



Victorville CarMax

AIR QUALITY IMPACT ANALYSIS

CITY OF VICTORVILLE

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TABLE OF CONTENTS

TABLE OF CONTENTS	I
APPENDICES	II
LIST OF EXHIBITS	II
LIST OF TABLES	II
LIST OF ABBREVIATED TERMS	III
EXECUTIVE SUMMARY	1
1 INTRODUCTION	2
1.1 Site Location	2
1.2 Project Description	2
1.3 Monitoring of and Compliance With Standard Regulatory Requirements/Best Available Control Measures (BACMs)	2
1.4 Construction-Source and Operational-Source Mitigation Measures	4
2 AIR QUALITY SETTING	5
2.1 Mojave Desert Air Basin	5
2.2 Regional Climate	5
2.3 Existing Air Quality	6
2.4 Regional Air Quality	9
2.5 Local Air Quality	9
2.6 Regulatory Background	15
3 PROJECT AIR QUALITY IMPACT	18
3.1 Introduction	18
3.2 Standards of Significance	18
3.3 California Emissions Estimator Model™ Employed to Estimate AQ Emissions	19
3.4 Construction Emissions	19
3.5 Operational Emissions	21
3.6 CO “Hot Spot” Analysis	23
3.7 Air Quality Management Planning	25
3.8 Potential Impacts to Sensitive Receptors	26
3.9 Odors	27
3.10 Cumulative Impacts	27
4 CONCLUSION	30
5 REFERENCES	32
6 CERTIFICATION	35

APPENDICES

- APPENDIX 2.1: STATE/FEDERAL ATTAINMENT STATUS OF CRITERIA POLLUTANTS**
APPENDIX 3.1: CALEEMOD CONSTRUCTION EMISSIONS MODEL OUTPUTS
APPENDIX 3.2: CALEEMOD OPERATIONAL EMISSIONS MODEL OUTPUTS

LIST OF EXHIBITS

EXHIBIT 1-A: SITE PLAN.....	3
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LIST OF TABLES

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS	1
TABLE 2-1: AMBIENT AIR QUALITY STANDARDS (1 OF 2).....	7
TABLE 2-1: AMBIENT AIR QUALITY STANDARDS (2 OF 2).....	8
TABLE 2-2: ATTAINMENT STATUS OF CRITERIA POLLUTANTS IN THE MOJAVE DESERT AIR BASIN	9
TABLE 2-3: PROJECT AREA AIR QUALITY MONITORING SUMMARY 2015-2017.....	10
TABLE 3-1: MAXIMUM REGIONAL DAILY EMISSIONS THRESHOLDS	18
TABLE 3-2: CONSTRUCTION DURATION.....	20
TABLE 3-3: CONSTRUCTION EQUIPMENT ASSUMPTIONS	20
TABLE 3-4: EMISSIONS SUMMARY OF CONSTRUCTION (WITHOUT MITIGATION)	21
TABLE 3-5: SUMMARY OF PEAK OPERATIONAL EMISSIONS	23
TABLE 3-6: CO MODEL RESULTS	24
TABLE 3-7: TRAFFIC VOLUMES	25
TABLE 3-8: PROJECT PEAK TRAFFIC VOLUMES	25

LIST OF ABBREVIATED TERMS

(1)	Reference
$\mu\text{g}/\text{m}^3$	Microgram per Cubic Meter
AADT	Annual Average Daily Trips
AQIA	Air Quality Impact Analysis
AQMD	Air Quality Management District
AQMP	Air Quality Management Plan
ARB	California Air Resources Board
BACM	Best Available Control Measures
BMPs	Best Management Practices
CAA	Federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CO	Carbon Monoxide
DPM	Diesel Particulate Matter
EPA	Environmental Protection Agency
LST	Localized Significance Threshold
MDAQMD	Mojave Desert Air Quality Management District
NAAQS	National Ambient Air Quality Standards
NO_2	Nitrogen Dioxide
NO_x	Oxides of Nitrogen
Pb	Lead
PM_{10}	Particulate Matter 10 microns in diameter or less
$\text{PM}_{2.5}$	Particulate Matter 2.5 microns in diameter or less
PPM	Parts Per Million
Project	Victorville CarMax
ROG	Reactive Organic Gases
SCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
SIPs	State Implementation Plans
SRA	Source Receptor Area

TAC	Toxic Air Contaminant
TIA	Traffic Impact Analysis
TOG	Total Organic Gases
VMT	Vehicle Miles Traveled

EXECUTIVE SUMMARY

The results of this *Victorville CarMax Air Quality Impact Analysis* are summarized below based on the significance criteria in Section 3 of this report consistent with Appendix G of the California Environmental Quality Act (CEQA) Guidelines. (1). Table ES-1 shows the findings of significance for each potential air quality impact under CEQA.

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS

Analysis	Report Section	Significance Findings	
		Unmitigated	Mitigated
Regional Construction Emissions	3.4	<i>Less Than Significant</i>	<i>n/a</i>
Regional Operational Emissions	3.5	<i>Less Than Significant</i>	<i>n/a</i>
CO “Hot Spot” Analysis	3.6	<i>Less Than Significant</i>	<i>n/a</i>
Air Quality Management Plan	3.7	<i>Less Than Significant</i>	<i>n/a</i>
Sensitive Receptors	3.8	<i>Less Than Significant</i>	<i>n/a</i>
Odors	3.9	<i>Less Than Significant</i>	<i>n/a</i>
Cumulative Impacts	3.10	<i>Less Than Significant</i>	<i>n/a</i>

1 INTRODUCTION

This report presents the results of the air quality impact analysis (AQIA) prepared by Urban Crossroads, Inc., for the proposed Victorville CarMax ("Project").

The purpose of this AQIA is to evaluate the potential impacts to air quality associated with construction and operation of the proposed Project and recommend measures to mitigate impacts considered potentially significant in comparison to thresholds established by the Mojave Desert Air Quality Management District (MDAQMD).

1.1 SITE LOCATION

The proposed Victorville CarMax site is generally located along Civic Drive in the City of Victorville. The Project site is currently vacant. The Project site is bounded by commercial uses to the north, south, east and west of the Project site.

1.2 PROJECT DESCRIPTION

The proposed Project consists of up to 7,480 square-feet (sf) of automobile sales use, as shown on Exhibit 1-A¹. For the purposes of this analysis, it has been assumed that the Project will be developed in one phase with an anticipated Opening Year of 2021.

1.3 MONITORING OF AND COMPLIANCE WITH STANDARD REGULATORY REQUIREMENTS/BEST AVAILABLE CONTROL MEASURES (BACMs)

MDAQMD Rules that are currently applicable during construction activity for this Project include but are not limited to: Rule 1113 (Architectural Coatings) (2); Rule 431 (Sulfur Content) (3); Rule 403.2 (Fugitive Dust) (4).

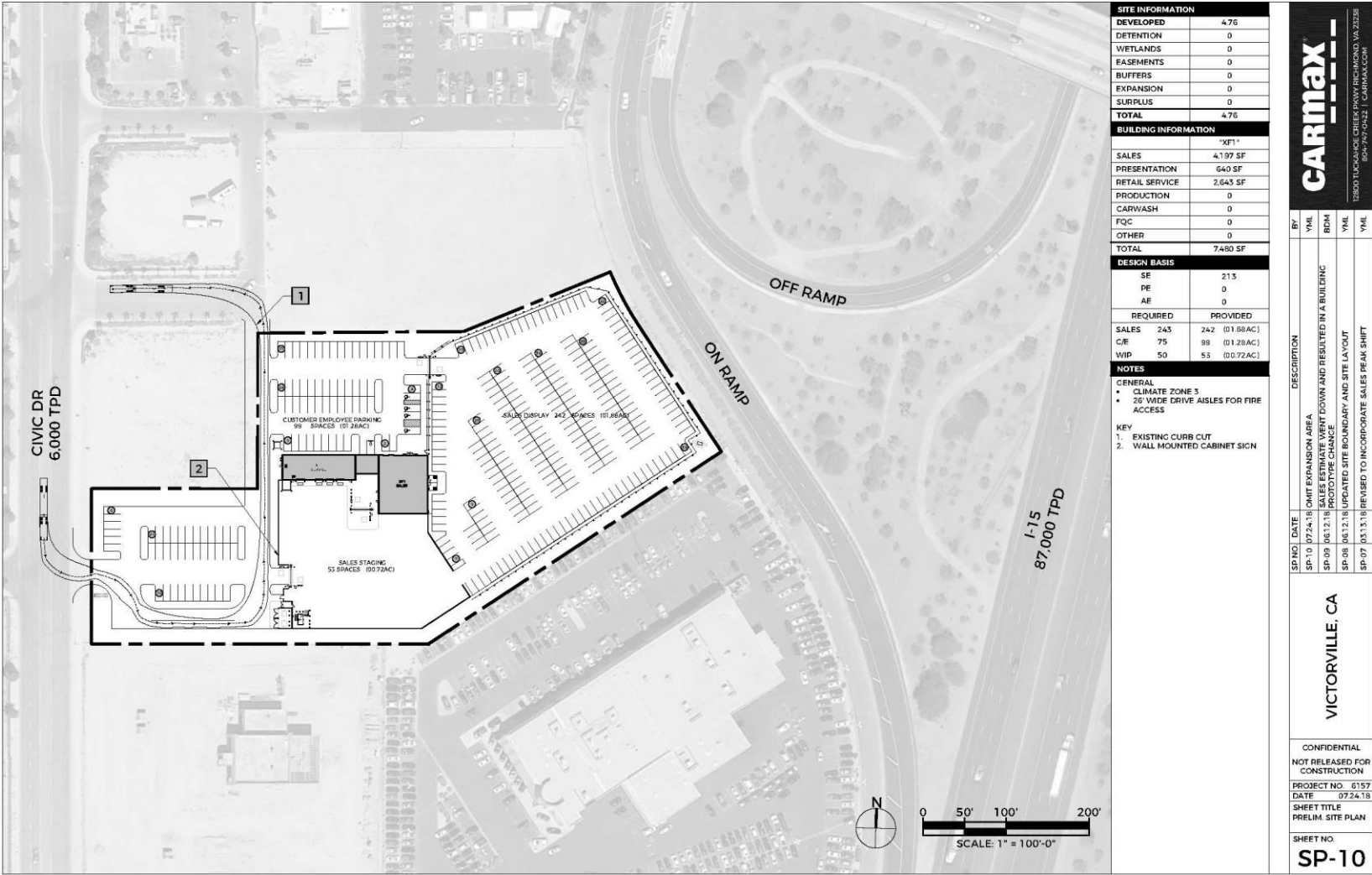
BACM AQ-1

The following measures shall be incorporated into Project plans and specifications as implementation of Rule 403.

- Use periodic watering for short-term stabilization of Disturbed Surface Area to minimize visible fugitive dust emissions. For purposes of this Rule, use of a water truck to maintain moist disturbed surfaces and actively spread water during visible dusting episodes shall be considered sufficient to maintain compliance
- Take actions sufficient to prevent project-related Trackout onto paved surfaces
- Stabilize graded surfaces upon completion of grading when subsequent development is delayed or expected to be delayed more than thirty days, except when such a delay is due to precipitation that dampens the disturbed surface sufficiently to eliminate Visible Fugitive Dust emissions

¹ As a conservative measure, this AQIA analyzes 11,447 sf of automobile sales use consistent with the original Site Plan. It should be noted, that the emissions presented in this AQIA overstate the emissions that would occur if the 7,480 sf automobile sales use were constructed.

EXHIBIT 1-A: SITE PLAN



BACM AQ-2

Only “Low-Volatile Organic Compounds” paints (no more than 50 gram/liter of VOC) consistent with Mojave Desert Air Quality Management District Rule 1113 shall be used.

1.4 CONSTRUCTION-SOURCE AND OPERATIONAL-SOURCE MITIGATION MEASURES

The Project would not result in any potentially significant air quality impacts.

2 AIR QUALITY SETTING

This section provides an overview of the existing air quality conditions in the Project area and region.

2.1 MOJAVE DESERT AIR BASIN

The Project site is located in the portion of the County of San Bernardino, California, that is part of the Mojave Desert Air Basin (MDAB) and is under the jurisdiction of the MDAQMD. The air quality assessment for the proposed Project includes estimating emissions associated with short-term construction and long-term operation of the proposed Project. A number of air quality modeling tools are available to assess the air quality impacts of projects. In addition, certain air districts, such as the MDAQMD, have created guidelines and requirements to conduct air quality analyses. The MDAQMD's current guidelines, included in its *California Environmental Quality Act and Federal Conformity Guidelines* (August 2011), were adhered to in the assessment of air quality impacts for the proposed Project.

2.2 REGIONAL CLIMATE

Air quality in the Project area is not only affected by various emissions sources (mobile, industry, etc.) but is also affected by atmospheric conditions such as wind speed, wind direction, temperature, and rainfall.

The MDAB is an assemblage of mountain ranges interspersed with long broad valleys that often contain dry lakes. Many of the lower mountains that dot the vast terrain rise from 1,000 to 4,000 ft above the valley floor. Prevailing winds in the MDAB are out of the west and southwest. These prevailing winds are due to the proximity of the MDAB to coastal and central regions and the blocking nature of the Sierra Nevada Mountains to the north; air masses pushed onshore in Southern California by differential heating are channeled through the MDAB. The MDAB is separated from the Southern California coastal and central California valley regions by mountains (highest elevation is approximately 10,000 ft), whose passes form the main channels for these air masses. The Mojave Desert is bordered on the southwest by the San Bernardino Mountains, separated from the San Gabriels by the Cajon Pass (4,200 ft). A lesser pass lies between the San Bernardino Mountains and the Little San Bernardino Mountains in the Morongo Valley. The Palo Verde Valley portion of the Mojave Desert lies in the low desert, at the eastern end of a series of valleys (notably the Coachella Valley), whose primary channel is the San Gorgonio Pass (2,300 ft) between the San Bernardino and San Jacinto Mountains.

During the summer, the MDAB is generally influenced by a Pacific subtropical high cell that sits off the coast, inhibiting cloud formation and encouraging daytime solar heating. The MDAB is rarely influenced by cold air masses moving south from Canada and Alaska, as these frontal systems are weak and diffuse by the time they reach the desert. Most desert moisture arrives from infrequent warm, moist, and unstable air masses from the south. The MDAB averages between three and seven inches of precipitation per year (from 16 to 30 days with at least 0.01 inch of precipitation). The MDAB is classified as a dry-hot desert climate, with portions classified

as dry-very hot desert, to indicate that at least three months have maximum average temperatures over 100.4° F.

