conditions on the site consistent with the current Orange County Drainage Area Management Plan (DAMP) and the intent of the non-point source NPDES Permit for Waste Discharge Requirements for the County of Orange, Orange County Flood Control District and the incorporated Cities of Orange County within the San Diego Region. Once the undersigned transfers its interest in the property, its successors-in-interest shall bear the aforementioned responsibility to implement and amend the WQMP. An appropriate number of approved and signed copies of this document shall be available on the subject site in perpetuity.

Owner:			
Title			
Company	Saddleback Valley Community church		
Address	One Saddleback Parkway, Lake Forest, California 92630		
Email			
Telephone #	949 609 8000		
Signature		Date	

Contents

		Page No.
Project Owner's Certification		**2**
Section I	**Discretionary Permit(s) and Water Quality Conditions**	**4**
Section II	**Project Description**	**5**
Section III	**Site Description**	**9**
Section IV	**Best Management Practices**	**11**
Section V	**Inspection/Maintenance Responsibility for BMP's**	**24**
Section VI	**Site Plan and Drainage Plan**	**25**
Section VII	**Educational Materials**	**26**

Attachments

Appendix A.. ..... Educational Materials
Appendix B.....Drainage Calculations
Appendix C.....Geotechnical Report

Section I Discretionary Permit(s) and Water Quality Conditions

Project Infomation			
Permit/Application No.		Tract/Parcel Map No.	Parcel 1, Tract 90-399, Map Book 278, Pages 12 and 19
Additional Information/ Comments:			
Water Quality Conditions			
Water Quality Conditions (list verbatim)			
Watershed-Based Plan Conditions			
Provide applicable conditions from watershed - based plans including WIHMPs and TMDLS.	**Total Maximum Daily Loads (TMDLs):**		

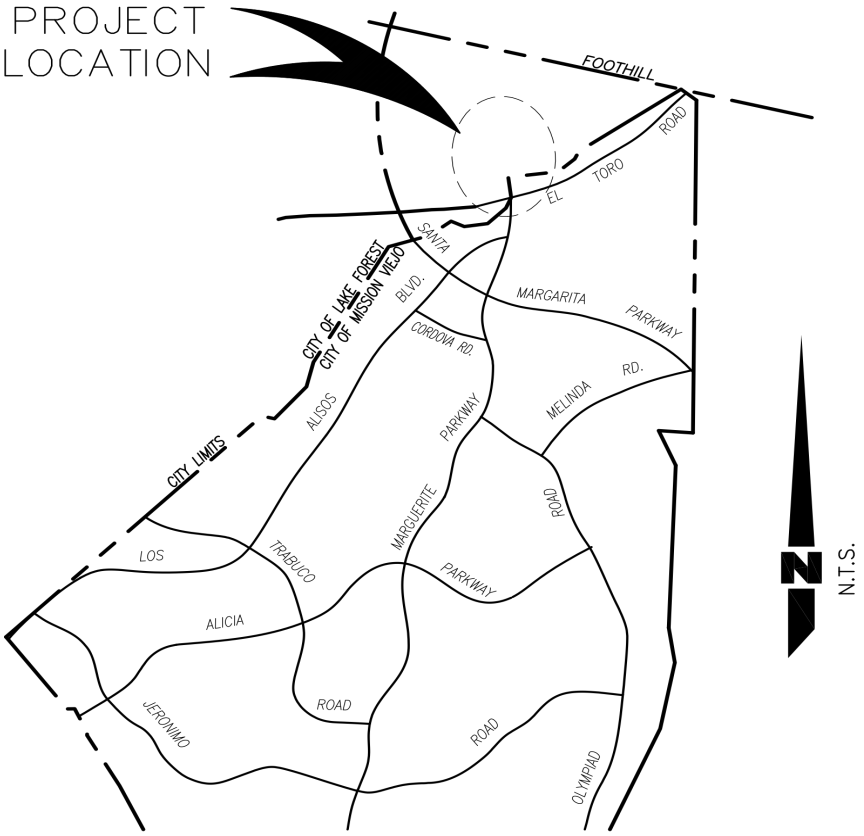
Indicator Bacteria	Wet Weather Days [a]		Dry Weather Days [b]	
	Wet Weather Numeric Objective [c] (MPN/100mL)	Wet Weather Allowable Exceedance [d] Frequency	Dry Weather Numeric Objective [c] (MPN/100mL)	Dry Weather Allowable Exceedance Frequency
Fecal Coliform	400	22%	200	0%
Enterococcus	61 (104) [f]	22%	33	0%

Section II Project Description

1. Project Description

The development of the New Worship Center will consist of the:

- Construction of a new Worship Center building with a capacity of 3,509 seats to replace the existing 3,153 seat Worship Center (net increase of 356)
- Demolition of the modular buildings which we're used as classrooms to serve up to 1,000 students
- Utilization of the existing Worship Center building to serve as classroom area to serve up to approximately 969 students (net increase of 31 students in capacity)
- Demolition fo Tents 3 and 1 to provide additional surface parking increasing the provided surface parking from 3,021 spaces to approximately 3,045 spaces, and
- Modification of the on-site circulation roadway network by extension of the loop road east of the existing cul-de-sac to connect with Saddleback Parkway.
- See Figure 2-1 for a Vicinity Map.



VICINITY MAP

Description of Proposed Project

Development Category :	Priority Project			
Project Area (ft_2): 261,181 ft^2			SIC Code: 866107	
Narrative Project Description:	Project consists of the redevelopment of a site on the interior of the Lake Forest Campus of Saddleback Church at one Saddleback Parkway, Lake Forest California. The proposed development is wholly contained on Parcel 1, Parcel Map 90-399 contained in Book 278, pages 12 and 19 of Parcel Maps, County of Orange, California. The new Worship Center will have a gross area of 71,375 ft^2. In addition, the existing paved areas that surround the existing tent structures will be reconstructed to become surface parking fo the new facility. The existing Worship Center structure will be renovated as new class room space. the existing tent structures and the 'temporary' modular buildings will all be demolished. the walkway that presently extends from a cul-de-sac ti the existing parking will be modified into a fire lane and access road.			
Project Area	Pervious		Impervious	
	Area (ft^2)	Percentage	Area (ft^2)	Percentage
Pre-Project Conditions	144,391	55.3%	116,790	44.7%
Post-Project Conditions	31,265	12.0%	184,916	70.8%
Drainage Patterns/ Connections	Storm drainage will flow from the site as it does today - to the south across an open space easement to the upper reaches of Aliso Creek that flows to the south along the right of Way of El Toro Road. It stays with this water course till it reaches the Pacific Ocean..			

2. Potential Stormwater Pollutants

Pollutants of Concern			
Pollutant	E=Expected to be of concern N=Not Expected to be of concern		Additional Information and Comments
Suspended-Solid/ Sediment	E	N	
Nutrients	E	N	
Heavy Metals	E	N	
Pathogens (Bacteria/Virus)	E	N	
Pesticides	E	N	
Oil and Grease	E	N	
Toxic Organic Compounds	E	N	
Trash and Debris	E	N	

3. Hydrologic Conditions of Concern

Determine if streams located downstream from the project area are determined to be potentially susceptible to hydromodification impacts. *Refer to Section 2.2.3.1 in the TGD for* NOC *or Section 2.2.3.2 for* <SOC>.

The project is located in the upper reaches of the Aliso Creek Watershed. See the attached map for reference. The site slopes generally to the south and east at about 2%. It is presently occupied by some portable structures, paved areas and some lawn. years ago this was an operational gravel pit. It has been a part of the Saddleback Community Church campus in Lake Forest since the early 1990's. while this proposed development will increase the impervious area of the site, we expect the proposed development to have a negligible impact on the downstream watercourses.

The site is presently served by 3 storm drainage systems. One, to the east of the present Worship Center will not be modified as there will no grading or surfacing changes to any of the areas served buy this system.

The central part of the site is presently served by a 30"ø storm drain. The drain comes from the toll road Right-of-Way through the campus in the vicinity of the Children's Ministry Center, then to the southeast across the campus to an outfall in an existing open space easement. Because this stormdrain as presently constructed is directly under the proposed Worship Center, we will be rerouting the line around the facility to the west. We will also regrade the site so the all surface flow is directed around the new structure to the west then southeast around the new facility. It will be combined with another existing system and will discharge on the open space easement between the Saddleback Campus and Aliso Creek. The storm drainage in this system will be collected and routed through an appropriate facility to insure that the flow from the site does not exceed the flow that presently comes to Aliso Creek from the campus. Since there will be no increase in runoff rate of flow and there may be only a small increase in the total volume of runoff from the development, we foresee not appreciable need for hydromodification.

No previous hydrologic calculations are available to us so will analyze the present conditions as a part of this work. Those calculations are supplied herewith in Appendix B

4. Post Development Drainage Characteristics:

We expect the post development drainage characteristics to be substantially the same as the present drainage characteristics.

5. Property Ownership/Management

The property that the project will occupy is a portion of of Parcel 1, Tract 90-399, Map Book 278, pages 12 and 19.The entire tract is owned be Saddleback Valley Community Church, One Saddleback Parkway, Lake Forest, California. The church has an active property management program in place. It is headed by Mr. Milton Johns at the church. The entire stormdrainage system along with the BMP's that may be constructed as a part of this project, will be owned by Saddleback Church, and maintained by the church. None of the facilities will be dedicated to the City of Lake Forest.

Section III Site Description

1. Physical Setting

Planning Area/ Community Name	City of Lake Forest
Location/Address	1 Saddleback Parkway
	Lake Forest, California 92630
Land Use	Light Industrial
Zoning	I - Industrial
Acreage	Project Area - 261,181 ft^2 - Entire Parcel - 41.38 Ac.
Predominant Soil Type	Existing fill consisting of pale yellow and pale gray(nearly white) silty and clayey medium-grained sand that is moist and medium dense.

2. Site Characteristics

Precipitation Zone	The property lies in the South Coast precipitation zone
Topography	The site slopes gently to the south until it reaches the south property line. Then it slopes to the existing open space area down a 2:1 slope.
Drainage Patterns/ Connections	Drainage flows across the site to the south
Soil Type, Geology, and Infiltration Properties	The site is underlain by fill that is left over from the gravel operations that existed on the site before Saddleback acquired the property. It consists of play yellow and pale gray(nearly white) silty and clayey medium-grained sand that is moist and medium dense.

Site Characteristics (continued)	
Hydrogeologic	Refer to Appendix C, Preliminary Geotechnical Investigation & Percolation Testing for a proposed New Worship center, Access Road, Parking and Bioswale. No groundwater has been encountered in our investigations to a depth of 30' to the present time. We expect that groundwater will not be a factor in this project.
Geotechnical Conditions	We have obtained a soils report for the proposed development. It is attached to this report.
Off-Site Drainage	The site receives drainage from the Toll Road ROW and conveys drainage to an existing open space easement.
Utility and Infrastructure Information	The site is presently served by the Irvine Ranch Water District for water, reclaimed water and sanitary sewer. Southern California Edison provides electrical power. Southern California Gas Company provides gas service.

3. Watershed Description

Receiving Waters	*Aliso Creek Watershed*
303(d) Listed Impairments	*None*
Applicable TMDLs	**Total Maximum Daily Loads (TMDLs):**

Indicator Bacteria	Wet Weather Days [a]		Dry Weather Days [b]	
	Wet Weather Numeric Objective [c] (MPN/100mL)	Wet Weather Allowable Exceedance [d] Frequency	Dry Weather Numeric Objective [e] (MPN/100mL)	Dry Weather Allowable Exceedance Frequency
Fecal Coliform	400	22%	200	0%
Enterococcus	61 (104) [f]	22%	33	0%

Pollutants of Concern for the Project	*Indicator Bacteria,Oil and Grease, Suspended Solids,Nutrients, Pesticides*
Environmentally Sensitive and Special Biological Significant Areas	*None in this vicinity*

Section IV Best Management Practices (BMPs)

I. 1 Project Performance Criteria:

No WHIMP or equivalent exist for this site.

Project Performance Criteria (continued)	
If HCOC exists, list applicable hydromodification control performance criteria (Section 7.II-2.4.2.2 in MWQMP)	*Since the site soils conditions will not support an infiltration system for the project, we expect to design and construct a BMP facility that will contain the first 3/4" of rainfall on the impervious area of the site. This volume of water will be released from the catchment at such a rate that the discharge to the Aliso Creek watershed will not exceed the current 2 yr discharge form the site.*
List applicable LID performance criteria (Section 7.II-2.4.3 from MWQMP)	*The LID facility will be designed to capture and retain the volume of stormwater produced by a 24 hour 85th percentile rainfall event on the impervious area of the site and demonstrate that the facility permit a drawdown over 48 hours or less following the end of the precipitation.*
List applicable treatment control BMP performance criteria (Section 7.II-3.2.2 from MWQMP)	*Because if the character of the development, we do not anticipate the need of any chemical treatment of the storm water runoff.*
Calculate LID design storm capture volume for Project.	Site Impervious Area = 184,016 ft^2 Capture Volume = .75" x 184,016 ft^2 = .0625ft x 184016 ft^2 = <u>11,557 ft^3</u>

2. SITE DESIGN AND DRAINAGE PLAN: (See Appendix B)

The site for the new Worship center has until recently, been occupied by a group of temporary structures that were similar to construction trailers (As this is written, these temporary structures have been removed) and two large tents that are used for meeting halls. The new structure will fill the middle of the existing campus. Site drainage at present flows from the existing structures on the campus through this site via an existing 30"ø storm drains that was constructed before the toll road was constructed. A second storm drain system is constructed around the east end of the present Worship Center.

The original basis of design for these two systems was to convey the storm drainage from the property presently occupied by the Toll Road across the Saddleback Campus to the upper reaches of Aliso Creek adjacent to El toro Road. These two systems were constructed before the construction was completely designed.

The Toll Road had a different set of design criteria that were imposed on it from that used by the City of Lake Forest. Their criteria required that they construct a separate drainage and treatment system for the water coming from any paved surface. The Toll Road construction intercepted the stormwater flows that went into these two systems so that means that we have an existing 30"ø storm drain system that will only be carrying about 21 cfs. (10 yr discharge fro the entire new project)

At present we will be collecting the water fro the existing facilities upstream of the project and conveying that water along with the water from the new building and the surrounding hardscape to an LID structure for controlled release into Aliso Creek. We anticipate the volume of this structure will be about 11,557 ft^3. It will be situated in the southwest corner of the the project under the new perimeter road. The drainage plans in Appendix B show the preliminary location of this facility. From this facility, all stormwater from this project will discharge across the open space easement to Aliso Creek.

One item of note - because the soils report (Appendix C)shows that the on-site soils do not have sufficient permiability, we are not planning on any LID or BMP facilities that utilize infiltration.

3. LID BMP SELECTION AND PROJECT CONFORMANCE ANALYSIS

Each sub-section below documents that the proposed design features conform to the applicable project performance criteria via check boxes, tables, calculations, narratives, and/or references to worksheets. *Refer to Section 2.4.2.3 in the [I can't find this section in the TGD]TGD for selecting LID BMPs and Section 2.4.3 in the TGD for conducting conformance analysis with project performance criteria.*

3.1. Hydrologic Source Controls

If required HSCs are included, fill out applicable check box forms. If the retention criteria are otherwise met with other LID BMPs, include a statement indicating HSCs not required.

Name	Included?
Localized on-lot infiltration	NO
Impervious area dispersion (e.g. roof top disconnection)	NO
Street trees (canopy interception)	NO
Residential rain barrels (not actively managed)	NO
Green roofs/Brown roofs	NO
Blue roofs	NO
Impervious area reduction (e.g. permeable pavers, site design)	*Possible precast pavers*

3.2. Infiltration BMPs

Because of Geotechnical concerns, there will be no Infiltration BMP's on this project.

(NOC Permit Area only) Is there an approved WIHMP or equivalent for the project area that includes more stringent LID feasibility criteria or if there are opportunities identified for implementing LID on regional or sub-regional basis?		*NO*
If yes, describe WIHMP feasibility criteria or regional/sub-regional LID opportunities.	*This Project is in South Orange County*	

3.3. Evapotranspiration, Rainwater Harvesting BMPs

If the full Design Storm Capture Volume cannot be met with infiltration BMPs, describe any evapotranspiration, rainwater harvesting BMPs.

Name	Included?
All HSCs; *See Section IV.3.1*	☐
Surface-based infiltration BMPs	☐
Biotreatment BMPs	☐
Above-ground cisterns and basins	☐
Underground detention	X

3.4. Biotreatment BMPs

If the full Design Storm Capture Volume cannot be met with infiltration BMPs, and/or evapotranspiration and rainwater harvesting BMPs, describe biotreatment BMPs. Include sections for selection, suitability, sizing, and infeasibility, as applicable. <Delete or leave blank if not used>

Name	Included?
Bioretention with underdrains	☐
Stormwater planter boxes with underdrains	☐
Rain gardens with underdrains	☐
Constructed wetlands	☐
Vegetated swales	☐
Vegetated filter strips	☐
Proprietary vegetated biotreatment systems	☐
Wet extended detention basin	YES
Dry extended detention basins	☐
Other:	☐
Other:	☐

Show calculations below to demonstrate if the LID Design Storm Capture Volume can be met with infiltration, evapotranspiration, rainwater harvesting and/or biotreatment BMPs. If not document how much can be met with either infiltration BMPs, evapotranspiration, rainwater harvesting BMPs, or a combination, and document why it is not feasible to meet the full volume with either of these BMPs categories.

Site Impervious Area = 184,016 ft^2

Capture Volume = .75” x 184,016 ft^2

= .0625ft x 184016 ft^2

= <u>11,557 ft^3</u>

3.5. Hydromodification Control BMPs

Describe hydromodification control BMPs. See Section 5 TGD. Include sections for selection, suitability, sizing, and infeasibility, as applicable. Detail compliance with Prior Conditions of Approval
. <Delete or leave blank if not used>

Hydromodification Control BMPs	
BMP Name	**BMP Description**
Site BMP	This will be an underground tank to contain the Design Capture Volume and discharge it to the Aliso Creek watershed is such a way that the flow does not exceed the present 2 year storm discharge by more than 10% and the facility is emptied within 24 hours or less after precipitation stops.

3.6. Regional/Sub-Regional LID BMPs

Describe regional/sub-regional LID BMPs in which the project will participate. *Refer to Section 7.II-2.4.3.2 of the Model WQMP*. <Delete or leave blank if to used> [I know ion none]

In know of noe

7. Treatment Control BMPs (N/A, I think)

Treatment control BMPs can only be considered if the project conformance analysis indicates that it is not feasible to retain the full design capture volume with LID BMPs. Describe treatment control BMPs including sections for selection, sizing, and infeasibility, as applicable. <Delete or leave blank if not used>

Treatment Control BMPs	
BMP Name	**BMP Description**

8. Non-structural Source Control BMPs

Non-Structural Source Control BMPs				
Identifier	Nam e	Check One		If not applicable, state brief reason
		Included	Not Applicable	
N1	Education for Property Owners, Tenants and Occupants	YES		
N2	Activity Restrictions		N/A	
N3	Common Area Landscape Management	YES		
N4	BMP Maintenance	YES		
N5	Title 22 CCR Compliance (How development will comply)		N/A	
N6	Local Industrial Permit Compliance		N/A	
N7	Spill Contingency Plan	YES		
N8	Underground Storage Tank Compliance	YES		
N9	Hazardous Materials Disclosure Compliance	YES		
N10	Uniform Fire Code Implementation	YES		
N11	Common Area Litter Control	YES		
N12	Employee Training	YES		
N13	Housekeeping of Loading Docks	YES		
N14	Common Area Catch Basin Inspection		N/A	
N15	Street Sweeping Private Streets and Parking Lots	YES		
N16	Retail Gasoline Outlets		N/A	

9. Structural Source Control BMPs

Fill out structural source control check box forms or provide a brief narrative explaining if Structural source controls were not used.

Structural Source Control BMPs				
Identifier	Name	Check One		If not applicable, state brief reason
		Included	Not Applicable	
S1	Provide storm drain system stenciling and signage	YES	☐	
S2	Design and construct outdoor material storage areas to reduce pollution introduction	YES	☐	
S3	Design and construct trash and waste storage areas to reduce pollution introduction	YES	☐	
S4	Use efficient irrigation systems & landscape design, water conservation, smart controllers, and source control	YES	☐	
S5	Protect slopes and channels and provide energy dissipation	YES	☐	
	Incorporate requirements applicable to individual priority project categories (from SDRWQCB NPDES Permit)	YES	☐	
S6	Dock areas	YES	☐	
S7	Maintenance bays	☐	N/A	
S8	Vehicle wash areas	☐	N/A	
S9	Outdoor processing areas	☐	N/A	
S10	Equipment wash areas	☐	N/A	
S11	Fueling areas	☐	N/A	
S12	Hillside landscaping	YES	☐	
S13	Wash water control for food preparation areas	☐	N/A	
S14	Community car wash racks	☐	N/A	

4. SECTION IV ALTERNATIVE COMPLIANCE PLAN (IF APPLICABLE)

1. Water Quality Credits

Determine if water quality credits are applicable for the project. *Refer to Section 3.1 of the Model WQMP for description of credits and Appendix VI of the TGD for calculation methods for applying water quality credits.*

Not Applicable

Description of Proposed Project				
Project Types that Qualify for Water Quality Credits (Select all that apply):				
Redevelopment projects that reduce the overall impervious footprint of the project site. ☐	Brownfield redevelopment, meaning redevelopment, expansion, or reuse of real property which may be complicated by the presence or potential presence of hazardous substances, pollutants or contaminants, and which have the potential to contribute to adverse ground or surface WQ if not redeveloped. ☐		Higher density development projects which include two distinct categories (credits can only be taken for one category): those with more than seven units per acre of development (lower credit allowance); vertical density developments, for example, those with a Floor to Area Ratio (FAR) of 2 or those having more than 18 units per acre (greater credit allowance). ☐	
Mixed use development, such as a combination of residential, commercial, industrial, office, institutional, or other land uses which incorporate design principles that can demonstrate environmental benefits that would not be realized through single use projects (e.g. reduced vehicle trip traffic with the potential to reduce sources of water or air pollution). ☐		Transit-oriented developments, such as a mixed use residential or commercial area designed to maximize access to public transportation; similar to above criterion, but where the development center is within one half mile of a mass transit center (e.g. bus, rail, light rail or commuter train station). Such projects would not be able to take credit for both categories, but may have greater credit assigned ☐		Redevelopment projects in an established historic district, historic preservation area, or similar significant city area including core City Center areas (to be defined through mapping). ☐
Developments with dedication of undeveloped portions to parks, preservation areas and other pervious uses.	☐ Developments in a city center area.	☐ Developments in historic districts or historic preservation areas.	Live-work developments, a variety of developments designed to support residential and vocational needs together - similar to criteria to mixed use development; would not be able to take credit for both categories.	In-fill projects, the conversion of empty lots and other underused spaces into more beneficially used spaces, such as residential or commercial areas.

Calculation of Water Quality Credits (if applicable)	

2. Alternative Compliance Plan Information

Describe an alternative compliance plan (if applicable). Include alternative compliance obligations (i.e., gallons, pounds) and describe proposed alternative compliance measures. *Refer to Section 7.II 3.0 in the WQMP.*

Section V Inspection/ Maintenance Responsibility for BMPs

Fill out information in table below. Prepare and attach an Operation and Maintenance Plan. Identify the mechanism through which BMPs will be maintained. Inspection and maintenance records must be kept for a minimum of five years for inspection by the regulatory agencies. *Refer to Section 7.II 4.0 in the Model WQMP.*

BMP Inspection/Maintenance			
BMP	**Reponsible Party(s)**	**Inspection/ Maintenance Activities Required**	**Minimum Frequency of Activities**

Section VI Site Plan and Drainage Plan

1. SITE PLAN AND DRAINAGE PLAN

See Appendix B

2. ELECTRONIC DATA SUBMITTAL <optional - delete if not used>

The minimum requirement is to provide submittal of PDF exhibits in addition to hard copies. Format must not require specialized software to open.

If the local jurisdiction requires specialized electronic document formats (CAD, GIS) to be submitted, this section will be used to describe the contents (e.g., layering, nomenclature, georeferencing, etc.) of these documents so that they may be interpreted efficiently and accurately.

Section VII Educational Materials

Refer to the Orange County Stormwater Program (ocwatersheds.com) for a library of materials available. For the copy submitted to the Permittee, only attach the educational materials specifically applicable to the project. Other materials specific to the project may be included as well and must be attached.

Education Materials

Residential Material (http://www.ocwatersheds.com)	Check If Applicable	Business Material (http://www.ocwatersheds.com)	Check If Applicable
The Ocean Begins at Your Front Door	☐	Tips for the Automotive Industry	☐
Tips for Car Wash Fund-raisers	☐	Tips for Using Concrete and Mortar	☐
Tips for the Home Mechanic	☐	Tips for the Food Service Industry	☐
Homeowners Guide for Sustainable Water Use	☐	Proper Maintenance Practices for Your Business	☐
Household Tips	☐	**Other Material**	**Check If Attached**
Proper Disposal of Household Hazardous Waste	☐		
Recycle at Your Local Used Oil Collection Center (North County)	☐		☐
Recycle at Your Local Used Oil Collection Center (Central County)	☐		☐
Recycle at Your Local Used Oil Collection Center (South County)	☐		☐
Tips for Maintaining a Septic Tank System	☐		☐
Responsible Pest Control	☐		☐
Sewer Spill	☐		☐
Tips for the Home Improvement Projects	☐		☐
Tips for Horse Care	☐		☐
Tips for Landscaping and Gardening	☐		☐
Tips for Pet Care	☐		☐
Tips for Pool Maintenance	☐		☐
Tips for Residential Pool, Landscape and Hardscape Drains	☐		☐
Tips for Projects Using Paint	☐		☐

Appendix A
Educational Materials

Appendix B
Drainage Calculations

RATIONAL METHOD STUDY FORM Existing Conditions w/o Toll Rd ROW

ORANGE COUNTY HYDROLOGY MANUAL	STUDY NAME: Worship Center - System A 10 -YEAR STORM RATIONAL METHOD STUDY	Calculated by JJB, Date 5-20-18 Checked by _____ Date _____ Page ____ of ____

Concentration Point	Area (Acres) Subarea	Area (Acres) Total	Soil Type	Dev. Type	T_t min.	T_c min.	I in/hr	Fm in/hr	Fm avg.	Q Total	Flow Path Length ft.	Slope ft./ft.	V ft./sec.	Hydraulics and Notes
A-2	0.43	0.43	C	Paved	1.5	6.5	3.5	0	0	1.35				
A-3	1.60	2.03	C	Paved		8.0	3.1	0	0	5.66				
A-4	1.11	3.14	C	Roof		8.0	3.1	0	0	8.76				
A-5	0.46	3.60	C	Lawn		8.0	3.1	0.25	0.02	10.00 ~~10.04~~				
A-6	1.30	4.90	C	Lawn		10	2.75	0.25	0.04	12.00				
A-7	1.10	6.00	C	Paved		10	2.75	0	0.03	14.7				
A-8	0.79	6.79	C	Paved		11	2.60	0	0.03	15.71				

Figure

RATIONAL METHOD STUDY FORM *Existing Conditions w/o Toll Road ROW*

ORANGE COUNTY HYDROLOGY MANUAL

STUDY NAME: *System A Worship Center*

2 -YEAR STORM RATIONAL METHOD STUDY

Calculated by *JJB,Jr* Date *5-20-14*

Checked by _____ Date _____

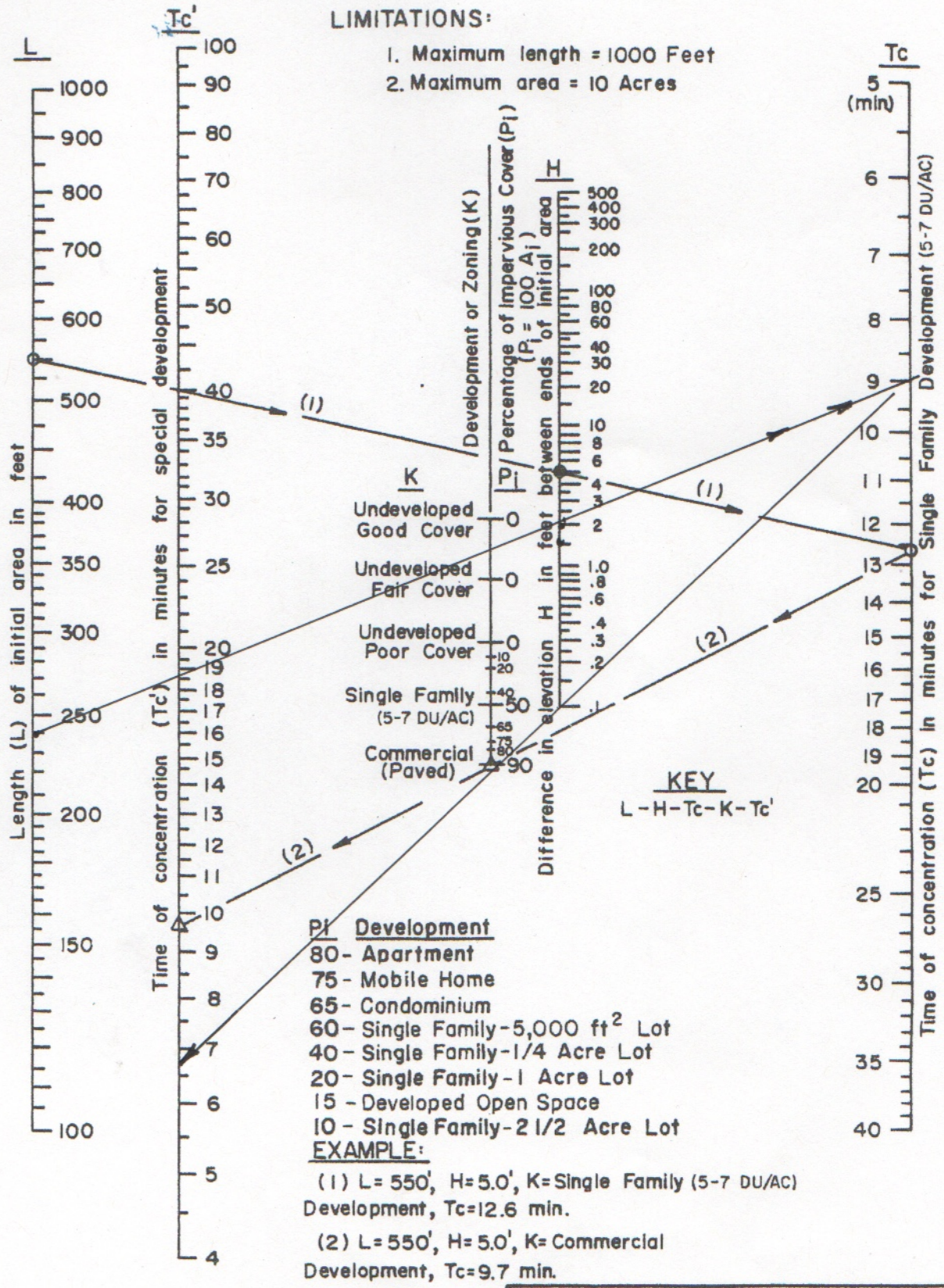
Page ____ of ____

Concentration Point	Area (Acres) Subarea	Area (Acres) Total	Soil Type	Dev. Type	T_t min.	T_c min.	I in/hr	Fm in/hr	Fm avg.	Q Total	Flow Path Length ft.	Slope ft./ft.	V ft./sec.	Hydraulics and Notes
A-2	0.43	0.43	Pond	Pave	1.5	6.5	1.9	0	0	0.74				
A-3	1.60	2.03	C	Pond		8.0	1.70	0	0	3.11				
A-4	1.11	3.14	C	Roof		8.0	1.70	0	0	4.80				
A-5	0.46	3.60	C	Lawn		8.0	1.70	0.25	0.02	5.44				
A-6	1.30	4.90	C	Lawn		10.0	1.50	0.25	0.04	6.44				
A-7	1.10	6.00	C	Pond		10.0	1.50	0	0.03	7.94				
A-8	0.79	6.79	C	Pond		11.0	1.40	0	0.03	8.57				

Figure D-4

System A

W/O Toll Rd



LIMITATIONS:

1. Maximum length = 1000 Feet
2. Maximum area = 10 Acres

Pi	Development
80	Apartment
75	Mobile Home
65	Condominium
60	Single Family-5,000 ft^2 Lot
40	Single Family-1/4 Acre Lot
20	Single Family-1 Acre Lot
15	Developed Open Space
10	Single Family-2 1/2 Acre Lot

EXAMPLE:

(1) L= 550', H=5.0', K=Single Family (5-7 DU/AC) Development, Tc=12.6 min.

(2) L=550', H=5.0', K=Commercial Development, Tc=9.7 min.

ORANGE COUNTY

HYDROLOGY MANUAL

TIME OF CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA

Figure D-1

RATIONAL METHOD STUDY FORM *Existing Conditions*

ORANGE COUNTY HYDROLOGY MANUAL

STUDY NAME: System A Worship Center

10-YEAR STORM RATIONAL METHOD STUDY

Calculated by JHB, Jr. Date 5-20-18

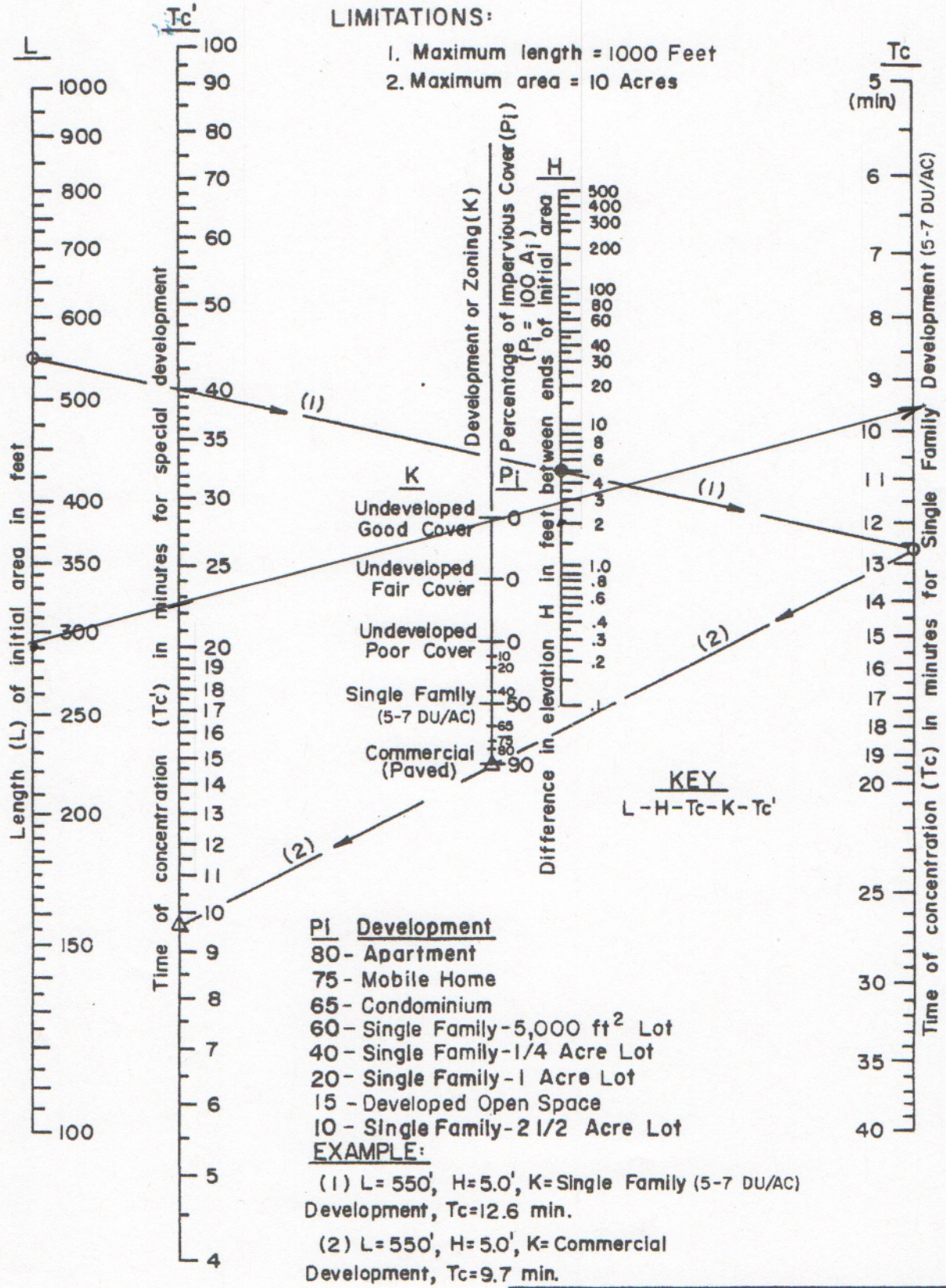
Checked by _____ Date _____

Page ____ of ____

Concentration Point	Area (Acres) Subarea	Area (Acres) Total	Soil Type	Dev. Type	T_t min.	T_c min.	I in/hr	Fm in/hr	Fm avg.	Q Total	Flow Path Length ft.	Slope ft./ft.	V ft./sec.	Hydraulics and Notes
A-1	0.27	0.27	C	RUW	1	22	1.75	0.25	0.23	0.37				
A-2	0.43	0.70	C	Paved	1.5	23	1.70	0	0.09	1.01				
A-3	1.60	2.30	C	Paved		24.5	1.65	0	0.03	3.35				
A-4	1.11	3.41	C	Roof		24.5	1.65	0	0.02	5.00				
A-5	0.46	3.87	C	Lawn	2	24.5	1.65	0.25	0.04	5.67				
A-6	1.30	5.10	C	Lawn		26.5	1.6	0.25	0.07	7.02				
A-7	1.10	6.20	C	Paved		26.5	1.6	0	0.05	8.65				
A-8	0.79	6.99	C	Paved		27.5	1.55	0	0.05	9.44				

Figure D-4

System A w/ Toll Rd



LIMITATIONS:

1. Maximum length = 1000 Feet
2. Maximum area = 10 Acres

Pi	Development
80	Apartment
75	Mobile Home
65	Condominium
60	Single Family-5,000 ft^2 Lot
40	Single Family-1/4 Acre Lot
20	Single Family-1 Acre Lot
15	Developed Open Space
10	Single Family-2 1/2 Acre Lot

EXAMPLE:

(1) L= 550', H= 5.0', K= Single Family (5-7 DU/AC) Development, Tc=12.6 min.

(2) L= 550', H= 5.0', K= Commercial Development, Tc=9.7 min.

ORANGE COUNTY

HYDROLOGY MANUAL

TIME OF CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA

Figure D-1

RATIONAL METHOD STUDY FORM — Existing Conditions w/o Toll Rd ROW

ORANGE COUNTY HYDROLOGY MANUAL

STUDY NAME: System B - Worship Center

10 -YEAR STORM RATIONAL METHOD STUDY

Calculated by JJB, Jr Date 5-20-18

Checked by _____ Date _____

Page ____ of ____

Concentration Point	Area (Acres) Subarea	Area (Acres) Total	Soil Type	Dev. Type	T_i min.	T_c min.	I in/hr	Fm in/hr	Fm avg.	Q Total	Flow Path Length ft.	Slope ft./ft.	V ft./sec.	Hydraulics and Notes
B-2	0.34	0.34	C	Paved	1.25	8	3.1	0	0	0.95				
B-3	0.32	0.66	C	Paved		9.25	2.75	0	0	1.63				
B-4	0.27	0.93	C	Roof		9.25	2.75	0	0	2.30				
B-5	0.29	1.22	C	Roof		9.25	2.75	0	0	3.02				
B-6	0.33	1.55	C	Patio		12.25	2.45	0	0	3.42				
B-7	0.18	1.73	C	Paved			2.45	0	0	3.81				
B-8	0.15	1.88	C	Roof			2.45	0	0	4.14				
B-9	0.26	2.14	C	Paved		13.25	2.30	0	0	4.42				
B-10	0.20	2.34	C	Paved				0	0	4.52				
B-11	0.14	2.48	C	Paved				0	0	4.79				
B-12	0.47	2.95	C	Paved				0	0	5.71				
B-13	0.79	3.74	C	Lawn		16.25	2.15	0.25	0.06	7.83				
B-14	0.79	4.53	C	Paved				0	0					
B-15	0.14	4.67	C	Paved		16.25	2.10	0	0.04	8.65				

Figure D-4

RATIONAL METHOD STUDY FORM

Existing Conditions w/o Toll Rd ROW

ORANGE COUNTY HYDROLOGY MANUAL

STUDY NAME: System B - Worship Center

2 -YEAR STORM RATIONAL METHOD STUDY

Calculated by HBJr Date 5/20/18

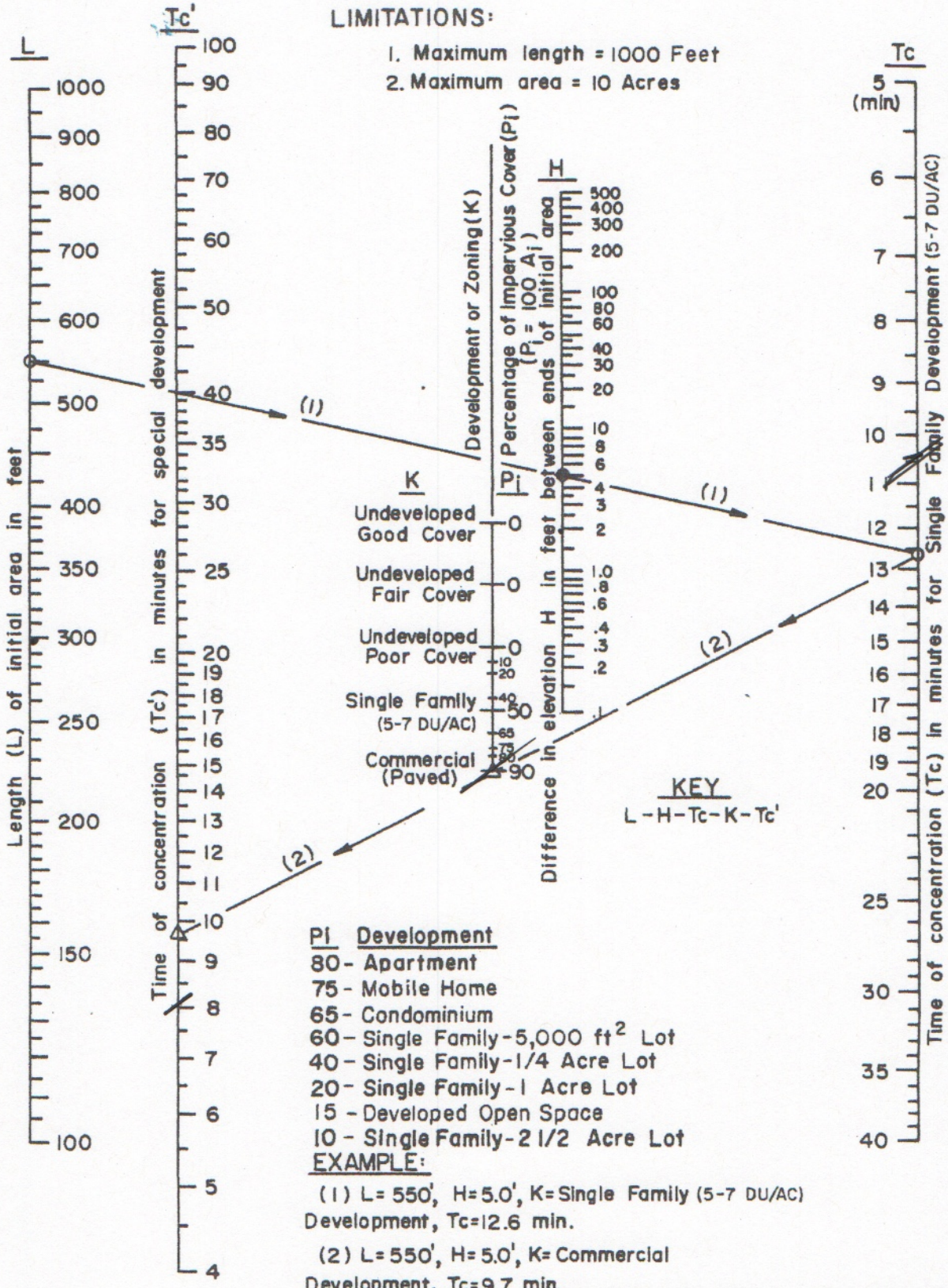
Checked by _____ Date _____

Page ____ of ____

Concentration Point	Area (Acres) Subarea	Area (Acres) Total	Soil Type	Dev. Type	T_i min.	T_c min.	I in/hr	Fm in/hr	Fm avg.	Q Total	Flow Path Length ft.	Slope ft./ft.	V ft./sec.	Hydraulics and Notes
B-2	0.34	0.34	C	Paved	1.25	8	1.70	0	0	0.52				
B-3	0.32	0.66	C	Paved		9.25	1.55	0	0	0.92				
B-4	0.27	0.93	C	Paved		9.25	1.55	0	0	1.29				
B-5	0.29	1.22	C	Paved		9.25	1.55	0	0	1.70				
B-6	0.33	1.55	C	Paved		12.25	1.30	0	0	1.81				
B-7	0.18	1.73	C	Paved			1.30	0	0	2.02				
B-8	0.15	1.88	C	Paved			1.30	0	0	2.20				
B-9	0.26	2.14	C	Paved		13.25	1.25	0	0	2.40				
B-10	0.20	2.34	C	Paved			1.25	0	0	2.63				
B-11	0.14	2.48	C				1.25	0	0	2.79				
B-12	0.47	2.95	C				1.25	0	0	3.32				
B-13	0.79	3.74	Lawn	Lawn		15.25	1.10	0.25	0.06	3.50				
B-14	0.71	4.45	C				1.10	0	0	4.40				
B-15	0.14	4.59	C			16.25	1.09	0	0.04	4.50				

Figure D-4

System B - w/o ROW



ORANGE COUNTY

HYDROLOGY MANUAL

TIME OF CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA

Figure D-1

RATIONAL METHOD STUDY FORM

Existing Conditions

ORANGE COUNTY HYDROLOGY MANUAL

STUDY NAME: System - B - Worship Center

10 -YEAR STORM RATIONAL METHOD STUDY

Calculated by HBJ Date 5-20-18

Checked by _____ Date _____

Page 1 of _____

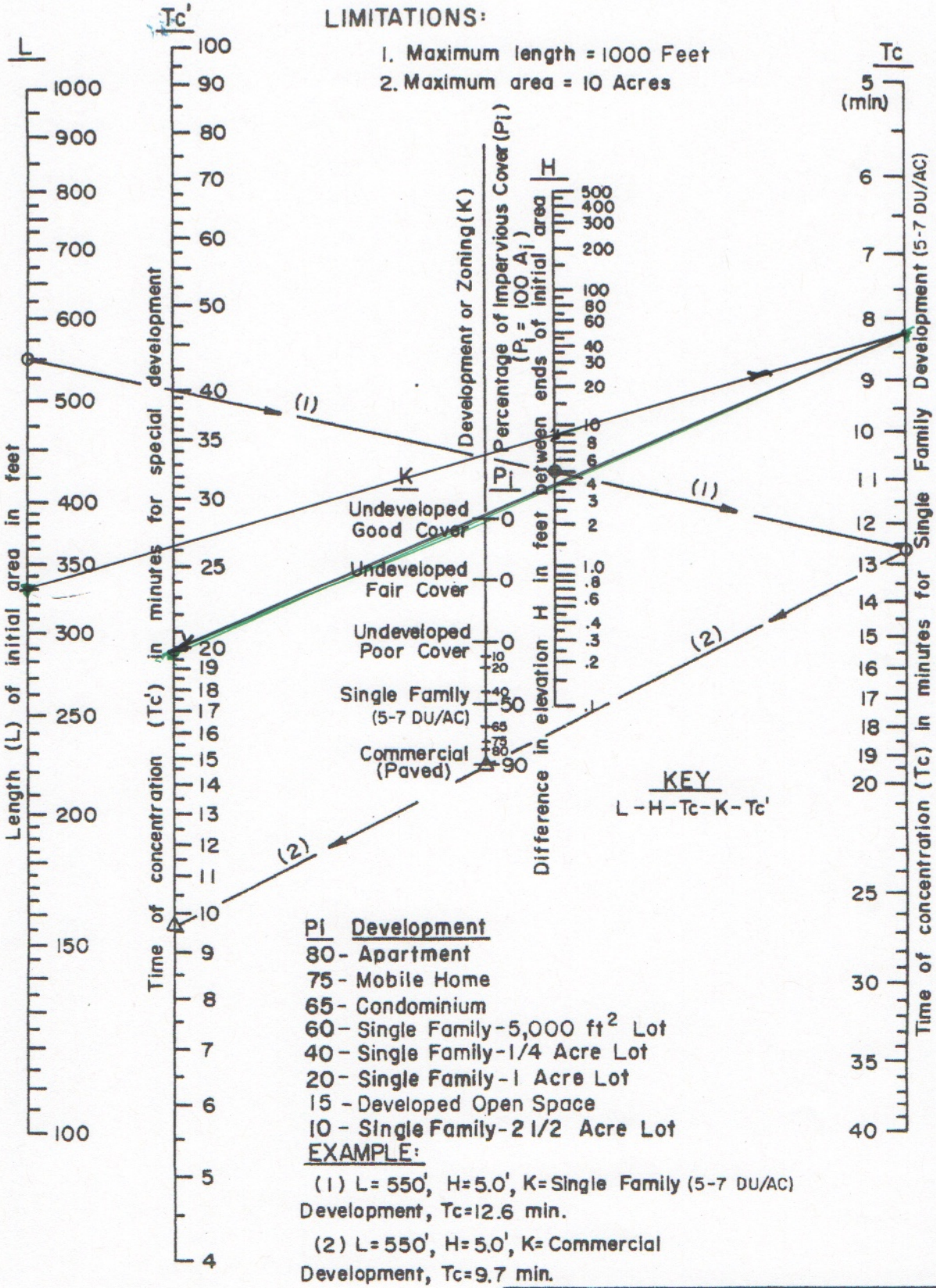
Concentration Point	Area (Acres) Subarea	Area (Acres) Total	Soil Type	Dev. Type	T_t min.	T_c min.	I in/hr	Fm in/hr	Fm avg.	Q Total	Flow Path Length ft.	Slope ft./ft.	V ft./sec.	Hydraulics and Notes
B-1	0.38 Ac	0.38	C	Row	1	20	1.85	0.25	0.15	0.55				
B-2	0.34	0.72	C	Paved	1.25	21	1.75	0.00	0.12	1.05				
B-3	0.32	1.04	C	Paved		22	1.70	0.00	0.08	1.52				
B-4	0.27	1.31	C	Roof		22	1.70	0.00	0.06	1.93				
B-5	0.29	1.60	C	Roof		22	1.70	0.00	0.05	2.37				
B-6	0.33 Ac	2.23	C	Patio		25	1.60	0.00	0.04	3.13	431'	0.028	2.8	
B-7	0.18 Ac	2.41	C	Paved				0						
B-8	0.15 Ac	2.56	C	Roof				0						
B-9	0.26	2.82	C	Paved		26	1.65	0	0.03	3.85				
B-10	0.20	3.02	C	Paved				0						
B-11	0.14	3.16	C	Paved				0						
B-12	0.47	3.63	C	Paved				0						
B-13	0.79	4.42	C	Lawn		28	1.53	0.25	0.06	5.84				
B-14	0.71	5.13	C	Paved				0			135'	.169	10 ft/sec	
B-15	0.14	5.27	C	Paved		29	1.50	0		6.87				

Figure D-4

System B Area B-1

LIMITATIONS:

1. Maximum length = 1000 Feet
2. Maximum area = 10 Acres



Pi	Development
80	Apartment
75	Mobile Home
65	Condominium
60	Single Family-5,000 ft^2 Lot
40	Single Family-1/4 Acre Lot
20	Single Family-1 Acre Lot
15	Developed Open Space
10	Single Family-2 1/2 Acre Lot

EXAMPLE:

(1) L= 550', H=5.0', K= Single Family (5-7 DU/AC) Development, Tc=12.6 min.

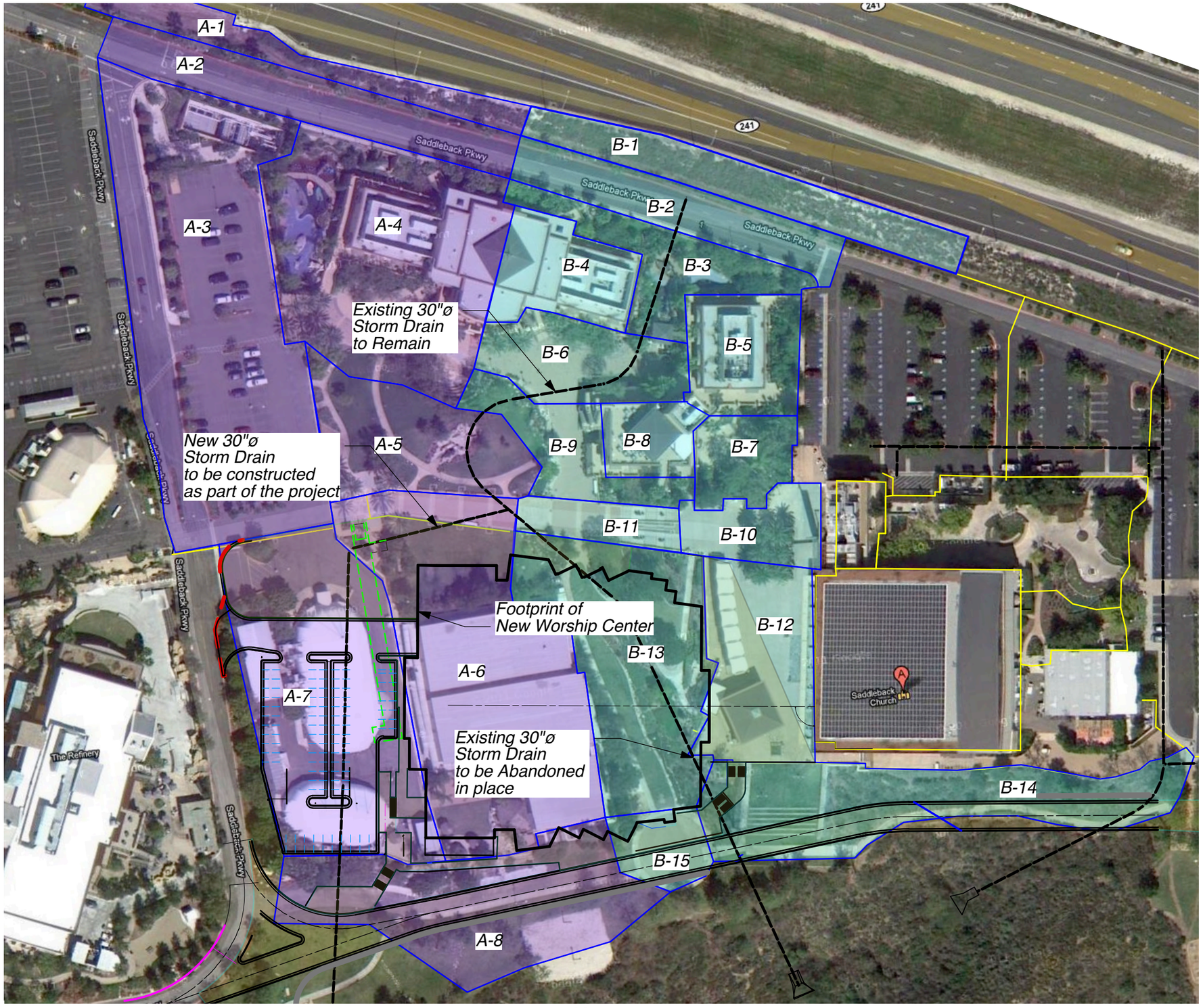
(2) L= 550', H= 5.0', K= Commercial Development, Tc=9.7 min.

ORANGE COUNTY

HYDROLOGY MANUAL

TIME OF CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA

Figure D-1



1 **Drainage Area Map - Existing Conditions**

Scale: 1"= 100 ft

BURGESS ENGINEERING GROUP
27758 Santa Margarita Parkway Suite 284
Mission Viejo, California 92691
949 588 8801 949 588 7216 (Fax)

RATIONAL METHOD STUDY FORM New System w/o Toll Road ROW

ORANGE COUNTY HYDROLOGY MANUAL

STUDY NAME: Worship Center

10 -YEAR STORM RATIONAL METHOD STUDY

Calculated by JJB, Jr Date 5-21-18

Checked by _____ Date _____

Page 1 of 3

Concentration Point	Area (Acres) Subarea	Area (Acres) Total	Soil Type	Dev. Type	T_t min.	T_c min.	I in/hr	Fm in/hr	Fm avg.	Q Total	Flow Path Length ft.	Slope ft./ft.	V ft./sec.	Hydraulics and Notes
B-2	0.34	0.34	C	Paved	1.25	8	3.1	0	0	0.95				
B-3	0.32	0.66	C	Paved		9.25	2.75	0	0	1.63				
B-4	0.27	0.93	C	Roof		9.25	2.75	0	0	2.30				
B-5	0.29	1.22	C	Roof		9.25	2.75	0	0	3.02				
B-6	0.33	1.55	C	Patio		12.25	2.45	0	0	3.42				
B-7	0.18	1.73	C	Paved		12.75	2.45	0	0	3.81				
B-8	0.15	1.88	C	Roof		12.75	2.45	0	0	4.14				
B-9	0.26	2.14	C	Paved		13.25	2.30	0	0	4.42				
B-10	0.20	2.34	C	Paved		13.25	2.30	0	0	4.52				
B-11	0.14	2.48	C	Paved		13.25	2.30	0	0	4.79				
Now switch to System A & Sum-up.														
A-2	0.43	0.43	C	Paved	1.5	6.5	3.5	0	0	1.35				
A-3	1.60	2.03	C	Paved		8.0	3.1	0	0	5.66				
A-4	1.11	3.14	C	Paved		8.0	3.1	0	0	8.76				
A-5	0.46	3.60	C	Lawn		8.0	3.1	0.25	0.02	10.00				

Figure D-4

RATIONAL METHOD STUDY FORM

New System w/o Toll Road ROW

ORANGE COUNTY HYDROLOGY MANUAL

STUDY NAME: Worship County

10 -YEAR STORM RATIONAL METHOD STUDY

Calculated by HBJr Date 5-21-18

Checked by _____ Date _____

Page 2 of 3

Concentration Point	Area (Acres) Subarea	Area (Acres) Total	Soil Type	Dev. Type	T_t min.	T_c min.	I in/hr	Fm in/hr	Fm avg.	Q Total	Flow Path Length ft.	Slope ft./ft.	V ft./sec.	Hydraulics and Notes
			Begin System C											
C-1	0.07	0.07	C	Pavers		5	4.1	0.25	0.25	0.24				
C-2	0.56	0.63	C	Roof		5	4.1	0	0	2.29				
C-3	0.07	0.70	C	Paving		5	4.1	0	0.02	2.57				
			Bring in System B at next point											
C-4	0.11	0.81	C	Paving		6	3.7	0	0.02	2.68				
C-4 + B		3.29	C	Paving		13.25	2.30	0	0.0	6.81				
			Now Add in System A											
C-4 + B+A		6.89	C			13.25	2.30	0	0.01	14.20				
C-5	0.28	7.17	C	—		14.25	2.20	0	0.01	14.20				
C-6	0.47	7.64	C	-		15.00	2.20	0	0.01	15.1				
C-7	0.73	8.37	C	—		15	2.20	0	0.01	16.5				
C-12 Alone	0.27	0.2	C	Roof		5	4.1	0	0	1.0				
C7+2+C12		8.64	C			15	2.20	0	0.01	17.0				
C-17	0.32	8.96	C	—		16	2.10	0		17.0				

Figure D-4

RATIONAL METHOD STUDY FORM — New System w/o Toll Road (Cont'd)

ORANGE COUNTY HYDROLOGY MANUAL

STUDY NAME: Worship Center

10 -YEAR STORM RATIONAL METHOD STUDY

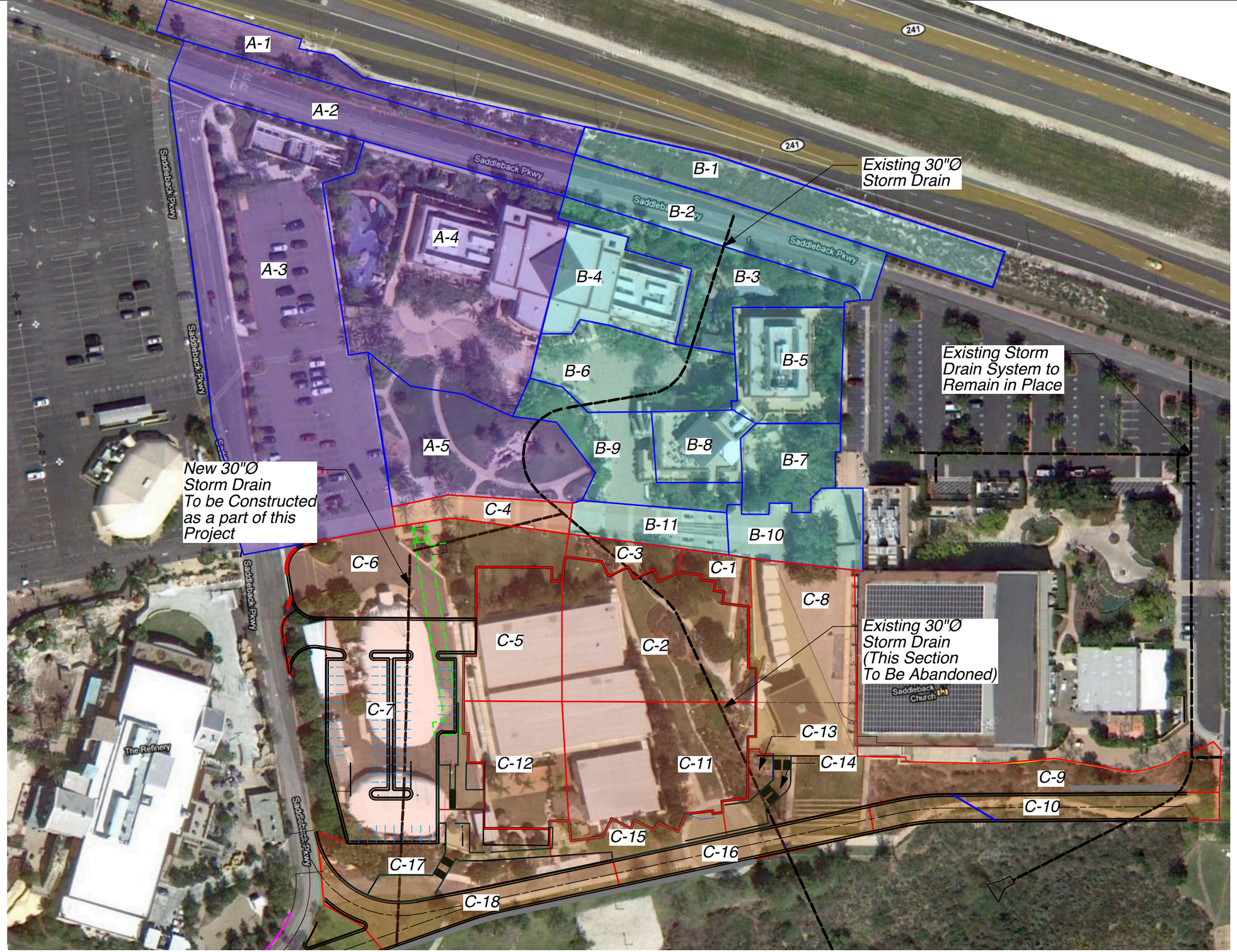
Calculated by: JJB.dr Date: 5-21-18

Checked by: _____ Date: _____

Page 3 of 3

Concentration Point	Area (Acres) Subarea	Area (Acres) Total	Soil Type	Dev. Type	T_t min.	T_c min.	I in/hr	Fm in/hr	Fm avg.	Q Total	Flow Path Length ft.	Slope ft./ft.	V ft./sec.	Hydraulics and Notes
			System on South Side of Worship Center											
C-10	0.23	0.23	C	Paved		8	3.1	0	0	0.14				
C9+C-10	0.40	0.63	C	/			3.1	0.25	0.14	1.67				
C-8	0.47	0.47	C	Paved		5	4.1	0	0	1.73				
Summing up C														
C-8, C-9, C-10, C-13, C-14	—	1.18	C	Mixed		9	2.9	0	0.08	2.99				
C-11	0.52	~~1.70~~	C	Mixed		5	4.1	0	0	1.92				
C-8, C-9-C-10, C-13, C-14-C-11		1.70	C	Mixed		9	2.9		0.06	4.34				
C-8, C-9, C-10, C-13, C-14, C-11 C-15, C-16		1.99	C	Mixed		10	2.75	0	0.05	4.9				
C-8-C-9, C-10, C-13, C-14, C-11, C-15, C-16, C-18		2.25C	C	Mixed		11	2.65	0	0.04	5.3				
Grand Total @ BMP location		11.2	C			16	2.10		0.01	21.1				

Figure D-4



2 **Proposed Drainage Area Map**
Scale: 1"= 100 ft

BURGESS ENGINEERING GROUP
27758 Santa Margarita Parkway Suite 284
Mission Viejo, California 92691
949 588 8801 949 588 7216 (Fax)

RATIONAL METHOD STUDY FORM New System w/o Toll Road ROW

ORANGE COUNTY HYDROLOGY MANUAL

STUDY NAME: Worship Center

2 -YEAR STORM RATIONAL METHOD STUDY

Calculated by JJB, Jr Date 5-21-18

Checked by _____ Date _____

Page 4 of _____

Concentration Point	Area (Acres) Subarea	Area (Acres) Total	Soil Type	Dev. Type	T_t min.	T_c min.	I in/hr	Fm in/hr	Fm avg.	Q Total	Flow Path Length ft.	Slope ft./ft.	V ft./sec.	Hydraulics and Notes
B-2	0.34	0.34	C	Paved		8	1.7	0	0	0.5				
B-3	0.32	0.66	C	Paved		9.25	1.55	0	0	0.9				
B-4	0.27	0.93	C	Roof		9.25	1.55	0	0	1.29				
B-5	0.29	1.22	C	Roof		9.25	1.55	0	0	1.70				
B-6	0.33	1.55	C	Patio		12.25	1.3	0	0	1.81				
B-7	0.18	1.73	C	Paved		12.75	1.3	0	0	2.02				
B-8	0.15	1.88	C	Roof		12.75	1.25	0	0	2.16				
B-9	0.26	2.14	C	Paved		13.25	1.25	0	0	2.40				
B-10	0.20	2.34	C	Paved		13.25	1.25	0	0	2.63				
B-11	0.14	2.48	C	Paved		13.25	1.25	0	0	2.79				
		Now Switch to System A & Sum up												
A-2	0.43	0.43	C	Paved		6.5	1.9	0	0	0.74				
A-3	1.60	2.03	C	Paved		8.0	1.7	0	0	3.11				
A-4	1.11	3.14	C	Paved		8.0	1.7	0	0	4.80				
A-5	0.46	3.60	C	Lawn		8.0	1.7	0.25	0.02	5.44				

Figure D-4

RATIONAL METHOD STUDY FORM New System w/o Toll Road ROW

ORANGE COUNTY HYDROLOGY MANUAL

STUDY NAME: Worship Center

2 -YEAR STORM RATIONAL METHOD STUDY

Calculated by JJS Jr Date 5-21-18
Checked by _____ Date _____
Page 6 of _____

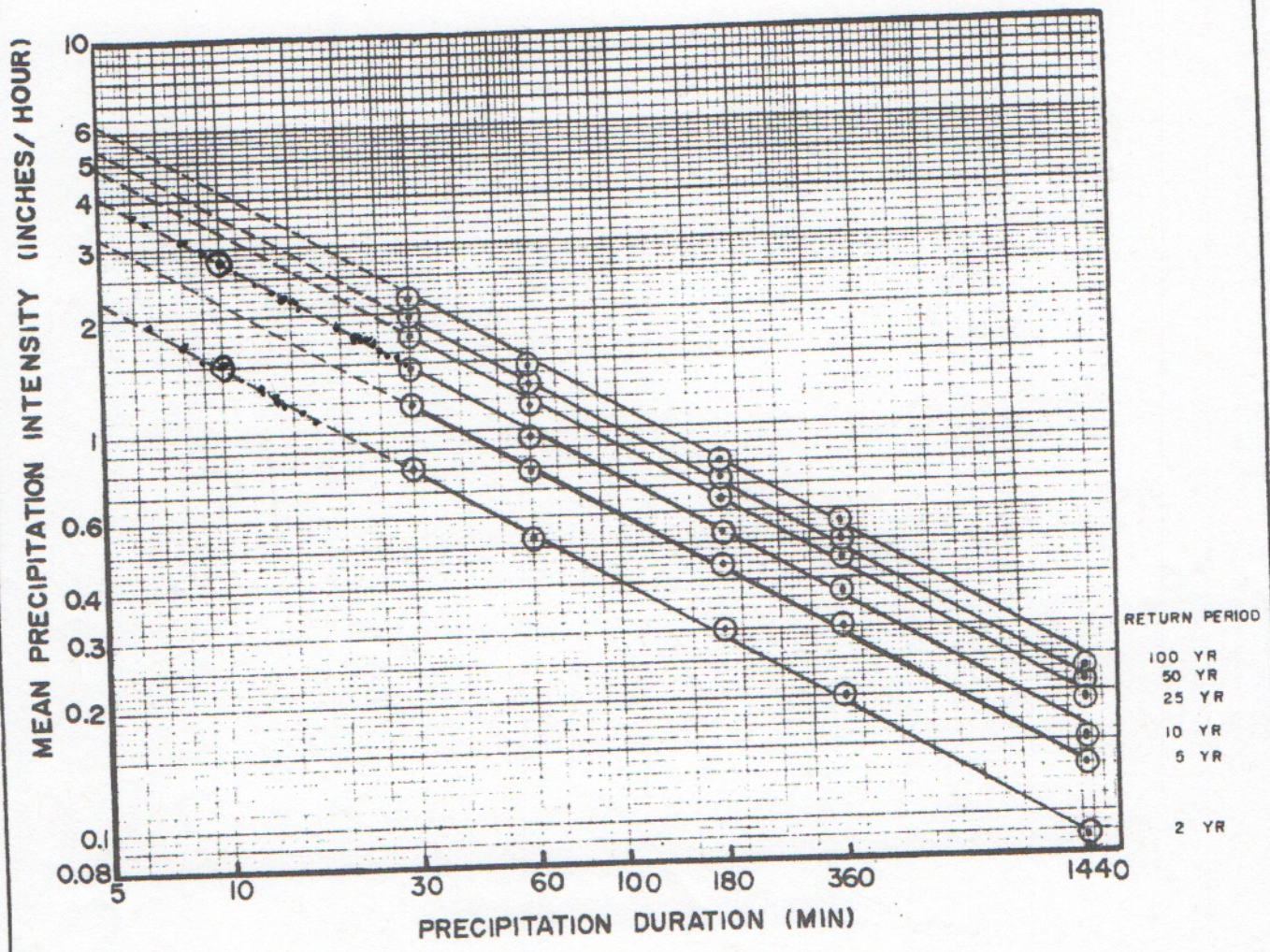
Concentration Point	Area (Acres) Subarea	Area (Acres) Total	Soil Type	Dev. Type	T_i min.	T_c min.	I in/hr	Fm in/hr	Fm avg.	Q Total	Flow Path Length ft.	Slope ft./ft.	V ft./sec.	Hydraulics and Notes
System South Side of Worship Center														
C-10	0.23	0.23	C	Paved		8	1.7	0	0	0.39				
C9+C-10	0.40	0.63	C	—			1.7	0.25	0.14	0.71				
C-8	0.47	0.47	C	Paved		5	2.2	0	0	0.93				
Summing up C														
C-8, C-9, C-10 C-13, C-14,		1.18	C	Mixed		9	1.55	0	0.08	1.56				
C-11	0.52		C			5	2.2	0	0	1.03				
C-8, C-9, C-10 C-13, C-14, C-11		1.70	C	Mixed		9	1.55	0	0.06	2.28				
C-8, C-9, C-10 C-13, C-14, C-11, C-15, C-16		1.99	C	Mixed		10	1.50	0	0.05	2.60				
C-8, C-9, C-10														
C-13, C-14, C-11 C-15, C-16 - C-18		2.25	C	Mixed		11	1.4	0	0.04	2.75				
Grand Total														
⊙ BMP Location		11.2				16	1.1	0	0.01	10.98				

Figure D-4

Regression Equations: $I(t) = at^b$

(I= Intensity in inches/hour, t= duration in minutes)

Return Frequency (years)	a	b
2	5.702	-0.574
5	7.870	-0.562
10	10.209	-0.573
25	11.995	-0.566
50	13.521	-0.566
100	15.560	-0.573



ORANGE COUNTY

HYDROLOGY MANUAL

MEAN PRECIPITATION INTENSITIES FOR NONMOUNTAINOUS AREAS

Figure B-3

BURGESS ENGINEERING GROUP
E John@Burgess.Engineering
O (949) 588-8801 · C (949) 436-1637
27758 Santa Margarita Parkway · Suite 284
Mission Viejo, CA 92691 · F (949) 588-7216

Keep

PAGE: _____ of _____
JOB #: _____
DATE: _____
NAME: _____

	ap	Fp	A	Σ Area Wtd	Σ/A
C-1	.9	0.25	0.07	0.0158	0.23
C-2	0.1	0	0.56	0.0158 / 1.63	0.25
C-3	0.1	0	0.07	0.0158 / 0.70	0.02
C-4	0.1	0	0.11	0.0158 / 0.81	0.02
Sys B + E		0	3.29	0.0158 / 3.29	0.00
Sys A + Sys B + C-4			6.89	0.0158 + 0.0575 = 0.0733 /	0.01
			7.17	0.0733	0.01
				351 / 5 / vent	paved
C-10	0.1	0	0.23	0	
C-9 + C-10	0.9	0.25	0.4	0.09 /	
C-13	0.9	0.25	.03		
C-14	0.1	0	0.05	0.096 /	
C-15					
C-16				.096/1.99 = -0.05	
				.096 + 0.0733	

Appendix C
Geotechnical Report

P.A. & ASSOCIATES, INC.

March 12, 2018
Project File No. 218111-101

SOIL ENGINEERING
GEOLOGY
MATERIAL TESTING
ENVIRONMENTAL

Mr. Jim Thayer
C/O Ms. Pam Reimer
Saddleback Church
1 Saddleback Parkway
Lake Forest, CA 92630

Subject: Preliminary Geotechnical Investigation & Percolation Testing
Proposed New Worship Center, Access Road, Parking Lot, and Bioswale
Saddleback Church
1 Saddleback Parkway
City of Lake Forest, California

References: Appendix F

Dear Mr. Thayer:

We are pleased to submit the results of our preliminary geotechnical investigation for the subject project at Saddleback Church. The proposed improvements include a new Worship Center, access road, parking lot, and bioswale. This report is based on our review of the referenced reports, subsurface exploration, and engineering review and analysis.

In general, the site appears suitable for the proposed improvements from a geotechnical standpoint. The construction of the subject site is not anticipated to have an adverse geotechnical effect on adjacent properties, and it is our professional opinion that the site is surficially and grossly stable provided that our attached findings and recommendations are incorporated into the design and construction of the project. This report documents our findings, conclusions, and recommendations.

We appreciate the opportunity to be of service. Should questions arise pertaining to any portion of this report, please contact this firm, in writing for further clarification.

Respectfully,
P.A. & Associates, Inc.

REGISTERED PROFESSIONAL ENGINEER
PARVIZ ABDAVI-AZAR
No. C-037818
Exp: 03/31/19
CIVIL
STATE OF CALIFORNIA

CERTIFIED ENGINEERING GEOLOGIST
JAMES Mac GREGOR RENFREW JR.
No. 1970
Exp: 9-30-19
STATE OF CALIFORNIA

Parviz A. Azar, M.Sc., PE
Principal Engineer

James M. Renfrew, CEG 1970
Associate Geologist

PAA/JMR\218111-101.rpt

PRELIMINARY GEOTECHNICAL INVESTIGATION
& PERCOLATION TESTING

FOR

PROPOSED NEW WORSHIP CENTER, ACCESS ROAD, PARKING, & BIOSWALE
SADDLEBACK CHURCH
1 SADDLEBACK PARKWAY
CITY OF LAKE FOREST, CALIFORNIA

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PRELIMINARY GEOTECHNICAL INVESTIGATION
& PERCOLATION TESTING

FOR

PROPOSED NEW WORSHIP CENTER, ACCESS ROAD, PARKING, & BIOSWALE
SADDLEBACK CHURCH
1 SADDLEBACK PARKWAY
CITY OF LAKE FOREST, CALIFORNIA

1.0 INTRODUCTION

This report presents a summary of findings, conclusions, and recommendations based on our preliminary geotechnical investigation and review of the referenced reports for the proposed new Worship Center, access road, parking lot, and bioswale at Saddleback Church, 1 Saddleback Parkway, in the City of lake Forest, California (see Site Vicinity Map, Figure 1 on the following page).

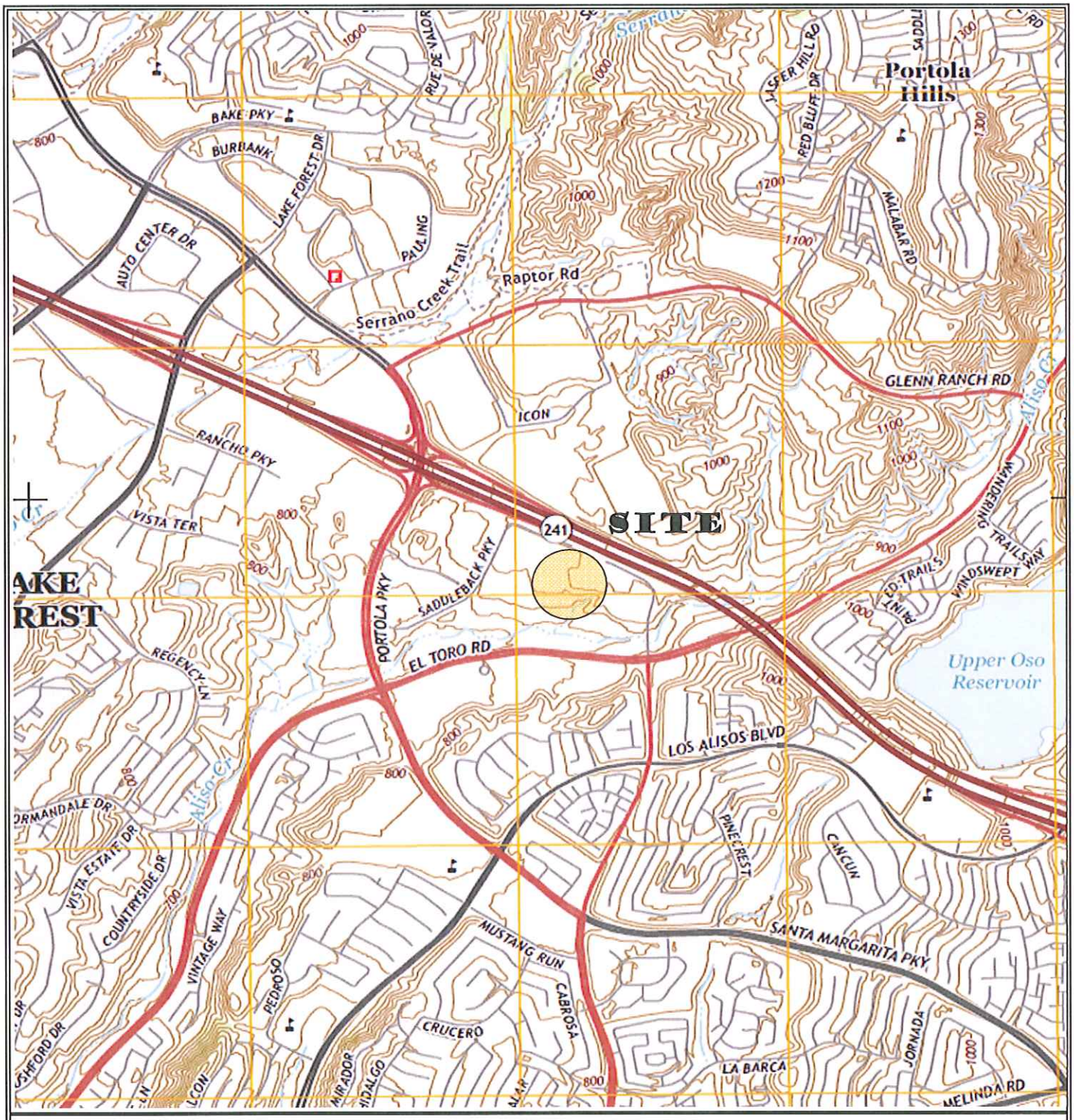
1.1 Purpose and Scope

This geotechnical report was performed in order to obtain geotechnical data pertinent to improvement of the site with a new Worship Center building with access road and parking lot, and provide design recommendations for the proposed bioswale. The procedures used in this investigation consisted of:

- Review of referenced reports and available published and unpublished geotechnical documentation pertaining to the subject site,
- Sub-surface exploration, logging and soil sampling with hollow stem auger;
- Correlative laboratory testing;
- Geotechnical review and analysis;
- Percolation rate testing of the proposed bioswale location; and,
- Preparation of this report, illustrations, and plans.

1.2 Objective of this Report

The purpose of this report is to summarize our findings, provide conclusions as to the overall suitability of the project site, and present recommendations for improvement from a geotechnical standpoint. The field investigation was undertaken on February 23 & 24, 2018.



Reference:	**USGS Lake Forest 7.5 Min. Quadrangle Map, Los Angeles Region, 2015**
Scale:	1:24,000

TN* / MN 14°

P.A. & ASSOCIATES, Inc.

TITLE:	**SITE VICINITY MAP**			**FIGURE NO.:**
PROJECT:	**1 Saddleback Pkwy., Lake Forest, California**			**1**
PROJECT NO:	**218111-101**	DATE: **3/12/2018**	BY: jmr	

1.3 Site Description

The New Worship Center site is located west of the existing Worship Center on the grounds of Saddleback Church. The church campus is located within a triangular area bounded by El Toro Road on the south, Marguerite Pkwy. on the east, Portola Pkwy. on the northwest, and the Transportation Corridor (Toll Rd.) on the northeast. Aliso Creek is incised along the northern side of El Toro Road on the order of 45 feet below the new road site. The site (campus park) is currently landscaped with a closely mowed lawn, which is partially surrounded by trees and bushes. A children's playground is located on the north end of the lawn, and several facilities for relaxation and recreation are present on and adjacent to the park. The lawn drains southward with topographic relief of about 4 feet, and, at the southern edge, slopes down roughly 9 feet at 2:1 H:V to the existing road. The existing east-west trending road bounds the park on its southern side. On the eastern side of the park, a narrow landscaped slot that is assumed to have originally been an access road from the existing road on the south, ramps up to the playground at the northern end. The ramp was found to be paved with concrete below the turf on the eastern side of the walkway. Two large capacity tents for assembly of overflow worshippers were occupying the parking lot on the west side of the park at the time of our investigation. See the attached site plan, Figure A-1-1, in Appendix A.

1.4 Use of Report

This report was prepared at the request of the client for the exclusive use of Saddleback Church and their design consultants for improvement of the site. Use of this report by others and for purposes other than those stated herein may be subject to misinterpretation, and is therefore not recommended. P.A. & Associates should review the project plans as they become available for applicability and compliance with recommendations presented.

1.5 Planned Land Use

Based upon our review of the site plan, it is our understanding that the proposed new Worship Center building will comprise 71,454 sf., or about double the size of the existing Worship Center, which will be converted to a an adult education center. The new Worship Center building is planned west of the existing, replacing the campus park, and will lie about 10 feet lower in elevation than the existing Worship Center. A new southern access road is planned extending from Loop Road at the Creek Parking Lot to the Bridge Parking Lot, east of the existing Worship Center, and a bioswale is planned across and below the new road toward Aliso Creek. Also, on the western side of the new Worship Center site where assembly tents are currently placed on the pavement, a new parking lot with 60 parking spaces is planned.

2.0 GENERAL GEOLOGY AND SUBSURFACE CONDITIONS

2.1 Regional Geology

The project is situated in Orange County within the northwestern portion of the Peninsular Ranges Geomorphic Province of Southern California. The Peninsular Ranges Geomorphic Province consists of a series of ridges that extend approximately 900 miles from the Los Angeles basin southeastward to the tip of Baja California, Mexico. This Province is approximately 80 to 100 miles wide east to west and is bounded on the north by the Transverse Ranges and the east by the Salton Trough. The dominant features of the Peninsular Ranges consist of northwest-trending fault zones. Tectonic uplift of and faulting within the Peninsular Ranges, caused by oblique convergence between the Pacific and North American Plates, began during the Pliocene. Faulting within the Peninsular Ranges has manifested itself as a series of right-lateral northwest trending transform faults (e.g., Palos Verdes, Newport-Inglewood, Norwalk-Anaheim Hills, Whittier-Elsinore, San Jacinto and San Andreas faults). In addition, numerous discontinuous north-south trending faults have been mapped within the northern portion of the Peninsular Ranges. Several of these faults within the Peninsular Ranges are considered active or potentially active pursuant to the guidelines of the Alquist-Priolo Earthquake Fault Zoning Act (1994). The regional geologic setting is shown on Figure 2 (page 5).

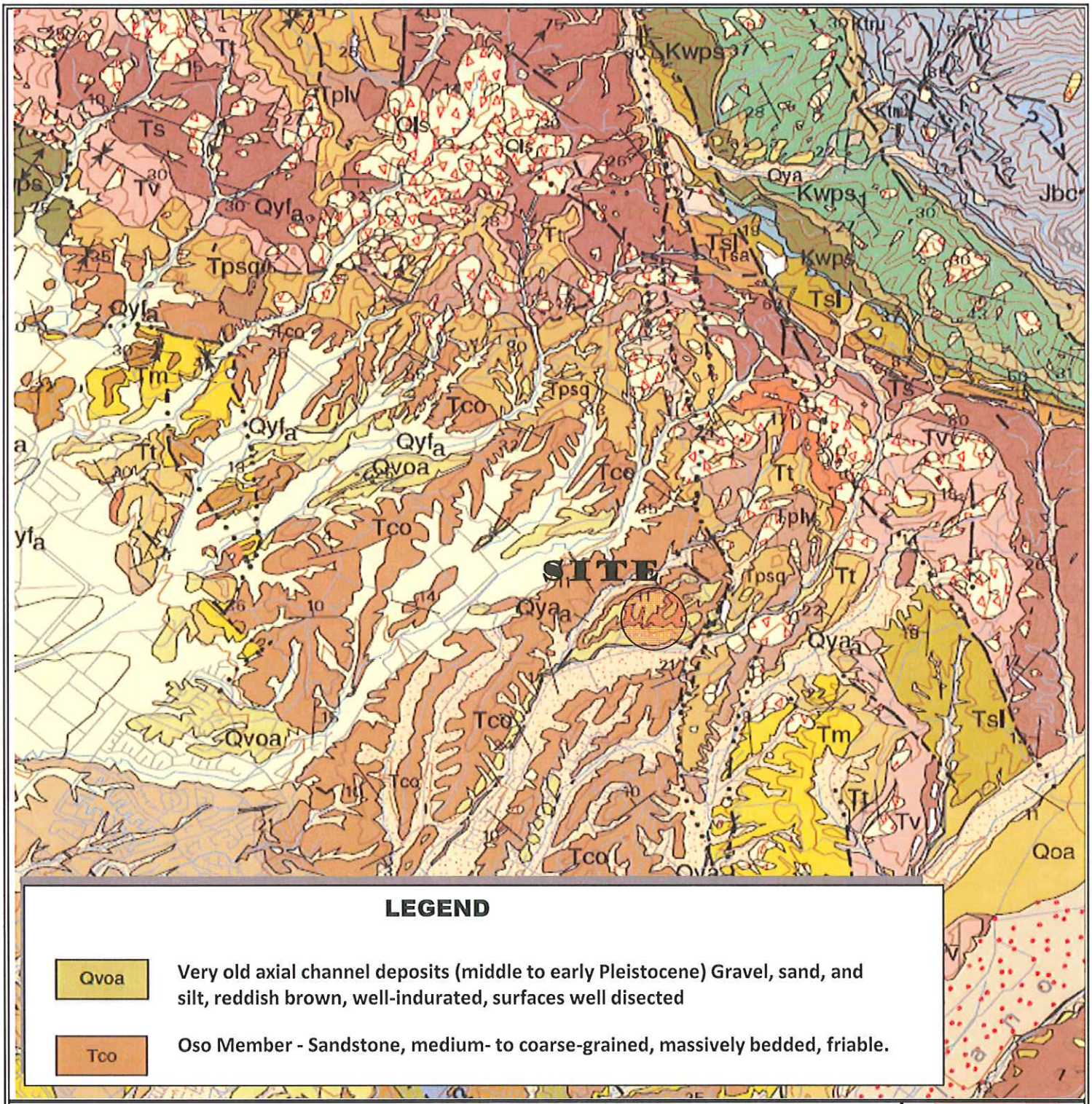
The materials underlying the proposed Worship Center site and vicinity are mapped as bedrock of the Tertiary Capistrano Formation - Oso Member. Portions and very old axial channel deposits. The regional geologic setting is shown in Figure 2 (page 5).

