Garden Grove Digital Billboard
Initial Study/Mitigated Negative Declaration

Lead Agency:

City of Garden Grove
Community Development Department
11222 Acacia Parkway
Garden Grove, CA 92840

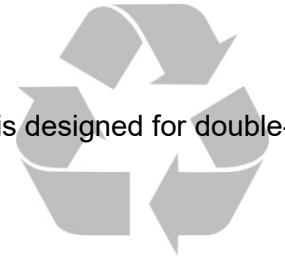
Applicant:

Outfront Media
1731 Workman Street
Los Angeles, CA 90031

Consultant to the City:

MIG, Inc.
1500 Iowa Avenue, Suite 110
Riverside, CA 92507

FINAL INITIAL STUDY
November 21, 2019



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1 Introduction

The City of Garden Grove has received an application from Outfront Media to allow the construction and operation of a digital LED billboard located adjacent to State Route 22 (SR-22 Freeway) in the City of Garden Grove. The digital LED billboard would be located on the north side of SR-22 Freeway at 12832 or 12812 Garden Grove Boulevard Garden Grove, California, (Assessor's Parcel Numbers 101-020-55 & 101-020-56) within an existing office and business park located at the southeast corner of a parking lot. The Project would also involve the removal of four (4) existing static billboard signs mounted on two separate sign poles in the City at two separate locations. The approval of the digital LED billboard and the removal of the four (4) existing static billboard signs (and two sign poles) constitutes a *project* that is subject to review under the California Environmental Quality Act (CEQA) 1970 (Public Resources Code, Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations, Section 15000 et seq.).

This Initial Study has been prepared to assess the short-term, long-term, and cumulative environmental impacts that could result from approval of the proposed project. This report has been prepared to comply with Section 15063 of the State CEQA Guidelines, which sets forth the required contents of an Initial Study as follow:

- A description of the project, including the location of the project (see Section 2)
- Identification of the environmental setting (see Section 2.10)
- Identification of environmental effects by use of a checklist, matrix, or other methods, provided that entries on the checklist or other form are briefly explained to indicate that there is some evidence to support the entries (see Section 4)
- Discussion of ways to mitigate significant effects identified, if any (see Section 4)
- Examination of whether the project is compatible with existing zoning, plans, and other applicable land use controls (see Section 4.10)
- The name(s) of the person(s) who prepared or participated in the preparation of the Initial Study (see Section 5)

1.1 – Purpose of CEQA

The body of State law known as CEQA was enacted by the California legislature in 1970. The legislative intent of these regulations is established in Section 21000 of the California Public Resources Code, as follows:

"The Legislature finds and declares as follows:

a) The maintenance of a quality environment for the people of this state now and in the future is a matter of statewide concern.
b) It is necessary to provide a high-quality environment that at all times is healthful and pleasing to the senses and intellect of man.
c) There is a need to understand the relationship between the maintenance of high-quality ecological systems and the general welfare of the people of the state, including their enjoyment of the natural resources of the state.
d) The capacity of the environment is limited, and it is the intent of the Legislature that the government of the state takes immediate steps to identify any critical thresholds for the health and safety of the people of the state and take all coordinated actions necessary to prevent such thresholds being reached.

e) Every citizen has a responsibility to contribute to the preservation and enhancement of the environment.
f) The interrelationship of policies and practices in the management of natural resources and waste disposal requires systematic and concerted efforts by public and private interests to enhance environmental quality and to control environmental pollution.
g) It is the intent of the Legislature that all agencies of the state government which regulate activities of private individuals, corporations, and public agencies which are found to affect the quality of the environment, shall regulate such activities so that major consideration is given to preventing environmental damage, while providing a decent home and satisfying living environment for every Californian.

The Legislature further finds and declares that it is the policy of the State to:

h) Develop and maintain a high-quality environment now and in the future, and take all action necessary to protect, rehabilitate, and enhance the environmental quality of the state.
i) Take all action necessary to provide the people of this state with clean air and water, enjoyment of aesthetic, natural, scenic, and historic environmental qualities, and freedom from excessive noise.
j) Prevent the elimination of fish or wildlife species due to man's activities, insure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities and examples of the major periods of California history.
k) Ensure that the long-term protection of the environment, consistent with the provision of a decent home and suitable living environment for every Californian, shall be the guiding criterion in public decisions.
l) Create and maintain conditions under which man and nature can exist in productive harmony to fulfill the social and economic requirements of present and future generations.
m) Require governmental agencies at all levels to develop standards and procedures necessary to protect environmental quality.
n) Require governmental agencies at all levels to consider qualitative factors as well as economic and technical factors and long-term benefits and costs, in addition to short-term benefits and costs and to consider alternatives to proposed actions affecting the environment."

A concise statement of legislative policy, with respect to public agency consideration of projects for some form of approval, is found in Section 21002 of the Public Resources Code, quoted below:

> The Legislature finds and declares that it is the policy of the state that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects, and that the procedures required by this division are intended to assist public agencies in systematically identifying both the significant effects of proposed projects and the feasible alternatives or feasible mitigation measures which would avoid or substantially lessen such significant effects. The Legislature further finds and declares that in the event specific economic, social, or other conditions make infeasible such project alternatives or such mitigation measures, individual projects may be approved in spite of one or more significant effects thereof.

1.2 – Public Comments

The City invites comments from all agencies and individuals regarding the information contained in this Initial Study. Such comments should explain any perceived deficiencies in the assessment of impacts, identify the information that is purportedly lacking in the Initial Study or indicate where the information may be found. All comments on the Initial Study shall be submitted to:

Paul Guerrero, Senior Program Specialist
City of Garden Grove
Community and Economic Development Department
11222 Acacia Parkway, Garden Grove, CA 92840
Phone: (714) 741-5312
Email: paulg@ggcity.org

Following a 30-day period of circulation and review of the Initial Study, all comments would be considered by the City of Garden Grove prior to adoption.

1.3 – Availability of Materials

All materials related to the preparation of this Initial Study are available for public review. To request an appointment to review these materials, please contact:

Paul Guerrero, Senior Program Specialist
City of Garden Grove
Community and Economic Development Department
11222 Acacia Parkway, Garden Grove, CA 92840
Phone: (714) 741-5312

The Mitigated Declaration is available online on the City of Garden Grove Website.

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2 Project Description

2.1 – Project Title

Outfront Media Garden Grove Digital LED Billboard Project

2.2 – Lead Agency Name and Address

City of Garden Grove
Community and Economic Development Department
11222 Acacia Parkway
Garden Grove, CA 92840

2.3 – Contact Person and Phone Number

Paul Guerrero, Senior Program Specialist
Phone: (714) 741-5312

2.4 – Project Location

The project site is located within the parking lot of an existing office and business park at 12812/12832 Garden Grove Boulevard (Assessor's Parcel Numbers 101-020-55 & 101-020-56) (see Exhibit 1 Regional Context Map and Exhibit 2 Vicinity Map). The digital LED billboard would be located immediately adjacent and to the north of State Route 22 (SR-22) Freeway between Sungrove Street and Haster Street/SR-22 westbound on-ramp. The four (4) existing static billboard signs and associated structures to be removed are located at varying locations throughout the City (see Exhibit 5 Relocation (Removal) Plan).

2.5 – Project Sponsor's Name and Address

Outfront Media
1731 Workman Street
Los Angeles, CA 90031

2.6 – General Plan Land Use Designation

International West Mixed Use

2.7 – Zoning District(s)

Planned Unit Development (PUD)-102-74

2.8 – Project Description

The City of Garden Grove (City) has received an application for approval of a site plan, and related relocation agreement for the construction and operation of a new digital LED billboard pole sign adjacent to and abutting SR-22 Freeway (see Exhibit 1, Regional Contextual Map and Exhibit 2 Vicinity Map). The project applicant proposes to remove four (4) existing static billboard sign faces mounted on two

(2) sign poles at two (2) separate locations in the City (see Exhibit 5 Relocation (Removal) Plan) and construct and operate one (1) new digital LED billboard utilizing a two-sided digital display. The proposed project (project) involves the approval of a site plan, and related relocation agreement for a digital (changeable image) billboard pole sign advertising structure adjacent to and abutting SR-22 Freeway. The Garden Grove Municipal Code Title 9 Land Use Section 9.20.110 A. prohibits new billboards in the City, except under certain conditions. Title 9 Land Use Section 9.20.100 B. states that an owner of an existing billboard may relocate the billboard with approval of a billboard relocation plan and site plan approval. The Project will remove a total four (4) existing static billboard faces and two (2) sign poles located at Chapman Avenue west of Santa Rosalia Street and at Garden Grove Boulevard west of Beach Boulevard. As shown in Exhibit 5, each location includes a single sign pole with two billboard faces per sign pole. A new two-sided digital LED billboard and associated structures will be constructed at the proposed site (Appendix E: Billboard Relocation Plan).

The proposed new LED digital billboard will include a two-sided digital display. The proposed new digital LED billboard would be located on a parcel of land developed with an office and business park and an associated parking area on the north side of SR-22 Freeway (see Exhibit 3, Site Plan). The sign would be 50 feet tall, with a digital display area of approximately 48 feet wide by 14 feet tall (see Exhibit 4, Sign Elevation) and located within the parking lot adjacent to the SR-22 Freeway. No residential uses are located immediately adjacent to the proposed digital billboard location; however, there is a mobile home park located to the west of the office/business park at 13102 Partridge Street. The nearest mobile home to the sign location is approximately 415 feet away. No changes to the existing parcel—other than construction of the digital LED billboard—are proposed.