Snow is common above 5,000 ft in elevation, resulting in moderate snowpack and limited spring runoff. Below 5,000 ft, any precipitation normally occurs as rainfall. Pacific storm fronts normally move into the area from the west, driven by prevailing winds from the west and southwest. During late summer, moist high-pressure systems from the Pacific collide with rising heated air from desert areas, resulting in brief, high-intensity thunderstorms that can cause high winds and localized flash flooding.

2.3 EXISTING AIR QUALITY

Existing air quality is measured at established MDAQMD air quality monitoring stations. Monitored air quality is evaluated and in the context of ambient air quality standards. These standards are the levels of air quality that are considered safe, with an adequate margin of safety, to protect the public health and welfare. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) currently in effect are shown in Table 2-1 (5).

The determination of whether a region's air quality is healthful or unhealthful is determined by comparing contaminant levels in ambient air samples to the state and federal standards presented in Table 2-1. The air quality in a region is considered to be in attainment by the state if the measured ambient air pollutant levels for O₃, CO (except 8-hour Lake Tahoe), SO₂, NO₂, PM₁₀, PM_{2.5}, and visible reducing particles are not to be exceeded at any time in any consecutive three-year period; all other values are not to be equaled or exceeded. The air quality in a region is considered to be in attainment by federal standards if the measured ambient air pollutant levels for O₃, PM₁₀, PM_{2.5}, and those based on annual averages or arithmetic mean are not exceeded more than once per year. The O₃ standard is attained when the fourth highest eight-hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For PM_{2.5}, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.

TABLE 2-1: AMBIENT AIR QUALITY STANDARDS (1 OF 2)

Ambient Air Quality Standards						
Pollutant	Averaging Time	California Standards ¹		National Standards ²		
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷
Ozone (O ₃) ⁸	1 Hour	0.09 ppm (180 µg/m ³)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m ³)		0.070 ppm (137 µg/m ³)		
Respirable Particulate Matter (PM10) ⁹	24 Hour	50 µg/m ³	Gravimetric or Beta Attenuation	150 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m ³		—		
Fine Particulate Matter (PM2.5) ⁹	24 Hour	—	—	35 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m ³	Gravimetric or Beta Attenuation	12.0 µg/m ³	15 µg/m ³	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m ³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m ³)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m ³)		9 ppm (10 mg/m ³)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)		—	—	
Nitrogen Dioxide (NO ₂) ¹⁰	1 Hour	0.18 ppm (339 µg/m ³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m ³)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)		0.053 ppm (100 µg/m ³)	Same as Primary Standard	
Sulfur Dioxide (SO ₂) ¹¹	1 Hour	0.25 ppm (655 µg/m ³)	Ultraviolet Fluorescence	75 ppb (196 µg/m ³)	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m ³)	
	24 Hour	0.04 ppm (105 µg/m ³)		0.14 ppm (for certain areas) ¹¹	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas) ¹¹	—	
Lead ^{12,13}	30 Day Average	1.5 µg/m ³	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m ³ (for certain areas) ¹²	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m ³		
Visibility Reducing Particles ¹⁴	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m ³	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)	Ultraviolet Fluorescence			
Vinyl Chloride ¹²	24 Hour	0.01 ppm (26 µg/m ³)	Gas Chromatography			
See footnotes on next page ...						

See footnotes on next page ...

For more information please call ARB-PIO at (916) 322-2990

California Air Resources Board (5/4/16)

TABLE 2-1: AMBIENT AIR QUALITY STANDARDS (2 OF 2)

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above $150 \mu\text{g}/\text{m}^3$ is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.
8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from $15 \mu\text{g}/\text{m}^3$ to $12.0 \mu\text{g}/\text{m}^3$. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at $35 \mu\text{g}/\text{m}^3$, as was the annual secondary standard of $15 \mu\text{g}/\text{m}^3$. The existing 24-hour PM10 standards (primary and secondary) of $150 \mu\text{g}/\text{m}^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
11. On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
12. 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.
13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard ($1.5 \mu\text{g}/\text{m}^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

For more information please call ARB-PIO at (916) 322-2990

California Air Resources Board (5/4/16)

2.4 REGIONAL AIR QUALITY

The MDAQMD monitors levels of various criteria pollutants at six monitoring stations throughout the air district (6). No areas of the MDAB exceeded federal or state standards for NO₂, SO₂, CO, sulfates or lead. See Table 2-2, for attainment designations for the MDAB (7) (8). Appendix 2.1 provides geographic representation of the state and federal attainment status for applicable criteria pollutants within the MDAB.

TABLE 2-2: ATTAINMENT STATUS OF CRITERIA POLLUTANTS IN THE MOJAVE DESERT AIR BASIN

Criteria Pollutant	State Designation	Federal Designation
Ozone (1-hour standard)	Non-attainment	Non-attainment*
Ozone (8-hour standard)	Non-attainment	Non-attainment*
PM ₁₀	Non-attainment	Non-attainment**
PM _{2.5}	Non-attainment*	Unclassified/Attainment
Carbon Monoxide	Attainment	Unclassified/Attainment
Nitrogen Dioxide	Attainment	Unclassified/Attainment
Sulfur Dioxide	Attainment	Unclassified/Attainment
Lead	Attainment	Unclassified/Attainment

Note: See Appendix 2.1 for a detailed map of State/National Area Designations within the Mojave Desert Air Basin

* Southwest corner of desert portion of San Bernardino County only

**San Bernardino County portion only

2.5 LOCAL AIR QUALITY

Relative to the Project site, the nearest long-term air quality monitoring site for Carbon Monoxide (CO), Ozone (O₃), Nitrogen Dioxide (NO₂), Particulate Matter ≤ 10 Microns (PM₁₀), and Ultra-Fine Particulates (PM_{2.5}) was obtained from the Mojave Desert Air Quality Management District Victorville-Park Avenue monitoring station, located approximately 0.60 miles south of the project site in Victorville.

The most recent three (3) years of data available is shown on Table 2-3, and identifies the number of days ambient air quality standards were exceeded for the study area, which is was considered to be representative of the local air quality at the Project site (9). It should be noted that data for CO is no available for 2015 through 2017. Additionally, data for SO₂ has been omitted as attainment is regularly met in the Mojave Desert Air Basin and few monitoring stations measure SO₂ concentrations. It should be noted that the table below is provided for informational purposes.

TABLE 2-3: PROJECT AREA AIR QUALITY MONITORING SUMMARY 2015-2017

POLLUTANT	STANDARD	YEAR		
		2015	2016	2017
Ozone				
Maximum Federal 1-Hour Concentration (ppm)		0.132	0.100	0.088
Maximum Federal 8-Hour Concentration (ppm)		0.105	0.085	0.081
Number of Days Exceeding Federal 1-Hour Standard		1	0	0
Number of Days Exceeding State 1-Hour Standard	> 0.09 ppm	8	4	0
Number of Days Exceeding Federal 8-Hour Standard	> 0.070 ppm	38	33	17
Number of Days Exceeding State 8-Hour Standard	> 0.070 ppm	39	35	19
Carbon Monoxide (CO)				
Maximum 1-Hour Concentration	> 35 ppm	--	--	--
Maximum 8-Hour Concentration	> 20 ppm	--	--	--
Nitrogen Dioxide (NO ₂)				
Maximum Federal 1-Hour Concentration	> 0.100 ppm	0.118	0.097	0.057
Maximum State 1-Hour Concentration	> 0.18 ppm	0.118	0.097	0.057
Annual Federal Standard Design Value		11	10	13
Annual State Standard Design Value		14	13	12
Number of Days Exceeding Federal 1-Hour Standard	> 0.18 ppm	1	0	0
Number of Days Exceeding State 1-Hour Standard	> 0.18 ppm	0	0	0
Particulate Matter ≤ 10 Microns (PM ₁₀)				
Maximum Federal 24-Hour Concentration (µg/m ³)	> 150 µg/m ³	96.1	226.5	182.5
Maximum State 24-Hour Concentration (µg/m ³)	> 50 µg/m ³	--	--	--
Annual Federal Arithmetic Mean (µg/m ³)		25.1	29.3	30.1
Annual State Arithmetic Mean (µg/m ³)	20 µg/m ³	--	--	--
Number of Days Exceeding Federal 24-Hour Standard	> 150 µg/m ³	0	2	1
Number of Days Exceeding State 24-Hour Standard	> 50 µg/m ³	--	--	--
Particulate Matter ≤ 2.5 Microns (PM _{2.5})				
Maximum Federal 24-Hour Concentration (µg/m ³)	> 35 µg/m ³	50.2	41.5	27.2
Maximum State 24-Hour Concentration (µg/m ³)		50.2	41.5	29.3
Annual Federal Arithmetic Mean (µg/m ³)		--	7.4	8.7
Annual State Arithmetic Mean (µg/m ³)		--	7.5	8.8
Number of Samples Exceeding Federal 24-Hour Standard	> 35 µg/m ³	--	1	0

Source: California Air Resource Board iADAM: Air Quality Data Statistics

-- = data not available from ARB

Criteria pollutants are pollutants that are regulated through the development of human health based and/or environmentally based criteria for setting permissible levels. Criteria pollutants, their typical sources, and health effects are identified below (10):

- Carbon Monoxide (CO): Is a colorless, odorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline or wood. CO concentrations tend to be the highest during the winter morning, when little to no wind and surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike ozone, motor vehicles operating at slow speeds are the primary source of CO in the Basin. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections.
- Sulfur Dioxide (SO₂): Is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of burning high sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When SO₂ oxidizes in the atmosphere, it forms sulfates (SO₄). Collectively, these pollutants are referred to as sulfur oxides (SO_x).
- Nitrogen Oxides (Oxides of Nitrogen, or NO_x): Nitrogen oxides (NO_x) consist of nitric oxide (NO), nitrogen dioxide (NO₂) and nitrous oxide (N₂O) and are formed when nitrogen (N₂) combines with oxygen (O₂). Their lifespan in the atmosphere ranges from one to seven days for nitric oxide and nitrogen dioxide, to 170 years for nitrous oxide. Nitrogen oxides are typically created during combustion processes, and are major contributors to smog formation and acid deposition. NO₂ is a criteria air pollutant, and may result in numerous adverse health effects; it absorbs blue light, resulting in a brownish-red cast to the atmosphere and reduced visibility. Of the seven types of nitrogen oxide compounds, NO₂ is the most abundant in the atmosphere. As ambient concentrations of NO₂ are related to traffic density, commuters in heavy traffic may be exposed to higher concentrations of NO₂ than those indicated by regional monitors.
- Ozone (O₃): Is a highly reactive and unstable gas that is formed when volatile organic compounds (VOCs) and nitrogen oxides (NO_x), both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant.
- PM₁₀ (Particulate Matter less than 10 microns): A major air pollutant consisting of tiny solid or liquid particles of soot, dust, smoke, fumes, and aerosols. The size of the particles (10 microns or smaller, about 0.0004 inches or less) allows them to easily enter the lungs where they may be deposited, resulting in adverse health effects. PM₁₀ also causes visibility reduction and is a criteria air pollutant.
- PM_{2.5} (Particulate Matter less than 2.5 microns): A similar air pollutant consisting of tiny solid or liquid particles which are 2.5 microns or smaller (which is often referred to as fine particles). These particles are formed in the atmosphere from primary gaseous emissions that include sulfates formed from SO₂ release from power plants and industrial facilities and nitrates that are formed from NO_x release from power plants, automobiles and other types of combustion sources. The chemical composition of fine particles highly depends on location, time of year, and weather conditions. PM_{2.5} is a criteria air pollutant.
- Volatile Organic Compounds (VOC): Volatile organic compounds are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. VOCs contribute to the formation of smog through atmospheric photochemical

reactions and/or may be toxic. Compounds of carbon (also known as organic compounds) have different levels of reactivity; that is, they do not react at the same speed or do not form ozone to the same extent when exposed to photochemical processes. VOCs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints. Exceptions to the VOC designation include: carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate. VOCs are a criteria pollutant since they are a precursor to O_3 , which is a criteria pollutant. The MDAQMD uses the terms VOC and ROG (see below) interchangeably.

- **Reactive Organic Gases (ROG):** Similar to VOC, Reactive Organic Gases (ROG) are also precursors in forming ozone and consist of compounds containing methane, ethane, propane, butane, and longer chain hydrocarbons, which are typically the result of some type of combustion/decomposition process. Smog is formed when ROG and nitrogen oxides react in the presence of sunlight. ROG is a criteria pollutant since they are a precursor to O_3 , which is a criteria pollutant. The MDAQMD uses the terms ROG and VOC (see previous) interchangeably.
- **Lead (Pb):** Lead is a heavy metal that is highly persistent in the environment. In the past, the primary source of lead in the air was emissions from vehicles burning leaded gasoline. As a result of the removal of lead from gasoline, there have been no violations at any of the MDAQMD's regular air monitoring stations since 1982. Currently, emissions of lead are largely limited to stationary sources such as lead smelters. It should be noted that the Project is not anticipated to generate a quantifiable amount of lead emissions. Lead is a criteria air pollutant.

Health Effects of Air Pollutants

Ozone

Individuals exercising outdoors, children, and people with preexisting lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the most susceptible subgroups for ozone effects. Short-term exposure (lasting for a few hours) to ozone at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. Elevated ozone levels are associated with increased school absences. In recent years, a correlation between elevated ambient ozone levels and increases in daily hospital admission rates, as well as mortality, has also been reported. An increased risk for asthma has been found in children who participate in multiple sports and live in communities with high ozone levels.

Ozone exposure under exercising conditions is known to increase the severity of the responses described above. Animal studies suggest that exposure to a combination of pollutants that includes ozone may be more toxic than exposure to ozone alone. Although lung volume and resistance changes observed after a single exposure diminish with repeated exposures, biochemical and cellular changes appear to persist, which can lead to subsequent lung structural changes.

Carbon Monoxide

Individuals with a deficient blood supply to the heart are the most susceptible to the adverse effects of CO exposure. The effects observed include earlier onset of chest pain with exercise, and electrocardiograph changes indicative of decreased oxygen supply to the heart. Inhaled CO

has no direct toxic effect on the lungs, but exerts its effect on tissues by interfering with oxygen transport and competing with oxygen to combine with hemoglobin present in the blood to form carboxyhemoglobin (COHb). Hence, conditions with an increased demand for oxygen supply can be adversely affected by exposure to CO. Individuals most at risk include fetuses, patients with diseases involving heart and blood vessels, and patients with chronic hypoxemia (oxygen deficiency) as seen at high altitudes.

Reduction in birth weight and impaired neurobehavioral development have been observed in animals chronically exposed to CO, resulting in COHb levels similar to those observed in smokers. Recent studies have found increased risks for adverse birth outcomes with exposure to elevated CO levels; these include pre-term births and heart abnormalities.