2.2 Earth Materials

Earth materials encountered during our exploration were classified in accordance with the Unified Soil Classification System (see Appendix A-2). The boring logs and site plan are attached in Appendix A.

2.3 Artificial Fill (Af)

The proposed Worship Center building site is underlain by approximately 0.5' to 5' of artificial fill derived from sandstone of the Capistrano Formation – Oso Member. Less than a foot of silty pea gravel covers the triangular playground at the northern end of the site, and about 4 inches of turf cover most of the park. The underlying fill encountered in the proposed Worship Center footprint generally consisted of pale yellow and pale gray (nearly white) silty and clayey medium-grained sand that was moist and medium dense in-place. Fill materials encountered in our borings adjacent to the existing road, also location of proposed new road, contained coarse gravel and consisted of yellowish brown



Reference:	USGS Geologic Map of the Santa Ana 30'x60' Quadrangle, California, compiled by D.M.Morton, 2004 OPEN-FILE REPORT 99-172				TN MN 14°
Scale:	1:50,000				
P.A. & ASSOCIATES, Inc.	TITLE:	**GEOLOGIC SITE VICINITY MAP**			FIGURE NO.:
	PROJECT:	**1 Saddleback Pkwy., Lake Forest, California**			**2**
	PROJECT NO:	**218111-101**	DATE: **3/12/2018**	BY: jmr	

and yellowish reddish brown gravely sands or sands with some gravel that were generally moist and dense.

2.4 Quaternary Very Old Axial Channel Deposits (Qvoa)

Portions of the existing road are underlain by early to middle Pleistocene very old axial channel deposits (see Geological Vicinity Map on page 5), which typically consist of gravels sands and silts. The alluvial soils encountered in our borings along the existing road consisted of reddish brown gravely clayey sand. The alluvium was generally dense in-place.

2.5 Capistrano Formation – Oso Member (Tco)

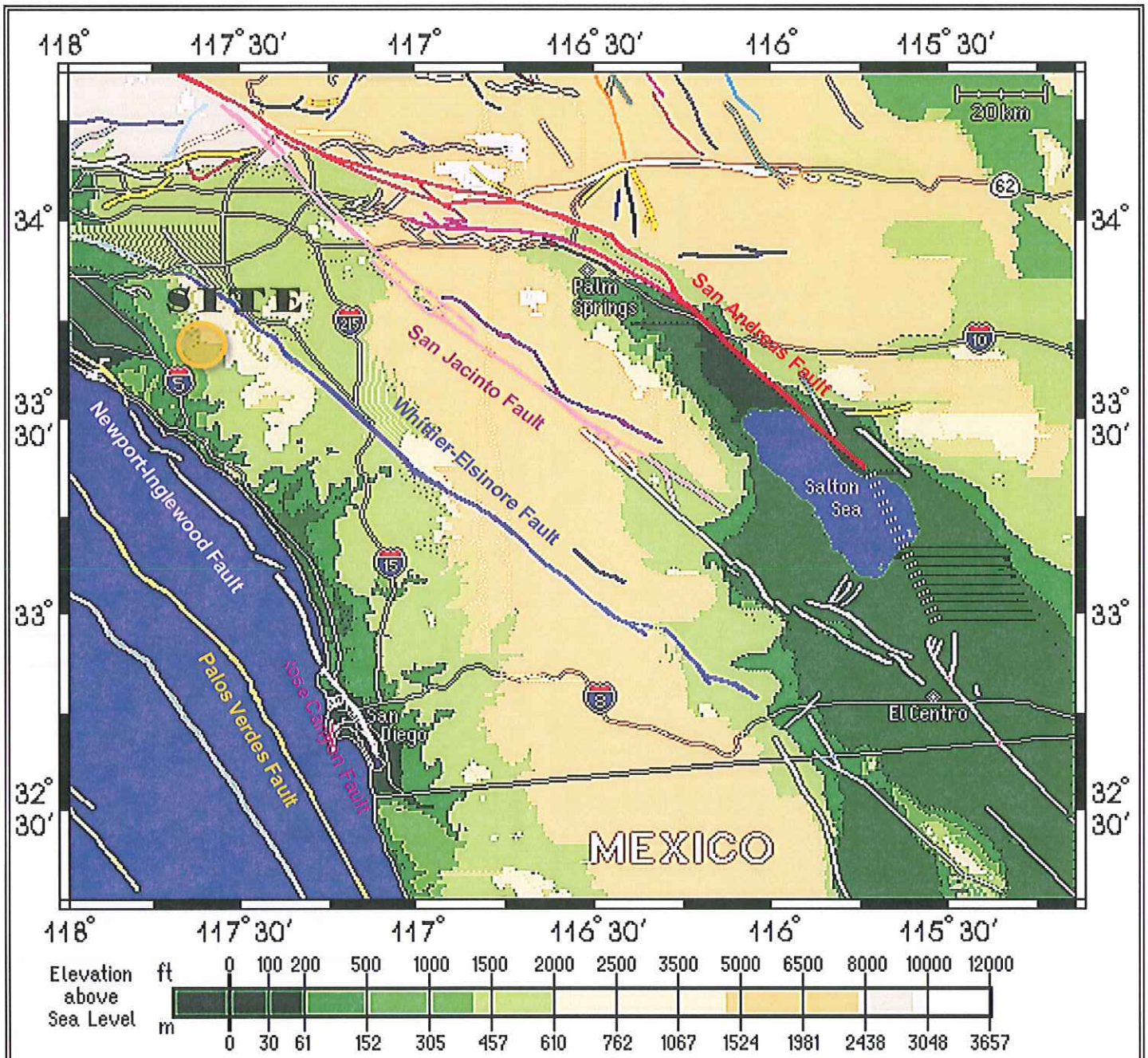
Sandstone of the Capistrano Formation – Oso Member was encountered at depths ranging from 0.5' to 5' below the surface of the improvement areas. The sandstone bedrock was pale yellow and pale gray (White), massively bedded, medium-grained, friable, feldspahic, quartzose, contained abundant biotite. Occasional ¼" dark brown clay and cemented layers were encountered.

2.6 Groundwater and Caving

Groundwater and caving were not encountered in our subsurface borings to a maximum depth of 30 feet.

2.7 Fault Zones

The site is not currently located within an Alquist-Priolo Earthquake Fault Zone. It may, however, be expected to experience moderate to potentially severe ground shaking from earthquakes generated on the Newport-Inglewood, Whittier-Elsinore and San Andreas Faults which are present within 100 kilometers of the site. The site may also experience lesser ground shaking from earthquakes on other faults within the southern California region. See Fault Map, Fig. 2, on page 7. Active or potentially active faults are not known to transect the site.



Reference: Southern California Earthquake Center

0 40 km

North

P.A. & ASSOCIATES, Inc.

TITLE:	**ACTIVE FAULTS OF S. CALIFORNIA MAP**		FIGURE NO.:
PROJECT:	**1 Saddleback Pkwy., Lake Forest, California**		**3**
PROJECT NO: **218111-101**	DATE: **3/12/2018**	BY: jmr	

3.0 SOILS ENGINEERING

Based on our subsurface investigation, soils underlying the site generally consist of silty and clayey medium-grained sands that overlie sandstone bedrock. In general, most of the site is covered with soils that appear to have moderate cohesion and very low expansion potential.

3.1 Classification

Field classifications were verified in the laboratory by visual examination. The final soil classifications are described in accordance with the Unified Soil Classification System and are shown on the boring logs.

3.2 Maximum Density - Optimum Moisture

Maximum density and optimum moisture were determined on representative samples secured from our subsurface explorations in accordance with ASTM Test Designation D-1557. The results of these tests are presented in the Summary of Laboratory Testing in Appendix B.

3.3 In-Place Moisture and Density

In-place moisture and density were determined in accordance with ASTM Test Designation D-2937. Samples were obtained in our exploration borings in steel cylinders (rings) of known volume, sealed on-site, and transported to our laboratory for testing. Results are shown on the exploration logs in Appendix A.

3.4 Direct Shear Test

Soil strength was determined for soils samples in accordance with ASTM Test Designation D-3080. The direct shear machine employed was a conventional single shear, strain-controlled device. Strain rates of approximately 0.005 inches per minute were utilized for remold samples. Results of these tests are utilized in determining stability analyses of the site and allowable soil bearing values. The result of these tests indicated a maximum cohesion of 50 psf, with a corresponding internal friction angle of 32 degrees. These tests are summarized in Appendix B.

3.5 Expansion Potential

Expansion potential was tested in accordance with ASTM Test Designation D-4829. In general, soils sampled during our field exploration exhibited a very low expansion potential.

However, corroborative expansion tests should be performed after grading. The expansion test results are summarized in Appendix B.

4.0 CONCLUSIONS

4.1 Feasibility of Development

From a geotechnical standpoint, development of this site is considered feasible. The proposed improvements should not have an adverse effect on the Saddleback campus or adjacent properties and structures provided that our conclusions and recommendations, together with the builder's standard of care, are taken into consideration under the supervision of a representative of this firm.

4.2 Earth Materials

The earth materials encountered on the site below turf and pavement generally consisted of artificial fill comprising medium dense silty and clayey sands ranging in thickness of 0.5' to 5 ' from north to south. The finished floor elevation (829') planned for the Worship Center is at about the same elevation as the existing northern elevation of the proposed building footprint; therefore, the lower portion of the park lawn will be raised maximum of about 4 feet to achieve building pad grade, and the eastern ramp area and existing southern road area adjacent to the park slopes will be raised maximum of about 15 feet. In order to prevent a bedrock/fill transition on the pad and provide a uniform foundation for the new building, the existing fill should be removed to bedrock or acceptable fill and replaced to grade with fill possessing a minimum of 92 percent relative compaction.

Based on our findings, the proposed foundations may be designed for a very low expansion potential. However, corroborative expansion tests should be performed after grading.

4.3 Possible Near-Source Earthquake Events

The subject site is not located within a State of California earthquake seismic hazard zone, with a potential for earthquake induced displacement as determined in compliance with the Seismic Hazards Mapping Act (the Act) of 1990 (Public Resources Code, Chapter 7.8, Division 2); however, the site is located in a seismically active area, and the potential for strong ground motion in the project area is considered significant; the site is located 16 km southwest of the of the causative near-source Elsinore Fault – Glen Ivy Segment, and is expected to experience Magnitude 6.8 Mw, Moment Magnitude with

Mercalli Intensity of VII from a major earthquake and Peak Ground Acceleration (PGA_M) of 0.526g with a 2% probability of exceedance in 50 years (USGS Earthquake Hazards Program website tool). Seismic criteria for a near source event should be considered in the design of the structure. Based on available information from our field investigation and geologic publications, the likelihood of significant surface fault rupture or ground deformation at the site is considered to be relatively low.

4.4 Groundwater

No groundwater was encountered in our borings to depth of 30 feet below the surface and no groundwater was encountered by others (Reference No.1) to depth of 36.5 feet, drilled from an elevation about 20 feet below the site. Groundwater. Historic high groundwater maps for El Toro Quadrangle (CGS website) indicate groundwater is deeper than 50 feet (Reference No.1).

4.5 Liquefaction

Liquefaction is a phenomenon that occurs in saturated, cohesionless (usually sandy) soils in which the soils undergo transformation from a solid to a liquid state because of increased interstitial pore pressure and reduced effective stress. This typically occurs in the upper 30 feet during ground shaking such as during an earthquake event. The site is underlain by shallow bedrock and should be considered to possess no liquefaction potential.

4.6 Percolation Rates

The subsurface materials encountered in the percolation testing study area consisted of clayey sand and sandy clay in the top five feet. We tested the percolation rate of the underlying sandstone from depth of 5 feet to 15 feet.

For the percolation rate testing, one 8-inch diameter test hole was excavated, and rate of percolation efficiency was studied in accordance with pertinent technical guidelines (Reference No.16). The test hole (B-10) was advanced to depth of 15 feet below the existing ground surface to the proposed bioswale infiltration surface, and two inches of gravel were placed in the bottom of the test hole. The percolation test hole was filled with water, and from a fixed reference point, the drop in water level was measured after 25 minutes during which less than six inches of water seeped away. The test hole was presoaked overnight, and on the following morning, the test was run for six hours with measurements taken at 30 minute intervals. The critical rate is the stabilized final reading; the field percolation test data sheets summarizing the readings is attached in Appendix C.

The percolation rates were calculated in accordance with percolation test methods provided in the Technical Guidance Document Appendices (Reference No. 16). The final percolation test reading and infiltration rate is shown in Table I, below:

TABLE I

FINAL PERCOLATION TEST RESULTS

Test Hole No.	Depth of Test (ft)*	Percolation Rate (min/inch)	Tested Infiltration Rate (inches/ hour)
B- 10	15	15.0	0.066

*Depth of hole at time of test

Infiltration rate was calculated using the conversion equation: $I_t = \lambda H(60r)/\ \lambda t(r+2H_{avg})$

Where: λt = time interval
r = test hole radius
λH = change in height over time interval
H_{avg} = average head height over time interval
I_t = tested infiltration rate

Infiltration Rate Calculations:

Test Hole B-10

$I_t = \lambda H(60r)/\ \lambda t(r+2H_{avg})$ = (2 in) (60min/hr)(4in)/ (30min)((4)+(2(120in)) = 0.066 in/hr

Based on the low percolation rate of underlying soils in the proposed bioswale area and concerns for long term filtration performance, the tested infiltration rate of 0.066, as determined in accordance with approved infiltration rate assessment methods (Reference No.16) for use in sizing the proposed infiltration facility, does not meet County of Orange requirements for approval.

This infiltration report is based on the project as described and the geotechnical data obtained for the field tests performed at the locations indicated on the plan. The materials encountered on the project site are believed representative of the total study area. Our firm should be notified of any pertinent change in the project plans, or if subsurface conditions are encountered which differ from those described in this report, as this may require re-evaluation of our recommendations. This report has not been prepared for use by parties or projects other than those named or described herein. It may not contain sufficient information for other parties or other purposes. Since our investigation is based on the site materials observed and engineering analysis, the conclusions and recommendations presented herein are professional opinions. These opinions have been derived in accordance with current standards of practices, and no warranty is expressed or implied.

5.0 RECOMMENDATIONS

The construction proposed for the site is considered geotechnically feasible. Grading and foundation plans should take into account the appropriate geotechnical conditions of the site.

5.1 Grading

Prior to the start of grading, all debris, vegetation, and other deleterious materials should be stripped and legally disposed of off site.

5.2 Sub-Surface Soil Preparation (Worship Center)

After clearing the site, the loose or soft soil and artificial fill possessing less than 92 percent relative compaction within the proposed building pad and 5-feet beyond should be removed to acceptable fill or competent bedrock and replaced with 92 percent compacted soil to a minimum depth of 3 feet below the existing grade or the proposed footings, whichever is lower. If the bottom of the excavated area possesses less than 92 percent compaction, the project soils engineer may require further removal.

Subgrade material in the proposed walkways and driveways or parking areas should be overexcavated to at least 12 inches below the bottom of the slabs.

5.3 Scarification

All exposed surfaces, including overexcavated surfaces, should be scarified 12 inches, moisture-conditioned, and compacted to 92 percent relative compaction, as tested in accordance with ASTM Test Method D-1557.

5.4 Import and Fill Material Usage

Should importation of fill be desirable, the material should be primarily granular, with very low expansion potential, having an expansion index less than 20. All import should be inspected, and tested as necessary by the Soils Engineer prior to importation to the site.

5.5 Fill

Native soils are acceptable for utilization as structural fill. All fill soils shall be placed in maximum 6-inch lifts compacted to at least 92 percent relative compaction.

5.6 Trench Backfill

All trenches should be backfilled with soils compacted mechanically to at least 90 percent relative compaction. Trenches deeper than 2 feet should be tested progressively as fill is placed. Care should be taken not to damage utility lines. The site soils are considered suitable for use as trench backfill, provided they are at or near optimum moisture. The walls of temporary construction trenches are expected to be stable when excavated nearly vertical, with only minor shoring, provided the total depth does not exceed about 4.5 feet. Shoring of excavation walls or flattening of slopes may be required, if greater depth is necessary.

All work associated with shoring must minimally confirm to Cal-OSHA and local safety codes.

5.7 Slopes

Slopes are to be made at an inclination of 2:1 or shallower. Fill slopes should be properly keyed, benched and recompacted as follows:

5.7.1 Key Excavation

Key excavation should be a minimum of 15 feet in width and 2 feet deep at the toe in competent bedrock. The key should be cut into competent material to be determined by the Soils Engineer and Engineering Geologist.

5.7.2 Benching

Benches should be cut a minimum of 10 feet wide, or one equipment width, whichever is greater, and should be excavated into competent bedrock, as approved by the Engineering Geologist. Unless otherwise approved by the Engineering Geologist, bench excavations should be at least 4 feet in height, measured from the elevation of the bench at the bottom of the cut to the top of the excavated surface and should exposed at least 4 feet of competent material. Typical benching details are shown in Figure 3-D, in Appendix D.

5.7.3 Backcuts

Backcuts of the slope fill should not exceed 1:1 (Horizontal : Vertical) in steepness.

5.7.4 Subdrain Installation

A canyon drain should be provided along the drainage path with perforated pipe installed to the key and solid pipe from back of key to outlet. See Figure D-5, Appendix D for canyon drain detail.

In general, fill slopes should be provided with subdrains, Appendix D, Figure D-3 and D-4. Installation requirements should be established during site grading, as recommended by the Soils Engineer or Engineering Geologist. The following recommendations or equivalent system for subdrain installation may be used.

(1) Swale bottoms should be overexcavated to competent bedrock as determined by the Soils Engineer or Engineering Geologist.

(2) A trench 3 feet wide and 2 feet deep should be constructed along the bottom of each swale.

(3) The trench should be lined with Mirafi 140N filter fabric, or approved equal, lapped and sewn according to the manufacturer's specifications.

(4) Two inches of gravel should be placed in the bottom of the trench.

(5) A 6-inch perforated PVC pipe, Schedule 40, should be placed on the gravel, with the perforations at the 5-O-clock and 7-O-clock position, at a minimum slope of 2 percent. For more detail see Appendix D.

(6) The trench should then be filled with approved material, see material specification on Appendix D.

(7) The filter fabric should be wrapped and lapped a minimum of 6 inches on the top.

(8) Trench should be backfilled with granular soils and compacted and to at least 90 percent relative compaction.

Where required by the Soils Engineer or Engineering Geologist, subdrains should be installed in accordance with recommendations as specified in this report.

5.8 Suggested Preliminary Pavement Section (Parking Lot)

Based on an assumed R-Value of 25, the State of California Highway Department design procedures, and Assumed Traffic Index = 5.5 for automobile and light truck traffic for parking and driveways, 7.5 for light heavy truck traffic and heavy traffic of light vehicles, interior streets, and parking areas, the following preliminary pavement sections are suggested, further evaluation should be performed at the conclusion of rough grading:

Auto and light truck traffic for parking and driveway areas
Traffic Index (TI) = 5.5
Asphalt Concrete (AC) = **4.0 inches**
Aggregate Base (AB) Class II = **6.0 inches**

Light heavy truck traffic & heavy traffic of light vehicles, interior streets & loading docks
Traffic Index (TI) = 7.5.
Asphalt Concrete (AC) = **6.0 inches**
Aggregate Base (AB) Class II = **8.0 inches**

AB and AC should be compacted to a minimum of 95 percent relative compaction. AC should be compacted in layers not exceeding 3.5 inches. During grading operations, exposed subgrade material should be tested for R-Value for confirmation.

As an alternative to asphalt pavement section for heavy trucks traffic, an 8-inch concrete slab over 4 inches of crushed aggregate base may be used. Slabs should be reinforced with No. 4 rebar at 18 inches on center, each way. Sawcuts (or cold joints) should be made at maximum of 10 feet intervals each way, with a maximum length to width ratio of 2.

5.9 Curbs, Gutters, Medians, and Driveways

Curbs, gutters, medians, and driveways without heavy truck usage should be a minimum of 6 inches in thickness. The proposed flow lines (curb, gutters) should be underlain by 6 inches of crushed Aggregate Base (AB) with a minimum of 95 percent relative compaction. Crushed Aggregate Base should be compacted in layers not exceeding 6 inches.

5.10 Geotechnical Observation and Testing

Based on the City of Lake Forest's quality control requirements and desired quality control, observation and testing by our representative are recommended for the activities specified on the following page:

- During clearing of the site;
- During rough and precise grading of the site;
- During footing excavation for building and/or any excavation;
- During backfill of utility trenches;
- During stormwater infiltration trench installation;
- During sub-base, aggregate base, and paving asphalt placement;
- When any unusual geotechnical conditions are encountered

6.0 FOUNDATION RECOMMENDATIONS

6.1 Continuous and Square Pad Footings

Continuous footings should be minimum of 18 inches wide and 24 inches deep for one and two stories. Square pad footings should be founded at least 24 inches below lowest adjacent grade, and should have a minimum dimension of 24 inches square. All continuous footings should be reinforced with minimum of two No.5 bar on top and two at the bottom. Spread footings should be reinforced with minimum of No.5 bars spaced 12 inches on-center each-way, unless determined otherwise by the Structural Engineer.

All of the isolated pad footings should be inter-connected through an 18-inches deep and 18-inches wide grade beam system.

6.2 Bearing Capacity (Continuous and Square Pad Footings)

Continuous footings may be designed with an allowable bearing capacity of 2000 pounds per square foot. Square pad footings may be designed with an allowable bearing capacity of 2100 pounds per square foot. These values may be increased by 150 psf for each additional width or depth of footing to a maximum of 2600 psf.

6.3 Short-term Seismic or Wind Loads

When designing for short duration wind or seismic loads, the above values can be increased by one-third.

6.4 Retaining Walls

6.4.1 Passive Pressure

Passive earth pressure may be computed as an equivalent fluid having a density of 300 pounds per cubic foot (pcf), with a maximum earth pressure of 2000 psf. An allowable coefficient of friction between soil and concrete of 0.3 may be used with dead load forces. When combining passive pressure and friction resistance, the passive pressure competent should be reduced by one-third.

6.4.2 Active Earth Pressure

Active earth pressure may be computed as an equivalent fluid having a density of 42 pcf and 58 pcf for level and not steeper than 2Horizontal:1Vertical slope backfill respectively. All of the retaining walls should be designed to resist any adjacent structural surcharge load, in addition to the active or at rest pressure. Based on peak horizontal ground acceleration motion of the site with 10% probability of exceedance in 50 years and simplified Mononobe-Okabe Seismic Analyses, an earthquake load of 19.5 pcf equivalent fluid pressure may be applied to the retaining structures for walls over 6 feet in height. Load should be zero at the top of footing increasing linearly to maximum wall height (top of backfill), with resultant total seismic load acting approximately at 0.6 times the wall height. When short term seismic load is added, the design safety factor may be reduced to 1.2, and bearing value and passive resistance may be increased by 1/3. Backfill of the retaining walls should be granular material with a minimum sand equivalence of 40 (S.E.>40). A 4-inch perforated schedule 40 PVC pipe installed with at least a 1.5% slope and 4 inches of Caltrans Class II permeable material (or compatible material) on the bottom and 12 inches on the sides and top of the pipe should be included in the designs for walls higher than 18 inches in-order to prevent build-up of hydrostatic pressure. Exterior retaining wall should be backfilled with a minimum of 12 inches of relatively impermeable (native silty soils) in order to prevent penetration of the surficial water into the retaining wall backfill. For graphic demonstration of retaining wall detail refer to Figure C-1, Appendix C.

6.4.3 At Rest Pressure

When movement on top of the retaining wall is restricted (Pinned or Fixed), at rest pressure may be computed as an equivalent fluid having a density of 52 pounds per cubic foot. For backfill specifics, refer to 6.4.2.

Water proofing design and inspection of the retaining structures is beyond the scope of our work.

6.5 Seismic Recommendations

The structural design at the site should conform to the most recent 2016 California Building Code requirements for Region 1 and the most recent design standards of the Structural Engineers Association of California. Based on the materials encountered and the project site coordinates (Lat. 33.663678°N, Long. -117.645641°W), the following ASCE 7-10 Standard seismic recommendations are made:

- Site Class = C, CBC 2016, Table 1613.5.2;
- S_S = 1.449; CBC 2016, Section 1613.5.1;
- S_1 = 0.539; CBC 2016, Section 1613.5.1;
- F_a = 1.0, CBC 2016, Table 1613.5.3(1);
- F_v = 1.3, CBC 2016, Table 1613.5.3(2);
- S_{MS} = 1.449, CBC 2016, Section 1613.5.3;
- S_{M1} = 0.701, CBC 2016, Section 1613.5.3;
- S_{DS} = 0.966, CBC 2016, Section 1613.5.4;
- S_{D1} = 0.467, CBC 2016, Section 1613.5.4;
- Seismic Design Category is D, CBC 2016, Table 1613.5.6(1&2);

6.6 Slabs-on-Grade

Slabs should be at least 5 inches in thickness and should be reinforced with No.4 bars at 18 inches on-center each-way. Interior slabs on grade in living areas and areas with floor cover should underlain by 15-mil plastic moisture barrier with two-inches of sand between the Visqueen and the slab and one inch of sand under. Four inches of crushed rock should be placed under all slab areas. Sawcuts (or cold joints) should be made on all exterior slabs, walkways and driveways, at maximum of 10 feet intervals each way, with a maximum length to width ratio of 2.

6.7 Settlement

Subject to implementation of recommendations contained herein, structures may be expected to settle a maximum of three quarters of an inch with a differential settlement of one-quarter inch over 20 feet horizontal distance. Most of settlement may be expected to occur during construction.

6.8 Type of Cement

Based on corrosivity testing by others (Reference #1), concrete in contact with onsite soil is expected to negligible sulfate exposure; however, the onsite soil is considered moderate to severely corrosive to ferrous metals.

Cement to be used in the concrete that is in contact with on-site soils should be determined after the completion of grading operations. In lieu of water-soluble sulfate testing, sulfate resistant cement consisting of Type V cement with minimum compressive strength of 4500 psi and a maximum water to cement ratio of 0.45 should be specified (Table 19-A-4 of Uniform Building Code).

6.9 Temporary Shoring/Bracing

For shoring/bracing of temporary cut surfaces steeper than 1H:1V higher than 4 feet, we recommend trapezoidal/triangular distribution of earth pressure. For design detail, please refer to Appendix D, Fig. D-1.

6.10 Surface Drainage Provisions

Positive surface gradients should be maintained away from planned structures, berm areas, etc., such that water is not allowed to flow uncontained on site, and should be contained in approved drainage devices. The ground immediately adjacent to the foundation shall be sloped away from the building at a slope of not less than one unit vertical in 20 units horizontal (5 percent slope) for a minimum distance of 10 feet (3048 mm) measured perpendicular to the face of the wall.

If any physical obstructions or lot lines prohibit 10 feet (3048 mm) of horizontal distance, a 5 percent slope shall be provided to an approved alternative method of diverting water away from the foundation. Swales used for this purpose shall be sloped a minimum of 2 percent where located within 10 feet (3048 mm) of the building foundation. Impervious surfaces within 10 feet (3048 mm) of the building foundation shall be sloped a minimum of 2 percent away from the building.

Exception: Where climatic or soil conditions warrant, the slope of the ground away from the building foundation shall be permitted to be reduced to not less than one unit vertical in 48 units horizontal (2-percent slope). The procedure used to establish the final ground level adjacent to the foundation shall account for additional settlement of the backfill.

Construction plans shall indicate how the site grading or drainage system will manage all surface water flows to keep water from entering buildings in accordance with the California Green Building Standards Code (CALGreen), Chapter 4.

6.11 Planters & Roof Drains

Planters adjacent to the foundation system should be provided with adequate drainage systems such as tub to prevent any moisture penetration into the subsurface soil. The roof drains should be connected to approved devices or drainage areas.

7.0 CLOSURE

7.1 Uniformity of Conditions

The recommendations and opinions expressed in this report reflect P.A. & Associates best estimate of the project requirements based on an evaluation of the subsurface soil conditions encountered at the subsurface exploration locations and the assumption that the soil conditions do not deviate appreciably from those encountered. It should be recognized that the performance of the slopes, slabs and foundations may be influenced by undisclosed and unforeseen variations in the soil conditions that may occur in intermediate and unexplored subsurface areas. Any unusual conditions not covered in this report that may be encountered during grading and construction should be brought to the immediate attention of the Soils Engineer and/or Engineering Geologist so that we may make modifications to our recommendations if necessary.

7.2 Time Limitations

The findings of this report are valid as of this date. Changes in the condition of a property can, however, occur with the passage of time, whether they are due to natural processes or the work of man on this or adjacent properties. In addition, changes in the state-of-the-art and/or government codes may occur. Due to such changes, the findings of this report may be invalidated wholly or in part by changes beyond our control. Therefore, this report should not be relied upon after a period of one year without a review by us verifying the validity of the herein contained conclusions and recommendations.

7.3 Professional Standard

In the performance of our professional services, P.A. & Associates complies with the standard of care and skill normally exercised under similar circumstances by members of our profession currently practicing under similar conditions in the same or similar localities. The client recognizes that subsurface conditions may vary from those encountered at the locations where our borings, surveys and explorations are made, and that P.A. & Associates

data, interpretations, and recommendations are based solely on the information obtained by us. We will be responsible for those data, interpretations and recommendations, but shall not be responsible for the interpretations by others of the information developed. Our services consist of professional consultation and observation only, and no warranty is expressed, implied, or intended in connection with the work performed by us, by the furnishing of oral or written reports or findings.

APPENDIX A

BORING LOGS

APPENDIX A-1

FIELD EXPLORATION

Subsurface Exploration

The site exploration program was performed on the dates shown on the accompanying record of field exploration log sheets. Subsurface exploration was conducted in order to visually identify subgrade conditions, sample in-situ moisture and density, and other salient properties. Excavation locations were selected based on the proposed development concept relevance and necessity of subsurface data, and accessibility. The number and depth of these excavations are considered adequate for estimation of subsurface conditions and characteristics, based on the development concept discussed in the text of the accompanying report.

Excavation Log Sheets

Exploration borings are graphically shown on the following log sheets. Each log shows the total depth achieved, the materials encountered, their observed engineering properties, results of correlative laboratory tests, and the presence, if any, of groundwater, and the relative competency of excavation walls.

Classification

Earth materials encountered in the excavations were described in accordance with A.S.T.M. Test Designation D- 2487, visual classification of soils or aggregate rock mixtures, per the Unified Soil Classification System (U.S.C.S.). This classification system is explained on Page A-2 of Appendix A.

Sampling

Selected samples from these excavations were collected on site and transported to the laboratory in sealed containers in order to preserve field conditions. Relatively undisturbed samples for in-place soil moisture, density, shear strength, swell and/or consolidation potential were contained utilizing driven steel tubes or brass rings. Bulk samples were also obtained for determination of maximum density and optimum moisture, as well as for preparation of removed samples for selected laboratory tests. Laboratory testing procedures are described in Appendix B-1. Laboratory test results are shown on the accompanying log sheets, commencing with Figure A-3, and is shown in table format beginning with Figure B-2 in Appendix B.

Use of Logs

Subsurface data depicted on the accompanying logs represent subgrade conditions relevant to the specific location and date shown on Figure A-1-1 and the log sheets, respectively. Between exploratory excavations, subsurface conditions can and do change with respect to vertical and lateral extent, subsequent precipitation, land use, and other conditions. Interpretation of these logs by others is solely at the risk of the user. These logs document conditions which were used, in part, to form the basis of findings, conclusions and recommendations presented in the text of the accompanying report, and may have no relevance to other applications.

APPENDIX A-2

UNIFIED SOIL CLASSIFICATION SYSTEM

COARSE GRAINED SOILS (More than 50 percent of material is LARGER than No. 200 sieve size.)

GW Well-graded gravel, gravel-sand mixtures, little or no fines

GP Poorly graded gravel or gravel-sand mixtures, little or no fines

GM Silty gravel, gravel-sand-silt mixtures

GC Clayey gravel, gravel-sand-clay mixtures

SW Well-graded sands, gravelly sands, little or no fines

SP Poorly graded sands or gravelly sands, little or no fines

SM Silty sands, sand-silt mixtures

SC Clayey sands, sand-clay mixtures

FINE GRAINED SOILS (More than 50 percent of material is SMALLER than 200 sieve size)

ML Inorganic Silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity

CL Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays

OL Organic silts and organic silty clays of low plasticity

MH Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts

CH Inorganic clays of high plasticity, fat clays

OH Organic clays of high plasticity, organic silts

Pt Peat and other highly organic soils

Boundary Classifications: Soils possessing characteristics of two groups are designated by combinations of group symbols.

Particle Size Limits

< No. 200	Silt or Clay
No. 200 to No. 40	Fine Sand
No. 40 to No. 10	Medium Sand
No. 10 to No. 4	Coarse Sand
No. 4 to 3/4 inch	Fine Gravel
3/4 inch to 3 inch	Coarse Gravel
3 inch to 12 inch	Cobbles
> 12 inches	Boulders

Date: 1/23/2018	Logged By: JMR	Equipment: CME55	Sheet: 1 of 1	Boring No: B-1
Location: Figure A-1-1	Engineer: PA	Hammer: Std	No Groundwater Encountered	Total Depth: 5 ft.

Depth (ft.)	Blow Count	Sample Type	Moisture (%)	Dry Density	Visual Log	Soil Class	Material Description	Laboratory Test Results
	per 12"						**6.5" Asphalt Concrete (AC) No Aggregate Base (AB)**	
						SM	Fill - **Silty Sand**, dark yellowish brown, moist, dense.	
1	81/10"	R	5.3	123.2			Tco - **Sandstone**, Pale yellow (White), massive, medium-grained, friable, feldspahic, quartzose, abundant biotite.	Expansion Potential = Very Low, Index = 1 Max. Dry Density= 127 pcf, Optimum Moisture= Internal Friction Angle = 32 degrees Cohesion = 50 psf
2								
3								
4								
5								
6							**TD 5 ft.** **No Caving** **No Groundwater Encountered**	
7								
8								
9								
10								
11								
12								
13								

NOTE: Please refer to Figure A-2 for Explanation of symbols.

P. A. & ASSOCIATES, INC.

TITLE:	LOG OF EXPLORATORY BORING				FIGURE NO.:
PROJECT:	1 Saddleback Parkway, Lake Forest, California				A-3
PROJECT NO:	218111-101	DATE	3/12/2018	BY: jmr	

Date: 1/23/2018	Logged By: JMR	Equipment: CME55	Sheet: 1 of 1	Boring No: B-2
Location: Figure A-1-1	Engineer: PA	Hammer: Std	No Groundwater Encountered	Total Depth: 5 ft.

Depth (ft.)	Blow Count	Sample Type	Moisture (%)	Dry Density	Visual Log	Soil Class	Material Description	Laboratory Test Results
	per 12"						**5" Asphalt Concrete (AC) No Aggregate Base (AB)**	
1	52	R	7.4	126.4		SM	Fill - **Silty Sand**, dark yellowish brown to yellowish brown, moist, medium dense.	
2							Tco - **Sandstone**, Pale yellow (White), massive, medium-grained, friable, feldspahic, quartzose, abundant biotite.	
3								
4								
5								
6							**TD 5 ft.** **No Caving** **No Groundwater Encountered**	
7								
8								
9								
10								
11								
12								
13								

NOTE: Please refer to Figure A-2 for Explanation of symbols.

P. A. & ASSOCIATES, INC.

TITLE:	LOG OF EXPLORATORY BORING			FIGURE NO.:
PROJECT:	1 Saddleback Parkway, Lake Forest, California			A-4
PROJECT NO:	218111-101	DATE 3/12/2018	BY: jmr	

Date: 1/23/2018	Logged By: JMR	Equipment: CME55	Sheet: 1 of 1	Boring No: B-3
Location: Figure A-1-1	Engineer: PA	Hammer: Std	No Groundwater Encountered	Total Depth: 11.5 ft.

Depth (ft.)	Blow Count	Sample Type	Moisture (%)	Dry Density	Visual Log	Soil Class	Material Description	Laboratory Test Results
	per 12"						Turf	
1						SC	Fill - **Clayey Sand**, yellowish brown, moist, medium dense, medium-grained.	
2	45	R	8.9	114.8				
3								
4							Tco - **Sandstone**, Pale gray (White), massive, medium-grained, friable, feldspahic, quartzose, abundant biotite, occasional 1/4 " dark brown clay seams .	
5	97	R	7.8	124.1				
6							1/4" cemented interbeds	
7	51	R	9.0	126.0			occasional dark brown clay 1/4" interbeds	
8								
9								
10	59	R	7.0	126.1				
11							1/4" cemented interbeds	
12							**TD 11.5 ft.** **No Caving** **No Groundwater Encountered**	
13								

NOTE: Please refer to Figure A-2 for Explanation of symbols.

P. A. & ASSOCIATES, INC.

TITLE:	LOG OF EXPLORATORY BORING			FIGURE NO.:
PROJECT:	**1 Saddleback Parkway, Lake Forest, California**			**A-5**
PROJECT NO:	**218111-101**	DATE **3/12/2018**	BY: jmr	

Date: 1/23/2018	Logged By: JMR	Equipment: CME55	Sheet: 1 of 1	Boring No: B-4
Location: Figure A-1-1	Engineer: PA	Hammer: Std	No Groundwater Encountered	Total Depth: 5 ft.

Depth (ft.)	Blow Count	Sample Type	Moisture (%)	Dry Density	Visual Log	Soil Class	Material Description	Laboratory Test Results
	per 12"						Turf	
1						SM	Fill - **Silty Sand with trace fine and coarse Gravel**, yellowish brown, moist, medium dense, medium-grained.	
2	50	R	11.5	119.2				
3								
							Tco - **Sandstone**, Pale yellow (White), massive, medium-grained, friable, feldspahic, quartzose, abundant biotite.	
4								
5								
6							**TD 5 ft.** **No Caving** **No Groundwater Encountered**	
7								
8								
9								
10								
11								
12								
13								

NOTE: Please refer to Figure A-2 for Explanation of symbols.

P. A. & ASSOCIATES, INC.

TITLE:	LOG OF EXPLORATORY BORING			FIGURE NO.:
PROJECT:	1 Saddleback Parkway, Lake Forest, California			A-6
PROJECT NO: 218111-101	DATE 3/12/2018	BY: jmr		

Date: 1/23/2018	Logged By: JMR	Equipment: CME55	Sheet: 1 of 1	Boring No: B-5
Location: Figure A-1-1	Engineer: PA	Hammer: Std	No Groundwater Encountered	Total Depth: 5 ft.

Depth (ft.)	Blow Count	Sample Type	Moisture (%)	Dry Density	Visual Log	Soil Class	Material Description	Laboratory Test Results
	per 12"					GP/GM	Fill - **Pea Gravel/Silty Pea Gravel,** moist, dark yellowish brown, dense.	
1						SM	Fill - **Silty Sand with trace fine Gravel**, yellowish brown, moist, medium dense, medium-grained.	
2	62	R	7.1	129.3				
3							Tco - **Sandstone**, Pale yellow (White), massive, medium-grained, friable, feldspahic, quartzose, abundant biotite.	
4								
5								
6							**TD 5 ft.** **No Caving** **No Groundwater Encountered**	
7								
8								
9								
10								
11								
12								
13								

NOTE: Please refer to Figure A-2 for Explanation of symbols.

P. A. & ASSOCIATES, INC.

TITLE:	LOG OF EXPLORATORY BORING			FIGURE NO.:
PROJECT:	1 Saddleback Parkway, Lake Forest, California			A-7
PROJECT NO: 218111-101	DATE 3/12/2018	BY: jmr		

Date: 1/23/2018	Logged By: JMR	Equipment: CME55	Sheet: 1 of 1	Boring No: B-6
Location: Figure A-1-1	Engineer: PA	Hammer: Std	No Groundwater Encountered	Total Depth: 3 ft.

Depth (ft.)	Blow Count	Sample Type	Moisture (%)	Dry Density	Visual Log	Soil Class	Material Description	Laboratory Test Results
	per 12"						Turf	
1							Tco - **Sandstone**, Pale yellow (White), massive, medium-grained, friable, feldspahic, quartzose, abundant biotite.	
2	75/11"	R	7.9	118.4				
3								
4							**TD 3 ft.** **No Caving** **No Groundwater Encountered**	
5								
6								
7								
8								
9								
10								
11								
12								
13								

NOTE: Please refer to Figure A-2 for Explanation of symbols.

P. A. & ASSOCIATES, INC.

TITLE:	LOG OF EXPLORATORY BORING			FIGURE NO.:
PROJECT:	1 Saddleback Parkway, Lake Forest, California			A-8
PROJECT NO:	218111-101	DATE 3/12/2018	BY: jmr	

Date: 1/23/2018	Logged By: JMR	Equipment: CME55	Sheet: 1 of 1	Boring No: B-7
Location: Figure A-1-1	Engineer: PA	Hammer: Std	No Groundwater Encountered	Total Depth: 5 ft.

Depth (ft.)	Blow Count	Sample Type	Moisture (%)	Dry Density	Visual Log	Soil Class	Material Description	Laboratory Test Results
	per 12"						Turf	
1						SM	Fill - **Silty Sand**, yellowish brown, moist, medium dense, medium-grained.	
2	65	R	8.6					
3							Tco - **Sandstone**, Pale yellow (White), massive, medium-grained, friable, feldspahic, quartzose, abundant biotite.	
4								
5								
6							**TD 5 ft.** **No Caving** **No Groundwater Encountered**	
7								
8								
9								
10								
11								
12								
13								

NOTE: Please refer to Figure A-2 for Explanation of symbols.

P. A. & ASSOCIATES, INC.

TITLE:	LOG OF EXPLORATORY BORING			FIGURE NO.:
PROJECT:	1 Saddleback Parkway, Lake Forest, California			A-9
PROJECT NO: 218111-101	DATE 3/12/2018	BY: jmr		

Date: 1/23/2018	Logged By: JMR	Equipment: CME55	Sheet: 1 of 1	Boring No: B-8
Location: Figure A-1-1	Engineer: PA	Hammer: Std	No Groundwater Encountered	Total Depth: 8 ft.

Depth (ft.)	Blow Count	Sample Type	Moisture (%)	Dry Density	Visual Log	Soil Class	Material Description	Laboratory Test Results
	per 12"						Turf	
1						SC	Fill - **Clayey Sand**, yellowish brown, moist, medium dense, medium-grained.	
2	64	R	7.4	127.8				
3								
4							Tco - **Sandstone**, Pale gray (White), massive, medium-grained, friable, feldspahic, quartzose, abundant biotite, occasional 1/4 " dark brown clay seams .	
5	53	R	9.0	125.6				
6								
7	63/10"	R	8.9	114.4			1/4" cemented interbed	
8								
9							**TD 8 ft.** **No Caving** **No Groundwater Encountered**	
10								
11								
12								
13								

NOTE: Please refer to Figure A-2 for Explanation of symbols.

P. A. & ASSOCIATES, INC.

TITLE:	LOG OF EXPLORATORY BORING			FIGURE NO.:
PROJECT:	**1 Saddleback Parkway, Lake Forest, California**			**A-10**
PROJECT NO:	**218111-101**	DATE **3/12/2018**	BY: jmr	

Date: 1/23/2018	Logged By: JMR	Equipment: CME55	Sheet: 1 of 1	Boring No: B-9
Location: Figure A-1-1	Engineer: PA	Hammer: Std	No Groundwater Encountered	Total Depth: 6.5 ft.

Depth (ft.)	Blow Count	Sample Type	Moisture (%)	Dry Density	Visual Log	Soil Class	Material Description	Laboratory Test Results
	per 12"						Ground cover (succulents)	
1						SM	Fill - **Silty Sand with some fine and coarse Gravel**, gray, moist, medium dense, medium-grained.	
2							some fine rounded gravel	
3						SC	Fill -**Clayey Sand**, dark gray, moist, medium dense, medium-grained.	
4								
5	68	R	7.5	109.6			Tco - **weathered Sandstone**, pale reddish yellow and pale yellow (White), massive, medium-grained, friable, feldspahic,	
6								
7							**TD 6.5 ft.** **No Caving** **No Groundwater Encountered**	
8								
9								
10								
11								
12								
13								

NOTE: Please refer to Figure A-2 for Explanation of symbols.

P. A. & ASSOCIATES, INC.

TITLE:	LOG OF EXPLORATORY BORING			FIGURE NO.:
PROJECT:	1 Saddleback Parkway, Lake Forest, California			A-11
PROJECT NO: 218111-101	DATE 3/12/2018	BY: jmr		

Date: 1/23/2018	Logged By: JMR	Equipment: CME55	Sheet: 1 of 1	Boring No: B-10
Location: Figure A-1-1	Engineer: PA	Hammer: Std	No Groundwater Encountered	Total Depth: 15 ft.

Depth (ft.)	Blow Count	Sample Type	Moisture (%)	Dry Density	Visual Log	Soil Class	Material Description	Laboratory Test Results
	per 12"						Turf	
						SC	Alluvium? - **Clayey Sand**, very dark brown, moist, loose, medium-grained.	Expansion Potential = Very Low, Index = 15 Max. Dry Density=123 pcf, Optimum
						SC/CL	Residual Soil - **Clayey Sand/Sandy Clay**, yellowish brown to dark brown, moist, firm, medium-grained.	
5	93/9"	R	9.0	130.7				
							Tco - **Sandstone**, Pale yellow (White), massive, medium-grained, friable, feldspahic, quartzose, abundant biotite.	
							Percolation Test Boring **Test from 5' to 10'**	
10								
15								
							TD 15 ft. **No Caving** **No Groundwater Encountered**	
20								
25								

NOTE: Please refer to Figure A-2 for Explanation of symbols.

P. A. & ASSOCIATES, INC.

TITLE:	LOG OF EXPLORATORY BORING			FIGURE NO.:
PROJECT:	1 Saddleback Parkway, Lake Forest, California			A-12
PROJECT NO: 218111-101	DATE 3/12/2018	BY: jmr		

Date: 1/23/2018	Logged By: JMR	Equipment: CME55	Sheet: 1 of 1	Boring No: B-11
Location: Figure A-1-1	Engineer: PA	Hammer: Std	No Groundwater Encountered	Total Depth: 11.5 ft.

Depth (ft.)	Blow Count	Sample Type	Moisture (%)	Dry Density	Visual Log	Soil Class	Material Description	Laboratory Test Results
	per 12"						Turf	
1						SC	Fill - **Clayey Sand with some fine and coarse Gravel**, gray/brown, moist, medium dense, medium-grained.	
2								
3								
4								
5	53	R	10.1	108.8				
6								
7								
8								
9								
10	64	R	9.2	108.3				
11								
12							**TD 11.5 ft.** **No Caving** **No Groundwater Encountered**	
13								

NOTE: Please refer to Figure A-2 for Explanation of symbols.

P. A. & ASSOCIATES, INC.

TITLE:	LOG OF EXPLORATORY BORING			FIGURE NO.:
PROJECT:	**1 Saddleback Parkway, Lake Forest, California**			**A-13**
PROJECT NO:	**218111-101**	DATE **3/12/2018**	BY: jmr	

Date: 1/23/2018	Logged By: JMR	Equipment: CME55	Sheet: 1 of 1	Boring No: B-12
Location: Figure A-1-1	Engineer: PA	Hammer: Std	No Groundwater Encountered	Total Depth: 6.5 ft.

Depth (ft.)	Blow Count	Sample Type	Moisture (%)	Dry Density	Visual Log	Soil Class	Material Description	Laboratory Test Results
	per 12"						Turf	
1						SC	**Fill - Clayey Sand with some Gravel**, yellowish brown and yellowish reddish brown, moist, medium dense to dense,	
2								
3								
4								
5	63	R	10.7	119.8				
6						SC	Qvoa? - **Clayey Sand with some Gravel**, yellowish reddish brown, moist, dense, medium-grained, roots.	
7								
8							**TD 6.5 ft.** **No Caving** **No Groundwater Encountered**	
9								
10								
11								
12								
13								

NOTE: Please refer to Figure A-2 for Explanation of symbols.

P. A. & ASSOCIATES, INC.

TITLE:	LOG OF EXPLORATORY BORING			FIGURE NO.:
PROJECT:	**1 Saddleback Parkway, Lake Forest, California**			**A-14**
PROJECT NO:	**218111-101**	DATE **3/12/2018**	BY: jmr	

Date: 1/23/2018	Logged By: JMR	Equipment: CME55	Sheet: 1 of 2	Boring No: B-13
Location: Figure A-1-1	Engineer: PA	Hammer: Std	No Groundwater Encountered	Total Depth: 30 ft.

Depth (ft.)	Blow Count	Sample Type	Moisture (%)	Dry Density	Visual Log	Soil Class	Material Description	Laboratory Test Results
	per 12"						Turf	
						SC	Fill - **Clayey Sand**, yellowish brown, moist, medium dense, medium-grained.	
							Tco - **Sandstone**, Pale gray (White), massive, medium-grained, friable, feldspahic, quartzose, abundant biotite.	
5	75/11"	R	9.4	115.7				
10	57	R	8.8	124.4				
15								
20	50/5"	R	2.1	97.9				
25							grinding rock, powder cuttings at 25'	

NOTE: Please refer to Figure A-2 for Explanation of symbols.

P. A. & ASSOCIATES, INC.

TITLE:	LOG OF EXPLORATORY BORING			FIGURE NO.:
PROJECT:	1 Saddleback Parkway, Lake Forest, California			A-15
PROJECT NO: 218111-101	DATE 3/12/2018	BY: jmr		

Date: 1/23/2018	Logged By: JMR	Equipment: CME55	Sheet: 2 of 2	Boring No: B-13
Location: Figure A-1-1	Engineer: PA	Hammer: Std	No Groundwater Encountered	Total Depth: 30 ft.

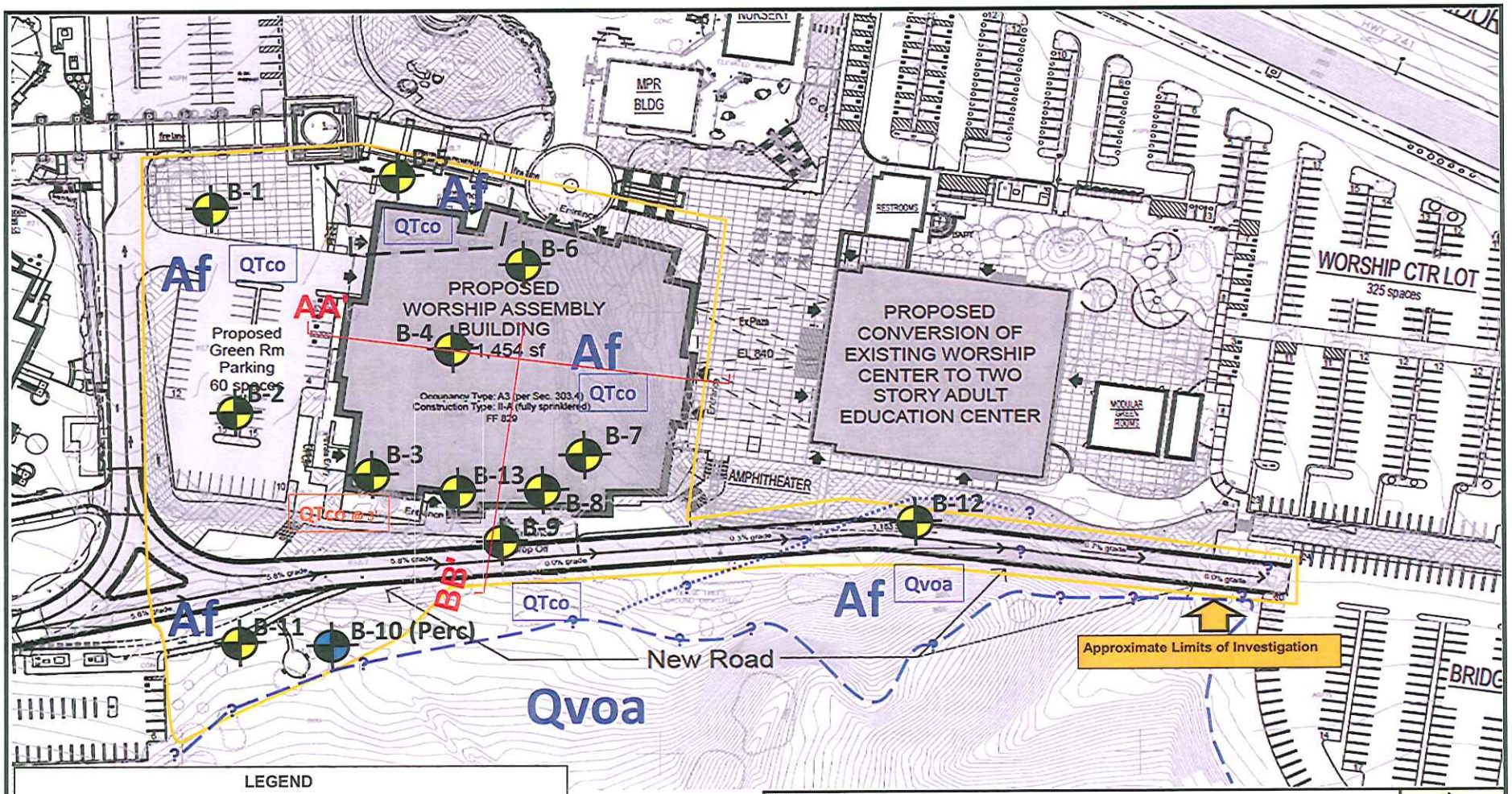
Depth (ft.)	Blow Count	Sample Type	Moisture (%)	Dry Density	Visual Log	Soil Class	Material Description	Laboratory Test Results
	per 12"						Tco - **Sandstone**, Pale yellow (White), massive, medium-grained, friable, feldspahic, quartzose, abundant biotite.	
30								
							TD 30 ft. **No Caving** **No Groundwater Encountered**	
35								
40								
45								
50								

NOTE: Please refer to Figure A-2 for Explanation of symbols.

P. A. & ASSOCIATES, INC.

TITLE:	LOG OF EXPLORATORY BORING				FIGURE NO.:
PROJECT:	1 Saddleback Parkway, Lake Forest, California				A-16
PROJECT NO:	218111-101	DATE	3/12/2018	BY: jmr	

GEOTECHNICAL PLAN



LEGEND

Af	Artificial Fill
Qvoa	Very Old Axial Channel Deposits
Tco	Tertiary Capistrano Formation - Oso Member
B-13	Approximate Boring Location
B-10 (Perc)	Approximate Percolation Test Boring Location

Reference: Campus Plan prepared by Timeless Architecture, Inc.

Scale: 0 50' 100' 200'

North

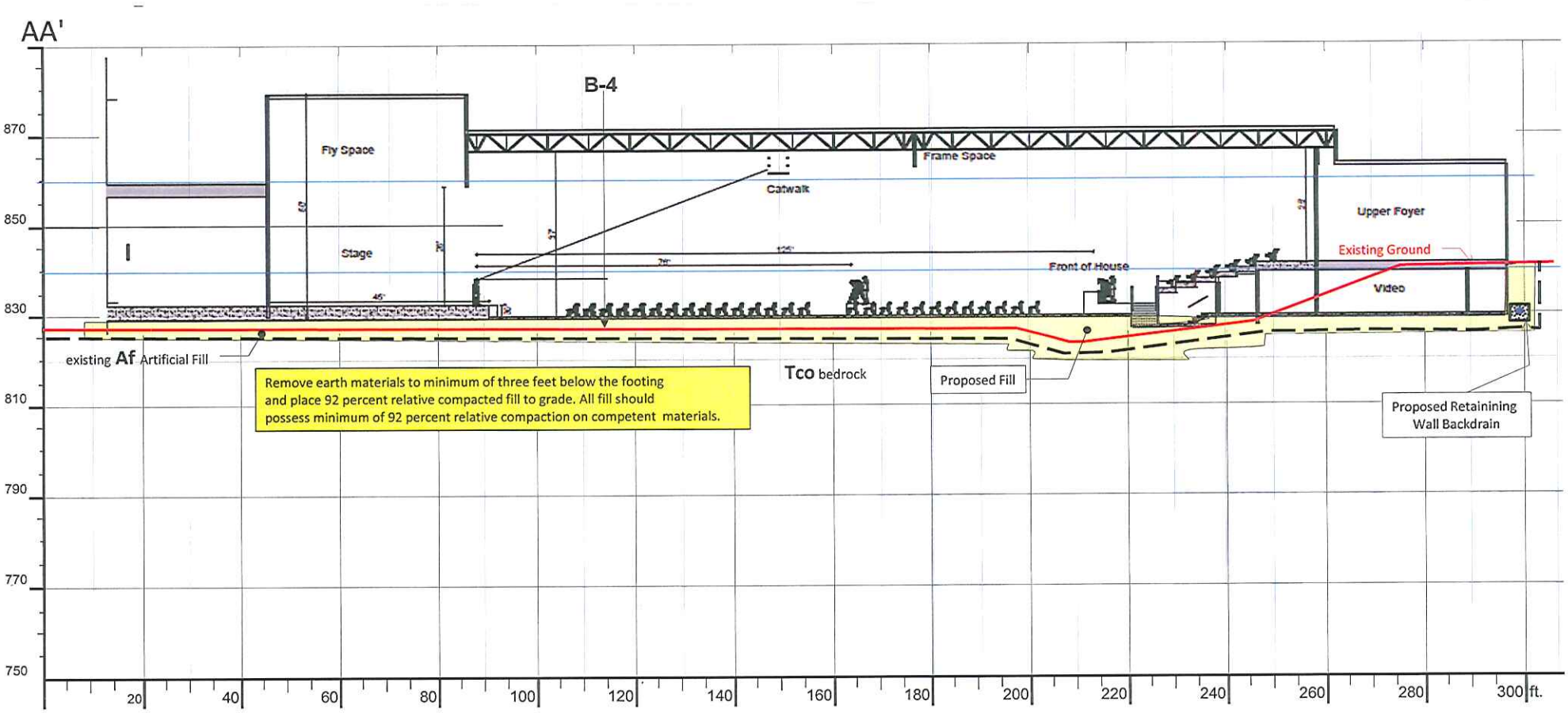
P.A. & ASSOCIATES, Inc.

TITLE: BORING LOCATION PLAN

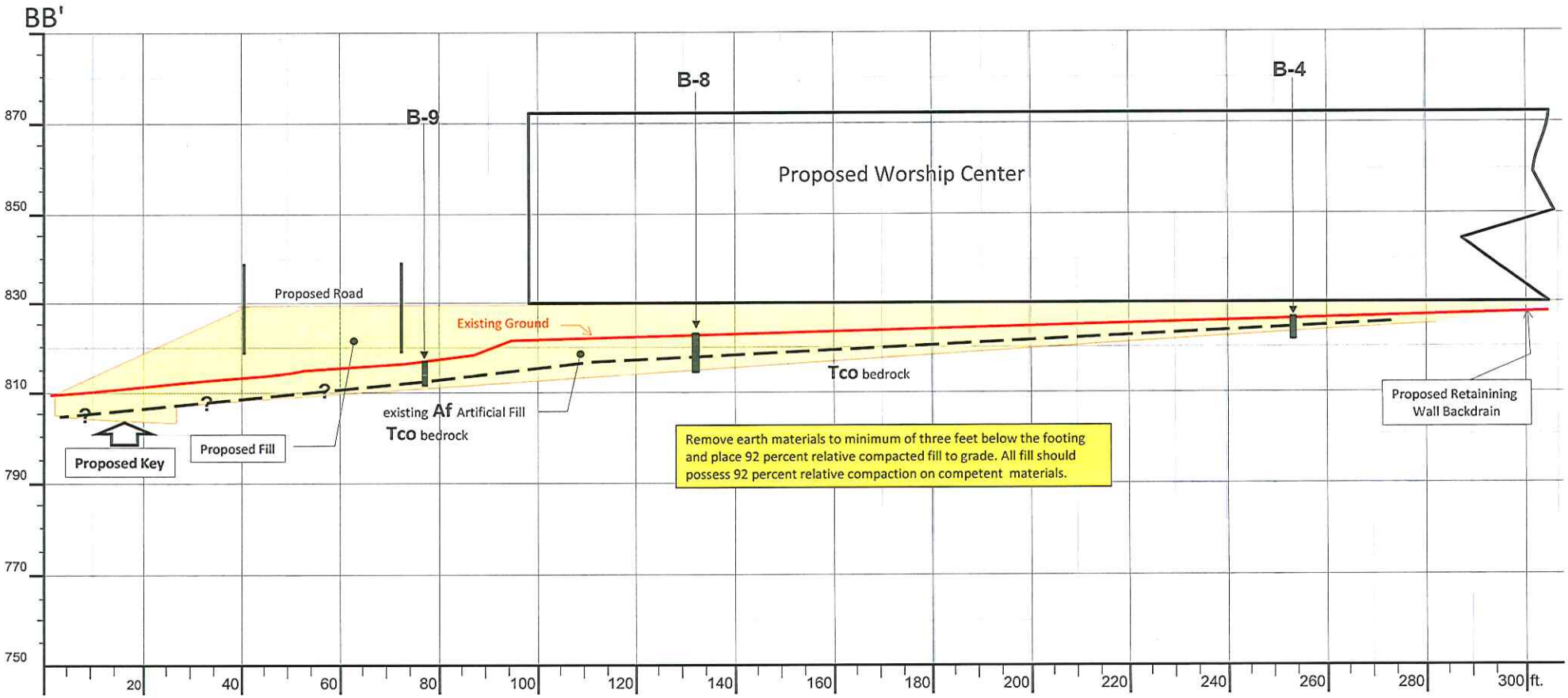
PROJECT: 1 Saddleback Parkway, Lake Forest, California

PROJECT NO: 218111-101 DATE: 3/12/2018 BY: jr

FIGURE NO.: A-1-1



Reference:	Building Section A301, by Timeless Architecture, Inc.			
Scale:				FIGURE NO.:
P.A. & ASSOCIATES, Inc.	TITLE:	GEOTECHNICAL CROSS SECTION AA'		A-1-2
	PROJECT:	1 Saddleback Parkway, Lake Forest, California		
	PROJECT NO: 218111-101	DATE: 3/12/2018	BY: jmr	



Reference:	Campus Plan prepared by Timeless Architecture. Inc.			
Scale:				FIGURE NO.:
P.A. & ASSOCIATES, Inc.	TITLE:	GEOTECHNICAL CROSS SECTION BB'		A-1-3
	PROJECT:	1 Saddleback Parkway, Lake Forest, California		
	PROJECT NO: 218111-101	DATE: 3/12/2018	BY: jmr	

APPENDIX B

LABORATORY TESTING

APPENDIX B-1

LABORATORY TESTING PROGRAM

Laboratory tests were performed on selected samples in accordance with one or more of the standard testing methods shown below. A summary of laboratory test results follows, beginning with Appendix B-2. Discussion, conclusions and recommendations pertaining to these results may be found in the text of the accompanying report.

Unified Building Code

No. 18-2 Expansion Potential

State of California
Department of Transportation
(CALTRANS)

No. 216 In-Place Soil Density
No. 301 Resistance (R-Value)

American Standards
for Testing and Materials
(A.S.T.M)

D4829-11	Expansion Potential
D-421-85(2007)	Grain Size Analysis - Mechanical Method
D-422-63(2007)e2	Grain Site Analysis - Hydrometer Method
D-698-12e2	Moisture, Density
D-854-14	Specific Gravity
D-1556/- D-1556M-15e1	In-Place Soil Density - Sand Cone
D-1557-12e1	Maximum Density and Optimum Moisture
D-1883-16	California Bearing Ratio
D-4254-16	Relative Density
D-2166/D2166M-16	Unconfined Compression
D-2216-10	Water Content Determination
D-2419-14	Sand Equivalence Testing
D-2435/D2435M-11	Consolidation Testing
D-2487-11	Unified Soil Classification System
D-2937-10	In-Place Soil Density - Driven Tube
D-3080/D3080M-11	Direct Shear
D-4318-10e1	Liquid and Plastic Limits and Plasticity Index
D-4253-16	Maximum Index Density
D-4254-16	Maximum Index Density

APPENDIX B-2

LABORATORY TESTING PROGRAM

Expansion Test Results

Location	Depth (Feet)	Soil Type	Expansion Index	Expansion Potential
B-1	1-5	Sand, medium-grained pale yellow (white)	1	Very Low
B-3	1-5	Clayey Sand, medium-grained yellowish brown	15	Very Low

Maximum Dry Density - Optimum Moisture

Location	Depth (ft)	Soil Type	Maximum Dry Density	Optimum Moisture
B-1	1-5	Sand, medium-grained pale yellow (white)	127.0 pcf.	8.5 %
B-10	1-5	Clayey Sand, medium-grained dark brown	123.0 pcf.	9.5 %

Direct Shear Strength

Location	Depth (ft)	Soil Type	Internal Friction Angle	Cohesion (psf)
B-1	1-5	Sand, medium-grained pale yellow (white)	32 degrees	50

APPENDIX B2 (Continued)

LABORATORY TEST SUMMARY

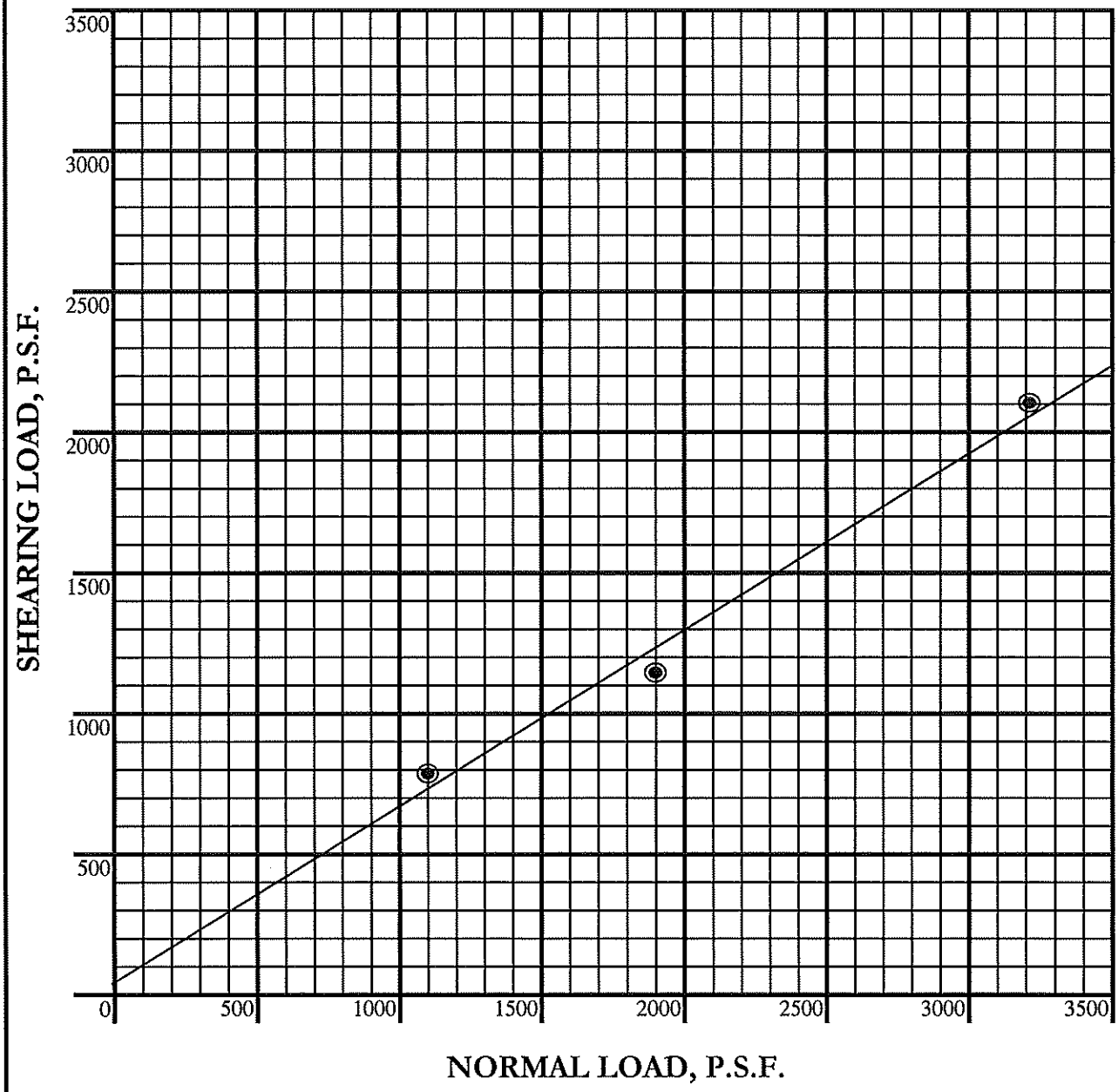
Sieve Analysis

Location	Depth (ft.)	Percent finer than ¾" (.75", 19 mm)	Percent finer than No.4 (.187", 4.75 mm)	Percent finer than No.16 (0.0459", 1.19 mm)
B-10	1-5	100.0%	95.9%	86.6%

Location	Depth (ft.)	Percent finer than No.40 (0.0165", 420 microns)	Percent finer than No.100 (0.0058", 0.147 mm)	Percent finer than No.200 (0.0029", 0.075 mm)
B-10	3-7	69.2%	43.7%	37.3%

PLATE B-3

DIRECT SHEAR SUMMARY



PROJECT NO.	218111-101
CLIENT NAME	Saddleback Church
BORING NO.	B-1
DEPTH	1-5 ft.
SATURATED	NO YES x
UNDISTURBED	
REMOLDED TO	90 %

P. A. & ASSOCIATES, INC.

INTERNAL FRICTION ANGLE 32°

COHESION 50 **P.S.F.**

APPENDIX C

PERCOLATION TEST DATA SHEET

Perc Test Data Sheet

Project: Saddleback Church Worship Center			Project File No.: 218111-101
Test Hole No.B-10	Tested by: DAJR	USCS: SP	Date: 2/24/2018
Depth of Hole (8" Dia.) as Drilled: 15 ft.		Before Test: 15 ft.	After Test: 15 ft.

Trial No.	Start Time	Stop Time	Time Interval (min)	Initial Depth to Water (in.)	Final Depth to Water (in.)	△ In Water Level (in.)	Greater than or Equal to 6"? (y/n)
1	9:05 AM	9:30 AM	25	5.00	8.75	3.75	n

If two consequtive measurements show that six inches of water seep away in less than 25 minutes, the test shall be run for an additional hour with measurements taken every ten minutes. Oherwise, presoak fill overnight. Obtain at least twelve measurements per hole over at least six hours (approximately 30 minute intervals) with a precision of at least 0.25".

Trial No.	Start Time	Stop Time	Time Interval (min)	Initial Depth to Water (in.)	Final Depth to Water (in.)	△ In Water Level (in.)	Percolation Rate (min./in.)
1	9:00 AM	9:30 AM	30	5.00	8.50	3.50	8.57
2	9:30 AM	10:00 AM	30	5.00	8.25	3.25	9.23
3	10:00 AM	10:30 AM	30	5.00	8.10	3.10	9.68
4	10:30 AM	11:00 AM	30	5.00	7.75	2.75	10.91
5	11:00 AM	11:30 AM	30	5.00	7.50	2.50	12.00
6	11:30 AM	12:00 PM	30	5.00	7.25	2.25	13.33
7	12:00 PM	12:30 PM	30	5.00	7.25	2.25	13.33
8	12:30 PM	1:00 PM	30	5.00	7.20	2.20	13.64
9	1:00 PM	1:30 PM	30	5.00	7.00	2.00	15.00
10	1:30 PM	2:00 PM	30	5.00	7.10	2.10	14.29
11	2:00 PM	2:30 PM	30	5.00	7.00	2.00	15.00
12	2:30 PM	3:00 PM	30	5.00	7.00	2.00	15.00
13							
14							
15							

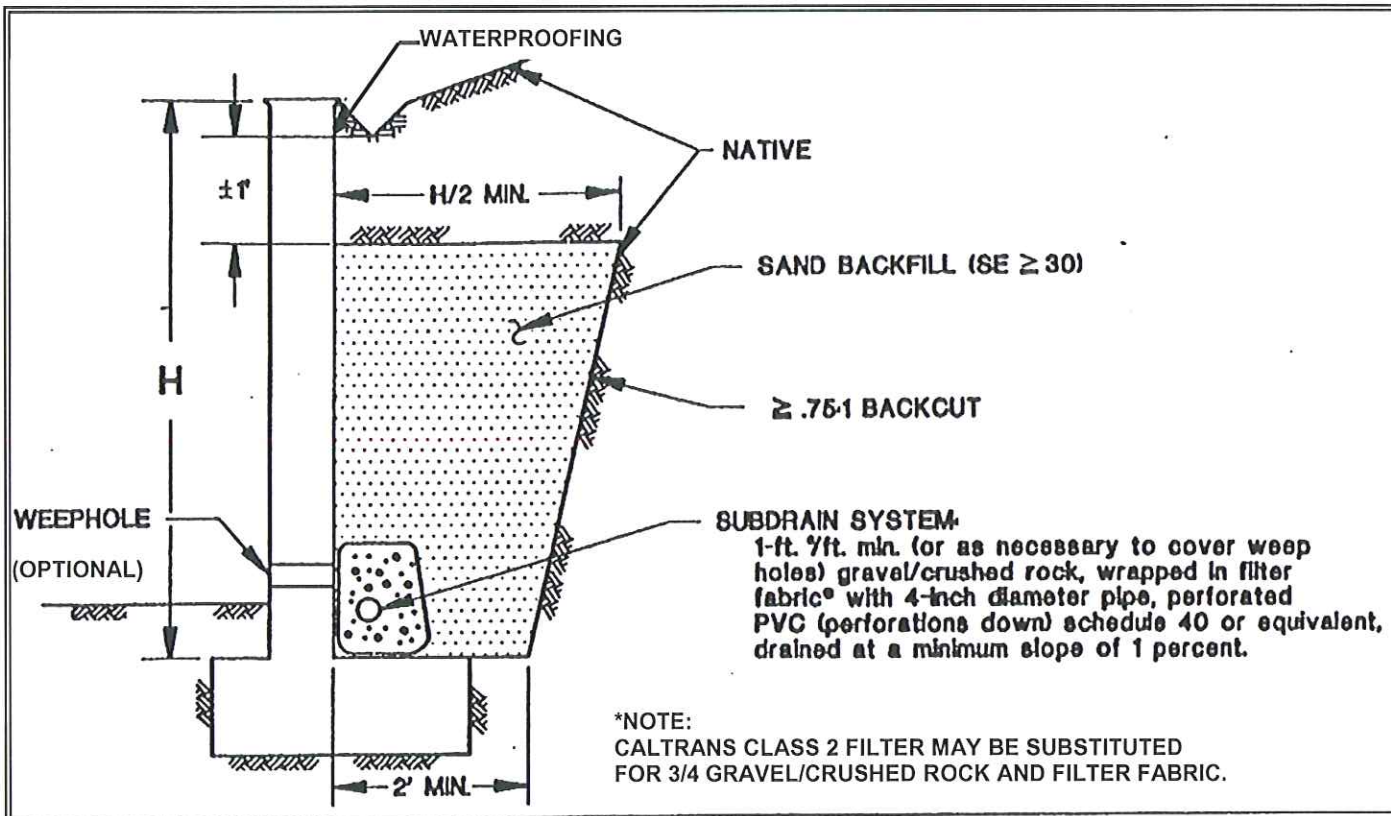
P. A. & ASSOCIATES, INC.

Plate No.1

APPENDIX D

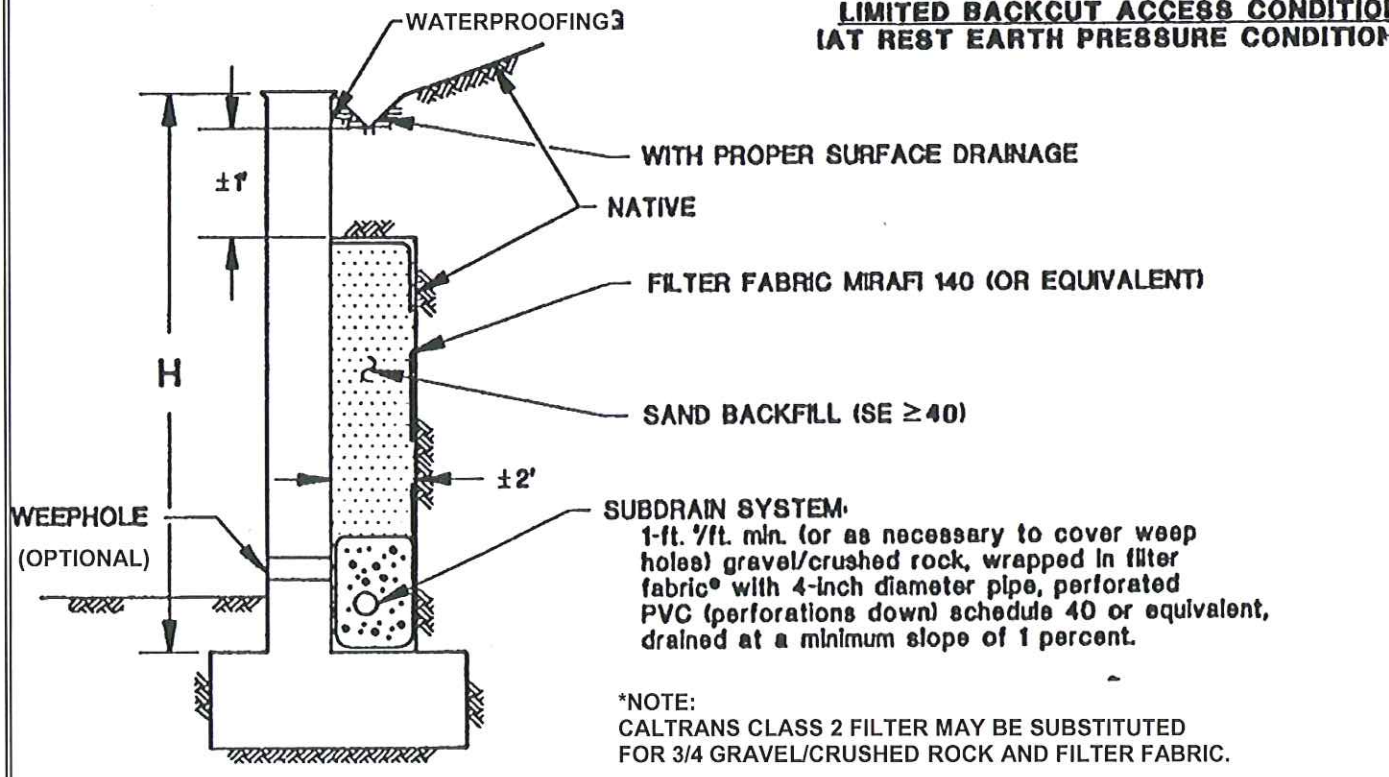
TYPICAL RETAINING WALL, TEMPORARY SHORING AND BRACING DESIGN

KEYWAY AND BENCHING SUBDRAIN INSTALLATION & CANYON SUBDRAIN DETAILS



*NOTE:
CALTRANS CLASS 2 FILTER MAY BE SUBSTITUTED FOR 3/4 GRAVEL/CRUSHED ROCK AND FILTER FABRIC.

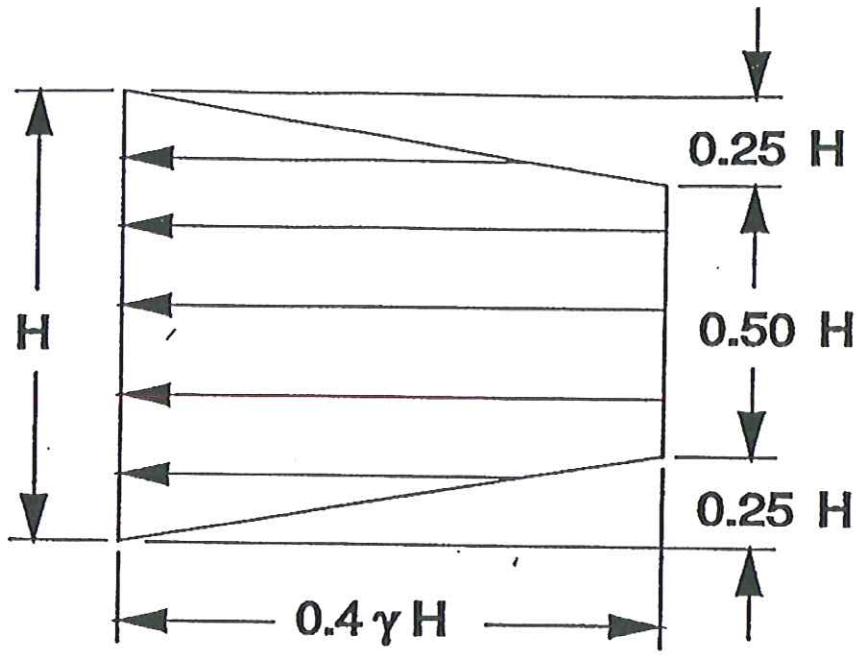
LIMITED BACKCUT ACCESS CONDITION (AT REST EARTH PRESSURE CONDITION)



*NOTE:
CALTRANS CLASS 2 FILTER MAY BE SUBSTITUTED FOR 3/4 GRAVEL/CRUSHED ROCK AND FILTER FABRIC.

INFORMATION DEPICTED ON THIS DETAIL IS FOR TYPICAL CONDITIONS AND SUBJECT TO CHANGE BY THE GEOTECHNICAL CONSULTANT.