Utility connections (electrical) for the digital LED billboard would be provided as part of the project. No structures or buildings other than the sign pole and digital LED billboard facing are proposed. Construction would include drilling of a hole for the sign pole, pouring of anchors, erection of the sign pole, and installation of the digital LED display atop the sign pole.

Provided the applicants' site plan is approved, it is anticipated that the project applicant will also enter into a relocation agreement with the City of Garden Grove consistent with the terms of Garden Grove Municipal Code 9.20.110 and conditions of the site plan approvals.

2.9 – Surrounding Land Uses

The proposed LED digital billboard location is within a fully developed area of the City, surrounded on all sides by existing development and/or public rights-of-way. Immediately to the south, southeast and east of the proposed LED billboard location is the SR-22 Freeway and a westbound on-ramp. To the north of the project site, on the opposite side of Garden Grove Boulevard, are two (2) hotels and a service station. A mobile home park and office uses are located to the west of the office/business park; the nearest mobile home is located approximately 415 feet west of the proposed billboard. On the south side of the freeway, opposite the project site, is a school, Dwight D Eisenhower Elementary. To the west and east of the school are single-family homes, with those to the east being closer to the proposed billboard location. The nearest single-family home in this area is approximately 440 feet from the proposed billboard location, at 13111 Lily Street. Table 2.9-1 (Surrounding Land Uses) lists the existing land use, General Plan designations, and zoning districts surrounding the project site.

Table 2.9-1
Surrounding Land Uses

Direction	General Plan Designation	Zoning District	Existing Land Use
Project Site	International West Mixed Use	Planned Unit Development (PUD-102-74)	Office/Commercial
North	Light Commercial	C-1	Hotel
North	Light Commercial	C-1	Hotel
Northeast	Light Commercial	C-1	Service Station
South	N/A	N/A	SR-22 Freeway
Southwest	N/A	N/A	SR-22 Freeway
East	N/A	N/A	SR-22 Freeway
West	Community Residential	R-3	Single-family homes/manufactured homes
West	International West Mixed Use	HCSP-OP	Office
Northwest	International West Mixed Use	PUD-136-00	Apartments

2.10 – Environmental Setting

The proposed digital LED billboard sign would be located adjacent to the SR-22 Freeway within the Garden Grove SR-22 Freeway Corridor in the City of Garden Grove. Garden Grove is located in north-central Orange County and is bounded by the cities of Stanton and Seal Beach to the west, Anaheim to the north, Santa Ana and Orange to the east, and Westminster, Santa Ana, and Fountain Valley to the south. The SR-22 Freeway traverses Garden Grove, and provides access to the regional freeway network, which includes Interstate 5 to the east and Interstate 405 to the west. Land uses surrounding the City of Garden Grove are a mix of suburban residential, commercial, and industrial. The City of Garden Grove is a fully urbanized area, with limited vacant land available for development. The project vicinity is completely urbanized and built out (Exhibit 2 Vicinity Map).

2.11 – Other Public Agency Whose Approval Is Required

The applicant will be required to obtain a Department of Transportation Outdoor Advertising Act Permit from the California Department of Transportation (Caltrans).

2.12 – Regulatory Provisions

Federal: The Federal Highway Beautification Act of 1965 (23 U.S.C. § 131) provides for the control of outdoor advertising, including removal of certain types of signs, along the interstate highway system. The Act is enforced by the Federal Highway Administration (FHWA). As part of its enforcement effort, the FHWA has entered into agreements regarding the Act with state departments of transportation. The agreements with California are described under State provisions, below.

In addition, the FHWA has responded to the development of signs that present changing messages, either mechanically or digitally, with an interpretation of its agreements with the states pursuant to the Highway Beautification Act. The FHWA discussed changeable message signs in a Memorandum dated

July 17, 1996, concluding that a state could reasonably interpret the provisions of its agreement with the FHWA "…to allow changeable message signs."

The FHWA issued a subsequent memorandum on September 25, 2007 on the subject of off-premises changeable electronic variable message signs (CEVMS). The memorandum stated that proposed laws, regulations, and procedures that allowed changeable message signs subject to acceptable criteria would not violate the prohibition on "intermittent, flashing, or moving" signs as used in the state agreements. The 2007 memorandum identified ranges of acceptability relating to key location and operational characteristics, which have resulted in consistent basic guidelines throughout the country:

- Brightness: The sign brightness should be adjusted to respond to changes in light levels.
- Duration of Message: Duration of display is generally between 4 and 10 seconds; 8 seconds is recommended.
- Transition Time: Transition between messages is generally between 1 and 4 seconds; 1 to 2 seconds is recommended.
- Spacing: Spacing between signs should not be less than the minimum specified for other billboards, or greater if deemed required for safety.
- Locations: Location criteria are the same as for other signs unless it is determined that specific locations are inappropriate.

The memorandum also refers to other standards that have been found helpful to ensure driver safety, including a default designed to freeze the display in one still position if a malfunction occurs; a process for modifying displays and lighting levels where directed by the state departments of transportation to assure safety of the motoring public; and requirements that a display contain static messages without movement such as animation, flashing, scrolling, or intermittent or full-motion video.

State: The California Department of Transportation (Caltrans) is involved in the control of offsite displays along state highways. Such displays advertise products or services of businesses located on properties other than that which the display is located. Caltrans does not regulate on-site displays. The California Outdoor Advertising act contains a number of provisions relating to the construction and operation of billboards:

- The sign must be constructed to withstand a wind pressure of 20 pounds per square feet of exposed surface (§5401).
- No sign shall display any statements or words of an obscene, indecent, or immoral character (§5402).
- No sign shall display flashing, intermittent or moving light or lights (§5403[h]).
- Signs are restricted from areas within 300 feet of an intersection of highways or of highway and railroad rights-of-way, but a sign may be located at the point of interception, as long as a clear view is allowed for 300 feet, and no sign shall be installed that would prevent a traveler from obtaining a clear view of approaching vehicles for a distance of 500 feet along the highway (§5404).
- Message center signs may not include any illumination or message change that is in motion or appears to be in motion or that changes or exposes a message for less than four seconds. No message center sign may be located within 500 feet of an existing billboard, or 1,000 feet of another message center display, on the same side of the highway (§5405).
- No advertising display may be placed or maintained on property adjacent to a section of a freeway that has been landscaped if the advertising display is designed to be viewed primarily by persons traveling on the main–traveled way of the landscaped freeway (§ 5440).

Some freeways are classified as "landscaped freeways." A landscaped freeway is defined as one that is now, or may in the future be, improved by the planting of lawns, trees, shrubs, flowers, or other ornamental vegetation requiring reasonable maintenance on one or both sides of the freeway (§5216). Off-premise displays are not allowed along landscaped freeways except when approved as part of relocation agreements. However, Caltrans has interpreted these provisions as allowing new billboards along such freeway segments if a relocation agreement has been approved pursuant to §5412 of the Outdoor Advertising Act.

Additional restrictions on outdoor signage are found in the California Vehicle Code. Vehicle Code §21466.5 prohibits the placing of any light source "…of any color of such brilliance as to impair the vision of drivers upon the highway." Specific standards for measuring light sources are provided. The restrictions may be enforced by Caltrans, the California Highway Patrol, or local authorities.

The FHWA has entered into written agreements with various states as part of implementation of the Highway Beautification Act, including written agreements dated May 1965 and February 1968. The agreements generally provide that the State would control the construction of all outdoor advertising signs, displays, and devices within 660 feet of the interstate highway right-of-way. The agreements provide that such signs shall be erected only in commercial or industrial zones, and are subject to the following restrictions:

- No signs shall imitate or resemble any official traffic sign, signal, or device, nor shall signs obstruct or interfere with official signs.
- No signs shall be erected on rocks or other natural features.
- Signs shall be no larger than 25 feet in height and 60 feet in width, excluding border, trim, and supports.
- Signs on the same side of the freeway must be separated by at least 500 feet.
- Signs shall not include any flashing, intermittent or moving lights, and shall not emit light that could obstruct or impair the vision of any driver.

California regulates outdoor advertising in the Outdoor Advertising Act (Business and Professions Code §5240 et seq.). Caltrans enforces the law and regulations. Caltrans requires applicants for new outdoor lighting to demonstrate that the owner of the parcel consents to the placement sign, that the parcel on which the sign would be located is zoned commercial or industrial, and that local building permits are obtained and complied with. A digital LED billboard is identified as a "message center" in the statute, which is an advertising display where the message is changed more than once every two minutes, but no more than once every four seconds (Business and Professions Code §5216.4).

Local: The Garden Grove Municipal Code includes sign standards for billboards (Municipal Code §9.20.110: Billboards) that allows for the construction of new billboards within the City only upon relocation of existing billboards. The sign standards prohibit relocation of billboards to a site that is closer than 300 feet to an existing billboard. The standards also provide maximum square footages for sign faces, and prohibits the construction of any electronic billboard within 1,000 feet of any other electronic billboard or within 350 feet of any residentially zoned property.