Particulate Matter

A consistent correlation between elevated ambient fine particulate matter (PM₁₀ and PM_{2.5}) levels and an increase in mortality rates, respiratory infections, number and severity of asthma attacks and the number of hospital admissions has been observed in different parts of the United States and various areas around the world. In recent years, some studies have reported an association between long-term exposure to air pollution dominated by fine particles and increased mortality, reduction in life-span, and an increased mortality from lung cancer.

Daily fluctuations in PM_{2.5} concentration levels have also been related to hospital admissions for acute respiratory conditions in children, to school and kindergarten absences, to a decrease in respiratory lung volumes in normal children, and to increased medication use in children and adults with asthma. Recent studies show lung function growth in children is reduced with long term exposure to particulate matter.

The elderly, people with pre-existing respiratory or cardiovascular disease, and children appear to be more susceptible to the effects of high levels of PM₁₀ and PM_{2.5}.

Nitrogen Dioxide

Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposure to NO₂ at levels found in homes with gas stoves, which are higher than ambient levels found in Southern California. Increase in resistance to air flow and airway contraction is observed after short-term exposure to NO₂ in healthy subjects. Larger decreases in lung functions are observed in individuals with asthma or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these sub-groups.

In animals, exposure to levels of NO₂ considerably higher than ambient concentrations results in increased susceptibility to infections, possibly due to the observed changes in cells involved in maintaining immune functions. The severity of lung tissue damage associated with high levels of ozone exposure increases when animals are exposed to a combination of ozone and NO₂.

Sulfur Dioxide

A few minutes of exposure to low levels of SO₂ can result in airway constriction in some asthmatics, all of whom are sensitive to its effects. In asthmatics, increase in resistance to air flow, as well as reduction in breathing capacity leading to severe breathing difficulties, are observed after acute exposure to SO₂. In contrast, healthy individuals do not exhibit similar acute responses even after exposure to higher concentrations of SO₂.

Animal studies suggest that despite SO₂ being a respiratory irritant, it does not cause substantial lung injury at ambient concentrations. However, very high levels of exposure can cause lung edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract.

Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient SO₂ levels. In these studies, efforts to separate the effects of SO₂ from those of fine particles have not been successful. It is not clear whether the two pollutants act synergistically or one pollutant alone is the predominant factor.

Lead

Fetuses, infants, and children are more sensitive than others to the adverse effects of Pb exposure. Exposure to low levels of Pb can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased Pb levels are associated with increased blood pressure.

Pb poisoning can cause anemia, lethargy, seizures, and death; although it appears that there are no direct effects of Pb on the respiratory system. Pb can be stored in the bone from early age environmental exposure, and elevated blood Pb levels can occur due to breakdown of bone tissue during pregnancy, hyperthyroidism (increased secretion of hormones from the thyroid gland) and osteoporosis (breakdown of bony tissue). Fetuses and breast-fed babies can be exposed to higher levels of Pb because of previous environmental Pb exposure of their mothers.

Odors

The science of odor as a health concern is still new. Merely identifying the hundreds of VOCs that cause odors poses a big challenge. Offensive odors can potentially affect human health in several ways. First, odorant compounds can irritate the eye, nose, and throat, which can reduce respiratory volume. Second, studies have shown that the VOCs that cause odors can stimulate sensory nerves to cause neurochemical changes that might influence health, for instance, by compromising the immune system. Finally, unpleasant odors can trigger memories or attitudes linked to unpleasant odors, causing cognitive and emotional effects such as stress.

2.6 REGULATORY BACKGROUND

2.6.1 FEDERAL REGULATIONS

The U.S. EPA is responsible for setting and enforcing the NAAQS for O₃, CO, NO_x, SO₂, PM₁₀, and lead (11). The U.S. EPA has jurisdiction over emissions sources that are under the authority of the federal government including aircraft, locomotives, and emissions sources outside state waters (Outer Continental Shelf). The U.S. EPA also establishes emission standards for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission requirements of the CARB.

The Federal Clean Air Act (CAA) was first enacted in 1955, and has been amended numerous times in subsequent years (1963, 1965, 1967, 1970, 1977, and 1990). The CAA establishes the federal air quality standards, the NAAQS, and specifies future dates for achieving compliance (12). The CAA also mandates that states submit and implement State Implementation Plans (SIPs) for local areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards will be met.

The 1990 amendments to the CAA that identify specific emission reduction goals for areas not meeting the NAAQS require a demonstration of reasonable further progress toward attainment and incorporate additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA most directly applicable to the development of the Project site include Title I (Non-Attainment Provisions) and Title II (Mobile Source Provisions). Title I provisions were established with the goal of attaining the NAAQS for the following criteria pollutants O₃, NO₂, SO₂, PM₁₀, CO, PM_{2.5}, and lead. The NAAQS were amended in July 1997 to include an additional standard for O₃ and to adopt a NAAQS for PM_{2.5}. Table 3-1 (previously presented) provides the NAAQS within the basin.

Mobile source emissions are regulated in accordance with Title II provisions. These provisions require the use of cleaner burning gasoline and other cleaner burning fuels such as methanol and natural gas. Automobile manufacturers are also required to reduce tailpipe emissions of hydrocarbons and nitrogen oxides (NO_x). NO_x is a collective term that includes all forms of nitrogen oxides (NO, NO₂, NO₃) which are emitted as byproducts of the combustion process.

2.6.2 CALIFORNIA REGULATIONS

The CARB, which became part of the California EPA in 1991, is responsible for ensuring implementation of the California Clean Air Act (AB 2595), responding to the federal CAA, and for regulating emissions from consumer products and motor vehicles. The California CAA mandates achievement of the maximum degree of emissions reductions possible from vehicular and other mobile sources in order to attain the state ambient air quality standards by the earliest practical date. The CARB established the CAAQS for all pollutants for which the federal government has NAAQS and, in addition, establishes standards for sulfates, visibility, hydrogen sulfide, and vinyl chloride. However, at this time, hydrogen sulfide and vinyl chloride are not measured at any monitoring stations in the MDAB because they are not considered to be a regional air quality problem. Generally, the CAAQS are more stringent than the NAAQS (13) (11).

Local air quality management districts, such as the MDAQMD, regulate air emissions from stationary sources such as commercial and industrial facilities. All air pollution control districts have been formally designated as attainment or non-attainment for each CAAQS.

Serious non-attainment areas are required to prepare air quality management plans that include specified emission reduction strategies in an effort to meet clean air goals. These plans are required to include:

- Application of Best Available Retrofit Control Technology to existing sources;
- Developing control programs for area sources (e.g., architectural coatings and solvents) and indirect sources (e.g. motor vehicle use generated by residential and commercial development);
- A District permitting system designed to allow no net increase in emissions from any new or modified permitted sources of emissions;
- Implementing reasonably available transportation control measures and assuring a substantial reduction in growth rate of vehicle trips and miles traveled;
- Significant use of low emissions vehicles by fleet operators;
- Sufficient control strategies to achieve a five percent or more annual reduction in emissions or 15 percent or more in a period of three years for ROG_s, NO_x, CO and PM₁₀. However, air basins may use alternative emission reduction strategy that achieves a reduction of less than five percent per year under certain circumstances.

2.6.3 AIR QUALITY MANAGEMENT PLANNING

Currently, the NAAQS and CAAQS are exceeded in most parts of the MDAB. In regards to the NAAQS, the Project region within the MDAB is in nonattainment for ozone (8-hour) and PM₁₀. For the CAAQS, the Project region within the MDAB is in nonattainment for ozone (1-hour and 8-hour), PM₁₀, and PM_{2.5}. In response, the MDAQMD has adopted a series of Air Quality Management Plans (AQMPs) to meet the state and federal ambient air quality standards (14). AQMPs are updated regularly in order to more effectively reduce emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy. A detailed discussion on the AQMP and Project consistency with the AQMP is provided in Section 3.7.

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3 PROJECT AIR QUALITY IMPACT

3.1 INTRODUCTION

The Project has been evaluated to determine if it will violate an air quality standard or contribute to an existing or projected air quality violation. Additionally, the Project has been evaluated to determine if it will result in a cumulatively considerable net increase of a criteria pollutant for which the MDAB is non-attainment under an applicable federal or state ambient air quality standard. The significance of these potential impacts is described in the following section.

3.2 STANDARDS OF SIGNIFICANCE

The criteria used to determine the significance of potential Project-related air quality impacts are taken from the Initial Study Checklist in Appendix G of the State CEQA Guidelines (14 California Code of Regulations §§15000, et seq.). Based on these thresholds, a project would result in a significant impact related to air quality if it would (15):

- Conflict with or obstruct implementation of the applicable air quality plan.
- Violate any air quality standard or contribute to an existing or projected air quality violation.
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors).
- Expose sensitive receptors to substantial pollutant concentrations.
- Create objectionable odors affecting a substantial number of people.

The MDAQMD has developed regional significance thresholds for regulated pollutants, shown below in Table 3-1. The MDAQMD's CEQA And Federal Conformity Guidelines (August 2016) indicate that any projects in the MDAB with daily regional emissions that exceed any of the indicated thresholds should be considered as having an individually and cumulatively significant air quality impact (16).

TABLE 3-1: MAXIMUM REGIONAL DAILY EMISSIONS THRESHOLDS

Pollutant	Daily Threshold (pounds)
CO	548 lbs/day
NO _x	137 lbs/day
VOC	137 lbs/day
SO _x	137 lbs/day
PM ₁₀	82 lbs/day
PM _{2.5}	65 lbs/day

Note: lbs/day – pounds per day

3.3 CALIFORNIA EMISSIONS ESTIMATOR MODEL™ EMPLOYED TO ESTIMATE AQ EMISSIONS

Land uses such as the Project affect air quality through construction-source and operational-source emissions.

On October 17, 2017, the SCAQMD in conjunction with the California Air Pollution Control Officers Association (CAPCOA) and other California air districts, released the latest version of the California Emissions Estimator Model™ (CalEEMod™) v2016.3.2. The purpose of this model is to calculate construction-source and operational-source criteria pollutant (NO_x, VOC, PM₁₀, PM_{2.5}, SO_x, and CO) and greenhouse gas (GHG) emissions from direct and indirect sources; and quantify applicable air quality and GHG reductions achieved from mitigation measures (17). Accordingly, the latest version of CalEEMod™ has been used for this Project to determine construction and operational air quality emissions. Output from the model runs for both construction and operational activity are provided in Appendix 3.1 and 3.2.

3.4 CONSTRUCTION EMISSIONS

Construction activities associated with the Project will result in emissions of CO, VOCs, NO_x, SO_x, PM₁₀, and PM_{2.5}. Construction related emissions are expected from the following construction activities:

- Site Preparation
- Grading
- Building Construction
- Paving
- Architectural Coating

Construction is expected to commence in November 2020 and will last through August 2021. Construction duration by phase is shown on Table 3-2. The construction schedule utilized in the analysis represents a “worst-case” analysis scenario should construction occur any time after the respective dates since emission factors for construction decrease as time passes and the analysis year increases due to emission regulations becoming more stringent.² The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per CEQA guidelines. Site specific construction fleet may vary due to specific project needs at the time of construction. The duration of construction activity was based on CalEEMod model defaults and a 2021 opening year. The associated construction equipment was generally based on CalEEMod 2016.3.2 defaults. Please refer to specific detailed modeling inputs/outputs contained in Appendix 3.1 of this analysis. A detailed summary of construction equipment assumptions by phase is provided at Table 3-3.

² As shown in the California Emissions Estimator Model (CalEEMod) User’s Guide Version 2016.3.2, Section 4.3 “OFFROAD Equipment” as the analysis year increases, emission factors for the same equipment pieces decrease due to the natural turnover of older equipment being replaced by newer less polluting equipment and new regulatory requirements.

TABLE 3-2: CONSTRUCTION DURATION

Phase Name	Start Date	End Date	Days
Site Preparation	11/02/2020	11/04/2020	3
Grading	11/05/2020	12/03/2020	21
Building Construction	12/03/2020	05/27/2021	126
Paving	05/13/2021	05/27/2021	11
Architectural Coatings	05/06/2021	05/27/2021	16

TABLE 3-3: CONSTRUCTION EQUIPMENT ASSUMPTIONS

Activity	Equipment	Number	Hours Per Day
Site Preparation	Rubber Tired Dozers/Metal Track Dozers	3	8
	Tractors/Loaders/Backhoes	4	8
Graders	Excavators	1	8
	Graders	1	8
	Rubber Tired Dozers/Metal Track Dozers	1	8
	Tractors/Loaders/Backhoes	3	8
Building Construction	Cranes	1	8
	Forklifts	3	8
	Generator Sets	1	8
	Tractors/Loaders/Backhoes	1	8
	Welders	3	8
Paving	Cement and Mortar Mixers	2	8
	Pavers	1	8
	Paving Equipment	2	8
	Rollers	2	8
	Tractors/Loaders/Backhoes	1	8
Architectural Coating	Air Compressors	1	8

Dust is typically a major concern during rough grading activities. Because such emissions are not amenable to collection and discharge through a controlled source, they are called “fugitive emissions”. Fugitive dust emissions rates vary as a function of many parameters (soil silt, soil moisture, wind speed, area disturbed, number of vehicles, depth of disturbance or excavation, etc.). The CalEEMod model was utilized to calculate fugitive dust emissions resulting from this phase of activity. It is our understanding the Project may require approximately 1,000 cubic yards of fill.

Construction emissions for construction worker vehicles traveling to and from the Project site, as well as vendor trips (construction materials delivered to the Project site) were estimated based on information CalEEMod model defaults.

3.4.1 CONSTRUCTION EMISSIONS SUMMARY

Impacts without Mitigation

The estimated maximum daily construction emissions without mitigation are summarized on Table 3-4. Detailed construction model outputs are presented in Appendix 3.1. Under the assumed scenarios, emissions resulting from the Project construction would not exceed thresholds established by the MDAQMD for emissions of any criteria pollutant. As such, the Project will have a less than significant impact during on-going construction activity and no mitigation is required.

TABLE 3-4: EMISSIONS SUMMARY OF CONSTRUCTION (WITHOUT MITIGATION)

Year	Emissions (pounds per day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
2020	5.19	51.74	37.41	0.08	20.41	11.99
2021	9.72	36.72	38.08	0.07	2.91	2.02
Maximum Daily Emissions	9.72	51.74	38.08	0.08	20.41	11.99
MDAQMD Regional Threshold	137	137	548	137	82	65
Threshold Exceeded?	NO	NO	NO	NO	NO	NO

3.5 OPERATIONAL EMISSIONS

Operational activities associated with the proposed Project will result in emissions of VOC, NO_x, CO, SO_x, PM₁₀, and PM_{2.5}. Operational emissions would be expected from the following primary sources:

- Area Source Emissions
- Energy Source Emissions
- Mobile Source Emissions

3.5.1 AREA SOURCE EMISSIONS

Architectural Coatings

Over a period of time the buildings that are part of this Project will be subject to emissions resulting from the evaporation of solvents contained in paints, varnishes, primers, and other surface coatings as part of Project maintenance. The emissions associated with architectural coatings were calculated using the CalEEMod model.