P.A. & ASSOCIATES, Inc.	TITLE:	TYPICAL RETAINING WALL DETAILS		FIGURE NO.:
	PROJECT:	1 Saddleback Pkwy., Lake Forest, California		D-1
	PROJECT NO: 218111-101	DATE: 3/12/2018	BY: jmr	

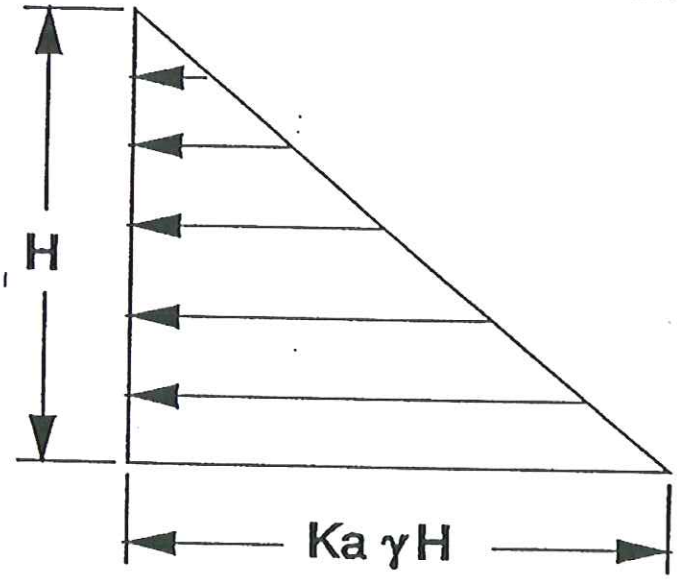


(1) Braced

Where:

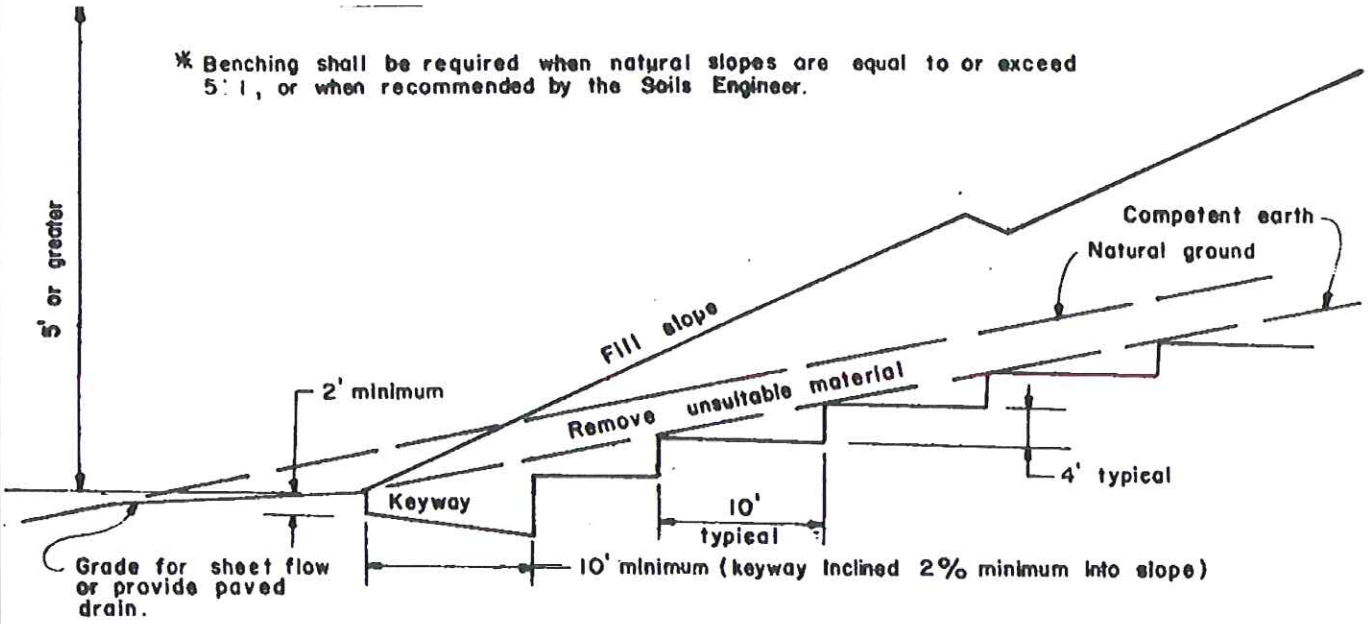
Ka= 0.26

γ =125 pcf

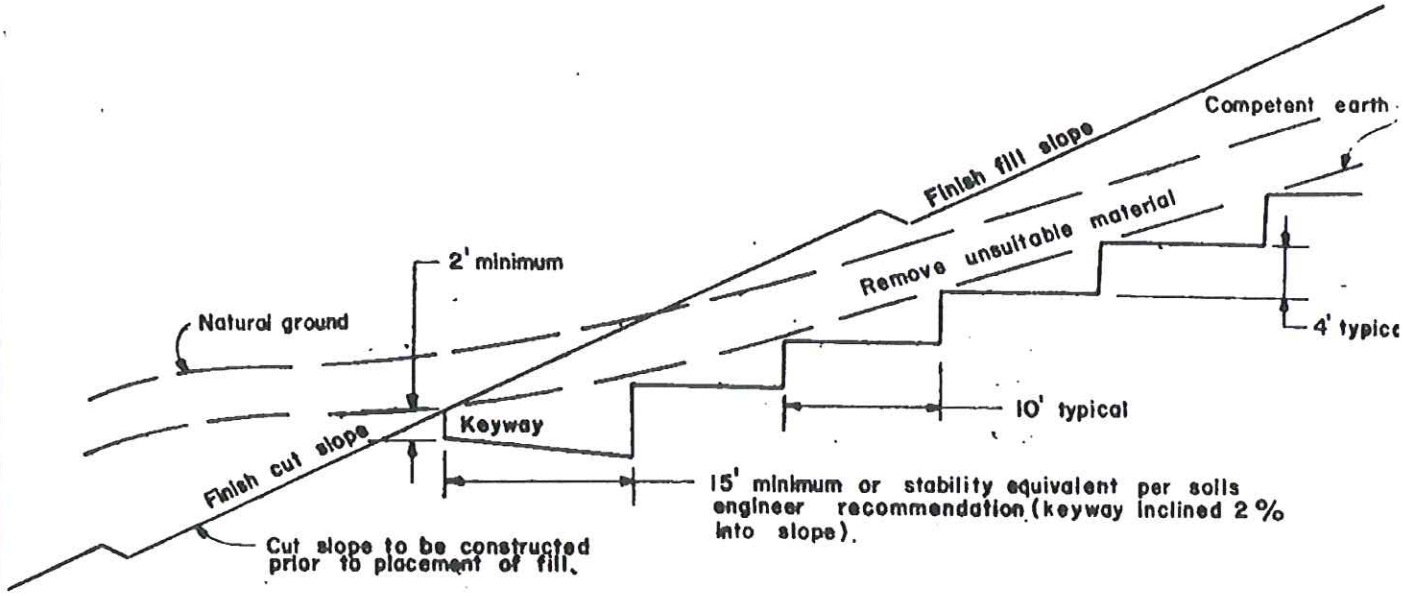


(2) Shored

P.A. & ASSOCIATES, Inc.	TITLE: TEMPORARY SHORING & BRACING DESIGN			FIGURE NO.:
	PROJECT: 1 Saddleback Pkwy., Lake Forest, California			D-2
	PROJECT NO: 218111-101	DATE: 3/12/2018	BY: jmr	

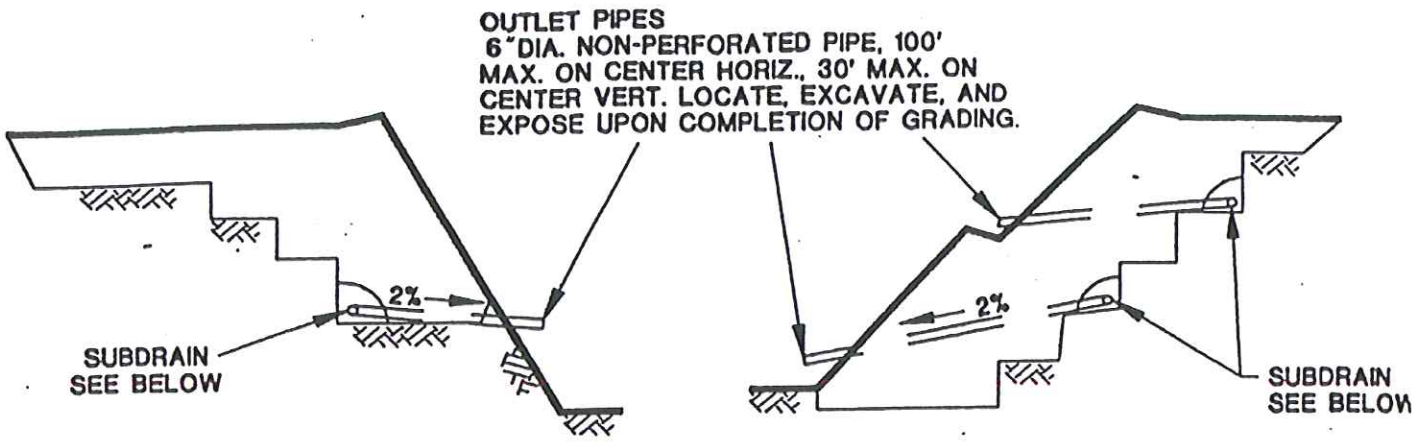


BENCHED FILL OVER NATURAL*



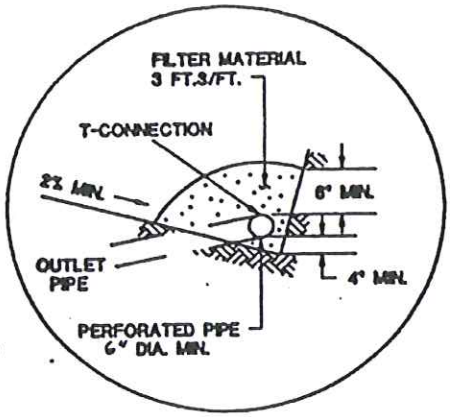
BENCHED FILL · OVER CUT

P.A. & ASSOCIATES, Inc.	TITLE:	KEYWAY & BENCH FILL OVER CUT			FIGURE NO.:
	PROJECT:	1 Saddleback Pkwy., Lake Forest, California			D-3
	PROJECT NO:	218111-101	DATE: 3/12/2018	BY: jmr	

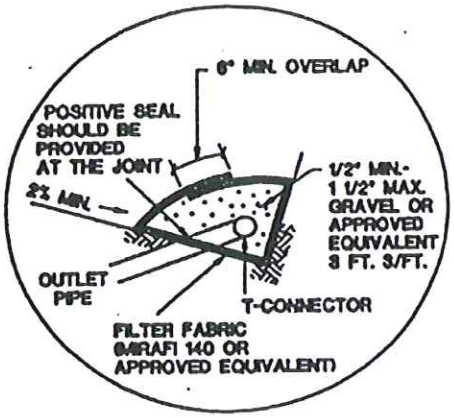


TYPICAL KEYWAY SUBDRAIN

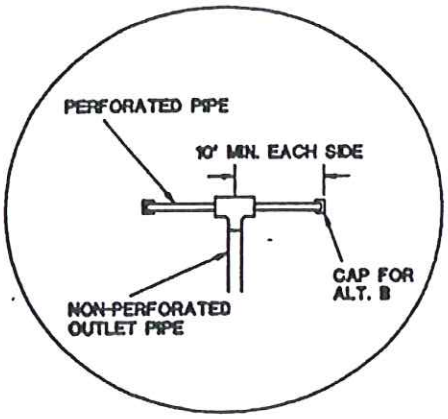
TYPICAL BUTTRESS SUBDRAINS



ALTERNATE A



ALTERNATE B



T-CONNECTION

FILTER MATERIAL:
Filter material shall be Class 2 permeable material per State of California Standard Specifications, or approved alternate.
Class 2 grading as follows:

SIEVE SIZE	PERCENT PASSING
1"	100
3/4"	90-100
3/8"	40-100
No. 4	25-40
No. 8	18-33
No. 30	5-15
No. 50	0-7
No. 200	0-3

NOTES:

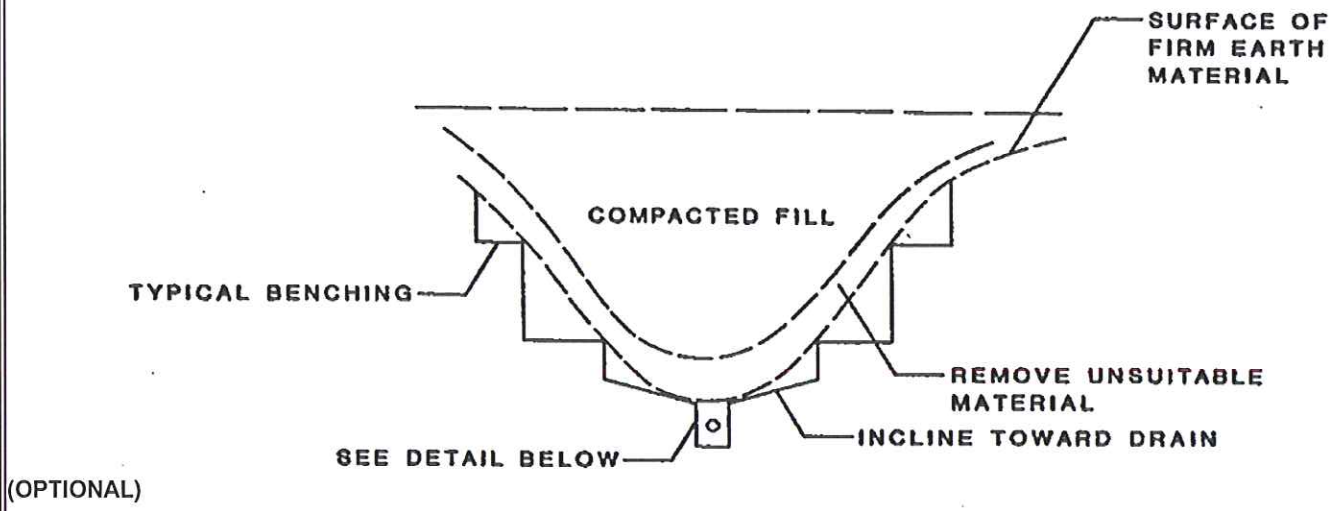
Trench for outlet pipes to be backfilled with on-site soil.

SUBDRAIN INSTALLATION: Subdrain pipe shall be installed with perforations down or non-perforated pipe shall be used at locations designed by the geotechnical consultant.

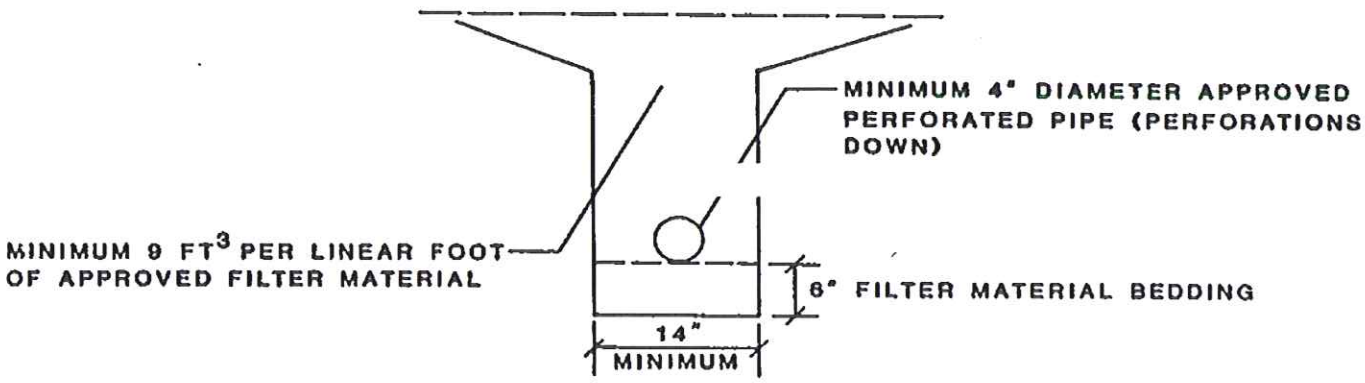
SUBDRAIN TYPE: Subdrain type shall be ASTM C508 Asbestos Cement Pipe (ACP) or ASTM D2751, SDR 35 or ASTM D1527, Schedule 40 Acrylonitrile Butadiene Styrene (ABS) or ASTM D3034 SDR 35 or ASTM D1785, Schedule 40 Polyvinyl Schloride Plastic (PVC) pipe or approved equivalent.

INFORMATION DEPICTED ON THIS DETAIL ARE FOR TYPICAL CONDITIONS AND SUBJECT TO CHANGE BY THE GEOTECHNICAL CONSULTANT

P.A. & ASSOCIATES, Inc.	TITLE: TYPICAL SUBDRAIN INSTALLATION DETAIL			FIGURE NO.:
	PROJECT: 1 Saddleback Pkwy., Lake Forest, California			D-4
	PROJECT NO: 218111-101	DATE: 3/12/2018	BY: jmr	



DETAIL



FILTER MATERIAL TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUAL:

SIEVE SIZE	PERCENTAGE
1"	100
3/4"	90-100
3/8"	40-100
NO.4	25-40
NO.30	5-15
NO.50	0-7
NO.200	0-3

APPROVED PIPE TO BE SCHEDULE 40 POLY-VINYL-CHLORIDE (P.V.C.) OR APPROVED EQUAL. MINIMUM CRUSH STRENGTH 1000 psi

PIPE DIAMETER TO MEET THE FOLLOWING CRITERIA, SUBJECT TO FIELD REVIEW BASED ON ACTUAL GEOTECHNICAL CONDITIONS ENCOUNTERED DURING GRADING

LENGTH OF RUN	PIPE DIAMETER
UPPER 500'	4"
NEXT 1000'	6"
> 1500'	8"

P.A. & ASSOCIATES, Inc.	TITLE:	TYPICAL CANYON SUBDRAIN DETAIL			FIGURE NO.:
	PROJECT:	1 Saddleback Pkwy., Lake Forest, California			D-5
	PROJECT NO:	218111-101	DATE: 3/12/2018	BY: jmr	

APPENDIX E

RECOMMENDED GRADING SPECIFICATIONS
GENERAL PROVISIONS

NEW WORSHIP CENTER
SADDLEBACK CHURCH, 1 SADDLEBACK PARKWAY
LAKE FOREST, ORANGE COUNTY, CALIFORNIA

RECOMMENDED GRADING SPECIFICATIONS: GENERAL PROVISIONS

GENERAL INTENT

The intent of these specifications is to establish procedures for clearing and compacting natural ground, preparing areas to be filled, and placing and compacting fill soils to the grades shown on the grading plans currently in preparation. The recommendations contained in this preliminary Geotechnical Investigation are a part of the Recommended Grading Specifications and shall supersede the provisions contained hereafter in case of conflict. These specifications shall only be used in conjunction with the geotechnical report for which they are a part. No deviation from these specifications will be allowed, except where specified in the geotechnical report or in other written communication signed by the Soils Engineer and Engineering Geologist.

OBSERVATION AND TESTING

It is recommended that P.A. and Associates be retained as the Geotechnical Consultant to observe and test the earthwork in accordance with these specifications. It is necessary that the Soils Engineer and/or Engineering Geologist or his representative provide adequate observations so that he may provide an opinion as to whether the work was or was not accomplished as specified. Therefore, it shall be the responsibility of the contractor to assist us and to keep them apprised of work schedules, changes, new information, and other relevant data so that they may provide these opinions. In the event that any unusual conditions not covered by these provisions or the Preliminary Geotechnical Investigation are encountered during the grading operations, the Soils Engineer and/or Engineering Geologist shall be contacted for further recommendations.

If in the opinion of this firm, substandard conditions are encountered, such as: questionable or unsuitable soil, unacceptable moisture content, inadequate compaction, adverse weather, etc., construction shall be temporarily halted until the conditions are remedied or corrected or we shall recommend rejection of this work in accordance with the clients wishes.

Test methods used to determine the degree of compaction shall be performed in accordance with the following American Society for Testing and Materials (ASTM) test methods:

Maximum Density & Optimum Moisture Content - ASTM D-1557.
Density of Soil In-Place - ASTM D-1557 or ASTM D-2992.

All densities shall be expressed in terms of Relative Compaction as determined by the foregoing ASTM testing procedures.

PREPARATION OF AREAS TO RECEIVE FILL

All vegetation, brush and debris derived from clearing operations shall be removed, and legally disposed of off-site. All areas disturbed by site grading should be left in a neat and finished appearance, free from unsightly debris.

After clearing or benching, the natural ground in areas to be filled shall be scarified to a depth of 6 inches for the minimum degree of compaction as set forth in our preliminary geotechnical report. All loose soils should be removed to firm natural ground which shall be determined by the field Engineer/Geologist.

When the slope of the natural ground-receiving fill exceeds 20% or 5:1 (horizontal to vertical), the original ground shall be stepped or benched. Benches shall be cut to a firm competent soil condition. The key at the top of the slope shall be at least 15 feet wide or 1-1/2 times the equipment width, whichever is greater, and shall be sloped back into the hillside at a gradient of not less than two (2) percent. All other benches should be at least 10 feet wide. The horizontal portion of each bench shall be compacted prior to receiving fill as specified herein for compacted natural ground. Vertical separations between benches shall be at least 3 feet. Ground slopes flatter than 20% shall be benched when considered necessary by our on-site representative.

Any abandoned structures encountered during grading operations should be totally removed. All underground utilities to be abandoned beneath any proposed structure and/or surface improvement should be removed from within 10 feet of the structure or improvement and be properly capped off. The resulting depressions from the described procedures should be backfilled with acceptable soil that is compacted to the requirements of the Soils Engineer. This includes, but is not limited to, septic tanks, fuel tanks, sewer lines or leach lines, storm drains, water lines or other utilities. Any buried structures or utilities not to be abandoned should be brought to the immediate attention of the Soils Engineer, so that he may determine if any Special Recommendations will be necessary.

FILL MATERIAL

Materials to be placed in the fill shall be approved by the Soils Engineer and/or Engineering Geologist and shall be free of vegetable matter and other deleterious substances. Granular soil shall contain sufficient fine material to fill the voids. The definition and disposition of oversized rocks, expansive and/or detrimental soils are covered in the geotechnical report if expected. Expansive soils, soils of poor gradation, or soils with low strength characteristics may be thoroughly mixed with other soils to provide satisfactory fill material, but only with the explicit consent of the Soils Engineer. Any import material shall be approved by the Soils Engineer and/or Engineering Geologist before being brought to the site.

PLACING AND COMPACTION OF FILL

Approved fill material shall be placed in areas prepared to receive fill in layers not to exceed 6 inches in compacted thickness. Each layer shall have a uniform moisture content in the range that will allow the compaction effort to be efficiently applied to receive the specified degree of compaction. Each layer shall be uniformly compacted to a minimum specified degree of compaction with equipment of adequate size to economically compact the layer. Compaction equipment should either be specifically designed for soil compaction or be of proven reliability. The minimum degree of compaction to be achieved is specified in the recommendations contained in this report.

When the structural fill material includes rocks, no rocks will be allowed to nest and all voids must be carefully filled with soil such that the minimum degree of compaction recommended in the Special Provisions is achieved. The maximum size and spacing of rock permitted in structural fills and in non-structural fills, if allowed, are discussed in the geotechnical report, when applicable.

Field observation and compaction tests to estimate the degree of compaction of the fill will be taken by the Soils Engineer or his representative. The location and frequency of the tests shall be at the Soils Engineer's discretion. When the compaction test indicates that a particular layer is less than the required degree of compaction, the layer shall be reworked to the satisfaction of the Soils Engineer or his on-site representative and until the desired relative compaction has been obtained.

Fill slopes shall be compacted by means of sheepsfoot rollers or other suitable equipment. Compaction by sheepsfoot rollers shall be at vertical intervals of not greater than four feet. In addition, fill slopes at ratios of two horizontal to one vertical unit or flatter, should be gridrolled or track walked. Steeper fill slopes, which have been specifically approved by the governing agency and this office, shall be over-built and cut-back to finish contours after the slope has been constructed. Slope compaction operations shall result in all fill material which has been approved by the governing agency having a relative compaction of at least 90% of maximum dry density or that specified in the attached report.

The compaction operation of the slopes shall be continued until the Soils Engineer is of the opinion that the slopes will be stable with regard to surficial stability.

Slope tests will be made by the Soils Engineer or his on-site representative during construction of the slopes to determine if the required compaction is being achieved. Where failing tests or other field problems arise, the Contractor will be notified immediately of such conditions by written communication from the Soils Engineer or his representative in the form of a daily field report.

If the method of achieving the required slope compaction selected by the Contractor fails to produce the necessary results, the Contractor shall rework or rebuild such slopes until the required degree of compaction is obtained, at no cost to the client or P.A. & Associates.

ENGINEERING OBSERVATION

Field observation by the Soils Engineer or his representative shall be made during the filling and compacting operations so that he can express his opinion regarding the conformance of the grading with acceptable standards of practice. The presence of the Soils Engineer or his representative for the observation and testing shall not release the Grading Contractor from his duty to compact all fill material to the specified degree of compaction.

SEASON LIMITS

Fill shall not be placed during unfavorable weather conditions. When work is interrupted by heavy rain, filling operations shall not be resumed until the proper moisture content and density of the fill materials can be achieved. Damaged site conditions resulting from weather or acts of God shall be repaired before acceptance of work by P.A. and Associates.

APPENDIX F

REFERENCES

References

1. Geotechnical Investigation for the Proposed Multi-Purpose Venue, Student Zone, and Central Plant at Saddleback Church, One Saddleback Parkway, City of Lake Forest, California, by Leighton and Associates, Inc., Project No. 010374-005, dated June 29, 2005.

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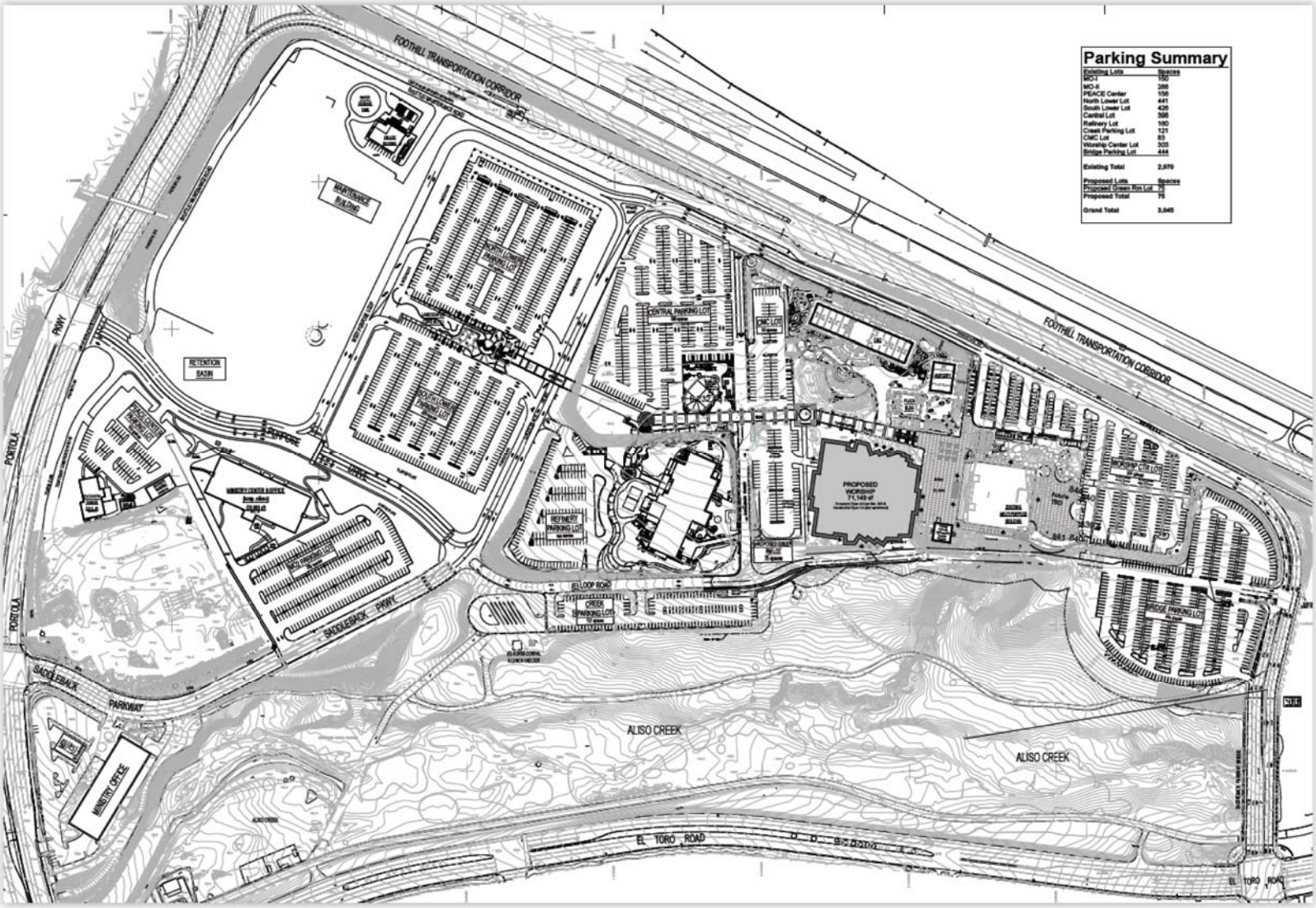
Appendix H

Acoustical Analysis

SADDLEBACK COMMUNITY CHURCH
NEW WORSHIP CENTER AND ROADWAY EXTENSION
ACOUSTICAL ANALYSIS
City of Lake Forest, California



SADDLEBACK COMMUNITY CHURCH
NEW WORSHIP CENTER AND ROADWAY EXTENSION
ACOUSTICAL ANALYSIS
City of Lake Forest, California

Prepared for:

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1.0 Introduction

1.1 Purpose of Analysis and Study Objectives

The purpose of this acoustical assessment is to evaluate the potential noise impacts for the proposed and to recommend noise mitigation measures, if necessary, to reduce impacts to levels of less than significant. The assessment was conducted and compared to the noise standards set forth by the Federal, State, and Local agencies. Per CEQA requirements, a significant noise impact would occur if a project would 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 levels existing without the project.
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?
- For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

The following information is provided in this report to assess the project's noise impact:

- Description of the study area and the proposed project
- Information regarding the fundamentals of noise
- Description of the local noise guidelines and standards
- Roadway noise impact analysis due to additional traffic from the proposed project
- Stationary noise impact analysis from the project site to adjacent land uses
- An interior noise analysis for the proposed worship building
- A noise analysis of short-term construction impacts to adjacent land uses
- A vibration analysis of short-term construction impacts to adjacent land uses

1.2 Site Location and Study Area

The project is located within the existing Saddleback Community Church Campus, at 1 Saddleback Parkway, in the City of Lake Forest. The site is bound by the SR-241 Toll Road to the north, El Toro Road to the south, Saddleback Parkway to the east, and Portola Parkway to the west. A location map is provided in Exhibit A.

The land uses surrounding the site include commercial, open space and future residential uses to west and residential uses to the south. The nearest off-site sensitive receptors are the residential uses located south of the project, approximately 650 feet away. The site is located approximately 800 feet above sea level and is approximately 30 feet above El Toro Road and the residential units south of El Toro Road.

1.3 Proposed Project Description

The proposed project will consist of the following land uses and construction activity:

- Construction and operation of a new 92,391 sqaure foot Worship Center Building with a total occupancy of 3,509;
- Utilization of the existing Worship Center Building to serve as classrooms for up to 903 students. This will entail constructing a 26,924 square feet of second floor addition within the existing shell of the building.
- Demolition of 2 tents and ancillary modular buildings;
- Paving approximately 50,000 square feet of additional surface parking lot area including new fire lane roadway extension and approximately 18,400 square feet of new flatwork.

The proposed project's site plan is shown in Exhibit B.

1.4 Summary of Analysis Results

The following is a summary of the noise analysis results.

Impact NOISE-1: 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. **Less than significant.**

Impact NOISE-2: Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels. **Less than significant.**

Impact NOISE-3: A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. **Less than significant.**

Impact NOISE-4: A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. **Less than significant.**

Impact NOISE-5: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?. **No impact.**

Impact NOISE-6: For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? **No impact.**

1.5 Recommended Project Design Features (DF)

The following recommendations are considered project design features and include standard rules and requirements, best practices and recognized design guidelines for reducing noise levels. Design features are assumed to be part of the conditions of approval for the project and integrated into the final design.

DF-1 The proposed worship center building will be required to provide adequate building shell insulation in order to meet the interior noise level standard of 45 dBA CNEL. Based on this preliminary interior noise analysis, standard California building construction with upgraded windows (STC > 28), and a windows closed condition will be necessary. Per the Uniform Building Code (UBC) a "windows closed" condition requires mechanical ventilation.

DF-2 All mechanical equipment and/or rooftop mounted HVAC units should be shielded or enclosed from line of sight. Shielding/parapet walls should be at least as high as the equipment.

DF-3 For proper acoustical performance, all exterior windows, doors, and sliding glass doors must have a positive seal and leaks/cracks must be kept to a minimum.

DF-4 Construction related activities shall comply with the requirements set forth in the City of Lake Forest Municipal Code Section 11.16.060, which requires all construction activities to take place during daytime hours, between 7AM to 8PM, Monday through Saturday. No construction activity shall occur on Sundays or Federal holidays.

DF-5 During construction, the contractor should ensure all construction equipment is equipped with appropriate noise attenuating devices and

equipment shall be maintained so that vehicles and their loads are secured from rattling and banging.

DF-6 Idling equipment should be limited to 5 minutes and turned off when not in use.

DF-7 Locate staging area, generators and stationary construction equipment as far from other buildings that are in use within the Saddleback Church campus during construction activity.

DF-8 Pile driving activity is not expected to be used during project construction; however, if pile driving activity is required, additional analysis and monitoring may be necessary.

2.0 Fundamentals of Noise and Vibration

This section of the report provides basic information about noise and presents some of the terms used within the report.

2.1 Sound, Noise and Acoustics

Sound is a disturbance created by a moving or vibrating source and is capable of being detected by the hearing organs. Sound may be thought of as mechanical energy of a moving object transmitted by pressure waves through a medium to a human ear. For traffic, or stationary noise, the medium of concern is air. *Noise* is defined as sound that is loud, unpleasant, unexpected, or unwanted.

2.2 Frequency and Hertz

A continuous sound is described by its *frequency* (pitch) and its *amplitude* (loudness). Frequency relates to the number of pressure oscillations per second. Low-frequency sounds are low in pitch (bass sounding) and high-frequency sounds are high in pitch (squeak). These oscillations per second (cycles) are commonly referred to as Hertz (Hz). The human ear can hear from the bass pitch starting out at 20 Hz all the way to the high pitch of 20,000 Hz.

2.3 Sound Pressure Levels and Decibels

The *amplitude* of a sound determines it loudness. The loudness of sound increases or decreases, as the amplitude increases or decreases. Sound pressure amplitude is measured in units of micro-Newton per square inch meter (N/m2), also called micro-Pascal (μPa). One μPa is approximately one hundred billionths (0.00000000001) of normal atmospheric pressure. Sound pressure level (SPL or L_p) is used to describe in logarithmic units the ratio of actual sound pressures to a reference pressure squared. These units are called decibels and abbreviated dB.

2.4 Addition of Decibels

Because decibels are on a logarithmic scale, sound pressure levels cannot be added or subtracted by simple plus or minus addition. When two (2) sounds or equal SPL are combined, they will produce an SPL 3 dB greater than the original single SPL. In other words, sound energy must be doubled to produce a 3 dB increase. If two (2) sounds differ by approximately 10 dB the higher sound level is the predominant sound.

2.5 Human Response to Changes in Noise Levels

In general, the healthy human ear is most sensitive to sounds between 1,000 Hz and 5,000 Hz, (A-weighted scale) and it perceives a sound within that range as being more intense than a sound with a higher or lower frequency with the same magnitude. For purposes of this report as well as with most environmental documents, the A-scale weighting is typically reported in terms of A-weighted decibel (dBA). Typically, the human ear can barely perceive the change in noise level of 3 dB. A change in 5 dB is readily perceptible, and a change in 10 dB is perceived as being twice or half as loud. As previously discussed, a doubling of sound energy results in a 3 dB increase in sound, which means that a doubling of sound energy (e.g. doubling the volume of traffic on a highway), would result in a barely perceptible change in sound level.

2.6 Noise Descriptors

Noise in our daily environment fluctuates over time. Some noise levels occur in regular patterns, others are random. Some noise levels are constant, while others are sporadic. Noise descriptors were created to describe the different time-varying noise levels. Following are the most commonly used noise descriptors along with brief definitions.

A-Weighted Sound Level

The sound pressure level in decibels as measured on a sound level meter using the A-weighted filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the response of the human ear. A numerical method of rating human judgment of loudness.

Ambient Noise Level

The composite of noise from all sources, near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.

Community Noise Equivalent Level (CNEL)

The average equivalent A-weighted sound level during a 24-hour day, obtained after addition of five (5) decibels to sound levels in the evening from 7:00 to 10:00 PM and after addition of ten (10) decibels to sound levels in the night before 7:00 AM and after 10:00 PM.

Decibel (dB)

A unit for measuring the amplitude of a sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micro-pascals.

dB(A)

A-weighted sound level (see definition above).

Equivalent Sound Level (LEQ)

The sound level corresponding to a steady noise level over a given sample period with the same amount of acoustic energy as the actual time varying noise level. The energy average noise level during the sample period.

Habitable Room

Any room meeting the requirements of the Uniform Building Code or other applicable regulations which is intended to be used for sleeping, living, cooking or dining purposes, excluding such enclosed spaces as closets, pantries, bath or toilet rooms, service rooms, connecting corridors, laundries, unfinished attics, foyers, storage spaces, cellars, utility rooms, and similar spaces.

L(n)

The A-weighted sound level exceeded during a certain percentage of the sample time. For example, L10 is the sound level exceeded 10 percent of the sample time. Similarly L50, L90 and L99, etc.

Noise

Any unwanted sound or sound which is undesirable because it interferes with speech and hearing, or is intense enough to damage hearing, or is otherwise annoying. The State Noise Control Act defines noise as "...excessive undesirable sound...".

Outdoor Living Area

Outdoor spaces that are associated with residential land uses typically used for passive recreational activities or other noise-sensitive uses. Such spaces include patio areas, barbecue areas, jacuzzi areas, etc. associated with residential uses; outdoor patient recovery or resting areas associated with hospitals, convalescent hospitals, or rest homes; outdoor areas associated with places of worship which have a significant role in services or other noise-sensitive activities; and outdoor school facilities routinely used for educational purposes which may be adversely impacted by noise. Outdoor areas usually not included in this definition are: front yard areas, driveways, greenbelts, maintenance areas and storage areas associated with residential land uses; exterior areas at hospitals that are not used for patient activities; outdoor areas associated with places of worship and principally used for short-term social gatherings; and, outdoor areas associated with school facilities that are

not typically associated with educational uses prone to adverse noise impacts (for example, school play yard areas).

Percent Noise Levels

See L(n).

Sound Level (Noise Level)

The weighted sound pressure level obtained by use of a sound level meter having a standard frequency-filter for attenuating part of the sound spectrum.

Sound Level Meter

An instrument, including a microphone, an amplifier, an output meter, and frequency weighting networks for the measurement and determination of noise and sound levels.

Single Event Noise Exposure Level (SENEL)

The dBA level which, if it lasted for one (1) second, would produce the same A-weighted sound energy as the actual event.

2.7 Traffic Noise Prediction

Noise levels associated with traffic depends on a variety of factors: (1) volume of traffic, (2) speed of traffic, (3) auto, medium truck (2 – 6 wheels) and heavy truck percentage (3 axle and greater), and sound propagation. The greater the volume of traffic, higher speeds and truck percentages equate to a louder volume in noise. A doubling of the Average Daily Traffic (ADT) along a roadway will increase noise levels by approximately 3 dB; reasons for this are discussed in the sections above.

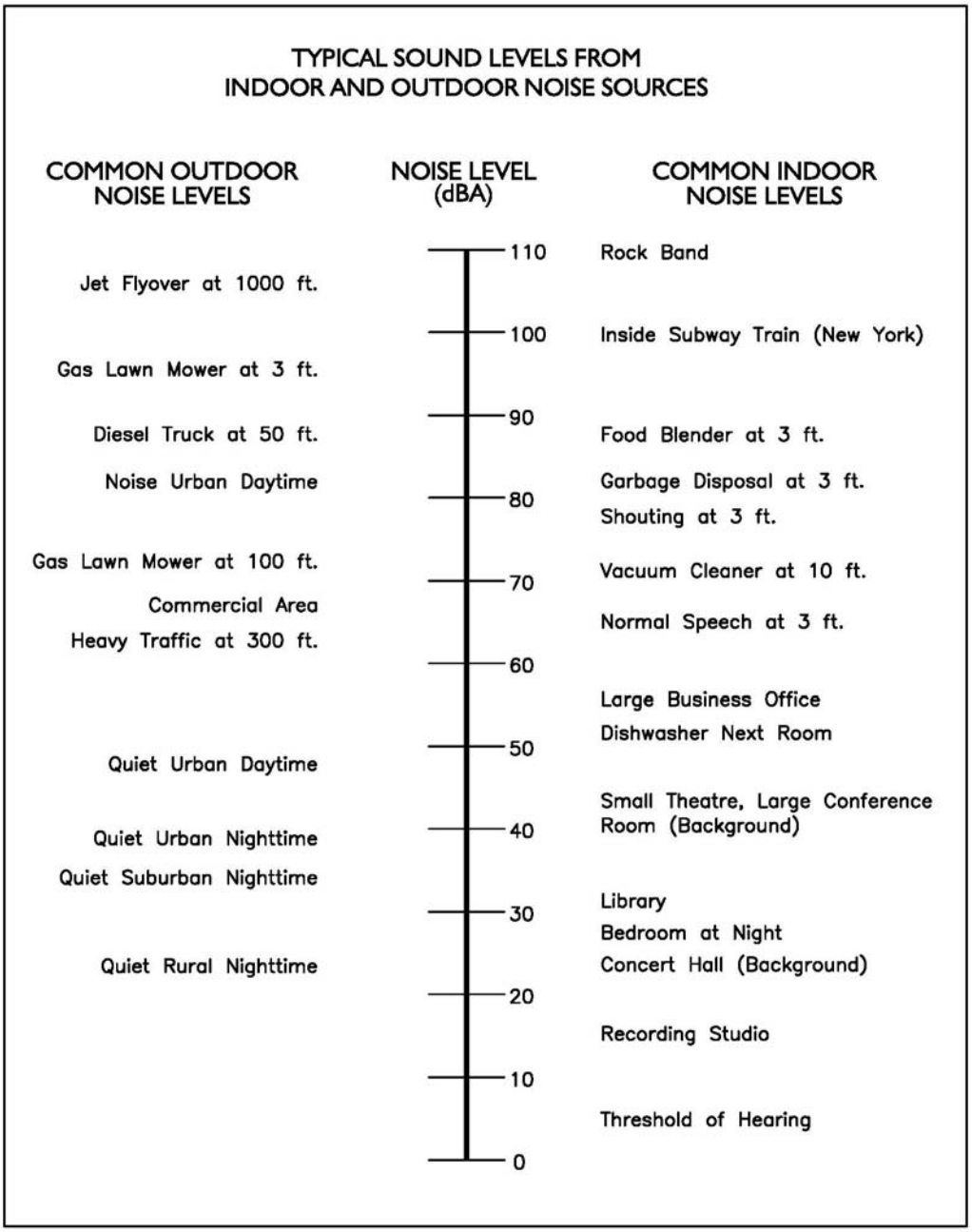
2.8 Sound Propagation

As sound propagates from a source it spreads geometrically. Sound from a small, localized source (i.e., a point source) radiates uniformly outward as it travels away from the source in a spherical pattern. The sound level attenuates at a rate of 6 dB per doubling of distance. The movement of vehicles down a roadway makes the source of the sound appear to propagate from a line (i.e., line source) rather than a point source. This line source results in the noise propagating from a roadway in a cylindrical spreading versus a spherical spreading that results from a point source. The sound level attenuates for a line source at a rate of 3 dB per doubling of distance.

As noise propagates from the source, it is affected by the ground and atmosphere. Noise models use hard site (reflective surfaces) and soft site (absorptive surfaces) to help calculate

predicted noise levels. Hard site conditions assume no excessive ground absorption between the noise source and the receiver. Soft site conditions such as grass, soft dirt or landscaping attenuate noise at an additional rate of 1.5 dB per doubling of distance. When added to the geometric spreading, the excess ground attenuation results in an overall noise attenuation of 3 dB per doubling of distance for a line source and 6.0 dB per doubling of distance for a point source.

Research has demonstrated that atmospheric conditions can have a significant effect on noise levels when noise receivers are located 200 feet from a noise source. Wind, temperature, air humidity and turbulence can further impact how far sound can travel.



2.9 Vibration Descriptors

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.

Several different methods are used to quantify vibration amplitude.

PPV

Known as the peak particle velocity (PPV) which is the maximum instantaneous peak in vibration velocity, typically given in inches per second.

RMS

Known as root mean squared (RMS) can be used to denote vibration amplitude

VdB

A commonly used abbreviation to describe the vibration level (VdB) for a vibration source.

2.10 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. Outdoor 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. To counter the effects of ground-borne vibration, the Federal Transit Administration (FTA) has published guidance relative to vibration impacts. According to the FTA, fragile buildings can be exposed to ground-borne vibration levels of 0.3 inches per second without experiencing structural damage.

2.11 Vibration Propagation

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.

2.12 Construction Related Vibration Level Prediction

Operational activities are separated into two different categories. The vibration can be transient or continuous in nature. Each category can result in varying degrees of ground vibration, depending on the equipment used on the site. Operation of equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Buildings in the vicinity of the project area site respond to these vibrations with varying results ranging from no perceptible effects at the low levels to slight damage at the highest levels. The thresholds from Caltrans Transportation and Construction Induced Vibration Guidance Manual in the table below provide general guidelines as to the maximum vibration limits for when vibration becomes potentially annoying.

Guideline Vibration Annoyance Potential Criteria		
Human Response	**PPV (in/sec)**	
	Transient Sources	**Continuous/Frequent Intermittent Sources**
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.90	0.10
Severe	2.00	0.40

Note: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

The Caltrans Transportation and Construction Induced Vibration Guidance Manual provide general thresholds and guidelines as to the vibration damage potential from vibratory impacts. The table below provides general vibration damage potential thresholds:

Guideline Vibration Damage Potential Threshold Criteria		
Structure and Condition	**PPV (in/sec)**	
	Transient Sources	**Continuous/Frequent Intermittent Sources**
Extremely fragile historic buildings, ruins ancient monuments	0.12	0.08
Fragile buildings	0.20	0.10
Historic and some old buildings	0.50	0.25
Older residential structures	0.50	0.30
New residential structures	1.00	0.50
Modern industrial/commercial buildings	2.00	0.50

Soil conditions have an impact on how vibration propagates through the ground. The Caltrans Transportation and Construction Induced Vibration Guidance Manual provide suggested "n" values based on soil class. The table below outlines the manual's suggested values and description.

Suggested "n" Values Based on Soil Classes		
Soil Class	**Description of Soil Material**	**Suggested Value of "n"**
I	Weak or soft soils: loose soils, dry or partially saturated peat and muck, mud, loose beach sand, and dune sand.	1.4
II	Most sands, sandy clays, silty clays, gravel, silts, weathered rock.	1.3
III	Hard soils: dense compacted sand, dry consolidated clay, consolidated glacial till, some exposed rock.	1.1
IV	Hard, component rock: bedrock, freshly exposed hard rock.	1.0

3.0 Regulatory Setting

The proposed project is located in the City of Lake Forest and noise regulations are addressed through the various federal, state, and local government agencies. The agencies responsible for regulating noise are discussed below.

3.1 Federal Regulations

The adverse impact of noise was officially recognized by the federal government in the Noise Control Act of 1972, which serves three (3) purposes:

- Publicize noise emission standards for interstate commerce
- Assist state and local abatement efforts
- Promote noise education and research

The Federal Office of Noise Abatement and Control (ONAC) was originally tasked with implementing the Noise Control Act. However, it was eventually eliminated leaving other federal agencies and committees to develop noise policies and programs. Some examples of these agencies are as follows: The Department of Transportation (DOT) assumed a significant role in noise control through its various agencies. The Federal Aviation Agency (FAA) is responsible to regulate noise from aircraft and airports. The Federal Highway Administration (FHWA) is responsible to regulate noise from the interstate highway system. The Occupational Safety and Health Administration (OSHA) is responsible for the prohibition of excessive noise exposure to workers.

The Federal government and the State advocate that local jurisdiction use their land use regulatory authority to arrange new development in such a way that "noise sensitive" uses are either prohibited from being constructed adjacent to a highway or, or alternatively that the developments are planned and constructed in such a manner that potential noise impacts are minimized.

Since the Federal government and the State have preempted the setting of standards for noise levels that can be emitted by the transportation source, the County is restricted to regulating the noise generated by the transportation system through nuisance abatement ordinances and land use planning.

3.2 State Regulations

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." The matrix allows the local jurisdiction to clearly delineate compatibility of sensitive uses with various incremental levels of noise.

The State of California has established noise insulation standards as outlined in Title 24 and the Uniform Building Code (UBC) which in some cases requires acoustical analyses to outline exterior noise levels and to ensure interior noise levels do not exceed the interior threshold. The State mandates that the legislative body of each county and city 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.

3.3 City of Lake Forest Noise Regulations

The City of Lake Forest outlines its noise regulations and standards within the Noise Element of the General Plan and the Municipal Code (Appendix A).

The Lake Forest Municipal Code sets forth the methodology and requirements for taking noise measurements, establishes the noise standards for real property, and allows certain noise exemptions for construction related noise activity.

The City of Lake Forest's Noise Element is used to evaluate noise and land use compatibility, noise impacts from mobile sources, and interior/exterior noise standards.

Stationary Noise Regulation

The City of Lake Forest has adopted the following exterior noise standards, as described in Section 11.16.040(A) of the Municipal Code.

City of Lake Forest Exterior Noise Standards		
Noise Zone[1]	**Noise Level**	**Time Period**
1	55 dB (A)	7:00 AM – 10:00 PM
1	50 dB (A)	10:00 PM – 7:00 AM

[1] The entire territory of the City of Lake Forest is designated as "Noise Zone 1."

Section 11.16.040(B) allows increases in exterior noise levels based on the time period for which a noise occurs:

Duration of Noise	Permitted Increase (dBA)
30 min/hr (L_{50})	- -
15 min/hr (L_{25})	5
5 min/hr (L_8)	10
1 min/hr (L_2)	15
Less than 1 min/hr (L_{MAX})	20

In the event the ambient noise level exceeds any of the first four noise limit categories above, the cumulative period applicable to said category shall be increased to reflect said ambient noise level. In the event the ambient noise level exceeds the fifth noise limit category, the maximum allowable noise level under said category shall be increased to reflect the maximum ambient noise level.

Interior Noise Regulation

The following interior noise standards, unless otherwise specifically indicated, shall apply to all residential property within a designated noise zone:

City of Lake Forest Exterior Noise Standards	
Interior Residential Standards Noise Level	**Time Period**
55 dB (A)	7:00 AM – 10:00 PM
45 dB (A)	10:00 PM – 7:00 AM

Section 11.16.050(B) allows increases in interior noise levels based on the time period for which a noise occurs:

Duration of Noise	**Permitted Increase (dBA)**
5 min/hr (L_8)	--
1 min/hr (L_2)	5
Less than 1 min/hr (L_{MAX})	10

In the event the ambient noise level exceeds either of the first two (2) noise limit categories above, the cumulative period applicable to said category shall be increased to reflect said ambient noise level. In the event the ambient noise level exceeds the third (3rd) noise limit category the maximum allowable noise level under said category shall be increased to reflect the maximum ambient noise level.

Construction Noise Regulation

Section 11.16.060(D) of the municipal code provides the following exemptions for construction noise:

Noise sources associated with construction, repair, remodeling, or grading of any real property are exempt from the provisions of the Noise Control ordinance, provided said activities do not take place between the hours of 8:00 p.m. and 7:00 a.m. on weekdays, including Saturday, or at any time on Sunday or a Federal holiday.

4.0 Study Method and Procedures

The following section describes the methodology and procedure to evaluate existing and future noise levels and project impacts.

4.1 Measurement Procedure and Criteria

To determine the existing noise level environment, RK conducted two (2) short-term noise measurements at the project study area. The following criteria are used to select measurement locations and receptors:

- Locations expected to receive the highest noise impacts, such as first row of houses
- Locations that are acoustically representative and equivalent of the area of concern
- Human land usage
- Sites clear of major obstruction and contamination

RK conducted the sound level measurements in accordance to the City of Lake Forest and CalTrans technical noise specifications. All measurements equipment meets American National Standards Institute (ANSI) specifications for sound level meters (S1.4-1983 identified in Chapter 19.68.020.AA). The following gives a brief description of the Caltrans Technical Noise Supplement procedures for sound level measurements:

- Microphones for sound level meters were placed 5-feet above the ground for all measurements
- Sound level meters were calibrated (Larson Davis CAL 200) before and after each measurement
- Following the calibration of equipment, a wind screen was placed over the microphone
- Frequency weighting was set on "A" and slow response
- Results of the long-term noise measurements were recorded on field data sheets
- During any short-term noise measurements any noise contaminations such as barking dogs, local traffic, lawn mowers, or aircraft fly-overs were noted
- Temperature and sky conditions were observed and documented

Noise measurements were conducted on Wednesday, November 29, 2017 and Sunday December 3, 2017 using a Larson Davis 700 type II sound level meter. The Leq, Lmin, Lmax, L2, L8, L25 and L50 were recorded over a 20-minute interval. The information was utilized to define the existing noise characteristics for the project.

4.1.1 Noise Measurement Locations

The noise monitoring locations were performed near the proposed project site location within the existing Saddleback Community Church campus. Short term noise monitoring locations represent the existing ambient noise levels on the project site near the proposed worship center building. Appendix B includes photographs, field sheets and measured noise data.

4.1.2 Noise Measurement Timing and Climate

The short-term noise measurements were recorded during daytime on the following dates and times:

- Weekday Noise Measurement: Wednesday, November 29, 2017
- Sunday Noise Measurements: Sunday, December 3, 2017

Noise measurements were conducted in 20-minute intervals during the indicated time schedule when the project would be operating at peak conditions. The climate data was noted during the measurements and is indicated in the field sheets within Appendix B. Measurements were not taken during abnormal weather conditions such as high wind or rain. Table 1 shows the results of the noise level measurements.

4.2 Traffic Noise Modeling

Traffic noise along adjacent roadways was projected using a version of the FHWA Traffic Noise Prediction Model (FHWA-RD-77-108). The FHWA model arrives at the predicted noise level through a series of adjustments to the key input parameters.

Roadway noise impacts from the project were calculated using traffic volume data from the Saddleback Community Church New Worship Center and Roadway Expansion Traffic Impact Study, (December 2017), prepared by RK Engineering Group, Inc. to determine "without" and "with" project impacts. Roadway noise impact calculations are shown in Appendix C.

Future roadway noise impacts to the worship center building were calculated using the buildout capacities from the SR-241 Toll Road. Buildout roadway noise impact calculations are also shown in Appendix C.

The following outlines the key adjustments made to the computer model for the roadway inputs:

- Roadway classification – (e.g. freeway, major arterial, major highway, secondary, collector, etc),
- Roadway Active Width – (distance between the center of the outer most travel lanes on each side of the roadway)
- Average Daily Traffic (ADT) Volumes, Travel Speeds, Percentages of automobiles, medium trucks, and heavy trucks
- Roadway grade and angle of view
- Site Conditions (e.g. soft vs. hard)
- Percentage of total ADT which flows each hour throughout a 24-hour period

Table 2 indicates the roadway parameters and vehicle distribution utilized for this study.

The following list outlines key adjustments to the computer model for the project site parameter inputs:

- Vertical and horizontal distances (Sensitive receptor distance from noise source)
- Noise barrier vertical and horizontal distances (Noise barrier distance from sound source and receptor).
- Traffic noise source spectra
- Topography

4.3 Interior Noise Modeling

The interior noise level is the difference between the projected exterior noise level at the structure's façade and the noise reduction provided by the structure itself. Typical building construction will provide a conservative 12 dBA noise level reduction with a "windows open" condition and a very conservative 20 dBA noise level reduction with "windows closed". RK estimated the interior noise level by subtracting the building shell design from the estimated exterior noise level. Mobile noise source calculation worksheets used to estimate noise levels at the building façade are provided in Appendix C.

4.4 Stationary Noise Modeling

The stationary noise was projected using a computer program that replicates the FHWA Noise Prediction Model (FHWA-RD-77-108). The FHWA model arrives at the predicted noise level through a series of adjustments to the reference energy noise level. For each stationary source, the referenced noise level was applied to the model. The model outputs the projected noise level based on the following key parameters:

- Measured referenced noise level – (e.g. how loud a source is at a specific distance)
- Vertical and horizontal distances (sensitive receptor distance from noise source)
- Noise barrier vertical and horizontal distances (noise barrier distance from sound source and receptor).
- Typical noise source spectra
- Topography

Table 3 indicates the referenced noise level measurements conducted by RK. The reference noise levels provide sample data of similar noise sources as the ones being proposed by the project. The distance from the reference source indicates the distance the microphone was placed from the noise source.

The project is not expected to impact adjacent land uses, however to ensure users within the Saddleback Church campus are not exposed to noise levels in excess of standards, the stationary noise analysis was performed for adjacent buildings. To estimate the future project operational noise level impacts, the reference noise levels are adjusted based on the modeling parameters described above. As a worst case scenario, the noise levels assume

that the stationary sources are operating continuously, when in reality, noise sources will operate intermittently throughout the daily operations. Stationary noise sources are combined with the existing ambient noise level to reflect the actual noise levels on the site.

Stationary noise source calculation worksheets are located in Appendix D

4.5 Construction Noise Modeling

The construction noise analysis utilizes the Federal Highway Administration (FHWA) Roadway Construction Noise Model, together with several key construction parameters. Key inputs include distance to the sensitive receiver, equipment usage, and baseline parameters for the project site. This study evaluates the potential exterior noise impacts during each phase of construction. Noise levels were projected from the center of the site to the nearest sensitive receptor property line.

Construction phase and equipment usage assumptions are referenced from the Saddleback Community Church New Worship Center and Roadway Extension Air Quality and Greenhouse Gas Impact Study, City of Lake Forest, prepared by RK, December 2017.

The construction noise calculation output worksheets are located in Appendix E.

4.6 Construction Vibration Modeling

The construction vibration assessment is based on the methodology set-forth within the Caltrans Transportation and Construction Induced Vibration Guidance Manual. The vibration impacts from a vibratory roller during the construction of the roadway extension were analyzed. The vibratory activity is considered a continuous and/or frequent event, and is required to comply with the applicable guidance thresholds criteria. It is expected that vibration levels will be highest during paving phase. No impact pile driving is expected as part of this project.

Vibratory impacts were calculated from the site area property line to the closest sensitive receptors and structures using the reference vibration levels, soil conditions and the reference equation *PPV= PPV ref (25/D)^n (in/sec)* (from Caltrans Manual) where:

PPV = reference measurement at 25 feet from vibration source

D = distance from equipment to property line

n= vibration attenuation rate through ground (n=1.0 was utilized for this study)

Vibration impact output calculations are located in Appendix E.

5.0 Existing Noise Environment

To determine the existing noise level environment at the project site, noise monitoring was conducted on November 29, 2017 and December 3, 2017. Noise measurement data indicates that traffic noise propagating from the nearby SR-241 Toll Road and church activities are the main source of noise impacting the project site. The project is not located within the vicinity of an airport or private air strip and no airport noise impacts were observed.

5.1 Short-Term Noise Measurement Results

Existing noise levels at the project site are shown in Table 1. Noise levels on-site were observed to be 50.4 dBA Leq during typical weekdays and 53.3 dBA Leq on weekends. The existing ambient noise levels are currently within the City's daytime stationary noise source standards.

5.2 Existing Roadway Noise Levels

Existing vehicular traffic noise was projected using the FHWA Noise Prediction Model (FHWA-RD-77-108). Existing conditions roadway noise levels provide a baseline of the existing traffic noise levels near the site. The noise level at 100 feet from the centerline was calculated and is representative of the approximate location of first row of homes/sensitive receivers along the study area roadway. The existing traffic (without project) noise levels along the roadways are presented in Table 4.

6.0 Future Noise Impacts and Mitigation

The project is located approximately 1,000 feet from the nearest adjacent sensitive noise receptors, residential homes, located south of El Toro Road. The project site is generally shielded from line of site by terrain features and vegetation. This analysis reviews potential off-site noise impacts associated with increased traffic volume along adjacent roadways, on-site noise impacts associated with operational activities, and interior noise levels for the new building.

6.1 Roadway Noise Impacts

This assessment analyzes increases in traffic noise along nearby roadways as a result of the project. Roadway noise impacts are based on traffic volumes provided in the Saddleback Community Church Traffic Impact Study and from Caltrans. The roadway noise impact analysis worksheets are provided in Appendix C.

The finding of this analysis show the project will not significantly increase traffic noise, either directly or cumulatively, along the adjacent roadways.

6.1.1 Existing Plus Project Conditions

Table 4 indicates the existing with project noise levels along the study area roadways. The change in roadway noise level is compared to without project conditions. The project is anticipated to have minimal impact to the existing traffic noise levels. Noise levels are expected to increase by a maximum of 0.1 dBA CNEL.

The California Department of Transportation (Caltrans) Technical Noise Supplement (TeNS) to the Traffic Analysis Protocol, September 2013, provides information on the human perception of noise level change. As described in the TeNS manual, the human ear can barely perceive a change in noise level of 3 dBA or less. Therefore, the project increase in traffic noise is considered imperceptible. The minor increase in noise is considered less than significant and the project is not expected to cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

6.1.2 Project Opening Year 2021 Conditions

Project opening year is anticipated for 2021. Table 5 compares the change in roadway noise levels for Opening Year 2021 conditions without and with the proposed project. Future noise levels are expected to increase by a maximum of 0.1 dBA CNEL along the study area roadways as a result of the project.

As described above, the human ear can barely perceive a change in noise level of 3 dBA or less. Therefore, the project increase in traffic noise is considered imperceptible. The minor increase in noise is considered less than significant and the project is not expected to cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

6.2 Stationary Source Noise Impacts

The stationary noise impacts associated with the proposed project would include on-site generated noise such as mechanical equipment and condenser unit noise from HVAC units. The project is expected to utilize an existing on-site chiller plant for air ventilation within the proposed Worship Center building. Air handling units and boilers will be installed on the top of the building, but no additional compressors or other types of mechanical equipment are expected. These units will generate significantly less noise than mechanical HVAC systems, however, to be conservative, this analysis projects potential stationary noise from rooftop HVAC type equipment to sensitive uses on-site.

Table 6 indicates the weekday and weekend stationary noise levels associated with operations at the site. When combined with the existing ambient noise level, the stationary noise impacts would result in noise levels of approximately 51.5 dBA Leq during weekdays and 53.9 dBA Leq during weekends. The increase in noise level would range from 1.1 dBA Leq on weekdays to 0.6 dBA Leq on weekends.

As projected, noise levels would be within the City's allowable limits. The result of the stationary noise analysis indicate that noise impacts will not result in substantial permanent increase and are considered less than significant with mitigation.

In order to ensure noise levels do not become a nuisance, all mechanical equipment and/or rooftop mounted HVAC units should be shielded or enclosed from line of sight. Shielding/parapet walls should be at least as high as the equipment.

6.3 Interior Noise Levels

The future interior noise level was calculated for the proposed worship center building using a typical "windows open" and "windows closed" condition. A "windows open" condition assumes 12 dBA of noise attenuation from the exterior noise level. A "windows closed" condition" assumes 20 dBA of noise attenuation from the exterior noise level.

Table 7 shows the future interior noise levels for the worship center building based on buildout traffic volume from SR-241 Toll Road, as shown in Appendix C. In order to meet the State of California interior noise standard of 45 dBA CNEL, a "windows closed" condition with upgraded (STC > 28) windows is required.

With windows closed condition and upgraded STC rated windows, all interior habitable areas will be below 45 dBA CNEL. Per the Unified Building Code (UBC) a "windows closed" condition requires mechanical ventilation.

6.4 Summary of Recommendation and Design Features

The following recommendations are considered project design features and include standard rules and requirements, best practices and recognized design guidelines for reducing noise levels. Design features are assumed to be part of the conditions of approval for the project and integrated into the final design.

DF-1 The proposed worship center building will be required to provide adequate building shell insulation in order to meet the interior noise level standard of 45 dBA CNEL. Based on this preliminary interior noise analysis, standard California building construction with upgraded windows (STC > 28) and a windows closed condition will be necessary. Per the Uniform Building Code (UBC) a "windows closed" condition requires mechanical ventilation

DF-2 All mechanical equipment and/or rooftop mounted HVAC units should be shielded or enclosed from line of sight. Shielding/parapet walls should be at least as high as the equipment.

DF-3 For proper acoustical performance, all exterior windows, doors, and sliding glass doors must have a positive seal and leaks/cracks must be kept to a minimum.

See Exhibit C for recommendations.

7.0 Construction Noise Impacts

Short term construction impacts are assessed with respect to noise and vibration at the nearest surrounding sensitive land uses. The degree of construction noise and vibration will vary depending on the phase of construction and the type of construction activity taking place. The closest sensitive receptors to the project are existing residential uses approximately 650 feet south of the site.

7.1 Construction Noise

The Environmental Protection Agency (EPA) has compiled data regarding the noise generated characteristics of typical construction activities. The data is presented in Table 8 and shows that typical construction equipment can have noise impacts over 90 decibels.

During construction, the contractors would be required to comply with the Noise Ordinance from the City of Lake Forest's Municipal Code, as described in Appendix A. The City provides exemptions for construction activity operation during certain times. In order to ensure construction activity does not violate the City's noise standards, all construction activities should take place during daytime hours, between 7 a.m. to 8 p.m., Monday through Saturday. No construction activity shall occur on Sundays or Federal holidays.

Although construction activity is exempt from the noise standards in the City's Municipal Code, CEQA requires that potential noise impacts still be evaluated for significance. For purposes of this analysis, the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment (2006) criteria will be used. The FTA provides reasonable criteria for assessing construction noise impacts based on the potential for adverse community reaction. For residential uses, the daytime noise threshold is 80 dBA Leq for an 8-hour period. In compliance with the City's Municipal Code, it is assumed construction would not occur during the noise-sensitive nighttime hours.

The calculated short-term noise impacts of construction activity are reported in Table 9. The estimated construction noise levels are calculated using the Federal Highway Administration Roadway Construction Noise Model Version 1.1. Noise levels are calculated based on the average distance of equipment over an 8-hour period near the center of site; approximately 650 feet from nearest residential homes. The construction related noise levels are shown for each phase of construction.

Construction phase and equipment usage assumptions are referenced from the Saddleback Community Church New Worship Center and Roadway Extension Air Quality and Greenhouse Gas Impact Study, City of Lake Forest, prepared by RK, December 2017.

As shown in Table 9, the 8-hour Leq noise level would be approximately 62.1 dBA. Therefore, short-term construction noise levels are expected to be below the FTA noise criteria limit of 80 dBA and the impact would be less than significant. Construction noise analysis worksheets are provided in Appendix E.

During the construction period, the contractors would be required to comply with all applicable City Ordinances. Several recommended design features are provided in Section 7.3 to help further reduce noise impacts during construction.

7.2 Construction Vibration

Vibratory impacts during construction are assessed for structural damage to buildings located on-site. The construction vibration assessment utilizes the referenced vibration levels and methodology set-forth within the Caltrans Transportation and Construction Induced Vibration Guidance Manual. Table 10 shows the referenced vibration levels. The reference vibration levels are extrapolated to the nearest buildings on-site to assess structural damage potential.

The major source of vibration during construction is expected to be from vibratory rollers used for the roadway extension. Table 11 shows the Construction Related Vibration Analysis. The estimated vibration levels at the nearest sensitive receptors are compared to the Caltrans Vibration Manual thresholds. The vibratory impact from vibratory rollers is estimated to be 0.098 PPV (in/sec) at the nearest buildings approximately 50 feet away.

The damage potential to the nearest structure would be within the "fragile buildings" category. The buildings located on site are considered modern industrial/commercial buildings and have damage potential threshold of 0.5 PPV (in/sec). Based on the results of the analysis, vibration levels would be below the damage threshold of significance. The exposure of persons to or generation of excessive groundborne vibration is considered less than significant.

Vibration calculation worksheets are shown in Appendix E.

7.3 Recommended Design Features (DF) for Construction

The following recommended design features would help further reduce noise levels during construction:

DF-4 Construction related activities shall comply with the requirements set forth in the City of Lake Forest Municipal Code Section 11.16.060, which requires all construction activities to take place during daytime hours, between 7AM to 8PM, Monday through Saturday. No construction activity shall occur on Sundays or Federal holidays.

DF-5 During construction, the contractor should ensure all construction equipment is equipped with appropriate noise attenuating devices and equipment shall be maintained so that vehicles and their loads are secured from rattling and banging.

DF-6 Idling equipment should be limited to 5 minutes and turned off when not in use.

DF-7 Locate staging area, generators and stationary construction equipment as far from other buildings that are in use within the Saddleback Church campus during construction activity.

DF-8 Pile driving activity is not expected to be used during project construction; however, if pile driving activity is required, additional analysis and monitoring may be necessary.

8.0 Conclusions

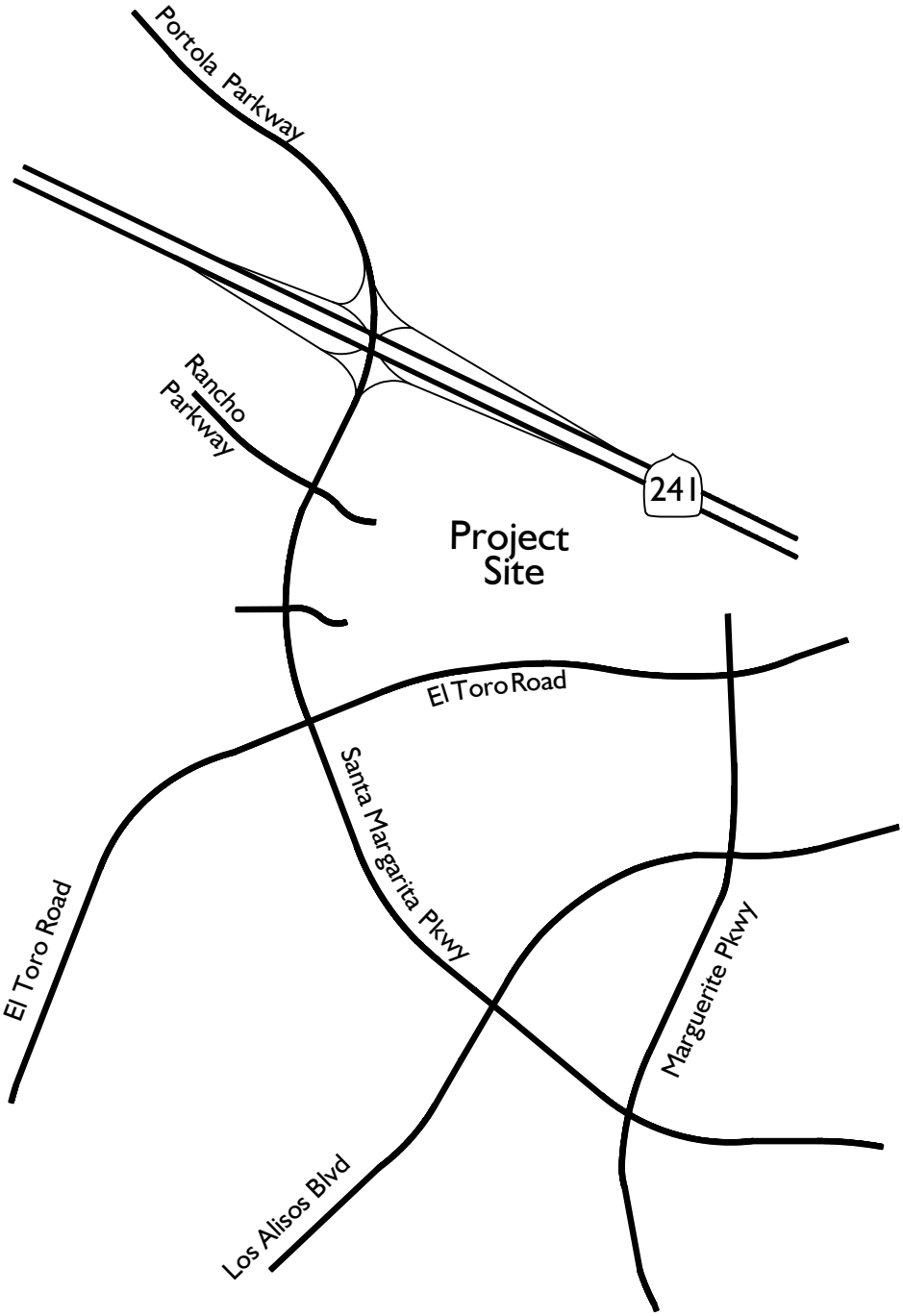
Based on the results of this noise impact analysis, the proposed Saddleback Community Church New Worship Center and Roadway Extension project would have less than significant noise impacts with the implementation of the recommended mitigation measures. Several additional recommended project design features are provided to help ensure noise levels remain below the City's noise standards. Noise levels have been compared to the State of California and City of Lake Forest noise limit criteria.

RK is pleased to assist SADDLEBACK COMMUNITY CHURCH and the CITY OF LAKE FOREST with this acoustical analysis. If you have any questions regarding this study or need further review, please call us at (949) 474-0809.

Exhibits

Exhibit A

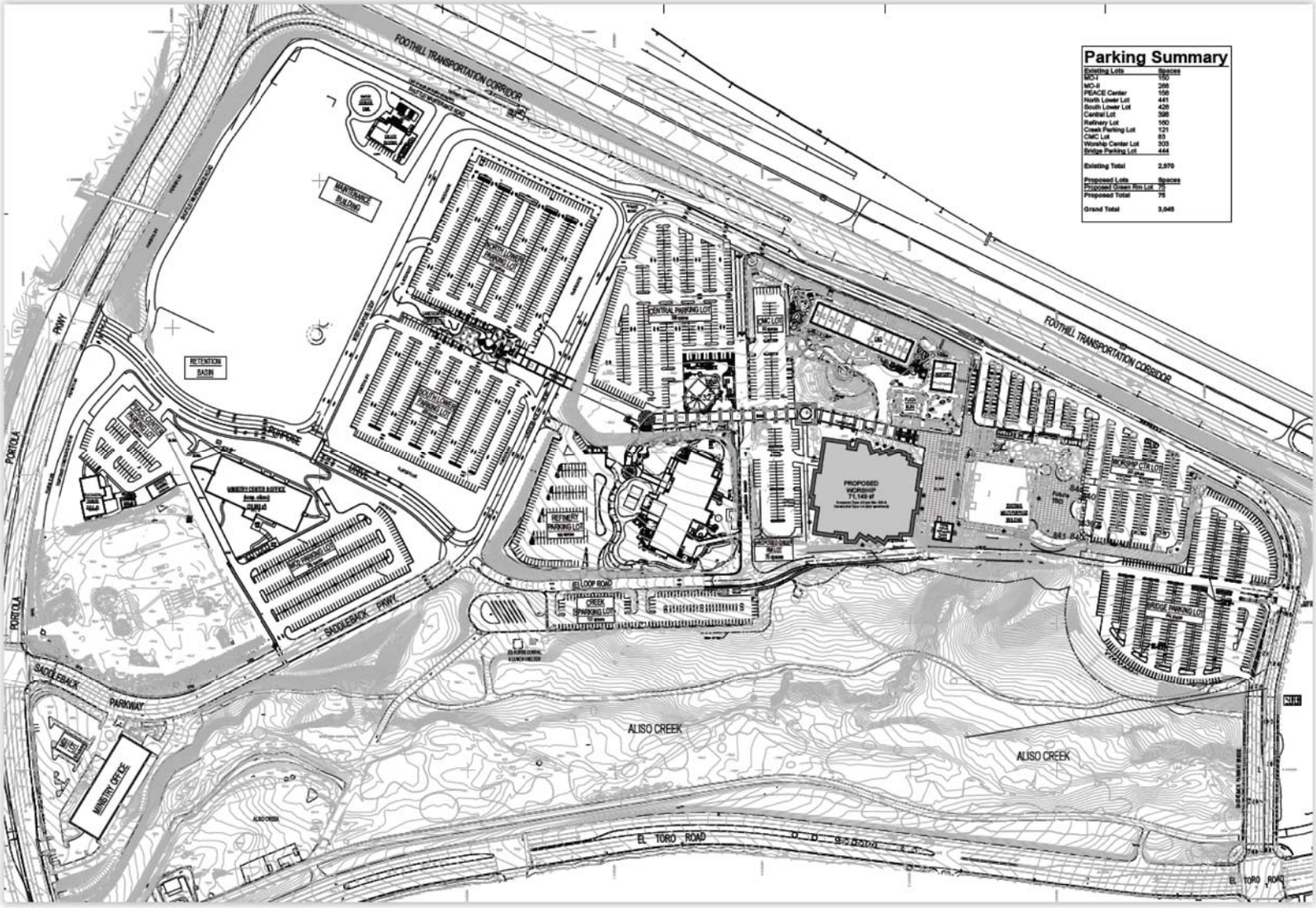
Location Map



N

Exhibit B

Site Plan



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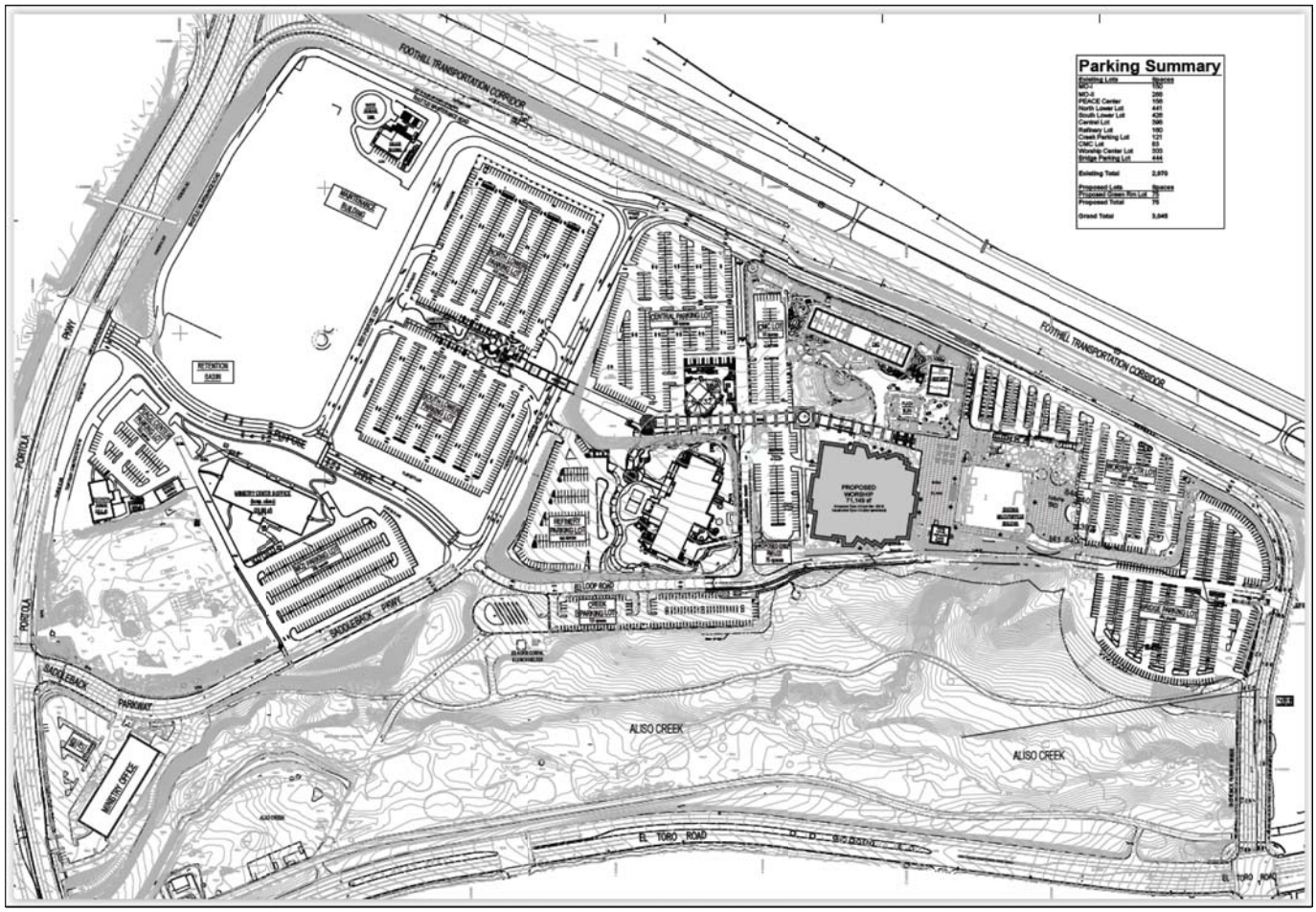
Recommendations



Summary of Recommendations

DF-1 The proposed worship center building will be required to provide adequate building shell insulation in order to meet the interior noise level standard of 45 dBA CNEL. Based on this preliminary interior noise analysis, standard California building construction with **upgraded windows** (STC > 28), and a windows closed condition will be necessary. Per the Uniform Building Code (UBC) a "windows closed" condition requires mechanical ventilation.

DF - 2 All mechanical equipment and/or rooftop mounted HVAC units should be shielded or enclosed from line of sight. Shielding/parapet walls should be at least as high as the equipment.

DF - 3 For proper acoustical performance, all exterior windows, doors, and sliding glass doors must have a positive seal and leaks/cracks must be kept to a minimum.

DF - 4 Construction related activities shall comply with the requirements set forth in the City of Lake Forest Municipal Code Section 11.16.060, which requires all construction activities to take place during daytime hours, between 7AM to 8PM, Monday through Saturday. No construction activity shall occur on Sundays or Federal holidays.

DF - 5 During construction, the contractor should ensure all construction equipment is equipped with appropriate noise attenuating devices and equipment shall be maintained so that vehicles and their loads are secured from rattling and banging.

DF - 6 Idling equipment should be limited to 5 minutes and turned off when not in use.

DF - 7 Locate staging area, generators and stationary construction equipment as far from other buildings that are in use within the Saddleback Church campus during construction activity.

DF - 8 Pile driving activity is not expected to be used during project construction; however, if pile driving activity is required, additional analysis and monitoring may be necessary.

A full summary of project recommendations can be found in Sections 1, 6, and 7 of the report.

N

Tables

TABLE 1

Noise Level Measurements

Site No.	Date	Start Time[1]	Leq	L_{min}	L_{max}	L_2	L_8	L_{25}	L_{50}	Comments
1	11/29/17 (Wednesday)	4:07 PM	50.4	45.9	69.3	53.8	51.8	50.6	49.6	Measurement taken in patio area, near site of proposed worship building. Some noise from man lift nearby.
1	12/03/17 (Sunday)	2:26 PM	53.3	45.2	68.5	58.2	56.8	55.0	52.3	Measurement taken in patio area, near site of proposed worship building. Noise from speakers.

[1] Noise measurements were taken for twenty minute duration.

TABLE 2
Roadway Parameters and Vehicle Distribution

Roadway Parameters[1]

Roadway	Segment Limits	Classification	Lanes	Speed (MPH)	Buildout (ADT)	Site Conditions
SR-241	Portola Pky. to El Toro Road	Toll Road	5	70	92,000	Hard
Portola Parkway	Glenn Ranch Road to SR-241	Major	6	60	45,000	Hard
Portola Parkway	SR-241 to El Toro Road	Major	6	60	45,000	Hard
Santa Margarita Pkwy	El Toro Road to Los Alisos Road	Major	6	60	45,000	Hard
El Toro Road	Normandale Dr. to Portola/S.M. Pky.	Major	6	60	45,000	Hard
El Toro Road	Portola Pky./S.M. Pky. to Marguerite Pky.	Major	4	60	45,000	Hard
El Toro Road	Marguerite Pky. to Painted Trail	Major	4	60	45,000	Hard

Traffic Volume[2]

Roadway	Segment Limits	Existing ADT	Project ADT	Existing Plus Project ADT	Opening Year ADT	Opening Year Plus Project ADT
SR-241	Portola Pky. to El Toro Road	37,100	66	37,166	38,695	38,761
Portola Parkway	Glenn Ranch Road to SR-241	17,592	66	17,658	18,303	18,369
Portola Parkway	SR-241 to El Toro Road	27,252	264	27,516	29,094	29,358
Santa Margarita Pkwy	El Toro Road to Los Alisos Road	27,600	132	27,732	29,101	29,233
El Toro Road	Normandale Dr. to Portola/S.M. Pky.	21,984	165	22,149	23,452	23,617
El Toro Road	Portola Pky./S.M. Pky. to Marguerite Pky.	13,104	33	13,137	13,634	13,667
El Toro Road	Marguerite Pky. to Painted Trail	10,584	33	10,617	11,012	11,045

Vehicle Distribution and Truck Mix - Freeway/Toll Road[3]

Motor-Vehicle Type	Daytime %[3] (7 AM to 7 PM)	Evening %[3] (7 PM to 10 PM)	Night %[3] (10 PM to 7 AM)	Total % of Traffic Flow[2]
Automobiles	70.5	12.5	17.0	98.30
Medium Trucks	70.5	12.5	17.0	1.40
Heavy Trucks	70.5	12.5	17.0	0.30

Vehicle Distribution and Truck Mix - Major/Arterial Highways[4]

Motor-Vehicle Type	Daytime %[3] (7 AM to 7 PM)	Evening %[3] (7 PM to 10 PM)	Night %[3] (10 PM to 7 AM)	Total % of Traffic Flow[2]
Automobiles	77.5	12.9	9.6	97.42
Medium Trucks	84.8	4.9	10.3	1.84
Heavy Trucks	86.5	2.7	10.8	0.74

[1] Roadway parameters are based on the Orange County Master Plan of Arterial Highways and City of Lake Forest General Plan EIR.

[2] Traffic volume obtained from Saddleback Church Expansion Traffic Impact Study (Dec. 2017) and Caltrans published data.

[3] Vehicle distribution and truck mix for freeways/toll roads are based CALTRANS published data.

[4] Vehicle distribution and truck mix for arterial highways are based on typical Orange County roadway mix.

TABLE 3
Reference Stationary Noise Level Measurements

Source[1]	Referenced Measured Noise Levels (dBA)						
	Distance from Reference Source (feet)	L_{eq}	L_{max}	L_2	L_8	L_{25}	L_{50}
Mechanical/HVAC Equipment	3	82.5	82.5	82.5	82.5	82.5	82.5

[1] Referenced noise levels obtained by RK.

TABLE 4
Roadway Noise Impact Analysis for Existing Conditions

Roadway	Segment Limits	CNEL (dBA)[1]			
		Existing	Existing Plus Project	Change in Noise Level	Significant Impact[2]
SR-241	Portola Pky. to El Toro Road	79.1	79.1	0.0	NO
Portola Parkway	Glenn Ranch Road to SR-241	70.9	70.9	0.0	NO
Portola Parkway	SR-241 to El Toro Road	72.8	72.8	0.0	NO
Santa Margarita Pkwy	El Toro Road to Los Alisos Road	72.8	72.9	0.1	NO
El Toro Road	Normandale Dr. to Portola/S.M. Pky.	71.8	71.9	0.1	NO
El Toro Road	Portola Pky./S.M. Pky. to Marguerite Pky.	69.4	69.4	0.0	NO
El Toro Road	Marguerite Pky. to Painted Trail	68.5	68.5	0.0	NO

[1] Exterior noise levels calculated 5 feet above ground level and 100 feet from centerline of roadway. See appendix C for calculation worksheets.

[2] A significant noise impact is considered to occur when the project causes a 3 dB, or greater, increase over "without project" conditions.

TABLE 5

Roadway Noise Impact Analysis for Opening Year Conditions

Roadway	Segment Limits	CNEL (dBA)[1]			
		Opening Year Without Project	Opening Year With Project	Change in Noise Level	Significant Impact[2]
SR-241	Portola Pky. to El Toro Road	79.3	79.3	0.0	NO
Portola Parkway	Glenn Ranch Road to SR-241	71.0	71.1	0.1	NO
Portola Parkway	SR-241 to El Toro Road	73.1	73.1	0.0	NO
Santa Margarita Pkwy	El Toro Road to Los Alisos Road	73.1	73.1	0.0	NO
El Toro Road	Normandale Dr. to Portola/S.M. Pky.	72.1	72.2	0.1	NO
El Toro Road	Portola Pky./S.M. Pky. to Marguerite Pky.	69.6	69.6	0.0	NO
El Toro Road	Marguerite Pky. to Painted Trail	68.7	68.7	0.0	NO

[1] Exterior noise levels calculated 5 feet above ground level and 100 feet from centerline of roadway. See appendix C for calculation worksheets.

[2] A significant noise impact is considered to occur when the project causes a 3 dB, or greater, increase over "without project" conditions.

TABLE 6

Stationary Source Noise Impact Analysis (dBA)

	Source[1]	Distance from Reference Source (feet)	Adjusted Noise Levels (dBA)[2]					
			L_{eq}	L_{max} (max)	L_2 (1 min)	L_8 (5 min)	L_{25} (15 min)	L_{50} (30 min)
WEEKDAY	HVAC Equipment	125	44.9	44.9	44.9	44.9	44.9	44.9
	Existing Ambient Noise Level	- -	50.4	69.3	53.8	51.8	50.6	49.6
	Total Combined Exterior Noise Impact		51.5	69.3	54.3	52.6	51.6	50.9
	City of Lake Forest Noise Level Criteria		n/a	75.0	70.0	65.0	60.0	55.0
	Change in Noise Level as a Result of Project		1.1	0.0	0.5	0.8	1.0	1.3
	Significant Impact (?)[3]		NO	NO	NO	NO	NO	NO

	Source[1]	Distance from Reference Source (feet)	Adjusted Noise Levels (dBA)[2]					
			L_{eq}	L_{max} (max)	L_2 (1 min)	L_8 (5 min)	L_{25} (15 min)	L_{50} (30 min)
WEEKEND	HVAC Equipment	125	44.9	44.9	44.9	44.9	44.9	44.9
	Existing Ambient Noise Level	- -	53.3	68.5	58.2	56.8	55.0	52.3
	Total Combined Exterior Noise Impact		53.9	68.5	58.4	57.1	55.4	53.0
	City of Lake Forest Noise Level Criteria		n/a	75.0	70.0	65.0	60.0	55.0
	Change in Noise Level as a Result of Project		0.6	0.0	0.2	0.3	0.4	0.7
	Significant Impact (?)[3]		NO	NO	NO	NO	NO	NO

[1] Exterior noise levels calculated at nearest adjacent building (re-purposed Worship Center for educational uses), located on project site.

[2] See Appendix D for dBA calculations

[3] A significant impact is assumed if the following occurs;

(a) An individual stationary noise source exceeds the Ciy's noise criteria, without the combined effect of existing ambient noise, or

(b) The existing ambient noise level is above the City's noise level criteria and the combined effect of stationary noise results in a 3 dB increase or more.

TABLE 7
Interior Noise Level Analysis (dBA CNEL)

Receiver Location	Roadway Noise Source	Exterior Noise Level at Building Facade	Noise Reduction Required to Meet Interior Noise Standard of 45 dBA CNEL	First Floor Interior Noise Level w/ Standard Windows (STC $\geq$ 25)		STC Rating for Windows Facing Subject Roadway
				Windows Open[1]	Windows Closed[2]	
New Worship Building Façade	SR-241 Toll Road	67.5	22.5	55.5	47.5	28

[1] A minimum of 12 dBA noise reduction is assumed with a "windows open" condition.

[2] A minimum of 20 dBA noise reduction is assumed with a "windows closed" condition.

TABLE 8
Typical Construction Noise Levels[1]

EQUIPMENT POWERED BY INTERNAL COMBUSTION ENGINES

Type	Noise Levels (dBA) at 50 Feet
Earth Moving	
Compactors (Rollers)	73 - 76
Front Loaders	73 - 84
Backhoes	73 - 92
Tractors	75 - 95
Scrapers, Graders	78 - 92
Pavers	85 - 87
Trucks	81 - 94
Materials Handling	
Concrete Mixers	72 - 87
Concrete Pumps	81 - 83
Cranes (Movable)	72 - 86
Cranes (Derrick)	85 - 87
Stationary	
Pumps	68 - 71
Generators	71 - 83
Compressors	75 - 86

IMPACT EQUIPMENT

Type	Noise Levels (dBA) at 50 Feet
Pneumatic Wrenches	82 - 87
Jack Hammers, Rock Drills	80 - 99
Pile Drivers (Peak)	95-105

OTHER

Type	Noise Levels (dBA) at 50 Feet
Vibrators	68 - 82
Saws	71 - 82

[1] Referenced Noise Levels from the Environmental Protection Agency (EPA)

TABLE 9
Construction Noise Impact Analysis (dBA)[1]

Phase	Equipment	Quantity	Calculated Noise Level @ 650 feet (dBA)[1]		Combined Noise Level (dBA)	
			Lmax	Leq	Lmax	Leq
Site Preparation	Graders	1	62.7	58.7	64.9	60.9
	Rubber Tired Dozers	1	59.4	55.4		
	Tractors/Loaders/Backhoes	1	55.3	51.3		
Grading	Excavators	1	58.4	54.5	65.8	61.8
	Graders	1	62.7	58.7		
	Rubber Tired Dozers	1	59.4	55.4		
	Tractors/Loaders/Backhoes	1	55.3	51.3		
Building construction	Cranes	1	58.3	50.3	66.3	62.1
	Forklifts	1	61.7	57.7		
	Generator Sets	1	58.4	55.3		
	Tractors/Loaders/Backhoes	3	55.3	51.3		
	Welders	3	51.7	47.7		
Paving	Cement and Mortar Mixers	1	56.5	52.5	68.4	62.1
	Pavers	1	54.9	51.9		
	Paving Equipment	1	67.2	60.2		
	Rollers	1	57.7	50.7		
	Tractors/Loaders/Backhoes	1	55.3	51.3		
Architectural Coating	Air Compressors	1	55.4	51.4	55.4	51.4

Noise Impact Criteria[2]	
Maximum Construction Phase Noise Level - Leq (dBA)	62.1
FTA Construction Noise Criteria (Detailed Assessment: 8-Hour Leq)	80
Potentially Significant Short-Term Noise Impact (Yes/No?)	No

[1] Construction noise levels calculated using the Federal Highway Administration Roadway Construction Noise Model Version 1.1. Noise levels are calculated based on the average distance of equipment over an 8-hour period to nearest adjacent sensitive receptors (residential homes to the south, ~650 feet away.)

[2] Construction noise criteria based on the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment (May 2006).

Table 10
Typical Construction Vibration Levels[1]

Equipment	Peak Particle Velocity (PPV) (inches/second) at 25 feet	Approximate Vibration Level (LV) at 25 feet
Pile driver (impact)	1.518 (upper range)	112
	0.644 (typical)	104
Pile driver (sonic)	0.734 upper range	105
	0.170 typical	93
Clam shovel drop (slurry wall)	0.202	94
Hydromill	0.008 in soil	66
(slurry wall)	0.017 in rock	75
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

[1] Transit Noise and Vibration Impact Assessment, Federal Transit Administration, May 2006.