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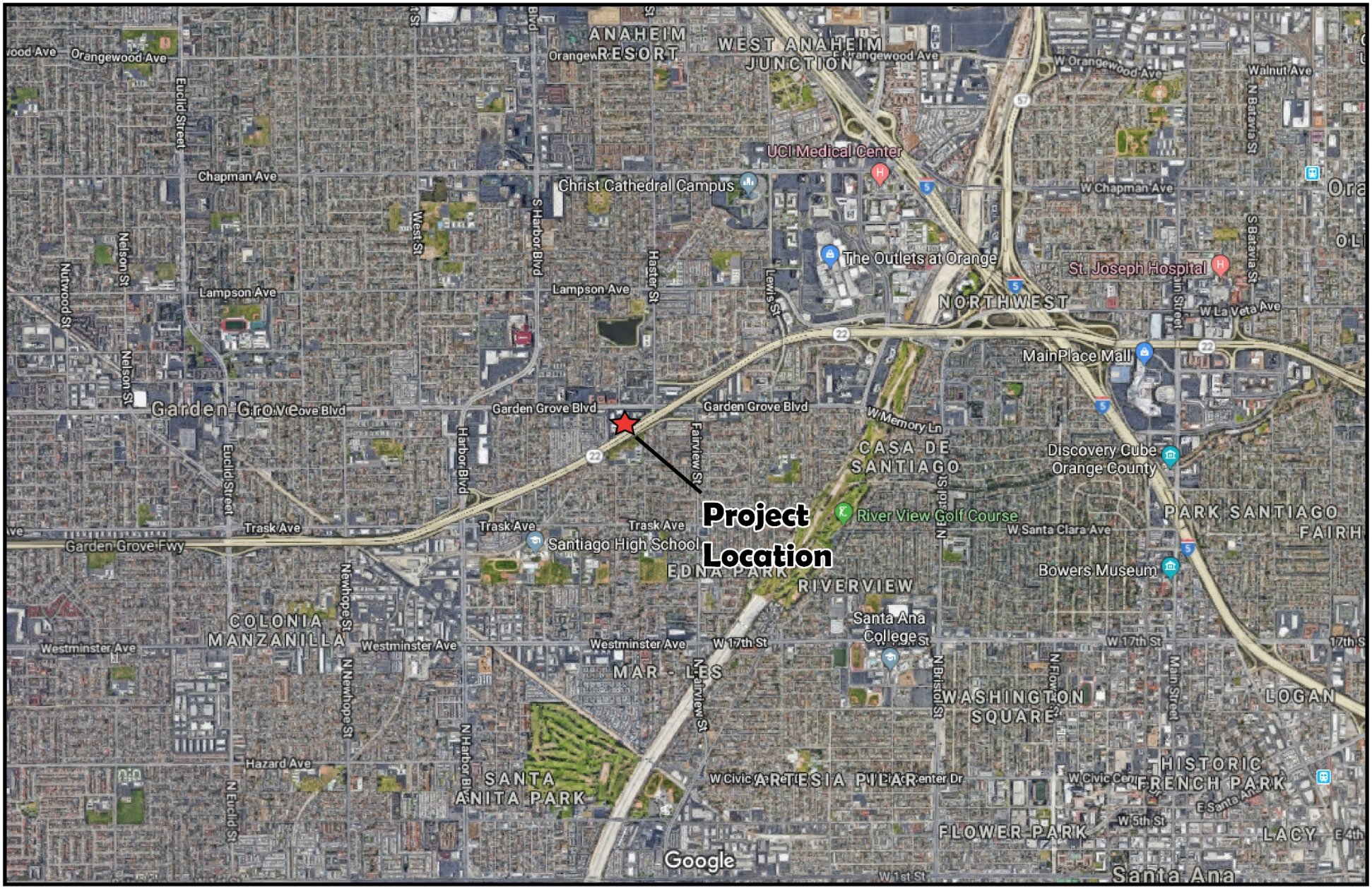

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Exhibit 1 Regional Context Map

LED Digital Billboard Project
City of Garden Grove, California

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Exhibit 2 Vicinity Map

LED Digital Billboard Project
City of Garden Grove, California

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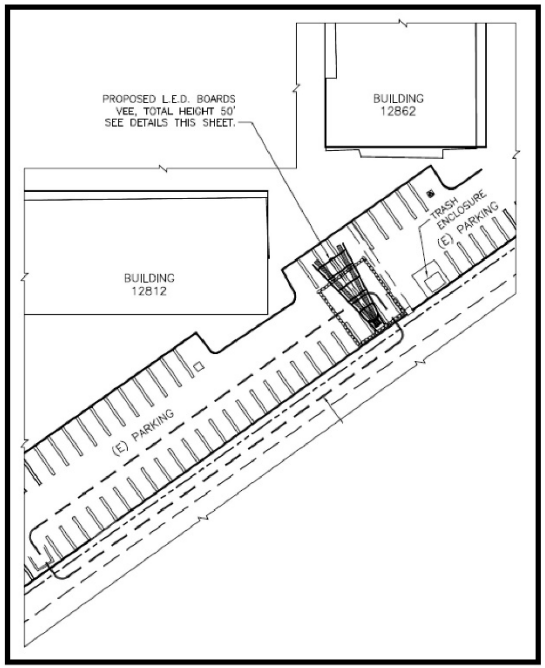
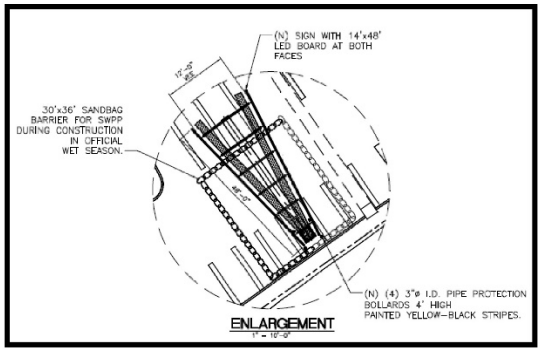
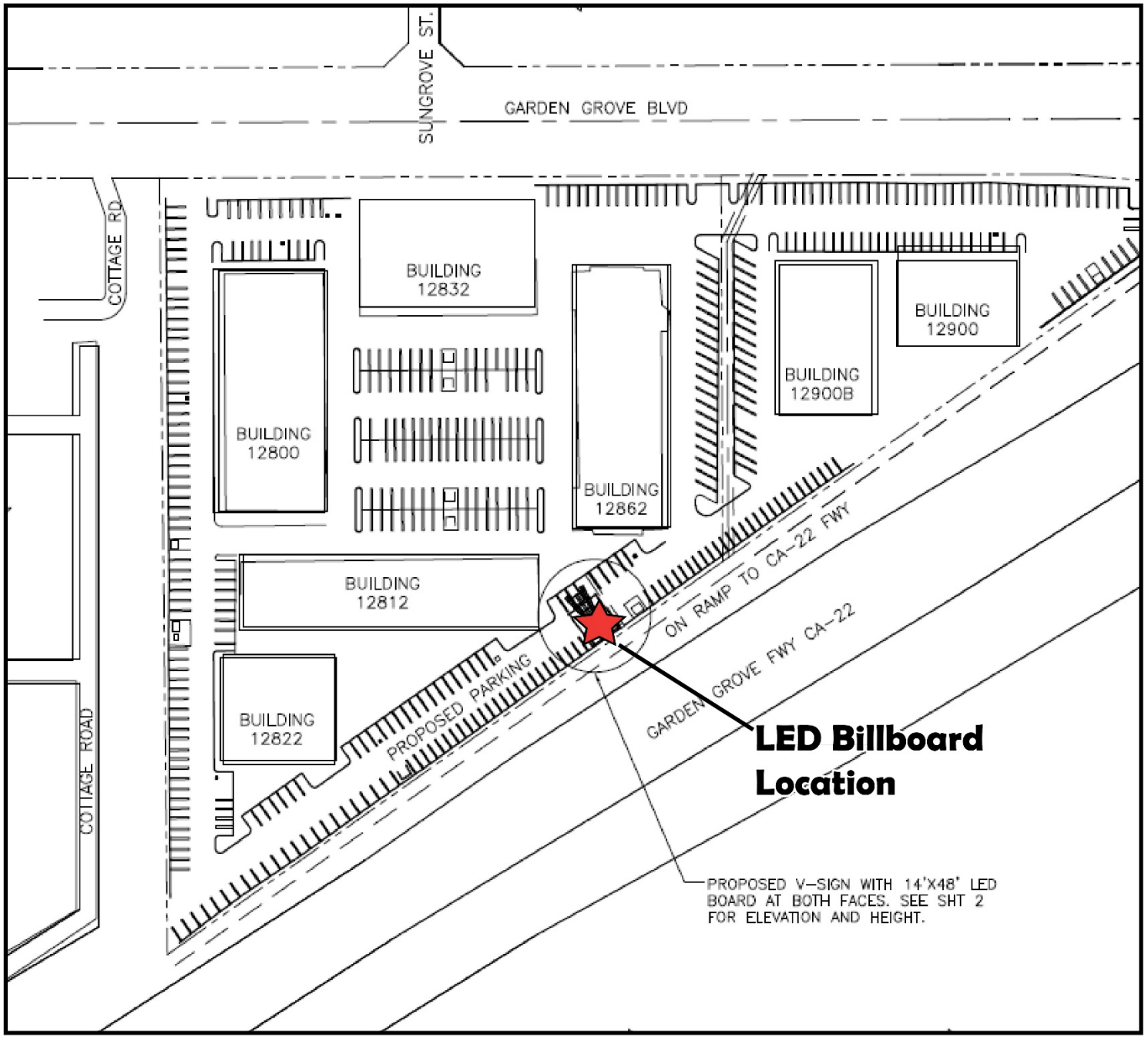

PROPOSED L.E.D. BOARDS
VEE, TOTAL HEIGHT 50'
SEE DETAILS THIS SHEET.
BUILDING
12862
BUILDING
12812
TRASH
ENCLOSURE
(E) PARKING
(E) PARKING


(N) SIGN WITH 14'x48'
LED BOARD AT BOTH
FACES
30'x36' SANDBAG
BARRIER FOR SWPP
DURING CONSTRUCTION
IN OFFICIAL
WET SEASON.
(N) (4) 3"ø I.D. PIPE PROTECTION
BOLLARDS 4' HIGH
PAINTED YELLOW-BLACK STRIPES.
ENLARGEMENT


SUNGROVE ST.
GARDEN GROVE BLVD
COTTAGE RD.
COTTAGE ROAD
BUILDING
12832
BUILDING
12800
BUILDING
12862
BUILDING
12900
BUILDING
12900B
BUILDING
12812
BUILDING
12822
PROPOSED PARKING
ON RAMP TO CA-22 FWY
GARDEN GROVE FWY CA-22
LED Billboard
Location
PROPOSED V-SIGN WITH 14'X48' LED
BOARD AT BOTH FACES. SEE SHT 2
FOR ELEVATION AND HEIGHT.