Consumer Products

Consumer products include, but are not limited to detergents, cleaning compounds, polishes, personal care products, and lawn and garden products. Many of these products contain organic

compounds which when released in the atmosphere can react to form ozone and other photochemically reactive pollutants. The emissions associated with use of consumer products were calculated based on assumptions provided in the CalEEMod model. In the case of the commercial uses proposed by the Project, no substantive on-site use of consumer products is anticipated.

Landscape Maintenance Equipment

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. The emissions associated with landscape maintenance equipment were calculated based on assumptions provided in the CalEEMod model.

3.5.2 ENERGY SOURCE EMISSIONS

Combustion Emissions Associated with Natural Gas and Electricity

Electricity and natural gas are used by almost every project. Criteria pollutant emissions are emitted through the generation of electricity and consumption of natural gas. However, because electrical generating facilities for the Project area are located either outside the region (state) or offset through the use of pollution credits (RECLAIM) for generation within the MDAB, criteria pollutant emissions from offsite generation of electricity is generally excluded from the evaluation of significance and only natural gas use is considered. The emissions associated with natural gas use were calculated using the CalEEMod model.

3.5.3 MOBILE SOURCE EMISSIONS

Vehicles

Project-related operational air quality impacts derive primarily from vehicle trips generated by the Project. Trip characteristics available from the report, *Victorville CarMax Traffic Impact Analysis* (Michael Baker, Int.) 2018 were utilized in this analysis (18).

Fugitive Dust Related to Vehicular Travel

Vehicles traveling on paved roads would be a source of fugitive emissions due to the generation of road dust inclusive of tire wear particulates. The emissions estimates for travel on paved roads were calculated using the CalEEMod model.

3.5.4 OPERATIONAL EMISSIONS SUMMARY

Operational-source emissions are summarized on Table 3-5. Detailed operational model outputs are presented in Appendix 3.2. Project operational-source emissions would not exceed the applicable MDAQMD thresholds for any criteria pollutant. Thus, a less than significant impact would occur for Project operational-source emissions and no mitigation is required.

TABLE 3-5: SUMMARY OF PEAK OPERATIONAL EMISSIONS

Operational Activities – Summer Scenario	Emissions (pounds per day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Area Source	0.41	1.00E-05	1.55E-03	0.00	1.00E-05	1.00E-05
Energy Source	0.01	0.10	0.08	6.00E-04	7.59E-03	7.59E-03
Mobile	0.56	3.12	3.68	0.01	0.67	0.19
Total Maximum Daily Emissions	0.98	3.22	3.77	0.01	0.68	0.19
MDAQMD Regional Threshold	137	137	548	137	82	82
Threshold Exceeded?	NO	NO	NO	NO	NO	NO
Operational Activities – Winter Scenario	Emissions (pounds per day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Area Source	0.41	1.00E-05	1.55E-03	0.00	1.00E-05	1.00E-05
Energy Source	0.01	0.10	0.08	6.00E-04	7.59E-03	7.59E-03
Mobile	0.48	3.06	3.57	0.01	0.67	0.19
Total Maximum Daily Emissions	0.90	3.16	3.66	0.01	0.68	0.19
MDAQMD Regional Threshold	137	137	548	137	82	82
Threshold Exceeded?	NO	NO	NO	NO	NO	NO

3.6 CO “HOT SPOT” ANALYSIS

As discussed below, the Project would not result in potentially adverse CO concentrations or “hot spots.” Further, detailed modeling of Project-specific carbon monoxide (CO) “hot spots” is not needed to reach this conclusion.

An adverse CO concentration, known as a “hot spot”, would occur if an exceedance of the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm were to occur. At the time of the 1993 Handbook, the air basin was designated nonattainment under the California AAQS and National AAQS for CO (19).

It has long been recognized that CO hotspots are caused by vehicular emissions, primarily when idling at congested intersections. In response, vehicle emissions standards have become increasingly stringent in the last twenty years. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (there are requirements for certain vehicles that are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentration in the air basin is now designated as attainment, as previously noted in Table 2-2. Also, CO concentrations in the Project vicinity have steadily declined, as indicated by historical emissions data presented previously at Table 2-3.

To establish a more accurate record of baseline CO concentrations affecting the basin, a CO “hot spot” analysis was conducted in 2003 for four busy intersections in Los Angeles at the peak morning and afternoon time periods. This “hot spot” analysis did not predict any violation of CO standards, as shown on Table 3-6.

TABLE 3-6: CO MODEL RESULTS

Intersection Location	Carbon Monoxide Concentrations (parts per million)		
	Morning 1-hour	Afternoon 1-hour	8-hour
Wilshire-Veteran	4.6	3.5	3.7
Sunset-Highland	4	4.5	3.5
La Cienega-Century	3.7	3.1	5.2
Long Beach-Imperial	3	3.1	8.4

Source: 2003 AQMP, Appendix V: Modeling and Attainment Demonstrations

Notes: Federal 1-hour standard is 35 ppm and the deferral 8-hour standard is 9.0 ppm.

It should be noted that MDAQMD has not established its own guidelines for CO hotspots analysis. Since the MDAQMD guidelines are based on SCAQMD methodology, it is appropriate to apply the SCAQMD criteria when analyzing CO hotspots within the MDAQMD. As identified within SCAQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan), peak carbon monoxide concentrations in the basin were a result of unusual meteorological and topographical conditions and not a result of traffic volumes and congestion at a particular intersection. As evidence of this, for example, 8.4 ppm CO concentration measured at the Long Beach Blvd. and Imperial Hwy. intersection (highest CO generating intersection within the "hot spot" analysis), only 0.7 ppm was attributable to the traffic volumes and congestion at this intersection; the remaining 7.7 ppm were due to the ambient air measurements at the time the 2003 AQMP was prepared (19). Therefore, even if the traffic volumes for the proposed Project were double or even triple of the traffic volumes generated at the Long Beach Blvd. and Imperial Hwy. intersection, coupled with the on-going improvements in ambient air quality, the Project would not be capable of resulting in a CO "hot spot" at any study area intersections.

Similar considerations are also employed by other Air Districts when evaluating potential CO concentration impacts. More specifically, the Bay Area Air Quality Management District (BAAQMD) concludes that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact (20).

Traffic volumes generating the CO concentrations for the "hot spot" analysis, shown on Table 3-7. The busiest intersection evaluated was that at Wilshire Blvd. and Veteran Ave., which has a daily traffic volume of approximately 100,000 vehicles per day and AM/PM traffic volumes of 8,062 vehicles per hour and 7,719 vehicles per hour respectively (19). The 2003 AQMP estimated that the 1-hour concentration for this intersection was 4.6 ppm; this indicates that, should the daily traffic volume increase four times to 400,000 vehicles per day, CO concentrations ($4.6 \text{ ppm} \times 4 = 18.4 \text{ ppm}$) would still not likely exceed the most stringent 1-hour CO standard (20.0 ppm).³ At buildout of the Project, as shown on Table 7-1 of the TIA, the highest average daily trips on a segment of road would be 30,953 daily trips on Roy Rogers Drive and Civic Drive to I-15 Southbound Ramps, which is lower than the highest daily traffic volumes at Wilshire Blvd. and

³ Based on the ratio of the CO standard (20.0 ppm) and the modeled value (4.6 ppm).

Veteran Ave. of 100,00 vehicles per day (18). Additionally, the highest AM/PM trips on a segment of road would be 2,972 vehicles per hour and 3,309 vehicles per hour respectively, which is lower than the highest AM/PM traffic volumes at Wilshire Blvd. and Veteran Ave. of 8,062 vehicles per hour and 7,719 vehicles per hour.

The proposed Project considered herein would not produce the volume of traffic required to generate a CO “hot spot” either in the context of the 2003 Los Angeles hot spot study, or based on representative BAAQMD CO threshold considerations, as shown on Table 3-8. Therefore, CO “hot spots” are not an environmental impact of concern for the proposed Project. Localized air quality impacts related to mobile-source emissions would therefore be less than significant.

TABLE 3-7: TRAFFIC VOLUMES

Intersection Location	Peak Traffic Volumes (vehicles per hour)				
	Eastbound (AM/PM)	Westbound (AM/PM)	Southbound (AM/PM)	Northbound (AM/PM)	Total (AM/PM)
Wilshire-Veteran	4,954/2,069	1,830/3,317	721/1,400	560/933	8,062/7,719
Sunset-Highland	1,417/1,764	1,342/1,540	2,304/1,832	1,551/2,238	6,614/5,374
La Cienega-Century	2,540/2,243	1,890/2,728	1,384/2,029	821/1,674	6,634/8,674
Long Beach-Imperial	1,217/2,020	1,760/1,400	479/944	756/1,150	4,212/5,514

Source: 2003 AQMP

TABLE 3-8: PROJECT PEAK TRAFFIC VOLUMES

Intersection Location	Peak Traffic Volumes (vph)				
	Northbound (AM/PM)	Southbound (AM/PM)	Eastbound (AM/PM)	Westbound (AM/PM)	Total (AM/PM)
Civic Dr. & Home Depot N. Dwy./ Project Site Dwy. #2	507/616	384/265	219/171	81/51	1,191/1,103
Civic Dr./Roy Rogers Dr.	235/204	549/391	1,302/1,570	867/1,066	2,953/3,231
Roy Rogers Dr./ I-15 Southbound Ramps	0/0	541/669	1,103/1,227	1,328/1,413	2,972/3,309
Roy Rogers Dr. & I-15 Northbound Ramps/La Paz Dr.	280/308	308/387	1,215/1,227	457/1,394	2,260/3,316

Source: Victorville CarMax Traffic Impact Analysis (Urban Crossroads, 2018).

3.7 AIR QUALITY MANAGEMENT PLANNING

The Federal Particulate Matter Attainment Plan and Ozone Attainment Plan for the Mojave Desert set forth a comprehensive set of programs that will lead the MDAB into compliance with federal and state air quality standards. The control measures and related emission reduction estimates within the Federal Particulate Matter Attainment Plan and Ozone Attainment Plan are based upon emissions projections for a future development scenario derived from land use, population, and employment characteristics defined in consultation with local governments. Accordingly, conformance with these attainment plans for development projects is determined by demonstrating compliance with: 1) local land use plans and/or population projections, 2) all

MDAQMD Rules and Regulations; and 3) demonstrating that the project will not increase the frequency or severity of a violation in the federal or state ambient air quality standards.

The Project site is located within the Civic Center Specific Plan and has a land use designation of “Civic Commercial”. The Civic Commercial land use designation provides for large scale commercial development intended to service the community. Typical uses include small scale retail and office/professional development. This designation allows for the sale of both new and used items and permits limited educational and service uses (22). The Project applicant proposes a land use which is consistent with the land use designation. Additionally, it should be noted that the proposed development would not exceed regional thresholds for operational emissions and would therefore be considered to have a less than significant impact. As such, development proposed by the Project is consistent with the growth projections in the General Plan and is therefore considered to be consistent with the AQMP.

AQMP Consistency Conclusion

The Project would not result in or cause NAAQS or CAAQS violations. The Project’s proposed land use designation for the subject site is consistent with the land use designation and zoning designation discussed in the Specific Plan. Furthermore, the Project would not exceed the applicable regional thresholds and would therefore be considered to have a less than significant impact. The Project is therefore considered to be consistent with the AQMP.

3.8 POTENTIAL IMPACTS TO SENSITIVE RECEPTORS

The potential impact of Project-generated air pollutant emissions at sensitive receptors has also been considered. Sensitive receptors can include uses such as long-term health care facilities, rehabilitation centers, and retirement homes. Residences, schools, playgrounds, child care centers, and athletic facilities can also be considered as sensitive receptors. The nearest sensitive receptor is a residential community located approximately 530 feet north of the Project site.

As per the MDAQMD Guidelines, the following project types located within a specified distance to an existing or planned sensitive receptor land use must be evaluated to determine exposure of substantial pollutant concentrations to sensitive receptors (16) :

- Any industrial project within 1,000 feet;
- A distribution center (40 or more trucks per day) within 1,000 feet;
- A major transportation project (50,000 or more vehicles per day) within 1,000 feet;
- A dry cleaner using perchloroethylene within 500 feet;
- A gasoline dispensing facility within 300 feet.

The proposed Project consists of up to 7,480 square-feet (sf) of automobile sales use and does not include the above uses. As such, no analysis for sensitive receptors is required. Additionally, results of the regional analysis indicate that the Project will not exceed the MDAQMD significance thresholds during construction or operations. Therefore, sensitive receptors would not be subject to a significant air quality impact during Project construction and operational activities.

The proposed Project would not result in a CO “hotspot” as a result of Project related traffic during ongoing operations, nor would the Project result in a significant adverse health impact as discussed in Section 3.6. Thus, a less than significant impact to sensitive receptors during operational activity is expected.

3.9 ODORS

The potential for the Project to generate objectionable odors has also been considered. Land uses generally associated with odor complaints include:

- Agricultural uses (livestock and farming)
- Wastewater treatment plants
- Food processing plants
- Chemical plants
- Composting operations
- Refineries
- Landfills
- Dairies
- Fiberglass molding facilities

The Project does not contain land uses typically associated with emitting objectionable odors. Potential odor sources associated with the proposed Project may result from construction equipment exhaust and the application of asphalt and architectural coatings during construction activities and the temporary storage of typical solid waste (refuse) associated with the proposed Project’s (long-term operational) uses. Standard construction requirements would minimize odor impacts from construction. The construction odor emissions would be temporary, short-term, and intermittent in nature and would cease upon completion of the respective phase of construction and is thus considered less than significant. It is expected that Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with the City’s solid waste regulations. The proposed Project would also be required to comply with MDAQMD Rule 402 to prevent occurrences of public nuisances. Therefore, odors associated with the proposed Project construction and operations would be less than significant and no mitigation is required.

3.10 CUMULATIVE IMPACTS

Related projects could contribute to an existing or projected air quality exceedance because the Basin is currently nonattainment for ozone, PM₁₀, and PM_{2.5}.

The MDAQMD relies on the SCAQMD guidance for determining cumulative impacts. The SCAQMD has recognized that there is typically insufficient information to quantitatively evaluate the cumulative contributions of multiple projects because each project applicant has no control over nearby projects.

The SCAQMD published a report on how to address cumulative impacts from air pollution: *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution* (22). In this report the AQMD clearly states (Page D-3):

“...the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR. The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for toxic air contaminant (TAC) emissions. The project specific (project increment) significance threshold is $HI > 1.0$ while the cumulative (facility-wide) is $HI > 3.0$. It should be noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR) and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts.

Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant.”

Individual projects that do not generate operational or construction emissions that exceed the MDAQMD’s recommended daily thresholds for project-specific impacts would also not cause a cumulatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment, and, therefore, would not be considered to have a significant, adverse air quality impact. Conversely, individual project-related construction and operational emissions that exceed MDAQMD thresholds for project-specific impacts would be considered cumulatively considerable. As previously noted, the Project will not exceed the applicable MDAQMD regional threshold for construction and operational-source emissions. As such, the Project will not result in a cumulatively significant impact for construction or operational activity.

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4 CONCLUSION

CONSTRUCTION-SOURCE EMISSIONS

REGIONAL IMPACTS

For regional emissions, the Project will not exceed the numerical thresholds of significance established by the Mojave Desert Air Quality Management District (MDAQMD). Thus, a less than significant impact would occur for Project-related construction-source emissions and no mitigation measures are required.

Odors

Established requirements addressing construction equipment operations, and construction material use, storage, and disposal requirements act to minimize odor impacts that may result from construction activities. Moreover, construction-source odor emissions would be temporary, short-term, and intermittent in nature and would not result in persistent impacts that would affect substantial numbers of people. Potential construction-source odor impacts are therefore considered less-than-significant.

OPERATIONAL-SOURCE EMISSIONS

REGIONAL IMPACTS

For regional emissions, the Project would not exceed the numerical thresholds of significance established by the MDAQMD. Thus, a less than significant impact would occur for Project-related operational-source emissions and no mitigation measures are required.

The proposed Project would not result in a significant CO “hotspot” as a result of Project related traffic during ongoing operations, nor would the Project result in a significant adverse health impact as discussed in Section 3.6, thus a less than significant impact to sensitive receptors during operational activity is expected.

ODORS

Substantial odor-generating sources include land uses such as agricultural activities, feedlots, wastewater treatment facilities, landfills or various heavy industrial uses. The Project does not propose any such uses or activities that would result in potentially significant operational-source odor impacts. Potential sources of operational odors generated by the Project would include disposal of miscellaneous refuse. Moreover, MDAQMD Rule 402 acts to prevent occurrences of odor nuisances (23). Consistent with County requirements, all Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with solid waste regulations. Potential operational-source odor impacts are therefore considered less-than-significant.

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5 REFERENCES

1. **State of California.** *California Environmental Quality Act, Appendix G.* 2016.
2. **Mojave Desert Air Quality Management District.** Rule 1113 Architectural Coatings. [Online] <http://mdaqmd.ca.gov/home/showdocument?id=418>.
3. —. Rule 431 Sulfure Content of Fuels. [Online] <http://mdaqmd.ca.gov/home/showdocument?id=312>.
4. —. Rule 403.2 Fugitive Dust Control for the Mojave Desert Planning Area. [Online] <http://mdaqmd.ca.gov/home/showdocument?id=296>.
5. **California Air Resources Board.** Ambient Air Quality Standards (AAQS). [Online] 2016. <http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>.
6. **Mojave Desert Air Quality Management District.** District Boundaries. [Online] <http://mdaqmd.ca.gov/about-us/district-boundaries>.
7. **Air Resources Board.** Air Quality Standards and Area Designations. [Online] <http://www.arb.ca.gov/desig/desig.htm>.
8. **Mojave Desert Air Quality Management District.** Mojave Desert AQMD Attainment Status. [Online] <http://mdaqmd.ca.gov/home/showdocument?id=1267>.
9. **Air Resources Board.** iAdam: Air Quality Data Statistics. *California Air Resources Board.* [Online] <https://arb.ca.gov/adam>.
10. **South Coast Air Quality Management District.** *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning.* 2005.
11. **Environmental Protection Agency.** National Ambient Air Quality Standards (NAAQS). [Online] 1990. [Cited: April 16, 2018.] <https://www.epa.gov/environmental-topics/air-topics>.
12. —. Air Pollution and the Clean Air Act. [Online] [Cited: November 13, 2013.] <http://www.epa.gov/air/caa/>.
13. **Air Resources Board.** California Ambient Air Quality Standards (CAAQS). [Online] 2009. [Cited: April 16, 2018.] <http://www.arb.ca.gov/research/aaqs/caaqs/caaqs.htm>.
14. **California Air Resources Board.** Western Mojave Desert Air Quality Management Plans. [Online] <https://www.arb.ca.gov/planning/sip/planarea/mojavesedsip.htm>.
15. **California Environmental Quality Act.** Appendix G Environmental Checklist Form. [Online] http://resources.ca.gov/ceqa/guidelines/Appendix_G.html.
16. **Mojave Desert Air Quality Management District.** California Environmental Quality Act (CEQA) and Federal Conformity Guidelines. [Online] August 2016. <http://www.mdaqmd.ca.gov/home/showdocument?id=192>.
17. **South Coast Air Quality Management District.** California Emissions Estimator Model. [Online] 2016. [Cited: October 31, 2017.] <http://www.caleemod.com/>.
18. **Michael Baker International.** *Victorville CarMax Traffic Impact Analysis.* 2018.
19. **South Coast Air Quality Management District.** Final 2003 AQMP Appendix V: Modeling and Attainment Demonstrations. [Online] 2003. <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2003-air-quality-management-plan/2003-aqmp-appendix-v.pdf>.
20. **Bay Area Air Quality Management District.** [Online] <http://www.baaqmd.gov/>.

21. **City of Victorville** . *Civic Center Community Sustainability Plan*. 2016.
22. **Goss, Tracy A and Kroeger, Amy**. White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution. [Online] South Coast Air Quality Management District, 2003. http://www.aqmd.gov/rules/ciwg/final_white_paper.pdf.
23. **South Coast Air Quality Management District**. RULE 402. Nuisance. [Online] May 7, 1976. [Cited: November 13, 2013.] <http://www.aqmd.gov/rules/reg/reg04/r402.pdf>.
24. —. 2003 Air Quality Management Plan. [Online] 2003. <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2003-air-quality-management-plan/2003-aqmp-appendix-v.pdf>.

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6 CERTIFICATION

The contents of this air study report represent an accurate depiction of the environmental impacts associated with the proposed Victorville CarMax Project. The information contained in this air quality impact assessment report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (949) 336-5987.

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EDUCATION

Master of Science in Environmental Studies
California State University, Fullerton • May, 2010

Bachelor of Arts in Environmental Analysis and Design
University of California, Irvine • June, 2006

PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Planners
AWMA – Air and Waste Management Association
ASTM – American Society for Testing and Materials

PROFESSIONAL CERTIFICATIONS

Planned Communities and Urban Infill – Urban Land Institute • June, 2011
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April, 2008
Principles of Ambient Air Monitoring – California Air Resources Board • August, 2007
AB2588 Regulatory Standards – Trinity Consultants • November, 2006
Air Dispersion Modeling – Lakes Environmental • June, 2006

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APPENDIX 2.1:

STATE/FEDERAL ATTAINMENT STATUS OF CRITERIA POLLUTANTS

Mojave Desert AQMD Attainment Status					
Pollutant	Averaging Time	California Standards		Federal Standards	
		Concentration	Attainment Status	Concentration	Attainment Status
Ozone (O ₃)	1 Hour	0.09 ppm (180 µg/m ³)	Non-attainment	-	Non-attainment*
	8 Hour	0.070 ppm (137 µg/m ³)		0.070 ppm (137 µg/m ³)	
Respirable Particulate Matter (PM ₁₀)	24 Hour	50 µg/m ³	Non-attainment	150 µg/m ³	Non-attainment***
	Annual Arithmetic Mean	20 µg/m ³		-	
Fine Particulate Matter (PM _{2.5})	24 Hour	No State Standard		35 µg/m ³	Unclassified/Attainment
	Annual Arithmetic Mean	12 µg/m ³	Non-attainment*	12 µg/m ³	
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10 mg/m ³)	Attainment	9 ppm (10 mg/m ³)	Unclassified/Attainment
	1 Hour	20 ppm (23 mg/m ³)		35 ppm (40 mg/m ³)	
Nitrogen Dioxide (NO ₂)	Annual Arithmetic Mean	0.030 ppb (57 µg/m ³)	Attainment	0.053 ppm (100 µg/m ³)	Unclassified/Attainment
	1 Hour	0.18 ppm (330 µg/m ³)		100 ppm (196 µg/m ³)	
Sulfur Dioxide (SO ₂)	Annual Arithmetic Mean	-	Attainment	0.030 ppm (80 µg/m ³)	Unclassified/Attainment
	24 Hour	0.04 ppm (105 µg/m ³)		0.14 ppm (365 µg/m ³)	
	3 Hour	-		0.5 ppm (1300 µg/m ³)	
	1 Hour	0.25 ppm (655 µg/m ³)		75 ppb (196 µg/m ³)	
Lead (Pb)	30 Day Average	1.5 µg/m ³	Attainment	-	Unclassified/Attainment
	Calendar Quarter	-		1.5 µg/m ³	
	Rolling 3-Month Average	-		0.15 µg/m ³	
Visibility Reducing Particles	8 Hour	Extinction Coefficient of 0.24 per kilometer - visibility of ten miles or more due to particles when relative humidity is less than 70 percent	Unclassified	No Federal Standards	
Sulfates	24 Hour	25 µg/m ³	Attainment		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)	Non-attainment**		
Vinyl Chloride	24 Hour	0.01 ppm (26 µg/m ³)	Unclassified		

*Southwest corner of desert portion of San Bernardino County only

**Searles Valley (northwest corner of San Bernardino County) only

***San Bernardino County portion only

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APPENDIX 3.1:

CALEEMOD CONSTRUCTION EMISSIONS MODEL OUTPUTS

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Winter

Victorville CarMax (Construction - Unmitigated)
San Bernardino-Mojave Desert County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	3.68	Acre	3.68	160,300.80	0
Automobile Care Center	11.45	1000sqft	1.08	11,447.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Winter

Project Characteristics -

Land Use - Land Use consistent with Draft TIA (8/15/2018) by Michael Baker International. As per the Site Plan, the total Project Area is 4.76 acres.

Construction Phase - Construction Schedule adjusted as directed by the Project Applicant.

Off-road Equipment - Hours are based on an 8-hour workday.

Off-road Equipment - Hours are based on an 8-hour workday.

Off-road Equipment -

Off-road Equipment - Hours are based on an 8-hour workday.

Off-road Equipment -

Grading -

Architectural Coating - Rule 1113

Vehicle Trips - Construction Run Only.

Energy Use - Construction Run Only.

Water And Wastewater - Construction Run Only.

Solid Waste - Construction Run Only.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	50.00
tblConstructionPhase	NumDays	5.00	3.00
tblConstructionPhase	NumDays	8.00	21.00
tblConstructionPhase	NumDays	230.00	126.00
tblConstructionPhase	NumDays	18.00	16.00
tblConstructionPhase	NumDays	18.00	11.00
tblConstructionPhase	PhaseEndDate	11/6/2020	11/4/2020
tblConstructionPhase	PhaseEndDate	11/18/2020	12/3/2020
tblConstructionPhase	PhaseEndDate	10/6/2021	5/27/2021

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Winter

tblConstructionPhase	PhaseEndDate	11/25/2021	5/27/2021
tblConstructionPhase	PhaseEndDate	11/1/2021	5/27/2021
tblConstructionPhase	PhaseStartDate	11/7/2020	11/5/2020
tblConstructionPhase	PhaseStartDate	11/19/2020	12/3/2020
tblConstructionPhase	PhaseStartDate	11/2/2021	5/6/2021
tblConstructionPhase	PhaseStartDate	10/7/2021	5/13/2021
tblEnergyUse	LightingElect	2.93	0.00
tblEnergyUse	LightingElect	0.35	0.00
tblEnergyUse	NT24E	5.02	0.00
tblEnergyUse	NT24NG	17.13	0.00
tblEnergyUse	T24E	2.20	0.00
tblEnergyUse	T24NG	15.36	0.00
tblGrading	MaterialImported	0.00	1,000.00
tblLandUse	LotAcreage	0.26	1.08
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblSolidWaste	SolidWasteGenerationRate	43.74	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Winter

tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	DV_TP	51.00	0.00
tblVehicleTrips	PB_TP	28.00	0.00
tblVehicleTrips	PR_TP	21.00	0.00
tblVehicleTrips	ST_TR	23.72	0.00
tblVehicleTrips	SU_TR	11.88	0.00
tblVehicleTrips	WD_TR	23.72	0.00
tblWater	IndoorWaterUseRate	1,077,228.68	0.00
tblWater	OutdoorWaterUseRate	660,236.93	0.00

2.0 Emissions Summary

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Winter

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	5.1878	51.7412	37.4065	0.0771	18.2141	2.4919	20.4125	9.9699	2.3159	11.9924	0.0000	7,538.7475	7,538.7475	1.7178	0.0000	7,581.6927
2021	9.7176	36.7248	38.0784	0.0706	1.0523	1.8540	2.9063	0.2834	1.7376	2.0209	0.0000	6,826.5548	6,826.5548	1.4534	0.0000	6,862.8906
Maximum	9.7176	51.7412	38.0784	0.0771	18.2141	2.4919	20.4125	9.9699	2.3159	11.9924	0.0000	7,538.7475	7,538.7475	1.7178	0.0000	7,581.6927

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	5.1878	51.7412	37.4065	0.0771	18.2141	2.4919	20.4125	9.9699	2.3159	11.9924	0.0000	7,538.7475	7,538.7475	1.7178	0.0000	7,581.6927
2021	9.7176	36.7248	38.0784	0.0706	1.0523	1.8540	2.9063	0.2834	1.7376	2.0209	0.0000	6,826.5548	6,826.5548	1.4534	0.0000	6,862.8906
Maximum	9.7176	51.7412	38.0784	0.0771	18.2141	2.4919	20.4125	9.9699	2.3159	11.9924	0.0000	7,538.7475	7,538.7475	1.7178	0.0000	7,581.6927

[illegible]

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Winter

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.4051	1.0000e-005	1.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.3100e-003	3.3100e-003	1.0000e-005		3.5300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.4051	1.0000e-005	1.5500e-003	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005		3.3100e-003	3.3100e-003	1.0000e-005	0.0000	3.5300e-003

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.4051	1.0000e-005	1.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.3100e-003	3.3100e-003	1.0000e-005		3.5300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.4051	1.0000e-005	1.5500e-003	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005		3.3100e-003	3.3100e-003	1.0000e-005	0.0000	3.5300e-003

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert 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	N2O	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	11/2/2020	11/4/2020	5	3	
2	Grading	Grading	11/5/2020	12/3/2020	5	21	
3	Building Construction	Building Construction	12/3/2020	5/27/2021	5	126	
4	Architectural Coating	Architectural Coating	5/6/2021	5/27/2021	5	16	
5	Paving	Paving	5/13/2021	5/27/2021	5	11	

Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 10.5****Acres of Paving: 3.68****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 17,171; Non-Residential Outdoor: 5,724; Striped Parking Area: 9,618 (Architectural Coating – sqft)****OffRoad Equipment**

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers/Metal Track 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/Metal Track Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	8.00	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	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	8.00	78	0.48
Paving	Cement and Mortar Mixers	2	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

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	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	125.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	71.00	28.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	14.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Winter

3.1 Mitigation Measures Construction**3.2 Site Preparation - 2020****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216		3,685.1016	3,685.1016	1.1918		3,714.8975
Total	4.0765	42.4173	21.5136	0.0380	18.0663	2.1974	20.2637	9.9307	2.0216	11.9523		3,685.1016	3,685.1016	1.1918		3,714.8975

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Winter

3.2 Site Preparation - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0781	0.0506	0.5144	1.3600e-003	0.1479	1.0000e-003	0.1489	0.0392	9.2000e-004	0.0401		135.1266	135.1266	4.1400e-003		135.2301
Total	0.0781	0.0506	0.5144	1.3600e-003	0.1479	1.0000e-003	0.1489	0.0392	9.2000e-004	0.0401		135.1266	135.1266	4.1400e-003		135.2301

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975
Total	4.0765	42.4173	21.5136	0.0380	18.0663	2.1974	20.2637	9.9307	2.0216	11.9523	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Winter

3.2 Site Preparation - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0781	0.0506	0.5144	1.3600e-003	0.1479	1.0000e-003	0.1489	0.0392	9.2000e-004	0.0401		135.1266	135.1266	4.1400e-003		135.2301
Total	0.0781	0.0506	0.5144	1.3600e-003	0.1479	1.0000e-003	0.1489	0.0392	9.2000e-004	0.0401		135.1266	135.1266	4.1400e-003		135.2301

3.3 Grading - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5590	0.0000	6.5590	3.3685	0.0000	3.3685			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716		2,872.485 1	2,872.485 1	0.9290		2,895.710 6
Total	2.4288	26.3859	16.0530	0.0297	6.5590	1.2734	7.8325	3.3685	1.1716	4.5401		2,872.485 1	2,872.485 1	0.9290		2,895.710 6

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Winter

3.3 Grading - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0387	1.4741	0.2476	4.5500e-003	0.1042	4.4300e-003	0.1086	0.0286	4.2400e-003	0.0328		482.7356	482.7356	0.0290		483.4612
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	0.0421	0.4287	1.1300e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		112.6055	112.6055	3.4500e-003		112.6917
Total	0.1038	1.5162	0.6762	5.6800e-003	0.2274	5.2600e-003	0.2327	0.0612	5.0100e-003	0.0663		595.3411	595.3411	0.0325		596.1530

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					6.5590	0.0000	6.5590	3.3685	0.0000	3.3685			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716	0.0000	2,872.485 1	2,872.485 1	0.9290		2,895.710 6
Total	2.4288	26.3859	16.0530	0.0297	6.5590	1.2734	7.8325	3.3685	1.1716	4.5401	0.0000	2,872.485 1	2,872.485 1	0.9290		2,895.710 6

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Winter

3.3 Grading - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0387	1.4741	0.2476	4.5500e-003	0.1042	4.4300e-003	0.1086	0.0286	4.2400e-003	0.0328		482.7356	482.7356	0.0290		483.4612
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	0.0421	0.4287	1.1300e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		112.6055	112.6055	3.4500e-003		112.6917
Total	0.1038	1.5162	0.6762	5.6800e-003	0.2274	5.2600e-003	0.2327	0.0612	5.0100e-003	0.0663		595.3411	595.3411	0.0325		596.1530

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	2.2551	20.6494	17.9678	0.0288		1.1948	1.1948		1.1218	1.1218		2,735.6999	2,735.6999	0.6819		2,752.7481
Total	2.2551	20.6494	17.9678	0.0288		1.1948	1.1948		1.1218	1.1218		2,735.6999	2,735.6999	0.6819		2,752.7481

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Winter

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	0.0920	2.9903	0.6806	7.6100e-003	0.1897	0.0145	0.2042	0.0546	0.0139	0.0685		802.2220	802.2220	0.0581		803.6734
Worker	0.3081	0.1994	2.0289	5.3500e-003	0.5833	3.9500e-003	0.5872	0.1547	3.6300e-003	0.1583		532.9993	532.9993	0.0163		533.4076
Total	0.4001	3.1897	2.7095	0.0130	0.7729	0.0185	0.7914	0.2093	0.0175	0.2268		1,335.2214	1,335.2214	0.0744		1,337.0810

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	2.2551	20.6494	17.9678	0.0288		1.1948	1.1948		1.1218	1.1218	0.0000	2,735.6999	2,735.6999	0.6819		2,752.7481
Total	2.2551	20.6494	17.9678	0.0288		1.1948	1.1948		1.1218	1.1218	0.0000	2,735.6999	2,735.6999	0.6819		2,752.7481

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Winter

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	0.0920	2.9903	0.6806	7.6100e-003	0.1897	0.0145	0.2042	0.0546	0.0139	0.0685		802.2220	802.2220	0.0581		803.6734
Worker	0.3081	0.1994	2.0289	5.3500e-003	0.5833	3.9500e-003	0.5872	0.1547	3.6300e-003	0.1583		532.9993	532.9993	0.0163		533.4076
Total	0.4001	3.1897	2.7095	0.0130	0.7729	0.0185	0.7914	0.2093	0.0175	0.2268		1,335.2214	1,335.2214	0.0744		1,337.0810

3.4 Building Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0228	18.7492	17.6706	0.0288		1.0251	1.0251		0.9625	0.9625		2,736.0438	2,736.0438	0.6751		2,752.9212
Total	2.0228	18.7492	17.6706	0.0288		1.0251	1.0251		0.9625	0.9625		2,736.0438	2,736.0438	0.6751		2,752.9212

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Winter

3.4 Building Construction - 2021**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	0.0787	2.7195	0.6054	7.5700e-003	0.1897	5.0000e-003	0.1947	0.0546	4.7800e-003	0.0594		797.9935	797.9935	0.0563		799.4014
Worker	0.2870	0.1786	1.8620	5.1800e-003	0.5833	3.8500e-003	0.5871	0.1547	3.5500e-003	0.1583		516.0487	516.0487	0.0147		516.4170
Total	0.3656	2.8981	2.4673	0.0128	0.7729	8.8500e-003	0.7818	0.2093	8.3300e-003	0.2176		1,314.0423	1,314.0423	0.0710		1,315.8184

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	2.0228	18.7492	17.6706	0.0288		1.0251	1.0251		0.9625	0.9625	0.0000	2,736.0438	2,736.0438	0.6751		2,752.9212
Total	2.0228	18.7492	17.6706	0.0288		1.0251	1.0251		0.9625	0.9625	0.0000	2,736.0438	2,736.0438	0.6751		2,752.9212

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Winter

3.4 Building Construction - 2021**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	0.0787	2.7195	0.6054	7.5700e-003	0.1897	5.0000e-003	0.1947	0.0546	4.7800e-003	0.0594		797.9935	797.9935	0.0563		799.4014
Worker	0.2870	0.1786	1.8620	5.1800e-003	0.5833	3.8500e-003	0.5871	0.1547	3.5500e-003	0.1583		516.0487	516.0487	0.0147		516.4170
Total	0.3656	2.8981	2.4673	0.0128	0.7729	8.8500e-003	0.7818	0.2093	8.3300e-003	0.2176		1,314.0423	1,314.0423	0.0710		1,315.8184

3.5 Architectural Coating - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.7093					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2919	2.0358	2.4234	3.9600e-003		0.1255	0.1255		0.1255	0.1255		375.2641	375.2641	0.0258		375.9079
Total	5.0012	2.0358	2.4234	3.9600e-003		0.1255	0.1255		0.1255	0.1255		375.2641	375.2641	0.0258		375.9079

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Winter

3.5 Architectural Coating - 2021**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	0.0566	0.0352	0.3671	1.0200e-003	0.1150	7.6000e-004	0.1158	0.0305	7.0000e-004	0.0312		101.7561	101.7561	2.9000e-003		101.8287
Total	0.0566	0.0352	0.3671	1.0200e-003	0.1150	7.6000e-004	0.1158	0.0305	7.0000e-004	0.0312		101.7561	101.7561	2.9000e-003		101.8287

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.7093					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2919	2.0358	2.4234	3.9600e-003		0.1255	0.1255		0.1255	0.1255	0.0000	375.2641	375.2641	0.0258		375.9079
Total	5.0012	2.0358	2.4234	3.9600e-003		0.1255	0.1255		0.1255	0.1255	0.0000	375.2641	375.2641	0.0258		375.9079

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Winter

3.5 Architectural Coating - 2021**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	0.0566	0.0352	0.3671	1.0200e-003	0.1150	7.6000e-004	0.1158	0.0305	7.0000e-004	0.0312		101.7561	101.7561	2.9000e-003		101.8287
Total	0.0566	0.0352	0.3671	1.0200e-003	0.1150	7.6000e-004	0.1158	0.0305	7.0000e-004	0.0312		101.7561	101.7561	2.9000e-003		101.8287

3.6 Paving - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3141	12.9562	14.6254	0.0226		0.6927	0.6927		0.6396	0.6396		2,154.0827	2,154.0827	0.6745		2,170.9449
Paving	0.8765					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.1906	12.9562	14.6254	0.0226		0.6927	0.6927		0.6396	0.6396		2,154.0827	2,154.0827	0.6745		2,170.9449

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Winter

3.6 Paving - 2021**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	0.0808	0.0503	0.5245	1.4600e-003	0.1643	1.0800e-003	0.1654	0.0436	1.0000e-003	0.0446		145.3658	145.3658	4.1500e-003		145.4696
Total	0.0808	0.0503	0.5245	1.4600e-003	0.1643	1.0800e-003	0.1654	0.0436	1.0000e-003	0.0446		145.3658	145.3658	4.1500e-003		145.4696

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	1.3141	12.9562	14.6254	0.0226		0.6927	0.6927		0.6396	0.6396	0.0000	2,154.0827	2,154.0827	0.6745		2,170.9449
Paving	0.8765					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.1906	12.9562	14.6254	0.0226		0.6927	0.6927		0.6396	0.6396	0.0000	2,154.0827	2,154.0827	0.6745		2,170.9449

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Winter

3.6 Paving - 2021**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	0.0808	0.0503	0.5245	1.4600e-003	0.1643	1.0800e-003	0.1654	0.0436	1.0000e-003	0.0446		145.3658	145.3658	4.1500e-003		145.4696
Total	0.0808	0.0503	0.5245	1.4600e-003	0.1643	1.0800e-003	0.1654	0.0436	1.0000e-003	0.0446		145.3658	145.3658	4.1500e-003		145.4696

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert 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	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Automobile Care Center	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.549952	0.037123	0.179649	0.119457	0.017229	0.005267	0.017877	0.062669	0.001348	0.001607	0.006000	0.000812	0.001010
Parking Lot	0.549952	0.037123	0.179649	0.119457	0.017229	0.005267	0.017877	0.062669	0.001348	0.001607	0.006000	0.000812	0.001010

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Winter

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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Winter

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					
Automobile Care Center	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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

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					
Automobile Care Center	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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert 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	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4051	1.0000e-005	1.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.3100e-003	3.3100e-003	1.0000e-005		3.5300e-003
Unmitigated	0.4051	1.0000e-005	1.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.3100e-003	3.3100e-003	1.0000e-005		3.5300e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1032					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3017					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.4000e-004	1.0000e-005	1.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.3100e-003	3.3100e-003	1.0000e-005		3.5300e-003
Total	0.4051	1.0000e-005	1.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.3100e-003	3.3100e-003	1.0000e-005		3.5300e-003

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Winter

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	0.1032					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3017					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.4000e-004	1.0000e-005	1.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.3100e-003	3.3100e-003	1.0000e-005		3.5300e-003
Total	0.4051	1.0000e-005	1.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.3100e-003	3.3100e-003	1.0000e-005		3.5300e-003

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
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Winter

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

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

Equipment Type	Number
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11.0 Vegetation

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Summer

Victorville CarMax (Construction - Unmitigated)
San Bernardino-Mojave Desert County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	3.68	Acre	3.68	160,300.80	0
Automobile Care Center	11.45	1000sqft	1.08	11,447.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Summer

Project Characteristics -

Land Use - Land Use consistent with Draft TIA (8/15/2018) by Michael Baker International. As per the Site Plan, the total Project Area is 4.76 acres.

Construction Phase - Construction Schedule adjusted as directed by the Project Applicant.

Off-road Equipment - Hours are based on an 8-hour workday.

Off-road Equipment - Hours are based on an 8-hour workday.

Off-road Equipment -

Off-road Equipment - Hours are based on an 8-hour workday.

Off-road Equipment -

Grading -

Architectural Coating - Rule 1113

Vehicle Trips - Construction Run Only.

Energy Use - Construction Run Only.

Water And Wastewater - Construction Run Only.