TABLE 11
Construction Vibration Impact Analysis[1]

Unmitigated Vibration Levels

Construction Activity	Distance to Nearest Structure (ft)	Duration	Calculated Vibration PPV (in/sec)	Damage Potential
Vibratory Roller	50 feet	Continuous/Frequent	0.098	Fragile Buildings

Damage Potential Threshold Criteria[1]		
Structure and Condition	Duration	
	Transient Sources - PPV (in/sec)	Continuous/Frequent Sources - PPV (in/sec)
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old bldgs	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

[1] Vibration analysis is based on the Caltrans Guidance Manual for Transportation and Construction-Induced Vibration, June 2004. The following Threshold criteria has been established:

Appendices

Appendix A

City of Lake Forest
Noise Element and Noise Standards

Development proposals for sites outside of Planned Communities will be reviewed for potential hazards pursuant to the California Environmental Quality Act. The following conditions will be assessed and mitigation measures will be required to ensure public safety:

- Steep slopes, unstable geologic materials and faulting;
- Flooding;
- Brush and structural fires, water pressure for fire fighting purposes;
- Aircraft overflights;
- Hazardous materials use, transport, storage and disposal; and
- Ground transportation hazards (rail and roadway system).

EMERGENCY PREPAREDNESS

While the City will aggressively implement programs to protect public safety, a modest potential for a catastrophic event will still exist. The best strategy to minimize human suffering and property damage is to establish and maintain an Emergency Preparedness Plan. The purpose of the Emergency Preparedness Plan is to respond to emergency situations with a coordinated system of emergency service providers and facilities. Local Emergency Preparedness Plans serve as extensions of the California Emergency Plan and Emergency Resource Management Plan.

The City of Lake Forest will prepare and maintain an Emergency Preparedness Plan. The Plan will identify resources available for emergency response and establish coordinated actions plans for specific emergency situations and disasters including earthquake, fire, major rail and roadway accident, flooding, hazardous materials incident, civil disturbance, nuclear attack and accident at San Onofre Nuclear Generating Station.

To support the Emergency Preparedness Plan, the City will support a high level of multi-jurisdictional cooperation and communication for emergency planning and response management. Private individuals and organizations will be solicited to enhance local communication and response with cellular telephones, ham radios, AM/FM radio and cable television. Effective emergency response also requires vital facilities such as hospitals, fire stations and communication centers to be functional during disasters. The City will work with emergency providers to ensure that vital facilities are designed and operated to remain functional.

Educating residents and businesses about potential disasters and the Emergency Preparedness Plan can increase the effectiveness of emergency response efforts. An educated public will know how to prevent injury and property damage during and after emergency episodes and know how to find help. The City will work to educate residents and businesses about appropriate actions to safeguard life and property during and immediately after emergencies. Education about emergency preparedness can occur through the distribution of brochures, presentations to civic groups and homeowner associations, and instruction in local schools.

NOISE AND LAND USE PLANNING

Noise in the Planning Area is the cumulative effect of noise from transportation activities and stationary sources. Transportation noise refers to noise from automobile use, trucking, airport operations and rail operations. Non-transportation noise typically refers to noise from stationary sources such as commercial establishments, machinery, air conditioning systems, compressors and landscape maintenance equipment. Regardless of the type of noise, the noise levels are highest near the source and decrease with distance. Noise is problematic when noise sensitive land uses

are affected. Noise sensitive land uses, defined as activities that are interrupted by noise, include residences, schools, hospitals, religious meetings and recreation areas. Most noise impacts can be avoided when noise sources, sensitive land uses and information about the future noise environment are considered in land use planning and development decisions.

The noise environment for the Planning Area can be described with noise contours based on the major noise sources. Noise contours define areas of equal noise exposure. Future noise contours have been estimated with information about existing and projected development and transportation activity. Figure SN-4 shows the projected noise contours for the Lake Forest Planning Area.[1] The assumptions and methods used to develop the contours are explained in detail in the City Master Environmental Assessment.

Noise Standards and Land Use Compatibility Guidelines

To ensure that noise producers do not adversely affect sensitive receptors, the City will use land use compatibility standards when making planning and development decisions. Table SN-2 summarizes City noise standards for various types of land uses. The standards represent the maximum allowable noise level and will be used to determine noise impacts. The noise standards act as City policy for acceptable noise levels for development.

The noise standards are the basis for the development of land use compatibility guidelines, which are presented in a matrix in Table SN-3. The primary purpose of the noise/land use potential conflicts between proposed land uses and the existing and future noise environment. If the noise level of a project falls within Zone A or Zone B, the project is considered compatible with the noise environment. Zone A implies that no mitigation will be needed. Zone B implies that minor soundproofing of the structure may be needed to meet the City noise standards. The project proponent will be required to demonstrate that the noise standards will be met prior to project approval.

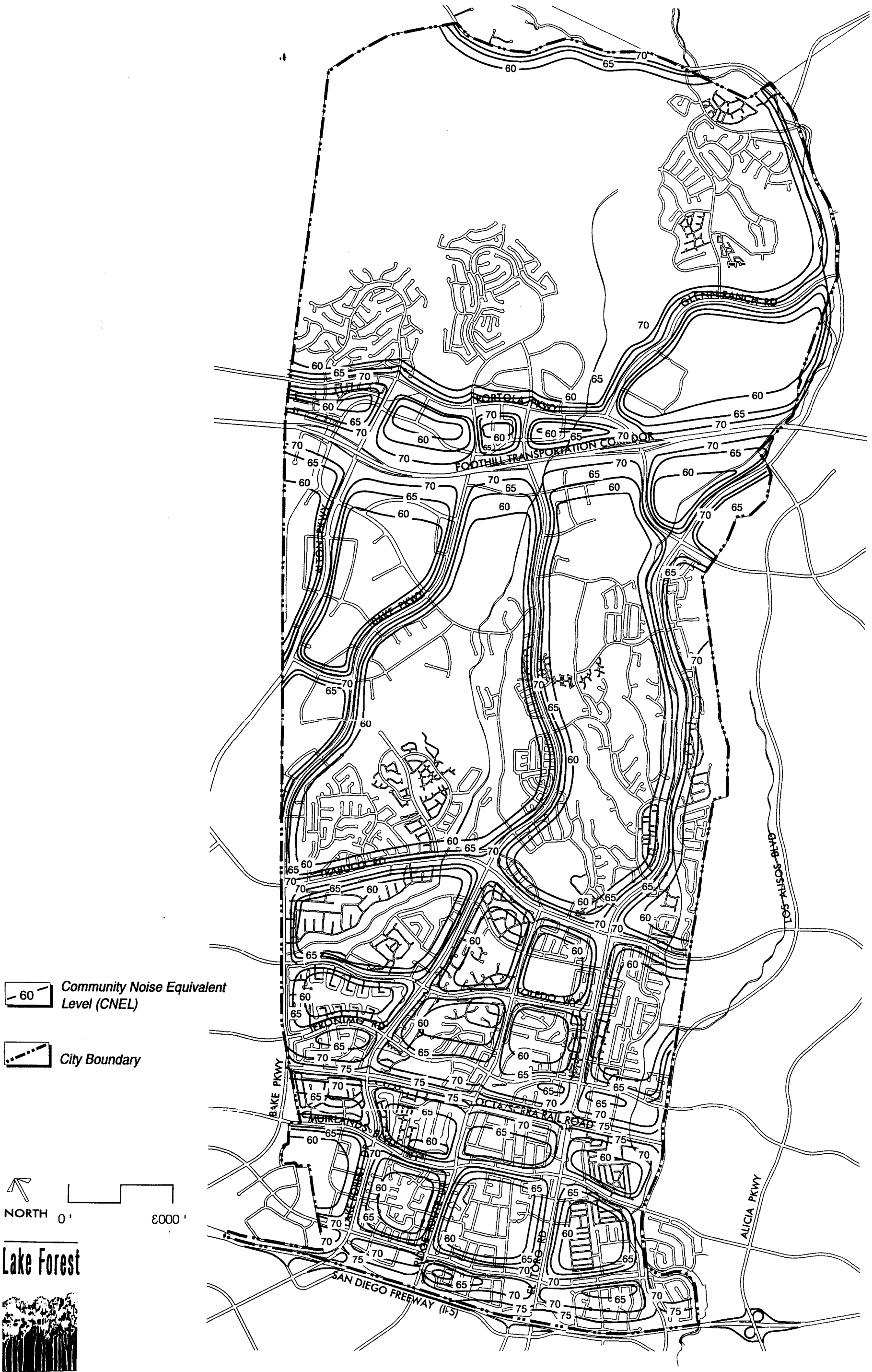
If the noise level of a project falls within Zone C, substantial noise mitigation will be necessary to meet the noise standards. Mitigation may involve construction of noise barriers and substantial building sound insulation. However, projects in Zone C can be successfully mitigated. The project proponent must demonstrate that the noise standards will be met prior to issuance of a building permit. If the noise levels falls outside of Zones A, B and C, the project is considered clearly incompatible with the noise environment and should not be approved.

The City Community Development Department will act as the noise control coordinator. This delegation of responsibility will allow consistent and continued enforcement of the established noise standards.

Noise Impact Areas

The noise contours will be used as a guide for land use and development decisions. The 60 dB CNEL defines Noise Impact Areas. When noise-sensitive land uses are proposed within the 60 dB CNEL or greater contour, an acoustical analysis must be prepared. For the project to be approved, the analysis must demonstrate that the project is designed to attenuate noise to meet the City noise standards, as defined in Table SN-2. If the project is not designed to meet the noise standards, mitigation measures can be recommended in the analysis. If the analysis demonstrates that the noise standards can be met with implementation of the mitigation measures, the project can be approved with the mitigation measures required as conditions of project approval.

[1] General Plan Amendment 00-01, dated May 2, 2000.



Lake Forest

General Plan

SOURCE: J.J. Van Houten and Associates, October 1993

Figure SN-4
Future Noise Contours

TABLE SN-2
INTERIOR AND EXTERIOR NOISE STANDARDS

Land Use	Noise Standards[1]	
	Interior[2,3]	Exterior
Residential - Single family, multifamily, duplex, mobile home	CNEL 45 dB	CNEL 65 dB[4]
Residential - Transient lodging, hotels, motels, nursing homes, hospitals	CNEL 45 dB	CNEL 65 dB[4]
Private offices, church sanctuaries, libraries, board rooms, conference rooms, theaters, auditoriums, concert halls, meeting halls, etc.	Leq(12) 45 dB(A)[6][2]	-
Schools	Leq(12) 45 dB(A)	Leq(12) 67 dB(A)[5]
General offices, reception, clerical, etc.	Leq(12) 50 dB(A)	-
Bank lobby, retail store, restaurant, typing pool, etc.	Leq(12) 55 dB(A)	-
Manufacturing, kitchen, warehousing, etc.	Leq(12) 65 dB(A)	-
Parks, playgrounds	-	CNEL 65 dB[5]
Golf courses, outdoor spectator sports, amusement parks	-	CNEL 70 dB[5]

NOTES

(1) CNEL: Community Noise Equivalent Level.
Leq(12): The A-weighted equivalent sound level averaged over a 12-hour period (usually the hours of operation).

(2) Noise standard with windows closed. Mechanical ventilation shall be provided per UBC requirements to provide a habitable environment.

(3) Indoor environment excluding bathrooms, toilets, closets and corridors.

(4) Outdoor environment limited to rear yard of single family homes, multifamily patios and balconies (with a depth of 6' or more) and common recreation areas.

(5) Outdoor environment limited to playground areas, picnic areas, and other areas of frequent human use.

(6) Religious institutions (Churches, temples, and other places of worship) of a small size (occupancy) of 100 persons or less) may occupy existing buildings within areas of exterior noise levels ranging from 65 to 75 dB CNEL without providing additional noise insulation for the building.

Source: J.J. Van Houten & Associates.

[1] General Plan Amendment 94-01 - dated July 11, 1995.

TABLE SN-3
NOISE/LAND USE COMPATIBILITY MATRIX

LAND USE CATEGORIES	COMMUNITY NOISE EQUIVALENT LEVEL CNEL						
	55	60	65	70	75	80	
Residential - Single Family, Multi-family, duplex	A	A	B	C[1]	C		
Residential - Mobile homes	A	A	B	C	C		
Transient Lodging - Motels, Hotels	A	A	B	B	C	C	
Schools, Libraries, Churches, Hospitals, Nursing/Convalescent Homes, Preschools, Day Care Centers(1)[2]	A	A	B	C	C		
Auditoriums, Concert Halls, Amphitheaters, Meeting Halls	B	B	C	C			
Sports Arenas, Outdoor Spectator Sport, Amusement Parks	A	A	A	B	B		
Playgrounds, Neighborhood Parks	A	A	A	B	C		
Golf Courses, Riding Stables, Cemeteries	A	A	A	A	B	C	C
Office and Professional Buildings	A	A	A	B	B	C	
Commercial Retail, Banks, Restaurants, Theaters	A	A	A	A	B	B	C
Industrial, Manufacturing, Utilities, Wholesale, Service Stations	A	A	A	A	B	B	B
Agriculture	A	A	A	A	A	A	A

Zone A - Normally Acceptable - Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.[1]

Zone B - Conditionally Acceptable - New construction or development should be undertaken only after detailed analysis of the noise reduction requirement is made and needed noise insulation features in the design are determined. Conventional construction, with closed windows and fresh air supply systems or air conditioning, will normally suffice.

Zone C - Normally Unacceptable - New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in the design.[1]

Notes: (1) Religious institutions (Churches, synagogues, temples and other places of worship) of a small size (occupancy of 100 persons or less) may occupy existing buildings within areas of exterior noise levels ranging from 65 to 75 dB CNEL without providing additional noise insulation for the building.
(2) Shaded areas indicate new construction or development should generally not be undertaken.
Source: J.J. Van Houten & Associates

[1] General Plan Amendment 95-01 - dated May 16, 1995.

[2] General Plan Amendment 94-01 - dated July 11, 1995.

Construction Standards

The provisions of the state Noise Insulation Standards (Title 24) will be enforced in Lake Forest. Title 24 specifies that combined indoor noise for multi-family living spaces shall not exceed 45 dB CNEL. This standard must be implemented when the outdoor noise level exceeds 60 dB CNEL. The noise contour map (Figure SN-4) can be used to determine when to implement the standard. Title 24 requires that the standard be applied to all new hotels, motels, apartment houses and multi-family projects. The City will also apply the standard to new single-family development and condominium conversion projects as a matter of policy.[1]

TRANSPORTATION NOISE

Noise from transportation activity is the primary component of the noise environment in Lake Forest. Transportation noise is related to the transportation corridors that traverse the Planning Area, such as Interstate 5, Foothill Transportation Corridor, major arterials and collector roadways, and the Orange County Transportation Authority (OCTA) railroad.[2] The most efficient and effective means of controlling noise from transportation systems is to reduce the noise at the source.

The City has little direct control over noise produced by transportation sources because state and federal noise regulations preempt local regulations. The state regulates motor vehicle noise.[3] Because the City cannot control noise at the source, City noise programs focus on reducing the impact of transportation noise on the community. Cost effective strategies to control noise impacts are an essential component of this element.

The most effective method for mitigating transportation noise impacts on the community is by utilizing the site design review process and CEQA. During these stages of the development process, potential impacts from transportation noise will be identified and mitigation measures will be required as needed to meet City noise standards. Site planning, landscaping, topography and the design and construction of noise barriers (walls, berms or combination of walls/berms) are the most common method of alleviating traffic and train noise impacts. Setbacks and buffers can also be used to achieve small noise reductions.

Noise attenuating barriers are commonly incorporated into projects and can be extremely effective in reducing noise levels. The effectiveness of the barrier depends on the relative height and materials of the barrier, the noise source, the affected area, the horizontal distance between the source and the barrier, and the horizontal distance between the barrier and affected area. Although noise barriers can be extremely effective, the aesthetic effect of barriers on neighborhoods should be considered.

Noise barriers should be included in the design of roadway, freeway and rail improvements. The City will support efforts by Caltrans, Orange County Transportation Authority, SCRRA and other transportation providers to provide acoustical protection for noise-sensitive development. In addition, the City will request that barriers are constructed as part of freeway, roadway and rail improvement projects to mitigate significant noise impacts. In particular, Interstate 5 and the Foothill Transportation Corridor are prime candidates for barriers to protect the community from excessive transportation noise. Although the City does not have jurisdiction over railroad operation, maintenance, and construction activities

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[1] General Plan Amendment 00-01, dated May 2, 2000.

[2] General Plan Amendment 00-01, dated May 2, 2000.

[3] General Plan Amendment 00-01, dated May 2, 2000.

occurring within the OCTA right-of-way, SCRRA will also be requested to construct noise barriers adjacent to existing unprotected residential areas adjacent to the railroad.

Noise Control at the Source

The California Vehicle Code contains noise regulations pertaining to the operation of all vehicles on public roads. These noise standards for cars, trucks and motorcycles will be enforced through coordination with the California Highway Patrol and Orange County Sheriff's Department. The City will also regulate traffic flow and coordinate with the Orange County Sheriff's Department to enforce speed limits to reduce traffic noise. Truck and bus noise will be minimized by periodically evaluating and continually enforcing established routes to avoid noise impacts on sensitive receptors. To reduce the production of rail noise, the City will encourage SCRRA to continue to use welded track in good repair within the Planning Area.[1]

NON-TRANSPORTATION NOISE

Sensitive receptors must also be protected from excessive noise generated by non-transportation sources such as commercial and industrial centers, restaurants and bars, religious institutions and civic centers. Application of the City Noise Ordinance is the best means to control noise from existing noise sources. Noise generated by new development will be effectively controlled through the site design review process and CEQA, and compliance with the City Noise Ordinance. During these preliminary stages in the development process, potential noise impacts will be identified and mitigation measures can be imposed.

When reviewing proposed non-residential projects, noise generation and potential impacts to surrounding development will be considered. Acoustical analyses will be required for projects that will generate noise potentially affecting sensitive receptors. Where significant impacts are identified, mitigation measures will be required. The following mitigation measures could be applied when reviewing proposed projects:

- **Furnaces** - Acoustically treat natural draft and/or forced draft units and combustion air intake plena. Insulation of firing walls and damped and lined ducting are but a few of the treatments that could be considered.

- **Fans** - Air cooled heat exchangers can be provided with silencers where effective (i.e., primarily on small, high-speed air fans). For larger coolers, quieter equipment can be installed.

- **Motors** - Quiet-design motors can be employed and located to minimize impacts on nearby properties.

- **Centrifugal Compressors** - Centrifugal compressors can be equipped with inlet and discharge silencers. Acoustical enclosures may also be considered.

- **Centrifugal Pumps** - Centrifugal pumps may be equipped with suction and discharge piping that has been acoustically treated. Acoustical enclosures may be considered.

- **Steam and Gas Generators** - Acoustical enclosures for turbines may be effective in reducing noise. Inlet and discharge piping may be acoustically treated and expansion joints added or comparable attenuative modifications made to minimize structure-borne vibrations.

- **Control Valves** - Quiet valves should be used whenever available. In other circumstances, in-line silencers can be employed.

[1]General Plan Amendment 00-01, dated May 2, 2000.

- **Atmospheric Vents, Exhaust and Intakes** - Noise vents should be equipped with silencers. Where safety is not an overriding concern, vents should be positioned close to the ground or below grade.

- **Paging Systems** - Loudspeaker paging systems shall be regulated pursuant to the City's noise ordinance. Whenever possible suitable alternatives such as radio or visual paging systems should be utilized.

- **Delivery/Loading Areas** - Limit delivery hours for stores with loading areas or docks fronting, bordering, or gaining access in driveways next to noise sensitive uses.

- **Operating Hours** - Restrict operation hours at night to minimize impacts to adjacent residential uses.

In addition, all City departments must comply with state and federal OSHA noise standards. Any new equipment or vehicle purchased by the City will comply with local, state and federal noise standards.

Noise Ordinance

The City Noise Ordinance is designed to protect people from non-transportation noise sources such as music, construction activity, machinery and pumps, and air conditioners. Enforcement of the ordinance ensures that adjacent properties are not exposed to excessive noise from stationary sources. Enforcing the Noise Ordinance includes requiring proposed development projects to show compliance with the ordinance, and requiring construction activity to comply with established work schedule limits. The Noise Ordinance does not apply to railroad operation, maintenance and construction activities occurring with the OCTA right-of-way or the permitted hours for such activities. The ordinance will be reviewed periodically for adequacy and amended as needed to address community needs and development patterns.

Chapter 11.16 NOISE CONTROL*

* CodeAlert: This topic has been affected by Ordinance No. 300. To view amendments and newly added provisions, please refer to the CodeAlert Amendment List.

11.16.010 Declaration of policy.

In order to control unnecessary, excessive and annoying sounds, it is hereby declared to be the policy of the City to prohibit such sounds generated from all sources as specified in this chapter.

It is determined that certain sound levels are detrimental to the public health, welfare and safety, and contrary to public interest. (Ord. 171 § 1, 2007)

11.16.020 Definitions.

The following words, phrases and terms as used in this chapter shall have the meaning as indicated below:

"Ambient noise level" shall mean the all-encompassing noise level associated with a given environment, being a composite of sounds from all sources, excluding the alleged offensive noise, at the location and approximate time at which a comparison with the alleged offensive noise is to be made.

"Cumulative period" shall mean an additive period of time composed of individual time segments which may be continuous or interrupted.

"Decibel (dB)" shall mean a unit which denotes the ratio between two (2) quantities which are proportional to power: the number of decibels corresponding to the ratio of two (2) amounts of power is ten (10) times the logarithm to the base ten (10) of this ratio.

"Dwelling unit" shall have the same meaning as in Section 9.04.030(D).

"Emergency machinery, vehicle or work" shall mean any machinery, vehicle or work used, employed or performed in an effort to protect, provide or restore safe conditions in the community or for the citizenry, or work by private or public utilities when restoring utility service.

"Fixed noise source" shall mean a stationary device which creates sounds while fixed or motionless, including but not limited to industrial and commercial machinery and equipment, pumps, fans, compressors, generators, air conditioners and refrigeration equipment.

"Grading" shall mean any excavating or filling of earth material, or any combination thereof, conducted at a site to prepare said site for construction or other improvements thereon.

"Impact noise" shall mean the noise produced by the collision of one (1) mass in motion with a second mass which may be either in motion or at rest.

"Mobile noise source" shall mean any noise source other than a fixed noise source.

"Noise level" shall mean the "A" weighted sound pressure level in decibels obtained by using a sound level meter at slow response with a reference pressure of twenty (20) micronewtons per square meter. The unit of measurement shall be designated as dBa.

"Person" shall mean a person, firm, association, copartnership, joint venture, corporation or any entity, public or private in nature.

"Residential property" shall mean a parcel of real property that is developed and used either in part or in whole for residential purposes, other than transient uses such as hotels and transitory lodgings.

"Simple tone noise" shall mean a noise characterized by a predominant frequency or frequencies so that other frequencies cannot be readily distinguished.

"Sound level meter" shall mean an instrument meeting American National Standard Institute's Standard S1.4-1971 for Type 1 or Type 2 sound level meters or an instrument and the associated recording and analyzing equipment which will provide equivalent data.

"Sound pressure level" of a sound, in decibels, shall mean twenty (20) times the logarithm to the base ten (10) of the ratio of the pressure of the sound to a reference pressure, which reference pressure shall be explicitly stated. (Ord. 297 § 14, 2017; Ord. 171 § 1, 2007)

11.16.025 Measurement of noise levels.

Any noise level measurements made pursuant to the provisions of this chapter shall be performed using a sound level meter as defined in Section 11.16.020. The location selected for measuring exterior noise levels shall be at any point on the affected property. Interior noise measurements shall be made within the affected dwelling unit. The measurement shall be made at a point at least four (4) feet from the wall, ceiling, or floor nearest the alleged offensive noise source and may be made with the windows of the affected unit open. (Ord. 171 § 1, 2007)

11.16.030 Designated noise zone.

The entire territory of the City of Lake Forest is hereby designated as "Noise Zone 1." (Ord. 171 § 1, 2007)

11.16.040 Exterior noise standards.

A. The following noise standards, unless otherwise specifically indicated, shall apply to all residential property within a designated noise zone:

NOISE STANDARDS

Noise Zone	Noise Level	Time Period
1	55 dBa	7:00 a.m.—10.00 p.m.
1	50 dBa	10:00 p.m.—7:00 a.m.

In the event the alleged offensive noise consists entirely of impact noise, simple tone noise, speech, music, or any combination thereof, each of the above noise levels shall be reduced by five (5) dBa.

B. It shall be unlawful for any person at any location to create any noise, or to allow the creation of any noise on property owned, leased, occupied, or otherwise controlled by such person, when the foregoing causes the noise level, when measured on any other residential property, to exceed:

1. The noise standard for a cumulative period of more than thirty (30) minutes in any hour; or
2. The noise standard plus five (5) dBa for a cumulative period of more than fifteen (15) minutes in any hour; or
3. The noise standard plus ten (10) dBa for a cumulative period of more than five (5) minutes in any hour; or
4. The noise standard plus fifteen (15) dBa for a cumulative period of more than one (1) minute in any hour; or
5. The noise standard plus twenty (20) dBa for any period of time.

C. In the event the ambient noise level exceeds any of the first four (4) noise limit categories above, the cumulative period applicable to said category shall be increased to reflect said ambient noise level. In the event the ambient noise level exceeds the fifth (5th) noise limit category, the maximum allowable noise level under said category shall be increased to reflect the maximum ambient noise level. (Ord. 171 § 1, 2007)

11.16.050 Interior noise standards.

A. The following interior noise standards, unless otherwise specifically indicated, shall apply to all residential property within a designated noise zone:

INTERIOR NOISE STANDARDS

Noise Zone	Noise Level	Time Period
1	55 dBa	7:00 a.m.—10:00 p.m.
1	45 dBa	10:00 p.m.—7:00 a.m.

In the event the alleged offensive noise consists entirely of impact noise, simple tone noise, speech, music, or any combination thereof, each of the above noise levels shall be reduced by five (5) dBa.

B. It shall be unlawful for any person at any location to create any noise, or to allow the creation of any noise, on property owned, leased, occupied, or otherwise controlled by such person, when the foregoing causes the noise level, when measured within any other dwelling unit on any residential property, to exceed:

1. The interior noise standard for a cumulative period of more than five (5) minutes in any hour; or

2. The interior noise standard plus five (5) dBa for a cumulative period of more than one (1) minute in any hour; or

3. The interior noise standard plus ten (10) dBa for any period of time.

C. In the event the ambient noise level exceeds either of the first two (2) noise limit categories above, the cumulative period applicable to said category shall be increased to reflect said ambient noise level. In the event the ambient noise level exceeds the third (3rd) noise limit category the maximum allowable noise level under said category shall be increased to reflect the maximum ambient noise level. (Ord. 171 § 1, 2007)

11.16.060 Exemptions.

The following activities shall be exempted from the provisions of this chapter:

A. Activities not constituting “special events” conducted on the grounds of any public or private nursery, elementary, intermediate or secondary school or college.

B. “Special events” as defined in Section 5.05.020 provided said events are conducted pursuant to a special event permit issued as described in Chapter 5.05.

C. Any mechanical device, apparatus or equipment used, related to or connected with emergency machinery, vehicle or work.

D. Noise sources associated with construction, repair, remodeling, or grading of any real property, provided said activities do not take place between the hours of 8:00 p.m. and 7:00 a.m. on weekdays, including Saturday, or at any time on Sunday or a Federal holiday.

E. All mechanical devices, apparatus or equipment which are utilized for the protection or salvage of agricultural crops during periods of potential or actual frost damage or other adverse weather conditions.

F. Mobile noise sources associated with agricultural operations, provided such operations do not take place between the hours of 8:00 p.m. and 7:00 a.m. on weekdays, including Saturday, or at any time on Sunday or a Federal holiday.

G. Mobile noise sources associated with agricultural pest control through pesticide application, provided that the application is made in accordance with restricted material permits issued by or regulations enforced by the Agricultural Commissioner.

H. Noise sources associated with the maintenance of real property, provided said activities take place between 7:00 a.m. and 8:00 p.m. on any day except Sunday or a Federal holiday, or between the hours of 9:00 a.m. and 8:00 p.m. on Sunday or a Federal holiday.

I. Any activity to the extent regulation thereof has been preempted by State or Federal law.

J. Noise sources associated with solid waste collection and removal, provided such activities take place between 6:00 a.m. and 6:00 p.m. Monday through Friday where audible in residential areas; or between 7:00 a.m. and 6:00 p.m. on Saturdays where audible in residential areas; or between 5:00 a.m. and 9:00 p.m. any day where such activity is not audible in residential areas; or as otherwise provided in an approved franchise agreement between a waste hauler and the City. (Ord. 171 § 1, 2007)

11.16.070 Schools, hospitals and churches—Special provisions.

It is unlawful for any person to create any noise which causes the noise level at any school, hospital or church while the same is in use to exceed the noise limits as specified in Section 11.16.040 prescribed for the assigned noise zone in which the school, hospital or church is located, or which noise level unreasonably interferes with the use of such institutions or which unreasonably disturbs or annoys patients in the hospital, provided conspicuous signs are displayed in three (3) separate locations within one-tenth (1/10) of a mile of the institution indicating the presence of a school, church or hospital. (Ord. 171 § 1, 2007)

11.16.080 Motor vehicle racing.

It shall be unlawful to conduct motor vehicle racing, testing, timing or similar noise-producing activities at raceways, speedways, off-road vehicle courses, drag strips or other similar places, including, but not limited to, the operation of midget race cars, drag cars, motorcycles, off-road vehicles, and specialty automobiles, between the hours of eleven-thirty p.m. and eight a.m. (Ord. 171 § 1, 2007)

11.16.090 Enforcement.

The City's law enforcement personnel, the County Health Officer and their duly authorized representatives are authorized, pursuant to Penal Code Section 836.5, to arrest any person without a warrant when they have reasonable cause to believe that such person has committed a misdemeanor in their presence.

No person shall interfere with, oppose or resist any authorized person charged with the enforcement of this chapter while such person is engaged in the performance of his duty. (Ord. 171 § 1, 2007)

11.16.100 Variance procedure.

The owner or operator of a noise source which violates any of the provisions of this chapter may file an application with the Health Officer for a variance from the provisions thereof wherein said owner or operator shall set forth all actions taken to comply with said provisions, the reasons why immediate compliance cannot be achieved, a proposed method of achieving compliance, and a proposed time schedule for its accomplishment. Said application shall be accompanied by a fee in the amount of seventy-five dollars ($75.00). A separate application shall be filed for each noise source; provided, however, that several mobile sources under common ownership, or several fixed sources on a single property may be combined into one (1) application. Upon receipt of said application and fee, the Health Officer shall refer it with his recommendation thereon within thirty (30) days to the Noise Variance Board for action thereon in accordance with the provisions of this chapter.

An applicant for a variance shall remain subject to prosecution under the terms of this chapter until a variance is granted. (Ord. 171 § 1, 2007)

11.16.110 Noise Variance Board.

The City Council shall, by resolution, appoint the Noise Variance Board, which may be composed of the City Council, Planning Commission, or any other members the City Council may select. The City Council may adopt reasonable rules and regulations for procedures to be used by the Board in carrying out its functions under the provisions of this chapter, or may allow the Board to establish such rules and regulations.

The Noise Variance Board shall evaluate all applications for variance from the requirements of this chapter and may grant said variances with respect to time for compliance, subject to such terms, conditions and requirements as it may deem reasonable to achieve maximum compliance with the provisions of this chapter. Said terms, conditions, and requirements may include but shall not be limited to limitations on noise levels and operating hours. Each such variance shall set forth in detail the approved method of achieving maximum compliance and a time schedule for its accomplishment. In its determinations said Board shall consider the magnitude of nuisance caused by the offensive noise; the uses of property within the area of impingement by the noise; the time factors related to study, design, financing and construction of remedial work; the economic factors related to age and useful life of equipment; and the general public interest and welfare. Any variance granted by said Board shall be by resolution and shall be transmitted to the Development Services Department and the Health Officer for enforcement. Any violation of the terms of said variance shall be unlawful.

Meetings of the Noise Variance Board shall be held at such times and locations as said Board shall determine. All such meetings shall be open to the public.

Traveling and other expenses incurred by each Board member in the performance of his or her official duties shall be reimbursed at a rate determined by resolution of the City Council. (Ord. 171 § 1, 2007)

View the mobile version.

Appendix B

Field Forms and Photographs

Field Sheet

Project: Saddleback Church New Worship Ctr & Rdwy Extension Acoustical Analysis
Engineer: Jethro Narciso
Date: 11/29-12/3/17
JN: 0101-2017-02

Measurement Address: Saddleback Church (between Tent 3 and Existing Worship Center)
City: Lake Forest, CA
Site No.: 1

Sound Level Meter:
LD-712
Serial # A0520

Calibrator:
LD-250 250
Serial # 1322

Calibration Record:

	Input, dB/	Reading, dB/	Offset, dB/	Time
Before	114.0/	114.0/	26.9/	
After	114.0/	114.0/	26.3/	
Before	/	/	/	
After	/	/	/	

Notes:

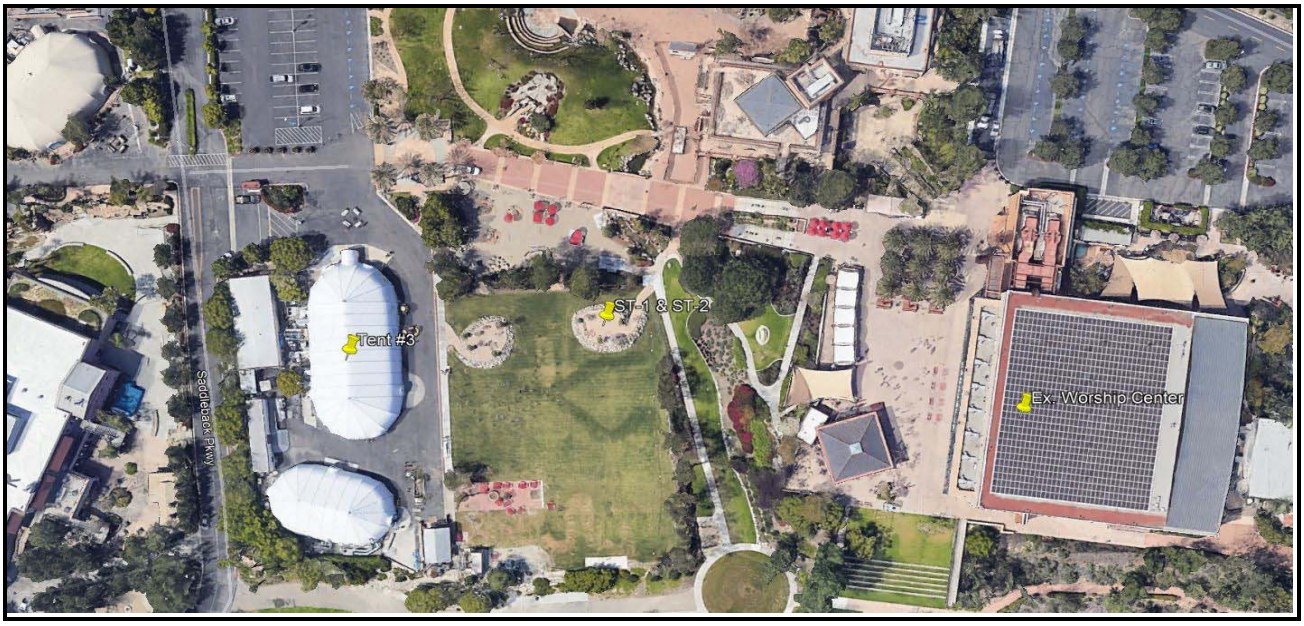
Temp:	--
Windspeed:	--
Direction:	--
Skies:	Clear
Camera:	
Photo Nos.	

Meter Settings:
☒ A-WTD ☐ LINEAR ☒ SLOW ☐ 1/1 OCT ☒ INTERVALS ___10____- MINUTE
☐ C-WTD ☐ IMPULSE ☐ FAST ☐ 1/3 OCT ☒ L_N PERCENTILE VALUES

Notes:
11/29/2017 - Some noise coming from man lift nearby.
12/03/2017 - Some noise coming from nearby campus speakers.
Measurements taken in the seating area between Tent 3 and the existing Worship Center.

Measurement Type:
Long-term
Short-term X

		Start Time	Stop Time	Leq	Lmin	Lmax	L2	L8	L25	L50
Locations	1 (11/29/17)	4:07 PM	4:27 PM	50.4	45.9	69.3	53.8	51.8	50.6	49.6
	2 (12/03/17)	2:26 PM	2:46 PM	53.3	45.2	68.5	58.2	56.8	55.0	52.3
	3									
	4									
	5									



RK engineering group, inc.

Field Sheet - ST1 & ST2 Location Photos

Project: Saddleback Church New Worship Ctr & Rdwy Extension Acoustical Analysis	**Engineer:** Jethro Narciso	**Date:**	11/29-12/3/17
		JN:	0101-2017-02
Measurement Address: Saddleback Church (between Tent 3 and Existing Worship Center)	**City:** Lake Forest, CA	**Site No.:**	1

RK engineering group, inc.

Appendix C

Roadway Noise Impact Analysis
Calculation Worksheets

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: SADDLEBACK COMMUNITY CHURCH NEW WORSHIP CENTER AND ROADWAY EXPANSION
ROADWAY SR-241
SEGMENT Portola Pky. to El Toro Road
LOCATION: City of Lake Forest SCENARIO: EXISTING

JOB #: 0101-2017-02
DATE: 15-Dec-17
ENGINEER: B. ESTRADA

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	37,100
SPEED =	70
PK HR % =	10
NEAR LANE/FAR LANE DIST =	166
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	3,710

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		100
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.705	0.125	0.170	0.983
MEDIUM TRUCKS	0.705	0.125	0.170	0.014
HEAVY TRUCKS	0.705	0.125	0.170	0.003

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	55.9	- -
MEDIUM TRUCKS=	4.00	55.8	- -
HEAVY TRUCKS =	8.01	55.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	78.1	75.8	74.3	70.9	78.3	78.8
MEDIUM TRUCKS	65.4	63.1	61.6	58.2	65.6	66.1
HEAVY TRUCKS	62.0	59.7	58.2	54.7	62.2	62.7
VEHICULAR NOISE	78.4	76.1	74.6	71.2	78.7	**79.1**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	**813**	**2570**	**8126**	**25696**
LDN	**734**	**2322**	**7342**	**23216**

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: SADDLEBACK COMMUNITY CHURCH NEW WORSHIP CENTER AND ROADWAY EXPANSION
ROADWAY Portola Parkway
SEGMENT Glenn Ranch Road to SR-241
LOCATION: City of Lake Forest SCENARIO: EXISTING

JOB #: 0101-2017-02
DATE: 15-Dec-17
ENGINEER: B. ESTRADA

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	17,592
SPEED =	60
PK HR % =	10
NEAR LANE/FAR LANE DIST =	78
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,759

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		100
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.775	0.129	0.096	0.974
MEDIUM TRUCKS	0.848	0.049	0.103	0.018
HEAVY TRUCKS	0.865	0.027	0.108	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	92.1	- -
MEDIUM TRUCKS=	4.00	92.1	- -
HEAVY TRUCKS =	8.01	92.1	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	70.7	68.8	67.1	61.0	69.6	70.2
MEDIUM TRUCKS	60.1	58.6	52.2	50.7	59.2	59.4
HEAVY TRUCKS	59.9	58.5	49.4	50.7	59.0	59.1
VEHICULAR NOISE	71.4	69.6	67.3	61.7	70.3	**70.9**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	**122**	**387**	**1223**	**3869**
LDN	**108**	**341**	**1079**	**3413**

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: SADDLEBACK COMMUNITY CHURCH NEW WORSHIP CENTER AND ROADWAY EXPANSION
ROADWAY Portola Parkway
SEGMENT SR-241 to El Toro Road
LOCATION: City of Lake Forest SCENARIO: EXISTING

JOB #: 0101-2017-02
DATE: 15-Dec-17
ENGINEER: B. ESTRADA

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	27,252
SPEED =	60
PK HR % =	10
NEAR LANE/FAR LANE DIST =	78
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	2,725

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		100
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.775	0.129	0.096	0.974
MEDIUM TRUCKS	0.848	0.049	0.103	0.018
HEAVY TRUCKS	0.865	0.027	0.108	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	92.1	- -
MEDIUM TRUCKS=	4.00	92.1	- -
HEAVY TRUCKS =	8.01	92.1	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	72.6	70.7	69.0	62.9	71.5	72.1
MEDIUM TRUCKS	62.0	60.5	54.1	52.6	61.1	61.3
HEAVY TRUCKS	61.8	60.4	51.3	52.6	60.9	61.1
VEHICULAR NOISE	73.3	71.5	69.2	63.6	72.2	**72.8**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	**190**	**599**	**1895**	**5994**
LDN	**167**	**529**	**1672**	**5287**

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: SADDLEBACK COMMUNITY CHURCH NEW WORSHIP CENTER AND ROADWAY EXPANSION
ROADWAY Santa Margarita Pkwy
SEGMENT El Toro Road to Los Alisos Road
LOCATION: City of Lake Forest SCENARIO: EXISTING

JOB #: 0101-2017-02
DATE: 15-Dec-17
ENGINEER: B. ESTRADA

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	27,600
SPEED =	60
PK HR % =	10
NEAR LANE/FAR LANE DIST =	78
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	2,760

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		100
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.775	0.129	0.096	0.974
MEDIUM TRUCKS	0.848	0.049	0.103	0.018
HEAVY TRUCKS	0.865	0.027	0.108	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	92.1	- -
MEDIUM TRUCKS=	4.00	92.1	- -
HEAVY TRUCKS =	8.01	92.1	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	72.7	70.8	69.0	63.0	71.6	72.2
MEDIUM TRUCKS	62.1	60.6	54.2	52.7	61.1	61.3
HEAVY TRUCKS	61.8	60.4	51.4	52.6	61.0	61.1
VEHICULAR NOISE	73.4	71.5	69.2	63.7	72.3	**72.8**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	**192**	**607**	**1920**	**6070**
LDN	**169**	**536**	**1693**	**5355**

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: SADDLEBACK COMMUNITY CHURCH NEW WORSHIP CENTER AND ROADWAY EXPANSION
ROADWAY: El Toro Road
SEGMENT: Normandale Dr. to Portola/S.M. Pky.
LOCATION: City of Lake Forest
SCENARIO: EXISTING

JOB #: 0101-2017-02
DATE: 15-Dec-17
ENGINEER: B. ESTRADA

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	21,984
SPEED =	60
PK HR % =	10
NEAR LANE/FAR LANE DIST =	78
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	2,198

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		100
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.775	0.129	0.096	0.974
MEDIUM TRUCKS	0.848	0.049	0.103	0.018
HEAVY TRUCKS	0.865	0.027	0.108	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	92.1	- -
MEDIUM TRUCKS=	4.00	92.1	- -
HEAVY TRUCKS =	8.01	92.1	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	71.7	69.8	68.0	62.0	70.6	71.2
MEDIUM TRUCKS	61.1	59.6	53.2	51.7	60.1	60.4
HEAVY TRUCKS	60.8	59.4	50.4	51.6	60.0	60.1
VEHICULAR NOISE	72.4	70.5	68.2	62.7	71.3	**71.8**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	**153**	**483**	**1529**	**4835**
LDN	**135**	**427**	**1349**	**4265**

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: SADDLEBACK COMMUNITY CHURCH NEW WORSHIP CENTER AND ROADWAY EXPANSION
ROADWAY: El Toro Road
SEGMENT: Portola Pky./S.M. Pky. to Marguerite Pky.
LOCATION: City of Lake Forest
SCENARIO: EXISTING

JOB #: 0101-2017-02
DATE: 15-Dec-17
ENGINEER: B. ESTRADA

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	13,104
SPEED =	60
PK HR % =	10
NEAR LANE/FAR LANE DIST =	58
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,310

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		100
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.775	0.129	0.096	0.974
MEDIUM TRUCKS	0.848	0.049	0.103	0.018
HEAVY TRUCKS	0.865	0.027	0.108	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	95.7	- -
MEDIUM TRUCKS=	4.00	95.7	- -
HEAVY TRUCKS =	8.01	95.7	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	69.3	67.4	65.6	59.6	68.2	68.8
MEDIUM TRUCKS	58.7	57.2	50.8	49.3	57.7	57.9
HEAVY TRUCKS	58.4	57.0	48.0	49.2	57.6	57.7
VEHICULAR NOISE	70.0	68.1	65.8	60.3	68.9	**69.4**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	**88**	**277**	**877**	**2773**
LDN	**77**	**245**	**774**	**2446**

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: SADDLEBACK COMMUNITY CHURCH NEW WORSHIP CENTER AND ROADWAY EXPANSION
ROADWAY: El Toro Road
SEGMENT: Marguerite Pky. to Painted Trail
LOCATION: City of Lake Forest
SCENARIO: EXISTING

JOB #: 0101-2017-02
DATE: 15-Dec-17
ENGINEER: B. ESTRADA

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	10,584
SPEED =	60
PK HR % =	10
NEAR LANE/FAR LANE DIST =	58
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,058

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		100
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.775	0.129	0.096	0.974
MEDIUM TRUCKS	0.848	0.049	0.103	0.018
HEAVY TRUCKS	0.865	0.027	0.108	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	95.7	- -
MEDIUM TRUCKS=	4.00	95.7	- -
HEAVY TRUCKS =	8.01	95.7	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	68.3	66.4	64.7	58.6	67.3	67.9
MEDIUM TRUCKS	57.7	56.2	49.9	48.3	56.8	57.0
HEAVY TRUCKS	57.5	56.1	47.0	48.3	56.6	56.8
VEHICULAR NOISE	69.0	67.2	64.9	59.4	68.0	**68.5**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	**71**	**224**	**708**	**2240**
LDN	**62**	**198**	**625**	**1976**

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: SADDLEBACK COMMUNITY CHURCH NEW WORSHIP CENTER AND ROADWAY EXPANSION
ROADWAY SR-241
SEGMENT Portola Pky. to El Toro Road
LOCATION: City of Lake Forest SCENARIO: EXISTING PLUS PROJECT

JOB #: 0101-2017-02
DATE: 15-Dec-17
ENGINEER: B. ESTRADA

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	37,166
SPEED =	70
PK HR % =	10
NEAR LANE/FAR LANE DIST =	166
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	3,717

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		100
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.705	0.125	0.170	0.983
MEDIUM TRUCKS	0.705	0.125	0.170	0.014
HEAVY TRUCKS	0.705	0.125	0.170	0.003

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	55.9	- -
MEDIUM TRUCKS=	4.00	55.8	- -
HEAVY TRUCKS =	8.01	55.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	78.1	75.8	74.3	70.9	78.3	78.8
MEDIUM TRUCKS	65.4	63.1	61.6	58.2	65.6	66.1
HEAVY TRUCKS	62.0	59.7	58.2	54.8	62.2	62.7
VEHICULAR NOISE	78.4	76.1	74.6	71.2	78.7	**79.1**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	**814**	**2574**	**8140**	**25742**
LDN	**735**	**2326**	**7355**	**23257**

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: SADDLEBACK COMMUNITY CHURCH NEW WORSHIP CENTER AND ROADWAY EXPANSION
ROADWAY Portola Parkway
SEGMENT Glenn Ranch Road to SR-241
LOCATION: City of Lake Forest SCENARIO: EXISTING PLUS PROJECT

JOB #: 0101-2017-02
DATE: 15-Dec-17
ENGINEER: B. ESTRADA

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	17,658
SPEED =	60
PK HR % =	10
NEAR LANE/FAR LANE DIST =	78
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,766

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		100
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.775	0.129	0.096	0.974
MEDIUM TRUCKS	0.848	0.049	0.103	0.018
HEAVY TRUCKS	0.865	0.027	0.108	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	92.1	- -
MEDIUM TRUCKS=	4.00	92.1	- -
HEAVY TRUCKS =	8.01	92.1	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	70.7	68.8	67.1	61.0	69.6	70.2
MEDIUM TRUCKS	60.1	58.6	52.3	50.7	59.2	59.4
HEAVY TRUCKS	59.9	58.5	49.4	50.7	59.0	59.2
VEHICULAR NOISE	71.4	69.6	67.3	61.8	70.3	**70.9**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	**123**	**388**	**1228**	**3884**
LDN	**108**	**343**	**1083**	**3426**

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: SADDLEBACK COMMUNITY CHURCH NEW WORSHIP CENTER AND ROADWAY EXPANSION
ROADWAY Portola Parkway
SEGMENT SR-241 to El Toro Road
LOCATION: City of Lake Forest SCENARIO: EXISTING PLUS PROJECT

JOB #: 0101-2017-02
DATE: 15-Dec-17
ENGINEER: B. ESTRADA

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	27,516
SPEED =	60
PK HR % =	10
NEAR LANE/FAR LANE DIST =	78
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	2,752

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		100
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.775	0.129	0.096	0.974
MEDIUM TRUCKS	0.848	0.049	0.103	0.018
HEAVY TRUCKS	0.865	0.027	0.108	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	92.1	- -
MEDIUM TRUCKS=	4.00	92.1	- -
HEAVY TRUCKS =	8.01	92.1	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	72.7	70.8	69.0	62.9	71.6	72.2
MEDIUM TRUCKS	62.1	60.5	54.2	52.6	61.1	61.3
HEAVY TRUCKS	61.8	60.4	51.4	52.6	61.0	61.1
VEHICULAR NOISE	73.3	71.5	69.2	63.7	72.3	**72.8**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	**191**	**605**	**1914**	**6052**
LDN	**169**	**534**	**1688**	**5339**

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: SADDLEBACK COMMUNITY CHURCH NEW WORSHIP CENTER AND ROADWAY EXPANSION
ROADWAY Santa Margarita Pkwy
SEGMENT El Toro Road to Los Alisos Road
LOCATION: City of Lake Forest SCENARIO: EXISTING PLUS PROJECT

JOB #: 0101-2017-02
DATE: 15-Dec-17
ENGINEER: B. ESTRADA

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	27,732
SPEED =	60
PK HR % =	10
NEAR LANE/FAR LANE DIST =	78
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	2,773

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		100
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.775	0.129	0.096	0.974
MEDIUM TRUCKS	0.848	0.049	0.103	0.018
HEAVY TRUCKS	0.865	0.027	0.108	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	92.1	- -
MEDIUM TRUCKS=	4.00	92.1	- -
HEAVY TRUCKS =	8.01	92.1	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	72.7	70.8	69.0	63.0	71.6	72.2
MEDIUM TRUCKS	62.1	60.6	54.2	52.7	61.1	61.4
HEAVY TRUCKS	61.9	60.4	51.4	52.6	61.0	61.1
VEHICULAR NOISE	73.4	71.5	69.2	63.7	72.3	**72.9**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	**193**	**610**	**1929**	**6099**
LDN	**170**	**538**	**1702**	**5381**

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: SADDLEBACK COMMUNITY CHURCH NEW WORSHIP CENTER AND ROADWAY EXPANSION
ROADWAY: El Toro Road
SEGMENT: Normandale Dr. to Portola/S.M. Pky.
LOCATION: City of Lake Forest
SCENARIO: EXISTING PLUS PROJECT

JOB #: 0101-2017-02
DATE: 15-Dec-17
ENGINEER: B. ESTRADA

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	22,149
SPEED =	60
PK HR % =	10
NEAR LANE/FAR LANE DIST =	78
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	2,215

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		100
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.775	0.129	0.096	0.974
MEDIUM TRUCKS	0.848	0.049	0.103	0.018
HEAVY TRUCKS	0.865	0.027	0.108	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	92.1	- -
MEDIUM TRUCKS=	4.00	92.1	- -
HEAVY TRUCKS =	8.01	92.1	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	71.7	69.8	68.1	62.0	70.6	71.2
MEDIUM TRUCKS	61.1	59.6	53.2	51.7	60.2	60.4
HEAVY TRUCKS	60.9	59.5	50.4	51.7	60.0	60.1
VEHICULAR NOISE	72.4	70.6	68.3	62.7	71.3	**71.9**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	**154**	**487**	**1540**	**4871**
LDN	**136**	**430**	**1359**	**4297**

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT:	SADDLEBACK COMMUNITY CHURCH NEW WORSHIP CENTER AND ROADWAY EXPANSION	JOB #:	0101-2017-02
ROADWAY	El Toro Road	DATE:	15-Dec-17
SEGMENT	Portola Pky./S.M. Pky. to Marguerite Pky.	ENGINEER:	B. ESTRADA
LOCATION:	City of Lake Forest	SCENARIO:	EXISTING PLUS PROJECT

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	13,137
SPEED =	60
PK HR % =	10
NEAR LANE/FAR LANE DIST =	58
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,314

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		100
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.775	0.129	0.096	0.974
MEDIUM TRUCKS	0.848	0.049	0.103	0.018
HEAVY TRUCKS	0.865	0.027	0.108	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	95.7	- -
MEDIUM TRUCKS=	4.00	95.7	- -
HEAVY TRUCKS =	8.01	95.7	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	69.3	67.4	65.6	59.6	68.2	68.8
MEDIUM TRUCKS	58.7	57.2	50.8	49.3	57.7	58.0
HEAVY TRUCKS	58.4	57.0	48.0	49.2	57.6	57.7
VEHICULAR NOISE	70.0	68.1	65.8	60.3	68.9	**69.4**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	**88**	**278**	**879**	**2780**
LDN	**78**	**245**	**776**	**2453**

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT:	SADDLEBACK COMMUNITY CHURCH NEW WORSHIP CENTER AND ROADWAY EXPANSION	JOB #:	0101-2017-02
ROADWAY	El Toro Road	DATE:	15-Dec-17
SEGMENT	Marguerite Pky. to Painted Trail	ENGINEER:	B. ESTRADA
LOCATION:	City of Lake Forest	SCENARIO:	EXISTING PLUS PROJECT

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	10,617
SPEED =	60
PK HR % =	10
NEAR LANE/FAR LANE DIST =	58
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,062

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		100
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.775	0.129	0.096	0.974
MEDIUM TRUCKS	0.848	0.049	0.103	0.018
HEAVY TRUCKS	0.865	0.027	0.108	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	95.7	- -
MEDIUM TRUCKS=	4.00	95.7	- -
HEAVY TRUCKS =	8.01	95.7	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	68.4	66.5	64.7	58.6	67.3	67.9
MEDIUM TRUCKS	57.8	56.2	49.9	48.3	56.8	57.0
HEAVY TRUCKS	57.5	56.1	47.1	48.3	56.7	56.8
VEHICULAR NOISE	69.0	67.2	64.9	59.4	68.0	**68.5**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	**71**	**225**	**710**	**2247**
LDN	**63**	**198**	**627**	**1982**

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: SADDLEBACK COMMUNITY CHURCH NEW WORSHIP CENTER AND ROADWAY EXPANSION
ROADWAY SR-241
SEGMENT Portola Pky. to El Toro Road
LOCATION: City of Lake Forest SCENARIO: OPENING YEAR WITHOUT PROJECT

JOB #: 0101-2017-02
DATE: 15-Dec-17
ENGINEER: B. ESTRADA

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	38,695
SPEED =	70
PK HR % =	10
NEAR LANE/FAR LANE DIST =	166
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	3,869

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		100
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.705	0.125	0.170	0.983
MEDIUM TRUCKS	0.705	0.125	0.170	0.014
HEAVY TRUCKS	0.705	0.125	0.170	0.003

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	55.9	- -
MEDIUM TRUCKS=	4.00	55.8	- -
HEAVY TRUCKS =	8.01	55.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	78.3	76.0	74.5	71.0	78.5	79.0
MEDIUM TRUCKS	65.6	63.3	61.8	58.3	65.8	66.2
HEAVY TRUCKS	62.2	59.9	58.4	54.9	62.4	62.8
VEHICULAR NOISE	78.6	76.3	74.8	71.4	78.8	**79.3**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	**848**	**2680**	**8475**	**26801**
LDN	**766**	**2421**	**7657**	**24214**

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: SADDLEBACK COMMUNITY CHURCH NEW WORSHIP CENTER AND ROADWAY EXPANSION
ROADWAY Portola Parkway
SEGMENT Glenn Ranch Road to SR-241
LOCATION: City of Lake Forest SCENARIO: OPENING YEAR WITHOUT PROJECT

JOB #: 0101-2017-02
DATE: 15-Dec-17
ENGINEER: B. ESTRADA

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	18,303
SPEED =	60
PK HR % =	10
NEAR LANE/FAR LANE DIST =	78
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,830

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		100
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.775	0.129	0.096	0.974
MEDIUM TRUCKS	0.848	0.049	0.103	0.018
HEAVY TRUCKS	0.865	0.027	0.108	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	92.1	- -
MEDIUM TRUCKS=	4.00	92.1	- -
HEAVY TRUCKS =	8.01	92.1	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	70.9	69.0	67.2	61.2	69.8	70.4
MEDIUM TRUCKS	60.3	58.8	52.4	50.9	59.3	59.6
HEAVY TRUCKS	60.0	58.6	49.6	50.8	59.2	59.3
VEHICULAR NOISE	71.6	69.7	67.4	61.9	70.5	**71.0**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	**127**	**403**	**1273**	**4025**
LDN	**112**	**355**	**1123**	**3551**

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: SADDLEBACK COMMUNITY CHURCH NEW WORSHIP CENTER AND ROADWAY EXPANSION
ROADWAY Portola Parkway
SEGMENT SR-241 to El Toro Road
LOCATION: City of Lake Forest SCENARIO: OPENING YEAR WITHOUT PROJECT

JOB #: 0101-2017-02
DATE: 15-Dec-17
ENGINEER: B. ESTRADA

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	29,094
SPEED =	60
PK HR % =	10
NEAR LANE/FAR LANE DIST =	78
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	2,909

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		100
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.775	0.129	0.096	0.974
MEDIUM TRUCKS	0.848	0.049	0.103	0.018
HEAVY TRUCKS	0.865	0.027	0.108	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	92.1	- -
MEDIUM TRUCKS=	4.00	92.1	- -
HEAVY TRUCKS =	8.01	92.1	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	72.9	71.0	69.2	63.2	71.8	72.4
MEDIUM TRUCKS	62.3	60.8	54.4	52.9	61.3	61.6
HEAVY TRUCKS	62.1	60.6	51.6	52.9	61.2	61.3
VEHICULAR NOISE	73.6	71.8	69.5	63.9	72.5	**73.1**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	**202**	**640**	**2023**	**6399**
LDN	**179**	**564**	**1785**	**5645**

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: SADDLEBACK COMMUNITY CHURCH NEW WORSHIP CENTER AND ROADWAY EXPANSION
ROADWAY Santa Margarita Pkwy
SEGMENT El Toro Road to Los Alisos Road
LOCATION: City of Lake Forest SCENARIO: OPENING YEAR WITHOUT PROJECT

JOB #: 0101-2017-02
DATE: 15-Dec-17
ENGINEER: B. ESTRADA

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	29,101
SPEED =	60
PK HR % =	10
NEAR LANE/FAR LANE DIST =	78
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	2,910

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		100
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.775	0.129	0.096	0.974
MEDIUM TRUCKS	0.848	0.049	0.103	0.018
HEAVY TRUCKS	0.865	0.027	0.108	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	92.1	- -
MEDIUM TRUCKS=	4.00	92.1	- -
HEAVY TRUCKS =	8.01	92.1	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	72.9	71.0	69.2	63.2	71.8	72.4
MEDIUM TRUCKS	62.3	60.8	54.4	52.9	61.3	61.6
HEAVY TRUCKS	62.1	60.6	51.6	52.9	61.2	61.3
VEHICULAR NOISE	73.6	71.8	69.5	63.9	72.5	**73.1**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	**202**	**640**	**2024**	**6400**
LDN	**179**	**565**	**1785**	**5646**

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT:	SADDLEBACK COMMUNITY CHURCH NEW WORSHIP CENTER AND ROADWAY EXPANSION	JOB #:	0101-2017-02
ROADWAY	El Toro Road	DATE:	15-Dec-17
SEGMENT	Normandale Dr. to Portola/S.M. Pky.	ENGINEER:	B. ESTRADA
LOCATION:	City of Lake Forest	SCENARIO:	OPENING YEAR WITHOUT PROJECT

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	23,452
SPEED =	60
PK HR % =	10
NEAR LANE/FAR LANE DIST =	78
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	2,345

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		100
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.775	0.129	0.096	0.974
MEDIUM TRUCKS	0.848	0.049	0.103	0.018
HEAVY TRUCKS	0.865	0.027	0.108	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	92.1	- -
MEDIUM TRUCKS=	4.00	92.1	- -
HEAVY TRUCKS =	8.01	92.1	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	72.0	70.1	68.3	62.3	70.9	71.5
MEDIUM TRUCKS	61.4	59.9	53.5	51.9	60.4	60.6
HEAVY TRUCKS	61.1	59.7	50.7	51.9	60.3	60.4
VEHICULAR NOISE	72.6	70.8	68.5	63.0	71.6	**72.1**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	**163**	**516**	**1631**	**5158**
LDN	**144**	**455**	**1439**	**4550**

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT:	SADDLEBACK COMMUNITY CHURCH NEW WORSHIP CENTER AND ROADWAY EXPANSION	JOB #:	0101-2017-02
ROADWAY	El Toro Road	DATE:	15-Dec-17
SEGMENT	Portola Pky./S.M. Pky. to Marguerite Pky.	ENGINEER:	B. ESTRADA
LOCATION:	City of Lake Forest	SCENARIO:	OPENING YEAR WITHOUT PROJECT

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	13,634
SPEED =	60
PK HR % =	10
NEAR LANE/FAR LANE DIST =	58
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,363

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		100
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.775	0.129	0.096	0.974
MEDIUM TRUCKS	0.848	0.049	0.103	0.018
HEAVY TRUCKS	0.865	0.027	0.108	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	95.7	- -
MEDIUM TRUCKS=	4.00	95.7	- -
HEAVY TRUCKS =	8.01	95.7	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	69.4	67.5	65.8	59.7	68.3	69.0
MEDIUM TRUCKS	58.8	57.3	51.0	49.4	57.9	58.1
HEAVY TRUCKS	58.6	57.2	48.1	49.4	57.7	57.9
VEHICULAR NOISE	70.1	68.3	66.0	60.5	69.1	**69.6**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	**91**	**289**	**912**	**2885**
LDN	**80**	**255**	**805**	**2545**

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT:	SADDLEBACK COMMUNITY CHURCH NEW WORSHIP CENTER AND ROADWAY EXPANSION	JOB #:	0101-2017-02
ROADWAY	El Toro Road	DATE:	15-Dec-17
SEGMENT	Marguerite Pky. to Painted Trail	ENGINEER:	B. ESTRADA
LOCATION:	City of Lake Forest	SCENARIO:	OPENING YEAR WITHOUT PROJECT

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	11,012
SPEED =	60
PK HR % =	10
NEAR LANE/FAR LANE DIST =	58
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,101

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		100
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.775	0.129	0.096	0.974
MEDIUM TRUCKS	0.848	0.049	0.103	0.018
HEAVY TRUCKS	0.865	0.027	0.108	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	95.7	- -
MEDIUM TRUCKS=	4.00	95.7	- -
HEAVY TRUCKS =	8.01	95.7	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	68.5	66.6	64.9	58.8	67.4	68.0
MEDIUM TRUCKS	57.9	56.4	50.0	48.5	57.0	57.2
HEAVY TRUCKS	57.7	56.3	47.2	48.5	56.8	56.9
VEHICULAR NOISE	69.2	67.4	65.1	59.5	68.1	**68.7**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	**74**	**233**	**737**	**2330**
LDN	**65**	**206**	**650**	**2056**

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: SADDLEBACK COMMUNITY CHURCH NEW WORSHIP CENTER AND ROADWAY EXPANSION
ROADWAY SR-241
SEGMENT Portola Pky. to El Toro Road
LOCATION: City of Lake Forest SCENARIO: OPENING YEAR WITH PROJECT

JOB #: 0101-2017-02
DATE: 15-Dec-17
ENGINEER: B. ESTRADA

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	38,761
SPEED =	70
PK HR % =	10
NEAR LANE/FAR LANE DIST =	166
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	3,876

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		100
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.705	0.125	0.170	0.983
MEDIUM TRUCKS	0.705	0.125	0.170	0.014
HEAVY TRUCKS	0.705	0.125	0.170	0.003

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	55.9	- -
MEDIUM TRUCKS=	4.00	55.8	- -
HEAVY TRUCKS =	8.01	55.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	78.3	76.0	74.5	71.1	78.5	79.0
MEDIUM TRUCKS	65.6	63.3	61.8	58.3	65.8	66.2
HEAVY TRUCKS	62.2	59.9	58.4	54.9	62.4	62.8
VEHICULAR NOISE	78.6	76.3	74.8	71.4	78.8	**79.3**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	**849**	**2685**	**8490**	**26847**
LDN	**767**	**2426**	**7670**	**24255**

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: SADDLEBACK COMMUNITY CHURCH NEW WORSHIP CENTER AND ROADWAY EXPANSION
ROADWAY Portola Parkway
SEGMENT Glenn Ranch Road to SR-241
LOCATION: City of Lake Forest SCENARIO: OPENING YEAR WITH PROJECT

JOB #: 0101-2017-02
DATE: 15-Dec-17
ENGINEER: B. ESTRADA

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	18,369
SPEED =	60
PK HR % =	10
NEAR LANE/FAR LANE DIST =	78
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,837

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		100
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.775	0.129	0.096	0.974
MEDIUM TRUCKS	0.848	0.049	0.103	0.018
HEAVY TRUCKS	0.865	0.027	0.108	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	92.1	- -
MEDIUM TRUCKS=	4.00	92.1	- -
HEAVY TRUCKS =	8.01	92.1	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	70.9	69.0	67.2	61.2	69.8	70.4
MEDIUM TRUCKS	60.3	58.8	52.4	50.9	59.3	59.6
HEAVY TRUCKS	60.1	58.6	49.6	50.9	59.2	59.3
VEHICULAR NOISE	71.6	69.8	67.5	61.9	70.5	**71.1**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	**128**	**404**	**1278**	**4040**
LDN	**113**	**356**	**1127**	**3564**

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: SADDLEBACK COMMUNITY CHURCH NEW WORSHIP CENTER AND ROADWAY EXPANSION
ROADWAY Portola Parkway
SEGMENT SR-241 to El Toro Road
LOCATION: City of Lake Forest SCENARIO: OPENING YEAR WITH PROJECT

JOB #: 0101-2017-02
DATE: 15-Dec-17
ENGINEER: B. ESTRADA

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	29,358
SPEED =	60
PK HR % =	10
NEAR LANE/FAR LANE DIST =	78
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	2,936

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		100
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.775	0.129	0.096	0.974
MEDIUM TRUCKS	0.848	0.049	0.103	0.018
HEAVY TRUCKS	0.865	0.027	0.108	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	92.1	- -
MEDIUM TRUCKS=	4.00	92.1	- -
HEAVY TRUCKS =	8.01	92.1	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	72.9	71.0	69.3	63.2	71.8	72.5
MEDIUM TRUCKS	62.3	60.8	54.5	52.9	61.4	61.6
HEAVY TRUCKS	62.1	60.7	51.6	52.9	61.2	61.4
VEHICULAR NOISE	73.6	71.8	69.5	64.0	72.6	**73.1**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	**204**	**646**	**2042**	**6457**
LDN	**180**	**570**	**1801**	**5696**

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT:	SADDLEBACK COMMUNITY CHURCH NEW WORSHIP CENTER AND ROADWAY EXPANSION	JOB #:	0101-2017-02
ROADWAY	Santa Margarita Pkwy	DATE:	15-Dec-17
SEGMENT	El Toro Road to Los Alisos Road	ENGINEER:	B. ESTRADA
LOCATION:	City of Lake Forest	SCENARIO:	OPENING YEAR WITH PROJECT

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	29,233
SPEED =	60
PK HR % =	10
NEAR LANE/FAR LANE DIST =	78
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	2,923

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		100
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.775	0.129	0.096	0.974
MEDIUM TRUCKS	0.848	0.049	0.103	0.018
HEAVY TRUCKS	0.865	0.027	0.108	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	92.1	- -
MEDIUM TRUCKS=	4.00	92.1	- -
HEAVY TRUCKS =	8.01	92.1	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	72.9	71.0	69.3	63.2	71.8	72.4
MEDIUM TRUCKS	62.3	60.8	54.5	52.9	61.4	61.6
HEAVY TRUCKS	62.1	60.7	51.6	52.9	61.2	61.4
VEHICULAR NOISE	73.6	71.8	69.5	63.9	72.5	**73.1**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	**203**	**643**	**2033**	**6429**
LDN	**179**	**567**	**1794**	**5672**

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: SADDLEBACK COMMUNITY CHURCH NEW WORSHIP CENTER AND ROADWAY EXPANSION
ROADWAY: El Toro Road
SEGMENT: Normandale Dr. to Portola/S.M. Pky.
LOCATION: City of Lake Forest
SCENARIO: OPENING YEAR WITH PROJECT

JOB #: 0101-2017-02
DATE: 15-Dec-17
ENGINEER: B. ESTRADA

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	23,617
SPEED =	60
PK HR % =	10
NEAR LANE/FAR LANE DIST =	78
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	2,362

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		100
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.775	0.129	0.096	0.974
MEDIUM TRUCKS	0.848	0.049	0.103	0.018
HEAVY TRUCKS	0.865	0.027	0.108	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	92.1	- -
MEDIUM TRUCKS=	4.00	92.1	- -
HEAVY TRUCKS =	8.01	92.1	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	72.0	70.1	68.3	62.3	70.9	71.5
MEDIUM TRUCKS	61.4	59.9	53.5	52.0	60.4	60.7
HEAVY TRUCKS	61.2	59.7	50.7	51.9	60.3	60.4
VEHICULAR NOISE	72.7	70.8	68.5	63.0	71.6	**72.2**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	**164**	**519**	**1643**	**5194**
LDN	**145**	**458**	**1449**	**4582**

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: SADDLEBACK COMMUNITY CHURCH NEW WORSHIP CENTER AND ROADWAY EXPANSION
ROADWAY: El Toro Road
SEGMENT: Portola Pky./S.M. Pky. to Marguerite Pky.
LOCATION: City of Lake Forest
SCENARIO: OPENING YEAR WITH PROJECT

JOB #: 0101-2017-02
DATE: 15-Dec-17
ENGINEER: B. ESTRADA

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	13,667
SPEED =	60
PK HR % =	10
NEAR LANE/FAR LANE DIST =	58
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,367

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		100
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.775	0.129	0.096	0.974
MEDIUM TRUCKS	0.848	0.049	0.103	0.018
HEAVY TRUCKS	0.865	0.027	0.108	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	95.7	- -
MEDIUM TRUCKS=	4.00	95.7	- -
HEAVY TRUCKS =	8.01	95.7	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	69.5	67.6	65.8	59.7	68.4	69.0
MEDIUM TRUCKS	58.8	57.3	51.0	49.4	57.9	58.1
HEAVY TRUCKS	58.6	57.2	48.2	49.4	57.8	57.9
VEHICULAR NOISE	70.1	68.3	66.0	60.5	69.1	**69.6**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	**91**	**289**	**915**	**2892**
LDN	**81**	**255**	**807**	**2551**

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: SADDLEBACK COMMUNITY CHURCH NEW WORSHIP CENTER AND ROADWAY EXPANSION
ROADWAY: El Toro Road
SEGMENT: Marguerite Pky. to Painted Trail
LOCATION: City of Lake Forest
SCENARIO: OPENING YEAR WITH PROJECT

JOB #: 0101-2017-02
DATE: 15-Dec-17
ENGINEER: B. ESTRADA

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	11,045
SPEED =	60
PK HR % =	10
NEAR LANE/FAR LANE DIST =	58
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,105

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		100
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.775	0.129	0.096	0.974
MEDIUM TRUCKS	0.848	0.049	0.103	0.018
HEAVY TRUCKS	0.865	0.027	0.108	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	95.7	- -
MEDIUM TRUCKS=	4.00	95.7	- -
HEAVY TRUCKS =	8.01	95.7	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	68.5	66.6	64.9	58.8	67.4	68.0
MEDIUM TRUCKS	57.9	56.4	50.1	48.5	57.0	57.2
HEAVY TRUCKS	57.7	56.3	47.2	48.5	56.8	57.0
VEHICULAR NOISE	69.2	67.4	65.1	59.6	68.1	**68.7**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	**74**	**234**	**739**	**2337**
LDN	**65**	**206**	**652**	**2062**

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	SADDLEBACK CHURCH ACOUSTICAL ANALYSIS	JOB #:	0101-2017-02
ROADWAY:	SR-241 TOLL ROAD	DATE:	18-Dec-17
SCENARIO:	BUILDOUT CONDITIONS NOISE IMPACT AT BUILDING FACADE	ENGINEER:	B. ESTRADA

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	92,000	
SPEED =	70	
PK HR % =	10	
NEAR LANE/FAR LANE DIST	166	
ROAD ELEVATION =	850.0	
GRADE =	0.0	%
PK HR VOL =	9,200	

RECEIVER INPUT DATA

RECEIVER DISTANCE =		550
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		450
PAD ELEVATION =		825.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	
MEDIUM TRUCKS =	10	(10 = HARD SITE, 15 = SOFT SITE)
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.705	0.125	0.170	0.9830
MEDIUM TRUCKS	0.705	0.125	0.170	0.0140
HEAVY TRUCKS	0.705	0.125	0.170	0.0003

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	852.0	512.00	- -
MEDIUM TRUCKS	854.0	512.89	- -
HEAVY TRUCKS	858.0	544.42	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	72.4	70.1	68.6	65.2	72.7	73.1
MEDIUM TRUCKS	59.7	57.4	55.9	52.5	59.9	60.4
HEAVY TRUCKS	46.0	43.7	42.2	38.8	46.3	46.7
NOISE LEVELS (dBA)	72.7	70.4	68.9	65.4	72.9	73.3

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	66.5	64.2	62.7	59.3	66.8	67.2
MEDIUM TRUCKS	54.4	52.1	50.6	47.1	54.6	55.1
HEAVY TRUCKS	46.0	43.7	42.2	38.8	46.3	46.7
NOISE LEVELS (dBA)	66.8	64.5	63.0	59.6	67.0	67.5

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	1184	3744	11841	37444
LDN	1070	3383	10698	33829

Appendix D

Stationary Source Noise
Calculation Worksheets

NOISE BARRIER CALCULATIONS - BASED UPON FHWA - RD-77-108

PROJECT:	SADDLEBACK CHURCH WORSHIP CENTER EXPANSION	JOB #:	0101-2017-02
SOURCE:	ROOFTOP HVAC EQUIPMENT	DATE:	18-Dec-17
LOCATION:	ADJACENT EDUCATION BUILDING	BY:	B. ESTRADA

NOISE INPUT DATA

OBS DIST=	125.0			
DT WALL=	10.0			
DT W/OB=	115.0			
HTH WALL=	23.0	********		
BARRIER =	0.0	(0=WALL,1=BERM)		
OBS HTH=	15.0			
NOISE HTH=	23.0		BARRIER+	
OBS EL =	0.0		TOPO SHIELDING =	-5.20
NOISE EL =	0.0		NOISE HTH EL=	23.0
DROP-OFF=	20.0	(20 = 6 dBA PER DOUBLING OF DISTANCE)		
COFF				

NOISE OUTPUT DATA (dBA)

	DIST (FT)	Leq	Lmax	L2	L8	L25	L50
REF LEVEL	3	82.5	82.5	82.5	82.5	82.5	82.5
PROJ LEVEL	125	50.1	50.1	50.1	50.1	50.1	50.1
SHIELDING	125	-5.2	-5.2	-5.2	-5.2	-5.2	-5.2
ADJ LEVEL	125	***44.9***	***44.9***	***44.9***	***44.9***	***44.9***	***44.9***

NOISE LEVEL REDUCTION DUE TO DISTANCE = -32.3957752

NOISE INTERVAL AVERAGER (2.0)

PROJECT:	SADDLEBACK CHURCH ACOUSTICAL ANALYSIS	JOB #:	0101-2017-02
LOCATION:	DAYTIME	DATE:	19-Dec-17
SOURCE:	MECHANICAL EQUIPMENT/HVAC	BY:	B. ESTRADA

NOISE LEVEL MEASUREMENTS (dBA)

WEEKDAY

	NOISE SOURCE	LEQ	L(MAX)	L(2)	L(8)	L(25)	L(50)	
1	MECHANICAL EQUIPMENT	44.9	44.9	44.9	44.9	44.9	44.9	
2	AMBIENT	50.4	69.3	53.8	51.8	50.6	49.6	#
	TOTAL	51.5	69.3	54.3	52.6	51.6	50.9	

SUNDAY

	NOISE SOURCE	LEQ	L(MAX)	L(2)	L(8)	L(25)	L(50)
1	MECHANICAL EQUIPMENT	44.9	44.9	44.9	44.9	44.9	44.9
2	AMBIENT	53.3	68.5	58.2	56.8	55.0	52.3
	TOTAL	53.9	68.5	58.4	57.1	55.4	53.0

Appendix E

Construction Noise and Vibration
Calculation Worksheets

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 12/19/2017
Case Description: SADDLEBACK CHRUCH

SITE PREPERATION ---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
SITE PREPERATION	Residential	65	65	45

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85		650	0
Dozer	No	40		81.7	650	0
Backhoe	No	40		77.6	650	0

Results

Equipment	Calculated (dBA) *Lmax	Leq
Grader	62.7	58.7
Dozer	59.4	55.4
Backhoe	55.3	51.3
Total	62.7	60.9

*Calculated Lmax is the Loudest value.

NOISE INTERVAL AVERAGER (2.0)

PROJECT:	SADDLEBACK CHURCH	JOB #:	0101-2017-02
LOCATION:	NEAREST RESIDENTIAL	DATE:	19-Dec-17
SOURCE:	CONSTRUCTION - SITE PREP	BY:	B. Estrada

NOISE LEVEL MEASUREMENTS (dBA)

	NOISE SOURCE	L(MAX)	L(EQ)				
1	Grader	62.7	58.7				
2	Dozer	59.4	55.4				
3	Backhoe	55.3	51.3				
4							
5							
6							
7							
8							
9							
10							
	TOTAL	64.9	60.9				

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 12/19/2017
Case Description: SADDLEBACK CHURCH

GRADING ---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
GRADING	Residential	65	65	45

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	650	0
Grader	No	40	85		650	0
Dozer	No	40		81.7	650	0
Backhoe	No	40		77.6	650	0

Results

Equipment		Calculated (dBA) *Lmax	Leq
Excavator		58.4	54.5
Grader		62.7	58.7
Dozer		59.4	55.4
Backhoe		55.3	51.3
	Total	62.7	61.8

*Calculated Lmax is the Loudest value.

NOISE INTERVAL AVERAGER (2.0)

PROJECT:	SADDLEBACK CHURCH	JOB #:	0101-2017-02
LOCATION:	NEAREST RESIDENTIAL	DATE:	19-Dec-17
SOURCE:	CONSTRUCTION - GRADING	BY:	B. Estrada

NOISE LEVEL MEASUREMENTS (dBA)

	NOISE SOURCE	L(MAX)	L(EQ)				
1	Excavator	58.4	54.5				
2	Grader	62.7	58.7				
3	Dozer	59.4	55.4				
4	Backhoe	55.3	51.3				
5							
6							
7							
8							
9							
10							
	TOTAL	65.8	61.8				

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 12/19/2017
Case Description: SADDLEBACK CHURCH

	BUILDING			---- Receptor #1 ----
		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
BUILDING	Residential	65	65	45

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Crane	No	16		80.6	650	0
Tractor	No	40	84		650	0
Generator	No	50		80.6	650	0
Backhoe	No	40		77.6	650	0
Backhoe	No	40		77.6	650	0
Backhoe	No	40		77.6	650	0
Welder / Torch	No	40		74	650	0
Welder / Torch	No	40		74	650	0
Welder / Torch	No	40		74	650	0

Results

	Calculated (dBA)	
Equipment	*Lmax	Leq
Crane	58.3	50.3
Tractor	61.7	57.7
Generator	58.4	55.3
Backhoe	55.3	51.3
Backhoe	55.3	51.3
Backhoe	55.3	51.3
Welder / Torch	51.7	47.7
Welder / Torch	51.7	47.7
Welder / Torch	51.7	47.7
Total	61.7	62.1

*Calculated Lmax is the Loudest value.

NOISE INTERVAL AVERAGER (2.0)

PROJECT:	SADDLEBACK CHURCH	JOB #:	0101-2017-02
LOCATION:	NEAREST RESIDENTIAL	DATE:	19-Dec-17
SOURCE:	CONSTRUCTION - BUILDING	BY:	B. Estrada

NOISE LEVEL MEASUREMENTS (dBA)

	NOISE SOURCE	L(MAX)	L(EQ)				
1	Crane	58.3	50.3				
2	Tractor	61.7	57.7				
3	Generator	58.4	55.3				
4	Backhoe	55.3	51.3				
5	Backhoe	55.3	51.3				
6	Backhoe	55.3	51.3				
7	Welder / Torch	51.7	47.7				
8	Welder / Torch	51.7	47.7				
9	Welder / Torch	51.7	47.7				
10							
	TOTAL	66.3	62.1				

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 12/19/2017
Case Description: SADDLEBACK CHURCH

PAVING ---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
PAVING	Residential	65	65	45

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Mixer Truck	No	40		78.8	650	0
Paver	No	50		77.2	650	0
Pavement Scarafier	No	20		89.5	650	0
Roller	No	20		80	650	0
Backhoe	No	40		77.6	650	0

Results

Equipment	Calculated (dBA) *Lmax	Leq
Concrete Mixer Truck	56.5	52.5
Paver	54.9	51.9
Pavement Scarafier	67.2	60.2
Roller	57.7	50.7
Backhoe	55.3	51.3
Total	67.2	62.2

*Calculated Lmax is the Loudest value.

NOISE INTERVAL AVERAGER (2.0)

PROJECT:	SADDLEBACK CHURCH	JOB #:	0101-2017-02
LOCATION:	NEAREST RESIDENTIAL	DATE:	19-Dec-17
SOURCE:	CONSTRUCTION - PAVING	BY:	B. Estrada

NOISE LEVEL MEASUREMENTS (dBA)

	NOISE SOURCE	L(MAX)	L(EQ)				
1	Concrete Mixer Truck	56.5	52.5				
2	Paver	54.9	51.9				
3	Pavement Scarafier	67.2	60.2				
4	Roller	57.7	50.7				
5	Backhoe	55.3	51.3				
6							
7							
8							
9							
10							
	TOTAL	68.4	62.1				

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 12/19/2017
Case Description: SADDLEBACK CHURCH

ARCHITECTURAL COATING

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
ARCHITECTURAL COATING	Residential	65	65	45

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	650	0

Results

Equipment	Calculated (dBA) *Lmax	Leq
Compressor (air)	55.4	51.4
Total	55.4	51.4

*Calculated Lmax is the Loudest value.

NOISE INTERVAL AVERAGER (2.0)

PROJECT:	SADDLEBACK CHURCH	JOB #:	0101-2017-02
LOCATION:	NEAREST RESIDENTIAL	DATE:	19-Dec-17
SOURCE:	CONSTRUCTION - ARCHITECTURAL COATING	BY:	B. Estrada

NOISE LEVEL MEASUREMENTS (dBA)

	NOISE SOURCE	L(MAX)	L(EQ)				
1	Compressor (air)	55.4	51.4				
2							
3							
4							
5							
6							
7							
8							
9							
10							
	TOTAL	55.4	51.4				

PROJECT:	SADDLEBACK CHURCH	JOB #:	0101-2017-02
ACTIVITY:	ROADWAY EXPANSION	DATE:	18-Dec-17
LOCATION:	LAKE FOREST, CA	ENGINEER:	B. ESTRADA

VIBRATION INPUT/OUTPUT DATA

OTHER CONSTRUCTION EQUIPMENT

$$PPV = PPV_{ref}(25/D)^{n} \text{ (in/sec)}$$

PPV =	**0.098 in/sec**

Equipment Type =	1	Vibratory Roller
PPV_{ref} =	0.210	Reference PPV at 25 ft.
D =	50.00	Distance from Equipment to receiver in ft.
n =	1.10	Vibration attenuation rate through the ground

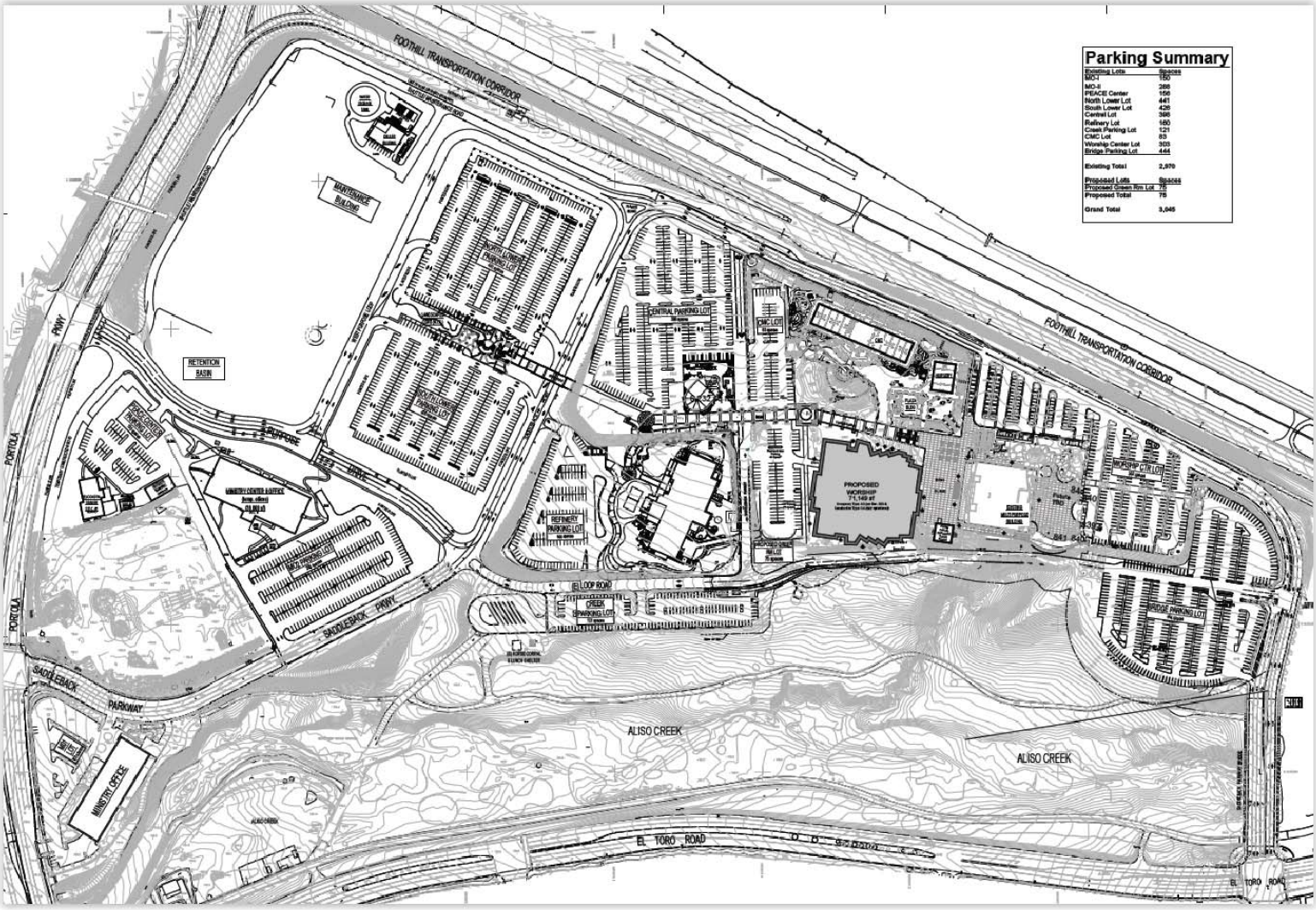
EQUIPMENT PPV REFERENCE LEVELS

Type	Equipment	Reference PPV
1	Vibratory Roller	0.210
2	Large Bulldozer	0.089
3	Caisson Drilling	0.089
4	Loaded Trucks	0.076
5	Jackhammer	0.035
6	Small Bulldozer	0.003
7	Crack and Seat	2.400

Appendix I

Traffic Impact Analysis

PROPOSED SADDLEBACK COMMUNITY CHURCH
NEW WORSHIP CENTER & ROADWAY EXTENSION
PROJECT TRAFFIC IMPACT ANALYSIS & PARKING STUDY



PROPOSED SADDLEBACK COMMUNITY CHURCH NEW WORSHIP CENTER AND ROADWAY EXTENSION PROJECT TRAFFIC IMPACT ANALYSIS AND PARKING STUDY
City of Lake Forest, California

Prepared for:

Mr. Brian Price
SADDLEBACK COMMUNITY CHURCH
1 Saddleback Parkway
Lake Forest, CA 92630

Prepared by:

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4000 Westerly Place, Suite 280
Newport Beach, CA 92660

Mohammad "Alex" Tabrizi, PE, TE
Alex Vu, EIT

September 10, 2018

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1.0 Introduction

1.1 Purpose of Report & Study Objectives

The purpose of this study is to evaluate the potential traffic impacts associated with implementation of the proposed Saddleback Community Church New Worship Center and Roadway Extension project, in accordance with the thresholds of significance adopted and established by the City.

The analysis also determines if the proposed 3,045 parking spaces are forecast to be adequate to serve the site after implementation of the proposed project.