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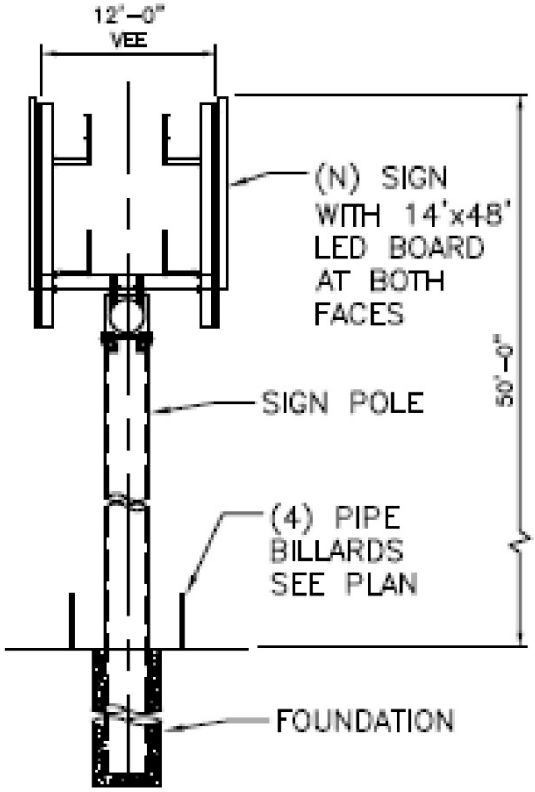
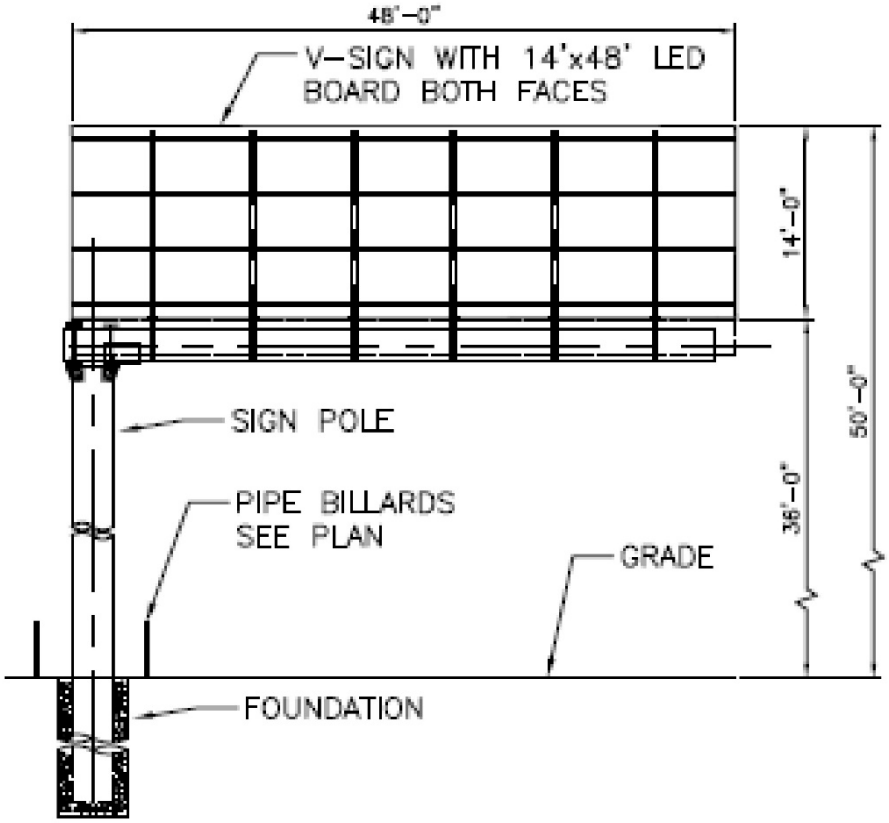


END ELEVATION OF PROPOSED V-SIGN

1/8" = 1'-0"



EAST ELEVATION OF PROPOSED V-SIGN

1/8" = 1'-0"

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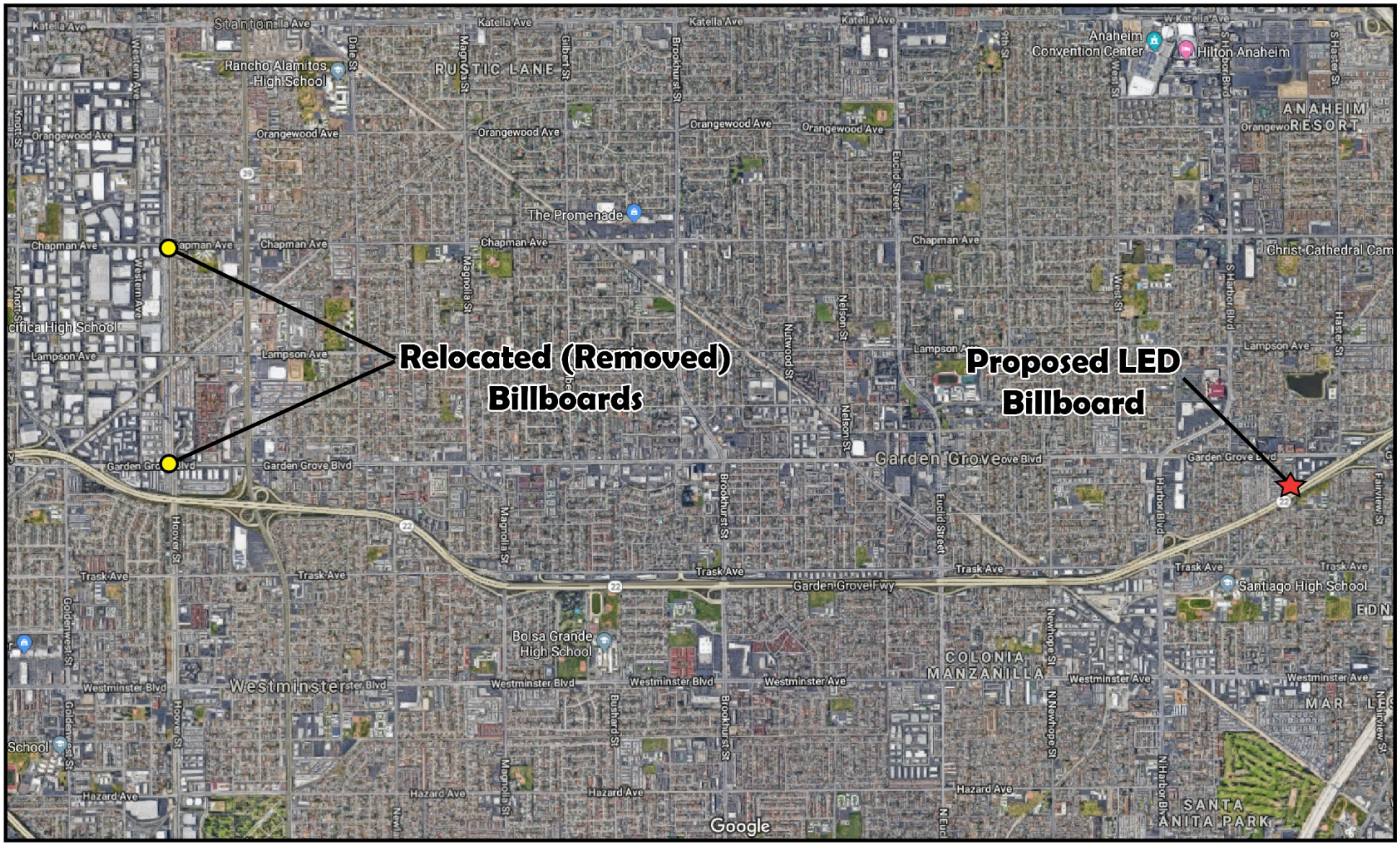

● - One Sign Pole with Two Sign Faces

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Exhibit 5 Relocation (Removal) Plan

LED Digital Billboard Project
City of Garden Grove, California

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3 Determination

3.1 – Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a 'Potentially Significant Impact' as indicated by the checklist on the following pages.