Solid Waste - Construction Run Only.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	50.00
tblConstructionPhase	NumDays	5.00	3.00
tblConstructionPhase	NumDays	8.00	21.00
tblConstructionPhase	NumDays	230.00	126.00
tblConstructionPhase	NumDays	18.00	16.00
tblConstructionPhase	NumDays	18.00	11.00
tblConstructionPhase	PhaseEndDate	11/6/2020	11/4/2020
tblConstructionPhase	PhaseEndDate	11/18/2020	12/3/2020
tblConstructionPhase	PhaseEndDate	10/6/2021	5/27/2021

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Summer

tblConstructionPhase	PhaseEndDate	11/25/2021	5/27/2021
tblConstructionPhase	PhaseEndDate	11/1/2021	5/27/2021
tblConstructionPhase	PhaseStartDate	11/7/2020	11/5/2020
tblConstructionPhase	PhaseStartDate	11/19/2020	12/3/2020
tblConstructionPhase	PhaseStartDate	11/2/2021	5/6/2021
tblConstructionPhase	PhaseStartDate	10/7/2021	5/13/2021
tblEnergyUse	LightingElect	2.93	0.00
tblEnergyUse	LightingElect	0.35	0.00
tblEnergyUse	NT24E	5.02	0.00
tblEnergyUse	NT24NG	17.13	0.00
tblEnergyUse	T24E	2.20	0.00
tblEnergyUse	T24NG	15.36	0.00
tblGrading	MaterialImported	0.00	1,000.00
tblLandUse	LotAcreage	0.26	1.08
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblSolidWaste	SolidWasteGenerationRate	43.74	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Summer

tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	DV_TP	51.00	0.00
tblVehicleTrips	PB_TP	28.00	0.00
tblVehicleTrips	PR_TP	21.00	0.00
tblVehicleTrips	ST_TR	23.72	0.00
tblVehicleTrips	SU_TR	11.88	0.00
tblVehicleTrips	WD_TR	23.72	0.00
tblWater	IndoorWaterUseRate	1,077,228.68	0.00
tblWater	OutdoorWaterUseRate	660,236.93	0.00

2.0 Emissions Summary

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Summer

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	5.1899	51.7427	37.7724	0.0783	18.2141	2.4917	20.4125	9.9699	2.3157	11.9924	0.0000	7,656.4387	7,656.4387	1.7126	0.0000	7,699.2542
2021	9.7222	36.7384	38.5472	0.0718	1.0523	1.8539	2.9061	0.2834	1.7374	2.0208	0.0000	6,944.5680	6,944.5680	1.4508	0.0000	6,980.8386
Maximum	9.7222	51.7427	38.5472	0.0783	18.2141	2.4917	20.4125	9.9699	2.3157	11.9924	0.0000	7,656.4387	7,656.4387	1.7126	0.0000	7,699.2542

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	5.1899	51.7427	37.7724	0.0783	18.2141	2.4917	20.4125	9.9699	2.3157	11.9924	0.0000	7,656.4387	7,656.4387	1.7126	0.0000	7,699.2542
2021	9.7222	36.7384	38.5472	0.0718	1.0523	1.8539	2.9061	0.2834	1.7374	2.0208	0.0000	6,944.5680	6,944.5680	1.4508	0.0000	6,980.8386
Maximum	9.7222	51.7427	38.5472	0.0783	18.2141	2.4917	20.4125	9.9699	2.3157	11.9924	0.0000	7,656.4387	7,656.4387	1.7126	0.0000	7,699.2542

[illegible]

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Summer

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.4051	1.0000e-005	1.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.3100e-003	3.3100e-003	1.0000e-005		3.5300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.4051	1.0000e-005	1.5500e-003	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005		3.3100e-003	3.3100e-003	1.0000e-005	0.0000	3.5300e-003

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.4051	1.0000e-005	1.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.3100e-003	3.3100e-003	1.0000e-005		3.5300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.4051	1.0000e-005	1.5500e-003	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005		3.3100e-003	3.3100e-003	1.0000e-005	0.0000	3.5300e-003

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert 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	N2O	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	11/2/2020	11/4/2020	5	3	
2	Grading	Grading	11/5/2020	12/3/2020	5	21	
3	Building Construction	Building Construction	12/3/2020	5/27/2021	5	126	
4	Architectural Coating	Architectural Coating	5/6/2021	5/27/2021	5	16	
5	Paving	Paving	5/13/2021	5/27/2021	5	11	

Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 10.5****Acres of Paving: 3.68****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 17,171; Non-Residential Outdoor: 5,724; Striped Parking Area: 9,618 (Architectural Coating – sqft)****OffRoad Equipment**

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers/Metal Track 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/Metal Track Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	8.00	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	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	8.00	78	0.48
Paving	Cement and Mortar Mixers	2	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

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	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	125.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	71.00	28.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	14.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Summer

3.1 Mitigation Measures Construction**3.2 Site Preparation - 2020****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216		3,685.1016	3,685.1016	1.1918		3,714.8975
Total	4.0765	42.4173	21.5136	0.0380	18.0663	2.1974	20.2637	9.9307	2.0216	11.9523		3,685.1016	3,685.1016	1.1918		3,714.8975

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Summer

3.2 Site Preparation - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0799	0.0480	0.6166	1.5100e-003	0.1479	1.0000e-003	0.1489	0.0392	9.2000e-004	0.0401		150.5488	150.5488	4.6800e-003		150.6658
Total	0.0799	0.0480	0.6166	1.5100e-003	0.1479	1.0000e-003	0.1489	0.0392	9.2000e-004	0.0401		150.5488	150.5488	4.6800e-003		150.6658

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975
Total	4.0765	42.4173	21.5136	0.0380	18.0663	2.1974	20.2637	9.9307	2.0216	11.9523	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Summer

3.2 Site Preparation - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0799	0.0480	0.6166	1.5100e-003	0.1479	1.0000e-003	0.1489	0.0392	9.2000e-004	0.0401		150.5488	150.5488	4.6800e-003		150.6658
Total	0.0799	0.0480	0.6166	1.5100e-003	0.1479	1.0000e-003	0.1489	0.0392	9.2000e-004	0.0401		150.5488	150.5488	4.6800e-003		150.6658

3.3 Grading - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5590	0.0000	6.5590	3.3685	0.0000	3.3685			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716		2,872.485 1	2,872.485 1	0.9290		2,895.710 6
Total	2.4288	26.3859	16.0530	0.0297	6.5590	1.2734	7.8325	3.3685	1.1716	4.5401		2,872.485 1	2,872.485 1	0.9290		2,895.710 6

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Summer

3.3 Grading - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0370	1.4663	0.2164	4.6700e-003	0.1042	4.3700e-003	0.1085	0.0286	4.1800e-003	0.0327		495.6596	495.6596	0.0268		496.3283
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	0.0666	0.0400	0.5139	1.2600e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		125.4573	125.4573	3.9000e-003		125.5548
Total	0.1036	1.5063	0.7302	5.9300e-003	0.2274	5.2000e-003	0.2326	0.0612	4.9500e-003	0.0662		621.1169	621.1169	0.0307		621.8831

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					6.5590	0.0000	6.5590	3.3685	0.0000	3.3685			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716	0.0000	2,872.485 1	2,872.485 1	0.9290		2,895.710 6
Total	2.4288	26.3859	16.0530	0.0297	6.5590	1.2734	7.8325	3.3685	1.1716	4.5401	0.0000	2,872.485 1	2,872.485 1	0.9290		2,895.710 6

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Summer

3.3 Grading - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0370	1.4663	0.2164	4.6700e-003	0.1042	4.3700e-003	0.1085	0.0286	4.1800e-003	0.0327		495.6596	495.6596	0.0268		496.3283
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	0.0666	0.0400	0.5139	1.2600e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		125.4573	125.4573	3.9000e-003		125.5548
Total	0.1036	1.5063	0.7302	5.9300e-003	0.2274	5.2000e-003	0.2326	0.0612	4.9500e-003	0.0662		621.1169	621.1169	0.0307		621.8831

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	2.2551	20.6494	17.9678	0.0288		1.1948	1.1948		1.1218	1.1218		2,735.6999	2,735.6999	0.6819		2,752.7481
Total	2.2551	20.6494	17.9678	0.0288		1.1948	1.1948		1.1218	1.1218		2,735.6999	2,735.6999	0.6819		2,752.7481

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Summer

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	0.0873	3.0116	0.5891	7.9000e-003	0.1897	0.0143	0.2040	0.0546	0.0137	0.0683		833.3056	833.3056	0.0526		834.6196
Worker	0.3151	0.1895	2.4323	5.9700e-003	0.5833	3.9500e-003	0.5872	0.1547	3.6300e-003	0.1583		593.8312	593.8312	0.0185		594.2928
Total	0.4024	3.2011	3.0214	0.0139	0.7729	0.0183	0.7912	0.2093	0.0174	0.2267		1,427.1368	1,427.1368	0.0710		1,428.9124

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	2.2551	20.6494	17.9678	0.0288		1.1948	1.1948		1.1218	1.1218	0.0000	2,735.6999	2,735.6999	0.6819		2,752.7481
Total	2.2551	20.6494	17.9678	0.0288		1.1948	1.1948		1.1218	1.1218	0.0000	2,735.6999	2,735.6999	0.6819		2,752.7481

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Summer

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	0.0873	3.0116	0.5891	7.9000e-003	0.1897	0.0143	0.2040	0.0546	0.0137	0.0683		833.3056	833.3056	0.0526		834.6196
Worker	0.3151	0.1895	2.4323	5.9700e-003	0.5833	3.9500e-003	0.5872	0.1547	3.6300e-003	0.1583		593.8312	593.8312	0.0185		594.2928
Total	0.4024	3.2011	3.0214	0.0139	0.7729	0.0183	0.7912	0.2093	0.0174	0.2267		1,427.1368	1,427.1368	0.0710		1,428.9124

3.4 Building Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0228	18.7492	17.6706	0.0288		1.0251	1.0251		0.9625	0.9625		2,736.0438	2,736.0438	0.6751		2,752.9212
Total	2.0228	18.7492	17.6706	0.0288		1.0251	1.0251		0.9625	0.9625		2,736.0438	2,736.0438	0.6751		2,752.9212

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Summer

3.4 Building Construction - 2021**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	0.0743	2.7461	0.5192	7.8600e-003	0.1897	4.8700e-003	0.1946	0.0546	4.6600e-003	0.0593		828.9452	828.9452	0.0509		830.2166
Worker	0.2931	0.1698	2.2372	5.7700e-003	0.5833	3.8500e-003	0.5871	0.1547	3.5500e-003	0.1583		574.9189	574.9189	0.0167		575.3353
Total	0.3673	2.9159	2.7564	0.0136	0.7729	8.7200e-003	0.7817	0.2093	8.2100e-003	0.2175		1,403.8642	1,403.8642	0.0675		1,405.5519

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	2.0228	18.7492	17.6706	0.0288		1.0251	1.0251		0.9625	0.9625	0.0000	2,736.0438	2,736.0438	0.6751		2,752.9212
Total	2.0228	18.7492	17.6706	0.0288		1.0251	1.0251		0.9625	0.9625	0.0000	2,736.0438	2,736.0438	0.6751		2,752.9212

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Summer

3.4 Building Construction - 2021**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	0.0743	2.7461	0.5192	7.8600e-003	0.1897	4.8700e-003	0.1946	0.0546	4.6600e-003	0.0593		828.9452	828.9452	0.0509		830.2166
Worker	0.2931	0.1698	2.2372	5.7700e-003	0.5833	3.8500e-003	0.5871	0.1547	3.5500e-003	0.1583		574.9189	574.9189	0.0167		575.3353
Total	0.3673	2.9159	2.7564	0.0136	0.7729	8.7200e-003	0.7817	0.2093	8.2100e-003	0.2175		1,403.8642	1,403.8642	0.0675		1,405.5519

3.5 Architectural Coating - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.7093					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2919	2.0358	2.4234	3.9600e-003		0.1255	0.1255		0.1255	0.1255		375.2641	375.2641	0.0258		375.9079
Total	5.0012	2.0358	2.4234	3.9600e-003		0.1255	0.1255		0.1255	0.1255		375.2641	375.2641	0.0258		375.9079

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Summer

3.5 Architectural Coating - 2021**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	0.0578	0.0335	0.4411	1.1400e-003	0.1150	7.6000e-004	0.1158	0.0305	7.0000e-004	0.0312		113.3643	113.3643	3.2800e-003		113.4464
Total	0.0578	0.0335	0.4411	1.1400e-003	0.1150	7.6000e-004	0.1158	0.0305	7.0000e-004	0.0312		113.3643	113.3643	3.2800e-003		113.4464

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.7093					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2919	2.0358	2.4234	3.9600e-003		0.1255	0.1255		0.1255	0.1255	0.0000	375.2641	375.2641	0.0258		375.9079
Total	5.0012	2.0358	2.4234	3.9600e-003		0.1255	0.1255		0.1255	0.1255	0.0000	375.2641	375.2641	0.0258		375.9079

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Summer

3.5 Architectural Coating - 2021**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	0.0578	0.0335	0.4411	1.1400e-003	0.1150	7.6000e-004	0.1158	0.0305	7.0000e-004	0.0312		113.3643	113.3643	3.2800e-003		113.4464
Total	0.0578	0.0335	0.4411	1.1400e-003	0.1150	7.6000e-004	0.1158	0.0305	7.0000e-004	0.0312		113.3643	113.3643	3.2800e-003		113.4464

3.6 Paving - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3141	12.9562	14.6254	0.0226		0.6927	0.6927		0.6396	0.6396		2,154.0827	2,154.0827	0.6745		2,170.9449
Paving	0.8765					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.1906	12.9562	14.6254	0.0226		0.6927	0.6927		0.6396	0.6396		2,154.0827	2,154.0827	0.6745		2,170.9449

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Summer

3.6 Paving - 2021**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	0.0826	0.0478	0.6302	1.6300e-003	0.1643	1.0800e-003	0.1654	0.0436	1.0000e-003	0.0446		161.9490	161.9490	4.6900e-003		162.0663
Total	0.0826	0.0478	0.6302	1.6300e-003	0.1643	1.0800e-003	0.1654	0.0436	1.0000e-003	0.0446		161.9490	161.9490	4.6900e-003		162.0663

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	1.3141	12.9562	14.6254	0.0226		0.6927	0.6927		0.6396	0.6396	0.0000	2,154.0827	2,154.0827	0.6745		2,170.9449
Paving	0.8765					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.1906	12.9562	14.6254	0.0226		0.6927	0.6927		0.6396	0.6396	0.0000	2,154.0827	2,154.0827	0.6745		2,170.9449

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Summer

3.6 Paving - 2021**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	0.0826	0.0478	0.6302	1.6300e-003	0.1643	1.0800e-003	0.1654	0.0436	1.0000e-003	0.0446		161.9490	161.9490	4.6900e-003		162.0663
Total	0.0826	0.0478	0.6302	1.6300e-003	0.1643	1.0800e-003	0.1654	0.0436	1.0000e-003	0.0446		161.9490	161.9490	4.6900e-003		162.0663

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert 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	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Automobile Care Center	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.549952	0.037123	0.179649	0.119457	0.017229	0.005267	0.017877	0.062669	0.001348	0.001607	0.006000	0.000812	0.001010
Parking Lot	0.549952	0.037123	0.179649	0.119457	0.017229	0.005267	0.017877	0.062669	0.001348	0.001607	0.006000	0.000812	0.001010

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Summer

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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Summer

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					
Automobile Care Center	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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

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					
Automobile Care Center	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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert 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	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4051	1.0000e-005	1.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.3100e-003	3.3100e-003	1.0000e-005		3.5300e-003
Unmitigated	0.4051	1.0000e-005	1.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.3100e-003	3.3100e-003	1.0000e-005		3.5300e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1032					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3017					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.4000e-004	1.0000e-005	1.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.3100e-003	3.3100e-003	1.0000e-005		3.5300e-003
Total	0.4051	1.0000e-005	1.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.3100e-003	3.3100e-003	1.0000e-005		3.5300e-003

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Summer

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	0.1032					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3017					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.4000e-004	1.0000e-005	1.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.3100e-003	3.3100e-003	1.0000e-005		3.5300e-003
Total	0.4051	1.0000e-005	1.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.3100e-003	3.3100e-003	1.0000e-005		3.5300e-003

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**

Victorville CarMax (Construction - Unmitigated) - San Bernardino-Mojave Desert County, Summer

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

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

Equipment Type	Number
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11.0 Vegetation

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APPENDIX 3.2:

CALEEMOD OPERATIONAL EMISSIONS MODEL OUTPUTS

Victorville CarMax (Operations) - San Bernardino-Mojave Desert County, Winter

Victorville CarMax (Operations)
San Bernardino-Mojave Desert County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Automobile Care Center	11.45	1000sqft	1.08	11,447.00	0
Parking Lot	3.68	Acre	3.68	160,300.80	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2020
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 - Land Use consistent with Draft TIA (8/15/2018) by Michael Baker International. As per the Site Plan, the total Project Area is 4.76 acres.