Study objectives include: (1) documentation of Existing traffic conditions in the vicinity of the site; (2) evaluation of Existing Plus Project traffic conditions; (3) evaluation of Project Buildout (Year 2021) conditions with and without the project; (4) evaluation of parking capacity for the site after implementation of proposed project; and (5) determination of off-site improvements and system management actions needed to achieve the City of Lake Forest level of service requirements.

Based on information provided by the project applicant and the church, the project is not expected to result in any significant change to weekday conditions activities of the church. Hence, a weekday conditions analysis is not required for the proposed project.

Therefore, this analysis evaluates the potential traffic impacts associated with the proposed project during peak Saturday activities from 3:00 PM to 7:00 PM, and peak Sunday activities from 10:00 AM to 2:00 PM.

The analysis also determines if the proposed 3,045 parking spaces are forecast to be adequate to serve the site after implementation of the proposed project.

1.2 Site Location & Project Description

The project site is located at 1 Saddleback Parkway in the City of Lake Forest. Exhibit A illustrates the site location map.

The existing site currently has a worship center with a capacity of up to 3,153 seats and modular buildings which are utilized for classes with a capacity of up to approximately 1,000 students.

The proposed project is planned to be completed in 2021 and consist of the following land uses:

- Construction of a new Worship Center building with a capacity of 3,509 seats to replace the existing 3,153 Worship Center (net increase of 356);
- Demolition of the modular buildings which is used as classroom to serve up to approximately 1,000 students;
- Utilization of the existing Worship Center building to serve as classroom area to serve up to approximately 969 students (net decrease of 31 student capacity);
- Demolition of Tent 3 to provide additional surface parking from the current parking capacity of approximately 3,021 spaces to approximately 3,045 spaces; and
- Modification of the on-site circulation roadway network by extension of East Loop Road east of the existing cul-de-sac to connect with Saddleback Parkway.

This analysis is considered conservative since it does not account for the reduction in trip generation related to the decrease in the number of students from 1,000 students to 969 students.

Based on information provided by the project applicant and the church, the project is not expected to result in any significant change to weekday conditions activities of the church. Hence, a weekday conditions analysis is not required for the proposed project.

This analysis evaluates the potential traffic impacts associated with the proposed project during peak Saturday activities from 3:00 PM to 7:00 PM, and peak Sunday activities from 10:00 AM to 2:00 PM.

Site access for the proposed project is planned to continue to be provided via the following three existing signalized full access intersections:

- Santa Margarita Parkway / Purpose Drive;

- Santa Margarita Parkway / Saddleback Parkway; and

- Marguerite Parkway / El Toro Road.

Based on information provided by the project applicant and the church, the project is not expected to result in any significant change to weekday conditions activities of the church.

The Proposed Site Development Plan is provided on Exhibit B.

1.3 Traffic Study Area & Analysis Scenarios

Exhibit A illustrates the site location map and traffic analysis study area. The study area consists of the following intersections:

#	North-South Street	East-West Street	Jurisdiction	
			Lake Forest	Mission Viejo
1.	Portola Parkway	SR-241 On/Off Ramp	X	
2.	Portola Parkway	Rancho Parkway – Purpose Drive	X	
3.	Portola Parkway	Saddleback Parkway	X	
4.	Portola Parkway – Santa Margarita Parkway	El Toro Road	X	
5.	Los Alisos Boulevard	Santa Margarita Parkway		X
6.	Marguerite Parkway	El Toro Road		X
7.	Marguerite Parkway	Los Alisos Boulevard		X
8.	Marguerite Parkway	Santa Margarita Parkway		X

The analysis evaluates traffic conditions of the study intersections for the following scenarios:

- Existing Conditions;

- Existing Plus Project Conditions;

- Project Buildout Year (2021) Without Project; and

- Project Buildout Year (2021) With Project.

1.4 Acceptable Level of Service & Significant Impact Criteria

The acceptable Level of Service (LOS) for intersections within the City of Lake Forest and also City of Mission Viejo is LOS D or better.

Any intersection operating at a LOS E or LOS F will be considered deficient and mitigation measures will need to be identified to achieve acceptable LOS. For this study, in accordance with the City of Lake Forest and City of Mission Viejo requirements, the ICU Methodology has been utilized to analyze the study area intersections.

2.0 Analysis Methodologies, Performance Criteria, & Thresholds of Significance

This section of the report presents the methodologies used to perform the traffic analyses summarized in this report. In accordance with the City of Lake Forest requirements.

This section also discusses the agency-established applicable performance criteria and thresholds of significance for the study facilities.

2.1 Intersection Peak Hour Level of Service Analysis Methodology

Based on current City of Lake Forest and City of Mission Viejo standards stated in the Circulation Element, the methodology used to assess the operation of the signalized study area intersections is Intersection Capacity Utilization (ICU). To calculate the ICU, the volume of traffic using the intersection is compared with the capacity of the intersection. ICU is usually expressed as a ratio. This ratio represents that portion of the hour required to provide sufficient capacity to accommodate all intersection traffic if all approaches operate at capacity.

The ICU methodology was used to analyze the study intersections. The following parameters are utilized:

1. Saturation Flow Rate: Saturation flow value of 1,700 vehicles per lane per hour for all lanes; no adjustments are used for protected movements with dedicated lanes (including both right and left turns). A volume adjustment of 0.75 was used for right-turn movements with dedicated right-turn lane or "defacto" right-turn lane.

2. Clearance Interval & Cycle Time: A clearance interval factor of 5% (0.05) is applied to the ICU calculations. The cycle time is set at 100 seconds for ICU analysis purposes only. Actual signal cycle length may vary.

3. Level of Service Ranges:

LOS	Critical Volume To Capacity Ratio
A	0.00 - 0.60
B	0.61 - 0.70
C	0.71 - 0.80
D	0.81 - 0.90
E	0.91 - 1.00
F	>1.00

The definitions of level of service are:

- LOS A represents free flow. Individual users are virtually unaffected by the presence of others in the traffic stream.

- LOS B is in the range of stable flow, but the presence of other users in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver.

- LOS C is in the range of stable flow, but marks the beginning of the range of flow in which the operation of individual users becomes significantly affected by interactions with others in the traffic stream.

- LOS D represents high-density but stable flow. Speed and freedom to maneuver are severely restricted, and the driver experiences a generally poor level of comfort and convenience.

- LOS E represents operating conditions at or near the capacity level. All speeds are reduced to a low, but relatively uniform value. Small increases in flow will cause breakdowns in traffic movement.

- LOS F is used to define forced or breakdown flow. This condition exists wherever the amount of traffic approaching a point exceeds the amount which can traverse the point. Queues form behind such locations.

4. Peak-Periods: Peak-period analysis periods are defined as follows:

Saturday: 3:00 PM to 7:00 PM

Sunday: 10:00 AM to 2:00 PM

5. Peak-Hour: The highest one-hour period in the Saturday and Sunday peak periods, as determined by four (4) consecutive 15-minute count periods are used in the ICU calculations. Saturday and Sunday peak hours are studied.

6. Peak-Hour Data Consistency: Variations in peak-hour volumes can affect LOS calculations because they vary from day to day. Based on information provided by the project applicant and the church, the peak Saturday activities for the church occur at 4:00 PM. Similarly, the peak Sunday activities occur at 11:00 AM. The peak period analysis began one hour before church activity commenced and ended an hour after the activity ended to capture all the arriving and departing trips associated with the activity. The traffic count worksheets for this study are included in Appendix A.

7. Right Turn Movements: If the distance from the edge of the outside through lane is sufficient and parking is prohibited during the peak period, right turning vehicles may be assumed to utilize this "unofficial" right turn lane. Otherwise, all right turn traffic is assigned to the through lane. If a right turn lane exists, right turn activity is checked for conflicts with other critical movements. It is assumed that right turn movements are accommodated during non-conflicting left turn phases (e.g., northbound right turns during westbound left turn phase), as well as non-conflicting through flows (e.g., northbound right turn movements and north/south through flows). Right turn movements become critical when conflicting movements (e.g., northbound right turns, southbound left turns, and eastbound through flows) represent a sum of V/C ratios that are greater than the normal through/left turn critical movements.

2.2 Level of Service Performance Criteria & Significant Impact Criteria

The acceptable Level of Service (LOS) for intersections within the City of Lake Forest and City of Mission Viejo is LOS D or better.

Any intersection operating at a LOS E or LOS F will be considered deficient and mitigation measures will need to be identified to achieve acceptable LOS. For this study, the ICU Methodology has been utilized to analyze the study area intersections.

3.0 Existing Traffic Volumes & Circulation System

This section provides a discussion of existing study area conditions and traffic volumes.

3.1 Existing Traffic Controls & Intersection Geometrics

Exhibit C identifies the existing roadway conditions for the study area roadways. The number of through traffic lanes for existing roadways and the existing intersection controls are identified.

3.2 Existing Conditions Traffic Volumes

As previously noted, based on information provided by the project applicant and the church, the project is not expected to result in any significant change to weekday conditions activities of the church. Hence, a weekday conditions analysis is not required for the proposed project.

This analysis evaluates the potential traffic impacts associated with the proposed project during peak Saturday activities from 3:00 PM to 7:00 PM, and peak Sunday activities from 10:00 AM to 2:00 PM.

Existing Saturday and Sunday traffic volumes for the study area intersections are shown on Exhibit D. These volumes are based upon manual Saturday and Sunday peak hour turning movement counts compiled for RK in November 2017. The Saturday peak hour traffic volumes were determined by counting a four-hour period between 3:00 PM and 7:00 PM. Similarly, the Sunday peak hour traffic volumes were identified by counting the four-hour period between 10:00 AM and 2:00 PM. The traffic count worksheets are included in Appendix A.

3.3 City of Lake Forest General Plan Circulation Element

Exhibit E shows the City of Lake Forest General Plan Roadway Network, and Exhibit F shows the City of Lake Forest General Plan Roadway Cross Sections.

3.4 City of Lake Forest Public Transit Service

Public transit services in the study area are shown in Exhibit G provided by the Orange County Transportation Authority (OCTA). The following bus route is currently operating near the site:

- Route 82
- Route 85
- Route 89

3.5 City of Lake Forest Recreational Trails & Bikeways

Part of the City of Lake Forest's General Plan is to provide a system of complete streets that accommodates safe and convenient access and travel for all users and to promote a healthy and sustainable transportation throughout the community. The City's Bike Plan is shown on Exhibit H.

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4.0 Projected & Future Traffic Volumes

This section provides a discussion on methodologies utilized to derive future traffic volumes for the study area.

4.1. Project Traffic Conditions

4.1.1 Trip Generation

Trip generation represents the amount of traffic that is attracted and produced by a development.

Based on the project description listed above, the proposed project could potentially result in increase of existing traffic levels from the expansion of the Worship Area Capacity from 3,153 seats to 3,509 seats.

The analysis is considered conservative since it does not account for the reduction of the number of students from 1,000 students to 969 students.

As previously noted, the proposed project is not expected to result in any significant change to the weekday conditions activities of the church.

The trip generation rates are based upon data collected by the Institute of Transportation Engineers (ITE) Trip Generation, 9th Edition. This publication provides a comprehensive evaluation of trip generation rates for a variety of land uses.

Both daily and peak hour trip generation rates for the proposed land uses analyzed in this study are shown in Table 1.

Utilizing the trip generation rates from Table 1, Table 2 summarizes the daily and peak hour trip generation for the proposed project.

As shown in Table 2, the proposed project is forecast to generate approximately 320 daily trips during the Saturday conditions, including 214 trips during the peak hour.

As also shown in Table 2, the proposed project is forecast to generate approximately 659 daily trips during the Sunday conditions, including 217 trips during the peak hour.

4.1.2 Trip Distribution & Assignment

Trip distribution represents the directional orientation of traffic to and from the project. Trip distribution is heavily influenced by the geographical location of the site, the location of retail, employment, recreational opportunities, and the proximity to the regional freeway system. The directional orientation of traffic was determined by evaluating existing and proposed land uses and highways within the community.

Trip distribution patterns for this study have been based upon near-term and Project buildout conditions, and are based upon those highway facilities that are either in place or will be contemplated over the next few years.

Forecast trip distribution for the proposed project has been developed through discussions with the City during the scoping process and is shown in Exhibit I.

4.1.3 Modal Split

Modal split denotes the proportion of traffic generated by a project that would use any of the transportation modes, namely buses, cars, bicycles, motorcycles, trains, carpools, etc. The traffic reducing potential of public transit and other modes is significant. However, the traffic projections in this study are conservative in that public transit and alternative transportation may be able to reduce the traffic volumes, but, no modal split reduction is applied to the projections. With the implementation of transit service and provision of alternative transportation ideas and incentives, the automobile traffic demand can be reduced significantly.

4.1.4 Project Peak Hour Traffic Volumes/Assignment

The assignment of traffic from the project site to the adjoining roadway system has been based upon the project's trip generation, trip distribution, and proposed arterial highway and local street systems that this traffic study assumes would be in place by the time of occupancy of the site.

Project Saturday and Sunday traffic volumes are shown on Exhibit J.

4.1.5 Existing Plus Project Conditions Traffic Volumes

Existing Plus Project Conditions traffic volumes are derived by adding the project traffic volumes shown in Exhibit J to the existing traffic volumes shown in Exhibit D.

Existing Plus Project Saturday and Sunday peak hour intersection turning movement volumes are shown in Exhibit K.

4.2 Background Traffic

4.2.1 Method of Projection

To assess Project Completion (Year 2021) traffic conditions, project traffic is combined with existing traffic, area-wide growth, and cumulative projects' traffic.

To account for area wide/ambient growth in the study area, an annual growth rate of one percent (1%) has been applied to existing traffic volumes over a four-year period, as directed by City Staff.

4.2.2 Cumulative Projects Traffic

Information on future projects in the vicinity of study area has been obtained from the City of Lake Forest and City of Mission Viejo staff for inclusion in this analysis and shown in Table 3.

"Probable future projects" include projects that have been filed with the City but are not yet approved or projects that the City reasonably anticipates will be submitted in the foreseeable future.

Table 3 shows the proposed land uses for the nearby cumulative projects for the project completion (Year 2021) traffic conditions.

Cumulative impacts analyzed in this traffic impact study were conservatively assessed. Some of the cumulative projects may be downsized or may not be developed. In addition, many of the related projects have been or will be subject to a variety of mitigation measures that will reduce the potential environmental

impacts associated with those projects. However, those mitigation measures have not been taken into account in projecting the environmental impact of the related projects. Therefore, the cumulative analyses set forth below are conservative and result in greater impacts than actually anticipated.

Exhibit L shows the location of the cumulative projects.

Table 3 also shows the peak hour and daily trip generation for the cumulative projects.

Cumulative Projects Saturday and Sunday traffic volumes are shown on Exhibit M.

4.3 Project Buildout (Year 2021) Without Project Conditions Traffic Volumes

Project Buildout (Year 2021) Without Project Conditions traffic volumes consist of existing traffic volumes, a 4% growth rate (to account for four years of annual growth at 1%), and cumulative projects traffic volumes.

Project Buildout (Year 2021) Without Project Saturday and Sunday traffic volumes are shown on Exhibit N.

4.4 Project Buildout (Year 2021) With Project Conditions Traffic Volumes

Project Buildout (Year 2021) With Project Conditions traffic volumes consist of existing traffic volumes, a 4% growth rate (to account for four years of annual growth at 1%), cumulative projects traffic volumes, and the proposed project traffic.

Project Buildout (Year 2021) With Project Saturday and Sunday traffic volumes are shown on Exhibit O.

5.0 Traffic Analysis

This section provides a discussion on the study intersection peak hour level of service analysis and findings.

5.1 Existing Conditions Level of Service

Existing Conditions Level of Service (LOS) calculations for the study intersections are shown in Table 4 and are based upon manual Saturday and Sunday peak hour turning movement counts compiled for RK in November 2017.

As shown in Table 4, all study area intersections are currently operating at an acceptable level of service (LOS D or better) during the Saturday & Sunday peak hours for Existing Conditions.

The ICU (Intersection Capacity Utilization) calculation worksheets for Existing Conditions are provided in Appendix B.

5.2 Existing Plus Project Conditions Level of Service

Existing Plus Project Conditions Level of Service (LOS) calculations for the study intersections are shown in Table 5.

As shown in Table 5, all study area intersections are forecast to continue to operate at an acceptable level of service (LOS D or better) during the Saturday & Sunday peak hours for Existing Plus Project Conditions.

As also shown in Table 5, based on agency-established thresholds of significance, the proposed project is forecast to not result in any significant traffic impacts at the study intersections for Existing Plus Project Conditions.

The ICU (Intersection Capacity Utilization) calculation worksheets for Existing Plus Project Conditions are provided in Appendix C.

5.3 Project Buildout (Year 2021) Without Project Conditions Level of Service

Project Buildout (Year 2021) Without Project Conditions Level of Service (LOS) calculations for the study intersections are shown in Table 6.

As shown in Table 6, all study area intersections are forecast to continue to operate at an acceptable level of service (LOS D or better) during the Saturday & Sunday peak hours for Project Buildout (Year 2021) Without Project Conditions.

The ICU (Intersection Capacity Utilization) calculation worksheets for Project Buildout (Year 2021) Without Project Conditions are provided in Appendix D.

5.4 Project Buildout (Year 2021) With Project Conditions Level of Service

Project Buildout (Year 2021) With Project Conditions Level of Service (LOS) calculations for the study intersections are shown in Table 7.

As shown in Table 7, all study area intersections are forecast to continue to operate at an acceptable level of service (LOS D or better) during the Saturday & Sunday peak hours for Project Buildout (Year 2021) With Project Conditions.

As also shown in Table 7, based on agency-established thresholds of significance, the proposed project is forecast to not result in any significant traffic impacts at the study intersections for Project Buildout (Year 2021) With Project Conditions.

The ICU (Intersection Capacity Utilization) calculation worksheets for Project Buildout (Year 2021) With Project Conditions are provided in Appendix E.

6.0 Parking Analysis

The site currently has a parking capacity of approximately 3,021 spaces.

As part of the proposed project, with demolition of Tent 3, the parking capacity of will be increased from approximately 3,021 spaces to approximately 3,045 spaces.

This parking analysis determines if the proposed 3,045 parking spaces are forecast to be adequate to serve the site after implementation of the proposed project.

Based on information provided by the project applicant and the church, the project site generally is most active during Saturday and Sunday conditions and the project is not expected to result in any significant change to weekday conditions activities of the church.

To establish a baseline for the project parking and determine the level of traffic demand for the existing operations, existing parking counts were collected at the project site during Saturday and Sunday conditions.

The parking counts collected information on the number of vehicles parked on the site from 8:00 AM to 8:00 PM on Saturday November 4, 2017 and Sunday November 5, 2017 during typical operations.

Additionally, as part of the parking counts, observations were made to determine the average number of passengers that arrive in a single vehicle (average ridership).

Furthermore, as requested by the City, the parking required for the prosed project is also evaluated based on the City of Lake Forest's Municipal Code for church use.

6.1. Existing Parking Conditions

Based on information provided by the project applicant and the church, the project site generally is most active during Saturday and Sunday conditions and the project is not expected to result in any significant change to weekday conditions activities of the church.

To establish a baseline for the project parking and determine the level of traffic demand for the existing operations, existing parking counts were collected at the project site during Saturday and Sunday conditions.

The parking counts collected information on the number of vehicles parked on the site from 8:00 AM to 8:00 PM on Saturday November 4, 2017 and Sunday November 5, 2017 during typical operations.

Based on survey of existing parking, the site currently contains a total of approximately 3,021 parking spaces. The parking spaces are provided within various surface parking lots.

For the purposes of collection of parking counts, the site parking areas were separated into a total of 16 parking zones. Exhibit P shows the parking zones that were created for organization of existing parking data.

Table 8 summarizes the existing parking capacity information for the project site.

Table 9 summarizes the existing observed hourly parking demand and utilization for the project site for Saturday conditions.

As shown in Table 9, during Saturday conditions, the peak parking demand for the project site occurred at 5:00 PM with 1,346 parked vehicles on the site (equivalent to 45% utilization of the existing 3,021 parking capacity).

Table 10 summarizes the existing observed hourly parking demand and utilization for the project site for Sunday conditions.

As shown in Table 10, during Sunday conditions, the peak parking demand for the project site occurred at 10:00 AM with 1,894 parked vehicles on the site (equivalent to 63% utilization of the existing 3,021 parking capacity).

Hence, based on the existing observed hourly parking demand and utilization for the project site during Saturday and Sunday conditions, the maximum parking demand for the project site currently occurs on Sunday at 10:00 AM, with 1,894 parked vehicles (equivalent to 63% utilization of the existing 3,021 parking capacity).

Based on sample observations conducted during the count days, on average 2.2 persons arrive in a single vehicle, resulting in an average vehicle ridership (AVR) of 2.2.

Detailed parking count data survey sheets are contained in Appendix F.

6.2. Proposed Project Forecast Parking Demand

As part of the proposed project, with demolition of Tent 3, the parking capacity of will be increased from approximately 3,021 spaces to approximately 3,045 spaces.

This analysis utilizes three different methodologies to determine the additional parking demand forecast to occur as a result of the proposed project:

1. **Parking Methodology Alternative 1:** Forecast *increase in the maximum observed existing parking* demand at the project site based on the *percent increase of the worship seating capacity* compared to existing conditions;

2. **Parking Methodology Alternative 2:** Forecast *increase in the maximum observed existing parking* demand at the project site based on the *increase in the number of worship seats* and capacity compared to existing conditions, *assuming an AVR of 2.2* (each 2.2 additional attendees arrive in a single vehicle that needs to be parked); and

3. **Parking Methodology Alternative 3:** Forecast increase in the maximum observed existing parking demand at the project site based on the *increase in the number of worship seats* and capacity compared to existing conditions, *conservatively assuming an AVR of 1.0* (each additional attendee arrives in a single vehicle that needs to be parked).

4. **Parking Methodology Alternative 4:** Parking required for the project site based on City of Lake Forest Municipal Code.

6.2.1 Parking Methodology Alternative 1: *Forecast Parking Demand of Proposed Project Based on Percentage Increase in Seating Capacity*

Based on the project description, the proposed project would result in increase of existing Worship Area Capacity from 3,153 seats to 3,509 seats. This is equivalent to an increase of 356 seats or approximately 11.3% increase in existing capacity.

This analysis is considered conservative since it does not account for the reduction in trip generation related to the decrease in the number of students from 1,000 students to 969 students.

As previously noted, based on the existing observed hourly parking demand and utilization for the project site during Saturday and Sunday conditions, the maximum parking demand for the project site currently occurs on Sunday at 10:00 AM, with 1,894 parked vehicles (equivalent to 63% utilization of the existing parking capacity).

Hence, based on Parking Methodology Alternative 1, assuming implementation of the proposed project and an increase of 11.3% in all of the existing activities on the project site, after implementation of the proposed project, the maximum parking demand is forecast to increase by 214 spaces (11.3% of 1,894), resulting in a maximum parking demand of 2,108 spaces (equivalent to approximately 69% utilization of the proposed 3,045 parking spaces).

Therefore, based on Parking Methodology Alternative 1, more than adequate parking capacity if forecast to be provided to accommodate the proposed project.

6.2.2 Parking Methodology Alternative 2: *Forecast Parking Demand of Proposed Project Based on Increase in Number of Seats, Assuming Average Vehicle Ridership of 2.2*

Based on the project description, the proposed project would result in increase of existing Worship Area Capacity by 356 seats.

This analysis is considered conservative since it does not account for the reduction in trip generation related to the decrease in the number of students from 1,000 students to 969 students.

As also previously noted, based on sample observations conducted during the count days, on average 2.2 persons arrive in a single vehicle, resulting in an average vehicle ridership (AVR) of 2.2.

Assuming an AVR of 2.2, and an increase of 356 seats, the proposed project would result in approximately 162 additional vehicles that would need to be parked.

Based on the existing observed hourly parking demand and utilization for the project site during Saturday and Sunday conditions, the maximum parking demand for the project site currently occurs on Sunday at 10:00 AM, with 1,894 parked vehicles (equivalent to 63% utilization of the existing parking capacity).

Hence, based on Parking Methodology Alternative 2, assuming implementation of the proposed project and an increase in parking demand of 162 vehicles, after implementation of the proposed project, the maximum parking demand is forecast to be 2,056 spaces (equivalent to approximately 68% utilization of the proposed 3,045 parking spaces).

Therefore, based on Parking Methodology Alternative 2, more than adequate parking capacity if forecast to be provided to accommodate the proposed project.

6.2.3 Parking Methodology Alternative 3: *Forecast Parking Demand of Proposed Project Based on Increase in Number of Seats, Assuming Average Vehicle Ridership of 1.0*

This methodology is similar to Parking Methodology Alternative 2, but, conservatively assumes each additional individual arrives in a single vehicle (AVR of 1.0).

This analysis is considered conservative since it does not account for the reduction in trip generation related to the decrease in the number of students from 1,000 students to 969 students.

Assuming an AVR of 1.0, and an increase of 356 seats, the proposed project would result in approximately 356 additional vehicles that would need to be parked.

Based on the existing observed hourly parking demand and utilization for the project site during Saturday and Sunday conditions, the maximum parking demand for the project site currently occurs on Sunday at 10:00 AM, with 1,894 parked vehicles (equivalent to 63% utilization of the existing parking capacity).

Hence, based on Parking Methodology Alternative 3, assuming implementation of the proposed project and an increase in parking demand of 356 vehicles, after implementation of the proposed project, the maximum parking demand is forecast to be 2,250 spaces (equivalent to approximately 74% utilization of the proposed 3,045 parking spaces).

Therefore, based on Parking Methodology Alternative 3, more than adequate parking capacity if forecast to be provided to accommodate the proposed project.

Table 11 summarizes the proposed project forecast parking demand based on the three Parking Methodologies.

As shown above and in Table 11, utilizing any of the three parking methodology alternatives, which some are considered to be very conservative, more than adequate parking capacity if forecast to be provided to accommodate the proposed project.

6.2.4 Parking Methodology Alternative 4: *Parking Required for the Project Site based on City of Lake Forest Municipal Code*

Based on the City of Lake Forest Municipal Code, the following is used to determine the required parking spaces for Churches, temples and other places of assembly:

"1 space for each 3 fixed seats within the main auditorium or for every 35 square feet of seating area within the main auditorium where there are no fixed seats; 18 lineal inches of bench shall be considered a fixed seat."

As previously noted, after completion, the project will consist of a total of 3,509 seats in the Worship Center (increase of 356 seats from the current 3,153 seats) and reduction of the student capacity by 31 students from 1,000 students to 969 students.

Hence, the project will consist of 4,478 seats (3,509 seats in the Worship Center plus 969 student seats).

Based on the City's Municipal Code, the 4,478 seats would require a total of 1,493 parking spaces.

Hence, based on Parking Methodology Alternative 4, assuming implementation of the proposed project, the project would require 1,493 spaces (equivalent to approximately 49% utilization of the proposed 3,045 parking spaces).

Therefore, based on Parking Methodology Alternative 4, more than adequate parking capacity if forecast to be provided to accommodate the proposed project.

Table 11 summarizes the proposed project forecast parking demand based on the three Parking Methodologies.

As shown above and in Table 11, utilizing any of the four parking methodology alternatives, which some are considered to be very conservative, more than adequate parking capacity if forecast to be provided to accommodate the proposed project.

7.0 Findings, Recommendations & Conclusions

The purpose of this study is to evaluate the potential traffic impacts associated with implementation of the proposed Saddleback Community Church New Worship Center and Roadway Extension project, in accordance with the thresholds of significance adopted and established by the City.

The project site is located at 1 Saddleback Parkway in the City of Lake Forest.

The existing site currently has a worship center with a capacity of up to 3,153 seats and modular buildings which are utilized for classes with a capacity of up to approximately 1,000 students.

The proposed project is planned to be completed in 2021 and consist of the following land uses:

- Construction of a new Worship Center building with a capacity of 3,509 seats to replace the existing 3,153 Worship Center (net increase of 356);
- Demolition of the modular buildings which is used as classroom to serve up to approximately 1,000 students;
- Utilization of the existing Worship Center building to serve as classroom area to serve up to approximately 969 students (net decrease of 31 student capacity);
- Demolition of Tent 3 to provide additional surface parking from the current parking capacity of approximately 3,021 spaces to approximately 3,045 spaces; and
- Modification of the on-site circulation roadway network by extension of East Loop Road east of the existing cul-de-sac to connect with Saddleback Parkway.

This analysis is considered conservative since it does not account for the reduction in trip generation related to the decrease in the number of students from 1,000 students to 969 students.

Based on information provided by the project applicant and the church, the project is not expected to result in any significant change to weekday conditions activities of the church. Hence, a weekday conditions analysis is not required for the proposed project.

This analysis evaluates the potential traffic impacts associated with the proposed project during peak Saturday activities from 3:00 PM to 7:00 PM, and peak Sunday activities from 10:00 AM to 2:00 PM.

Site access for the proposed project is planned to continue to be provided via the following three existing signalized full access intersections:

- Santa Margarita Parkway / Purpose Drive;
- Santa Margarita Parkway / Saddleback Parkway; and
- Marguerite Parkway / El Toro Road.

Based on information provided by the project applicant and the church, the project is not expected to result in any significant change to weekday conditions activities of the church.

Traffic Analysis Summary:

The study area consists of the following intersections:

#	North-South Street	East-West Street	Jurisdiction	
			Lake Forest	Mission Viejo
1.	Portola Parkway	SR-241 On/Off Ramp	X	
2.	Portola Parkway	Rancho Parkway – Purpose Drive	X	
3.	Portola Parkway	Saddleback Parkway	X	
4.	Portola Parkway – Santa Margarita Parkway	El Toro Road	X	
5.	Los Alisos Boulevard	Santa Margarita Parkway		X
6.	Marguerite Parkway	El Toro Road		X
7.	Marguerite Parkway	Los Alisos Boulevard		X
8.	Marguerite Parkway	Santa Margarita Parkway		X

The analysis evaluates traffic conditions of the study intersections for the following scenarios:

- Existing Conditions;
- Existing Plus Project Conditions;

- Project Buildout Year (2021) Without Project; and
- Project Buildout Year (2021) With Project.

All study area intersections are currently operating at an acceptable level of service (LOS D or better) during the Saturday & Sunday peak hours for Existing Conditions.

All study area intersections are forecast to continue to operate at an acceptable level of service (LOS D or better) during the Saturday & Sunday peak hours for Existing Plus Project Conditions. Based on agency-established thresholds of significance, the proposed project is forecast to not result in any significant traffic impacts at the study intersections for Existing Plus Project Conditions.

All study area intersections are forecast to continue to operate at an acceptable level of service (LOS D or better) during the Saturday & Sunday peak hours for Project Buildout (Year 2021) Without Project Conditions.

All study area intersections are forecast to continue to operate at an acceptable level of service (LOS D or better) during the Saturday & Sunday peak hours for Project Buildout (Year 2021) With Project Conditions. Based on agency-established thresholds of significance, the proposed project is forecast to not result in any significant traffic impacts at the study intersections for Project Buildout (Year 2021) With Project Conditions.

Hence, no mitigation measures are required for the proposed project.

Parking Analysis Summary:

Existing Parking Conditions:

Based on information provided by the project applicant and the church, the project site generally is most active during Saturday and Sunday conditions and the project is not expected to result in any significant change to weekday conditions activities of the church.

To establish a baseline for the project parking and determine the level of traffic demand for the existing operations, existing parking counts were collected at the project site during Saturday and Sunday conditions.

The parking counts collected information on the number of vehicles parked on the site from 8:00 AM to 8:00 PM on Saturday November 4, 2017 and Sunday November 5, 2017 during typical operations.

Based on survey of existing parking, the site currently contains a total of approximately 3,021 parking spaces. The parking spaces are provided within various surface parking lots.

During Saturday conditions, the peak parking demand for the project site occurred at 5:00 PM with 1,346 parked vehicles on the site (equivalent to 45% utilization of the existing 3,021 parking capacity).

During Sunday conditions, the peak parking demand for the project site occurred at 10:00 AM with 1,894 parked vehicles on the site (equivalent to 63% utilization of the existing 3,021 parking capacity).

Hence, based on the existing observed hourly parking demand and utilization for the project site during Saturday and Sunday conditions, the maximum parking demand for the project site currently occurs on Sunday at 10:00 AM, with 1,894 parked vehicles (equivalent to 63% utilization of the existing 3,021 parking capacity).

Based on sample observations conducted during the count days, on average 2.2 persons arrive in a single vehicle, resulting in an average vehicle ridership (AVR) of 2.2.

Proposed Project Forecast Parking Demand:

This analysis utilizes three different methodologies to determine the additional parking demand forecast to occur as a result of the proposed project:

1. **Parking Methodology Alternative 1:** Forecast *increase in the maximum observed existing parking* demand at the project site based on the *percent increase of the worship seating capacity* compared to existing conditions;

2. **Parking Methodology Alternative 2:** Forecast *increase in the maximum observed existing parking* demand at the project site based on the *increase in the number of worship seats* and capacity compared to existing conditions, *assuming an AVR of 2.2* (each 2.2 additional attendees arrive in a single vehicle that needs to be parked); and

3. **Parking Methodology Alternative 3:** Forecast increase in the maximum observed existing parking demand at the project site based on the *increase in the number of worship seats* and capacity compared to existing conditions, *conservatively assuming an AVR of 1.0* (each additional attendee arrives in a single vehicle that needs to be parked).

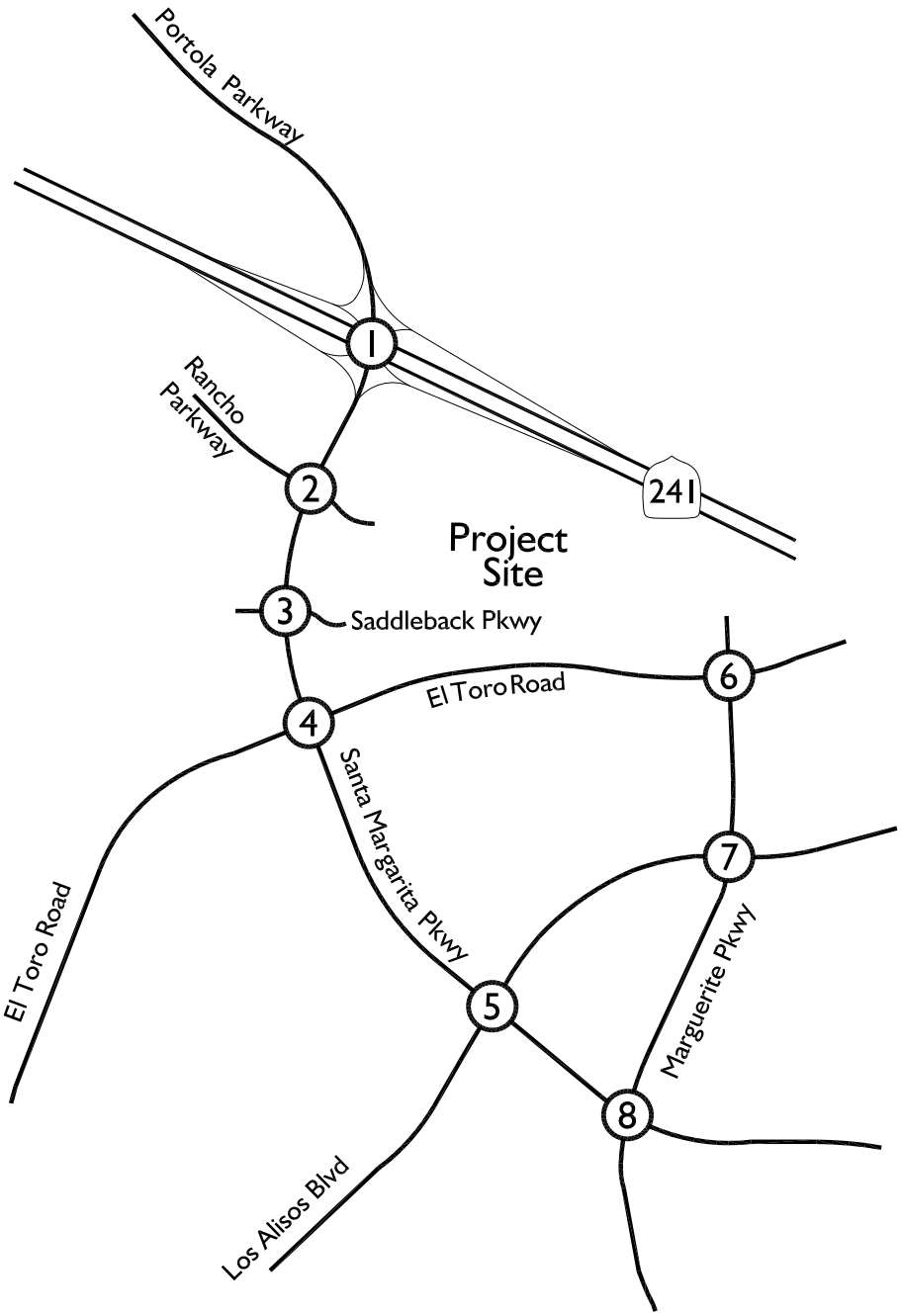
4. **Parking Methodology Alternative 4:** Parking required for the project site based on City of Lake Forest Municipal Code.

Utilizing any of the four parking methodology alternatives, which some are considered to be very conservative, more than adequate parking capacity if forecast to be provided to accommodate the proposed project.

Exhibits

Exhibit A

Location Map & Study Area



Legend:

(1) = Study Area Intersection

N

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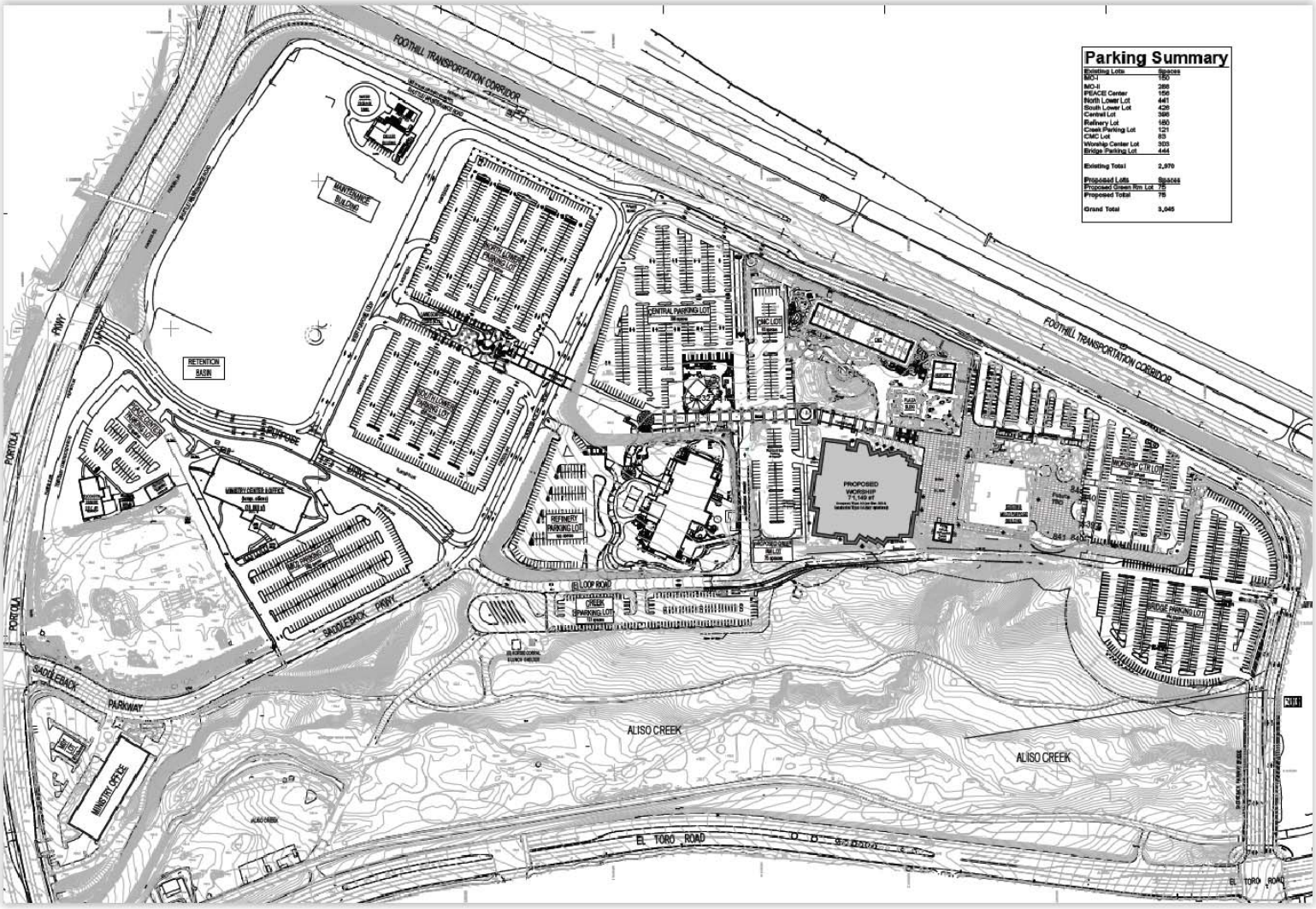
Exhibit B

Site Plan

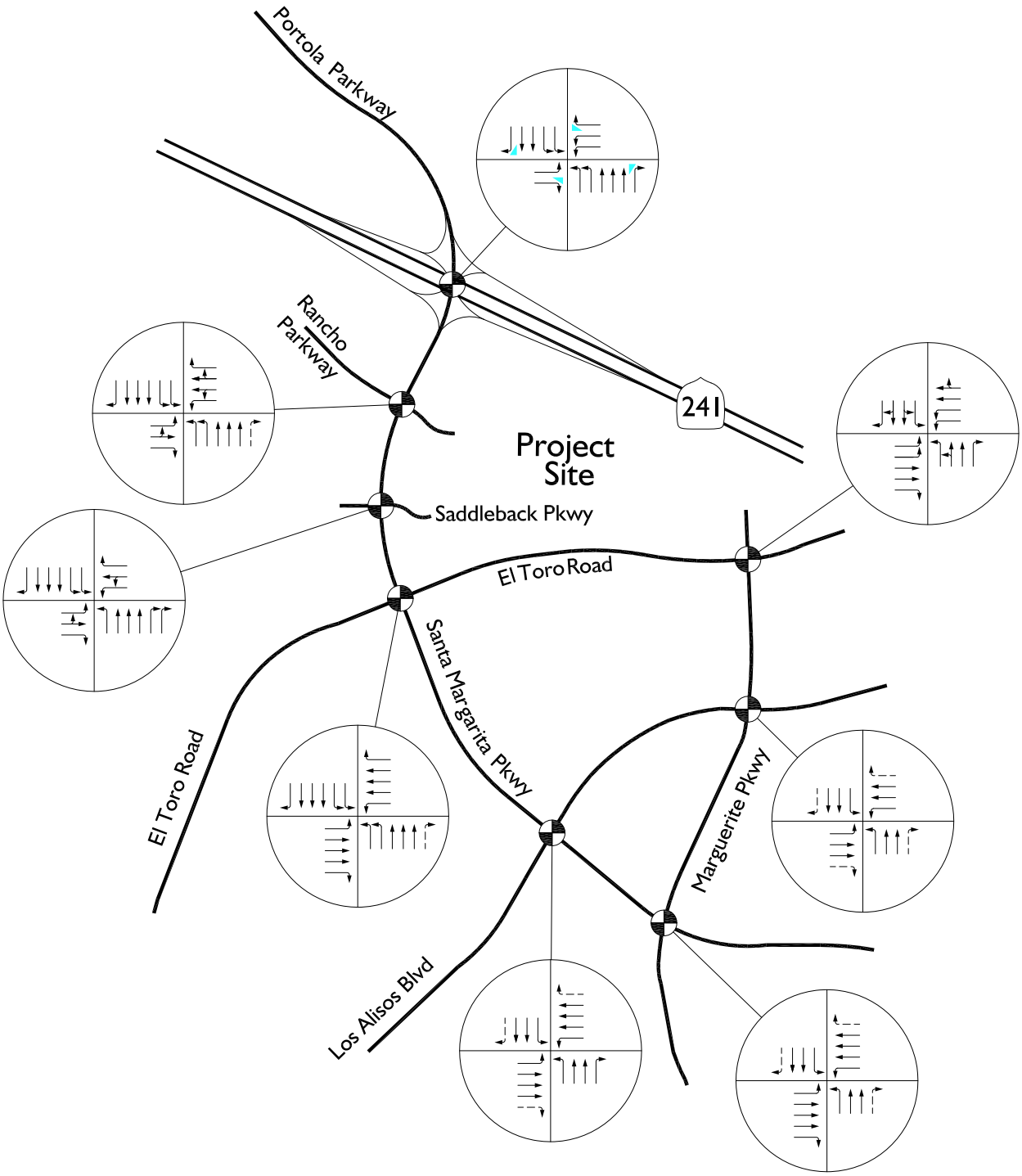


N

RK engineering group, inc.

Exhibit C

Existing Lane Geometry and Traffic Controls



Legend:

= Traffic Signal

RTO = Right Turn Overlap

= Free Right Turn

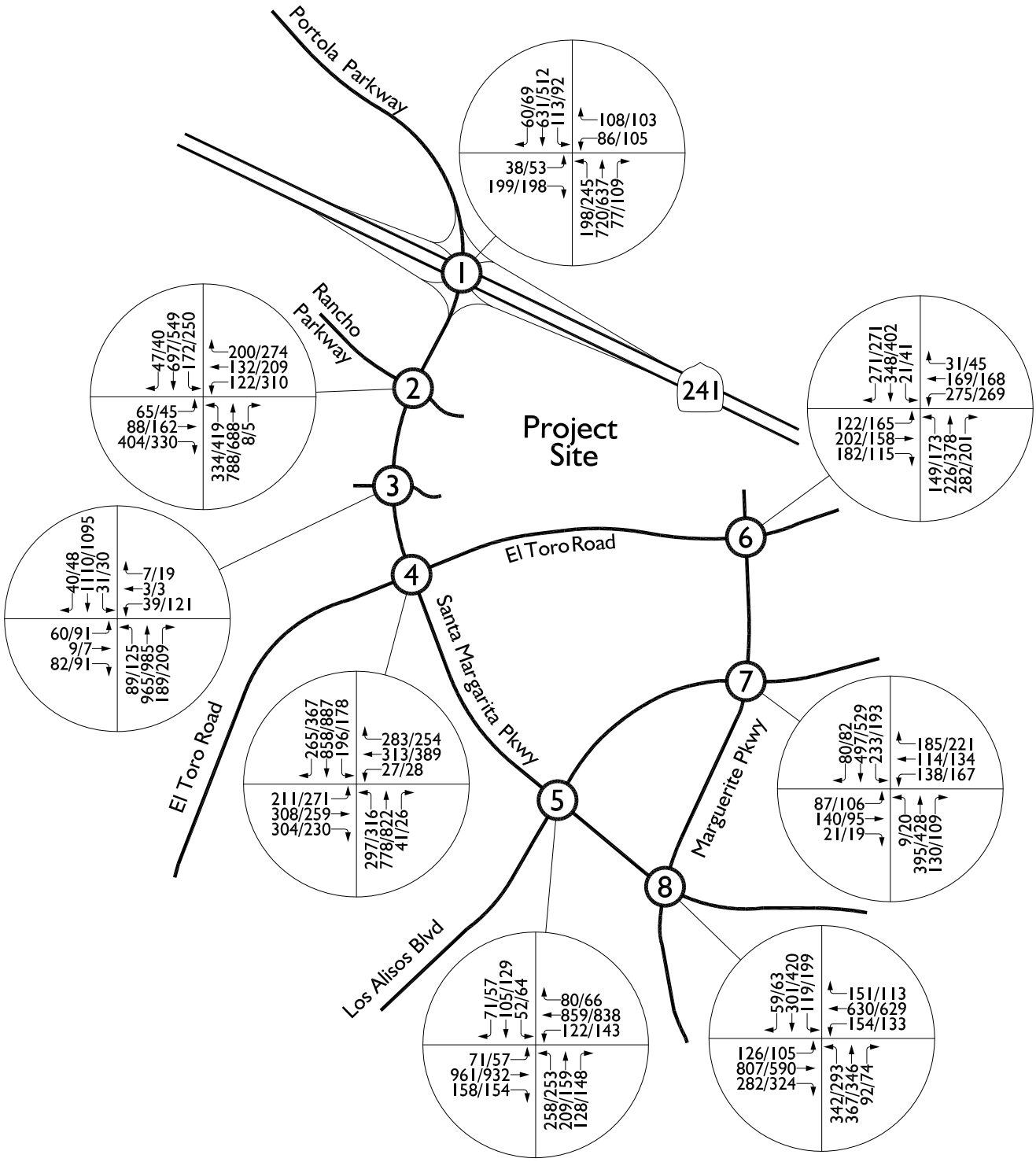
= Defacto Right Turn

N

RK engineering group, inc.

Exhibit D

Existing Traffic Volumes



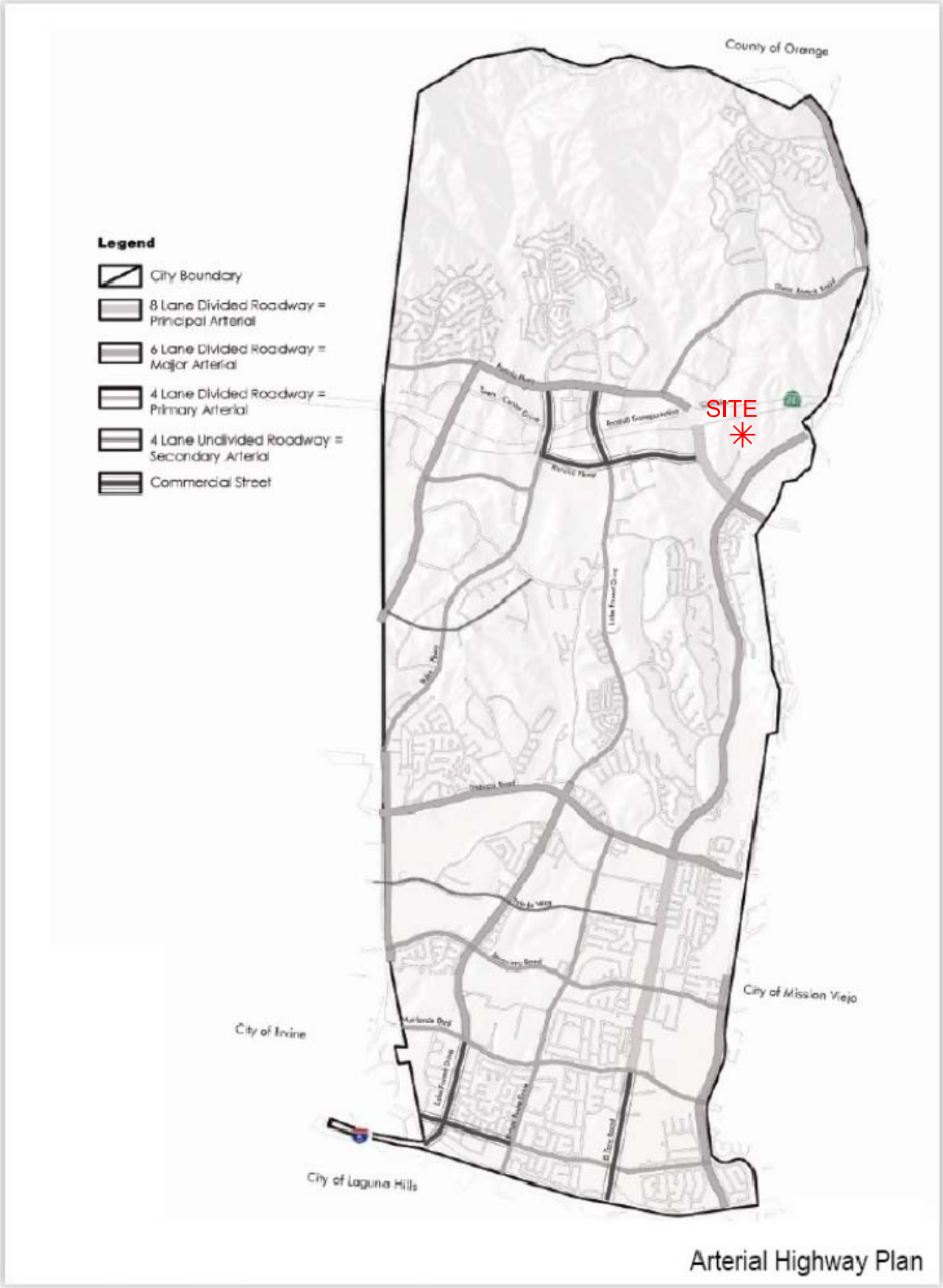
Legend:

10/20 = Saturday/Sunday Peak Hour Volumes

N

Exhibit E

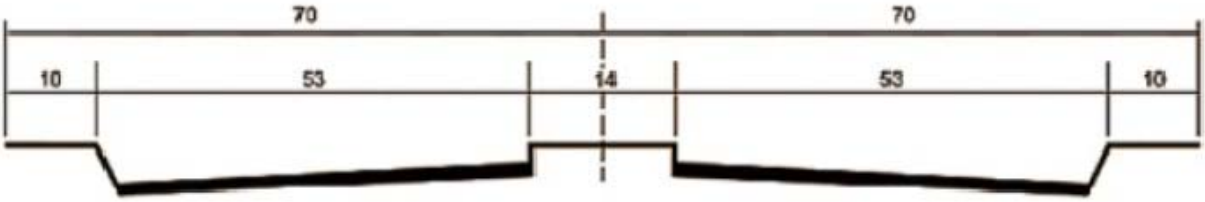
City of Lake Forest Arterial Highway Plan



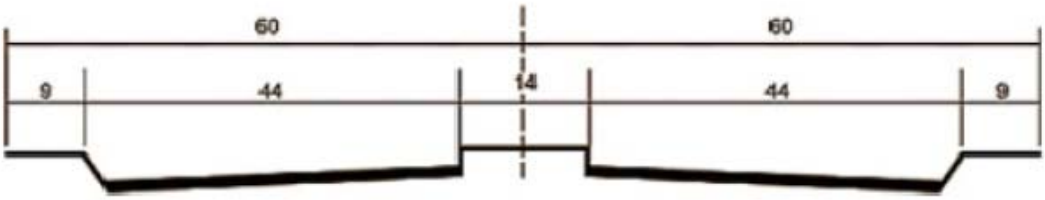
RK engineering group, inc.

Exhibit F

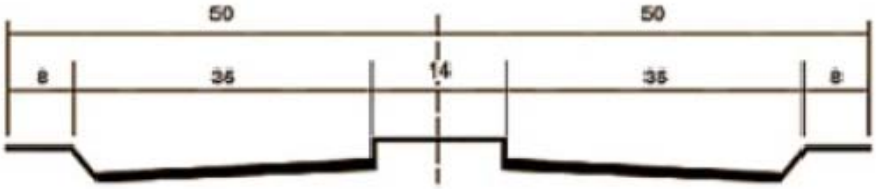
City of Lake Forest Typical Cross-Sections



Eight-Lane Divided Roadway 140' R/W
Principal Arterial

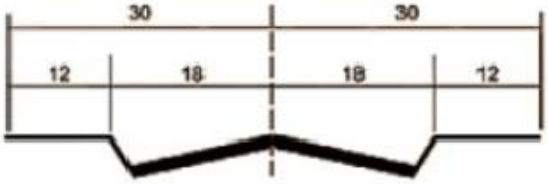


Six-Lane Divided Roadway 120' R/W
Major Arterial



Four-Lane Divided Roadway 100' R/W
Primary Arterial

Four-Lane Undivided Roadway 80' R/W
Secondary Arterial

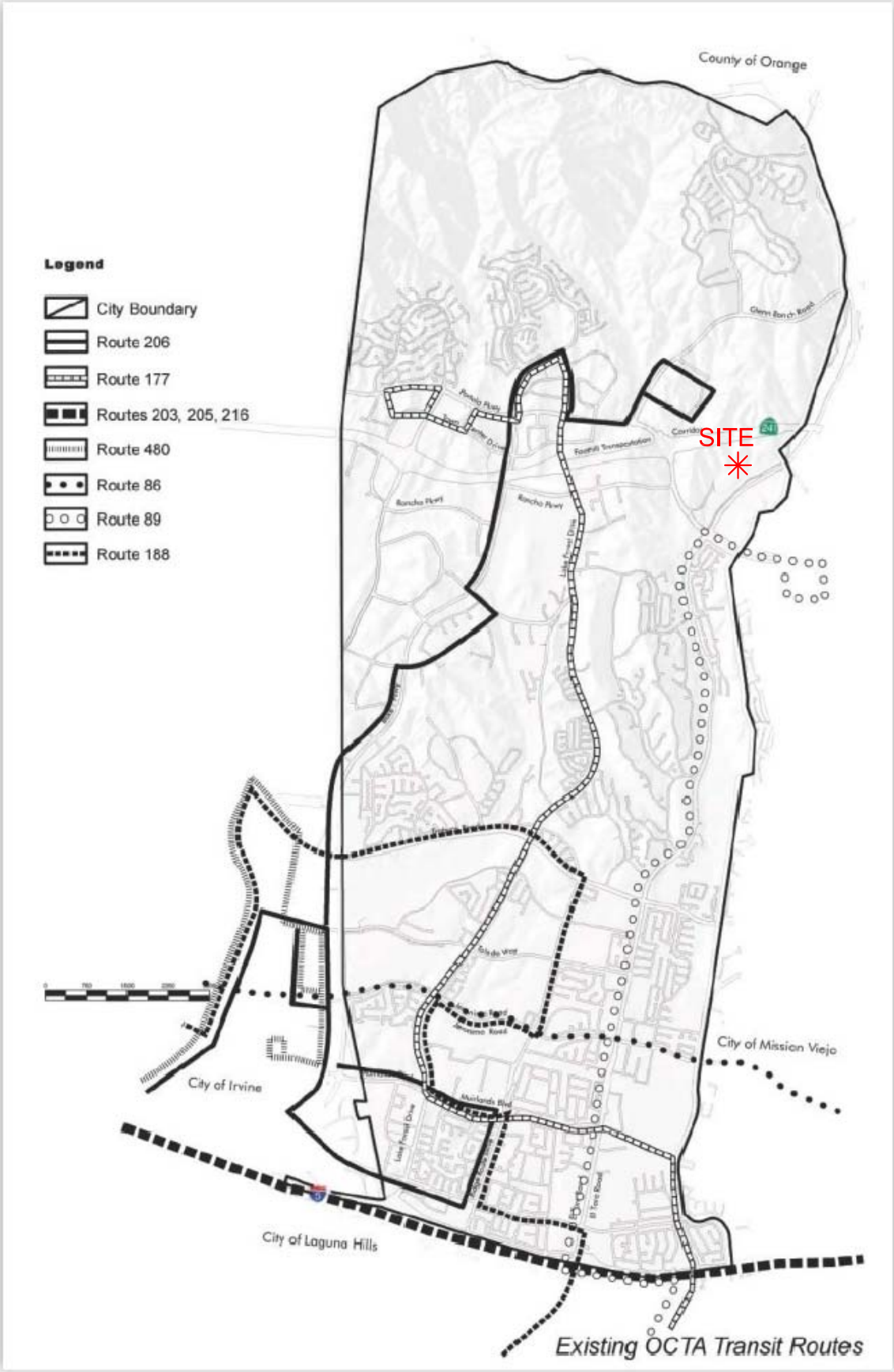


Two-Lane Undivided Roadway 60' R/W

Typical Cross-Sections

Exhibit G

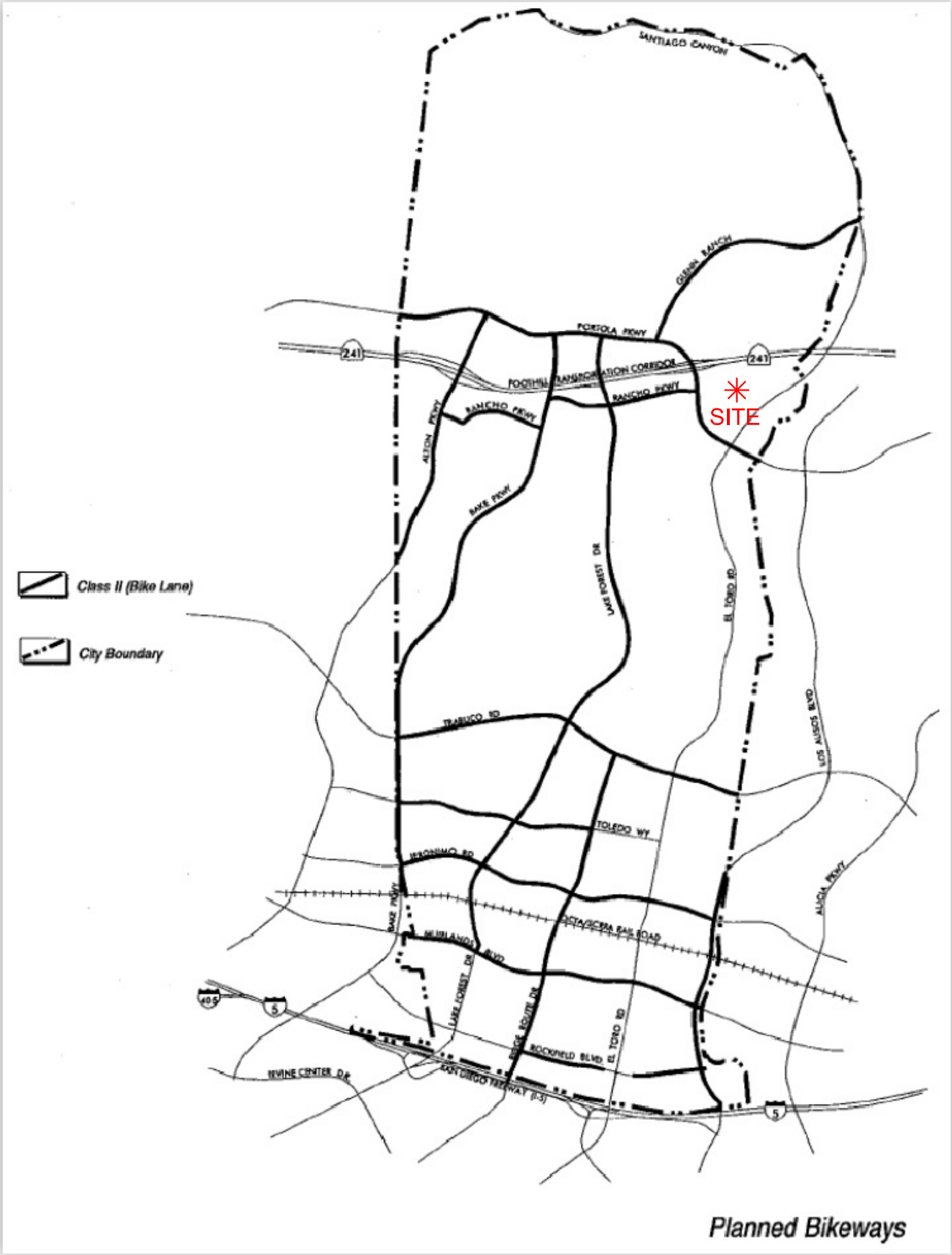
City of Lake Forest Existing OCTA Transit Routes



RK engineering group, inc.

Exhibit H

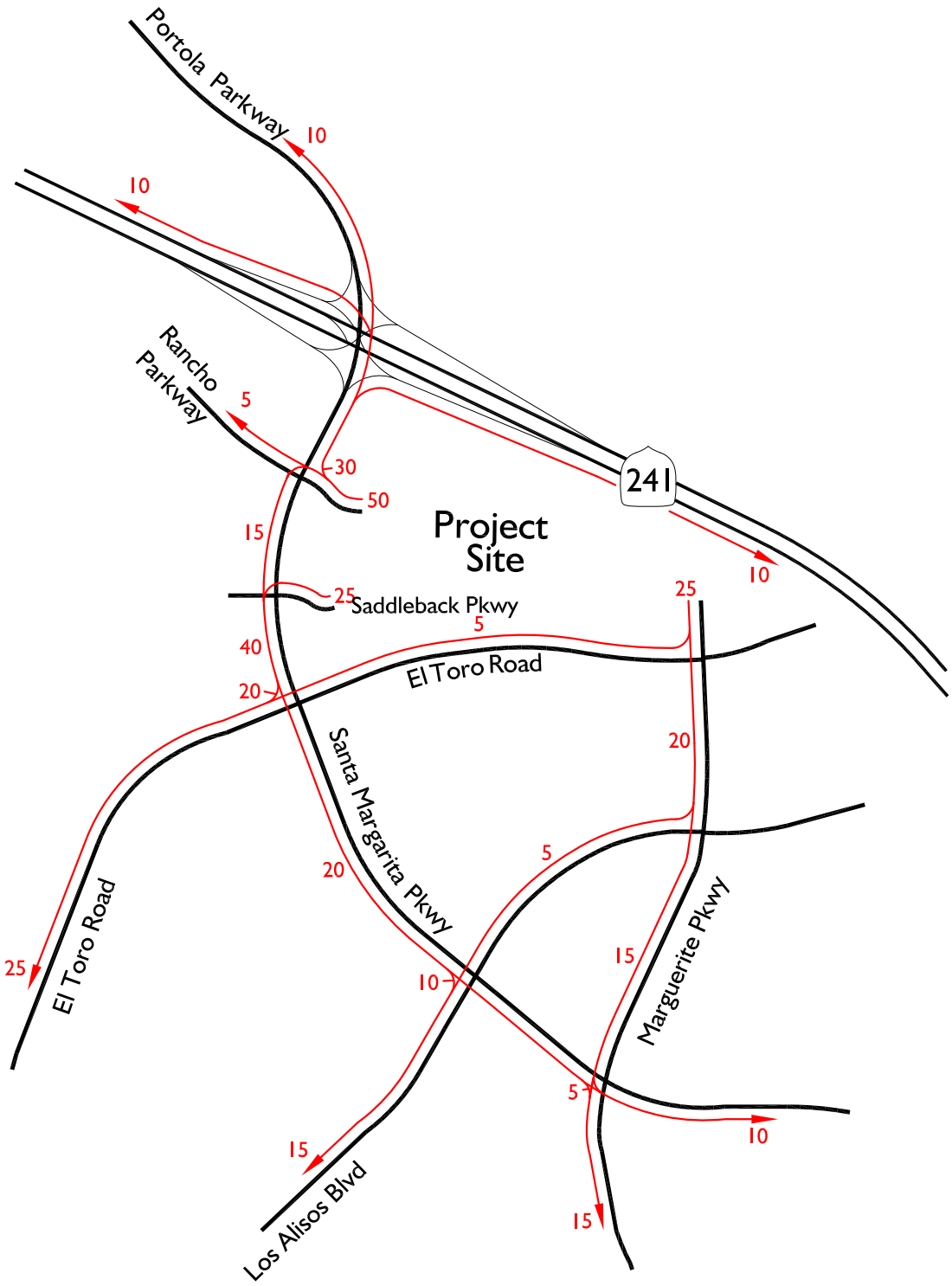
City of Lake Forest Planned Bikeways



RK engineering group, inc.

Exhibit I

Project Trip Distribution



Legend:

10 = Percent to Zone

N

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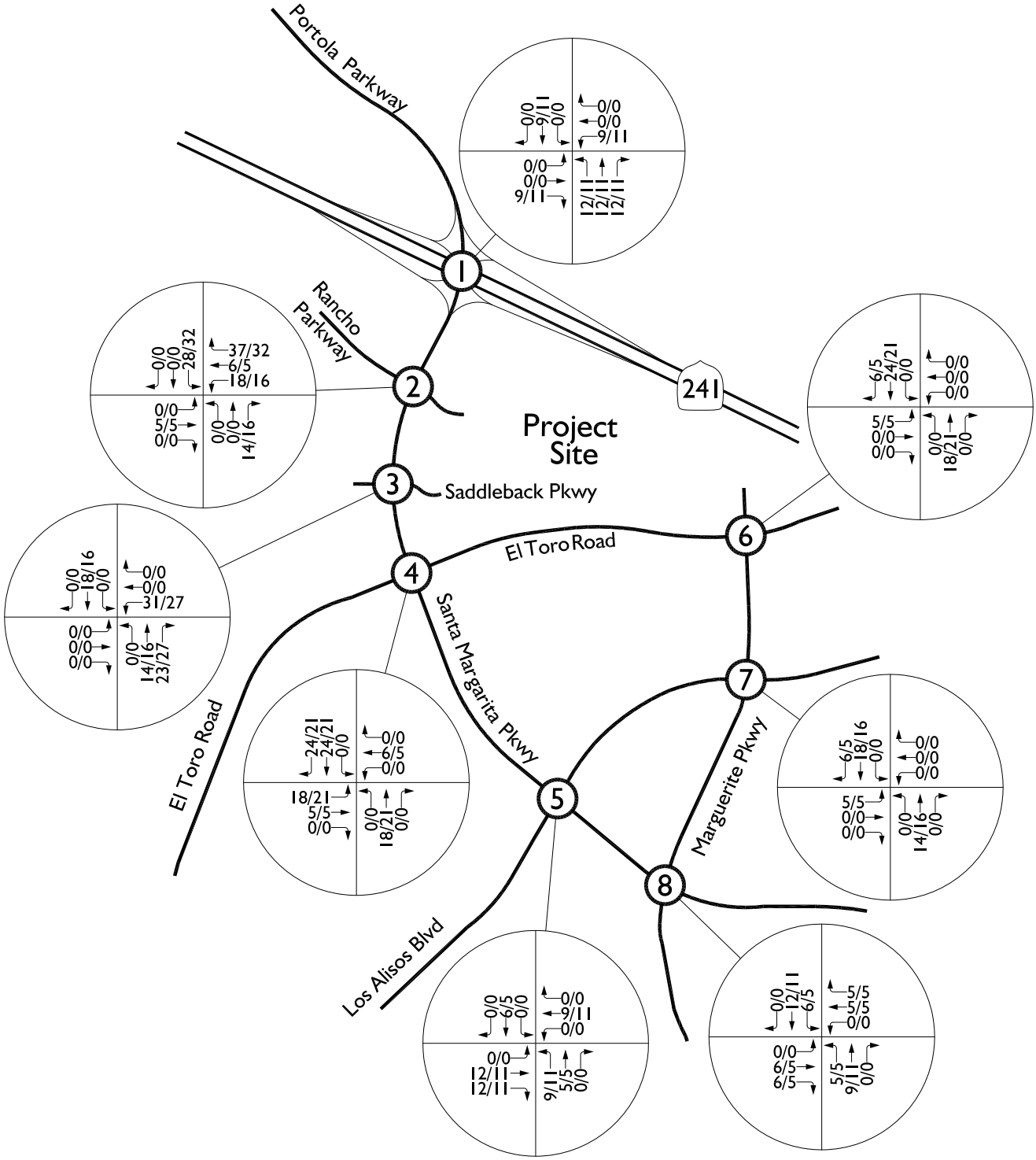
Exhibit J

Project Traffic Volumes



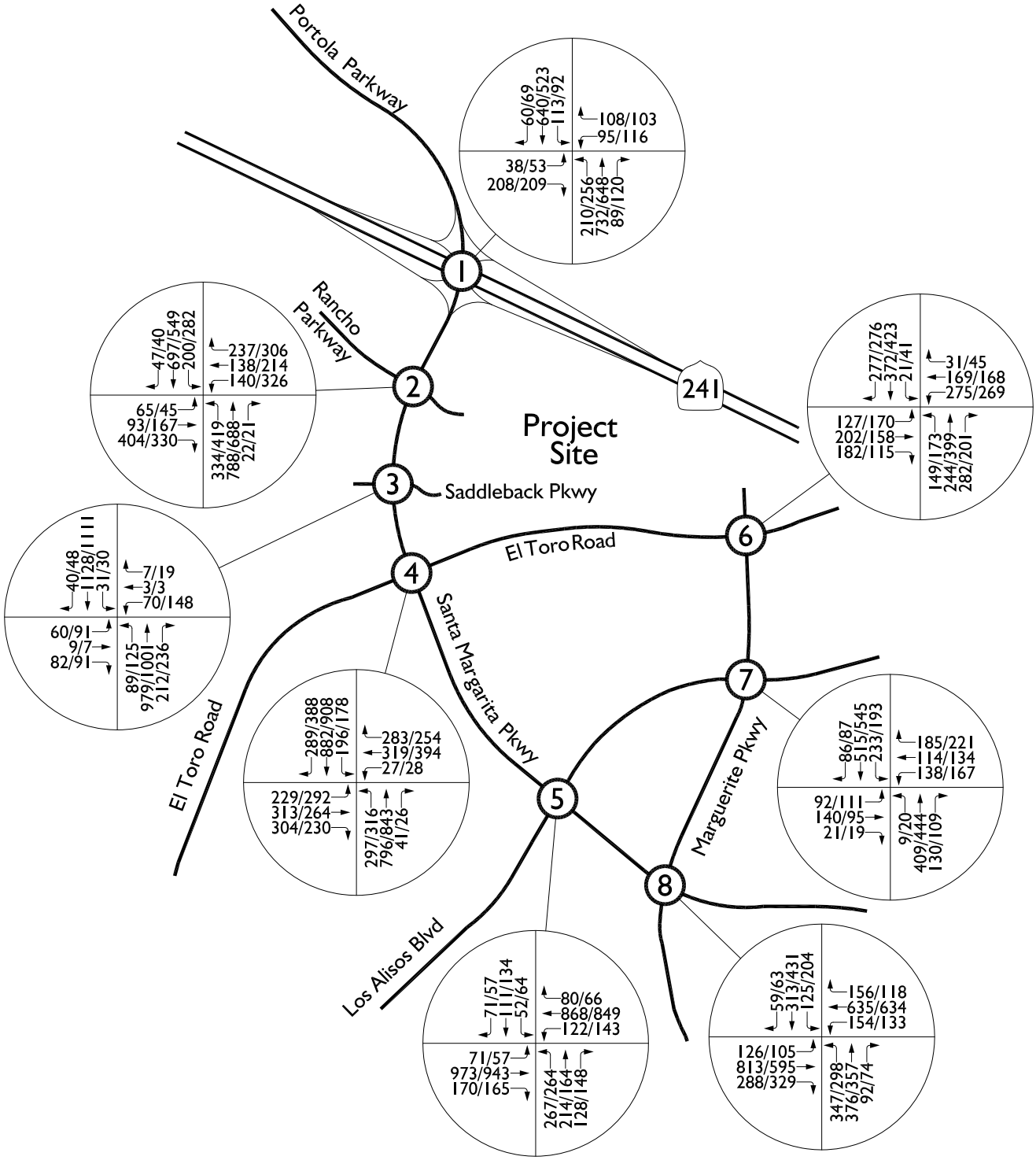
Legend:

10/20 = Saturday/Sunday Peak Hour Volumes

N

Exhibit K

Existing Plus Project Traffic Volumes



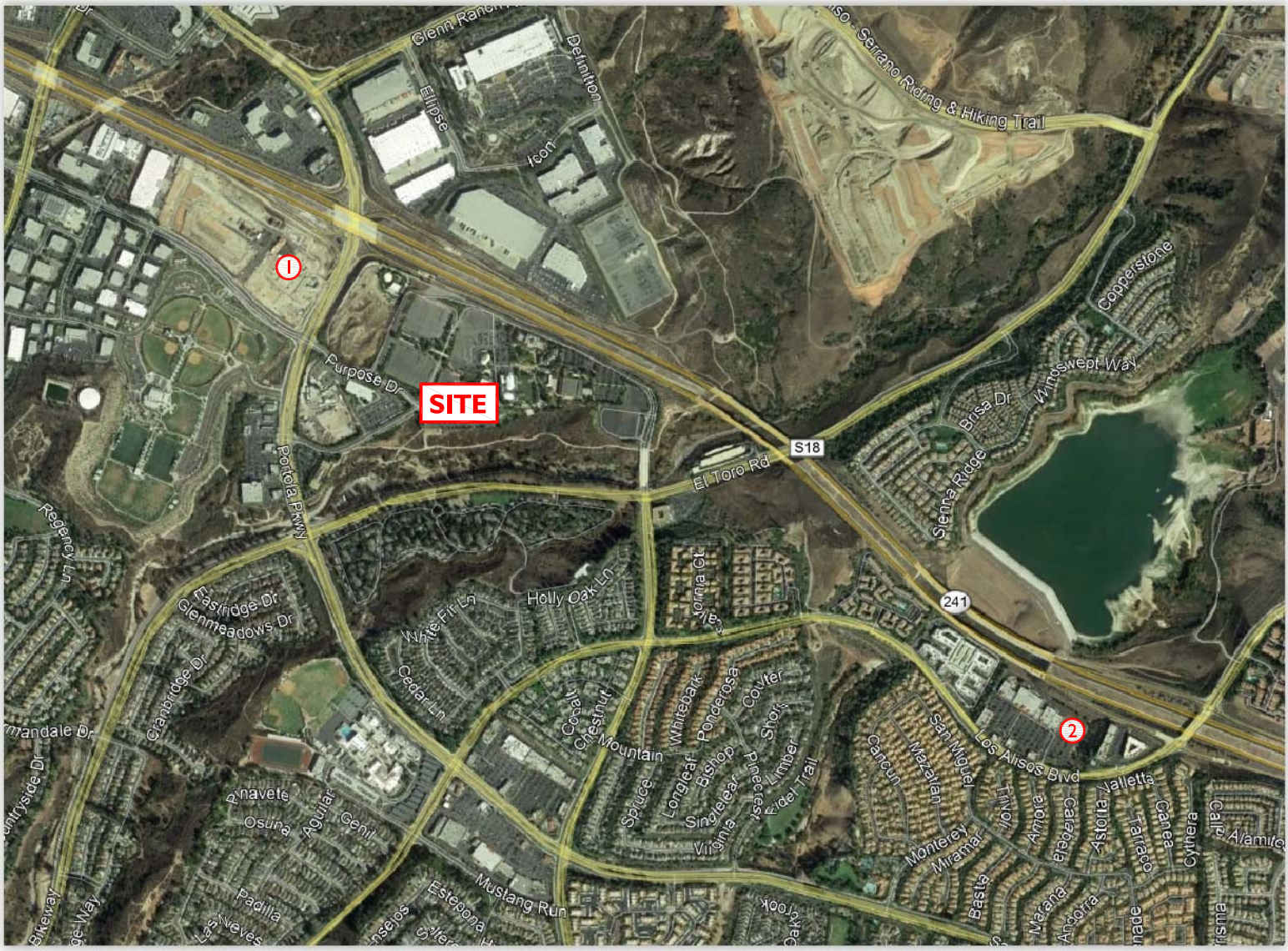
Legend:

10/20 = Saturday/Sunday Peak Hour Volumes

N

Exhibit L

Cumulative Developments Location Map



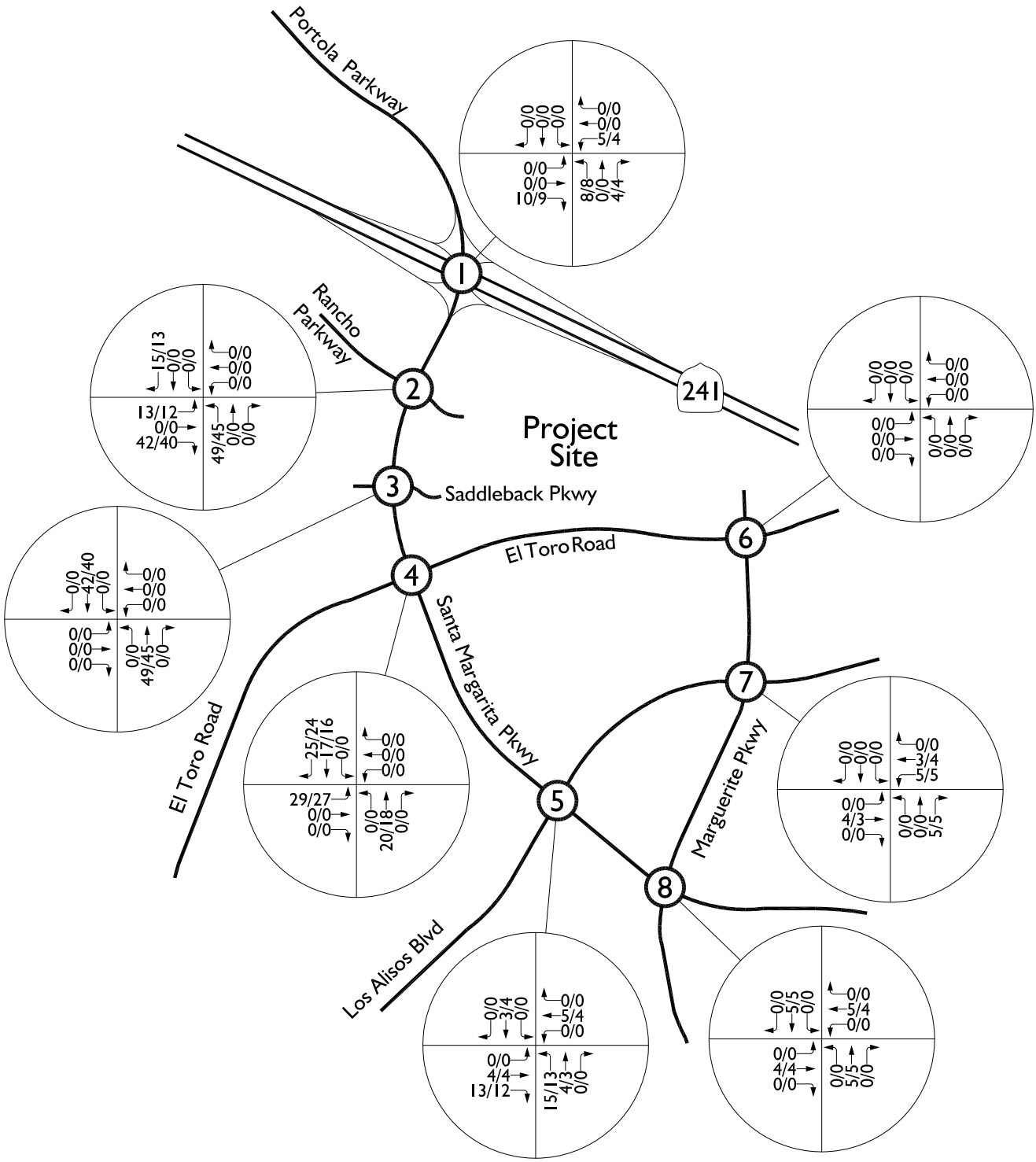
1 = Toll Parkside - 195 Single Family Homes

2 = PDP 2015 - 285 - 60 Residential Condominium / Townhomes

N

Exhibit M

Cumulative Project Traffic Volumes



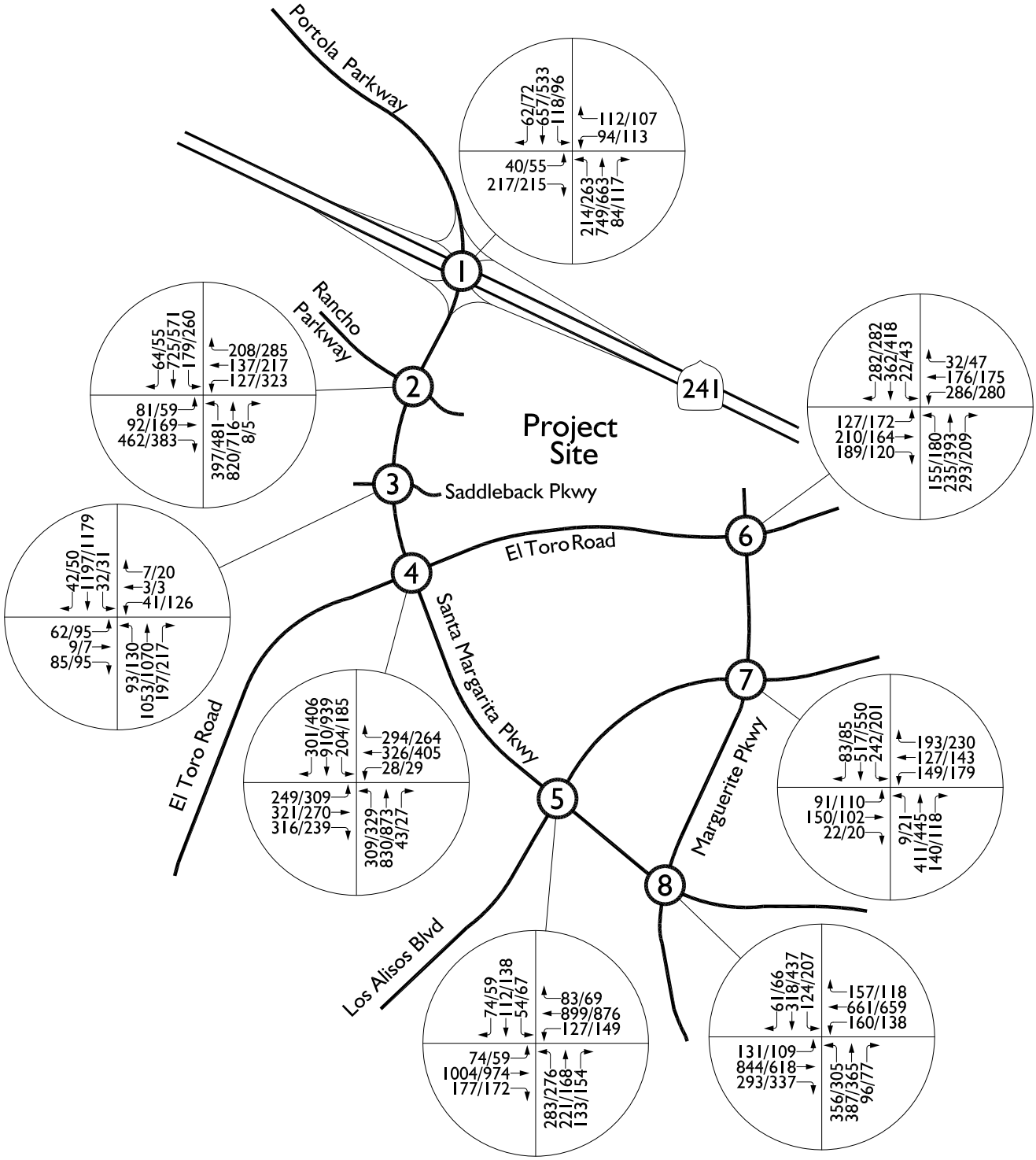
Legend:

10/20 = Saturday/Sunday Peak Hour Volumes

N

Exhibit N

Project Buildout (2021) Without Project Traffic Volumes



Legend:

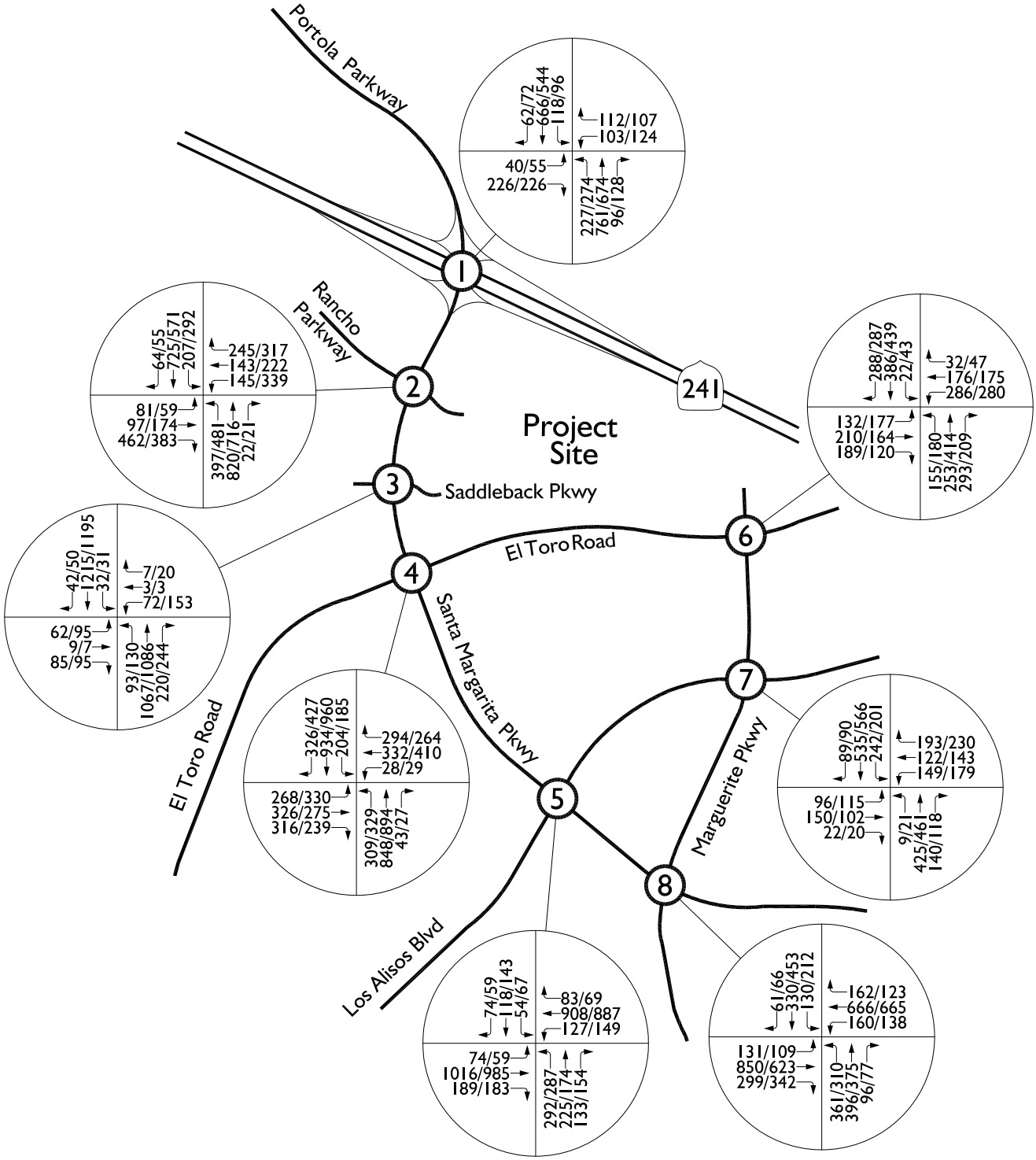
10/20 = Saturday/Sunday Peak Hour Volumes

N

RK engineering group, inc.