□	Aesthetics	□	Agriculture Resources	□	Air Quality
□	Biological Resources	□	Cultural Resources	□	Energy
□	Geology /Soils	□	Greenhouse Gas Emissions	□	Hazards & Hazardous Materials
□	Hydrology / Water Quality	□	Land Use / Planning	□	Mineral Resources
□	Noise	□	Population/Housing	□	Public Services
□	Recreation	□	Transportation Utilities / Service Systems	□	Tribal Cultural Resources
□	Utilities/Service Systems	□	Wildfire	□	Mandatory Findings of Significance

3.2 – Determination

□	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
☑	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION would be prepared.
□	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
□	I find that the proposed project MAY have a 'potentially significant impact' or 'potentially significant unless mitigated' impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
□	I find that although the proposed project could have a significant effect on the environment because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Name: Paul Guerrero, Senior Program Specialist

Date

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4.1 – Aesthetics

Except as provided in Public Resources Code Section 21099, would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☑	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within view from a state scenic highway?	☐	☐	☐	☑
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☑	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☑	☐	☐

a) **Have a substantial adverse effect on a scenic vista?**

Less Than Significant Impact. Scenic vistas can be impacted by development in two ways. First, a structure may be constructed that blocks the view of a vista. Second, the vista itself may be altered (i.e., development on a scenic hillside). The Garden Grove 2030 General Plan does not identify any scenic vistas within the City.[1] Therefore, the Garden Grove (SR-22) Freeway corridor, within which the proposed sign would be constructed, is not considered to be within or to comprise any portion of a scenic vista. The primary scenic view from the project site is of the Santa Ana Mountains to the east. The project is located on a developed commercial site adjacent to the SR-22 Freeway, within a fully

[1] City of Garden Grove. *Garden Grove General Plan 2030*.

urbanized area of the City of Garden Grove and surrounding area is visually dominated by commercial land uses and surface street features. Views of the Santa Ana Mountains are already partially or completely obscured by existing development and landscaping including buildings, trees, utility poles, and the above-grade freeway. Development of the digital LED billboard would be consistent in type and scale with existing surrounding commercial and industrial development, as there are multiple large commercial and industrial buildings in the vicinity where the digital LED billboard would be located. Furthermore, as views of the mountains to the east are currently not available at these locations, the project would not substantially block any scenic views.

As shown in Exhibits 6a through 6c (Appendix A Visual Impact Simulation), the proposed digital LED billboard would not have a substantial adverse effect on views of a scenic vista from these locations. The sign would be oriented directly towards the view path of vehicles traveling on the SR-22 Freeway and would not be directly facing any residential homes. Adherence to the height restrictions and City Code Standards (Municipal Code Section 9.20.110: Billboards) of the Garden Grove (SR-22) Freeway Corridor, as well as the standards set out in the Outdoor Advertising Act and the Business and Professions Code §5240 et seq., would ensure that impacts to scenic vistas would be less than significant.

b) **Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within view from a state scenic highway?**

No Impact. The proposed digital LED billboard would not be located adjacent to a designated state scenic highway or eligible state scenic highway, as identified on the California Scenic Highway Mapping System.[2] Moreover, the Garden Grove 2030 General Plan does not identify any scenic resources within the City.[3] The proposed digital LED billboard would be located in a fully developed, urbanized area that contains no scenic resources. Therefore, no impact to scenic resources visible from a state scenic highway would occur.

c) **In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?**

Less Than Significant Impact. Degradation of visual character or quality is defined by substantial changes to the existing site appearance through construction of structures such that they are poorly designed or conflict with the site's existing surroundings. Operation of the proposed digital LED billboard would not substantially alter the existing visual character of the site or area (see Exhibit 6a-6d). These types of signs are common in urban areas adjacent to freeways and other high-traffic volume roadways. Similar digital billboards have been developed along the SR-22 Freeway with no significant adverse effect.

The project site is currently occupied by a commercial office and business. All existing building features on the site would be retained with development of the proposed project. The proposed sign would be reviewed by city staff as part of the approval process, and design parameters would be imposed by the

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[2] California Department of Transportation. *California Scenic Highway Mapping System: Orange County*. [Accessed March 2019].

[3] City of Garden Grove. *Garden Grove General Plan 2030*.

City based on Section 9.20.110 of the Municipal Code (Billboards).[4] The proposed digital LED billboard would not exceed 50 feet in height, as measured from finished grade to the top of the digital LED billboard structure, and would not be located within 350 feet of any residentially zoned property, as regulated in the City's Municipal Code standards. As the project vicinity is characterized by highway-oriented commercial uses, it is not anticipated to substantially degrade the existing visual character or quality of the site and its surroundings. Additionally, as discussed above, the sign would not conflict with any protected views and is consistent with surrounding uses. Impacts would be less than significant.

d) **Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?**

Less Than Significant Impact with Mitigation Incorporated. Excessive or inappropriately directed lighting can adversely impact night-time views by reducing the ability to see the night sky and stars. Glare can be caused from unshielded or misdirected lighting sources. Reflective surfaces (i.e., polished metal) can also cause glare. Impacts associated with glare range from simple nuisance to potentially dangerous situations (i.e., if glare is directed into the eyes of motorists). Digital billboards rely on LED (light-emitting diode) technology to display messages on a display screen. The lighting of any proposed digital LED billboard sign would be designed to make the message display visible to passing motorists. Digital LED billboard technology allows sign brightness to be adjusted automatically depending on ambient lighting and weather conditions. The display, for example, is brighter in the daytime than at night-time and responds to changes in the ambient light conditions.

The proposed digital LED billboard would require a Department of Transportation Outdoor Advertising Act Permit from Caltrans. As a condition of that permit, digital LED billboard signs are required to comply with the brightness requirements outlined in the Outdoor Advertising Act in that the illumination shall not be of such brilliance or so positioned as to cause a hazardous condition on adjacent highways. The standard used by Caltrans for enforcing sign brightness is as follows:

> "The brightness reading of an objectionable light source shall be measured with a 1½ degree photoelectric brightness meter placed at the driver's point of view. The maximum measured brightness of the light source within 10 degrees from the driver's normal line of sight shall not be more than 1,000 times the minimum measured brightness in the driver's field of view, except that when the minimum measured brightness in the field of view is 10 foot-lamberts or less, the measured brightness of the light source in foot-lamberts shall not exceed 500 plus 100 times the angle, in degrees, between the driver's line of sight and the light source." [5]

Although these restrictions have been imposed for traffic safety reasons, the resulting controls effectively regulate the operation of digital LED billboard signs to ensure that individual signs do not create a substantial new source of light or glare.

Development of the proposed digital LED billboard would comply with guidelines of the Outdoor Advertising Association of America (OAAA). These guidelines specify that lighting levels from a digital billboard would not exceed 0.3 foot-candles over ambient levels, as measured using a foot-candle meter at a pre-set distance based on the size of the sign. The OAAA guidelines draw from recommendations in the OAAA-commissioned report, Digital Billboard Recommendations and Comparisons to

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4 City of Garden Grove. Garden Grove Municipal Code, 2018.

5 California Business and Professions Code Section 5403 and California Vehicle Code Section 214466.5. [Accessed March 2019].

Conventional Billboards.[6] This report developed a method for specification of brightness limits for LED signs based on accepted practice by the Illuminating Engineering Society of North America (IESNA). The report established criteria for brightness limits based on billboard-to-viewer measurements for standardized billboard categories. The recommended brightness level is 0.3 foot-candles above ambient light conditions. Illuminance can be measured simply by using a foot-candle meter held at a height of approximately five feet and aimed towards a sign consistent with the sign-to-viewer distance. A reading of no more than 0.3 foot-candles above ambient light conditions would indicate compliance.

While the City does not have zoning ordinance regulations specifically regulating light from advertising signs, Section 9-20-110(B)(2)(f) of the Garden Grove Municipal Code states that lighting "shall not result in an adverse aesthetic or illumination nuisance upon any surrounding residential neighborhood." Furthermore, Municipal Code Section 9-20-110(D)(3)(i) establishes brightness criteria for Billboard Digital Displays. To comply with these standards and guidelines, Mitigation Measure AE-1 and AE-2 are included. With mitigation incorporated, impacts would be less than significant.

Mitigation Measures

AES-1: The applicant shall demonstrate compliance with a maximum 0.3 foot-candle increase over ambient light at 250 feet from the sign face at all times upon initial start-up through field-testing. If subsequent complaints consisting of direct personal impacts are received by the City of Garden Grove, the City shall require the applicant to fund follow-up field testing by an independent contractor or City staff trained in the use of a handheld photometer to demonstrate continued compliance with statutory requirements. If increases in ambient light are found to be above the 0.3 foot-candle level, the dimming level shall be adjusted until this level can be demonstrated.

AES-2: Signs shall be installed with sensors, which automatically lower light output in accordance with atmospheric conditions (i.e. cloudy or overcast weather). Throughout sign operation, the dimness setting of the LED sign shall be adjusted in real time, so it does not exceed the level of illumination identified under Mitigation Measure AE-1.

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[6] Lewin, Ian. Lighting Sciences, Inc. *Digital Billboard Recommendations and Comparisons to Conventional Billboards*. 2007.