Construction Phase - Operations Run Only.

Off-road Equipment - Operations Run Only.

Trips and VMT - Operations Run Only.

Vehicle Trips - Trip Rates based on information provided in the Draft TIA (2018) and the ITE Trip Generation Manual 10th Edition.

Victorville CarMax (Operations) - San Bernardino-Mojave Desert County, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	5.00	1.00
tblConstructionPhase	PhaseEndDate	12/9/2020	11/2/2020
tblConstructionPhase	PhaseStartDate	12/3/2020	11/2/2020
tblLandUse	LotAcreage	0.26	1.08
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblVehicleTrips	ST_TR	23.72	27.06
tblVehicleTrips	SU_TR	11.88	27.06
tblVehicleTrips	WD_TR	23.72	27.06

2.0 Emissions Summary

Victorville CarMax (Operations) - San Bernardino-Mojave Desert County, Winter

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

[illegible]

Mitigated Construction

[illegible][illegible]

Victorville CarMax (Operations) - San Bernardino-Mojave Desert County, Winter

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.4051	1.0000e-005	1.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.3100e-003	3.3100e-003	1.0000e-005		3.5300e-003
Energy	0.0110	0.0999	0.0839	6.0000e-004		7.5900e-003	7.5900e-003		7.5900e-003	7.5900e-003		119.8753	119.8753	2.3000e-003	2.2000e-003	120.5876
Mobile	0.4801	3.0609	3.5720	0.0108	0.6579	9.8000e-003	0.6677	0.1761	9.2100e-003	0.1853		1,103.8106	1,103.8106	0.0999		1,106.3071
Total	0.8962	3.1609	3.6574	0.0114	0.6579	0.0174	0.6753	0.1761	0.0168	0.1929		1,223.6892	1,223.6892	0.1022	2.2000e-003	1,226.8983

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.4051	1.0000e-005	1.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.3100e-003	3.3100e-003	1.0000e-005		3.5300e-003
Energy	0.0110	0.0999	0.0839	6.0000e-004		7.5900e-003	7.5900e-003		7.5900e-003	7.5900e-003		119.8753	119.8753	2.3000e-003	2.2000e-003	120.5876
Mobile	0.4801	3.0609	3.5720	0.0108	0.6579	9.8000e-003	0.6677	0.1761	9.2100e-003	0.1853		1,103.8106	1,103.8106	0.0999		1,106.3071
Total	0.8962	3.1609	3.6574	0.0114	0.6579	0.0174	0.6753	0.1761	0.0168	0.1929		1,223.6892	1,223.6892	0.1022	2.2000e-003	1,226.8983

Victorville CarMax (Operations) - San Bernardino-Mojave Desert 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	N2O	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	11/2/2020	11/2/2020	5	1	

Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 0****Acres of Paving: 3.68****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40

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	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Victorville CarMax (Operations) - San Bernardino-Mojave Desert County, Winter

3.2 Site Preparation - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Unmitigated 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Victorville CarMax (Operations) - San Bernardino-Mojave Desert County, Winter

3.2 Site Preparation - 2020**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.0 Operational Detail - Mobile

Victorville CarMax (Operations) - San Bernardino-Mojave Desert County, Winter

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4801	3.0609	3.5720	0.0108	0.6579	9.8000e-003	0.6677	0.1761	9.2100e-003	0.1853		1,103.8106	1,103.8106	0.0999		1,106.3071
Unmitigated	0.4801	3.0609	3.5720	0.0108	0.6579	9.8000e-003	0.6677	0.1761	9.2100e-003	0.1853		1,103.8106	1,103.8106	0.0999		1,106.3071

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	309.76	309.76	309.76	308,574	308,574
Parking Lot	0.00	0.00	0.00		
Total	309.76	309.76	309.76	308,574	308,574

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Automobile Care Center	9.50	7.30	7.30	33.00	48.00	19.00	21	51	28
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Victorville CarMax (Operations) - San Bernardino-Mojave Desert County, Winter

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.546179	0.037976	0.179086	0.122965	0.018430	0.005460	0.017497	0.061396	0.001337	0.001657	0.006117	0.000817	0.001082
Parking Lot	0.546179	0.037976	0.179086	0.122965	0.018430	0.005460	0.017497	0.061396	0.001337	0.001657	0.006117	0.000817	0.001082

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	0.0110	0.0999	0.0839	6.0000e-004		7.5900e-003	7.5900e-003		7.5900e-003	7.5900e-003		119.8753	119.8753	2.3000e-003	2.2000e-003	120.5876
NaturalGas Unmitigated	0.0110	0.0999	0.0839	6.0000e-004		7.5900e-003	7.5900e-003		7.5900e-003	7.5900e-003		119.8753	119.8753	2.3000e-003	2.2000e-003	120.5876

Victorville CarMax (Operations) - San Bernardino-Mojave Desert County, Winter

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					
Automobile Care Center	1018.94	0.0110	0.0999	0.0839	6.0000e-004		7.5900e-003	7.5900e-003		7.5900e-003	7.5900e-003		119.8753	119.8753	2.3000e-003	2.2000e-003	120.5876
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0110	0.0999	0.0839	6.0000e-004		7.5900e-003	7.5900e-003		7.5900e-003	7.5900e-003		119.8753	119.8753	2.3000e-003	2.2000e-003	120.5876

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					
Automobile Care Center	1.01894	0.0110	0.0999	0.0839	6.0000e-004		7.5900e-003	7.5900e-003		7.5900e-003	7.5900e-003		119.8753	119.8753	2.3000e-003	2.2000e-003	120.5876
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0110	0.0999	0.0839	6.0000e-004		7.5900e-003	7.5900e-003		7.5900e-003	7.5900e-003		119.8753	119.8753	2.3000e-003	2.2000e-003	120.5876

6.0 Area Detail**6.1 Mitigation Measures Area**

Victorville CarMax (Operations) - San Bernardino-Mojave Desert 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	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4051	1.0000e-005	1.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.3100e-003	3.3100e-003	1.0000e-005		3.5300e-003
Unmitigated	0.4051	1.0000e-005	1.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.3100e-003	3.3100e-003	1.0000e-005		3.5300e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1032					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3017					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.5000e-004	1.0000e-005	1.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.3100e-003	3.3100e-003	1.0000e-005		3.5300e-003
Total	0.4051	1.0000e-005	1.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.3100e-003	3.3100e-003	1.0000e-005		3.5300e-003

Victorville CarMax (Operations) - San Bernardino-Mojave Desert County, Winter

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	0.1032					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3017					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.5000e-004	1.0000e-005	1.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.3100e-003	3.3100e-003	1.0000e-005		3.5300e-003
Total	0.4051	1.0000e-005	1.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.3100e-003	3.3100e-003	1.0000e-005		3.5300e-003

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
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Victorville CarMax (Operations) - San Bernardino-Mojave Desert County, Winter

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

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

Equipment Type	Number
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11.0 Vegetation

Victorville CarMax (Operations) - San Bernardino-Mojave Desert County, Summer

Victorville CarMax (Operations)
San Bernardino-Mojave Desert County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Automobile Care Center	11.45	1000sqft	1.08	11,447.00	0
Parking Lot	3.68	Acre	3.68	160,300.80	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Land Use consistent with Draft TIA (8/15/2018) by Michael Baker International. As per the Site Plan, the total Project Area is 4.76 acres.

Construction Phase - Operations Run Only.

Off-road Equipment - Operations Run Only.

Trips and VMT - Operations Run Only.

Vehicle Trips - Trip Rates based on information provided in the Draft TIA (2018) and the ITE Trip Generation Manual 10th Edition.

Victorville CarMax (Operations) - San Bernardino-Mojave Desert County, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	5.00	1.00
tblConstructionPhase	PhaseEndDate	12/9/2020	11/2/2020
tblConstructionPhase	PhaseStartDate	12/3/2020	11/2/2020
tblLandUse	LotAcreage	0.26	1.08
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblVehicleTrips	ST_TR	23.72	27.06
tblVehicleTrips	SU_TR	11.88	27.06
tblVehicleTrips	WD_TR	23.72	27.06

2.0 Emissions Summary

Victorville CarMax (Operations) - San Bernardino-Mojave Desert County, Summer

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

[illegible]

Mitigated Construction

[illegible][illegible]

Victorville CarMax (Operations) - San Bernardino-Mojave Desert County, Summer

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.4051	1.0000e-005	1.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.3100e-003	3.3100e-003	1.0000e-005		3.5300e-003
Energy	0.0110	0.0999	0.0839	6.0000e-004		7.5900e-003	7.5900e-003		7.5900e-003	7.5900e-003		119.8753	119.8753	2.3000e-003	2.2000e-003	120.5876
Mobile	0.5626	3.1157	3.6808	0.0118	0.6579	9.5900e-003	0.6675	0.1761	9.0100e-003	0.1851		1,207.533 1	1,207.533 1	0.0934		1,209.868 3
Total	0.9787	3.2156	3.7662	0.0124	0.6579	0.0172	0.6751	0.1761	0.0166	0.1927		1,327.411 7	1,327.411 7	0.0957	2.2000e-003	1,330.459 5

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.4051	1.0000e-005	1.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.3100e-003	3.3100e-003	1.0000e-005		3.5300e-003
Energy	0.0110	0.0999	0.0839	6.0000e-004		7.5900e-003	7.5900e-003		7.5900e-003	7.5900e-003		119.8753	119.8753	2.3000e-003	2.2000e-003	120.5876
Mobile	0.5626	3.1157	3.6808	0.0118	0.6579	9.5900e-003	0.6675	0.1761	9.0100e-003	0.1851		1,207.533 1	1,207.533 1	0.0934		1,209.868 3
Total	0.9787	3.2156	3.7662	0.0124	0.6579	0.0172	0.6751	0.1761	0.0166	0.1927		1,327.411 7	1,327.411 7	0.0957	2.2000e-003	1,330.459 5

Victorville CarMax (Operations) - San Bernardino-Mojave Desert 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	N2O	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	11/2/2020	11/2/2020	5	1	

Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 0****Acres of Paving: 3.68****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40

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	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Victorville CarMax (Operations) - San Bernardino-Mojave Desert County, Summer

3.2 Site Preparation - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Unmitigated 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Victorville CarMax (Operations) - San Bernardino-Mojave Desert County, Summer

3.2 Site Preparation - 2020**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.0 Operational Detail - Mobile

Victorville CarMax (Operations) - San Bernardino-Mojave Desert County, Summer

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.5626	3.1157	3.6808	0.0118	0.6579	9.5900e-003	0.6675	0.1761	9.0100e-003	0.1851		1,207.5331	1,207.5331	0.0934		1,209.8683
Unmitigated	0.5626	3.1157	3.6808	0.0118	0.6579	9.5900e-003	0.6675	0.1761	9.0100e-003	0.1851		1,207.5331	1,207.5331	0.0934		1,209.8683

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	309.76	309.76	309.76	308,574	308,574
Parking Lot	0.00	0.00	0.00		
Total	309.76	309.76	309.76	308,574	308,574

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Automobile Care Center	9.50	7.30	7.30	33.00	48.00	19.00	21	51	28
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Victorville CarMax (Operations) - San Bernardino-Mojave Desert County, Summer

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.546179	0.037976	0.179086	0.122965	0.018430	0.005460	0.017497	0.061396	0.001337	0.001657	0.006117	0.000817	0.001082
Parking Lot	0.546179	0.037976	0.179086	0.122965	0.018430	0.005460	0.017497	0.061396	0.001337	0.001657	0.006117	0.000817	0.001082

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	0.0110	0.0999	0.0839	6.0000e-004		7.5900e-003	7.5900e-003		7.5900e-003	7.5900e-003		119.8753	119.8753	2.3000e-003	2.2000e-003	120.5876
NaturalGas Unmitigated	0.0110	0.0999	0.0839	6.0000e-004		7.5900e-003	7.5900e-003		7.5900e-003	7.5900e-003		119.8753	119.8753	2.3000e-003	2.2000e-003	120.5876

Victorville CarMax (Operations) - San Bernardino-Mojave Desert County, Summer

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					
Automobile Care Center	1018.94	0.0110	0.0999	0.0839	6.0000e-004		7.5900e-003	7.5900e-003		7.5900e-003	7.5900e-003		119.8753	119.8753	2.3000e-003	2.2000e-003	120.5876
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0110	0.0999	0.0839	6.0000e-004		7.5900e-003	7.5900e-003		7.5900e-003	7.5900e-003		119.8753	119.8753	2.3000e-003	2.2000e-003	120.5876

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					
Automobile Care Center	1.01894	0.0110	0.0999	0.0839	6.0000e-004		7.5900e-003	7.5900e-003		7.5900e-003	7.5900e-003		119.8753	119.8753	2.3000e-003	2.2000e-003	120.5876
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0110	0.0999	0.0839	6.0000e-004		7.5900e-003	7.5900e-003		7.5900e-003	7.5900e-003		119.8753	119.8753	2.3000e-003	2.2000e-003	120.5876

6.0 Area Detail**6.1 Mitigation Measures Area**

Victorville CarMax (Operations) - San Bernardino-Mojave Desert 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	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4051	1.0000e-005	1.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.3100e-003	3.3100e-003	1.0000e-005		3.5300e-003
Unmitigated	0.4051	1.0000e-005	1.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.3100e-003	3.3100e-003	1.0000e-005		3.5300e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1032					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3017					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.5000e-004	1.0000e-005	1.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.3100e-003	3.3100e-003	1.0000e-005		3.5300e-003
Total	0.4051	1.0000e-005	1.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.3100e-003	3.3100e-003	1.0000e-005		3.5300e-003

Victorville CarMax (Operations) - San Bernardino-Mojave Desert County, Summer

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	0.1032					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3017					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.5000e-004	1.0000e-005	1.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.3100e-003	3.3100e-003	1.0000e-005		3.5300e-003
Total	0.4051	1.0000e-005	1.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.3100e-003	3.3100e-003	1.0000e-005		3.5300e-003

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
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Victorville CarMax (Operations) - San Bernardino-Mojave Desert County, Summer

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

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

Equipment Type	Number
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11.0 Vegetation