Exhibit O

Project Buildout (2021) With Project Traffic Volumes



Legend:

10/20 = Saturday/Sunday Peak Hour Volumes

N

Exhibit P

Project Site Parking Count & Observation Zones

N

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Tables

TABLE 1
Project Trip Generation Rates[1]

Land Use	ITE CODE	Units	Saturday				Sunday			
			Peak Hour			Daily	Peak Hour			Daily
			In	Out	Total		In	Out	Total	
Church	560	Seats	0.26	0.34	0.60	0.90	0.30	0.30	0.61	1.85

[1] Source: Institute of Transportation Engineers (ITE), *Trip Generation, 9th Edition* , 2012
Peak hour trip generation rate shown is for the peak hour of generator.

TABLE 2
Project Trip Generation Summary

Land Use	ITE CODE	Units	Quantity	Saturday				Sunday			
				Peak Hour			Daily	Peak Hour			Daily
				In	Out	Total		In	Out	Total	
Church	560	Seats	356	92	122	214	320	107	107	217	659

TABLE 3

Cumulative Projects Trip Generation[1]

Zone	Project	Land Use	Quantity	Units[2]	Saturday				Sunday			
					Peak Hour			Daily	Peak Hour			Daily
					In	Out	Total		In	Out	Total	
1	Toll Parkside	Single Families Homes	195	DU	98	84	182	1,932	89	79	168	1,680
2	PDP 2015 - 285	Residential Condominium / Townhouse	60	DU	15	13	28	340	13	14	27	290
Cumulative Projects Total Trip Generation					**113**	**97**	**210**	**2,272**	**102**	**93**	**195**	**1,970**

[1] Source: City of Lake Forest and City of Mission Viejo

[2] DU = Dwelling Units

TABLE 4

Intersection Analysis for Existing Conditions

Intersection	Traffic Control[3]	Intersection Approach Lane(s)[1]												ICU Critical V/C Ratio[2]		Level of Service	
		Northbound			Southbound			Eastbound			Westbound						
		L	T	R	L	T	R	L	T	R	L	T	R	SAT	SUN	SAT	SUN
1. Portola Parkway (NS) / SR - 241 On/Off-Ramp (EW)	TS	2.0	3.0	1>>	2.0	2.0	1>>	1.0	0.0	1>>	2.0	0.0	1>>	0.257	0.254	A	A
2. Portola Parkway (NS) / Rancho Parkway - Purpose Drive (EW)	TS	2.0	3.0	1.0	2.0	3.0	1.0	1.5	0.5	1.0	1.5	1.0	1.5	0.414	0.529	A	A
3. Portola Parkway (NS) / Saddleback Parkway (EW)	TS	1.0	3.0	2.0	2.0	3.0	1.0	1.5	0.5	1.0	1.5	0.5	1.0	0.369	0.415	A	A
4. Portola Parkway - Santa Margarita Parkway (NS) / El Toro Road (EW)	TS	2.0	3.0	1.0	2.0	3.0	1.0	1.0	3.0	1.0	1.0	3.0	1.0	0.555	0.588	A	A
5. Los Alisos Boulevard (NS) / Santa Margarita Parkway (EW)	TS	1.0	2.0	1.0	1.0	2.0	1.0	1.0	3.0	1.0	1.0	3.0	1.0	0.493	0.504	A	A
6. Marguerite Parkway (NS) / El Toro Road (EW)	TS	1.5	1.5	1.0	1.5	1.0	1.5	2.0	2.0	1.0	2.0	1.5	0.5	0.414	0.422	A	A
7. Marguerite Parkway (NS) / Los Alisos Boulevard (EW)	TS	1.0	2.0	1.0	1.0	2.0	1.0	1.0	2.0	1.0	1.0	2.0	1.0	0.436	0.449	A	A
8. Marguerite Parkway (NS) / Santa Margarita Parkway (EW)	TS	1.0	2.0	1.0	1.0	2.0	1.0	1.0	3.0	1.0	1.0	3.0	1.0	0.589	0.567	A	A

1 When a right turn lane is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes. Where "1!" is indicated for the through movement and "0"s are indicated for R/L movements, the R and/or L turns are shared with the through movement.

L = Left; T = Through; R = Right; > = Right Turn Overlap; >> = Free Right Turn; **Bold** = Improvement

2 Analysis Software: Traffix, Version 8.0. Per the Intersection Capacity Utilization methodology, overall volume to capacity ratios and levels of service are shown for intersections controlled by traffic signals.

3 TS = Traffic Signal

TABLE 5
Intersection Analysis for Existing Plus Project Conditions

Intersection	Traffic Control[3]	Intersection Approach Lane(s)[1]												ICU Critical V/C Ratio[2]		Level of Service		Significant Impact?
		Northbound			Southbound			Eastbound			Westbound							
		L	T	R	L	T	R	L	T	R	L	T	R	SAT	SUN	SAT	SUN	
1. Portola Parkway (NS) / SR - 241 On/Off-Ramp (EW)	TS	2.0	3.0	1>>	2.0	2.0	1>>	1.0	0.0	1>>	2.0	0.0	1>>	0.265	0.259	A	A	No
2. Portola Parkway (NS) / Rancho Parkway - Purpose Drive (EW)	TS	2.0	3.0	1.0	2.0	3.0	1.0	1.5	0.5	1.0	1.5	1.0	1.5	0.421	0.538	A	A	No
3. Portola Parkway (NS) / Saddleback Parkway (EW)	TS	1.0	3.0	2.0	2.0	3.0	1.0	1.5	0.5	1.0	1.5	0.5	1.0	0.381	0.426	A	A	No
4. Portola Parkway - Santa Margarita Parkway (NS) / El Toro Road (EW)	TS	2.0	3.0	1.0	2.0	3.0	1.0	1.0	3.0	1.0	1.0	3.0	1.0	0.570	0.605	A	B	No
5. Los Alisos Boulevard (NS) / Santa Margarita Parkway (EW)	TS	1.0	2.0	1.0	1.0	2.0	1.0	1.0	3.0	1.0	1.0	3.0	1.0	0.502	0.514	A	A	No
6. Marguerite Parkway (NS) / El Toro Road (EW)	TS	1.5	1.5	1.0	1.5	1.0	1.5	2.0	2.0	1.0	2.0	1.5	0.5	0.423	0.434	A	A	No
7. Marguerite Parkway (NS) / Los Alisos Boulevard (EW)	TS	1.0	2.0	1.0	1.0	2.0	1.0	1.0	2.0	1.0	1.0	2.0	1.0	0.443	0.457	A	A	No
8. Marguerite Parkway (NS) / Santa Margarita Parkway (EW)	TS	1.0	2.0	1.0	1.0	2.0	1.0	1.0	3.0	1.0	1.0	3.0	1.0	0.596	0.575	A	A	No

1 When a right turn lane is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes. Where "1!" is indicated for the through movement and "0"s are indicated for R/L movements, the R and/or L turns are shared with the through movement.

L = Left; T = Through; R = Right; > = Right Turn Overlap; >> = Free Right Turn; **Bold** = Improvement

2 Analysis Software: Traffix, Version 8.0. Per the Intersection Capacity Utilization methodology, overall volume to capacity ratios and levels of service are shown for intersections controlled by traffic signals.

3 TS = Traffic Signal

TABLE 6

Intersection Analysis for Project Buildout (2021) Without Project Conditions

Intersection	Traffic Control[3]	Intersection Approach Lane(s)[1]												ICU Critical V/C Ratio[2]		Level of Service	
		Northbound			Southbound			Eastbound			Westbound						
		L	T	R	L	T	R	L	T	R	L	T	R	SAT	SUN	SAT	SUN
1. Portola Parkway (NS) / SR - 241 On/Off-Ramp (EW)	TS	2.0	3.0	1>>	2.0	2.0	1>>	1.0	0.0	1>>	2.0	0.0	1>>	0.269	0.264	A	A
2. Portola Parkway (NS) / Rancho Parkway - Purpose Drive (EW)	TS	2.0	3.0	1.0	2.0	3.0	1.0	1.5	0.5	1.0	1.5	1.0	1.5	0.444	0.561	A	A
3. Portola Parkway (NS) / Saddleback Parkway (EW)	TS	1.0	3.0	2.0	2.0	3.0	1.0	1.5	0.5	1.0	1.5	0.5	1.0	0.390	0.438	A	A
4. Portola Parkway - Santa Margarita Parkway (NS) / El Toro Road (EW)	TS	2.0	3.0	1.0	2.0	3.0	1.0	1.0	3.0	1.0	1.0	3.0	1.0	0.595	0.629	A	B
5. Los Alisos Boulevard (NS) / Santa Margarita Parkway (EW)	TS	1.0	2.0	1.0	1.0	2.0	1.0	1.0	3.0	1.0	1.0	3.0	1.0	0.512	0.532	A	A
6. Marguerite Parkway (NS) / El Toro Road (EW)	TS	1.5	1.5	1.0	1.5	1.0	1.5	2.0	2.0	1.0	2.0	1.5	0.5	0.429	0.437	A	A
7. Marguerite Parkway (NS) / Los Alisos Boulevard (EW)	TS	1.0	2.0	1.0	1.0	2.0	1.0	1.0	2.0	1.0	1.0	2.0	1.0	0.445	0.465	A	A
8. Marguerite Parkway (NS) / Santa Margarita Parkway (EW)	TS	1.0	2.0	1.0	1.0	2.0	1.0	1.0	3.0	1.0	1.0	3.0	1.0	0.613	0.590	B	A

1 When a right turn lane is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes. Where "1!" is indicated for the through movement and "0"s are indicated for R/L movements, the R and/or L turns are shared with the through movement.

L = Left; T = Through; R = Right; > = Right Turn Overlap; >> = Free Right Turn; **Bold** = Improvement

2 Analysis Software: Traffix, Version 8.0. Per the Intersection Capacity Utilization methodology, overall volume to capacity ratios and levels of service are shown for intersections controlled by traffic signals. Critical delay in seconds is shown per Highway Capacity Manual (HCM 2000) methodology to analyze stop controlled intersections and LOS is determined based on the worst case directional movement.

3 TS = Traffic Signal

TABLE 7
Intersection Analysis for Project Buildout (2021) With Project Conditions

Intersection	Traffic Control[3]	Intersection Approach Lane(s)[1]												ICU Critical V/C Ratio[2]		Level of Service		Significant Impact?
		Northbound			Southbound			Eastbound			Westbound							
		L	T	R	L	T	R	L	T	R	L	T	R	SAT	SUN	SAT	SUN	
1. Portola Parkway (NS) / SR - 241 On/Off-Ramp (EW)	TS	2.0	3.0	1>>	2.0	2.0	1>>	1.0	0.0	1>>	2.0	0.0	1>>	0.278	0.274	A	A	No
2. Portola Parkway (NS) / Rancho Parkway - Purpose Drive (EW)	TS	2.0	3.0	1.0	2.0	3.0	1.0	1.5	0.5	1.0	1.5	1.0	1.5	0.450	0.571	A	A	No
3. Portola Parkway (NS) / Saddleback Parkway (EW)	TS	1.0	3.0	2.0	2.0	3.0	1.0	1.5	0.5	1.0	1.5	0.5	1.0	0.402	0.449	A	A	No
4. Portola Parkway - Santa Margarita Parkway (NS) / El Toro Road (EW)	TS	2.0	3.0	1.0	2.0	3.0	1.0	1.0	3.0	1.0	1.0	3.0	1.0	0.611	0.646	B	B	No
5. Los Alisos Boulevard (NS) / Santa Margarita Parkway (EW)	TS	1.0	2.0	1.0	1.0	2.0	1.0	1.0	3.0	1.0	1.0	3.0	1.0	0.531	0.542	A	A	No
6. Marguerite Parkway (NS) / El Toro Road (EW)	TS	1.5	1.5	1.0	1.5	1.0	1.5	2.0	2.0	1.0	2.0	1.5	0.5	0.438	0.449	A	A	No
7. Marguerite Parkway (NS) / Los Alisos Boulevard (EW)	TS	1.0	2.0	1.0	1.0	2.0	1.0	1.0	2.0	1.0	1.0	2.0	1.0	0.459	0.473	A	A	No
8. Marguerite Parkway (NS) / Santa Margarita Parkway (EW)	TS	1.0	2.0	1.0	1.0	2.0	1.0	1.0	3.0	1.0	1.0	3.0	1.0	0.620	0.598	B	A	No

1 When a right turn lane is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes. Where "1!" is indicated for the through movement and "0"s are indicated for R/L movements, the R and/or L turns are shared with the through movement.

L = Left; T = Through; R = Right; > = Right Turn Overlap; >> = Free Right Turn; **Bold** = Improvement

2 Analysis Software: Traffix, Version 8.0. Per the Intersection Capacity Utilization methodology, overall volume to capacity ratios and levels of service are shown for intersections controlled by traffic signals.

3 TS = Traffic Signal

TABLE 8
Project Site Existing Parking Capacity

Parking Zone	Regular Stalls	Accessible Stalls	Reserved Stalls	Motorcycles	Total
1	406	0	0	0	406
2	16	8	3	0	27
3	418	8	0	0	426
4	396	11	0	0	407
5	162	4	4	0	170
6	22	0	6	0	28
7	43	10	0	0	53
8	0	0	6	0	6
9	62	0	0	0	62
10	80	1	0	0	81
11	3	35	48	0	86
12	192	30	10	2	234
13	446	0	0	0	446
14	75	7	61	0	143
15	282	6	0	0	288
16	147	6	0	5	158
Site Total	2,750	126	138	7	3,021

TABLE 9

Saturday Conditions Existing Observed Hourly Parking Demand & Utilization

Time of Day	Parking Zone (Capacity of Zone)																															
	1 (406)		2 (27)		3 (426)		4 (407)		5 (170)		6 (28)		7 (53)		8 (6)		9 (62)		10 (81)		11 (86)		12 (234)		13 (446)		14 (143)		15 (288)		16 (158)		Total (3,021)	
	Demand	Utilization	Demand	Utilization	Demand	Utilization	Demand	Utilization	Demand	Utilization	Demand	Utilization	Demand	Utilization	Demand	Utilization	Demand	Utilization	Demand	Utilization	Demand	Utilization	Demand	Utilization	Demand	Utilization	Demand	Utilization	Demand	Utilization	Demand	Utilization	Demand	Utilization
8:00 AM	0	0%	0	0%	4	1%	9	2%	43	25%	0	0%	1	2%	0	0%	1	2%	0	0%	8	9%	2	1%	0	0%	2	1%	39	14%	19	12%	128	4%
9:00 AM	0	0%	0	0%	4	1%	21	5%	60	35%	2	7%	19	36%	0	0%	1	2%	0	0%	7	8%	4	2%	0	0%	10	7%	37	13%	26	16%	191	6%
10:00 AM	0	0%	0	0%	4	1%	24	6%	62	36%	8	29%	21	40%	0	0%	1	2%	1	1%	11	13%	6	3%	0	0%	16	11%	41	14%	32	20%	227	8%
11:00 AM	0	0%	0	0%	5	1%	14	3%	56	33%	6	21%	11	21%	1	17%	1	2%	0	0%	14	16%	26	11%	0	0%	16	11%	45	16%	32	20%	227	8%
12:00 PM	0	0%	0	0%	5	1%	15	4%	59	35%	5	18%	9	17%	1	17%	1	2%	0	0%	14	16%	34	15%	0	0%	14	10%	43	15%	28	18%	228	8%
1:00 PM	0	0%	0	0%	5	1%	21	5%	46	27%	3	11%	15	28%	1	17%	1	2%	0	0%	11	13%	34	15%	0	0%	9	6%	34	12%	23	15%	203	7%
2:00 PM	0	0%	0	0%	5	1%	19	5%	26	15%	2	7%	8	15%	1	17%	2	3%	0	0%	10	12%	79	34%	0	0%	7	5%	32	11%	16	10%	207	7%
3:00 PM	0	0%	0	0%	5	1%	18	4%	31	18%	2	7%	8	15%	1	17%	1	2%	0	0%	14	16%	230	98%	0	0%	1	1%	35	12%	21	13%	367	12%
4:00 PM	4	1%	1	4%	8	2%	262	64%	71	42%	22	79%	45	85%	1	17%	3	5%	30	37%	16	19%	230	98%	459	103%	1	1%	33	11%	20	13%	1,206	40%
5:00 PM	11	3%	1	4%	8	2%	321	79%	58	34%	22	79%	47	89%	1	17%	4	6%	47	58%	86	100%	230	98%	459	103%	0	0%	34	12%	17	11%	1,346	45%
6:00 PM	32	8%	3	11%	11	3%	402	99%	56	33%	19	68%	30	57%	1	17%	3	5%	30	37%	86	100%	231	99%	315	71%	4	3%	33	11%	17	11%	1,273	42%
7:00 PM	27	7%	3	11%	10	2%	249	61%	49	29%	18	64%	23	43%	1	17%	3	5%	44	54%	56	65%	210	90%	254	57%	3	2%	33	11%	16	10%	999	33%
8:00 PM	7	2%	2	7%	9	2%	69	17%	24	14%	2	7%	3	6%	0	0%	2	3%	21	26%	16	19%	41	18%	19	4%	5	3%	33	11%	15	9%	268	9%

Source: Data based on observed counts on Saturday November 4, 2017.

TABLE 10

Sunday Conditions Existing Observed Hourly Parking Demand & Utilization

Time of Day	Parking Zone (Capacity of Zone)																															
	1 (406)		2 (27)		3 (426)		4 (407)		5 (170)		6 (28)		7 (53)		8 (6)		9 (62)		10 (81)		11 (86)		12 (234)		13 (446)		14 (143)		15 (288)		16 (158)		Total (3,021)	
	Demand	Utilization	Demand	Utilization	Demand	Utilization	Demand	Utilization	Demand	Utilization	Demand	Utilization	Demand	Utilization	Demand	Utilization	Demand	Utilization	Demand	Utilization	Demand	Utilization	Demand	Utilization	Demand	Utilization	Demand	Utilization	Demand	Utilization	Demand	Utilization	Demand	Utilization
8:00 AM	9	2%	1	4%	9	2%	86	21%	2	1%	3	11%	7	13%	0	0%	1	2%	1	1%	41	48%	207	88%	385	86%	0	0%	31	11%	12	8%	795	26%
9:00 AM	261	64%	17	63%	109	26%	393	97%	59	35%	26	93%	52	98%	0	0%	10	16%	77	95%	86	100%	223	95%	385	86%	3	2%	34	12%	12	8%	1,747	58%
10:00 AM	279	69%	23	85%	118	28%	393	97%	79	46%	26	93%	52	98%	0	0%	22	35%	80	99%	90	105%	229	98%	446	100%	4	3%	34	12%	19	12%	1,894	63%
11:00 AM	169	42%	12	44%	144	34%	329	81%	115	68%	26	93%	36	68%	0	0%	16	26%	60	74%	90	105%	224	96%	423	95%	3	2%	29	10%	14	9%	1,690	56%
12:00 PM	153	38%	8	30%	150	35%	319	78%	122	72%	21	75%	35	66%	2	33%	19	31%	74	91%	89	103%	228	97%	328	74%	4	3%	27	9%	13	8%	1,592	53%
1:00 PM	32	8%	1	4%	40	9%	83	20%	49	29%	4	14%	8	15%	0	0%	10	16%	15	19%	27	31%	62	26%	38	9%	12	8%	26	9%	14	9%	421	14%
2:00 PM	12	3%	0	0%	6	1%	75	18%	34	20%	6	21%	16	30%	0	0%	5	8%	8	10%	40	47%	60	26%	6	1%	15	10%	24	8%	14	9%	321	11%
3:00 PM	8	2%	0	0%	5	1%	77	19%	37	22%	3	11%	15	28%	0	0%	4	6%	9	11%	41	48%	63	27%	5	1%	15	10%	22	8%	15	9%	319	11%
4:00 PM	4	1%	0	0%	6	1%	14	3%	13	8%	0	0%	14	26%	0	0%	4	6%	2	2%	16	19%	13	6%	0	0%	6	4%	23	8%	52	33%	167	6%
5:00 PM	1	0%	1	4%	8	2%	11	3%	8	5%	1	4%	17	32%	0	0%	2	3%	4	5%	0	0%	3	1%	0	0%	0	0%	31	11%	13	8%	100	3%
6:00 PM	1	0%	1	4%	5	1%	34	8%	8	5%	1	4%	37	70%	0	0%	2	3%	4	5%	0	0%	5	2%	0	0%	1	1%	32	11%	12	8%	143	5%
7:00 PM	1	0%	1	4%	5	1%	37	9%	13	8%	1	4%	38	72%	0	0%	2	3%	1	1%	1	1%	3	1%	0	0%	1	1%	30	10%	12	8%	146	5%
8:00 PM	1	0%	1	4%	5	1%	37	9%	8	5%	1	4%	38	72%	0	0%	2	3%	1	1%	2	2%	3	1%	0	0%	1	1%	30	10%	12	8%	142	5%

Source: Data based on observed counts on Sunday November 5, 2017.

Table 11
Proposed Project Forecast Parking Demand

	Existing Worship Center Capacity (Seats)	Proposed Worship Center Capacity (Seats)	Increase in Worship Center Capacity (Seats)	Percent Increase in Worship Center Capacity	Project Site Existing Maximum Observed Parking Demand (Parked Vehicles)	AVR (Persons Per Vehicle)	Forecast Increase in Peak Parking Demand (Parked Vehicles)	Project Site Forecast Maximum Parking Demand After Implementation of Project (Parked Vehicles)	Proposed Parking Capacity (Spaces)	Forecast Parking Utilization	Adequate Parking Forecast to be Provided?
Methodology 1 (Percentage Increase in Worship Center Capacity)	**3,153**	**3,509**	**356**	**11.3%**	1,894	Not Applicable	214	2,108	3,045	69%	Yes
Methodology 2 (Increase in Seating Capacity with Average Ridership of 2.2)					1,894	2.2	162	2,056		68%	Yes
Methodology 3 (Increase in Seating Capacity with Average Ridership of 1.0)					1,894	1.0	356	2,250		74%	Yes
Methodology 4 * (City of Lake Forest Municipal Code for 3,509-Seat Worship Center & 969-Student Classroom Area)					N/A	N/A	N/A	1,493		49%	Yes

* Per the City of Lake Forest Municipal Code, Churches, temples and other places of assembly require 1 space for each 3 fixed seats within the main auditorium or for every 35 square feet of seating area within the main auditorium where there are no fixed seats; 18 lineal inches of bench shall be considered a fixed seat.

N/A = not applicable

Appendices

Appendix A

Existing Traffic Volumes

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

City of Lake Forest
N/S: Portola Parkway
E/W: SR-241 Ramps
Weather: Clear

File Name : 01_LKF_Portola_241 SAT
Site Code : 10517754
Start Date : 11/4/2017
Page No : 1

Groups Printed- Total Volume

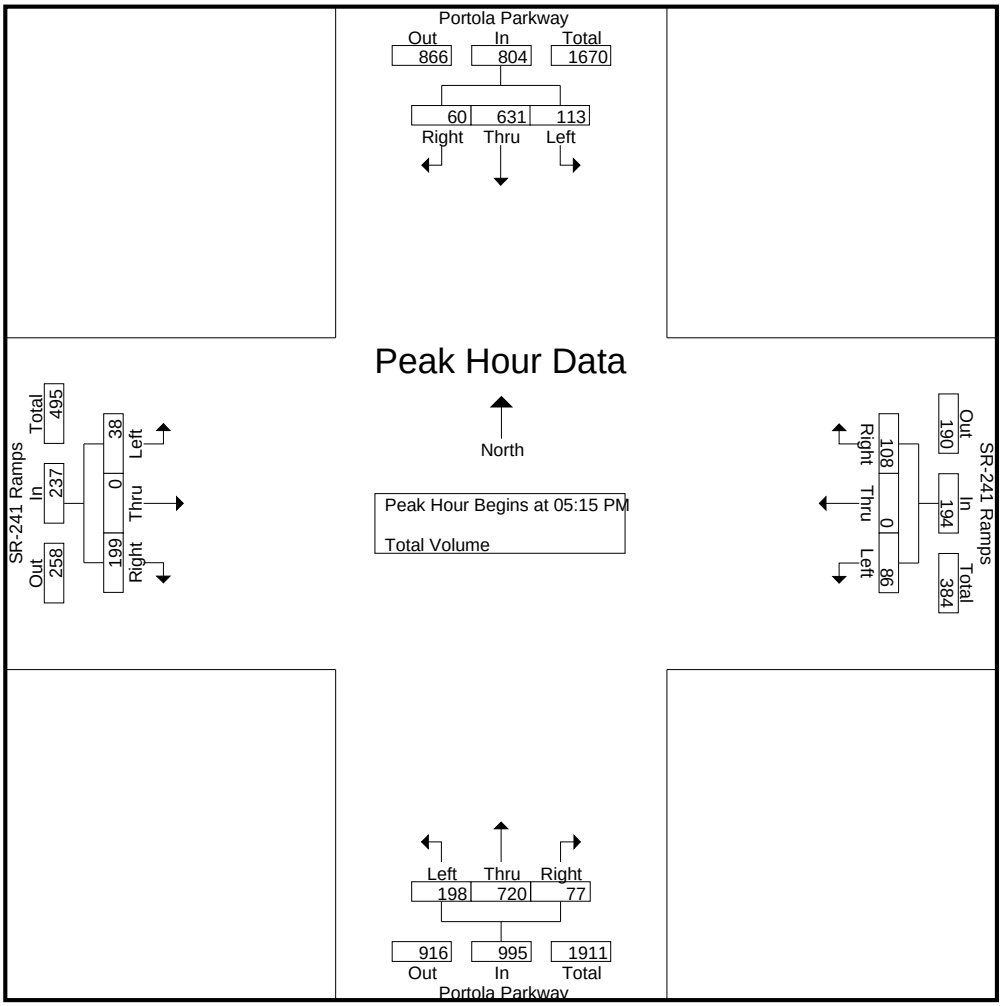
	Portola Parkway Southbound				SR-241 Ramps Westbound				Portola Parkway Northbound				SR-241 Ramps Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
03:00 PM	30	150	17	197	16	0	29	45	43	162	17	222	11	0	36	47	511
03:15 PM	29	181	22	232	17	0	34	51	34	145	13	192	12	0	38	50	525
03:30 PM	38	169	15	222	19	0	30	49	31	148	14	193	17	0	59	76	540
03:45 PM	21	190	9	220	29	0	31	60	32	130	21	183	17	0	88	105	568
Total	118	690	63	871	81	0	124	205	140	585	65	790	57	0	221	278	2144
04:00 PM	34	166	27	227	21	0	32	53	37	133	13	183	6	0	59	65	528
04:15 PM	26	159	11	196	16	0	37	53	42	133	19	194	20	0	39	59	502
04:30 PM	38	131	20	189	6	0	32	38	33	131	16	180	13	0	37	50	457
04:45 PM	35	130	15	180	6	0	38	44	41	146	16	203	18	0	35	53	480
Total	133	586	73	792	49	0	139	188	153	543	64	760	57	0	170	227	1967
05:00 PM	36	130	15	181	11	0	30	41	23	132	11	166	14	0	40	54	442
05:15 PM	33	151	15	199	9	0	27	36	37	138	10	185	10	0	45	55	475
05:30 PM	23	150	12	185	18	0	34	52	40	133	9	182	13	0	50	63	482
05:45 PM	28	173	14	215	41	0	23	64	48	226	29	303	7	0	53	60	642
Total	120	604	56	780	79	0	114	193	148	629	59	836	44	0	188	232	2041
06:00 PM	29	157	19	205	18	0	24	42	73	223	29	325	8	0	51	59	631
06:15 PM	32	135	11	178	12	0	31	43	42	137	9	188	14	0	38	52	461
06:30 PM	38	145	20	203	7	0	22	29	32	139	12	183	7	0	43	50	465
06:45 PM	33	121	10	164	8	0	23	31	23	125	7	155	9	0	19	28	378
Total	132	558	60	750	45	0	100	145	170	624	57	851	38	0	151	189	1935
Grand Total	503	2438	252	3193	254	0	477	731	611	2381	245	3237	196	0	730	926	8087
Apprch %	15.8	76.4	7.9		34.7	0	65.3		18.9	73.6	7.6		21.2	0	78.8		
Total %	6.2	30.1	3.1	39.5	3.1	0	5.9	9	7.6	29.4	3	40	2.4	0	9	11.5	

	Portola Parkway Southbound				SR-241 Ramps Westbound				Portola Parkway Northbound				SR-241 Ramps Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:15 PM																	
05:15 PM	**33**	151	15	199	9	0	27	36	37	138	10	185	10	0	45	55	475
05:30 PM	23	150	12	185	18	0	**34**	52	40	133	9	182	**13**	0	50	**63**	482
05:45 PM	28	**173**	14	**215**	**41**	0	23	**64**	48	**226**	**29**	303	7	0	**53**	60	**642**
06:00 PM	29	157	**19**	205	18	0	24	42	**73**	223	29	**325**	8	0	51	59	631
Total Volume	113	631	60	804	86	0	108	194	198	720	77	995	38	0	199	237	2230
% App. Total	14.1	78.5	7.5		44.3	0	55.7		19.9	72.4	7.7		16	0	84		
PHF	.856	.912	.789	.935	.524	.000	.794	.758	.678	.796	.664	.765	.731	.000	.939	.940	.868

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

City of Lake Forest
N/S: Portola Parkway
E/W: SR-241 Ramps
Weather: Clear

File Name : 01_LKF_Portola_241 SAT
Site Code : 10517754
Start Date : 11/4/2017
Page No : 2



Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	03:15 PM				03:30 PM				05:45 PM				03:30 PM			
+0 mins.	29	181	22	**232**	19	0	30	49	48	**226**	**29**	303	17	0	59	76
+15 mins.	**38**	169	15	222	**29**	0	31	**60**	**73**	223	29	**325**	17	0	**88**	**105**
+30 mins.	21	**190**	9	220	21	0	32	53	42	137	9	188	6	0	59	65
+45 mins.	34	166	**27**	227	16	0	**37**	53	32	139	12	183	**20**	0	39	59
Total Volume	122	706	73	901	85	0	130	215	195	725	79	999	60	0	245	305
% App. Total	13.5	78.4	8.1		39.5	0	60.5		19.5	72.6	7.9		19.7	0	80.3	
PHF	.803	.929	.676	.971	.733	.000	.878	.896	.668	.802	.681	.768	.750	.000	.696	.726

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

City of Lake Forest
N/S: Portola Parkway
E/W: SR-241 Ramps
Weather: Clear

File Name : 01_LKF_Portola_241 SUN
Site Code : 10517754
Start Date : 11/5/2017
Page No : 1

Groups Printed- Total Volume

	Portola Parkway Southbound				SR-241 Ramps Westbound				Portola Parkway Northbound				SR-241 Ramps Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
10:00 AM	13	86	16	115	30	0	26	56	23	74	12	109	6	0	45	51	331
10:15 AM	13	97	26	136	20	0	15	35	30	79	10	119	6	0	20	26	316
10:30 AM	18	87	13	118	15	0	23	38	22	85	11	118	9	0	14	23	297
10:45 AM	15	108	18	141	8	0	28	36	34	102	5	141	6	0	22	28	346
Total	59	378	73	510	73	0	92	165	109	340	38	487	27	0	101	128	1290
11:00 AM	13	103	19	135	9	0	21	30	39	102	18	159	6	0	18	24	348
11:15 AM	23	114	11	148	20	0	29	49	32	99	10	141	13	0	29	42	380
11:30 AM	17	117	17	151	20	0	20	40	44	114	12	170	10	0	50	60	421
11:45 AM	23	133	9	165	38	0	15	53	82	184	46	312	20	0	85	105	635
Total	76	467	56	599	87	0	85	172	197	499	86	782	49	0	182	231	1784
12:00 PM	26	128	18	172	37	0	27	64	75	170	34	279	15	0	57	72	587
12:15 PM	24	125	21	170	16	0	29	45	43	148	16	207	10	0	22	32	454
12:30 PM	19	126	21	166	14	0	32	46	45	135	13	193	8	0	34	42	447
12:45 PM	21	159	17	197	20	0	32	52	26	151	13	190	14	0	28	42	481
Total	90	538	77	705	87	0	120	207	189	604	76	869	47	0	141	188	1969
01:00 PM	22	131	14	167	21	0	28	49	34	154	10	198	17	0	32	49	463
01:15 PM	36	127	17	180	21	0	36	57	29	149	10	188	8	0	26	34	459
01:30 PM	27	125	20	172	8	0	39	47	51	159	17	227	13	0	23	36	482
01:45 PM	29	136	13	178	18	0	26	44	74	222	33	329	18	0	29	47	598
Total	114	519	64	697	68	0	129	197	188	684	70	942	56	0	110	166	2002
Grand Total	339	1902	270	2511	315	0	426	741	683	2127	270	3080	179	0	534	713	7045
Apprch %	13.5	75.7	10.8		42.5	0	57.5		22.2	69.1	8.8		25.1	0	74.9		
Total %	4.8	27	3.8	35.6	4.5	0	6	10.5	9.7	30.2	3.8	43.7	2.5	0	7.6	10.1	

	Portola Parkway Southbound				SR-241 Ramps Westbound				Portola Parkway Northbound				SR-241 Ramps Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:45 AM																	
11:45 AM	23	**133**	9	165	**38**	0	15	53	**82**	**184**	**46**	**312**	**20**	0	**85**	**105**	**635**
12:00 PM	**26**	128	18	**172**	37	0	27	**64**	75	170	34	279	15	0	57	72	587
12:15 PM	24	125	**21**	170	16	0	29	45	43	148	16	207	10	0	22	32	454
12:30 PM	19	126	21	166	14	0	**32**	46	45	135	13	193	8	0	34	42	447
Total Volume	92	512	69	673	105	0	103	208	245	637	109	991	53	0	198	251	2123
% App. Total	13.7	76.1	10.3		50.5	0	49.5		24.7	64.3	11		21.1	0	78.9		
PHF	.885	.962	.821	.978	.691	.000	.805	.813	.747	.865	.592	.794	.663	.000	.582	.598	.836

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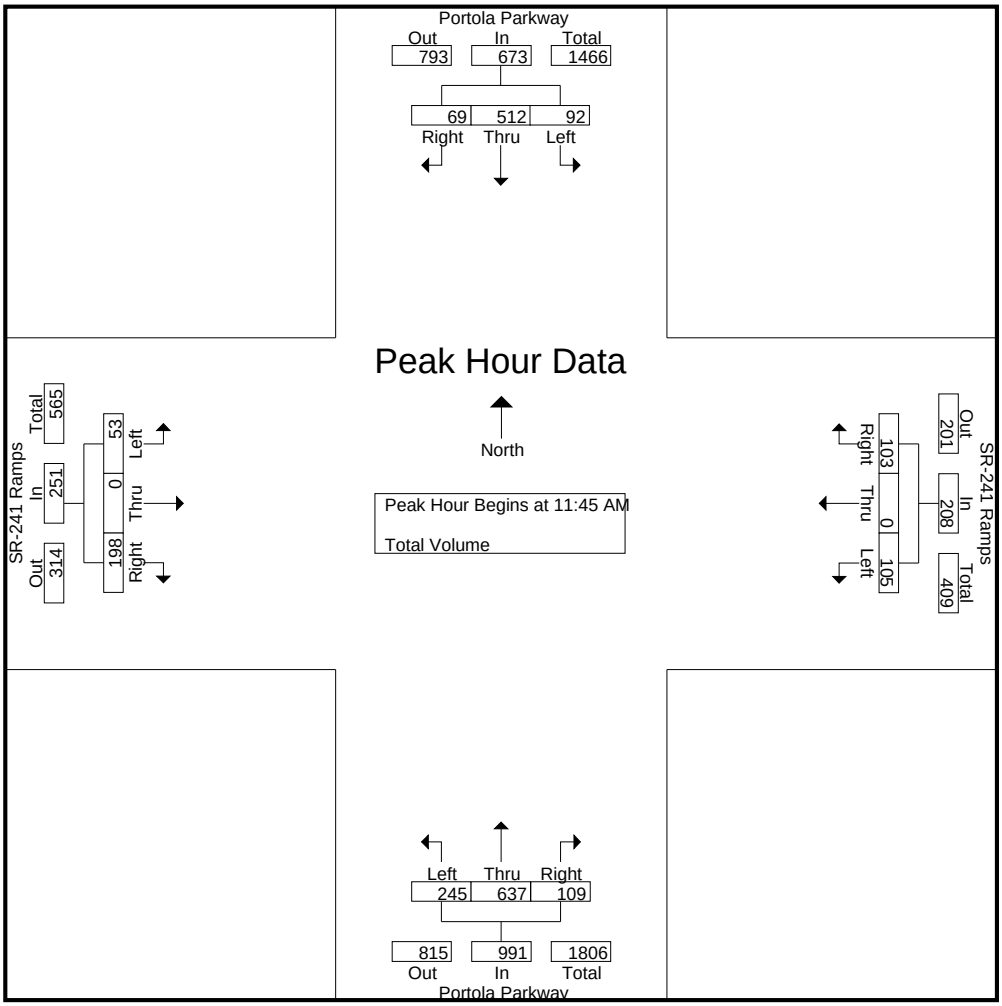
City of Lake Forest
N/S: Portola Parkway
E/W: SR-241 Ramps
Weather: Clear

File Name : 01_LKF_Portola_241 SUN
Site Code : 10517754
Start Date : 11/5/2017
Page No : 2



Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	12:45 PM				11:45 AM				11:45 AM				11:15 AM			
+0 mins.	21	**159**	17	**197**	**38**	0	15	53	**82**	**184**	**46**	**312**	13	0	29	42
+15 mins.	22	131	14	167	37	0	27	**64**	75	170	34	279	10	0	50	60
+30 mins.	**36**	127	17	180	16	0	29	45	43	148	16	207	**20**	0	**85**	**105**
+45 mins.	27	125	**20**	172	14	0	**32**	46	45	135	13	193	15	0	57	72
Total Volume	106	542	68	716	105	0	103	208	245	637	109	991	58	0	221	279
% App. Total	14.8	75.7	9.5		50.5	0	49.5		24.7	64.3	11		20.8	0	79.2	
PHF	.736	.852	.850	.909	.691	.000	.805	.813	.747	.865	.592	.794	.725	.000	.650	.664

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City of Lake Forest
N/S: Portola Parkway
E/W: Rancho Parkway/Purpose Drive
Weather: Clear

File Name : 02_LKF_Portola_Rancho_Purpose SAT
Site Code : 10517754
Start Date : 11/4/2017
Page No : 1

Groups Printed- Total Volume

	Portola Parkway Southbound				Purpose Drive Westbound				Portola Parkway Northbound				Rancho Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
03:00 PM	8	189	18	215	0	6	3	9	86	211	1	298	19	10	128	157	679
03:15 PM	20	205	12	237	1	1	2	4	83	175	1	259	15	25	100	140	640
03:30 PM	45	201	8	254	1	4	2	7	81	173	1	255	13	32	103	148	664
03:45 PM	122	182	8	312	2	3	7	12	84	168	7	259	23	62	109	194	777
Total	195	777	46	1018	4	14	14	32	334	727	10	1071	70	129	440	639	2760
04:00 PM	54	194	6	254	2	3	13	18	107	155	4	266	13	37	110	160	698
04:15 PM	14	182	13	209	2	8	7	17	90	170	3	263	18	15	113	146	635
04:30 PM	10	163	8	181	0	3	8	11	82	157	0	239	17	4	116	137	568
04:45 PM	4	145	10	159	1	4	2	7	64	172	0	236	27	2	96	125	527
Total	82	684	37	803	5	18	30	53	343	654	7	1004	75	58	435	568	2428
05:00 PM	2	188	9	199	0	7	3	10	78	150	0	228	13	4	98	115	552
05:15 PM	9	184	13	206	0	3	1	4	69	168	0	237	12	16	89	117	564
05:30 PM	32	176	15	223	4	5	7	16	65	155	4	224	14	21	76	111	574
05:45 PM	96	185	10	291	52	69	83	204	76	220	4	300	20	44	99	163	958
Total	139	733	47	919	56	84	94	234	288	693	8	989	59	85	362	506	2648
06:00 PM	45	185	13	243	48	46	90	184	95	226	2	323	21	32	85	138	888
06:15 PM	19	142	11	172	13	12	20	45	93	165	1	259	9	10	117	136	612
06:30 PM	12	185	13	210	9	5	7	21	70	177	1	248	15	2	103	120	599
06:45 PM	3	131	9	143	5	4	6	15	72	146	1	219	9	3	78	90	467
Total	79	643	46	768	75	67	123	265	330	714	5	1049	54	47	383	484	2566
Grand Total	495	2837	176	3508	140	183	261	584	1295	2788	30	4113	258	319	1620	2197	10402
Apprch %	14.1	80.9	5		24	31.3	44.7		31.5	67.8	0.7		11.7	14.5	73.7		
Total %	4.8	27.3	1.7	33.7	1.3	1.8	2.5	5.6	12.4	26.8	0.3	39.5	2.5	3.1	15.6	21.1	

	Portola Parkway Southbound				Purpose Drive Westbound				Portola Parkway Northbound				Rancho Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:45 PM																	
05:45 PM	**96**	**185**	10	**291**	**52**	**69**	83	**204**	76	220	**4**	300	20	**44**	99	**163**	**958**
06:00 PM	45	185	**13**	243	48	46	**90**	184	**95**	**226**	2	**323**	**21**	32	85	138	888
06:15 PM	19	142	11	172	13	12	20	45	93	165	1	259	9	10	**117**	136	612
06:30 PM	12	185	13	210	9	5	7	21	70	177	1	248	15	2	103	120	599
Total Volume	172	697	47	916	122	132	200	454	334	788	8	1130	65	88	404	557	3057
% App. Total	18.8	76.1	5.1		26.9	29.1	44.1		29.6	69.7	0.7		11.7	15.8	72.5		
PHF	.448	.942	.904	.787	.587	.478	.556	.556	.879	.872	.500	.875	.774	.500	.863	.854	.798

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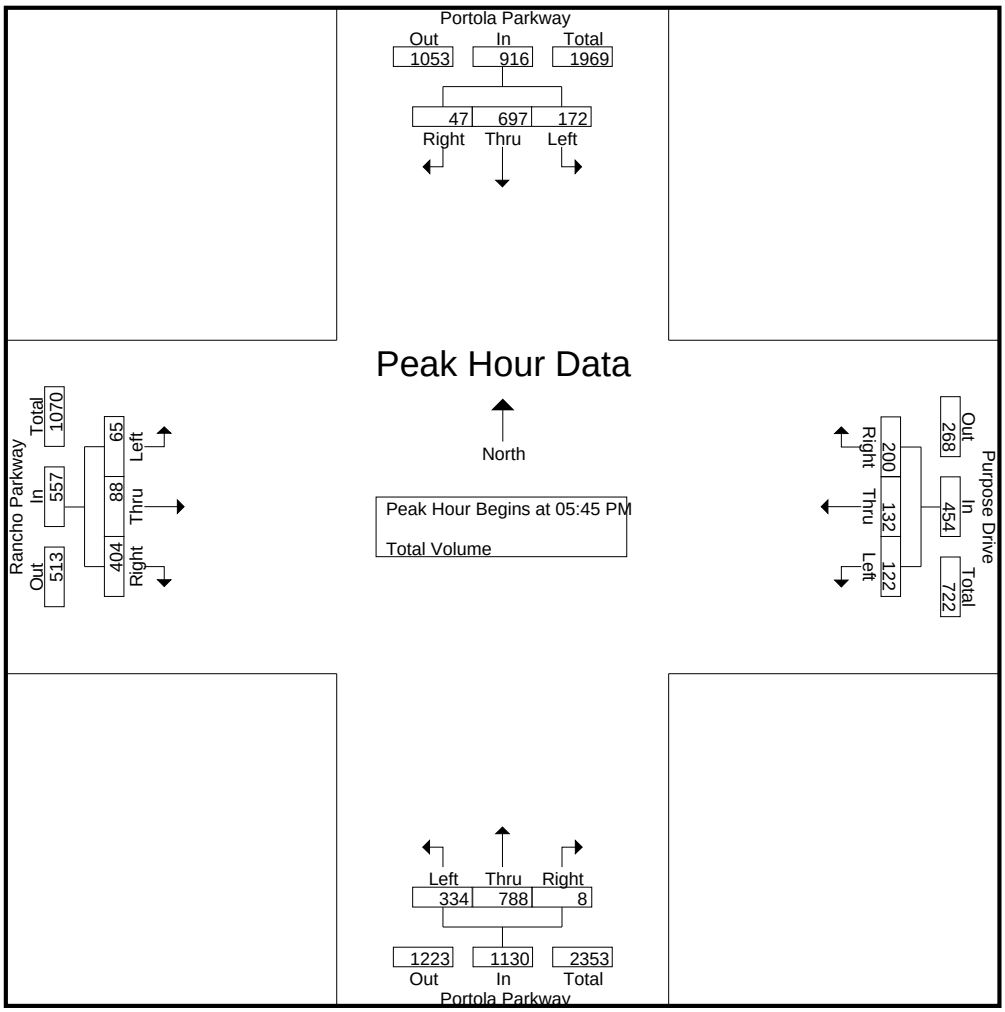
City of Lake Forest
N/S: Portola Parkway
E/W: Rancho Parkway/Purpose Drive
Weather: Clear

File Name : 02_LKF_Portola_Rancho_Purpose SAT
Site Code : 10517754
Start Date : 11/4/2017
Page No : 2



Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	03:15 PM				05:45 PM				05:45 PM				03:30 PM			
+0 mins.	20	**205**	**12**	237	**52**	**69**	83	**204**	76	220	**4**	300	13	32	103	148
+15 mins.	45	201	8	254	48	46	**90**	184	**95**	**226**	2	**323**	**23**	**62**	109	**194**
+30 mins.	**122**	182	8	**312**	13	12	20	45	93	165	1	259	13	37	110	160
+45 mins.	54	194	6	254	9	5	7	21	70	177	1	248	18	15	**113**	146
Total Volume	241	782	34	1057	122	132	200	454	334	788	8	1130	67	146	435	648
% App. Total	22.8	74	3.2		26.9	29.1	44.1		29.6	69.7	0.7		10.3	22.5	67.1	
PHF	.494	.954	.708	.847	.587	.478	.556	.556	.879	.872	.500	.875	.728	.589	.962	.835

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City of Lake Forest
N/S: Portola Parkway
E/W: Rancho Parkway/Purpose Drive
Weather: Clear

File Name : 02_LKF_Portola_Rancho_Purpose SUN
Site Code : 10517754
Start Date : 11/5/2017
Page No : 1

Groups Printed- Total Volume

	Portola Parkway Southbound				Purpose Drive Westbound				Portola Parkway Northbound				Rancho Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
10:00 AM	84	89	7	180	4	0	5	9	69	104	2	175	8	65	48	121	485
10:15 AM	14	119	9	142	1	3	0	4	69	122	2	193	9	16	51	76	415
10:30 AM	9	94	13	116	1	1	2	4	61	103	0	164	9	6	67	82	366
10:45 AM	5	126	7	138	1	1	2	4	99	136	0	235	8	3	55	66	443
Total	112	428	36	576	7	5	9	21	298	465	4	767	34	90	221	345	1709
11:00 AM	1	95	8	104	4	4	3	11	83	140	1	224	23	8	38	69	408
11:15 AM	23	142	12	177	7	2	3	12	95	133	0	228	14	12	60	86	503
11:30 AM	66	125	15	206	9	12	9	30	73	148	3	224	11	23	62	96	556
11:45 AM	107	124	5	236	126	86	129	341	89	195	2	286	13	76	71	160	1023
Total	197	486	40	723	146	104	144	394	340	616	6	962	61	119	231	411	2490
12:00 PM	108	122	12	242	133	93	105	331	112	168	2	282	7	51	85	143	998
12:15 PM	23	133	15	171	33	24	23	80	113	164	1	278	10	24	72	106	635
12:30 PM	12	170	8	190	18	6	17	41	105	161	0	266	15	11	102	128	625
12:45 PM	6	176	16	198	3	5	7	15	96	176	0	272	12	4	91	107	592
Total	149	601	51	801	187	128	152	467	426	669	3	1098	44	90	350	484	2850
01:00 PM	2	168	16	186	2	4	6	12	107	192	0	299	13	3	111	127	624
01:15 PM	2	164	19	185	6	4	5	15	85	171	1	257	6	3	88	97	554
01:30 PM	6	120	10	136	19	19	33	71	115	175	3	293	15	3	95	113	613
01:45 PM	12	172	15	199	134	128	146	408	97	201	2	300	12	7	74	93	1000
Total	22	624	60	706	161	155	190	506	404	739	6	1149	46	16	368	430	2791
Grand Total	480	2139	187	2806	501	392	495	1388	1468	2489	19	3976	185	315	1170	1670	9840
Apprch %	17.1	76.2	6.7		36.1	28.2	35.7		36.9	62.6	0.5		11.1	18.9	70.1		
Total %	4.9	21.7	1.9	28.5	5.1	4	5	14.1	14.9	25.3	0.2	40.4	1.9	3.2	11.9	17	

	Portola Parkway Southbound				Purpose Drive Westbound				Portola Parkway Northbound				Rancho Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:45 AM																	
11:45 AM	107	124	5	236	126	86	**129**	**341**	89	**195**	**2**	**286**	13	**76**	71	**160**	**1023**
12:00 PM	**108**	122	12	**242**	**133**	**93**	105	331	112	168	2	282	7	51	85	143	998
12:15 PM	23	133	**15**	171	33	24	23	80	**113**	164	1	278	10	24	72	106	635
12:30 PM	12	**170**	8	190	18	6	17	41	105	161	0	266	**15**	11	**102**	128	625
Total Volume	250	549	40	839	310	209	274	793	419	688	5	1112	45	162	330	537	3281
% App. Total	29.8	65.4	4.8		39.1	26.4	34.6		37.7	61.9	0.4		8.4	30.2	61.5		
PHF	.579	.807	.667	.867	.583	.562	.531	.581	.927	.882	.625	.972	.750	.533	.809	.839	.802

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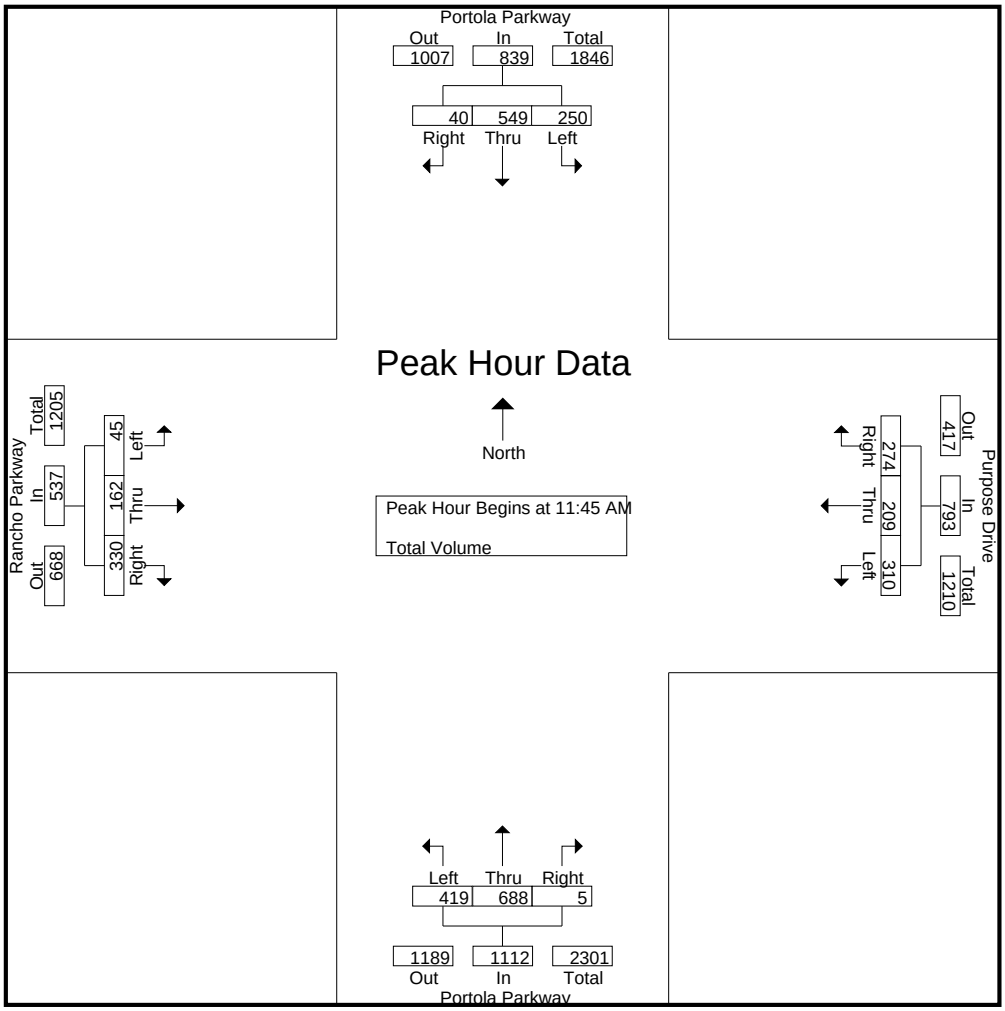
City of Lake Forest
N/S: Portola Parkway
E/W: Rancho Parkway/Purpose Drive
Weather: Clear

File Name : 02_LKF_Portola_Rancho_Purpose SUN
Site Code : 10517754
Start Date : 11/5/2017
Page No : 2



Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	11:15 AM				11:45 AM				01:00 PM				11:45 AM			
+0 mins.	23	**142**	12	177	126	86	**129**	**341**	107	192	0	299	13	**76**	71	**160**
+15 mins.	66	125	**15**	206	**133**	**93**	105	331	85	171	1	257	7	51	85	143
+30 mins.	107	124	5	236	33	24	23	80	**115**	175	**3**	293	10	24	72	106
+45 mins.	**108**	122	12	**242**	18	6	17	41	97	**201**	2	**300**	**15**	11	**102**	128
Total Volume	304	513	44	861	310	209	274	793	404	739	6	1149	45	162	330	537
% App. Total	35.3	59.6	5.1		39.1	26.4	34.6		35.2	64.3	0.5		8.4	30.2	61.5	
PHF	.704	.903	.733	.889	.583	.562	.531	.581	.878	.919	.500	.958	.750	.533	.809	.839

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City of Lake Forest
N/S: Portola Parkway
E/W: Saddleback Parkway
Weather: Clear

File Name : 03_LKF_Portola_Saddleback SAT
Site Code : 10517754
Start Date : 11/4/2017
Page No : 1

Groups Printed- Total Volume

	Portola Parkway Southbound				Saddleback Parkway Westbound				Portola Parkway Northbound				Saddleback Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
03:00 PM	6	312	16	334	0	0	2	2	24	275	4	303	9	0	16	25	664
03:15 PM	5	264	10	279	0	0	1	1	31	250	26	307	13	2	23	38	625
03:30 PM	6	261	16	283	4	1	0	5	20	251	49	320	17	2	22	41	649
03:45 PM	10	295	9	314	6	0	1	7	24	225	72	321	13	5	17	35	677
Total	27	1132	51	1210	10	1	4	15	99	1001	151	1251	52	9	78	139	2615
04:00 PM	10	290	5	305	29	2	5	36	14	239	42	295	17	0	20	37	673
04:15 PM	5	281	12	298	6	0	1	7	23	220	9	252	16	0	23	39	596
04:30 PM	3	269	12	284	7	0	1	8	26	243	4	273	11	1	19	31	596
04:45 PM	2	291	9	302	2	0	0	2	19	216	0	235	19	0	6	25	564
Total	20	1131	38	1189	44	2	7	53	82	918	55	1055	63	1	68	132	2429
05:00 PM	2	262	8	272	3	0	1	4	22	226	8	256	9	0	13	22	554
05:15 PM	2	275	10	287	0	0	0	0	18	225	23	266	12	1	12	25	578
05:30 PM	5	242	7	254	5	2	2	9	31	219	40	290	12	4	13	29	582
05:45 PM	4	295	5	304	39	6	13	58	19	270	57	346	13	6	30	49	757
Total	13	1074	30	1117	47	8	16	71	90	940	128	1158	46	11	68	125	2471
06:00 PM	2	293	11	306	10	0	4	14	27	275	37	339	12	4	19	35	694
06:15 PM	2	272	9	283	9	0	3	12	19	237	8	264	10	0	14	24	583
06:30 PM	1	257	9	267	0	1	1	2	17	216	5	238	15	0	12	27	534
06:45 PM	2	222	8	232	2	0	0	2	16	215	2	233	15	1	8	24	491
Total	7	1044	37	1088	21	1	8	30	79	943	52	1074	52	5	53	110	2302
Grand Total	67	4381	156	4604	122	12	35	169	350	3802	386	4538	213	26	267	506	9817
Apprch %	1.5	95.2	3.4		72.2	7.1	20.7		7.7	83.8	8.5		42.1	5.1	52.8		
Total %	0.7	44.6	1.6	46.9	1.2	0.1	0.4	1.7	3.6	38.7	3.9	46.2	2.2	0.3	2.7	5.2	

	Portola Parkway Southbound				Saddleback Parkway Westbound				Portola Parkway Northbound				Saddleback Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:15 PM																	
03:15 PM	5	264	10	279	0	0	1	1	**31**	250	26	307	13	2	**23**	38	625
03:30 PM	6	261	**16**	283	4	1	0	5	20	**251**	49	320	**17**	2	22	**41**	649
03:45 PM	**10**	**295**	9	**314**	6	0	1	7	24	225	**72**	**321**	13	**5**	17	35	**677**
04:00 PM	10	290	5	305	**29**	**2**	**5**	**36**	14	239	42	295	17	0	20	37	673
Total Volume	31	1110	40	1181	39	3	7	49	89	965	189	1243	60	9	82	151	2624
% App. Total	2.6	94	3.4		79.6	6.1	14.3		7.2	77.6	15.2		39.7	6	54.3		
PHF	.775	.941	.625	.940	.336	.375	.350	.340	.718	.961	.656	.968	.882	.450	.891	.921	.969

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City of Lake Forest
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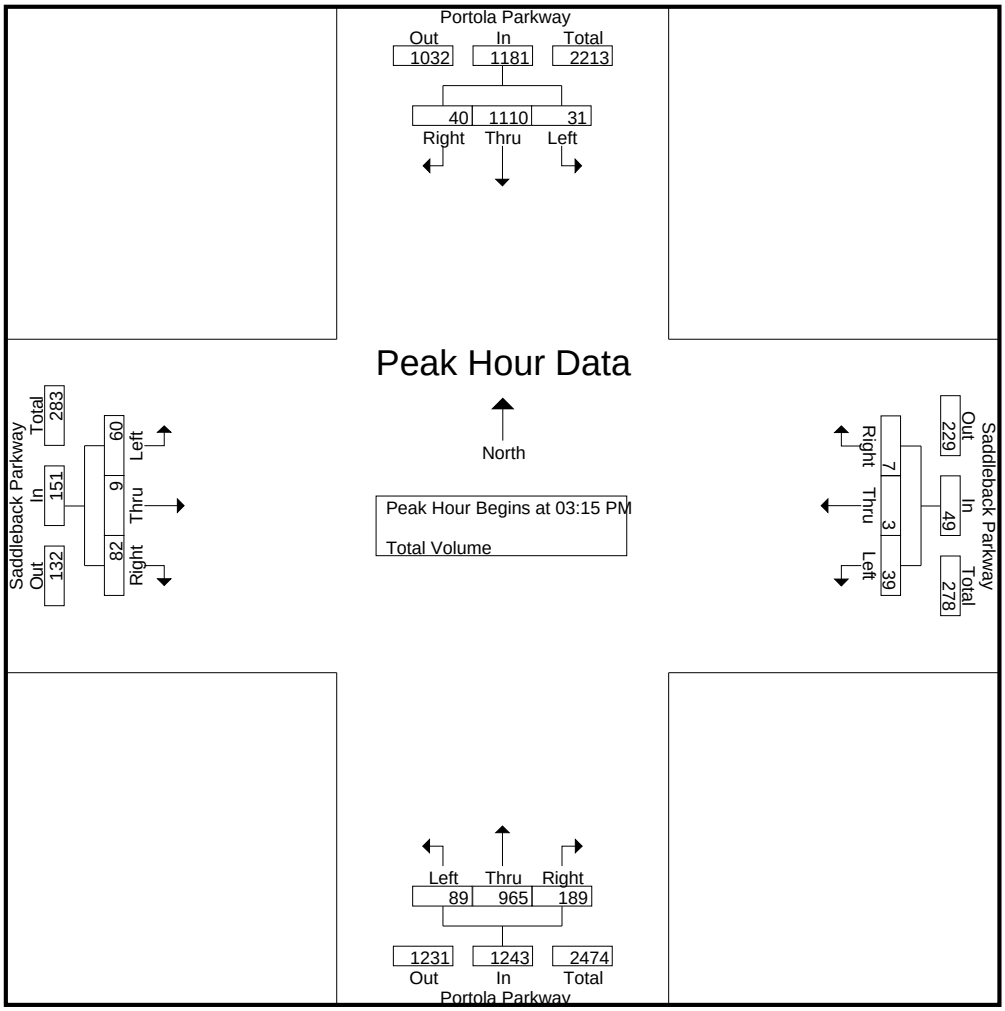
E/W: Saddleback Parkway
Weather: Clear

File Name : 03_LKF_Portola_Saddleback SAT
Site Code : 10517754
Start Date : 11/4/2017
Page No : 2



Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	03:00 PM				05:30 PM				03:00 PM				03:30 PM			
+0 mins.	6	**312**	**16**	**334**	5	2	2	9	24	**275**	4	303	**17**	2	22	**41**
+15 mins.	5	264	10	279	**39**	**6**	**13**	**58**	**31**	250	26	307	13	**5**	17	35
+30 mins.	6	261	16	283	10	0	4	14	20	251	49	320	17	0	20	37
+45 mins.	**10**	295	9	314	9	0	3	12	24	225	**72**	**321**	16	0	**23**	39
Total Volume	27	1132	51	1210	63	8	22	93	99	1001	151	1251	63	7	82	152
% App. Total	2.2	93.6	4.2		67.7	8.6	23.7		7.9	80	12.1		41.4	4.6	53.9	
PHF	.675	.907	.797	.906	.404	.333	.423	.401	.798	.910	.524	.974	.926	.350	.891	.927

Counts Unlimited
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(951) 268-6268

City of Lake Forest
N/S: Portola Parkway
E/W: Saddleback Parkway
Weather: Clear

File Name : 03_LKF_Portola_Saddleback SUN
Site Code : 10517754
Start Date : 11/5/2017
Page No : 1

Groups Printed- Total Volume

	Portola Parkway Southbound				Saddleback Parkway Westbound				Portola Parkway Northbound				Saddleback Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
10:00 AM	3	142	10	155	3	1	0	4	25	162	57	244	11	3	6	20	423
10:15 AM	3	143	14	160	0	0	0	0	30	162	14	206	11	1	13	25	391
10:30 AM	1	142	15	158	1	0	0	1	40	158	10	208	11	0	14	25	392
10:45 AM	4	168	17	189	3	1	2	6	28	217	6	251	17	0	9	26	472
Total	11	595	56	662	7	2	2	11	123	699	87	909	50	4	42	96	1678
11:00 AM	5	135	17	157	5	0	1	6	32	226	9	267	18	0	17	35	465
11:15 AM	2	206	11	219	5	0	0	5	27	188	29	244	15	1	12	28	496
11:30 AM	4	175	10	189	3	0	1	4	31	224	60	315	15	3	21	39	547
11:45 AM	13	296	13	322	69	1	15	85	40	273	107	420	21	5	23	49	876
Total	24	812	51	887	82	1	17	100	130	911	205	1246	69	9	73	151	2384
12:00 PM	14	321	14	349	35	2	2	39	27	233	78	338	27	1	22	50	776
12:15 PM	2	219	11	232	10	0	1	11	30	236	18	284	20	1	23	44	571
12:30 PM	1	259	10	270	7	0	1	8	28	243	6	277	23	0	23	46	601
12:45 PM	1	280	13	294	2	0	0	2	28	279	9	316	16	0	25	41	653
Total	18	1079	48	1145	54	2	4	60	113	991	111	1215	86	2	93	181	2601
01:00 PM	3	266	15	284	4	1	1	6	21	252	6	279	25	0	23	48	617
01:15 PM	0	241	12	253	4	0	0	4	22	256	4	282	25	0	12	37	576
01:30 PM	4	239	6	249	19	2	3	24	23	263	5	291	15	0	13	28	592
01:45 PM	8	356	15	379	54	3	9	66	32	291	17	340	17	1	26	44	829
Total	15	1102	48	1165	81	6	13	100	98	1062	32	1192	82	1	74	157	2614
Grand Total	68	3588	203	3859	224	11	36	271	464	3663	435	4562	287	16	282	585	9277
Apprch %	1.8	93	5.3		82.7	4.1	13.3		10.2	80.3	9.5		49.1	2.7	48.2		
Total %	0.7	38.7	2.2	41.6	2.4	0.1	0.4	2.9	5	39.5	4.7	49.2	3.1	0.2	3	6.3	

	Portola Parkway Southbound				Saddleback Parkway Westbound				Portola Parkway Northbound				Saddleback Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:45 AM																	
11:45 AM	13	296	13	322	**69**	1	**15**	**85**	**40**	**273**	**107**	**420**	21	**5**	**23**	49	**876**
12:00 PM	**14**	**321**	**14**	**349**	35	**2**	2	39	27	233	78	338	**27**	1	22	**50**	776
12:15 PM	2	219	11	232	10	0	1	11	30	236	18	284	20	1	23	44	571
12:30 PM	1	259	10	270	7	0	1	8	28	243	6	277	23	0	23	46	601
Total Volume	30	1095	48	1173	121	3	19	143	125	985	209	1319	91	7	91	189	2824
% App. Total	2.6	93.4	4.1		84.6	2.1	13.3		9.5	74.7	15.8		48.1	3.7	48.1		
PHF	.536	.853	.857	.840	.438	.375	.317	.421	.781	.902	.488	.785	.843	.350	.989	.945	.806

Counts Unlimited
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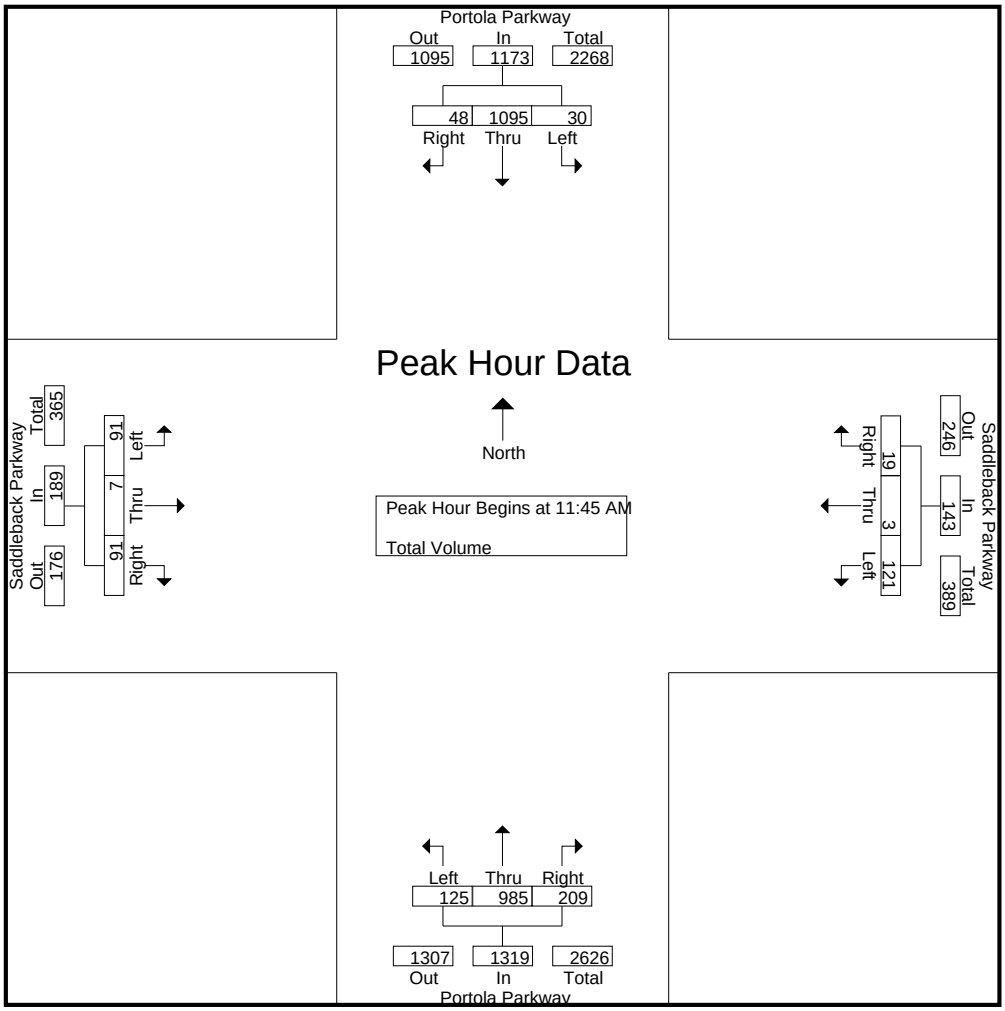
City of Lake Forest
N/S: Portola Parkway
E/W: Saddleback Parkway
Weather: Clear

File Name : 03_LKF_Portola_Saddleback SUN
Site Code : 10517754
Start Date : 11/5/2017
Page No : 2



Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	11:45 AM				11:45 AM				11:30 AM				11:45 AM			
+0 mins.	13	296	13	322	**69**	1	**15**	**85**	31	224	60	315	21	**5**	**23**	49
+15 mins.	**14**	**321**	**14**	**349**	35	**2**	2	39	**40**	**273**	**107**	**420**	**27**	1	22	**50**
+30 mins.	2	219	11	232	10	0	1	11	27	233	78	338	20	1	23	44
+45 mins.	1	259	10	270	7	0	1	8	30	236	18	284	23	0	23	46
Total Volume	30	1095	48	1173	121	3	19	143	128	966	263	1357	91	7	91	189
% App. Total	2.6	93.4	4.1		84.6	2.1	13.3		9.4	71.2	19.4		48.1	3.7	48.1	
PHF	.536	.853	.857	.840	.438	.375	.317	.421	.800	.885	.614	.808	.843	.350	.989	.945

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City of Lake Forest
N/S: Portola Pwky/Santa Margarita Pkwy
E/W: El Toro Road (County Highway S18)
Weather: Clear

File Name : 04_LKF_Portola_Santa Margarita_El Toro SAT
Site Code : 10517754
Start Date : 11/4/2017
Page No : 1

Groups Printed- Total Volume

	Portola Parkway Southbound				El Toro Road Westbound				Santa Margarita Parkway Northbound				El Toro Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
03:00 PM	52	217	66	335	1	49	44	94	102	218	19	339	49	73	79	201	969
03:15 PM	52	197	45	294	7	54	42	103	83	214	13	310	56	86	78	220	927
03:30 PM	37	219	48	304	2	53	41	96	86	211	14	311	62	91	67	220	931
03:45 PM	54	219	39	312	5	67	35	107	60	219	17	296	72	122	68	262	977
Total	195	852	198	1245	15	223	162	400	331	862	63	1256	239	372	292	903	3804
04:00 PM	49	249	57	355	5	61	50	116	67	185	10	262	72	92	60	224	957
04:15 PM	40	215	62	317	3	66	34	103	92	172	5	269	40	68	71	179	868
04:30 PM	37	225	52	314	6	62	47	115	74	195	8	277	37	60	84	181	887
04:45 PM	39	219	58	316	4	77	25	106	89	176	4	269	39	58	73	170	861
Total	165	908	229	1302	18	266	156	440	322	728	27	1077	188	278	288	754	3573
05:00 PM	40	210	50	300	2	53	33	88	82	172	15	269	46	59	70	175	832
05:15 PM	36	186	47	269	7	65	39	111	67	170	11	248	60	69	85	214	842
05:30 PM	41	205	49	295	4	48	47	99	88	195	7	290	49	71	83	203	887
05:45 PM	46	225	111	382	8	141	118	267	56	193	14	263	58	104	70	232	1144
Total	163	826	257	1246	21	307	237	565	293	730	47	1070	213	303	308	824	3705
06:00 PM	58	232	65	355	10	57	81	148	78	192	5	275	54	82	72	208	986
06:15 PM	51	196	40	287	5	67	37	109	75	198	15	288	50	51	79	180	864
06:30 PM	33	229	48	310	2	29	29	60	70	174	7	251	31	54	77	162	783
06:45 PM	25	161	54	240	2	44	24	70	76	164	7	247	45	44	75	164	721
Total	167	818	207	1192	19	197	171	387	299	728	34	1061	180	231	303	714	3354
Grand Total	690	3404	891	4985	73	993	726	1792	1245	3048	171	4464	820	1184	1191	3195	14436
Apprch %	13.8	68.3	17.9		4.1	55.4	40.5		27.9	68.3	3.8		25.7	37.1	37.3		
Total %	4.8	23.6	6.2	34.5	0.5	6.9	5	12.4	8.6	21.1	1.2	30.9	5.7	8.2	8.3	22.1	

	Portola Parkway Southbound				El Toro Road Westbound				Santa Margarita Parkway Northbound				El Toro Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:30 PM																	
05:30 PM	41	205	49	295	4	48	47	99	**88**	195	7	**290**	49	71	**83**	203	887
05:45 PM	46	225	**111**	**382**	8	**141**	**118**	**267**	56	193	14	263	**58**	**104**	70	**232**	**1144**
06:00 PM	**58**	**232**	65	355	**10**	57	81	148	78	192	5	275	54	82	72	208	986
06:15 PM	51	196	40	287	5	67	37	109	75	**198**	**15**	288	50	51	79	180	864
Total Volume	196	858	265	1319	27	313	283	623	297	778	41	1116	211	308	304	823	3881
% App. Total	14.9	65	20.1		4.3	50.2	45.4		26.6	69.7	3.7		25.6	37.4	36.9		
PHF	.845	.925	.597	.863	.675	.555	.600	.583	.844	.982	.683	.962	.909	.740	.916	.887	.848

Counts Unlimited
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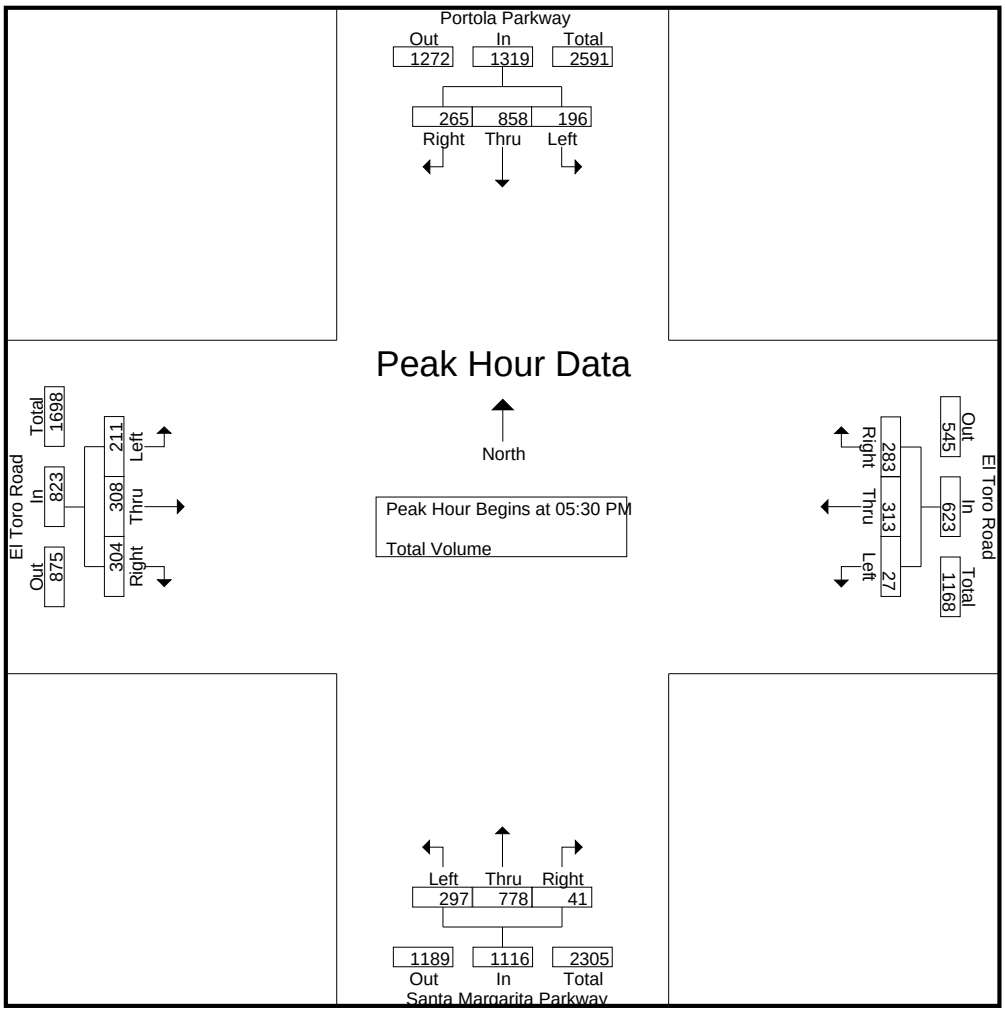
City of Lake Forest
N/S: Portola Pwky/Santa Margarita Pkwy
E/W: El Toro Road (County Highway S18)
Weather: Clear

File Name : 04_LKF_Portola_Santa Margarita_El Toro SAT
Site Code : 10517754
Start Date : 11/4/2017
Page No : 2



Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:45 PM				05:15 PM				03:00 PM				03:15 PM			
+0 mins.	46	225	**111**	**382**	7	65	39	111	**102**	218	**19**	**339**	56	86	**78**	220
+15 mins.	**58**	**232**	65	355	4	48	47	99	83	214	13	310	62	91	67	220
+30 mins.	51	196	40	287	8	**141**	**118**	**267**	86	211	14	311	**72**	**122**	68	**262**
+45 mins.	33	229	48	310	**10**	57	81	148	60	**219**	17	296	72	92	60	224
Total Volume	188	882	264	1334	29	311	285	625	331	862	63	1256	262	391	273	926
% App. Total	14.1	66.1	19.8		4.6	49.8	45.6		26.4	68.6	5		28.3	42.2	29.5	
PHF	.810	.950	.595	.873	.725	.551	.604	.585	.811	.984	.829	.926	.910	.801	.875	.884

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City of Lake Forest
N/S: Portola Pwky/Santa Margarita Pkwy
E/W: El Toro Road (County Highway S18)
Weather: Clear

File Name : 04_LKF_Portola_Santa Margarita_El Toro SUN
Site Code : 99915000
Start Date : 11/5/2017
Page No : 1

Groups Printed- Total Volume

	Portola Parkway Southbound				El Toro Road Westbound				Santa Margarita Parkway Northbound				El Toro Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
10:00 AM	26	105	22	153	1	46	43	90	56	156	8	220	50	54	48	152	615
10:15 AM	20	116	43	179	3	45	33	81	50	143	14	207	39	34	53	126	593
10:30 AM	15	116	44	175	5	63	33	101	48	128	6	182	40	26	61	127	585
10:45 AM	24	132	53	209	3	59	39	101	74	168	7	249	49	29	67	145	704
Total	85	469	162	716	12	213	148	373	228	595	35	858	178	143	229	550	2497
11:00 AM	21	99	35	155	2	53	40	95	74	185	3	262	50	39	77	166	678
11:15 AM	36	163	49	248	4	60	41	105	72	159	5	236	43	44	55	142	731
11:30 AM	26	143	43	212	6	56	49	111	46	193	12	251	80	72	58	210	784
11:45 AM	56	221	114	391	15	179	121	315	74	210	10	294	105	88	63	256	1256
Total	139	626	241	1006	27	348	251	626	266	747	30	1043	278	243	253	774	3449
12:00 PM	39	269	115	423	6	95	55	156	89	196	5	290	84	66	52	202	1071
12:15 PM	37	191	80	308	4	52	43	99	72	216	6	294	42	47	52	141	842
12:30 PM	46	206	58	310	3	63	35	101	81	200	5	286	40	58	63	161	858
12:45 PM	32	213	60	305	8	60	28	96	86	224	6	316	65	48	60	173	890
Total	154	879	313	1346	21	270	161	452	328	836	22	1186	231	219	227	677	3661
01:00 PM	44	224	55	323	3	61	36	100	75	205	13	293	46	47	67	160	876
01:15 PM	40	168	49	257	9	54	43	106	102	190	10	302	55	59	54	168	833
01:30 PM	36	200	50	286	13	105	66	184	72	188	13	273	46	47	94	187	930
01:45 PM	45	245	157	447	10	163	85	258	99	210	8	317	45	62	72	179	1201
Total	165	837	311	1313	35	383	230	648	348	793	44	1185	192	215	287	694	3840
Grand Total	543	2811	1027	4381	95	1214	790	2099	1170	2971	131	4272	879	820	996	2695	13447
Apprch %	12.4	64.2	23.4		4.5	57.8	37.6		27.4	69.5	3.1		32.6	30.4	37		
Total %	4	20.9	7.6	32.6	0.7	9	5.9	15.6	8.7	22.1	1	31.8	6.5	6.1	7.4	20	

	Portola Parkway Southbound				El Toro Road Westbound				Santa Margarita Parkway Northbound				El Toro Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:45 AM																	
11:45 AM	**56**	221	114	391	**15**	**179**	**121**	**315**	74	210	**10**	**294**	**105**	**88**	**63**	**256**	**1256**
12:00 PM	39	**269**	**115**	**423**	6	95	55	156	**89**	196	5	290	84	66	52	202	1071
12:15 PM	37	191	80	308	4	52	43	99	72	**216**	6	294	42	47	52	141	842
12:30 PM	46	206	58	310	3	63	35	101	81	200	5	286	40	58	63	161	858
Total Volume	178	887	367	1432	28	389	254	671	316	822	26	1164	271	259	230	760	4027
% App. Total	12.4	61.9	25.6		4.2	58	37.9		27.1	70.6	2.2		35.7	34.1	30.3		
PHF	.795	.824	.798	.846	.467	.543	.525	.533	.888	.951	.650	.990	.645	.736	.913	.742	.802

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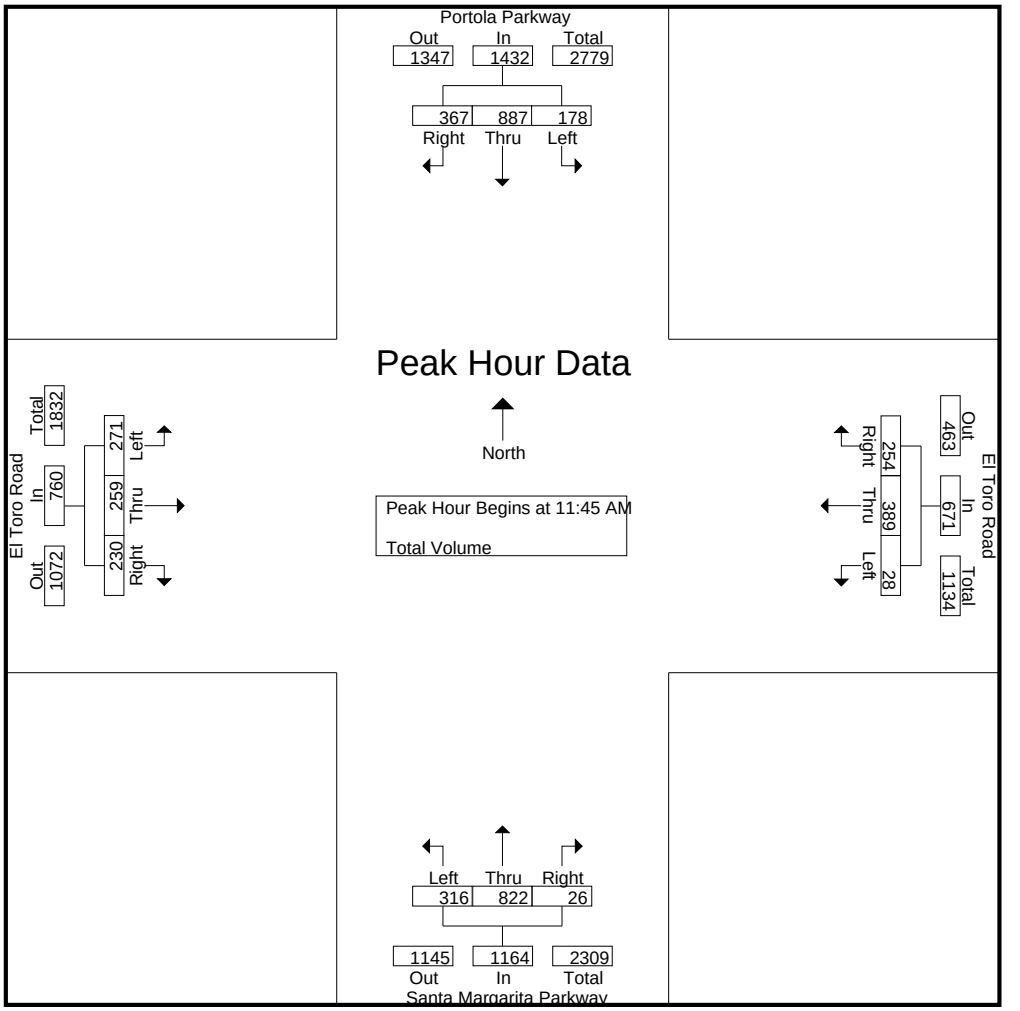
City of Lake Forest
N/S: Portola Pwky/Santa Margarita Pkwy
E/W: El Toro Road (County Highway S18)
Weather: Clear

File Name : 04_LKF_Portola_Santa Margarita_El Toro SUN
Site Code : 99915000
Start Date : 11/5/2017
Page No : 2



Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	11:45 AM				11:15 AM				12:30 PM				11:15 AM			
+0 mins.	**56**	221	114	391	4	60	41	105	81	200	5	286	43	44	55	142
+15 mins.	39	**269**	**115**	**423**	6	56	49	111	86	**224**	6	**316**	80	72	58	210
+30 mins.	37	191	80	308	**15**	**179**	**121**	**315**	75	205	**13**	293	**105**	**88**	**63**	**256**
+45 mins.	46	206	58	310	6	95	55	156	**102**	190	10	302	84	66	52	202
Total Volume	178	887	367	1432	31	390	266	687	344	819	34	1197	312	270	228	810
% App. Total	12.4	61.9	25.6		4.5	56.8	38.7		28.7	68.4	2.8		38.5	33.3	28.1	
PHF	.795	.824	.798	.846	.517	.545	.550	.545	.843	.914	.654	.947	.743	.767	.905	.791

Counts Unlimited
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City of Lake Forest
N/S: Los Alisos Boulevard
E/W: Santa Margarita Parkway
Weather: Clear

File Name : 05_MSV_Los Alisos_Santa Margarita SAT
Site Code : 10517754
Start Date : 11/4/2017
Page No : 1