Not to Scale

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Exhibit 6.a Visual Impact Simulation Map

LED Digital Billboard Project
City of Garden Grove, California

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View #1: From Westbound Travel Lanes on SR-22 Freeway (Proposed LED Billboard)

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View #2: From Garden Grove Blvd. & Haster St. SR-22 Freeway On-Ramp (Proposed LED Billboard)

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View #3: From Eastbound Travel Lanes on SR-22 Freeway

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4.2 – Agriculture and Forest Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project, and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☑
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☑
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104 (g))?	☐	☐	☐	☑
d) Result in loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☑
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☑

a) **Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**

No Impact. The project site as well as the locations of the off-site billboards to be removed are developed and are not designated as Prime Farmland, Unique Farmland, or Farmland or Statewide Importance by the Garden Grove General Plan land use map. The project site is entirely developed, no farmland occurs on the project site. In addition, the project has no proposed agricultural production. Therefore, the proposed project would not covert any designated farmland. As the site has been previously developed with parking areas and existing buildings the proposed project would result in no impact.

b) **Conflict with existing zoning for agricultural use, or a Williamson Act contract?**

No Impact. Williamson Act contracts are formed between a county or city and a landowner for the purposes of restricting specific parcels of land to agricultural preserve areas. [7] The project site does not contain any agricultural uses nor is it zoned for agricultural use. No active Williamson Act contracts pertain to the project site. Therefore, no impact would occur.

c) **Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104 (g))?**

No Impact. The project site is developed and located in an urbanized area of the City of Garden Grove with no timberland resources onsite. The project site has a zoning designation of PUD-102-74, and a General Plan land use designation of International West Mixed Use. Both land uses do not allow for forest land or timberland production. Therefore, the proposed project would not conflict with existing zoning or cause rezoning of forest land. Therefore, no impact would occur.

d) **Result in loss of forest land or conversion of forest land to non-forest use?**

No Impact. According to the City of Garden Grove General Plan 2030 no forest lands occur within the City of Garden Grove. Therefore, the proposed project would not result in the loss of forest land or conversion of forest land to non-forest use.

e) **Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?**

No Impact. The proposed project is a digital LED billboard sign that will be installed in a paved parking area. No agricultural or farmland occurs on the site. The project site is zoned PUD-102-74, and no forest lands, farmland or agricultural uses are allowed. Therefore, the proposed project would not involve changes in the existing environment which would result in conversion of farmland to non-agricultural use or the conversion of forest lands to non-forest use. Therefore, no impact would occur.

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[7] ftp://ftp.consrv.ca.gov/pub/dlrp/wa/

4.3 – Air Quality

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Analysis of air quality impacts is based on the Air Quality and Greenhouse Gas Modeling Results contained in Appendix B. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☑
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☑	☐
c) Expose sensitive receptors to substantial pollutant concentrations	☐	☐	☑	☐
d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?	☐	☐	☑	☐

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

No Impact. The City of Garden Grove is located within the South Coast Air Basin (Basin) under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). SCAQMD and the Southern California Association of Governments (SCAG) are responsible for formulating and implementing the Air Quality Management Plan (AQMP) for the Basin. The AQMP is a series of plans for the purpose of reaching short-and long-term goals for those pollutants for which the Basin is designated as a "nonattainment" area because it does not meet Federal and/or State Ambient Air Quality Standards (AAQS). To determine consistency between the project and the AQMP, the project must comply with all applicable SCAQMD rules and regulations, comply with all proposed or adopted control measures, and be consistent with the growth forecasts utilized in preparation of the Plan.

A significant impact could occur if the proposed project conflicts with or obstructs implementation of the South Coast Air Basin 2016 AQMP. Conflicts and obstructions that hinder implementation of the AQMP can delay efforts to meet attainment deadlines for criteria pollutants and maintaining existing compliance with applicable air quality standards. Pursuant to the methodology provided in Chapter 12

of the 1993 SCAQMD CEQA Air Quality Handbook, consistency with the South Coast Air Basin 2016 AQMP is affirmed when a project meets the following:

1. does not increase the frequency or severity of an air quality standards violation or cause a new violation and
2. is consistent with the growth assumptions in the AQMP.

The proposed project does not increase the frequency or severity of an air quality standards violation as noted in Table 4.3-1 and Table 4.3-2. The proposed project does not include any proposed housing. Based on the Criteria 1 and 2 the proposed project is consistent with the AQMP therefore no impact would occur.

Table 4.3-1
South Coast Air Basin Attainment Status – North Orange County

Pollutant	Federal	State
O_3 (8-hr)	N/A	Nonattainment
O_3 (8-hr)	Nonattainment	Nonattainment
$PM10$	Nonattainment	Nonattainment
$PM^{2.5}$	Nonattainment	Nonattainment
CO	Attainment	Nonattainment
NO_2	Attainment	Nonattainment
SO_2	Attainment	Attainment
Pb	Nonattainment	Nonattainment
Source: CARB 2015		

b) **Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?**

Less Than Significant Impact. A project may have a significant impact if project-related emissions will exceed Federal, State, or regional standards or thresholds, or if project-related emissions will substantially contribute to existing or project air quality violations. The proposed project is located within the South Coast Air Basin, efforts to attain State or Federal air quality standards are governed by the SCAQMD. Both the State and Federal governments have established health based ambient air quality standards (AAQS). The SCAQMD has prepared the AQMP to set forth a comprehensive and integrated program that would lead the Basin into compliance with the Federal 24-hour $PM_{2.5}$ air quality standard and to provide an update to the SCAQMD's commitments toward meeting the Federal 8-hour ozone standards.

Construction Emissions

Short-term criteria pollutant emissions would occur during site preparation and construction of the pole sign. Construction of the proposed digital LED billboard would not require demolition of any existing buildings or structures, nor would it require any site grading or other earth moving activities. Removal of the existing static billboards will require minimal demolition activities consisting of deconstruction of the sign faces, removal of the sign poles, and removal of the sign foundations. Architectural coatings would also not be required, as the prefabricated signs would come factory coated. As such, user-defined CalEEMod inputs were used to simulate trenching and erecting of a single digital LED billboard. Emissions would occur from use of equipment, worker, vendor, and hauling trips, and disturbance of onsite soils (fugitive dust). To determine if construction of the proposed project could result in a

significant air quality impact, the CalEEMod has been utilized. CalEEMod defaults have generally been used as construction inputs into the model (see Appendix B for input values). The methodology for calculating emissions is included in the CalEEMod User Guide, available at http://www.caleemod.com. Construction of the digital LED billboard is anticipated to be completed in mid-2019, with the first operational year being 2020. The results of the CalEEMod outputs are summarized in Table 4.3-2 (Maximum Daily Construction Emissions). Based on the results of the model, maximum daily emissions from the construction of the digital LED billboard would not exceed the daily thresholds established by SCAQMD.

Table 4.3-2
Maximum Daily Construction Emissions (lbs./day)

Year	ROG*	NOX	CO	SO2	PM10	PM2.5
Summer						
2019	**1.0016**	**9.8207**	**8.1397**	**0.0**	**1.4**	**0.9567**
Winter						
2019	**1.0**	**9.8207**	**8.0987**	**0.0**	**1.4**	**0.9567**
SCAQMD Threshold	**75**	**100**	**550**	**150**	**150**	**55**
Significant Impact?	**No**	**No**	**No**	**No**	**No**	**No**

Source: MIG, 2019.
*Volatile organic compounds (VOC) are measured as reactive organic compounds (ROG)

Operational Emissions

Due to its small-scale nature, the proposed project would not have any direct operational impacts that would affect air quality. The proposed digital LED billboard would use a nominal amount of electricity for illumination purposes, and it is assumed that over time the portion of the sign column without aluminum cladding would require repainting, resulting in emissions from the evaporation of solvents contained in paints, varnishes, primers, and other surface coatings as part of maintenance. It is also assumed that due to the multitude of LED lights inherent to digital billboard signs, the electricity consumption from digital LED billboards would be greater than the electricity consumption of static signs. However, these impacts are expected to be minimal.

According to a 2014 San Diego Gas & Electric study on digital billboard energy use in California, previous reports studying the energy use of digital LED billboards present up to a six-fold difference in annual energy use, ranging from around 50,000- to over 300,000- kilowatt- hours per year, among equipment from different manufacturers installed around the country. In addition, digital LED billboard efficiency has improved as LED technology has matured, and today, annual energy use of new products is likely to be on the lower end of that range. Incorporating some key assumptions about brightness levels, operating conditions, size, and display content, the study calculated a typical, current generation digital billboard (14 feet by 48 feet) to use between 29,000- and 94,000-kilowatt-hours per year. By focusing on the two energy saving measures that offer the greatest potential, high quality LEDs and tighter brightness control settings, the study estimates potential annual energy savings of around 85% per sign.[11]

It is assumed that the proposed sign would employ the current generation of high quality, energy efficient LEDs. Moreover, the incorporated Aesthetics Mitigation Measures would control for brightness during both the day and night. Therefore, given the annual reduction in energy that can be expected from high quality LEDs and brightness control, it can be estimated that the proposed sign would use between 29,000- and 94,000-kilowatt hours per year. Furthermore, operation of the proposed digital LED billboard would not generate customer trips and would only require periodic maintenance visits.

The proposed project would not impact traffic levels on SR-22 Freeway, and as such no other mobile-source emissions impacts would occur, including carbon monoxide impacts. As there are no mobile sources or direct emissions associated with operation of the proposed billboard, the proposed project's operational emissions are anticipated to be nominal and less than significant.