Groups Printed- Total Volume

	Los Alisos Boulevard Southbound				Santa Margarita Parkway Westbound				Los Alisos Boulevard Northbound				Santa Margarita Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
03:00 PM	6	15	16	37	23	222	20	265	56	36	20	112	17	271	36	324	738
03:15 PM	13	28	20	61	34	222	20	276	68	54	32	154	13	237	40	290	781
03:30 PM	12	19	13	44	29	237	15	281	68	53	30	151	22	223	35	280	756
03:45 PM	15	28	21	64	29	204	24	257	70	50	34	154	19	260	42	321	796
Total	46	90	70	206	115	885	79	1079	262	193	116	571	71	991	153	1215	3071
04:00 PM	12	30	17	59	30	196	21	247	52	52	32	136	17	241	41	299	741
04:15 PM	15	30	13	58	35	208	15	258	62	51	23	136	17	229	38	284	736
04:30 PM	9	39	10	58	30	196	11	237	66	45	41	152	12	263	36	311	758
04:45 PM	10	25	11	46	31	192	23	246	58	36	26	120	12	243	46	301	713
Total	46	124	51	221	126	792	70	988	238	184	122	544	58	976	161	1195	2948
05:00 PM	11	28	17	56	21	217	15	253	51	33	36	120	8	263	40	311	740
05:15 PM	4	35	13	52	26	182	13	221	38	29	32	99	24	227	32	283	655
05:30 PM	13	30	20	63	22	193	21	236	65	39	27	131	9	232	35	276	706
05:45 PM	17	28	16	61	26	190	19	235	66	50	33	149	20	253	44	317	762
Total	45	121	66	232	95	782	68	945	220	151	128	499	61	975	151	1187	2863
06:00 PM	14	31	19	64	30	216	17	263	38	45	33	116	15	230	44	289	732
06:15 PM	12	15	12	39	26	216	22	264	58	38	29	125	21	248	54	323	751
06:30 PM	16	20	16	52	28	180	13	221	64	39	18	121	21	222	46	289	683
06:45 PM	9	21	8	38	20	178	15	213	47	33	27	107	22	191	32	245	603
Total	51	87	55	193	104	790	67	961	207	155	107	469	79	891	176	1146	2769
Grand Total	188	422	242	852	440	3249	284	3973	927	683	473	2083	269	3833	641	4743	11651
Apprch %	22.1	49.5	28.4		11.1	81.8	7.1		44.5	32.8	22.7		5.7	80.8	13.5		
Total %	1.6	3.6	2.1	7.3	3.8	27.9	2.4	34.1	8	5.9	4.1	17.9	2.3	32.9	5.5	40.7	

	Los Alisos Boulevard Southbound				Santa Margarita Parkway Westbound				Los Alisos Boulevard Northbound				Santa Margarita Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:15 PM																	
03:15 PM	13	28	20	61	**34**	222	20	276	68	**54**	32	**154**	13	237	40	290	781
03:30 PM	12	19	13	44	29	**237**	15	**281**	68	53	30	151	**22**	223	35	280	756
03:45 PM	**15**	28	**21**	**64**	29	204	**24**	257	**70**	50	**34**	154	19	**260**	**42**	**321**	**796**
04:00 PM	12	**30**	17	59	30	196	21	247	52	52	32	136	17	241	41	299	741
Total Volume	52	105	71	228	122	859	80	1061	258	209	128	595	71	961	158	1190	3074
% App. Total	22.8	46.1	31.1		11.5	81	7.5		43.4	35.1	21.5		6	80.8	13.3		
PHF	.867	.875	.845	.891	.897	.906	.833	.944	.921	.968	.941	.966	.807	.924	.940	.927	.965

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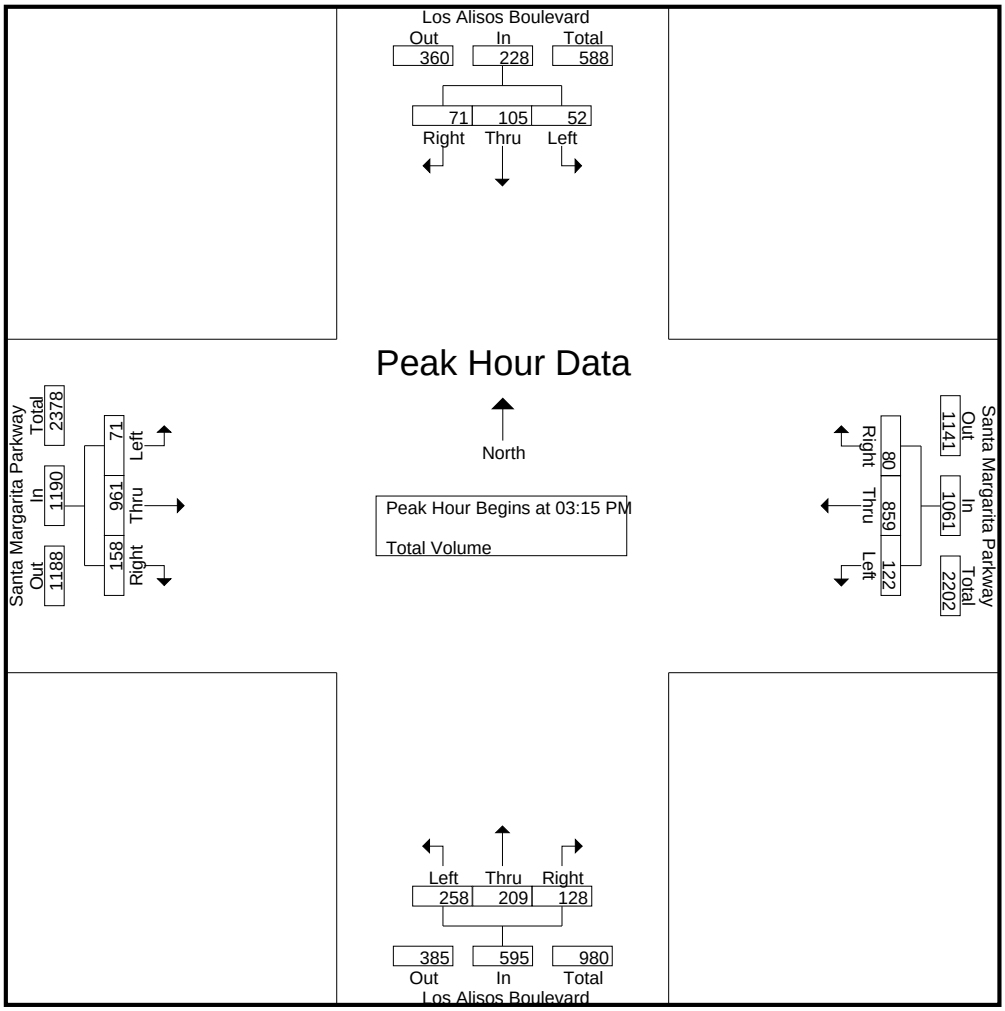
City of Lake Forest
N/S: Los Alisos Boulevard
E/W: Santa Margarita Parkway
Weather: Clear

File Name : 05_MSV_Los Alisos_Santa Margarita SAT
Site Code : 10517754
Start Date : 11/4/2017
Page No : 2



Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:15 PM				03:00 PM				03:15 PM				05:45 PM			
+0 mins.	4	**35**	13	52	23	222	20	265	68	**54**	32	**154**	20	**253**	44	317
+15 mins.	13	30	**20**	63	**34**	222	20	276	68	53	30	151	15	230	44	289
+30 mins.	**17**	28	16	61	29	**237**	15	**281**	**70**	50	**34**	154	**21**	248	**54**	**323**
+45 mins.	14	31	19	**64**	29	204	**24**	257	52	52	32	136	21	222	46	289
Total Volume	48	124	68	240	115	885	79	1079	258	209	128	595	77	953	188	1218
% App. Total	20	51.7	28.3		10.7	82	7.3		43.4	35.1	21.5		6.3	78.2	15.4	
PHF	.706	.886	.850	.938	.846	.934	.823	.960	.921	.968	.941	.966	.917	.942	.870	.943

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City of Lake Forest
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File Name : 05_MSV_Los Alisos_Santa Margarita SUN
Site Code : 10517754
Start Date : 11/5/2017
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Groups Printed- Total Volume

	Los Alisos Boulevard Southbound				Santa Margarita Parkway Westbound				Los Alisos Boulevard Northbound				Santa Margarita Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
10:00 AM	12	23	9	44	21	151	15	187	48	36	19	103	7	120	27	154	488
10:15 AM	12	30	11	53	23	155	6	184	47	19	13	79	12	122	25	159	475
10:30 AM	12	25	15	52	13	149	10	172	37	29	24	90	9	154	30	193	507
10:45 AM	17	30	19	66	33	165	8	206	44	29	31	104	9	159	20	188	564
Total	53	108	54	215	90	620	39	749	176	113	87	376	37	555	102	694	2034
11:00 AM	15	33	14	62	24	178	13	215	57	22	18	97	10	151	28	189	563
11:15 AM	7	31	12	50	14	176	6	196	47	28	39	114	11	181	31	223	583
11:30 AM	14	18	13	45	26	185	7	218	64	45	21	130	6	173	36	215	608
11:45 AM	24	50	19	93	29	226	13	268	59	51	29	139	13	235	44	292	792
Total	60	132	58	250	93	765	39	897	227	146	107	480	40	740	139	919	2546
12:00 PM	17	50	18	85	19	188	9	216	64	42	25	131	16	255	54	325	757
12:15 PM	14	37	12	63	25	200	14	239	49	25	25	99	12	185	31	228	629
12:30 PM	23	33	16	72	42	223	16	281	54	32	24	110	13	257	28	298	761
12:45 PM	10	28	21	59	39	229	19	287	63	38	35	136	17	207	49	273	755
Total	64	148	67	279	125	840	58	1023	230	137	109	476	58	904	162	1124	2902
01:00 PM	12	21	8	41	35	220	11	266	57	36	40	133	14	210	45	269	709
01:15 PM	15	35	19	69	43	194	15	252	60	38	34	132	10	212	31	253	706
01:30 PM	20	34	17	71	30	187	19	236	76	45	44	165	11	215	34	260	732
01:45 PM	17	39	13	69	35	237	21	293	60	40	30	130	22	295	44	361	853
Total	64	129	57	250	143	838	66	1047	253	159	148	560	57	932	154	1143	3000
Grand Total	241	517	236	994	451	3063	202	3716	886	555	451	1892	192	3131	557	3880	10482
Apprch %	24.2	52	23.7		12.1	82.4	5.4		46.8	29.3	23.8		4.9	80.7	14.4		
Total %	2.3	4.9	2.3	9.5	4.3	29.2	1.9	35.5	8.5	5.3	4.3	18	1.8	29.9	5.3	37	

	Los Alisos Boulevard Southbound				Santa Margarita Parkway Westbound				Los Alisos Boulevard Northbound				Santa Margarita Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 01:00 PM																	
01:00 PM	12	21	8	41	35	220	11	266	57	36	40	133	14	210	**45**	269	709
01:15 PM	15	35	**19**	69	**43**	194	15	252	60	38	34	132	10	212	31	253	706
01:30 PM	**20**	34	17	**71**	30	187	19	236	**76**	**45**	**44**	**165**	11	215	34	260	732
01:45 PM	17	**39**	13	69	35	**237**	**21**	**293**	60	40	30	130	**22**	**295**	44	**361**	**853**
Total Volume	64	129	57	250	143	838	66	1047	253	159	148	560	57	932	154	1143	3000
% App. Total	25.6	51.6	22.8		13.7	80	6.3		45.2	28.4	26.4		5	81.5	13.5		
PHF	.800	.827	.750	.880	.831	.884	.786	.893	.832	.883	.841	.848	.648	.790	.856	.792	.879

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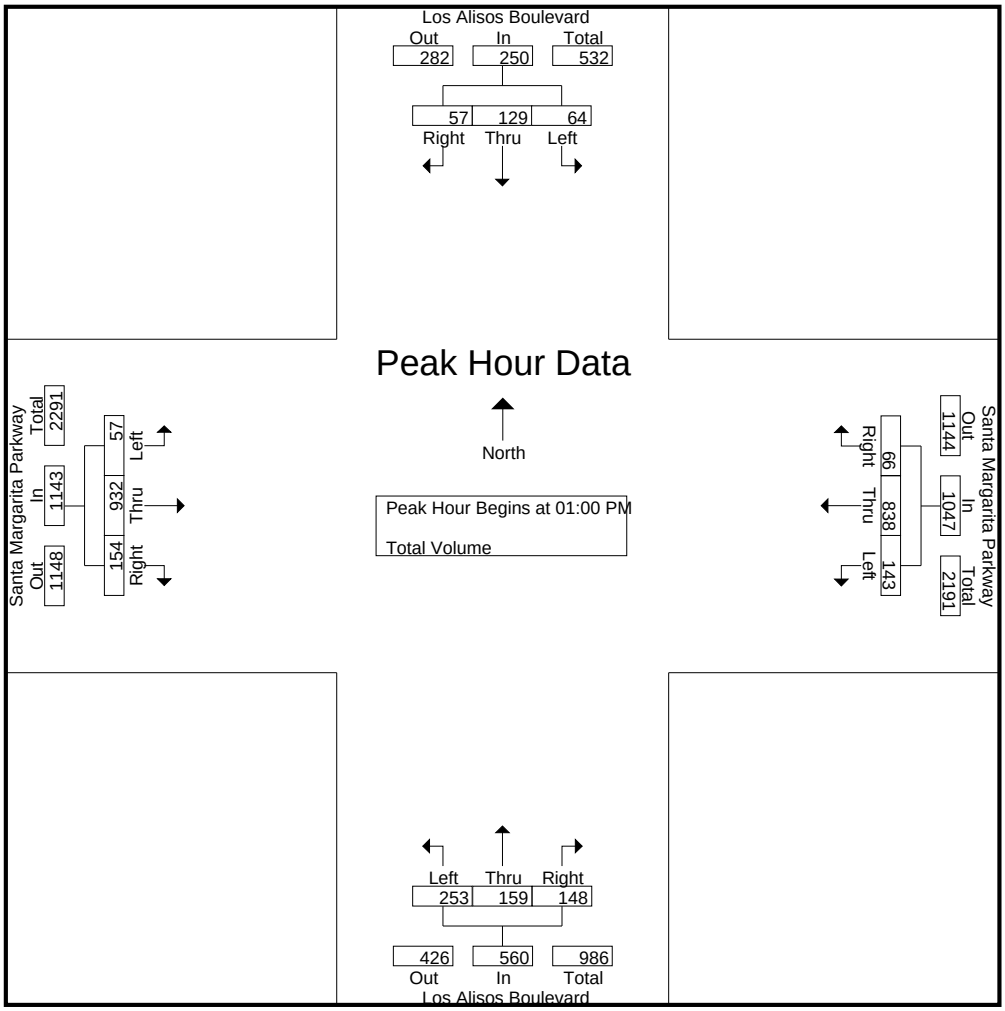
City of Lake Forest
N/S: Los Alisos Boulevard
E/W: Santa Margarita Parkway
Weather: Clear

File Name : 05_MSV_Los Alisos_Santa Margarita SUN
Site Code : 10517754
Start Date : 11/5/2017
Page No : 2



Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	11:45 AM				12:30 PM				12:45 PM				11:45 AM			
+0 mins.	**24**	**50**	**19**	**93**	42	223	16	281	63	38	35	136	13	235	44	292
+15 mins.	17	50	18	85	39	**229**	**19**	**287**	57	36	40	133	**16**	255	**54**	**325**
+30 mins.	14	37	12	63	35	220	11	266	60	38	34	132	12	185	31	228
+45 mins.	23	33	16	72	**43**	194	15	252	**76**	**45**	**44**	**165**	13	**257**	28	298
Total Volume	78	170	65	313	159	866	61	1086	256	157	153	566	54	932	157	1143
% App. Total	24.9	54.3	20.8		14.6	79.7	5.6		45.2	27.7	27		4.7	81.5	13.7	
PHF	.813	.850	.855	.841	.924	.945	.803	.946	.842	.872	.869	.858	.844	.907	.727	.879

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City of Mission Viejo
N/S: Marguerite Parkway
E/W: El Toro Road (County Highway S18)
Weather: Clear

File Name : 06_MSV_Marguerite_El Toro SAT
Site Code : 10517754
Start Date : 11/4/2017
Page No : 1

Groups Printed- Total Volume

	Saddleback Church Driveway Southbound				El Toro Road Westbound				Marguerite Parkway Northbound				El Toro Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
03:00 PM	0	6	0	6	55	49	0	104	30	15	84	129	9	63	46	118	357
03:15 PM	1	7	1	9	80	53	5	138	37	57	78	172	20	67	45	132	451
03:30 PM	0	8	4	12	56	53	9	118	39	84	77	200	36	51	45	132	462
03:45 PM	2	5	4	11	58	51	24	133	35	154	74	263	71	57	40	168	575
Total	3	26	9	38	249	206	38	493	141	310	313	764	136	238	176	550	1845
04:00 PM	0	4	1	5	76	65	6	147	46	70	87	203	30	61	61	152	507
04:15 PM	1	6	7	14	74	50	2	126	43	16	88	147	4	41	50	95	382
04:30 PM	1	4	2	7	69	54	2	125	44	5	87	136	1	53	38	92	360
04:45 PM	0	2	4	6	74	57	0	131	33	3	65	101	3	55	43	101	339
Total	2	16	14	32	293	226	10	529	166	94	327	587	38	210	192	440	1588
05:00 PM	1	3	1	5	62	59	1	122	24	11	65	100	6	58	42	106	333
05:15 PM	3	9	4	16	52	49	3	104	35	17	60	112	9	48	49	106	338
05:30 PM	1	9	19	29	76	45	9	130	39	38	69	146	34	43	43	120	425
05:45 PM	12	244	178	434	69	43	9	121	41	120	78	239	51	55	40	146	940
Total	17	265	202	484	259	196	22	477	139	186	272	597	100	204	174	478	2036
06:00 PM	8	76	61	145	72	36	6	114	31	55	59	145	31	56	51	138	542
06:15 PM	0	19	13	32	58	45	7	110	38	13	76	127	6	48	48	102	371
06:30 PM	2	8	2	12	40	25	1	66	35	6	75	116	3	34	43	80	274
06:45 PM	2	8	2	12	47	28	1	76	34	0	53	87	5	32	30	67	242
Total	12	111	78	201	217	134	15	366	138	74	263	475	45	170	172	387	1429
Grand Total	34	418	303	755	1018	762	85	1865	584	664	1175	2423	319	822	714	1855	6898
Apprch %	4.5	55.4	40.1		54.6	40.9	4.6		24.1	27.4	48.5		17.2	44.3	38.5		
Total %	0.5	6.1	4.4	10.9	14.8	11	1.2	27	8.5	9.6	17	35.1	4.6	11.9	10.4	26.9	

	Saddleback Church Driveway Southbound				El Toro Road Westbound				Marguerite Parkway Northbound				El Toro Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:30 PM																	
05:30 PM	1	9	19	29	**76**	**45**	**9**	**130**	39	38	69	146	34	43	43	120	425
05:45 PM	**12**	**244**	**178**	**434**	69	43	9	121	**41**	**120**	**78**	**239**	**51**	55	40	**146**	**940**
06:00 PM	8	76	61	145	72	36	6	114	31	55	59	145	31	**56**	**51**	138	542
06:15 PM	0	19	13	32	58	45	7	110	38	13	76	127	6	48	48	102	371
Total Volume	21	348	271	640	275	169	31	475	149	226	282	657	122	202	182	506	2278
% App. Total	3.3	54.4	42.3		57.9	35.6	6.5		22.7	34.4	42.9		24.1	39.9	36		
PHF	.438	.357	.381	.369	.905	.939	.861	.913	.909	.471	.904	.687	.598	.902	.892	.866	.606

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City of Mission Viejo
N/S: Marguerite Parkway
E/W: El Toro Road (County Highway S18)
Weather: Clear

File Name : 06_MSV_Marguerite_El Toro SAT
Site Code : 10517754
Start Date : 11/4/2017
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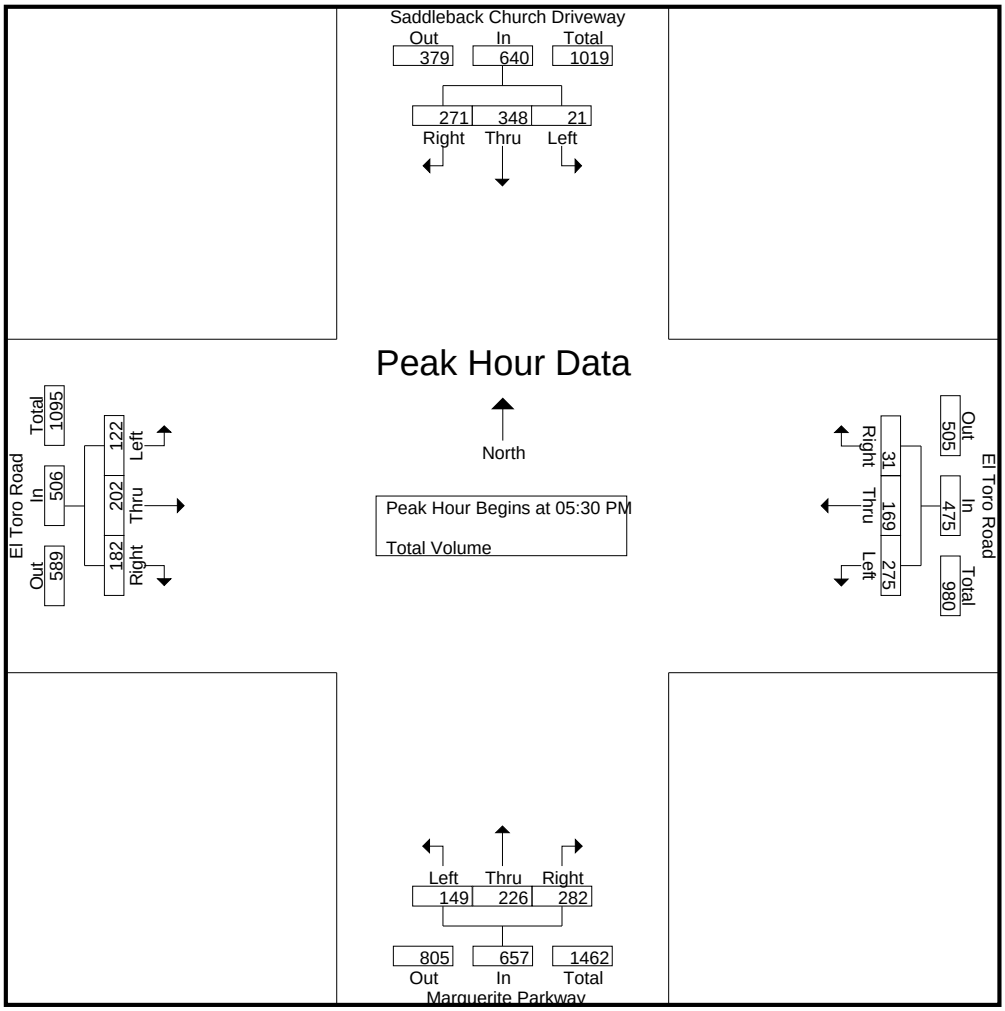

Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:30 PM				03:15 PM				03:15 PM				03:15 PM			
+0 mins.	1	9	19	29	**80**	53	5	138	37	57	78	172	20	**67**	45	132
+15 mins.	**12**	**244**	**178**	**434**	56	53	9	118	39	84	77	200	36	51	45	132
+30 mins.	8	76	61	145	58	51	**24**	133	35	**154**	74	**263**	**71**	57	40	**168**
+45 mins.	0	19	13	32	76	**65**	6	**147**	**46**	70	**87**	203	30	61	**61**	152
Total Volume	21	348	271	640	270	222	44	536	157	365	316	838	157	236	191	584
% App. Total	3.3	54.4	42.3		50.4	41.4	8.2		18.7	43.6	37.7		26.9	40.4	32.7	
PHF	.438	.357	.381	.369	.844	.854	.458	.912	.853	.593	.908	.797	.553	.881	.783	.869

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City of Mission Viejo
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File Name : 06_MSV_Marguerite_El Toro SUN
Site Code : 10517754
Start Date : 11/5/2017
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Groups Printed- Total Volume

	Saddleback Church Driveway Southbound				El Toro Road Westbound				Marguerite Parkway Northbound				El Toro Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
10:00 AM	3	3	9	15	48	32	13	93	36	116	45	197	51	31	21	103	408
10:15 AM	1	1	3	5	56	37	3	96	26	17	28	71	13	22	22	57	229
10:30 AM	1	2	2	5	61	43	2	106	40	8	46	94	3	27	23	53	258
10:45 AM	0	3	2	5	60	41	2	103	45	6	40	91	6	39	24	69	268
Total	5	9	16	30	225	153	20	398	147	147	159	453	73	119	90	282	1163
11:00 AM	0	3	3	6	62	41	1	104	31	4	38	73	4	29	18	51	234
11:15 AM	1	5	4	10	64	45	3	112	38	21	44	103	8	44	37	89	314
11:30 AM	7	39	39	85	62	36	4	102	45	71	47	163	48	34	13	95	445
11:45 AM	18	235	191	444	84	50	20	154	41	146	56	243	65	43	39	147	988
Total	26	282	237	545	272	172	28	472	155	242	185	582	125	150	107	382	1981
12:00 PM	12	102	33	147	70	46	18	134	53	131	44	228	46	45	27	118	627
12:15 PM	4	26	8	38	53	36	3	92	34	30	54	118	6	36	36	78	326
12:30 PM	0	14	9	23	51	42	0	93	39	10	63	112	6	49	35	90	318
12:45 PM	1	7	5	13	45	51	2	98	32	2	59	93	2	40	36	78	282
Total	17	149	55	221	219	175	23	417	158	173	220	551	60	170	134	364	1553
01:00 PM	2	8	1	11	57	49	1	107	32	3	53	88	1	49	37	87	293
01:15 PM	2	5	6	13	58	51	0	109	29	2	65	96	3	52	44	99	317
01:30 PM	8	114	121	243	76	60	0	136	31	6	57	94	1	46	33	80	553
01:45 PM	13	149	127	289	57	62	3	122	48	12	68	128	4	65	46	115	654
Total	25	276	255	556	248	222	4	474	140	23	243	406	9	212	160	381	1817
Grand Total	73	716	563	1352	964	722	75	1761	600	585	807	1992	267	651	491	1409	6514
Apprch %	5.4	53	41.6		54.7	41	4.3		30.1	29.4	40.5		18.9	46.2	34.8		
Total %	1.1	11	8.6	20.8	14.8	11.1	1.2	27	9.2	9	12.4	30.6	4.1	10	7.5	21.6	

	Saddleback Church Driveway Southbound				El Toro Road Westbound				Marguerite Parkway Northbound				El Toro Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:30 AM																	
11:30 AM	7	39	39	85	62	36	4	102	45	71	47	163	48	34	13	95	445
11:45 AM	**18**	**235**	**191**	**444**	**84**	**50**	**20**	**154**	41	**146**	**56**	**243**	**65**	43	**39**	**147**	**988**
12:00 PM	12	102	33	147	70	46	18	134	**53**	131	44	228	46	**45**	27	118	627
12:15 PM	4	26	8	38	53	36	3	92	34	30	54	118	6	36	36	78	326
Total Volume	41	402	271	714	269	168	45	482	173	378	201	752	165	158	115	438	2386
% App. Total	5.7	56.3	38		55.8	34.9	9.3		23	50.3	26.7		37.7	36.1	26.3		
PHF	.569	.428	.355	.402	.801	.840	.563	.782	.816	.647	.897	.774	.635	.878	.737	.745	.604

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Start Date : 11/5/2017
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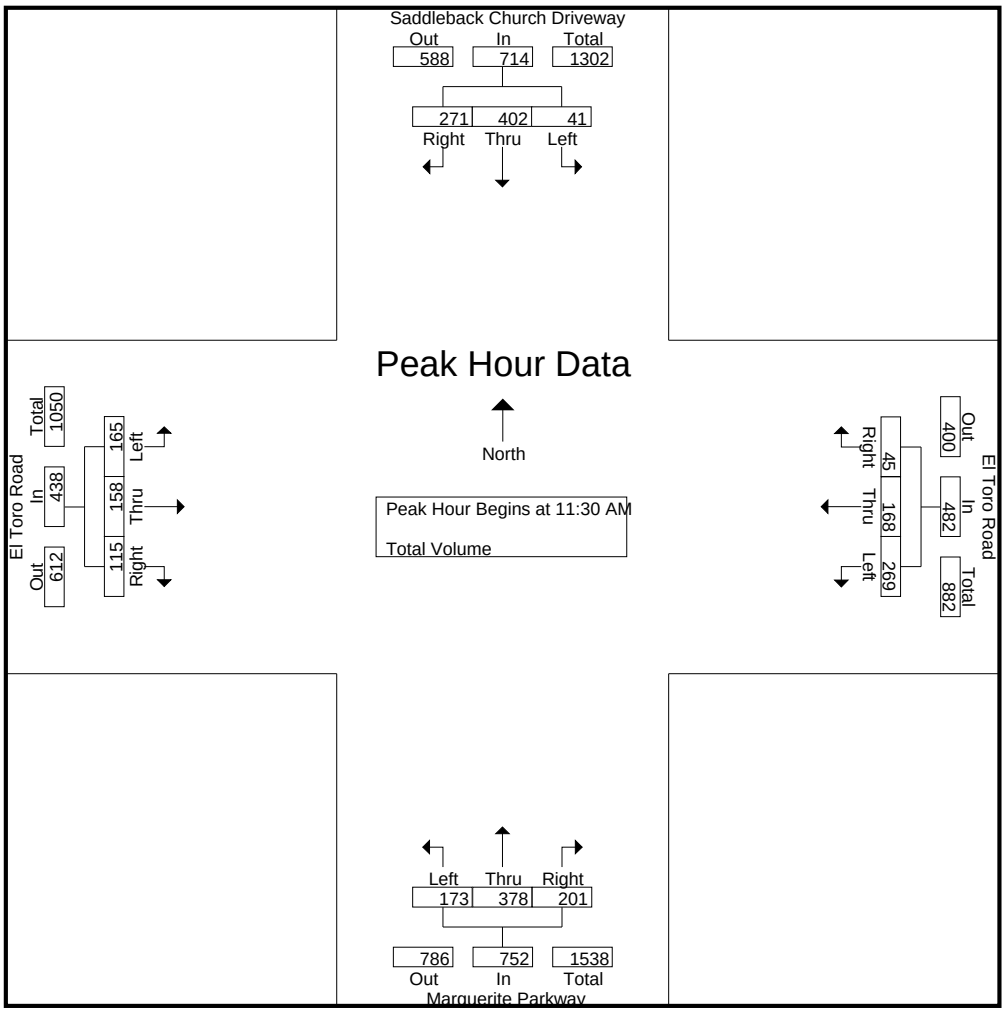

Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	11:30 AM				11:15 AM				11:30 AM				11:15 AM			
+0 mins.	7	39	39	85	64	45	3	112	45	71	47	163	8	44	37	89
+15 mins.	**18**	**235**	**191**	**444**	62	36	4	102	41	**146**	**56**	**243**	48	34	13	95
+30 mins.	12	102	33	147	**84**	**50**	**20**	**154**	**53**	131	44	228	**65**	43	**39**	**147**
+45 mins.	4	26	8	38	70	46	18	134	34	30	54	118	46	**45**	27	118
Total Volume	41	402	271	714	280	177	45	502	173	378	201	752	167	166	116	449
% App. Total	5.7	56.3	38		55.8	35.3	9		23	50.3	26.7		37.2	37	25.8	
PHF	.569	.428	.355	.402	.833	.885	.563	.815	.816	.647	.897	.774	.642	.922	.744	.764

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City of Mission Viejo
N/S: Marguerite Parkway
E/W: Los Alisos Boulevard
Weather: Clear

File Name : 07_MSV_Marguerite_Los Alisos SAT
Site Code : 10517754
Start Date : 11/4/2017
Page No : 1

Groups Printed- Total Volume

	Marguerite Parkway Southbound				Los Alisos Boulevard Westbound				Marguerite Parkway Northbound				Los Alisos Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
03:00 PM	46	58	5	109	41	20	47	108	0	75	24	99	22	28	7	57	373
03:15 PM	41	80	13	134	30	29	40	99	2	105	36	143	32	31	7	70	446
03:30 PM	31	62	8	101	43	25	50	118	7	135	36	178	34	37	4	75	472
03:45 PM	44	50	12	106	35	31	65	131	4	169	32	205	30	34	6	70	512
Total	162	250	38	450	149	105	202	456	13	484	128	625	118	130	24	272	1803
04:00 PM	46	94	11	151	27	35	56	118	5	113	38	156	40	31	6	77	502
04:15 PM	39	64	16	119	35	28	50	113	4	67	35	106	27	37	3	67	405
04:30 PM	38	71	12	121	28	31	45	104	1	73	34	108	24	29	5	58	391
04:45 PM	39	70	9	118	27	23	27	77	3	60	31	94	18	27	4	49	338
Total	162	299	48	509	117	117	178	412	13	313	138	464	109	124	18	251	1636
05:00 PM	31	58	7	96	32	41	27	100	3	63	30	96	11	24	6	41	333
05:15 PM	47	61	9	117	30	34	27	91	8	71	34	113	11	30	7	48	369
05:30 PM	46	69	9	124	31	41	54	126	3	79	27	109	20	36	5	61	420
05:45 PM	77	239	37	353	30	22	59	111	2	156	40	198	28	37	7	72	734
Total	201	427	62	690	123	138	167	428	16	369	131	516	70	127	25	222	1856
06:00 PM	63	118	23	204	44	30	42	116	3	86	31	120	20	30	5	55	495
06:15 PM	47	71	11	129	33	21	30	84	1	74	32	107	19	37	4	60	380
06:30 PM	40	48	5	93	40	26	30	96	3	67	51	121	17	35	7	59	369
06:45 PM	24	52	7	83	37	24	28	89	3	40	32	75	18	34	1	53	300
Total	174	289	46	509	154	101	130	385	10	267	146	423	74	136	17	227	1544
Grand Total	699	1265	194	2158	543	461	677	1681	52	1433	543	2028	371	517	84	972	6839
Apprch %	32.4	58.6	9		32.3	27.4	40.3		2.6	70.7	26.8		38.2	53.2	8.6		
Total %	10.2	18.5	2.8	31.6	7.9	6.7	9.9	24.6	0.8	21	7.9	29.7	5.4	7.6	1.2	14.2	

	Marguerite Parkway Southbound				Los Alisos Boulevard Westbound				Marguerite Parkway Northbound				Los Alisos Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:30 PM																	
05:30 PM	46	69	9	124	31	**41**	54	**126**	**3**	79	27	109	20	36	5	61	420
05:45 PM	**77**	**239**	**37**	**353**	30	22	**59**	111	2	**156**	**40**	**198**	**28**	**37**	**7**	**72**	**734**
06:00 PM	63	118	23	204	**44**	30	42	116	3	86	31	120	20	30	5	55	495
06:15 PM	47	71	11	129	33	21	30	84	1	74	32	107	19	37	4	60	380
Total Volume	233	497	80	810	138	114	185	437	9	395	130	534	87	140	21	248	2029
% App. Total	28.8	61.4	9.9		31.6	26.1	42.3		1.7	74	24.3		35.1	56.5	8.5		
PHF	.756	.520	.541	.574	.784	.695	.784	.867	.750	.633	.813	.674	.777	.946	.750	.861	.691

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City of Mission Viejo
N/S: Marguerite Parkway
E/W: Los Alisos Boulevard
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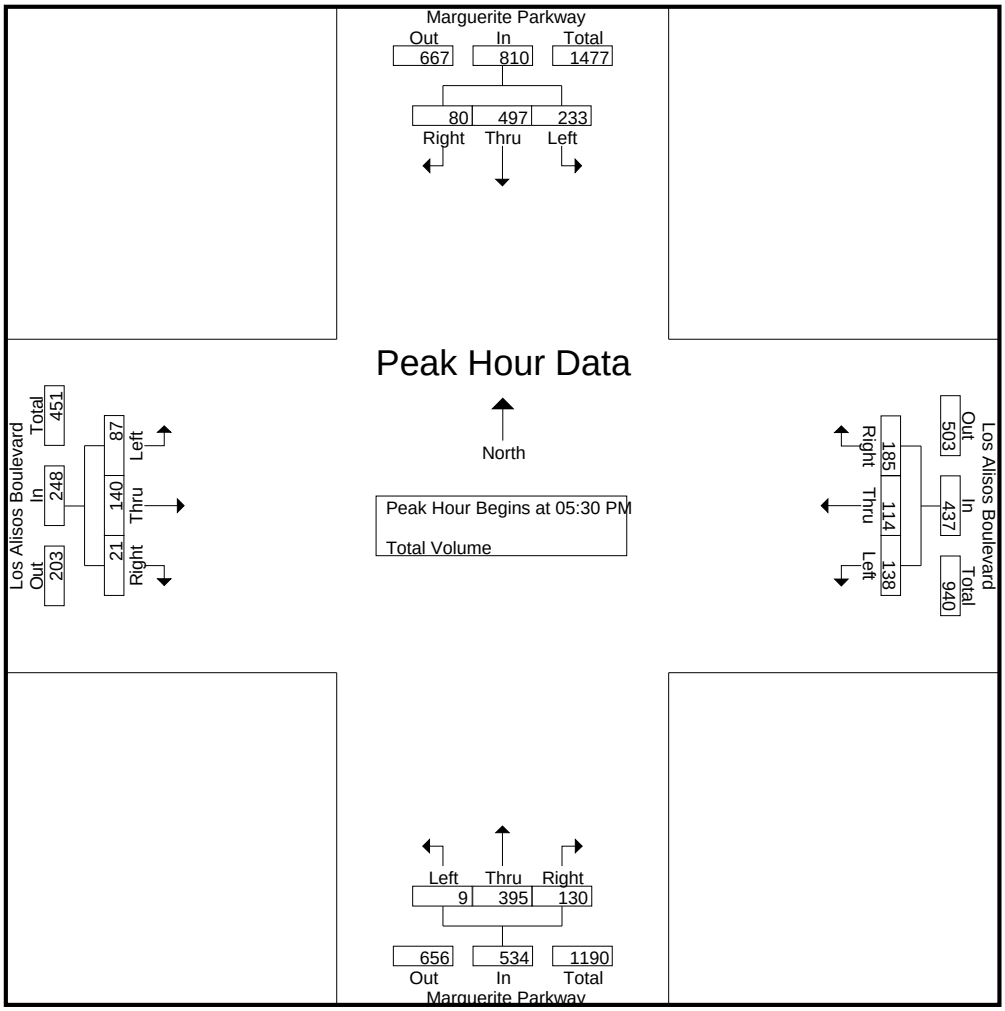
File Name : 07_MSV_Marguerite_Los Alisos SAT
Site Code : 10517754
Start Date : 11/4/2017
Page No : 2



Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:30 PM				03:30 PM				03:15 PM				03:15 PM			
+0 mins.	46	69	9	124	**43**	25	50	118	2	105	36	143	32	31	**7**	70
+15 mins.	**77**	**239**	**37**	**353**	35	31	**65**	**131**	**7**	135	36	178	34	**37**	4	75
+30 mins.	63	118	23	204	27	**35**	56	118	4	**169**	32	**205**	30	34	6	70
+45 mins.	47	71	11	129	35	28	50	113	5	113	**38**	156	**40**	31	6	**77**
Total Volume	233	497	80	810	140	119	221	480	18	522	142	682	136	133	23	292
% App. Total	28.8	61.4	9.9		29.2	24.8	46		2.6	76.5	20.8		46.6	45.5	7.9	
PHF	.756	.520	.541	.574	.814	.850	.850	.916	.643	.772	.934	.832	.850	.899	.821	.948

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City of Mission Viejo
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File Name : 07_MSV_Marguerite_Los Alisos SUN
Site Code : 10517754
Start Date : 11/5/2017
Page No : 1

Groups Printed- Total Volume

	Marguerite Parkway Southbound				Los Alisos Boulevard Westbound				Marguerite Parkway Northbound				Los Alisos Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
10:00 AM	22	41	8	71	22	18	60	100	1	88	15	104	30	11	5	46	321
10:15 AM	16	60	5	81	36	31	29	96	0	31	22	53	11	15	0	26	256
10:30 AM	16	50	14	80	33	23	38	94	2	45	18	65	9	27	2	38	277
10:45 AM	15	62	11	88	45	34	40	119	3	39	21	63	14	20	4	38	308
Total	69	213	38	320	136	106	167	409	6	203	76	285	64	73	11	148	1162
11:00 AM	16	57	17	90	34	25	35	94	5	27	15	47	14	19	1	34	265
11:15 AM	24	54	12	90	35	27	38	100	4	55	26	85	15	24	5	44	319
11:30 AM	32	75	12	119	42	22	53	117	5	93	33	131	25	24	2	51	418
11:45 AM	76	229	37	342	46	50	73	169	2	169	31	202	35	26	3	64	777
Total	148	415	78	641	157	124	199	480	16	344	105	465	89	93	11	193	1779
12:00 PM	45	156	17	218	40	33	53	126	5	101	25	131	29	24	7	60	535
12:15 PM	40	68	16	124	39	29	42	110	8	65	20	93	17	21	7	45	372
12:30 PM	37	55	9	101	25	44	35	104	2	64	35	101	16	24	9	49	355
12:45 PM	23	51	11	85	39	32	26	97	4	46	28	78	19	33	4	56	316
Total	145	330	53	528	143	138	156	437	19	276	108	403	81	102	27	210	1578
01:00 PM	32	59	10	101	25	26	25	76	4	48	24	76	12	20	10	42	295
01:15 PM	32	62	8	102	43	42	29	114	4	55	21	80	15	31	3	49	345
01:30 PM	55	137	27	219	28	33	29	90	4	51	33	88	20	40	2	62	459
01:45 PM	50	182	28	260	33	25	40	98	4	64	31	99	23	39	3	65	522
Total	169	440	73	682	129	126	123	378	16	218	109	343	70	130	18	218	1621
Grand Total	531	1398	242	2171	565	494	645	1704	57	1041	398	1496	304	398	67	769	6140
Apprch %	24.5	64.4	11.1		33.2	29	37.9		3.8	69.6	26.6		39.5	51.8	8.7		
Total %	8.6	22.8	3.9	35.4	9.2	8	10.5	27.8	0.9	17	6.5	24.4	5	6.5	1.1	12.5	

	Marguerite Parkway Southbound				Los Alisos Boulevard Westbound				Marguerite Parkway Northbound				Los Alisos Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:30 AM																	
11:30 AM	32	75	12	119	42	22	53	117	5	93	**33**	131	25	24	2	51	418
11:45 AM	**76**	**229**	**37**	**342**	**46**	**50**	**73**	**169**	2	**169**	31	**202**	**35**	**26**	3	**64**	**777**
12:00 PM	45	156	17	218	40	33	53	126	5	101	25	131	29	24	**7**	60	535
12:15 PM	40	68	16	124	39	29	42	110	**8**	65	20	93	17	21	7	45	372
Total Volume	193	528	82	803	167	134	221	522	20	428	109	557	106	95	19	220	2102
% App. Total	24	65.8	10.2		32	25.7	42.3		3.6	76.8	19.6		48.2	43.2	8.6		
PHF	.635	.576	.554	.587	.908	.670	.757	.772	.625	.633	.826	.689	.757	.913	.679	.859	.676

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City of Mission Viejo
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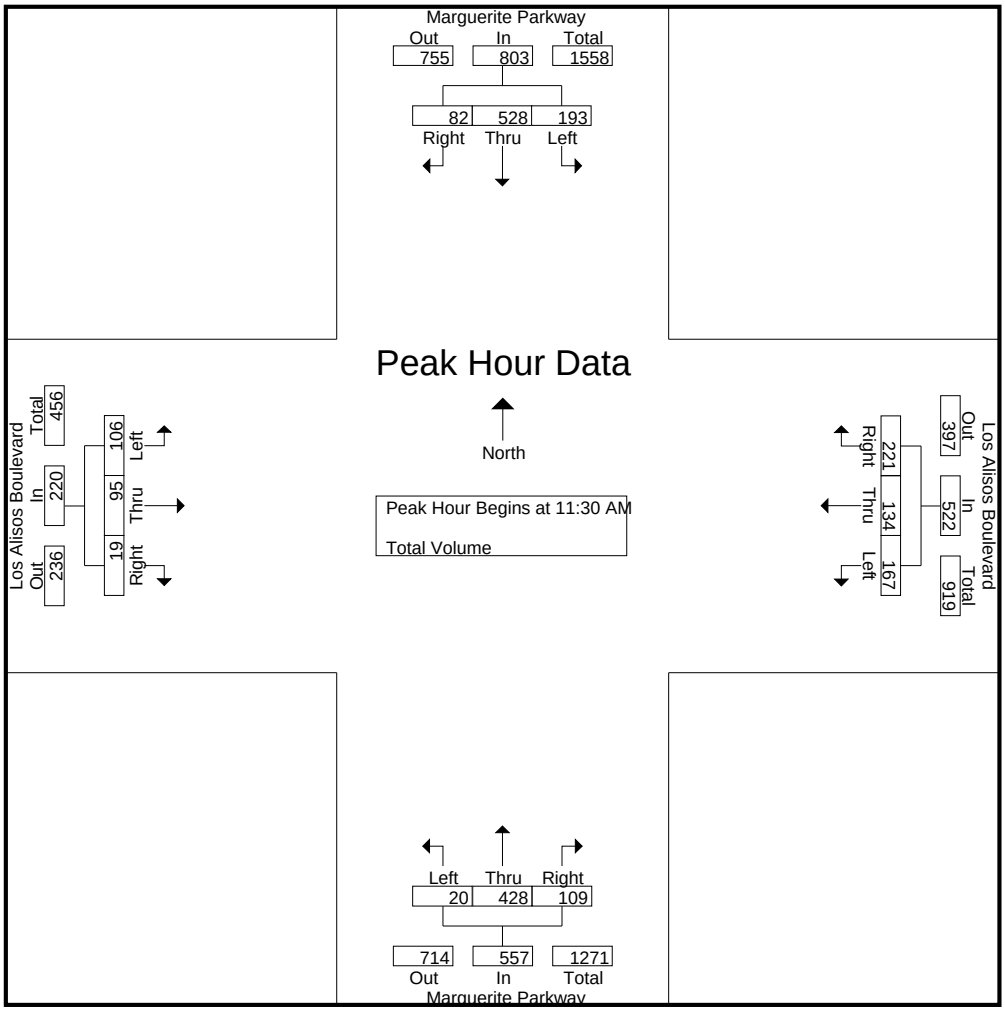
File Name : 07_MSV_Marguerite_Los Alisos SUN
Site Code : 10517754
Start Date : 11/5/2017
Page No : 2



Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	11:30 AM				11:30 AM				11:30 AM				11:30 AM			
+0 mins.	32	75	12	119	42	22	53	117	5	93	**33**	131	25	24	2	51
+15 mins.	**76**	**229**	**37**	**342**	**46**	**50**	**73**	**169**	2	**169**	31	**202**	**35**	**26**	3	**64**
+30 mins.	45	156	17	218	40	33	53	126	5	101	25	131	29	24	**7**	60
+45 mins.	40	68	16	124	39	29	42	110	**8**	65	20	93	17	21	7	45
Total Volume	193	528	82	803	167	134	221	522	20	428	109	557	106	95	19	220
% App. Total	24	65.8	10.2		32	25.7	42.3		3.6	76.8	19.6		48.2	43.2	8.6	
PHF	.635	.576	.554	.587	.908	.670	.757	.772	.625	.633	.826	.689	.757	.913	.679	.859

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City of Mission Viejo
N/S: Marguerite Parkway
E/W: Santa Margarita Parkway
Weather: Clear

File Name : 08_MSV_Marguerite_Santa Margarita SAT
Site Code : 10517754
Start Date : 11/4/2017
Page No : 1

Groups Printed- Total Volume

	Marguerite Parkway Southbound				Santa Margarita Parkway Westbound				Marguerite Parkway Northbound				Santa Margarita Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
03:00 PM	24	81	16	121	44	166	27	237	91	61	28	180	30	194	68	292	830
03:15 PM	39	72	10	121	38	170	28	236	85	76	30	191	41	209	71	321	869
03:30 PM	27	80	22	129	34	144	45	223	89	99	20	208	27	215	67	309	869
03:45 PM	29	68	11	108	38	150	51	239	77	131	14	222	28	189	76	293	862
Total	119	301	59	479	154	630	151	935	342	367	92	801	126	807	282	1215	3430
04:00 PM	41	82	18	141	33	145	32	210	75	91	17	183	34	132	78	244	778
04:15 PM	51	65	9	125	37	163	22	222	64	59	13	136	33	182	71	286	769
04:30 PM	37	78	9	124	26	165	13	204	63	71	29	163	30	192	77	299	790
04:45 PM	39	74	10	123	25	137	20	182	67	54	28	149	27	169	78	274	728
Total	168	299	46	513	121	610	87	818	269	275	87	631	124	675	304	1103	3065
05:00 PM	39	64	12	115	30	140	21	191	74	71	29	174	19	183	76	278	758
05:15 PM	35	73	13	121	31	148	25	204	73	55	19	147	37	155	70	262	734
05:30 PM	40	75	8	123	38	139	26	203	73	90	20	183	29	173	54	256	765
05:45 PM	64	176	13	253	24	160	55	239	73	113	26	212	27	158	68	253	957
Total	178	388	46	612	123	587	127	837	293	329	94	716	112	669	268	1049	3214
06:00 PM	62	108	21	191	17	154	22	193	74	70	27	171	35	169	68	272	827
06:15 PM	37	97	8	142	25	129	24	178	77	58	16	151	27	191	69	287	758
06:30 PM	33	65	14	112	25	128	25	178	68	63	16	147	25	158	66	249	686
06:45 PM	29	55	6	90	19	125	12	156	59	42	20	121	28	136	67	231	598
Total	161	325	49	535	86	536	83	705	278	233	79	590	115	654	270	1039	2869
Grand Total	626	1313	200	2139	484	2363	448	3295	1182	1204	352	2738	477	2805	1124	4406	12578
Apprch %	29.3	61.4	9.4		14.7	71.7	13.6		43.2	44	12.9		10.8	63.7	25.5		
Total %	5	10.4	1.6	17	3.8	18.8	3.6	26.2	9.4	9.6	2.8	21.8	3.8	22.3	8.9	35	

	Marguerite Parkway Southbound				Santa Margarita Parkway Westbound				Marguerite Parkway Northbound				Santa Margarita Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:00 PM																	
03:00 PM	24	**81**	16	121	**44**	166	27	237	**91**	61	28	180	30	194	68	292	830
03:15 PM	**39**	72	10	121	38	**170**	28	236	85	76	**30**	191	**41**	209	71	**321**	**869**
03:30 PM	27	80	**22**	**129**	34	144	45	223	89	99	20	208	27	**215**	67	309	869
03:45 PM	29	68	11	108	38	150	**51**	**239**	77	**131**	14	**222**	28	189	**76**	293	862
Total Volume	119	301	59	479	154	630	151	935	342	367	92	801	126	807	282	1215	3430
% App. Total	24.8	62.8	12.3		16.5	67.4	16.1		42.7	45.8	11.5		10.4	66.4	23.2		
PHF	.763	.929	.670	.928	.875	.926	.740	.978	.940	.700	.767	.902	.768	.938	.928	.946	.987

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File Name : 08_MSV_Marguerite_Santa Margarita SAT
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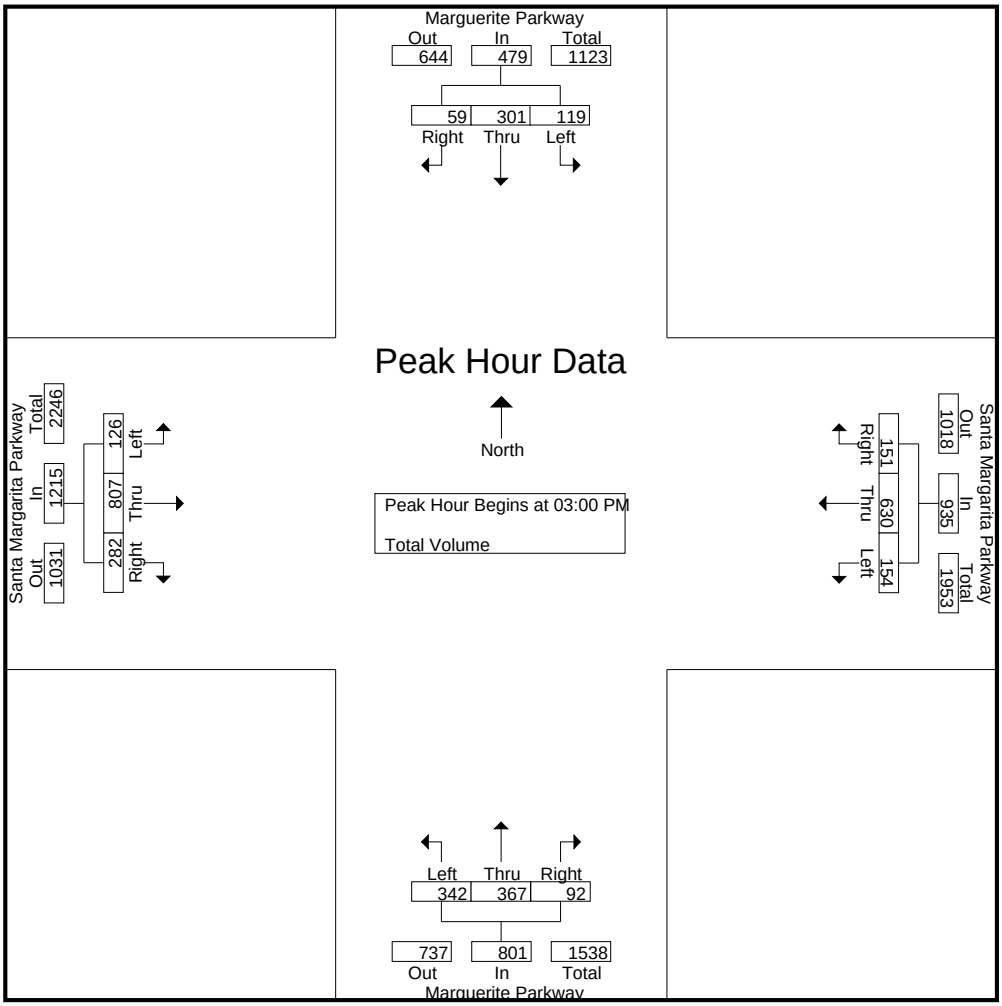

Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:30 PM				03:00 PM				03:15 PM				03:00 PM			
+0 mins.	40	75	8	123	**44**	166	27	237	85	76	**30**	191	30	194	68	292
+15 mins.	**64**	**176**	13	**253**	38	**170**	28	236	**89**	99	20	208	**41**	209	71	**321**
+30 mins.	62	108	**21**	191	34	144	45	223	77	**131**	14	**222**	27	**215**	67	309
+45 mins.	37	97	8	142	38	150	**51**	**239**	75	91	17	183	28	189	**76**	293
Total Volume	203	456	50	709	154	630	151	935	326	397	81	804	126	807	282	1215
% App. Total	28.6	64.3	7.1		16.5	67.4	16.1		40.5	49.4	10.1		10.4	66.4	23.2	
PHF	.793	.648	.595	.701	.875	.926	.740	.978	.916	.758	.675	.905	.768	.938	.928	.946

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File Name : 08_MSV_Marguerite_Santa Margarita SUN
Site Code : 10517754
Start Date : 11/5/2017
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Groups Printed- Total Volume

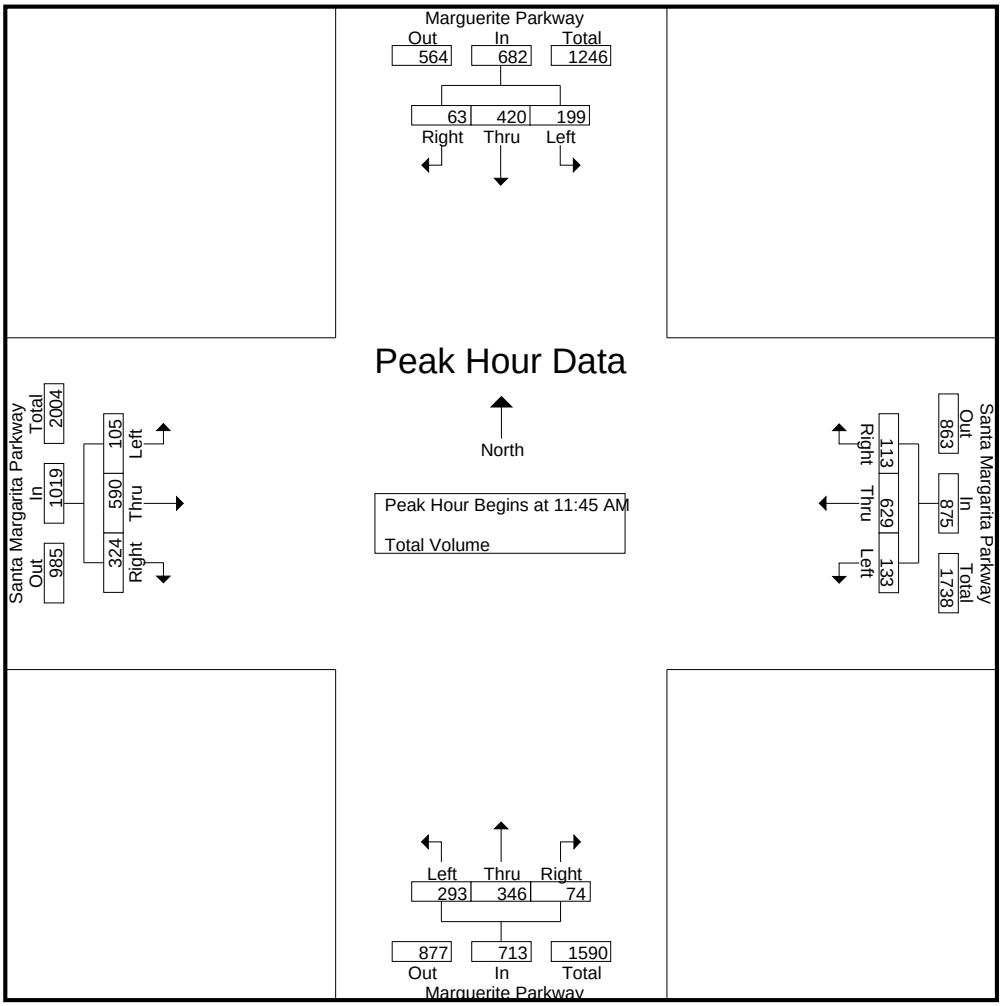
	Marguerite Parkway Southbound				Santa Margarita Parkway Westbound				Marguerite Parkway Northbound				Santa Margarita Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
10:00 AM	19	35	11	65	22	116	35	173	55	51	7	113	9	86	33	128	479
10:15 AM	16	75	9	100	20	113	10	143	58	28	9	95	24	91	38	153	491
10:30 AM	27	71	10	108	23	112	16	151	68	31	16	115	16	117	38	171	545
10:45 AM	23	84	22	129	33	148	9	190	59	37	14	110	24	113	54	191	620
Total	85	265	52	402	98	489	70	657	240	147	46	433	73	407	163	643	2135
11:00 AM	29	69	13	111	37	161	16	214	77	23	15	115	19	117	44	180	620
11:15 AM	19	79	15	113	28	126	27	181	58	49	18	125	8	116	52	176	595
11:30 AM	25	73	20	118	23	132	47	202	81	71	17	169	23	114	51	188	677
11:45 AM	81	154	17	252	38	168	49	255	74	131	14	219	22	148	72	242	968
Total	154	375	65	594	126	587	139	852	290	274	64	628	72	495	219	786	2860
12:00 PM	61	136	19	216	25	132	23	180	72	101	21	194	28	146	89	263	853
12:15 PM	35	65	14	114	31	144	21	196	72	58	24	154	25	146	72	243	707
12:30 PM	22	65	13	100	39	185	20	244	75	56	15	146	30	150	91	271	761
12:45 PM	28	77	13	118	23	163	9	195	91	51	23	165	25	164	77	266	744
Total	146	343	59	548	118	624	73	815	310	266	83	659	108	606	329	1043	3065
01:00 PM	21	60	14	95	29	166	18	213	65	36	21	122	27	175	72	274	704
01:15 PM	43	78	17	138	39	171	20	230	64	42	18	124	20	164	55	239	731
01:30 PM	46	112	18	176	31	150	21	202	83	61	21	165	28	184	67	279	822
01:45 PM	66	125	21	212	31	178	18	227	96	51	16	163	33	197	99	329	931
Total	176	375	70	621	130	665	77	872	308	190	76	574	108	720	293	1121	3188
Grand Total	561	1358	246	2165	472	2365	359	3196	1148	877	269	2294	361	2228	1004	3593	11248
Apprch %	25.9	62.7	11.4		14.8	74	11.2		50	38.2	11.7		10	62	27.9		
Total %	5	12.1	2.2	19.2	4.2	21	3.2	28.4	10.2	7.8	2.4	20.4	3.2	19.8	8.9	31.9	

	Marguerite Parkway Southbound				Santa Margarita Parkway Westbound				Marguerite Parkway Northbound				Santa Margarita Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:45 AM																	
11:45 AM	**81**	**154**	17	**252**	38	168	**49**	**255**	74	**131**	14	**219**	22	148	72	242	**968**
12:00 PM	61	136	**19**	216	25	132	23	180	72	101	21	194	28	146	89	263	853
12:15 PM	35	65	14	114	31	144	21	196	72	58	**24**	154	25	146	72	243	707
12:30 PM	22	65	13	100	**39**	**185**	20	244	**75**	56	15	146	**30**	**150**	**91**	**271**	761
Total Volume	199	420	63	682	133	629	113	875	293	346	74	713	105	590	324	1019	3289
% App. Total	29.2	61.6	9.2		15.2	71.9	12.9		41.1	48.5	10.4		10.3	57.9	31.8		
PHF	.614	.682	.829	.677	.853	.850	.577	.858	.977	.660	.771	.814	.875	.983	.890	.940	.849

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

City of Mission Viejo
N/S: Marguerite Parkway
E/W: Santa Margarita Parkway
Weather: Clear

File Name : 08_MSV_Marguerite_Santa Margarita SUN
Site Code : 10517754
Start Date : 11/5/2017
Page No : 2



Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	11:30 AM				12:30 PM				11:30 AM				01:00 PM			
+0 mins.	25	73	**20**	118	**39**	**185**	**20**	**244**	**81**	71	17	169	27	175	72	274
+15 mins.	**81**	**154**	17	**252**	23	163	9	195	74	**131**	14	**219**	20	164	55	239
+30 mins.	61	136	19	216	29	166	18	213	72	101	21	194	28	184	67	279
+45 mins.	35	65	14	114	39	171	20	230	72	58	**24**	154	**33**	**197**	**99**	**329**
Total Volume	202	428	70	700	130	685	67	882	299	361	76	736	108	720	293	1121
% App. Total	28.9	61.1	10		14.7	77.7	7.6		40.6	49	10.3		9.6	64.2	26.1	
PHF	.623	.695	.875	.694	.833	.926	.838	.904	.923	.689	.792	.840	.818	.914	.740	.852

Appendix B

Existing Conditions
Intersection Analysis Worksheets

Saddleback Community Church New Worship Center TIS
Existing Condition
Saturday Peak Hour

Scenario Report

Scenario:	Ex_Saturday
Command:	Ex_Saturday
Volume:	Ex_Saturday
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	None
Trip Distribution:	Default
Paths:	Default Path
Routes:	Default Route
Configuration:	Existing

Saddleback Community Church New Worship Center TIS
Existing Condition
Saturday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Portola Parkway / SR - 241 On/Off-Ramp

Cycle (sec):	100	Critical Vol./Cap.(X):	0.257
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	16	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Ignore				Ignore				Ignore				Ignore			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	2	0	3	0 1	2	0	3	0 1	1	0	0	0 1	2	0	0	0 1
Volume Module:																
Base Vol:	198	720	77		113	631	60		38	0	199		86	0	108	
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:	198	720	77		113	631	60		38	0	199		86	0	108	
User Adj:	1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Volume:	198	720	0		113	631	0		38	0	0		86	0	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	198	720	0		113	631	0		38	0	0		86	0	0	
PCE Adj:	1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00	
MLF Adj:	1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00	
FinalVolume:	198	720	0		113	631	0		38	0	0		86	0	0	
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700		1700	1700	1700		1700	1700	1700		1700	1700	1700	
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:	2.00	3.00	1.00		2.00	3.00	1.00		1.00	0.00	1.00		2.00	0.00	1.00	
Final Sat.:	3400	5100	1700		3400	5100	1700		1700	0	1700		3400	0	1700	
Capacity Analysis Module:																
Vol/Sat:	0.06	0.14	0.00		0.03	0.12	0.00		0.02	0.00	0.00		0.03	0.00	0.00	
Crit Moves:	****					****				****			****			

Saddleback Community Church New Worship Center TIS
Existing Condition
Saturday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Portola Parkway / Rancho Parkway - Purpose Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.414
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	20	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Ovl				Ignore				Ovl			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	2	0	3	0 1	2	0	3	0 1	1	1	0	0 1	1	1	0	1 0
Volume Module:																
Base Vol:	334	788		8	172	697		47	65	88	404		122	132		200
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:	334	788		8	172	697		47	65	88	404		122	132		200
User Adj:	1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	0.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	1.00	
PHF Volume:	334	788		6	172	697		35	65	88		0	122	132		200
Reduct Vol:	0	0		0	0	0		0	0	0		0	0	0		0
Reduced Vol:	334	788		6	172	697		35	65	88		0	122	132		200
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	1.00	
FinalVolume:	334	788		6	172	697		35	65	88		0	122	132		200
OvlAdjVol:								0								114
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700		1700	1700	1700		1700	1700	1700		1700	1700	1700	
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:	2.00	3.00	1.00		2.00	3.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Sat.:	3400	5100	1700		3400	5100	1700		1700	1700	1700		1700	1700	1700	
Capacity Analysis Module:																
Vol/Sat:	0.10	0.15	0.00		0.05	0.14	0.02		0.04	0.05	0.00		0.07	0.08	0.12	
OvlAdjV/S:							0.00								0.07	
Crit Moves:	****					****				****				****		

Saddleback Community Church New Worship Center TIS
Existing Condition
Saturday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Portola Parkway / Saddleback Parkway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.369
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	19	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Ovl				Include				Include				Include			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	1	0	3	0 2	2	0	3	0 1	1	1	0	0 1	1	1	0	0 1
Volume Module:																
Base Vol:	89	965		189	31	1110		40	60		9	82	39		3	7
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:	89	965		189	31	1110		40	60		9	82	39		3	7
User Adj:	1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	0.75	
PHF 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 Volume:	89	965		142	31	1110		30	60		9	62	39		3	5
Reduct Vol:	0	0		0	0	0		0	0		0	0	0		0	0
Reduced Vol:	89	965		142	31	1110		30	60		9	62	39		3	5
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:	89	965		142	31	1110		30	60		9	62	39		3	5
OvlAdjVol:				100												
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700		1700	1700	1700		1700	1700	1700		1700	1700	1700	
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	3.00	2.00		2.00	3.00	1.00		1.74	0.26	1.00		1.86	0.14	1.00	
Final Sat.:	1700	5100	3400		3400	5100	1700		2957	443	1700		3157	243	1700	
Capacity Analysis Module:																
Vol/Sat:	0.05	0.19	0.04		0.01	0.22	0.02		0.02	0.02	0.04		0.01	0.01	0.00	
OvlAdjV/S:			0.03													
Crit Moves:	****					****						****		****		

Saddleback Community Church New Worship Center TIS
Existing Condition
Saturday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Portola Parkway - Santa Margarita Parkway / El Toro Road

Cycle (sec):	100	Critical Vol./Cap.(X):	0.555
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	26	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Ovl				Include				Include			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	2	0	4	0 1	2	0	3	0 1	1	0	3	0 1	1	0	3	0 1
Volume Module:																
Base Vol:	297	778	41	196	858	265	211	308	304	27	313	283				
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:	297	778	41	196	858	265	211	308	304	27	313	283				
User Adj:	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75				
PHF 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 Volume:	297	778	31	196	858	199	211	308	228	27	313	212				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	297	778	31	196	858	199	211	308	228	27	313	212				
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:	297	778	31	196	858	199	211	308	228	27	313	212				
OvlAdjVol:						0										
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700				
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:	2.00	4.00	1.00	2.00	3.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00				
Final Sat.:	3400	6800	1700	3400	5100	1700	1700	5100	1700	1700	5100	1700				
Capacity Analysis Module:																
Vol/Sat:	0.09	0.11	0.02	0.06	0.17	0.12	0.12	0.06	0.13	0.02	0.06	0.12				
OvlAdjV/S:						0.00										
Crit Moves:	****				****		****					****				

Saddleback Community Church New Worship Center TIS
Existing Condition
Saturday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Los Alisos Boulevard / Santa Margarita Parkway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.493
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	23	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0 1	1	0	2	0 1	1	0	3	0 1	1	0	3	0 1
Volume Module:																
Base Vol:	258	209	128	52	105	71	71	961	158	122	859	80				
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:	258	209	128	52	105	71	71	961	158	122	859	80				
User Adj:	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75				
PHF 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 Volume:	258	209	96	52	105	53	71	961	119	122	859	60				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	258	209	96	52	105	53	71	961	119	122	859	60				
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:	258	209	96	52	105	53	71	961	119	122	859	60				
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700				
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	2.00	1.00	1.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00				
Final Sat.:	1700	3400	1700	1700	3400	1700	1700	5100	1700	1700	5100	1700				
Capacity Analysis Module:																
Vol/Sat:	0.15	0.06	0.06	0.03	0.03	0.03	0.04	0.19	0.07	0.07	0.17	0.04				
Crit Moves:	****				****			****		****						

Saddleback Community Church New Worship Center TIS
Existing Condition
Saturday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Marguerite Parkway / El Toro Road

Cycle (sec):	100	Critical Vol./Cap.(X):	0.414
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	20	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Ovl				Include				Include				Include			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	1	1	1	0 1	1	1	0	1 1	2	0	2	0 1	2	0	1	1 0
Volume Module:																
Base Vol:	149	226	282		21	348	271		122	202	182		275	169	31	
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:	149	226	282		21	348	271		122	202	182		275	169	31	
User Adj:	1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	1.00	
PHF 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 Volume:	149	226	212		21	348	203		122	202	137		275	169	31	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	149	226	212		21	348	203		122	202	137		275	169	31	
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:	149	226	212		21	348	203		122	202	137		275	169	31	
OvlAdjVol:			74													
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700		1700	1700	1700		1700	1700	1700		1700	1700	1700	
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:	1.19	1.81	1.00		1.00	1.58	1.42		2.00	2.00	1.00		2.00	1.69	0.31	
Final Sat.:	2026	3074	1700		1700	2690	2410		3400	3400	1700		3400	2873	527	
Capacity Analysis Module:																
Vol/Sat:	0.07	0.07	0.12		0.01	0.13	0.08		0.04	0.06	0.08		0.08	0.06	0.06	
OvlAdjV/S:			0.04													
Crit Moves:	****				****						****		****			

Saddleback Community Church New Worship Center TIS
Existing Condition
Saturday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Marguerite Parkway / Los Alisos Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.436
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	21	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0 1	1	0	2	0 1	1	0	2	0 1	1	0	2	0 1
Volume Module:																
Base Vol:	9	395	130		233	497	80		87	140	21		138	114	185	
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	395	130		233	497	80		87	140	21		138	114	185	
User Adj:	1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	0.75	
PHF 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 Volume:	9	395	98		233	497	60		87	140	16		138	114	139	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	9	395	98		233	497	60		87	140	16		138	114	139	
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:	9	395	98		233	497	60		87	140	16		138	114	139	
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700		1700	1700	1700		1700	1700	1700		1700	1700	1700	
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	2.00	1.00		1.00	2.00	1.00		1.00	2.00	1.00		1.00	2.00	1.00	
Final Sat.:	1700	3400	1700		1700	3400	1700		1700	3400	1700		1700	3400	1700	
Capacity Analysis Module:																
Vol/Sat:	0.01	0.12	0.06		0.14	0.15	0.04		0.05	0.04	0.01		0.08	0.03	0.08	
Crit Moves:		****			****				****						****	

Saddleback Community Church New Worship Center TIS
Existing Condition
Saturday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Marguerite Parkway / Santa Margarita Parkway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.589
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	28	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
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	2	0 1	1	0	2	0 1	1	0	3	0 1	1	0	3	0 1
Volume Module:																
Base Vol:	342	367	92		119	301	59		126	807	282		154	630	151	
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:	342	367	92		119	301	59		126	807	282		154	630	151	
User Adj:	1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	0.75	
PHF 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 Volume:	342	367	69		119	301	44		126	807	212		154	630	113	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	342	367	69		119	301	44		126	807	212		154	630	113	
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:	342	367	69		119	301	44		126	807	212		154	630	113	
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700		1700	1700	1700		1700	1700	1700		1700	1700	1700	
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	2.00	1.00		1.00	2.00	1.00		1.00	3.00	1.00		1.00	3.00	1.00	
Final Sat.:	1700	3400	1700		1700	3400	1700		1700	5100	1700		1700	5100	1700	
Capacity Analysis Module:																
Vol/Sat:	0.20	0.11	0.04		0.07	0.09	0.03		0.07	0.16	0.12		0.09	0.12	0.07	
Crit Moves:	****					****				****			****			

Saddleback Community Church New Worship Center TIS
Existing Condition
Sunday Peak Hour

Scenario Report

Scenario:	Ex_Sunday
Command:	Ex_Sunday
Volume:	Ex_Sunday
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	None
Trip Distribution:	Default
Paths:	Default Path
Routes:	Default Route
Configuration:	Existing

Saddleback Community Church New Worship Center TIS
Existing Condition
Sunday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Portola Parkway / SR - 241 On/Off-Ramp

Cycle (sec):	100	Critical Vol./Cap.(X):	0.254
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	16	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Ignore				Ignore				Ignore				Ignore			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	2	0	3	0 1	2	0	3	0 1	1	0	0	0 1	2	0	0	0 1
Volume Module:																
Base Vol:	245	637	109		92	512	69		53	0	198		105	0	103	
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:	245	637	109		92	512	69		53	0	198		105	0	103	
User Adj:	1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Volume:	245	637	0		92	512	0		53	0	0		105	0	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	245	637	0		92	512	0		53	0	0		105	0	0	
PCE Adj:	1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00	
MLF Adj:	1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00	
FinalVolume:	245	637	0		92	512	0		53	0	0		105	0	0	
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700		1700	1700	1700		1700	1700	1700		1700	1700	1700	
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:	2.00	3.00	1.00		2.00	3.00	1.00		1.00	0.00	1.00		2.00	0.00	1.00	
Final Sat.:	3400	5100	1700		3400	5100	1700		1700	0	1700		3400	0	1700	
Capacity Analysis Module:																
Vol/Sat:	0.07	0.12	0.00		0.03	0.10	0.00		0.03	0.00	0.00		0.03	0.00	0.00	
Crit Moves:	****					****			****					****		

Saddleback Community Church New Worship Center TIS
Existing Condition
Sunday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Portola Parkway / Rancho Parkway - Purpose Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.529
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	25	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Ovl				Ignore				Ovl			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	2	0	3	0 1	2	0	3	0 1	1	1	0	0 1	1	1	0	1 0
Volume Module:																
Base Vol:	419	688		5	250	549		40	45	162		330	310	209		274
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	1.00	1.00	1.00	1.00
Initial Bse:	419	688		5	250	549		40	45	162		330	310	209		274
User Adj:	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.00	1.00	1.00	1.00				
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
PHF Volume:	419	688		4	250	549		30	45	162		0	310	209		274
Reduct Vol:	0	0		0	0	0		0	0	0		0	0	0		0
Reduced Vol:	419	688		4	250	549		30	45	162		0	310	209		274
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
FinalVolume:	419	688		4	250	549		30	45	162		0	310	209		274
OvlAdjVol:								0								149
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700				
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:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	1.00	1.00	1.19	0.81	1.00				
Final Sat.:	3400	5100	1700	3400	5100	1700	1700	1700	1700	2031	1369	1700				
Capacity Analysis Module:																
Vol/Sat:	0.12	0.13	0.00	0.07	0.11	0.02	0.03	0.10	0.00	0.15	0.15	0.16				
OvlAdjV/S:						0.00						0.09				
Crit Moves:	****				****			****			****					

Saddleback Community Church New Worship Center TIS
Existing Condition
Sunday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Portola Parkway / Saddleback Parkway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.415
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	20	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Ovl				Include				Include				Include			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	1	0	3	0 2	2	0	3	0 1	1	1	0	0 1	1	1	0	0 1
Volume Module:																
Base Vol:	125	985		209	30	1095		48	91		7	91	121		3	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	1.00	1.00	1.00	1.00
Initial Bse:	125	985		209	30	1095		48	91		7	91	121		3	19
User Adj:	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75				
PHF 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 Volume:	125	985		157	30	1095		36	91		7	68	121		3	14
Reduct Vol:	0	0		0	0	0		0	0		0	0	0		0	0
Reduced Vol:	125	985		157	30	1095		36	91		7	68	121		3	14
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:	125	985		157	30	1095		36	91		7	68	121		3	14
OvlAdjVol:				33												
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700				
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	3.00	2.00	2.00	3.00	1.00	1.86	0.14	1.00	1.95	0.05	1.00				
Final Sat.:	1700	5100	3400	3400	5100	1700	3157	243	1700	3318	82	1700				
Capacity Analysis Module:																
Vol/Sat:	0.07	0.19	0.05	0.01	0.21	0.02	0.03	0.03	0.04	0.04	0.04	0.01				
OvlAdjV/S:			0.01													
Crit Moves:	****				****				****		****					

Saddleback Community Church New Worship Center TIS
Existing Condition
Sunday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Portola Parkway - Santa Margarita Parkway / El Toro Road

Cycle (sec):	100	Critical Vol./Cap.(X):	0.588
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	28	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Ovl				Include				Include			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	2	0	4	0 1	2	0	3	0 1	1	0	3	0 1	1	0	3	0 1
Volume Module:																
Base Vol:	316	822	26	178	887	367	271	259	230	28	389	254				
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:	316	822	26	178	887	367	271	259	230	28	389	254				
User Adj:	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75				
PHF 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 Volume:	316	822	20	178	887	275	271	259	173	28	389	191				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	316	822	20	178	887	275	271	259	173	28	389	191				
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:	316	822	20	178	887	275	271	259	173	28	389	191				
OvlAdjVol:						4										
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700				
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:	2.00	4.00	1.00	2.00	3.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00				
Final Sat.:	3400	6800	1700	3400	5100	1700	1700	5100	1700	1700	5100	1700				
Capacity Analysis Module:																
Vol/Sat:	0.09	0.12	0.01	0.05	0.17	0.16	0.16	0.05	0.10	0.02	0.08	0.11				
OvlAdjV/S:						0.00										
Crit Moves:	****				****		****					****				

Saddleback Community Church New Worship Center TIS
Existing Condition
Sunday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Los Alisos Boulevard / Santa Margarita Parkway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.504
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	24	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0 1	1	0	2	0 1	1	0	3	0 1	1	0	3	0 1
Volume Module:																
Base Vol:	253	159	148	64	129	57	57	932	154	143	838	66				
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:	253	159	148	64	129	57	57	932	154	143	838	66				
User Adj:	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75				
PHF 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 Volume:	253	159	111	64	129	43	57	932	116	143	838	50				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	253	159	111	64	129	43	57	932	116	143	838	50				
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:	253	159	111	64	129	43	57	932	116	143	838	50				
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700				
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	2.00	1.00	1.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00				
Final Sat.:	1700	3400	1700	1700	3400	1700	1700	5100	1700	1700	5100	1700				
Capacity Analysis Module:																
Vol/Sat:	0.15	0.05	0.07	0.04	0.04	0.03	0.03	0.18	0.07	0.08	0.16	0.03				
Crit Moves:	****				****			****		****						

Saddleback Community Church New Worship Center TIS
Existing Condition
Sunday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Marguerite Parkway / El Toro Road

Cycle (sec):	100	Critical Vol./Cap.(X):	0.422
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	21	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Ovl				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	1	1	0 1	1	1	0	1 1	2	0	2	0 1	2	0	1	1 0
Volume Module:																
Base Vol:	173	378	201		41	402	271		165	158	115		269	168	45	
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:	173	378	201		41	402	271		165	158	115		269	168	45	
User Adj:	1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	1.00	
PHF 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 Volume:	173	378	151		41	402	203		165	158	86		269	168	45	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	173	378	151		41	402	203		165	158	86		269	168	45	
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:	173	378	151		41	402	203		165	158	86		269	168	45	
OvlAdjVol:			16													
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700		1700	1700	1700		1700	1700	1700		1700	1700	1700	
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	2.00	1.00		1.00	1.74	1.26		2.00	2.00	1.00		2.00	1.58	0.42	
Final Sat.:	1700	3400	1700		1700	2966	2134		3400	3400	1700		3400	2682	718	
Capacity Analysis Module:																
Vol/Sat:	0.10	0.11	0.09		0.02	0.14	0.10		0.05	0.05	0.05		0.08	0.06	0.06	
OvlAdjV/S:			0.01													
Crit Moves:		****				****				****			****			

Saddleback Community Church New Worship Center TIS
Existing Condition
Sunday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Marguerite Parkway / Los Alisos Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.449
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	22	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
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	2	0 1	1	0	2	0 1	1	0	2	0 1	1	0	2	0 1
Volume Module:																
Base Vol:	20	428	109		193	529	82		106	95	19		167	134	221	
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	428	109		193	529	82		106	95	19		167	134	221	
User Adj:	1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	0.75	
PHF 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 Volume:	20	428	82		193	529	62		106	95	14		167	134	166	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	20	428	82		193	529	62		106	95	14		167	134	166	
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:	20	428	82		193	529	62		106	95	14		167	134	166	
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700		1700	1700	1700		1700	1700	1700		1700	1700	1700	
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	2.00	1.00		1.00	2.00	1.00		1.00	2.00	1.00		1.00	2.00	1.00	
Final Sat.:	1700	3400	1700		1700	3400	1700		1700	3400	1700		1700	3400	1700	
Capacity Analysis Module:																
Vol/Sat:	0.01	0.13	0.05		0.11	0.16	0.04		0.06	0.03	0.01		0.10	0.04	0.10	
Crit Moves:		****				****				****					****	

Saddleback Community Church New Worship Center TIS
Existing Condition
Sunday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Marguerite Parkway / Santa Margarita Parkway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.567
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	27	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0 1	1	0	2	0 1	1	0	3	0 1	1	0	3	0 1
Volume Module:																
Base Vol:	293	346	74		199	420	63		105	590	324		133	629	113	
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:	293	346	74		199	420	63		105	590	324		133	629	113	
User Adj:	1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	0.75	
PHF 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 Volume:	293	346	56		199	420	47		105	590	243		133	629	85	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	293	346	56		199	420	47		105	590	243		133	629	85	
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:	293	346	56		199	420	47		105	590	243		133	629	85	
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700		1700	1700	1700		1700	1700	1700		1700	1700	1700	
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	2.00	1.00		1.00	2.00	1.00		1.00	3.00	1.00		1.00	3.00	1.00	
Final Sat.:	1700	3400	1700		1700	3400	1700		1700	5100	1700		1700	5100	1700	
Capacity Analysis Module:																
Vol/Sat:	0.17	0.10	0.03		0.12	0.12	0.03		0.06	0.12	0.14		0.08	0.12	0.05	
Crit Moves:	****					****					****		****			

Appendix C

Existing Plus Project Conditions
Intersection Analysis Worksheets

Saddleback Community Church New Worship Center TIS
Existing Plus Project Condition
Saturday Peak Hour

Scenario Report

Scenario:	E+P_Saturday
Command:	E+P_Saturday
Volume:	Ex_Saturday
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	Proj_Saturday
Trip Distribution:	Default
Paths:	Default Path
Routes:	Default Route
Configuration:	Existing

Saddleback Community Church New Worship Center TIS
Existing Plus Project Condition
Saturday Peak Hour

Trip Generation Report

Forecast for Proj_Saturday

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
1		1.00	Project	92.00	122.00	92	122	214	100.0
	Zone 1 Subtotal		.....			92	122	214	100.0
TOTAL			.....			92	122	214	100.0

Saddleback Community Church New Worship Center TIS
Existing Plus Project Condition
Saturday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Portola Parkway / SR - 241 On/Off-Ramp

Cycle (sec):	100	Critical Vol./Cap.(X):	0.265
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	17	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Ignore				Ignore				Ignore				Ignore			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	2	0	3	0 1	2	0	3	0 1	1	0	0	0 1	2	0	0	0 1
Volume Module:																
Base Vol:	198	720	77	113	631	60	38	0	199	86	0	108				
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:	198	720	77	113	631	60	38	0	199	86	0	108				
Added Vol:	12	12	12	0	9	0	0	0	9	9	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	210	732	89	113	640	60	38	0	208	95	0	108				
User Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00				
PHF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00				
PHF Volume:	210	732	0	113	640	0	38	0	0	95	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	210	732	0	113	640	0	38	0	0	95	0	0				
PCE Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00				
MLF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00				
FinalVolume:	210	732	0	113	640	0	38	0	0	95	0	0				
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700				
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:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	0.00	1.00	2.00	0.00	1.00				
Final Sat.:	3400	5100	1700	3400	5100	1700	1700	0	1700	3400	0	1700				
Capacity Analysis Module:																
Vol/Sat:	0.06	0.14	0.00	0.03	0.13	0.00	0.02	0.00	0.00	0.03	0.00	0.00				
Crit Moves:	****				****			****		****						

Saddleback Community Church New Worship Center TIS
Existing Plus Project Condition
Saturday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Portola Parkway / Rancho Parkway - Purpose Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.421
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	21	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Ovl				Ignore				Ovl			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	2	0	3	0 1	2	0	3	0 1	1	1	0	0 1	1	1	0	1 0
Volume Module:																
Base Vol:	334	788	8	172	697	47	65	88	404	122	132	200				
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:	334	788	8	172	697	47	65	88	404	122	132	200				
Added Vol:	0	0	14	28	0	0	0	5	0	18	6	37				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	334	788	22	200	697	47	65	93	404	140	138	237				
User Adj:	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.00	1.00	1.00	1.00				
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
PHF Volume:	334	788	17	200	697	35	65	93	0	140	138	237				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	334	788	17	200	697	35	65	93	0	140	138	237				
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
FinalVolume:	334	788	17	200	697	35	65	93	0	140	138	237				
OvlAdjVol:						0						137				
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700				
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:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	1.00	1.00	1.01	0.99	1.00				
Final Sat.:	3400	5100	1700	3400	5100	1700	1700	1700	1700	1712	1688	1700				
Capacity Analysis Module:																
Vol/Sat:	0.10	0.15	0.01	0.06	0.14	0.02	0.04	0.05	0.00	0.08	0.08	0.14				
OvlAdjV/S:						0.00						0.08				
Crit Moves:	****				****			****			****					

Saddleback Community Church New Worship Center TIS
Existing Plus Project Condition
Saturday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Portola Parkway / Saddleback Parkway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.381
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	19	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Ovl				Include				Include				Include			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	1	0	3	0 2	2	0	3	0 1	1	1	0	0 1	1	1	0	0 1
Volume Module:																
Base Vol:	89	965	189	31	1110	40	60	9	82	39	3	7				
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:	89	965	189	31	1110	40	60	9	82	39	3	7				
Added Vol:	0	14	23	0	18	0	0	0	0	31	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	89	979	212	31	1128	40	60	9	82	70	3	7				
User Adj:	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75				
PHF 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 Volume:	89	979	159	31	1128	30	60	9	62	70	3	5				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	89	979	159	31	1128	30	60	9	62	70	3	5				
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:	89	979	159	31	1128	30	60	9	62	70	3	5				
OvlAdjVol:			86													
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700				
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	3.00	2.00	2.00	3.00	1.00	1.74	0.26	1.00	1.92	0.08	1.00				
Final Sat.:	1700	5100	3400	3400	5100	1700	2957	443	1700	3260	140	1700				
Capacity Analysis Module:																
Vol/Sat:	0.05	0.19	0.05	0.01	0.22	0.02	0.02	0.02	0.04	0.02	0.02	0.00				
OvlAdjV/S:			0.03													
Crit Moves:	****				****				****	****						

Saddleback Community Church New Worship Center TIS
Existing Plus Project Condition
Saturday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Portola Parkway - Santa Margarita Parkway / El Toro Road

Cycle (sec):	100	Critical Vol./Cap.(X):	0.570
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	27	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Ovl				Include				Include			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	2	0	4	0 1	2	0	3	0 1	1	0	3	0 1	1	0	3	0 1
Volume Module:																
Base Vol:	297	778	41	196	858	265	211	308	304	27	313	283				
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:	297	778	41	196	858	265	211	308	304	27	313	283				
Added Vol:	0	18	0	0	24	24	18	5	0	0	6	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	297	796	41	196	882	289	229	313	304	27	319	283				
User Adj:	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75				
PHF 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 Volume:	297	796	31	196	882	217	229	313	228	27	319	212				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	297	796	31	196	882	217	229	313	228	27	319	212				
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:	297	796	31	196	882	217	229	313	228	27	319	212				
OvlAdjVol:						0										
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700				
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:	2.00	4.00	1.00	2.00	3.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00				
Final Sat.:	3400	6800	1700	3400	5100	1700	1700	5100	1700	1700	5100	1700				
Capacity Analysis Module:																
Vol/Sat:	0.09	0.12	0.02	0.06	0.17	0.13	0.13	0.06	0.13	0.02	0.06	0.12				
OvlAdjV/S:						0.00										
Crit Moves:	****				****		****					****				