The Basin is currently in non-attainment standards for State, Federal criteria pollutants ozone, nitrogen dioxide, and fine particulate matter ($PM_{2.5}$ and PM_{10}) [8]. Short-term, construction-related emissions and long-term, operational emissions from the proposed digital LED billboard project would not contribute considerably to any potential cumulative air quality impact. The project would contribute a minimal amount of criteria pollutants to the area during the short-term project construction and operation.

c) **Expose sensitive receptors to substantial pollutant concentrations?**

Less Than Significant Impact. Sensitive receptors would include uses occupied by children or the elderly such as hospitals, parks, and residential homes. The nearest sensitive receptors are located approximately 415 feet west of the proposed sign location. Because short-term project and operational emissions would not exceed any SCAQMD daily threshold, no impact will occur.

d) **Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?**

Less Than Significant Impact. According to the CEQA Air Quality Handbook, land uses associated with odor complaints include agricultural operations, wastewater treatment plants, landfills, and certain industrial operations such as manufacturing uses that produce chemicals, and paper. Odors are associated with industrial projects including the use of chemicals, solvents, petroleum products, and other strong-smelling elements used in manufacturing process, as well as sewage treatment facilities and landfills. The proposed digital LED billboard signs do not include any of the above noted uses or processes therefore no impact would occur.

[8] United States Environmental Protection Agency. *The Green Book Nonattainment Areas for Criteria Pollutants*. www.epa.gov/oar/oaqps/greenbk/index.html [Accessed March 2019]

4.4 – Biological Resources

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☑
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☐	☑
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☑
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☑	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☑
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☑

a) **Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?**

No Impact. The project site is located in a developed office/business park in the City of Garden Grove, and the project site is devoid of any native habitat. According to the California Native Diversity Database (CNDDB), 18 sensitive wildlife species and 8 sensitive plant species have the potential to occur within 1-mile of the project area (Appendix C Biological Resources Results). Due to the highly developed nature of the project site, and surrounding areas there is a low probability of sensitive species occurring within the project site. No occurrence of any designated protected species under the Federal Endangered Species Act or California Species of Special Concern have been known to occur onsite due to a lack of suitable habitat. Therefore, the proposed project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. Therefore, no impact would occur.

b) **Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?**

No Impact. According to the United States National Wetlands Inventory (NWI), no riparian habitat or other sensitive natural community identified in the Garden Grove 2030 General Plan or by the California Department of Fish and Wildlife or US Fish and Wildlife Service occurs on the project site. Therefore, no impact would occur.

c) **Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

No Impact. The project site is located in an urban developed parcel of land in the City of Garden Grove. According to the NWI[9], and City of Garden Grove 2030 General Plan Land Use Map, no State or Federally protected wetlands occur on the project site. A Riverine water feature occurs over 585 feet west of the project site. This feature would not be impacted by implementation of the proposed project as no planned work will occur in the channel or vicinity of the channel. As such, no impact to riparian habitat or other sensitive natural habitat would occur.

d) **Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?**

Less than Significant Impact. The digital LED billboard will be constructed within an existing developed parcel of land adjacent to the SR 22 Freeway. The digital LED billboard would not restrict or close any wildlife habitat corridors or disturb any native habitat. The project site is a fully paved site with landscaped ornamental vegetation found throughout. The proposed digital LED billboard would not occupy any sensitive habitat areas or interfere with the movement of any native resident or

[9] United States Fish and Wildlife Service National Wetlands Inventory [Accessed March 10, 2019]

migratory wildlife species. No riparian habitat occurs on the project site; therefore, the project would not interfere with any fish populations. Furthermore, no native wildlife nurseries occur on the project site. Native avian species may occupy urban sites; however, with adherence to existing City of Garden Grove General Plan 2030 policies, and Municipal Code regulations, disturbance to nesting avian species would be less than significant. Finally, there is no evidence that migratory birds would be nesting on or within the existing signs that are proposed to be removed as part of the project. Therefore, the proposed project would have a less than significant impact.

e) **Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?**

No Impact. The City of Garden Grove Tree Ordinance protects trees within public highway, park, or public places. Trees within private developments would not be subject to comply with the City of Garden Grove Tree Ordinance. Local policies protecting tree resources, or a tree preservation ordinance would not apply to the landscaped areas on the project site. In addition, biological resources onsite include non-native trees and shrubs onsite. Therefore, the proposed project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. As such the proposed project would have no impact.

f) **Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?**

No Impact. The proposed project site would occupy an area in a previously developed parking where no native habitat occurs. The proposed project is not located in an area that would not be subject to any Habitat Conservation Plans or Natural Community Conservation Plan. Therefore, the proposed project would not conflict with the provisions of any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

4.5 – Cultural Resources

Impacts to cultural resources were evaluated based on information in the cultural resources results (see Appendix D for detail).

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in 15064.5?	☐	☐	☐	☑
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5?	☐	☑	☐	☐
C) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☑	☐	☐

a) **Cause a substantial adverse change in the significance of a historical resource as defined in 15064.5?**

No Impact. The Garden Grove 2030 General Plan EIR indicates that there are approximately 132 locally significant buildings within the City. The proposed project site does not satisfy any of the criteria for a historic resource defined in Section 15064.5 of the State CEQA Guidelines. No known historically or culturally significant resources, structures, buildings, or objects are located on the proposed site. The City contains no Federal or State-designated historic resources. Furthermore, installation of the pole sign and digital display would not involve any changes to existing buildings or structures; the only change would be the actual physical construction of the digital LED billboard within a developed parking lot. As such, development of the proposed project would not cause an adverse change in the significance of a historical resource and impacts to historic resources are not anticipated. Therefore, no impact would occur.

b) **Cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5?**

Less than Significant Impact with Mitigation Incorporated. The City of Garden Grove is a built-out area with limited open space areas. Garden Grove has been extensively developed and the likelihood of identifying previously unidentified archaeological resources is low. The proposed project would install a digital LED billboard by trenching and excavating soil to a six-foot depth to install the base and foundation for the digital LED billboard. The project site is currently occupied with commercial uses in a heavily urbanized area that has been previously disturbed and heavily affected by past development activities, likely to a depth of up to 6 feet beneath grade. In the unlikely event that, archeological materials are uncovered during the removal of existing billboards, and the relocation and installation of the new digital LED billboard, Mitigation Measure CUL-1 and CUL-2 shall be applicable to ensure that

uncovered resources are evaluated, left in place if feasible, or curated as recommended by a qualified Archeologist. Impacts to buried cultural resources would be less than significant with incorporation of mitigation.

Mitigation Measure CUL-1: *Conduct Archaeological Sensitivity Training for Construction Personnel*. The project proponent shall retain a qualified professional archaeologist who meets U.S. Secretary of the Interior's Professional Qualifications and Standards, to conduct Archaeological Sensitivity Training for construction personnel prior to commencement of excavation activities. The training session shall be carried out by a cultural resources professional with expertise in archaeology, who meets the U.S. Secretary of the Interior's Professional Qualifications and Standards. The training session will include a handout and will focus on how to identify archaeological resources that may be encountered during earthmoving activities and the procedures to be followed in such an event, the duties of archaeological monitors, and the general steps a qualified professional archaeologist would follow in conducting a salvage investigation if one is necessary.

Mitigation Measure CUL-2: *Cease Ground-Disturbing Activities and Implement Treatment Plan if Archaeological Resources Are Encountered.* In the event that archaeological resources are unearthed during ground-disturbing activities, ground-disturbing activities shall be halted or diverted away from the vicinity of the find so that the find can be evaluated. A buffer area of at least 50 feet shall be established around the find where construction activities shall not be allowed to continue until a qualified archaeologist has examined the newly discovered artifact(s) and has evaluated the area of the find. Work shall be allowed to continue outside of the buffer area. All archaeological resources unearthed by project construction activities shall be evaluated by a qualified professional archaeologist, who meets the U.S. Secretary of the Interior's Professional Qualifications and Standards. Should the newly discovered artifacts be determined to be prehistoric, Native American Tribes/Individuals will be contacted and consulted and Native American construction monitoring should be initiated. The Applicant and City shall coordinate with the archaeologist to develop an appropriate treatment plan for the resources. The plan may include implementation of archaeological data recovery excavations to address treatment of the resource along with subsequent laboratory processing and analysis.

c) **Disturb any human remains, including those interred outside of formal cemeteries?**

Less Than Significant Impact with Mitigation Incorporated. The project site is currently occupied with commercial uses in a heavily urbanized area that has been previously disturbed and heavily affected by past development activities. The project consists of the erection and operation of a 50-foot tall digital LED billboard sign. The potential for uncovering significant resources, including Tribal Cultural Resources, at the project site during construction activities is considered unlikely given that no such resources have been discovered during prior development activity on the site. If human remains are encountered during excavations, all work will halt and the County Coroner (Coroner) will be notified (Public Resources Code § 5097.98). The Coroner will determine whether the remains are of forensic interest. If the Coroner determines that the remains are prehistoric, the Coroner will contact the Native American Heritage Commission (NAHC). The NAHC will be responsible for designating the most likely descendant (MLD), who will be responsible for the ultimate disposition of the remains, as required by Section 7050.5 of the California Health and Safety Code (H&SC). The MLD will make recommendations within 24 hours of notification by the NAHC. This recommendation may include scientific removal and nondestructive analysis of human remains and items associated with Native American burials (Health & Safety Code § 7050.5). Therefore, impacts would be less than significant with adherence to existing regulations and incorporation of Mitigation Measures CUL-1 and CUL-2.