Saddleback Community Church New Worship Center TIS
Existing Plus Project Condition
Saturday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Los Alisos Boulevard / Santa Margarita Parkway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.502
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	24	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
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	2	0	1	1	0	2	0	1	1	0	3	0	1	
Volume Module:																
Base Vol:	258	209	128		52	105	71		71	961	158		122	859	80	
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:	258	209	128		52	105	71		71	961	158		122	859	80	
Added Vol:	9	5	0		0	6	0		0	12	12		0	9	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	267	214	128		52	111	71		71	973	170		122	868	80	
User Adj:	1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	0.75	
PHF 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 Volume:	267	214	96		52	111	53		71	973	128		122	868	60	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	267	214	96		52	111	53		71	973	128		122	868	60	
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:	267	214	96		52	111	53		71	973	128		122	868	60	
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700		1700	1700	1700		1700	1700	1700		1700	1700	1700	
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	2.00	1.00		1.00	2.00	1.00		1.00	3.00	1.00		1.00	3.00	1.00	
Final Sat.:	1700	3400	1700		1700	3400	1700		1700	5100	1700		1700	5100	1700	
Capacity Analysis Module:																
Vol/Sat:	0.16	0.06	0.06		0.03	0.03	0.03		0.04	0.19	0.08		0.07	0.17	0.04	
Crit Moves:	****					****				****			****			

Saddleback Community Church New Worship Center TIS
Existing Plus Project Condition
Saturday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Marguerite Parkway / El Toro Road

Cycle (sec):	100	Critical Vol./Cap.(X):	0.423
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	21	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Ovl				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	1	1	0	1	1	1	0	1	1	2	0	2	0	1	
Volume Module:																
Base Vol:	149	226	282		21	348	271		122	202	182		275	169	31	
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:	149	226	282		21	348	271		122	202	182		275	169	31	
Added Vol:	0	18	0		0	24	6		5	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	149	244	282		21	372	277		127	202	182		275	169	31	
User Adj:	1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	1.00	
PHF 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 Volume:	149	244	212		21	372	208		127	202	137		275	169	31	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	149	244	212		21	372	208		127	202	137		275	169	31	
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:	149	244	212		21	372	208		127	202	137		275	169	31	
OvlAdjVol:			74													
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700		1700	1700	1700		1700	1700	1700		1700	1700	1700	
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:	1.14	1.86	1.00		1.00	1.62	1.38		2.00	2.00	1.00		2.00	1.69	0.31	
Final Sat.:	1934	3166	1700		1700	2751	2349		3400	3400	1700		3400	2873	527	
Capacity Analysis Module:																
Vol/Sat:	0.08	0.08	0.12		0.01	0.14	0.09		0.04	0.06	0.08		0.08	0.06	0.06	
OvlAdjV/S:			0.04													
Crit Moves:		****				****					****		****			

Saddleback Community Church New Worship Center TIS
Existing Plus Project Condition
Saturday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Marguerite Parkway / Los Alisos Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.443
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	21	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
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	2	0 1	1	0	2	0 1	1	0	2	0 1	1	0	2	0 1
Volume Module:																
Base Vol:	9	395	130		233	497	80		87	140	21		138	114	185	
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	395	130		233	497	80		87	140	21		138	114	185	
Added Vol:	0	14	0		0	18	6		5	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	9	409	130		233	515	86		92	140	21		138	114	185	
User Adj:	1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	0.75	
PHF 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 Volume:	9	409	98		233	515	65		92	140	16		138	114	139	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	9	409	98		233	515	65		92	140	16		138	114	139	
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:	9	409	98		233	515	65		92	140	16		138	114	139	
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700		1700	1700	1700		1700	1700	1700		1700	1700	1700	
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	2.00	1.00		1.00	2.00	1.00		1.00	2.00	1.00		1.00	2.00	1.00	
Final Sat.:	1700	3400	1700		1700	3400	1700		1700	3400	1700		1700	3400	1700	
Capacity Analysis Module:																
Vol/Sat:	0.01	0.12	0.06		0.14	0.15	0.04		0.05	0.04	0.01		0.08	0.03	0.08	
Crit Moves:		****			****				****						****	

Saddleback Community Church New Worship Center TIS
Existing Plus Project Condition
Saturday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Marguerite Parkway / Santa Margarita Parkway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.596
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	29	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
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	2	0 1	1	0	2	0 1	1	0	3	0 1	1	0	3	0 1
Volume Module:																
Base Vol:	342	367	92		119	301	59		126	807	282		154	630	151	
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:	342	367	92		119	301	59		126	807	282		154	630	151	
Added Vol:	5	9	0		6	12	0		0	6	6		0	5	5	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	347	376	92		125	313	59		126	813	288		154	635	156	
User Adj:	1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	0.75	
PHF 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 Volume:	347	376	69		125	313	44		126	813	216		154	635	117	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	347	376	69		125	313	44		126	813	216		154	635	117	
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:	347	376	69		125	313	44		126	813	216		154	635	117	
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700		1700	1700	1700		1700	1700	1700		1700	1700	1700	
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	2.00	1.00		1.00	2.00	1.00		1.00	3.00	1.00		1.00	3.00	1.00	
Final Sat.:	1700	3400	1700		1700	3400	1700		1700	5100	1700		1700	5100	1700	
Capacity Analysis Module:																
Vol/Sat:	0.20	0.11	0.04		0.07	0.09	0.03		0.07	0.16	0.13		0.09	0.12	0.07	
Crit Moves:	****					****				****			****			

Saddleback Community Church New Worship Center TIS
Existing Plus Project Condition
Sunday Peak Hour

Scenario Report

Scenario:	E+P_Sunday
Command:	E+P_Sunday
Volume:	Ex_Sunday
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	Proj_Sunday
Trip Distribution:	Default
Paths:	Default Path
Routes:	Default Route
Configuration:	Existing

Saddleback Community Church New Worship Center TIS
Existing Plus Project Condition
Sunday Peak Hour

Trip Generation Report

Forecast for Proj_Sunday

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
1		1.00	Project	107.00	107.00	107	107	214	100.0
	Zone 1 Subtotal					107	107	214	100.0
TOTAL						107	107	214	100.0

Saddleback Community Church New Worship Center TIS
Existing Plus Project Condition
Sunday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Portola Parkway / SR - 241 On/Off-Ramp

Cycle (sec):	100	Critical Vol./Cap.(X):	0.259
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	16	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Ignore				Ignore				Ignore				Ignore			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	2	0	3	0 1	2	0	3	0 1	1	0	0	0 1	2	0	0	0 1
Volume Module:																
Base Vol:	245	637	109	92	512	69	53	0	198	105	0	103				
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:	245	637	109	92	512	69	53	0	198	105	0	103				
Added Vol:	11	11	11	0	11	0	0	0	11	11	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	256	648	120	92	523	69	53	0	209	116	0	103				
User Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00				
PHF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00				
PHF Volume:	256	648	0	92	523	0	53	0	0	116	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	256	648	0	92	523	0	53	0	0	116	0	0				
PCE Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00				
MLF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00				
FinalVolume:	256	648	0	92	523	0	53	0	0	116	0	0				
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700				
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:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	0.00	1.00	2.00	0.00	1.00				
Final Sat.:	3400	5100	1700	3400	5100	1700	1700	0	1700	3400	0	1700				
Capacity Analysis Module:																
Vol/Sat:	0.08	0.13	0.00	0.03	0.10	0.00	0.03	0.00	0.00	0.03	0.00	0.00				
Crit Moves:	****				****		****				****					

Saddleback Community Church New Worship Center TIS
Existing Plus Project Condition
Sunday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Portola Parkway / Rancho Parkway - Purpose Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.538
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	25	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Ovl				Ignore				Ovl			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	2	0	3	0 1	2	0	3	0 1	1	1	0	0 1	1	1	0	1 0
Volume Module:																
Base Vol:	419	688	5	250	549	40	45	162	330	310	209	274				
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:	419	688	5	250	549	40	45	162	330	310	209	274				
Added Vol:	0	0	16	32	0	0	0	5	0	16	5	32				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	419	688	21	282	549	40	45	167	330	326	214	306				
User Adj:	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.00	1.00	1.00	1.00				
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
PHF Volume:	419	688	16	282	549	30	45	167	0	326	214	306				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	419	688	16	282	549	30	45	167	0	326	214	306				
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
FinalVolume:	419	688	16	282	549	30	45	167	0	326	214	306				
OvlAdjVol:						0						165				
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700				
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:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	1.00	1.00	1.21	0.79	1.00				
Final Sat.:	3400	5100	1700	3400	5100	1700	1700	1700	1700	2053	1347	1700				
Capacity Analysis Module:																
Vol/Sat:	0.12	0.13	0.01	0.08	0.11	0.02	0.03	0.10	0.00	0.16	0.16	0.18				
OvlAdjV/S:						0.00						0.10				
Crit Moves:	****				****			****		****						

Saddleback Community Church New Worship Center TIS
Existing Plus Project Condition
Sunday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Portola Parkway / Saddleback Parkway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.426
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	21	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Ovl				Include				Include				Include			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	1	0	3	0 2	2	0	3	0 1	1	1	0	0 1	1	1	0	0 1
Volume Module:																
Base Vol:	125	985	209	30	1095	48	91	7	91	121	3	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:	125	985	209	30	1095	48	91	7	91	121	3	19				
Added Vol:	0	16	27	0	16	0	0	0	0	27	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	125	1001	236	30	1111	48	91	7	91	148	3	19				
User Adj:	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75				
PHF 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 Volume:	125	1001	177	30	1111	36	91	7	68	148	3	14				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	125	1001	177	30	1111	36	91	7	68	148	3	14				
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:	125	1001	177	30	1111	36	91	7	68	148	3	14				
OvlAdjVol:			26													
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700				
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	3.00	2.00	2.00	3.00	1.00	1.86	0.14	1.00	1.96	0.04	1.00				
Final Sat.:	1700	5100	3400	3400	5100	1700	3157	243	1700	3332	68	1700				
Capacity Analysis Module:																
Vol/Sat:	0.07	0.20	0.05	0.01	0.22	0.02	0.03	0.03	0.04	0.04	0.04	0.01				
OvlAdjV/S:			0.01													
Crit Moves:	****				****				****	****						

Saddleback Community Church New Worship Center TIS
Existing Plus Project Condition
Sunday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Portola Parkway - Santa Margarita Parkway / El Toro Road

Cycle (sec):	100	Critical Vol./Cap.(X):	0.605
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	29	Level Of Service:	B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Ovl				Include				Include			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	2	0	4	0 1	2	0	3	0 1	1	0	3	0 1	1	0	3	0 1
Volume Module:																
Base Vol:	316	822	26	178	887	367	271	259	230	28	389	254				
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:	316	822	26	178	887	367	271	259	230	28	389	254				
Added Vol:	0	21	0	0	21	21	21	5	0	0	5	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	316	843	26	178	908	388	292	264	230	28	394	254				
User Adj:	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75				
PHF 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 Volume:	316	843	20	178	908	291	292	264	173	28	394	191				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	316	843	20	178	908	291	292	264	173	28	394	191				
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:	316	843	20	178	908	291	292	264	173	28	394	191				
OvlAdjVol:						0										
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700				
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:	2.00	4.00	1.00	2.00	3.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00				
Final Sat.:	3400	6800	1700	3400	5100	1700	1700	5100	1700	1700	5100	1700				
Capacity Analysis Module:																
Vol/Sat:	0.09	0.12	0.01	0.05	0.18	0.17	0.17	0.05	0.10	0.02	0.08	0.11				
OvlAdjV/S:						0.00										
Crit Moves:	****				****		****				****					

Saddleback Community Church New Worship Center TIS
Existing Plus Project Condition
Sunday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Los Alisos Boulevard / Santa Margarita Parkway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.514
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	24	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	-	R	L	- T	-	R	L	- T	-	R	L	- T	-	R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	1	0 2	0	1	1	0 2	0	1	1	0 3	0	1	1	0 3	0	1
Volume Module:																
Base Vol:	253	159	148	64	129	57	57	932	154	143	838	66				
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:	253	159	148	64	129	57	57	932	154	143	838	66				
Added Vol:	11	5	0	0	5	0	0	11	11	0	11	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	264	164	148	64	134	57	57	943	165	143	849	66				
User Adj:	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75				
PHF 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 Volume:	264	164	111	64	134	43	57	943	124	143	849	50				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	264	164	111	64	134	43	57	943	124	143	849	50				
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:	264	164	111	64	134	43	57	943	124	143	849	50				
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700				
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	2.00	1.00	1.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00				
Final Sat.:	1700	3400	1700	1700	3400	1700	1700	5100	1700	1700	5100	1700				
Capacity Analysis Module:																
Vol/Sat:	0.16	0.05	0.07	0.04	0.04	0.03	0.03	0.18	0.07	0.08	0.17	0.03				
Crit Moves:	****				****			****		****						

Saddleback Community Church New Worship Center TIS
Existing Plus Project Condition
Sunday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Marguerite Parkway / El Toro Road

Cycle (sec):	100	Critical Vol./Cap.(X):	0.434
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	21	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	-	R	L	- T	-	R	L	- T	-	R	L	- T	-	R
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Ovl				Include				Include				Include			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	1	1 1	0	1	1	1 0	1	1	2	0 2	0	1	2	0 1	1	0
Volume Module:																
Base Vol:	173	378	201	41	402	271	165	158	115	269	168	45				
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:	173	378	201	41	402	271	165	158	115	269	168	45				
Added Vol:	0	21	0	0	21	5	5	0	0	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	173	399	201	41	423	276	170	158	115	269	168	45				
User Adj:	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	1.00				
PHF 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 Volume:	173	399	151	41	423	207	170	158	86	269	168	45				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	173	399	151	41	423	207	170	158	86	269	168	45				
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:	173	399	151	41	423	207	170	158	86	269	168	45				
OvlAdjVol:			16													
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700				
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	2.00	1.00	1.00	1.76	1.24	2.00	2.00	1.00	2.00	1.58	0.42				
Final Sat.:	1700	3400	1700	1700	2992	2108	3400	3400	1700	3400	2682	718				
Capacity Analysis Module:																
Vol/Sat:	0.10	0.12	0.09	0.02	0.14	0.10	0.05	0.05	0.05	0.08	0.06	0.06				
OvlAdjV/S:			0.01													
Crit Moves:	****				****				****		****					

Saddleback Community Church New Worship Center TIS
Existing Plus Project Condition
Sunday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Marguerite Parkway / Los Alisos Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.457
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	22	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0 1	1	0	2	0 1	1	0	2	0 1	1	0	2	0 1
Volume Module:																
Base Vol:	20	428	109	193	529	82	106	95	19	167	134	221				
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	428	109	193	529	82	106	95	19	167	134	221				
Added Vol:	0	16	0	0	16	5	5	0	0	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	20	444	109	193	545	87	111	95	19	167	134	221				
User Adj:	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75				
PHF 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 Volume:	20	444	82	193	545	65	111	95	14	167	134	166				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	20	444	82	193	545	65	111	95	14	167	134	166				
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:	20	444	82	193	545	65	111	95	14	167	134	166				
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700				
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	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00				
Final Sat.:	1700	3400	1700	1700	3400	1700	1700	3400	1700	1700	3400	1700				
Capacity Analysis Module:																
Vol/Sat:	0.01	0.13	0.05	0.11	0.16	0.04	0.07	0.03	0.01	0.10	0.04	0.10				
Crit Moves:		****		****			****					****				

Saddleback Community Church New Worship Center TIS
Existing Plus Project Condition
Sunday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Marguerite Parkway / Santa Margarita Parkway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.575
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	27	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0 1	1	0	2	0 1	1	0	3	0 1	1	0	3	0 1
Volume Module:																
Base Vol:	293	346	74	199	420	63	105	590	324	133	629	113				
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:	293	346	74	199	420	63	105	590	324	133	629	113				
Added Vol:	5	11	0	5	11	0	0	5	5	0	5	5				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	298	357	74	204	431	63	105	595	329	133	634	118				
User Adj:	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75				
PHF 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 Volume:	298	357	56	204	431	47	105	595	247	133	634	89				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	298	357	56	204	431	47	105	595	247	133	634	89				
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:	298	357	56	204	431	47	105	595	247	133	634	89				
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700				
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	2.00	1.00	1.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00				
Final Sat.:	1700	3400	1700	1700	3400	1700	1700	5100	1700	1700	5100	1700				
Capacity Analysis Module:																
Vol/Sat:	0.18	0.11	0.03	0.12	0.13	0.03	0.06	0.12	0.15	0.08	0.12	0.05				
Crit Moves:	****				****				****	****						

Appendix D

Project Buildout (Year 2021) Without Project Conditions
Intersection Analysis Worksheets

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulatives Condition
Saturday Peak Hour

Scenario Report

Scenario:	OY+C_Saturday
Command:	OY+C_Saturday
Volume:	Ex_Saturday
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	Cuml_Saturday
Trip Distribution:	Default
Paths:	Default Path
Routes:	Default Route
Configuration:	OY

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulatives Condition
Saturday Peak Hour

Trip Generation Report

Forecast for Cuml_Saturday

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
100	100	1.00	Zone 1	98.00	84.00	98	84	182	86.7
	Zone 100 Subtotal					98	84	182	86.7
200	200	1.00	Zone 2	15.00	13.00	15	13	28	13.3
	Zone 200 Subtotal					15	13	28	13.3
TOTAL						113	97	210	100.0

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulatives Condition
Saturday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Portola Parkway / SR - 241 On/Off-Ramp

Cycle (sec):	100	Critical Vol./Cap.(X):	0.269
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	17	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Ignore				Ignore				Ignore				Ignore			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	2	0	3	0 1	2	0	3	0 1	1	0	0	0 1	2	0	0	0 1
Volume Module:																
Base Vol:	198	720	77	113	631	60	38	0	199	86	0	108				
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	206	749	80	118	657	62	40	0	207	89	0	112				
Added Vol:	8	0	4	0	0	0	0	0	10	5	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	214	749	84	118	657	62	40	0	217	94	0	112				
User Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00				
PHF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00				
PHF Volume:	214	749	0	118	657	0	40	0	0	94	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	214	749	0	118	657	0	40	0	0	94	0	0				
PCE Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00				
MLF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00				
FinalVolume:	214	749	0	118	657	0	40	0	0	94	0	0				
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700				
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:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	0.00	1.00	2.00	0.00	1.00				
Final Sat.:	3400	5100	1700	3400	5100	1700	1700	0	1700	3400	0	1700				
Capacity Analysis Module:																
Vol/Sat:	0.06	0.15	0.00	0.03	0.13	0.00	0.02	0.00	0.00	0.03	0.00	0.00				
Crit Moves:	****				****			****		****						

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulatives Condition
Saturday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Portola Parkway / Rancho Parkway - Purpose Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.444
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	21	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Ovl				Ignore				Ovl			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	2	0	3	0 1	2	0	3	0 1	1	1	0	0 1	1	1	0	1 0
Volume Module:																
Base Vol:	334	788	8	172	697	47	65	88	404	122	132	200				
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	348	820	8	179	725	49	68	92	420	127	137	208				
Added Vol:	49	0	0	0	0	15	13	0	42	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	397	820	8	179	725	64	81	92	462	127	137	208				
User Adj:	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.00	1.00	1.00	1.00				
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
PHF Volume:	397	820	6	179	725	48	81	92	0	127	137	208				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	397	820	6	179	725	48	81	92	0	127	137	208				
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
FinalVolume:	397	820	6	179	725	48	81	92	0	127	137	208				
OvlAdjVol:						0						119				
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700				
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:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Final Sat.:	3400	5100	1700	3400	5100	1700	1700	1700	1700	1700	1700	1700				
Capacity Analysis Module:																
Vol/Sat:	0.12	0.16	0.00	0.05	0.14	0.03	0.05	0.05	0.00	0.07	0.08	0.12				
OvlAdjV/S:						0.00						0.07				
Crit Moves:	****				****			****			****					

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulatives Condition
Saturday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Portola Parkway / Saddleback Parkway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.390
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	20	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Ovl				Include				Include				Include			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	1	0	3	0 2	2	0	3	0 1	1	1	0	0 1	1	1	0	0 1
Volume Module:																
Base Vol:	89	965	189	31	1110	40	60	9	82	39	3	7				
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	93	1004	197	32	1155	42	62	9	85	41	3	7				
Added Vol:	0	49	0	0	42	0	0	0	0	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	93	1053	197	32	1197	42	62	9	85	41	3	7				
User Adj:	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75				
PHF 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 Volume:	93	1053	148	32	1197	31	62	9	64	41	3	5				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	93	1053	148	32	1197	31	62	9	64	41	3	5				
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:	93	1053	148	32	1197	31	62	9	64	41	3	5				
OvlAdjVol:			104													
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700				
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	3.00	2.00	2.00	3.00	1.00	1.74	0.26	1.00	1.86	0.14	1.00				
Final Sat.:	1700	5100	3400	3400	5100	1700	2957	443	1700	3157	243	1700				
Capacity Analysis Module:																
Vol/Sat:	0.05	0.21	0.04	0.01	0.23	0.02	0.02	0.02	0.04	0.01	0.01	0.00				
OvlAdjV/S:			0.03													
Crit Moves:	****				****				****		****					

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulatives Condition
Saturday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Portola Parkway - Santa Margarita Parkway / El Toro Road

Cycle (sec):	100	Critical Vol./Cap.(X):	0.595
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	29	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Ovl				Include				Include			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	2	0	4	0 1	2	0	3	0 1	1	0	3	0 1	1	0	3	0 1
Volume Module:																
Base Vol:	297	778	41	196	858	265	211	308	304	27	313	283				
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	309	810	43	204	893	276	220	321	316	28	326	294				
Added Vol:	0	20	0	0	17	25	29	0	0	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	309	830	43	204	910	301	249	321	316	28	326	294				
User Adj:	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75				
PHF 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 Volume:	309	830	32	204	910	226	249	321	237	28	326	221				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	309	830	32	204	910	226	249	321	237	28	326	221				
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:	309	830	32	204	910	226	249	321	237	28	326	221				
OvlAdjVol:						0										
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700				
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:	2.00	4.00	1.00	2.00	3.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00				
Final Sat.:	3400	6800	1700	3400	5100	1700	1700	5100	1700	1700	5100	1700				
Capacity Analysis Module:																
Vol/Sat:	0.09	0.12	0.02	0.06	0.18	0.13	0.15	0.06	0.14	0.02	0.06	0.13				
OvlAdjV/S:						0.00										
Crit Moves:	****				****		****					****				

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulatives Condition
Saturday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Los Alisos Boulevard / Santa Margarita Parkway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.521
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	25	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	-	R	L	- T	-	R	L	- T	-	R	L	- T	-	R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	1	0 2	0	1	1	0 2	0	1	1	0 3	0	1	1	0 3	0	1
Volume Module:																
Base Vol:	258	209	128	52	105	71	71	961	158	122	859	80				
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	268	217	133	54	109	74	74	1000	164	127	894	83				
Added Vol:	15	4	0	0	3	0	0	4	13	0	5	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	283	221	133	54	112	74	74	1004	177	127	899	83				
User Adj:	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75				
PHF 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 Volume:	283	221	100	54	112	55	74	1004	133	127	899	62				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	283	221	100	54	112	55	74	1004	133	127	899	62				
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:	283	221	100	54	112	55	74	1004	133	127	899	62				
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700				
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	2.00	1.00	1.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00				
Final Sat.:	1700	3400	1700	1700	3400	1700	1700	5100	1700	1700	5100	1700				
Capacity Analysis Module:																
Vol/Sat:	0.17	0.07	0.06	0.03	0.03	0.03	0.04	0.20	0.08	0.07	0.18	0.04				
Crit Moves:	****				****			****		****						

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulatives Condition
Saturday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Marguerite Parkway / El Toro Road

Cycle (sec):	100	Critical Vol./Cap.(X):	0.429
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	21	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	-	R	L	- T	-	R	L	- T	-	R	L	- T	-	R
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Ovl				Include				Include				Include			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	1	1 1	0	1	1	1 0	1	1	2	0 2	0	1	2	0 1	1	0
Volume Module:																
Base Vol:	149	226	282	21	348	271	122	202	182	275	169	31				
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	155	235	293	22	362	282	127	210	189	286	176	32				
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:	155	235	293	22	362	282	127	210	189	286	176	32				
User Adj:	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	1.00				
PHF 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 Volume:	155	235	220	22	362	212	127	210	142	286	176	32				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	155	235	220	22	362	212	127	210	142	286	176	32				
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:	155	235	220	22	362	212	127	210	142	286	176	32				
OvlAdjVol:			77													
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700				
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:	1.19	1.81	1.00	1.00	1.58	1.42	2.00	2.00	1.00	2.00	1.69	0.31				
Final Sat.:	2026	3074	1700	1700	2690	2410	3400	3400	1700	3400	2873	527				
Capacity Analysis Module:																
Vol/Sat:	0.08	0.08	0.13	0.01	0.13	0.09	0.04	0.06	0.08	0.08	0.06	0.06				
OvlAdjV/S:			0.05													
Crit Moves:		****			****				****	****						

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulatives Condition
Saturday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Marguerite Parkway / Los Alisos Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.445
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	21	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0 1	1	0	2	0 1	1	0	2	0 1	1	0	2	0 1
Volume Module:																
Base Vol:	9	395	130	233	497	80	87	140	21	138	114	185				
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	9	411	135	242	517	83	91	146	22	144	119	193				
Added Vol:	0	0	5	0	0	0	0	4	0	5	3	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	9	411	140	242	517	83	91	150	22	149	122	193				
User Adj:	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75				
PHF 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 Volume:	9	411	105	242	517	62	91	150	16	149	122	144				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	9	411	105	242	517	62	91	150	16	149	122	144				
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:	9	411	105	242	517	62	91	150	16	149	122	144				
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700				
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	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00				
Final Sat.:	1700	3400	1700	1700	3400	1700	1700	3400	1700	1700	3400	1700				
Capacity Analysis Module:																
Vol/Sat:	0.01	0.12	0.06	0.14	0.15	0.04	0.05	0.04	0.01	0.09	0.04	0.08				
Crit Moves:		****		****				****		****						

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulatives Condition
Saturday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Marguerite Parkway / Santa Margarita Parkway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.613
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	30	Level Of Service:	B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0 1	1	0	2	0 1	1	0	3	0 1	1	0	3	0 1
Volume Module:																
Base Vol:	342	367	92	119	301	59	126	807	282	154	630	151				
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	356	382	96	124	313	61	131	840	293	160	656	157				
Added Vol:	0	5	0	0	5	0	0	4	0	0	5	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	356	387	96	124	318	61	131	844	293	160	661	157				
User Adj:	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75				
PHF 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 Volume:	356	387	72	124	318	46	131	844	220	160	661	118				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	356	387	72	124	318	46	131	844	220	160	661	118				
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:	356	387	72	124	318	46	131	844	220	160	661	118				
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700				
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	2.00	1.00	1.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00				
Final Sat.:	1700	3400	1700	1700	3400	1700	1700	5100	1700	1700	5100	1700				
Capacity Analysis Module:																
Vol/Sat:	0.21	0.11	0.04	0.07	0.09	0.03	0.08	0.17	0.13	0.09	0.13	0.07				
Crit Moves:	****				****			****		****						

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulatives Condition
Sunday Peak Hour

Scenario Report

Scenario:	OY+C_Sunday
Command:	OY+C_Sunday
Volume:	Ex_Sunday
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	Cuml_Sunday
Trip Distribution:	Default
Paths:	Default Path
Routes:	Default Route
Configuration:	OY

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulatives Condition
Sunday Peak Hour

Trip Generation Report

Forecast for Cuml_Sunday

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
100	100	1.00	Zone 1	89.00	79.00	89	79	168	86.2
	Zone 100 Subtotal					89	79	168	86.2
200	200	1.00	Zone 2	13.00	14.00	13	14	27	13.8
	Zone 200 Subtotal					13	14	27	13.8
TOTAL						102	93	195	100.0

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulatives Condition
Sunday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Portola Parkway / SR - 241 On/Off-Ramp

Cycle (sec):	100	Critical Vol./Cap.(X):	0.264
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	17	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Ignore				Ignore				Ignore				Ignore			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	2	0	3	0 1	2	0	3	0 1	1	0	0	0 1	2	0	0	0 1
Volume Module:																
Base Vol:	245	637	109	92	512	69	53	0	198	105	0	103				
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	255	663	113	96	533	72	55	0	206	109	0	107				
Added Vol:	8	0	4	0	0	0	0	0	9	4	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	263	663	117	96	533	72	55	0	215	113	0	107				
User Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00				
PHF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00				
PHF Volume:	263	663	0	96	533	0	55	0	0	113	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	263	663	0	96	533	0	55	0	0	113	0	0				
PCE Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00				
MLF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00				
FinalVolume:	263	663	0	96	533	0	55	0	0	113	0	0				
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700				
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:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	0.00	1.00	2.00	0.00	1.00				
Final Sat.:	3400	5100	1700	3400	5100	1700	1700	0	1700	3400	0	1700				
Capacity Analysis Module:																
Vol/Sat:	0.08	0.13	0.00	0.03	0.10	0.00	0.03	0.00	0.00	0.03	0.00	0.00				
Crit Moves:	****				****		****				****					

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulatives Condition
Sunday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Portola Parkway / Rancho Parkway - Purpose Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.561
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	27	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Ovl				Ignore				Ovl			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	2	0	3	0 1	2	0	3	0 1	1	1	0	0 1	1	1	0	1 0
Volume Module:																
Base Vol:	419	688	5	250	549	40	45	162	330	310	209	274				
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	436	716	5	260	571	42	47	169	343	323	217	285				
Added Vol:	45	0	0	0	0	13	12	0	40	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	481	716	5	260	571	55	59	169	383	323	217	285				
User Adj:	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.00	1.00	1.00	1.00				
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
PHF Volume:	481	716	4	260	571	41	59	169	0	323	217	285				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	481	716	4	260	571	41	59	169	0	323	217	285				
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
FinalVolume:	481	716	4	260	571	41	59	169	0	323	217	285				
OvlAdjVol:						0						155				
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700				
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:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	1.00	1.00	1.19	0.81	1.00				
Final Sat.:	3400	5100	1700	3400	5100	1700	1700	1700	1700	2031	1369	1700				
Capacity Analysis Module:																
Vol/Sat:	0.14	0.14	0.00	0.08	0.11	0.02	0.03	0.10	0.00	0.16	0.16	0.17				
OvlAdjV/S:						0.00						0.09				
Crit Moves:	****				****			****			****					

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulatives Condition
Sunday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Portola Parkway / Saddleback Parkway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.438
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	21	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	-	R	L	- T	-	R	L	- T	-	R	L	- T	-	R
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Ovl				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	3	0	2	2	0	3	0	1	1	1	0	0	1	1	1	0	0	1
Volume Module:																
Base Vol:	125	985	209		30	1095	48		91	7	91		121	3	19	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	130	1025	217		31	1139	50		95	7	95		126	3	20	
Added Vol:	0	45	0		0	40	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	130	1070	217		31	1179	50		95	7	95		126	3	20	
User Adj:	1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	0.75	
PHF 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 Volume:	130	1070	163		31	1179	37		95	7	71		126	3	15	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	130	1070	163		31	1179	37		95	7	71		126	3	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:	130	1070	163		31	1179	37		95	7	71		126	3	15	
OvlAdjVol:			34													
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700		1700	1700	1700		1700	1700	1700		1700	1700	1700	
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	3.00	2.00		2.00	3.00	1.00		1.86	0.14	1.00		1.95	0.05	1.00	
Final Sat.:	1700	5100	3400		3400	5100	1700		3157	243	1700		3318	82	1700	
Capacity Analysis Module:																
Vol/Sat:	0.08	0.21	0.05		0.01	0.23	0.02		0.03	0.03	0.04		0.04	0.04	0.01	
OvlAdjV/S:			0.01													
Crit Moves:	****					****					****			****		

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulatives Condition
Sunday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Portola Parkway - Santa Margarita Parkway / El Toro Road

Cycle (sec):	100	Critical Vol./Cap.(X):	0.629
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	31	Level Of Service:	B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	-	R	L	- T	-	R	L	- T	-	R	L	- T	-	R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Ovl				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:	2	0	4	0	1	2	0	3	0	1	1	0	3	0	1	1	0	3	0	1
Volume Module:																
Base Vol:	316	822	26		178	887	367		271	259	230		28	389	254	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	329	855	27		185	923	382		282	270	239		29	405	264	
Added Vol:	0	18	0		0	16	24		27	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	329	873	27		185	939	406		309	270	239		29	405	264	
User Adj:	1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	0.75	
PHF 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 Volume:	329	873	20		185	939	304		309	270	180		29	405	198	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	329	873	20		185	939	304		309	270	180		29	405	198	
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:	329	873	20		185	939	304		309	270	180		29	405	198	
OvlAdjVol:							0									
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700		1700	1700	1700		1700	1700	1700		1700	1700	1700	
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:	2.00	4.00	1.00		2.00	3.00	1.00		1.00	3.00	1.00		1.00	3.00	1.00	
Final Sat.:	3400	6800	1700		3400	5100	1700		1700	5100	1700		1700	5100	1700	
Capacity Analysis Module:																
Vol/Sat:	0.10	0.13	0.01		0.05	0.18	0.18		0.18	0.05	0.11		0.02	0.08	0.12	
OvlAdjV/S:							0.00									
Crit Moves:	****					****			****						****	

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulatives Condition
Sunday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Los Alisos Boulevard / Santa Margarita Parkway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.532
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	25	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
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	2	0	1	1	0	2	0	1	1	0	3	0	1	1
Volume Module:																
Base Vol:	253	159	148		64	129	57		57	932	154		143	838	66	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	263	165	154		67	134	59		59	970	160		149	872	69	
Added Vol:	13	3	0		0	4	0		0	4	12		0	4	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	276	168	154		67	138	59		59	974	172		149	876	69	
User Adj:	1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	0.75	
PHF 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 Volume:	276	168	116		67	138	44		59	974	129		149	876	52	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	276	168	116		67	138	44		59	974	129		149	876	52	
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:	276	168	116		67	138	44		59	974	129		149	876	52	
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700		1700	1700	1700		1700	1700	1700		1700	1700	1700	
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	2.00	1.00		1.00	2.00	1.00		1.00	3.00	1.00		1.00	3.00	1.00	
Final Sat.:	1700	3400	1700		1700	3400	1700		1700	5100	1700		1700	5100	1700	
Capacity Analysis Module:																
Vol/Sat:	0.16	0.05	0.07		0.04	0.04	0.03		0.03	0.19	0.08		0.09	0.17	0.03	
Crit Moves:	****					****				****			****			

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulatives Condition
Sunday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Marguerite Parkway / El Toro Road

Cycle (sec):	100	Critical Vol./Cap.(X):	0.437
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	21	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Ovl				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	1	1	0	1	1	1	0	1	1	2	0	2	0	1	2
Volume Module:																
Base Vol:	173	378	201		41	402	271		165	158	115		269	168	45	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	180	393	209		43	418	282		172	164	120		280	175	47	
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:	180	393	209		43	418	282		172	164	120		280	175	47	
User Adj:	1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	1.00	
PHF 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 Volume:	180	393	157		43	418	212		172	164	90		280	175	47	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	180	393	157		43	418	212		172	164	90		280	175	47	
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:	180	393	157		43	418	212		172	164	90		280	175	47	
OvlAdjVol:			17													
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700		1700	1700	1700		1700	1700	1700		1700	1700	1700	
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	2.00	1.00		1.00	1.74	1.26		2.00	2.00	1.00		2.00	1.58	0.42	
Final Sat.:	1700	3400	1700		1700	2966	2134		3400	3400	1700		3400	2682	718	
Capacity Analysis Module:																
Vol/Sat:	0.11	0.12	0.09		0.03	0.14	0.10		0.05	0.05	0.05		0.08	0.07	0.07	
OvlAdjV/S:			0.01													
Crit Moves:		****				****				****			****			

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulatives Condition
Sunday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Marguerite Parkway / Los Alisos Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.465
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	22	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	-	R	L	- T	-	R	L	- T	-	R	L	- T	-	R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0 1	1	0	2	0 1	1	0	2	0 1	1	0	2	0 1
Volume Module:																
Base Vol:	20	428	109	193	529	82	106	95	19	167	134	221				
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	21	445	113	201	550	85	110	99	20	174	139	230				
Added Vol:	0	0	5	0	0	0	0	3	0	5	4	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	21	445	118	201	550	85	110	102	20	179	143	230				
User Adj:	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75				
PHF 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 Volume:	21	445	89	201	550	64	110	102	15	179	143	172				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	21	445	89	201	550	64	110	102	15	179	143	172				
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	445	89	201	550	64	110	102	15	179	143	172				
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700				
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	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00				
Final Sat.:	1700	3400	1700	1700	3400	1700	1700	3400	1700	1700	3400	1700				
Capacity Analysis Module:																
Vol/Sat:	0.01	0.13	0.05	0.12	0.16	0.04	0.06	0.03	0.01	0.11	0.04	0.10				
Crit Moves:		****		****			****					****				

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulatives Condition
Sunday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Marguerite Parkway / Santa Margarita Parkway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.590
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	28	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	-	R	L	- T	-	R	L	- T	-	R	L	- T	-	R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0 1	1	0	2	0 1	1	0	3	0 1	1	0	3	0 1
Volume Module:																
Base Vol:	293	346	74	199	420	63	105	590	324	133	629	113				
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	305	360	77	207	437	66	109	614	337	138	655	118				
Added Vol:	0	5	0	0	5	0	0	4	0	0	4	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	305	365	77	207	442	66	109	618	337	138	659	118				
User Adj:	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75				
PHF 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 Volume:	305	365	58	207	442	49	109	618	253	138	659	88				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	305	365	58	207	442	49	109	618	253	138	659	88				
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:	305	365	58	207	442	49	109	618	253	138	659	88				
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700				
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	2.00	1.00	1.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00				
Final Sat.:	1700	3400	1700	1700	3400	1700	1700	5100	1700	1700	5100	1700				
Capacity Analysis Module:																
Vol/Sat:	0.18	0.11	0.03	0.12	0.13	0.03	0.06	0.12	0.15	0.08	0.13	0.05				
Crit Moves:	****				****				****	****						

Appendix E

Project Buildout (Year 2021) With Project Conditions
Intersection Analysis Worksheets

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulative Plus Project Condition
Saturday Peak Hour

Scenario Report

Scenario:	OY+C+P_Saturday
Command:	OY+C+P_Saturday
Volume:	Ex_Saturday
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	Project + Cumulative_Saturday
Trip Distribution:	Default
Paths:	Default Path
Routes:	Default Route
Configuration:	OY

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulative Plus Project Condition
Saturday Peak Hour

Trip Generation Report

Forecast for Proj_Saturday

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
1		1.00	Project	92.00	122.00	92	122	214	50.5
	Zone 1 Subtotal					92	122	214	50.5
TOTAL						92	122	214	50.5

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulative Plus Project Condition
Saturday Peak Hour

Trip Generation Report

Forecast for Cuml_Saturday

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
100	100	1.00	Zone 1	98.00	84.00	98	84	182	42.9
	Zone 100 Subtotal					98	84	182	42.9
200	200	1.00	Zone 2	15.00	13.00	15	13	28	6.6
	Zone 200 Subtotal					15	13	28	6.6
TOTAL						113	97	210	49.5

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulative Plus Project Condition
Saturday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Portola Parkway / SR - 241 On/Off-Ramp

Cycle (sec): 100 Critical Vol./Cap.(X): 0.278
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 17 Level Of Service: A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Ignore				Ignore				Ignore				Ignore			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	2	0	3	0 1	2	0	3	0 1	1	0	0	0 1	2	0	0	0 1
Volume Module:																
Base Vol:	198	720	77	113	631	60	38	0	199	86	0	108				
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	206	749	80	118	657	62	40	0	207	89	0	112				
Added Vol:	21	12	16	0	9	0	0	0	19	14	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	227	761	96	118	666	62	40	0	226	103	0	112				
User Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00				
PHF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00				
PHF Volume:	227	761	0	118	666	0	40	0	0	103	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	227	761	0	118	666	0	40	0	0	103	0	0				
PCE Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00				
MLF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00				
FinalVolume:	227	761	0	118	666	0	40	0	0	103	0	0				
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700				
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:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	0.00	1.00	2.00	0.00	1.00				
Final Sat.:	3400	5100	1700	3400	5100	1700	1700	0	1700	3400	0	1700				
Capacity Analysis Module:																
Vol/Sat:	0.07	0.15	0.00	0.03	0.13	0.00	0.02	0.00	0.00	0.03	0.00	0.00				
Crit Moves:	****				****			****			****					

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulative Plus Project Condition
Saturday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Portola Parkway / Rancho Parkway - Purpose Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.450
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	22	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Ovl				Ignore				Ovl			
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:	2	0	3	0	1	2	0	3	0	1	1	1	0	0	1	1	1	0	1	0
Volume Module:																
Base Vol:	334	788	8		172	697	47		65	88	404		122	132	200	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	348	820	8		179	725	49		68	92	420		127	137	208	
Added Vol:	49	0	14		28	0	15		13	5	42		18	6	37	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	397	820	22		207	725	64		81	97	462		145	143	245	
User Adj:	1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	0.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	1.00	
PHF Volume:	397	820	17		207	725	48		81	97	0		145	143	245	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	397	820	17		207	725	48		81	97	0		145	143	245	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	1.00	
FinalVolume:	397	820	17		207	725	48		81	97	0		145	143	245	
OvlAdjVol:							0								142	
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700		1700	1700	1700		1700	1700	1700		1700	1700	1700	
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:	2.00	3.00	1.00		2.00	3.00	1.00		1.00	1.00	1.00		1.01	0.99	1.00	
Final Sat.:	3400	5100	1700		3400	5100	1700		1700	1700	1700		1709	1691	1700	
Capacity Analysis Module:																
Vol/Sat:	0.12	0.16	0.01		0.06	0.14	0.03		0.05	0.06	0.00		0.08	0.08	0.14	
OvlAdjV/S:							0.00								0.08	
Crit Moves:	****					****				****			****			

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulative Plus Project Condition
Saturday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Portola Parkway / Saddleback Parkway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.402
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	20	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Ovl				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	3	0	2	2	0	3	0	1	1	1	0	0	1	1	1	0	0	1
Volume Module:																
Base Vol:	89	965	189		31	1110	40		60	9	82		39	3	7	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	93	1004	197		32	1155	42		62	9	85		41	3	7	
Added Vol:	0	63	23		0	60	0		0	0	0		31	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	93	1067	220		32	1215	42		62	9	85		72	3	7	
User Adj:	1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	0.75	
PHF 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 Volume:	93	1067	165		32	1215	31		62	9	64		72	3	5	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	93	1067	165		32	1215	31		62	9	64		72	3	5	
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:	93	1067	165		32	1215	31		62	9	64		72	3	5	
OvlAdjVol:			90													
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700		1700	1700	1700		1700	1700	1700		1700	1700	1700	
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	3.00	2.00		2.00	3.00	1.00		1.74	0.26	1.00		1.92	0.08	1.00	
Final Sat.:	1700	5100	3400		3400	5100	1700		2957	443	1700		3258	142	1700	
Capacity Analysis Module:																
Vol/Sat:	0.05	0.21	0.05		0.01	0.24	0.02		0.02	0.02	0.04		0.02	0.02	0.00	
OvlAdjV/S:			0.03													
Crit Moves:	****					****					****		****			

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulative Plus Project Condition
Saturday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Portola Parkway - Santa Margarita Parkway / El Toro Road

Cycle (sec):	100	Critical Vol./Cap.(X):	0.611
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	30	Level Of Service:	B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Ovl				Include				Include			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	2	0	4	0 1	2	0	3	0 1	1	0	3	0 1	1	0	3	0 1
Volume Module:																
Base Vol:	297	778	41	196	858	265	211	308	304	27	313	283				
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	309	810	43	204	893	276	220	321	316	28	326	294				
Added Vol:	0	38	0	0	41	50	48	5	0	0	6	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	309	848	43	204	934	326	268	326	316	28	332	294				
User Adj:	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75				
PHF 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 Volume:	309	848	32	204	934	244	268	326	237	28	332	221				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	309	848	32	204	934	244	268	326	237	28	332	221				
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:	309	848	32	204	934	244	268	326	237	28	332	221				
OvlAdjVol:						0										
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700				
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:	2.00	4.00	1.00	2.00	3.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00				
Final Sat.:	3400	6800	1700	3400	5100	1700	1700	5100	1700	1700	5100	1700				
Capacity Analysis Module:																
Vol/Sat:	0.09	0.12	0.02	0.06	0.18	0.14	0.16	0.06	0.14	0.02	0.07	0.13				
OvlAdjV/S:						0.00										
Crit Moves:	****				****		****					****				

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulative Plus Project Condition
Saturday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Los Alisos Boulevard / Santa Margarita Parkway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.531
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	25	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0 1	1	0	2	0 1	1	0	3	0 1	1	0	3	0 1
Volume Module:																
Base Vol:	258	209	128	52	105	71	71	961	158	122	859	80				
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	268	217	133	54	109	74	74	1000	164	127	894	83				
Added Vol:	24	8	0	0	9	0	0	16	25	0	14	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	292	225	133	54	118	74	74	1016	189	127	908	83				
User Adj:	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75				
PHF 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 Volume:	292	225	100	54	118	55	74	1016	142	127	908	62				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	292	225	100	54	118	55	74	1016	142	127	908	62				
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:	292	225	100	54	118	55	74	1016	142	127	908	62				
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700				
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	2.00	1.00	1.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00				
Final Sat.:	1700	3400	1700	1700	3400	1700	1700	5100	1700	1700	5100	1700				
Capacity Analysis Module:																
Vol/Sat:	0.17	0.07	0.06	0.03	0.03	0.03	0.04	0.20	0.08	0.07	0.18	0.04				
Crit Moves:	****				****			****		****						

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulative Plus Project Condition
Saturday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Marguerite Parkway / El Toro Road

Cycle (sec):	100	Critical Vol./Cap.(X):	0.438
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	21	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Ovl				Include				Include				Include			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	1	1	1	0 1	1	1	0	1 1	2	0	2	0 1	2	0	1	1 0
Volume Module:																
Base Vol:	149	226	282		21	348	271		122	202	182		275	169	31	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	155	235	293		22	362	282		127	210	189		286	176	32	
Added Vol:	0	18	0		0	24	6		5	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	155	253	293		22	386	288		132	210	189		286	176	32	
User Adj:	1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	1.00	
PHF 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 Volume:	155	253	220		22	386	216		132	210	142		286	176	32	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	155	253	220		22	386	216		132	210	142		286	176	32	
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:	155	253	220		22	386	216		132	210	142		286	176	32	
OvlAdjVol:			77													
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700		1700	1700	1700		1700	1700	1700		1700	1700	1700	
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:	1.14	1.86	1.00		1.00	1.62	1.38		2.00	2.00	1.00		2.00	1.69	0.31	
Final Sat.:	1937	3163	1700		1700	2750	2350		3400	3400	1700		3400	2873	527	
Capacity Analysis Module:																
Vol/Sat:	0.08	0.08	0.13		0.01	0.14	0.09		0.04	0.06	0.08		0.08	0.06	0.06	
OvlAdjV/S:			0.05													
Crit Moves:	****					****					****		****			

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulative Plus Project Condition
Saturday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Marguerite Parkway / Los Alisos Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.459
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	22	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0 1	1	0	2	0 1	1	0	2	0 1	1	0	2	0 1
Volume Module:																
Base Vol:	9	395	130		233	497	80		87	140	21		138	114	185	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	9	411	135		242	517	83		91	146	22		144	119	193	
Added Vol:	0	14	5		0	18	6		5	4	0		5	3	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	9	425	140		242	535	89		96	150	22		149	122	193	
User Adj:	1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	0.75	
PHF 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 Volume:	9	425	105		242	535	67		96	150	16		149	122	144	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	9	425	105		242	535	67		96	150	16		149	122	144	
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:	9	425	105		242	535	67		96	150	16		149	122	144	
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700		1700	1700	1700		1700	1700	1700		1700	1700	1700	
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	2.00	1.00		1.00	2.00	1.00		1.00	2.00	1.00		1.00	2.00	1.00	
Final Sat.:	1700	3400	1700		1700	3400	1700		1700	3400	1700		1700	3400	1700	
Capacity Analysis Module:																
Vol/Sat:	0.01	0.13	0.06		0.14	0.16	0.04		0.06	0.04	0.01		0.09	0.04	0.08	
Crit Moves:		****			****				****						****	

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulative Plus Project Condition
Saturday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Marguerite Parkway / Santa Margarita Parkway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.620
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	30	Level Of Service:	B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
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	2	0 1	1	0	2	0 1	1	0	3	0 1	1	0	3	0 1
Volume Module:																
Base Vol:	342	367	92		119	301	59		126	807	282		154	630	151	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	356	382	96		124	313	61		131	840	293		160	656	157	
Added Vol:	5	14	0		6	17	0		0	10	6		0	10	5	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	361	396	96		130	330	61		131	850	299		160	666	162	
User Adj:	1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	0.75	
PHF 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 Volume:	361	396	72		130	330	46		131	850	225		160	666	122	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	361	396	72		130	330	46		131	850	225		160	666	122	
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:	361	396	72		130	330	46		131	850	225		160	666	122	
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700		1700	1700	1700		1700	1700	1700		1700	1700	1700	
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	2.00	1.00		1.00	2.00	1.00		1.00	3.00	1.00		1.00	3.00	1.00	
Final Sat.:	1700	3400	1700		1700	3400	1700		1700	5100	1700		1700	5100	1700	
Capacity Analysis Module:																
Vol/Sat:	0.21	0.12	0.04		0.08	0.10	0.03		0.08	0.17	0.13		0.09	0.13	0.07	
Crit Moves:	****					****				****			****			

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulative Plus Project Condition
Sunday Peak Hour

Scenario Report

Scenario:	OY+C+P_Sunday
Command:	OY+C+P_Sunday
Volume:	Ex_Sunday
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	Project + Cumulative_Sunday
Trip Distribution:	Default
Paths:	Default Path
Routes:	Default Route
Configuration:	OY

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulative Plus Project Condition
Sunday Peak Hour

Trip Generation Report

Forecast for Proj_Sunday

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
1		1.00	Project	107.00	107.00	107	107	214	52.3
	Zone 1 Subtotal					107	107	214	52.3
TOTAL						107	107	214	52.3

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulative Plus Project Condition
Sunday Peak Hour

Trip Generation Report

Forecast for Cuml_Sunday

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
100	100	1.00	Zone 1	89.00	79.00	89	79	168	41.1
	Zone 100 Subtotal					89	79	168	41.1
200	200	1.00	Zone 2	13.00	14.00	13	14	27	6.6
	Zone 200 Subtotal					13	14	27	6.6
TOTAL						102	93	195	47.7

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulative Plus Project Condition
Sunday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Portola Parkway / SR - 241 On/Off-Ramp

Cycle (sec): 100 Critical Vol./Cap.(X): 0.274
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 17 Level Of Service: A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Ignore				Ignore				Ignore				Ignore			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	2	0	3	0 1	2	0	3	0 1	1	0	0	0 1	2	0	0	0 1
Volume Module:																
Base Vol:	245	637	109		92	512	69		53	0	198		105	0	103	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	255	663	113		96	533	72		55	0	206		109	0	107	
Added Vol:	19	11	15		0	11	0		0	0	20		15	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	274	674	128		96	544	72		55	0	226		124	0	107	
User Adj:	1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Volume:	274	674	0		96	544	0		55	0	0		124	0	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	274	674	0		96	544	0		55	0	0		124	0	0	
PCE Adj:	1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00	
MLF Adj:	1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00	
FinalVolume:	274	674	0		96	544	0		55	0	0		124	0	0	
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700		1700	1700	1700		1700	1700	1700		1700	1700	1700	
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:	2.00	3.00	1.00		2.00	3.00	1.00		1.00	0.00	1.00		2.00	0.00	1.00	
Final Sat.:	3400	5100	1700		3400	5100	1700		1700	0	1700		3400	0	1700	
Capacity Analysis Module:																
Vol/Sat:	0.08	0.13	0.00	0.03	0.11	0.00	0.03		0.00	0.00	0.04		0.00	0.00		
Crit Moves:	****				****				****				****			

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulative Plus Project Condition
Sunday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Portola Parkway / Rancho Parkway - Purpose Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.571
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	27	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	-	R	L	- T	-	R	L	- T	-	R	L	- T	-	R
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Ovl				Ignore				Ovl			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	2	0	3	0	1	2	0	3	0	1	1	1	0	0	1	1	1	0	1	0
Volume Module:																
Base Vol:	419	688	5	250	549	40	45	162	330	310	209	274				
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	436	716	5	260	571	42	47	169	343	323	217	285				
Added Vol:	45	0	16	32	0	13	12	5	40	16	5	32				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	481	716	21	292	571	55	59	174	383	339	222	317				
User Adj:	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.00	1.00	1.00	1.00				
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
PHF Volume:	481	716	16	292	571	41	59	174	0	339	222	317				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	481	716	16	292	571	41	59	174	0	339	222	317				
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
FinalVolume:	481	716	16	292	571	41	59	174	0	339	222	317				
OvlAdjVol:						0						171				
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700				
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:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	1.00	1.00	1.21	0.79	1.00				
Final Sat.:	3400	5100	1700	3400	5100	1700	1700	1700	1700	2052	1348	1700				
Capacity Analysis Module:																
Vol/Sat:	0.14	0.14	0.01	0.09	0.11	0.02	0.03	0.10	0.00	0.17	0.17	0.19				
OvlAdjV/S:						0.00						0.10				
Crit Moves:	****				****			****			****					

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulative Plus Project Condition
Sunday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Portola Parkway / Saddleback Parkway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.449
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	22	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	-	R	L	- T	-	R	L	- T	-	R	L	- T	-	R
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Ovl				Include				Include				Include			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	1	0	3	0	2	2	0	3	0	1	1	1	0	0	1	1	1	0	0	1
Volume Module:																
Base Vol:	125	985	209	30	1095	48	91	7	91	121	3	19				
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	130	1025	217	31	1139	50	95	7	95	126	3	20				
Added Vol:	0	61	27	0	56	0	0	0	0	27	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	130	1086	244	31	1195	50	95	7	95	153	3	20				
User Adj:	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75				
PHF 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 Volume:	130	1086	183	31	1195	37	95	7	71	153	3	15				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	130	1086	183	31	1195	37	95	7	71	153	3	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:	130	1086	183	31	1195	37	95	7	71	153	3	15				
OvlAdjVol:			27													
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700				
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	3.00	2.00	2.00	3.00	1.00	1.86	0.14	1.00	1.96	0.04	1.00				
Final Sat.:	1700	5100	3400	3400	5100	1700	3157	243	1700	3332	68	1700				
Capacity Analysis Module:																
Vol/Sat:	0.08	0.21	0.05	0.01	0.23	0.02	0.03	0.03	0.04	0.05	0.05	0.01				
OvlAdjV/S:			0.01													
Crit Moves:	****				****				****		****					

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulative Plus Project Condition
Sunday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Portola Parkway - Santa Margarita Parkway / El Toro Road

Cycle (sec):	100	Critical Vol./Cap.(X):	0.646
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	32	Level Of Service:	B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Ovl				Include				Include			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	2	0	4	0 1	2	0	3	0 1	1	0	3	0 1	1	0	3	0 1
Volume Module:																
Base Vol:	316	822	26	178	887	367	271	259	230	28	389	254				
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	329	855	27	185	923	382	282	270	239	29	405	264				
Added Vol:	0	39	0	0	37	45	48	5	0	0	5	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	329	894	27	185	960	427	330	275	239	29	410	264				
User Adj:	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75				
PHF 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 Volume:	329	894	20	185	960	320	330	275	180	29	410	198				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	329	894	20	185	960	320	330	275	180	29	410	198				
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:	329	894	20	185	960	320	330	275	180	29	410	198				
OvlAdjVol:						0										
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700				
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:	2.00	4.00	1.00	2.00	3.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00				
Final Sat.:	3400	6800	1700	3400	5100	1700	1700	5100	1700	1700	5100	1700				
Capacity Analysis Module:																
Vol/Sat:	0.10	0.13	0.01	0.05	0.19	0.19	0.19	0.05	0.11	0.02	0.08	0.12				
OvlAdjV/S:						0.00										
Crit Moves:	****				****		****					****				

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulative Plus Project Condition
Sunday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Los Alisos Boulevard / Santa Margarita Parkway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.542
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	26	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0 1	1	0	2	0 1	1	0	3	0 1	1	0	3	0 1
Volume Module:																
Base Vol:	253	159	148	64	129	57	57	932	154	143	838	66				
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	263	165	154	67	134	59	59	970	160	149	872	69				
Added Vol:	24	9	0	0	9	0	0	15	23	0	15	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	287	174	154	67	143	59	59	985	183	149	887	69				
User Adj:	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75				
PHF 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 Volume:	287	174	116	67	143	44	59	985	137	149	887	52				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	287	174	116	67	143	44	59	985	137	149	887	52				
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:	287	174	116	67	143	44	59	985	137	149	887	52				
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700				
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	2.00	1.00	1.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00				
Final Sat.:	1700	3400	1700	1700	3400	1700	1700	5100	1700	1700	5100	1700				
Capacity Analysis Module:																
Vol/Sat:	0.17	0.05	0.07	0.04	0.04	0.03	0.03	0.19	0.08	0.09	0.17	0.03				
Crit Moves:	****				****			****		****						

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulative Plus Project Condition
Sunday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Marguerite Parkway / El Toro Road

Cycle (sec):	100	Critical Vol./Cap.(X):	0.449
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	22	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Ovl				Include				Include				Include			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	1	1	1	0 1	1	1	0	1 1	2	0	2	0 1	2	0	1	1 0
Volume Module:																
Base Vol:	173	378	201	41	402	271	165	158	115	269	168	45				
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	180	393	209	43	418	282	172	164	120	280	175	47				
Added Vol:	0	21	0	0	21	5	5	0	0	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	180	414	209	43	439	287	177	164	120	280	175	47				
User Adj:	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	1.00				
PHF 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 Volume:	180	414	157	43	439	215	177	164	90	280	175	47				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	180	414	157	43	439	215	177	164	90	280	175	47				
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:	180	414	157	43	439	215	177	164	90	280	175	47				
OvlAdjVol:			17													
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700				
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	2.00	1.00	1.00	1.76	1.24	2.00	2.00	1.00	2.00	1.58	0.42				
Final Sat.:	1700	3400	1700	1700	2991	2109	3400	3400	1700	3400	2682	718				
Capacity Analysis Module:																
Vol/Sat:	0.11	0.12	0.09	0.03	0.15	0.10	0.05	0.05	0.05	0.08	0.07	0.07				
OvlAdjV/S:			0.01													
Crit Moves:		****			****				****		****					

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulative Plus Project Condition
Sunday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Marguerite Parkway / Los Alisos Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.473
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	23	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0	0	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	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0 1	1	0	2	0 1	1	0	2	0 1	1	0	2	0 1
Volume Module:																
Base Vol:	20	428	109	193	529	82	106	95	19	167	134	221				
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	21	445	113	201	550	85	110	99	20	174	139	230				
Added Vol:	0	16	5	0	16	5	5	3	0	5	4	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	21	461	118	201	566	90	115	102	20	179	143	230				
User Adj:	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00	0.75				
PHF 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 Volume:	21	461	89	201	566	68	115	102	15	179	143	172				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	21	461	89	201	566	68	115	102	15	179	143	172				
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	461	89	201	566	68	115	102	15	179	143	172				
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700				
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	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00				
Final Sat.:	1700	3400	1700	1700	3400	1700	1700	3400	1700	1700	3400	1700				
Capacity Analysis Module:																
Vol/Sat:	0.01	0.14	0.05	0.12	0.17	0.04	0.07	0.03	0.01	0.11	0.04	0.10				
Crit Moves:		****		****			****					****				

Saddleback Community Church New Worship Center TIS
Opening Year Plus Cumulative Plus Project Condition
Sunday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Marguerite Parkway / Santa Margarita Parkway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.598
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	29	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
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	2	0 1	1	0	2	0 1	1	0	3	0 1	1	0	3	0 1
Volume Module:																
Base Vol:	293	346	74		199	420	63		105	590	324		133	629	113	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	305	360	77		207	437	66		109	614	337		138	655	118	
Added Vol:	5	15	0		5	16	0		0	9	5		0	10	5	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	310	375	77		212	453	66		109	623	342		138	665	123	
User Adj:	1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	0.75		1.00	1.00	0.75	
PHF 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 Volume:	310	375	58		212	453	49		109	623	257		138	665	92	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	310	375	58		212	453	49		109	623	257		138	665	92	
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:	310	375	58		212	453	49		109	623	257		138	665	92	
Saturation Flow Module:																
Sat/Lane:	1700	1700	1700		1700	1700	1700		1700	1700	1700		1700	1700	1700	
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	2.00	1.00		1.00	2.00	1.00		1.00	3.00	1.00		1.00	3.00	1.00	
Final Sat.:	1700	3400	1700		1700	3400	1700		1700	5100	1700		1700	5100	1700	
Capacity Analysis Module:																
Vol/Sat:	0.18	0.11	0.03		0.12	0.13	0.03		0.06	0.12	0.15		0.08	0.13	0.05	
Crit Moves:	****					****					****		****			

Appendix F

Existing Parking Demand Counts

Project Title: Saddleback Church Parking Study

Parking Occupancy Survey

Location Saddleback Church - Lake Forest, CA

Saturday, November 04, 2017		Inv	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00
Zone 1	Unmarked Stall	406	0	0	0	0	0	0	0	0	4	11	32	27	7
	TOTAL OCCUPANCY	406	0	0	0	0	0	0	0	0	4	11	32	27	7
	TOTAL %	-	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*1%*	*3%*	*8%*	*7%*	*2%*
Zone 2	Unmarked Stall	16	0	0	0	0	0	0	0	0	0	0	2	2	1
	Handicapped	8	0	0	0	0	0	0	0	0	0	0	0	0	0
	Reserved	3	0	0	0	0	0	0	0	0	1	1	1	1	1
	TOTAL OCCUPANCY	27	0	0	0	0	0	0	0	0	1	1	3	3	2
	TOTAL %	-	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*4%*	*4%*	*11%*	*11%*	*7%*
Zone 3	Unmarked Stall	418	4	4	4	5	5	5	5	5	8	8	11	10	9
	Handicapped	8	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL OCCUPANCY	426	4	4	4	5	5	5	5	5	8	8	11	10	9
	TOTAL %	-	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*2%*	*2%*	*3%*	*2%*	*2%*
Zone 4	Unmarked Stall	396	9	21	24	14	15	20	19	18	261	319	400	247	69
	Handicapped	11	0	0	0	0	0	1	0	0	1	2	2	2	0
	TOTAL OCCUPANCY	407	9	21	24	14	15	21	19	18	262	321	402	249	69
	TOTAL %	-	*2%*	*5%*	*6%*	*3%*	*4%*	*5%*	*5%*	*4%*	*64%*	*79%*	*99%*	*61%*	*17%*
Zone 5	Unmarked Stall	162	41	57	58	52	56	42	25	28	68	55	52	45	20
	Handicapped	4	1	1	2	2	2	3	0	0	1	1	1	1	1
	Staff	4	1	2	2	2	1	1	1	3	2	2	3	3	3
	TOTAL OCCUPANCY	170	43	60	62	56	59	46	26	31	71	58	56	49	24
	TOTAL %	-	*25%*	*35%*	*36%*	*33%*	*35%*	*27%*	*15%*	*18%*	*42%*	*34%*	*33%*	*29%*	*14%*
Zone 6	Unmarked Stall	22	0	2	8	6	5	3	2	2	18	19	17	17	1
	Reserved	6	0	0	0	0	0	0	0	0	4	3	2	1	1
	TOTAL OCCUPANCY	28	0	2	8	6	5	3	2	2	22	22	19	18	2
	TOTAL %	-	*0%*	*7%*	*29%*	*21%*	*18%*	*11%*	*7%*	*7%*	*79%*	*79%*	*68%*	*64%*	*7%*
Zone 7	Unmarked Stall	43	1	19	20	10	8	15	8	8	37	38	21	16	2
	Handicapped	10	0	0	1	1	1	0	0	0	8	9	8	6	1
	Motorcycles	-	0	0	0	0	0	0	0	0	0	0	1	1	0
	TOTAL OCCUPANCY	53	1	19	21	11	9	15	8	8	45	47	30	23	3
	TOTAL %	-	*2%*	*36%*	*40%*	*21%*	*17%*	*28%*	*15%*	*15%*	*85%*	*89%*	*57%*	*43%*	*6%*

Unmarked Stall refers to parking spaces that are not designated for a specific use such as handicapped, staff, security, reserved, etc.

Project Title: Saddleback Church Parking Study

Parking Occupancy Survey

Location Saddleback Church - Lake Forest, CA

Saturday, November 04, 2017		Inv	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00
Zone 8	Long Camper	6	0	0	0	1	1	1	1	1	1	1	1	1	0
	TOTAL OCCUPANCY	6	0	0	0	1	1	1	1	1	1	1	1	1	0
	TOTAL %	-	*0%*	*0%*	*0%*	*17%*	*17%*	*17%*	*17%*	*17%*	*17%*	*17%*	*17%*	*17%*	*0%*
Zone 9	Unmarked Stall	62	1	1	1	1	1	1	2	1	3	4	3	3	2
	TOTAL OCCUPANCY	62	1	1	1	1	1	1	2	1	3	4	3	3	2
	TOTAL %	-	*2%*	*2%*	*2%*	*2%*	*2%*	*2%*	*3%*	*2%*	*5%*	*6%*	*5%*	*5%*	*3%*
Zone 10	Unmarked Stall	80	0	0	1	0	0	0	0	0	30	47	30	44	21
	Handicapped	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL OCCUPANCY	81	0	0	1	0	0	0	0	0	30	47	30	44	21
	TOTAL %	-	*0%*	*0%*	*1%*	*0%*	*0%*	*0%*	*0%*	*0%*	*37%*	*58%*	*37%*	*54%*	*26%*
Zone 11	Unmarked Stall	3	0	0	0	0	0	0	0	0	0	3	3	0	0
	Handicapped	35	4	3	6	6	7	5	5	9	9	35	35	10	8
	Reserved	48	4	4	5	8	7	6	5	5	7	48	48	46	8
	Security Zone	-	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL OCCUPANCY	86	8	7	11	14	14	11	10	14	16	86	86	56	16
	TOTAL %	-	*9%*	*8%*	*13%*	*16%*	*16%*	*13%*	*12%*	*16%*	*19%*	*100%*	*100%*	*65%*	*19%*
Zone 12	Unmarked Stall	192	2	3	4	25	34	33	77	191	191	191	192	191	36
	Handicapped	30	0	1	2	1	0	0	1	30	30	30	30	12	1
	Reserved	10	0	0	0	0	0	0	0	6	6	6	6	5	3
	Motorcycles	2	0	0	0	0	0	1	1	3	3	3	3	2	1
	TOTAL OCCUPANCY	234	2	4	6	26	34	34	79	230	230	230	231	210	41
	TOTAL %	-	*1%*	*2%*	*3%*	*11%*	*15%*	*15%*	*34%*	*98%*	*98%*	*98%*	*99%*	*90%*	*18%*
Zone 13	Unmarked Stall	446	0	0	0	0	0	0	0	0	459	459	315	254	19
		-													
	TOTAL OCCUPANCY	446	0	0	0	0	0	0	0	0	459	459	315	254	19
	TOTAL %	-	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*103%*	*103%*	*71%*	*57%*	*4%*
Zone 14	Unmarked Stall	75	1	1	3	5	1	2	3	0	0	0	0	0	0
	Handicapped	7	0	0	0	1	0	0	0	0	0	0	4	3	5
	Reserved	61	1	9	13	10	13	7	4	1	1	0	0	0	0

Unmarked Stall refers to parking spaces that are not designated for a specific use such as handicapped, staff, security, reserved, etc.

Project Title: Saddleback Church Parking Study

Parking Occupancy Survey

Location Saddleback Church - Lake Forest, CA

Saturday, November 04, 2017		Inv	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00
	TOTAL OCCUPANCY	143	2	10	16	16	14	9	7	1	1	0	4	3	5
	TOTAL %	-	*1%*	*7%*	*11%*	*11%*	*10%*	*6%*	*5%*	*1%*	*1%*	*0%*	*3%*	*2%*	*3%*
Zone 15	Unmarked Stall	282	39	37	40	43	41	34	32	35	33	34	33	33	33
	Handicapped	6	0	0	1	2	2	0	0	0	0	0	0	0	0
	TOTAL OCCUPANCY	288	39	37	41	45	43	34	32	35	33	34	33	33	33
	TOTAL %	-	*14%*	*13%*	*14%*	*16%*	*15%*	*12%*	*11%*	*12%*	*11%*	*12%*	*11%*	*11%*	*11%*
Zone 16	Unmarked Stall	147	16	21	27	28	23	19	13	18	17	14	14	13	12
	Handicapped	6	0	2	2	1	1	0	0	0	0	0	0	0	0
	Carts	5	3	3	3	3	4	4	3	3	3	3	3	3	3
	TOTAL OCCUPANCY	158	19	26	32	32	28	23	16	21	20	17	17	16	15
	TOTAL %	-	*12%*	*16%*	*20%*	*20%*	*18%*	*15%*	*10%*	*13%*	*13%*	*11%*	*11%*	*10%*	*9%*
	TOTAL OCCUPANCY	3021	**128**	**191**	**227**	**227**	**228**	**203**	**207**	**367**	**1206**	**1346**	**1273**	**999**	**268**
	TOTAL %	-	*4%*	*6%*	*8%*	*8%*	*8%*	*7%*	*7%*	*12%*	*40%*	*45%*	*42%*	*33%*	*9%*

*Zones 1, 2, 13 were closed/blocked off from 8:00AM - 3:00 PM

Unmarked Stall refers to parking spaces that are not designated for a specific use such as handicapped, staff, security, reserved, etc.

Project Title: Saddleback Church Parking Study

Parking Occupancy Survey

Location Saddleback Church - Lake Forest, CA

Sunday, November 05, 2017		Inv	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00
Zone 1	Unmarked Stall	406	9	261	279	169	153	32	12	8	4	1	1	1	1
	TOTAL OCCUPANCY	406	9	261	279	169	153	32	12	8	4	1	1	1	1
	TOTAL %	-	*2%*	*64%*	*69%*	*42%*	*38%*	*8%*	*3%*	*2%*	*1%*	*0%*	*0%*	*0%*	*0%*
Zone 2	Unmarked Stall	16	0	13	16	8	6	0	0	0	0	0	0	0	0
	Handicapped	8	1	4	7	4	2	1	0	0	0	0	0	0	0
	Reserved	3	0	0	0	0	0	0	0	0	0	1	1	1	1
	TOTAL OCCUPANCY	27	1	17	23	12	8	1	0	0	0	1	1	1	1
	TOTAL %	-	*4%*	*63%*	*85%*	*44%*	*30%*	*4%*	*0%*	*0%*	*0%*	*4%*	*4%*	*4%*	*4%*
Zone 3	Unmarked Stall	418	9	109	118	144	150	40	6	5	6	8	5	5	5
	Handicapped	8	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL OCCUPANCY	426	9	109	118	144	150	40	6	5	6	8	5	5	5
	TOTAL %	-	*2%*	*26%*	*28%*	*34%*	*35%*	*9%*	*1%*	*1%*	*1%*	*2%*	*1%*	*1%*	*1%*
Zone 4	Unmarked Stall	396	79	383	383	328	318	81	74	76	14	11	32	35	35
	Handicapped	11	7	10	10	1	1	2	1	1	0	0	2	2	2
	TOTAL OCCUPANCY	407	86	393	393	329	319	83	75	77	14	11	34	37	37
	TOTAL %	-	*21%*	*97%*	*97%*	*81%*	*78%*	*20%*	*18%*	*19%*	*3%*	*3%*	*8%*	*9%*	*9%*
Zone 5	Unmarked Stall	162	1	55	75	109	117	47	32	35	12	7	7	12	7
	Handicapped	4	0	3	3	4	3	0	0	0	0	0	0	0	0
	Staff	4	1	1	1	2	2	2	2	2	1	1	1	1	1
	TOTAL OCCUPANCY	170	2	59	79	115	122	49	34	37	13	8	8	13	8
	TOTAL %	-	*1%*	*35%*	*46%*	*68%*	*72%*	*29%*	*20%*	*22%*	*8%*	*5%*	*5%*	*8%*	*5%*
Zone 6	Unmarked Stall	22	0	22	22	22	19	4	6	3	0	1	1	1	1
	Reserved	6	3	4	4	4	2	0	0	0	0	0	0	0	0
	TOTAL OCCUPANCY	28	3	26	26	26	21	4	6	3	0	1	1	1	1
	TOTAL %	-	*11%*	*93%*	*93%*	*93%*	*75%*	*14%*	*21%*	*11%*	*0%*	*4%*	*4%*	*4%*	*4%*
Zone 7	Unmarked Stall	43	3	42	42	32	32	8	16	15	14	16	33	34	35
	Handicapped	10	4	10	10	4	3	0	0	0	0	1	4	4	3
	Motorcycles	-	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL OCCUPANCY	53	7	52	52	36	35	8	16	15	14	17	37	38	38
	TOTAL %	-	*13%*	*98%*	*98%*	*68%*	*66%*	*15%*	*30%*	*28%*	*26%*	*32%*	*70%*	*72%*	*72%*

Unmarked Stall refers to parking spaces that are not designated for a specific use such as handicapped, staff, security, reserved, etc.

Project Title: Saddleback Church Parking Study

Parking Occupancy Survey

Location Saddleback Church - Lake Forest, CA

Sunday, November 05, 2017		Inv	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00
Zone 8	Long Camper	6	0	0	0	0	2	0	0	0	0	0	0	0	0
	TOTAL OCCUPANCY	6	0	0	0	0	2	0	0	0	0	0	0	0	0
	TOTAL %	-	*0%*	*0%*	*0%*	*0%*	*33%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*
Zone 9	Unmarked Stall	62	1	10	22	16	19	10	5	4	4	2	2	2	2
	TOTAL OCCUPANCY	62	1	10	22	16	19	10	5	4	4	2	2	2	2
	TOTAL %	-	*2%*	*16%*	*35%*	*26%*	*31%*	*16%*	*8%*	*6%*	*6%*	*3%*	*3%*	*3%*	*3%*
Zone 10	Unmarked Stall	80	1	76	79	60	73	15	8	9	2	4	4	1	1
	Handicapped	1	0	1	1	0	1	0	0	0	0	0	0	0	0
	TOTAL OCCUPANCY	81	1	77	80	60	74	15	8	9	2	4	4	1	1
	TOTAL %	-	*1%*	*95%*	*99%*	*74%*	*91%*	*19%*	*10%*	*11%*	*2%*	*5%*	*5%*	*1%*	*1%*
Zone 11	Unmarked Stall	3	0	0	0	0	0	0	0	0	0	0	0	0	0
	Handicapped	35	25	36	40	40	39	8	7	5	0	0	0	1	2
	Reserved	48	14	48	48	48	48	17	33	36	16	0	0	0	0
	Security Zone	-	2	2	2	2	2	2	0	0	0	0	0	0	0
	TOTAL OCCUPANCY	86	41	86	90	90	89	27	40	41	16	0	0	1	2
	TOTAL %	-	*48%*	*100%*	*105%*	*105%*	*103%*	*31%*	*47%*	*48%*	*19%*	*0%*	*0%*	*1%*	*2%*
Zone 12	Unmarked Stall	192	189	187	190	186	187	55	58	61	12	2	4	2	2
	Handicapped	30	14	29	30	34	30	3	0	0	0	0	0	0	0
	Reserved	10	3	6	7	1	7	4	0	0	0	0	0	0	0
	Motorcycles	2	1	1	2	3	4	0	2	2	1	1	1	1	1
	TOTAL OCCUPANCY	234	207	223	229	224	228	62	60	63	13	3	5	3	3
	TOTAL %	-	*88%*	*95%*	*98%*	*96%*	*97%*	*26%*	*26%*	*27%*	*6%*	*1%*	*2%*	*1%*	*1%*
Zone 13	Unmarked Stall	446	385	385	446	423	328	38	6	5	0	0	0	0	0
		-													
	TOTAL OCCUPANCY	446	385	385	446	423	328	38	6	5	0	0	0	0	0
	TOTAL %	-	*86%*	*86%*	*100%*	*95%*	*74%*	*9%*	*1%*	*1%*	*0%*	*0%*	*0%*	*0%*	*0%*
Zone 14	Unmarked Stall	75	0	1	2	0	0	1	3	4	3	0	0	0	0
	Handicapped	7	0	0	0	0	0	0	0	0	0	0	1	1	1
	Reserved	61	0	2	2	3	4	11	12	11	3	0	0	0	0

Unmarked Stall refers to parking spaces that are not designated for a specific use such as handicapped, staff, security, reserved, etc.

Project Title: Saddleback Church Parking Study

Parking Occupancy Survey

Location Saddleback Church - Lake Forest, CA

Sunday, November 05, 2017		Inv	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00
	TOTAL OCCUPANCY	143	0	3	4	3	4	12	15	15	6	0	1	1	1
	TOTAL %	-	*0%*	*2%*	*3%*	*2%*	*3%*	*8%*	*10%*	*10%*	*4%*	*0%*	*1%*	*1%*	*1%*
Zone 15	Unmarked Stall	282	31	34	34	29	27	26	24	22	23	31	32	30	30
	Handicapped	6	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL OCCUPANCY	288	31	34	34	29	27	26	24	22	23	31	32	30	30
	TOTAL %	-	*11%*	*12%*	*12%*	*10%*	*9%*	*9%*	*8%*	*8%*	*8%*	*11%*	*11%*	*10%*	*10%*
Zone 16	Unmarked Stall	147	9	9	16	11	10	11	11	12	11	9	8	8	8
	Handicapped	6	0	0	0	0	0	0	0	0	0	0	0	0	0
	Carts	5	3	3	3	3	3	3	3	3	41	4	4	4	4
	TOTAL OCCUPANCY	158	12	12	19	14	13	14	14	15	52	13	12	12	12
	TOTAL %	-	*8%*	*8%*	*12%*	*9%*	*8%*	*9%*	*9%*	*9%*	*33%*	*8%*	*8%*	*8%*	*8%*
	TOTAL OCCUPANCY	3021	**795**	**1747**	**1894**	**1690**	**1592**	**421**	**321**	**319**	**167**	**100**	**143**	**146**	**142**
	TOTAL %	-	*26%*	*58%*	*63%*	*56%*	*53%*	*14%*	*11%*	*11%*	*6%*	*3%*	*5%*	*5%*	*5%*

Unmarked Stall refers to parking spaces that are not designated for a specific use such as handicapped, staff, security, reserved, etc.

Appendix J

AB 52 Tribal Consultation Letters

CITY OF LAKE FOREST

Mayor
Mark Tettemer

Mayor Pro Tem
Neeki Moatazedi

Council Members
Leah Basile
Dwight Robinson
Scott Voigts

City Manager
Debra DeBruhl Rose

April 30, 2019

Juaneño Band of Mission Indians Acjachemen Nation
Ms. Joyce Stanfield Perry, Tribal Manager
4955 Paseo Segovia
Irvine, CA 92603
(949) 293-8522
kaamalam@gmail.com

RE: AB 52 Consultation: Saddleback Community Church, City of Lake Forest, Orange County, California

Dear Ms. Perry:

The City of Lake Forest (City) is preparing an Initial Study – Mitigated Negative Declaration for the proposed Saddleback Community Church Project (Project) in the City of Lake Forest, Orange County, California. The proposed Project would construct a two-story 92,391 square foot (sf) Worship Center Building and the existing one-story 31,088 sf Worship Center Building would be modified through addition of a 26,924 sf second floor for a total sf of 58,012. Additionally, approximately 50,000 sf of additional surface parking lot area would be constructed, including extension of the exiting on-site fire lane. In addition, approximately 18,400 sf of flatwork would be constructed. Additional improvements including landscaping and a storm drain would be constructed. The proposed Project is subject to the California Environmental Quality Act.

The proposed Project must comply with California Public Resources Code § 21080.3.1 (Assembly Bill [AB] 52 of 2014), which requires local governments to conduct meaningful consultation with California Native American tribes that have requested to be notified by lead agencies of proposed projects in the geographic area with which the tribe is traditionally and culturally affiliated.

The input of the Juaneño Band of Mission Indians Acjachemen Nation is important to the City's planning process. Under AB 52, you have 30 days from receipt of this letter to respond in writing if you wish you consult on the proposed project. If you require any additional information or have any questions, please contact me at (949) 461-3491 or via e-mail at alauffer@lakeforestca.gov. Thank you for your assistance.

Sincerely,

CITY OF LAKE FOREST

Amanda Lauffer
Associate Planner

Enclosure: Project Location Map

Mayor
Mark Tettemer

Mayor Pro Tem
Neeki Moatazedi

Council Members
Leah Basile
Dwight Robinson
Scott Voigts

City Manager
Debra DeBruhl Rose

April 30, 2019

Soboba Band of Luiseño Indians
Mr. Joseph Ontiveros, Cultural Resource Director
P.O. Box 487
San Jacinto, CA 92581
(951) 654-5544 x 4137 (office)
(951) 663-5279 (cell)
jontiveros@soboba-nsn.gov

RE: AB 52 Consultation: Saddleback Community Church, City of Lake Forest, Orange County, California

Dear Mr. Ontiveros:

The City of Lake Forest (City) is preparing an Initial Study – Mitigated Negative Declaration for the proposed Saddleback Community Church Project (Project) in the City of Lake Forest, Orange County, California. The proposed Project would construct a two-story 92,391 square foot (sf) Worship Center Building and the existing one-story 31,088 sf Worship Center Building would be modified through addition of a 26,924 sf second floor for a total sf of 58,012. Additionally, approximately 50,000 sf of additional surface parking lot area would be constructed, including extension of the exiting on-site fire lane. In addition, approximately 18,400 sf of flatwork would be constructed. Additional improvements including landscaping and a storm drain would be constructed. The proposed Project is subject to the California Environmental Quality Act.

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The input of the Soboba Band of Luiseño Indians is important to the City's planning process. Under AB 52, you have 30 days from receipt of this letter to respond in writing if you wish you consult on the proposed project. If you require any additional information or have any questions, please contact me at (949) 461-3491 or via e-mail at alauffer@lakeforestca.gov. Thank you for your assistance.

Sincerely,

CITY OF LAKE FOREST

Amanda Lauffer
Associate Planner

Enclosure: Project Location Map

DRUG USE IS LIFE ABUSE

25550 Commercentre Dr., Suite 100
Lake Forest, CA 92630
(949) 461-3400
City Hall Fax: (949) 461-3511

Mayor
Mark Tettemer

Mayor Pro Tem
Neeki Moatazedi

Council Members
Leah Basile
Dwight Robinson
Scott Voigts

City Manager
Debra DeBruhl Rose

April 30, 2019

Torres Martinez Desert Cahuilla Indians
Mr. Michael Mirelez, Cultural Resource Coordinator
P.O. Box 1160
Thermal, CA 92274
(760) 397-0300 x 1213 (office)
(760) 399-0022 (cell)
mmirelez@tmdci.org

RE: AB 52 Consultation: Saddleback Community Church, City of Lake Forest, Orange County, California

Dear Mr. Mirelez:

The City of Lake Forest (City) is preparing an Initial Study – Mitigated Negative Declaration for the proposed Saddleback Community Church Project (Project) in the City of Lake Forest, Orange County, California. The proposed Project would construct a two-story 92,391 square foot (sf) Worship Center Building and the existing one-story 31,088 sf Worship Center Building would be modified through addition of a 26,924 sf second floor for a total sf of 58,012. Additionally, approximately 50,000 sf of additional surface parking lot area would be constructed, including extension of the exiting on-site fire lane. In addition, approximately 18,400 sf of flatwork would be constructed. Additional improvements including landscaping and a storm drain would be constructed. The proposed Project is subject to the California Environmental Quality Act.

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The input of the Torres Martinez Desert Cahuilla Indians is important to the City's planning process. Under AB 52, you have 30 days from receipt of this letter to respond in writing if you wish you consult on the proposed project. If you require any additional information or have any questions, please contact me at (949) 461-3491 or via e-mail at alauffer@lakeforestca.gov. Thank you for your assistance.

Sincerely,

CITY OF LAKE FOREST

Amanda Lauffer
Associate Planner

Enclosure: Project Location Map

Mayor
Mark Tettemer

Mayor Pro Tem
Neeki Moatazedi

Council Members
Leah Basile
Dwight Robinson
Scott Voigts

City Manager
Debra DeBruhl Rose

April 30, 2019

United Auburn Indian Community of the Auburn Rancheria
Mr. Gene Whitehouse, Chairman
10720 Indian Hill Road
Auburn, CA 95603
(916) 883-2320

RE: AB 52 Consultation: Saddleback Community Church, City of Lake Forest, Orange County, California

Dear Chairmen Whitehouse:

The City of Lake Forest (City) is preparing an Initial Study – Mitigated Negative Declaration for the proposed Saddleback Community Church Project (Project) in the City of Lake Forest, Orange County, California. The proposed Project would construct a two-story 92,391 square foot (sf) Worship Center Building and the existing one-story 31,088 sf Worship Center Building would be modified through addition of a 26,924 sf second floor for a total sf of 58,012. Additionally, approximately 50,000 sf of additional surface parking lot area would be constructed, including extension of the exiting on-site fire lane. In addition, approximately 18,400 sf of flatwork would be constructed. Additional improvements including landscaping and a storm drain would be constructed. The proposed Project is subject to the California Environmental Quality Act.

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The input of the United Auburn Indian Community of the Auburn Rancheria is important to the City's planning process. Under AB 52, you have 30 days from receipt of this letter to respond in writing if you wish you consult on the proposed project. If you require any additional information or have any questions, please contact me at (949) 461-3491 or via e-mail at alauffer@lakeforestca.gov. Thank you for your assistance.

Sincerely,

CITY OF LAKE FOREST

Amanda Lauffer
Associate Planner

Enclosure: Project Location Map

Mayor
Mark Tettemer

Mayor Pro Tem
Neeki Moatazedi

Council Members
Leah Basile
Dwight Robinson
Scott Voigts

City Manager
Debra DeBruhl Rose

April 30, 2019

United Auburn Indian Community of the Auburn Rancheria
Mr. Jason Camp, Tribal Historic Preservation Officer
10720 Indian Hill Road
Auburn, CA 95603
(530) 883-2320
jcamp@auburnrancheria.com

RE: AB 52 Consultation: Saddleback Community Church, City of Lake Forest, Orange County, California

Dear Mr. Camp:

The City of Lake Forest (City) is preparing an Initial Study – Mitigated Negative Declaration for the proposed Saddleback Community Church Project (Project) in the City of Lake Forest, Orange County, California. The proposed Project would construct a two-story 92,391 square foot (sf) Worship Center Building and the existing one-story 31,088 sf Worship Center Building would be modified through addition of a 26,924 sf second floor for a total sf of 58,012. Additionally, approximately 50,000 sf of additional surface parking lot area would be constructed, including extension of the exiting on-site fire lane. In addition, approximately 18,400 sf of flatwork would be constructed. Additional improvements including landscaping and a storm drain would be constructed. The proposed Project is subject to the California Environmental Quality Act.

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Sincerely,

CITY OF LAKE FOREST

Amanda Lauffer
Associate Planner

Enclosure: Project Location Map

25550 Commercentre Dr., Suite 100
Lake Forest, CA 92630
(949) 461-3400
City Hall Fax: (949) 461-3511

Mayor
Mark Tettemer

Mayor Pro Tem
Neeki Moatazedi

Council Members
Leah Basile
Dwight Robinson
Scott Voigts

City Manager
Debra DeBruhl Rose

April 30, 2019

United Auburn Indian Community of the Auburn Rancheria
Mr. Marcos Guerrero, Cultural Resources Manager
10720 Indian Hill Road
Auburn, CA 95603
(530) 883-2364
mguerrero@auburnrancheria.com

RE: AB 52 Consultation: Saddleback Community Church, City of Lake Forest, Orange County, California

Dear Mr. Guerrero:

The City of Lake Forest (City) is preparing an Initial Study – Mitigated Negative Declaration for the proposed Saddleback Community Church Project (Project) in the City of Lake Forest, Orange County, California. The proposed Project would construct a two-story 92,391 square foot (sf) Worship Center Building and the existing one-story 31,088 sf Worship Center Building would be modified through addition of a 26,924 sf second floor for a total sf of 58,012. Additionally, approximately 50,000 sf of additional surface parking lot area would be constructed, including extension of the exiting on-site fire lane. In addition, approximately 18,400 sf of flatwork would be constructed. Additional improvements including landscaping and a storm drain would be constructed. The proposed Project is subject to the California Environmental Quality Act.

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Sincerely,

CITY OF LAKE FOREST

Amanda Lauffer
Associate Planner

Enclosure: Project Location Map