4.6 – Energy

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction?	☐	☐	☐	☑
b) Conflict with or obstruct a state of local plan for renewable energy or energy efficiency?	☐	☐	☑	☐

a) **Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction?**

No Impact. The proposed project, a digital LED billboard, would be subject to all applicable Federal, State, and local building regulations, including the California Building Code (CBC) as approved by the Garden Grove Building & Safety Division. As noted in the City's General Plan 2030 Conservation Element[10], the City of Garden Grove is working toward reducing the largest forms of energy usage such as construction. Energy usage for construction stems from materials, waste and transportation. Construction of the proposed digital LED billboard would not generate any unnecessary waste. All waste materials associated with the demolition and removal of the four (4) existing static billboards and two (2) sign poles would be recycled or deposited in landfills in compliance with Federal, State and local laws.

Construction of the LED digital billboard would require the use of nonrenewable construction material, such as concrete, metals, and plastics. Nonrenewable resources and energy would also be consumed during the manufacturing and transportation, and construction of the signs. The scope of construction activities, however, is minimal with removal activities occurring in a 2-week period and construction activities lasting 2 to 4 weeks. Large amounts of energy would not be expended, and all construction vehicles would comply with federal and state standards for on- and off-road vehicles (e.g., emission standards set by the California Air Resources Board), meaning wasteful usage of energy would not occur. Construction-related impacts would therefore be less than significant.

Digital billboards are comprised of LEDs, power supplies, cooling systems, lighting controls, and a computer, with LEDs being the largest portion of the energy consumption, particularly during peak demand times when ambient lighting from sunlight is the brightest.[11] The annual energy use of a digital

[10] City of Garden Grove General Plan 2030 Conservation Element.

[11] Energy Solutions. 2014. Digital Billboard Energy Use in California. Website: https://www.etccca.com/sites/default/files/reports/et1 4sdg8011_digitalbillboardreport_2014-7.pdf. Accessed June 20, 2019.

billboard can range from 50 to 320 MWh.[12] Energy consumption for the proposed Project is estimated at approximately 66 MWh per year and consistent with the lower end of that range. Digital billboards produced in recent years require significantly less energy (between 50 to 70 percent less, in some cases) than those produced several years ago.[13] In addition, energy savings can come from the use of high quality LEDs and tighter brightness control settings, resulting in up to 85% reduction in power usage. The operational parameters of the proposed project (i.e., 0.3-foot candle at 250 feet), meaning that the signs would always operate at one-sixth of the maximum brightness level for LED billboards, as set forth by California state law, resulting in efficient energy consumption. Moreover, the LED lighting used in the proposed billboard would meet Title 24 requirements for energy efficiency.

Electricity would be provided by Southern California Edison (SCE), which obtains its energy supplies from power plants and natural gas fields in southern California, as well as from energy purchased outside its service area and delivered through high voltage transmission lines and pipelines. Power is generated from various sources, including fossil fuel, hydroelectric, nuclear, wind, and geothermal plants; and is fed into the electrical grid system serving Southern California. SCE is subject to California's Renewables Portfolio Standard, which was established in 2002 under Senate Bill 1078, accelerated in 2006 under Senate Bill 107, and expanded in 2011 under Senate Bill 2. This program requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020. According to the CPUC, as of 2017, SCE already provided 32% of its retail electricity from renewable energy resources.[14] As such, the proposed project's electricity source is expected to be produced and utilized in an efficient manner.

Energy, in the form of fossil fuels, would also be used to fuel vehicles traveling to and from the site to repair or maintain the signs. However, as described in Section 2.17, Transportation, vehicle maintenance trips would be irregular (less than one per month), and the operation of the sign would not generate daily trips. Moreover, maintenance trips would be expected to be less frequent than those associated with maintenance of the 4 sign faces that would be removed under the proposed project.

With respect to lifecycle emissions, although there is no regulatory definition for "lifecycle emissions," the term is generally used to refer to all emissions associated with the creation and existence of a project, including emissions from the manufacture and transportation of component materials, and even emissions from the manufacture of the machines required to produce those materials. However, since it is impossible to accurately estimate the entire chain of emissions associated with any given project, lifecycle analyses are limited in effectiveness and meaning (relative to assessing or reducing Project-specific emissions for the CEQA analysis).

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[12] Young. 2010. Illuminating the Issues Digital Signage and Philadelphia's Green Future. Website: http://www.scenic.org/storage/ documents/Digital_Signage_Final_Dec_14_2010.pdf. Accessed June 20, 2019.

[13] Energy Solutions. 2014. Digital Billboard Energy Use in California. Website: https://www.etcc-ca.com/sites/default/files/reports/et 14sdg8011_digitalbillboardreport_2014-7.pdf. Accessed June 20, 2019.

[14] CPUC. 2019. Current Renewable Procurement Status. Website: http://www.cpuc.ca.gov/RPS_Homepage/. Accessed June 20, 2019.

The California Natural Resources Agency ("CNRA") has stated that lifecycle analyses are not required under CEQA[15], and in December 2009 CNRA issued new energy conservation guidelines for EIRs that make no reference to lifecycle emissions.[16] The CNRA explained that: (1) There exists no standard regulatory definition for lifecycle emissions, and (2) Even if a standard definition for 'lifecycle' existed, the term might be interpreted to refer to emissions "beyond those that could be considered 'indirect effects'" as defined by CEQA Guidelines, and therefore, beyond what an EIR is required to estimate and mitigate.[17]

In accordance with all of the above, the proposed Project would not encourage activities that result in the use of large amounts of energy, or use of energy in a wasteful manner. Therefore, operational impacts with regard to use of energy would have a less than significant impact.

b) **Conflict with or obstruct a state of local plan for renewable energy or energy efficiency?**

Less Than Significant Impact. The City of Garden Grove seeks to incorporate energy conservation measures and create renewable energy resources through community design, and innovative building systems that capture efficient technologies. The City of Garden Grove has identified solar energy as the most productive renewable energy. The City of Garden Grove General Plan 2030 Conservation Element have identified several policy measures for projects to identify consistency with:

Policy CON-4.1	Integrate energy efficiency and conservation requirements that exceed State standards into the development review and building permit process.
Policy CON-4.2	Create incentives such as expedited permit processing, technical assistance, and other methods that will encourage energy efficiency technology and practices.
Policy CON-4.3	Integrate energy efficiency and conservation technologies and practices into new City facilities and, where feasible, existing buildings as well as City functions.
Policy CON-4.4	Provide public information, marketing, and education to support energy efficiency and energy conservation.
CON-IMP-4A	Adopt Energy Efficiency Standards for new and remodeled buildings that exceed Title 24 building standards.
CON-IMP-AB	Create a tree-planting program that provides for the planting of appropriate, water efficient trees in residential, commercial, and civic areas that will reduce city-wide energy needs the heat-island effect through natural cooling.

The proposed digital LED billboard would use electrical power service that is currently provided by Southern California Edison. The proposed digital LED billboard would be constructed pursuant to current electrical codes, including Title 24 of the State Building Code satisfying Policy I CON-4.1 and

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[15] California Natural Resources Agency, 2009. Final Statement of Reasons for Regulatory Action: Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB97, pp. 71–72. Website: http://ceres.ca.gov/ceqa/docs/Final_Statement_of_Reasons.pdf, accessed June 20, 2019.

[16] State CEQA Guidelines, Appendix F. These new guidelines were part of amendments issued pursuant to SB97. A copy of this document is available for public review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2007.0903E.

[17] California Natural Resources Agency, 2009. Final Statement of Reasons for Regulatory Action: Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB97, p. 71. Website: http://ceres.ca.gov/ceqa/docs/Final_Statement_of_Reasons.pdf. Accessed June 20, 2019.

CON-IMP-4A. The proposed project would be subject to site plan review by the City of Garden Grove. If any exemptions or expeditated reviews are feasible the City would provide such. Therefore, the proposed project would comply with Policy CON-4.2. The Garden Grove General Plan 2030 Conservation Element would ensure that electrical energy would be used efficiently. Incorporating some key assumptions about brightness levels, operating conditions, size, and display content, the calculated, current generation digital billboard (14 feet by 48 feet) would use between 29,000- and 94,000-kilowatt-hours per year. By focusing on the two energy saving measures that offer the greatest potential, high quality LEDs and tighter brightness control settings, potential annual energy savings would be around 85% per sign. It is assumed that the proposed sign would employ the current generation of high quality, energy efficient LEDs. Moreover, the incorporated Aesthetics Mitigation Measures would control for brightness during both the day and night. Therefore, given the annual reduction in energy that can be expected from high quality LEDs and brightness control, it can be estimated that the proposed sign would use between 29,000- and 94,000-kilowatt hours per year. As such, the proposed project would have a less than significant impact with adherence to existing regulations.

4.7 – Geology and Soils

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☑	☐
ii) Strong seismic ground shaking?	☐	☐	☑	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☑	☐
iv) Landslides?	☐	☐	☐	☑
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☑
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☑	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1997), creating substantial direct or indirect risks to life or property?	☐	☐	☐	☑
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☑

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☑	☐

a) **Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:**

a.i) **Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.**

Less Than Significant Impact. The City of Garden Grove is located in a seismically active region of Southern California. No Alquist-Priolo Earthquake Fault Zones have been identified in the City. [18] Two faults associated with the inactive Pelican Hills Fault Zone traverse the central and western portions of the City in a northwest to southwest trending direction. The Newport-Inglewood, Whittier, and Palos Verdes Faults are inactive faults that occur within the City. The Newport-Inglewood, Whittier, and Palos Verdes Faults are the most likely to cause high ground acceleration. The San Andreas Fault has the highest probability of generating a maximum credible earthquake in California. The Norwalk Fault, though closer to the City, is predicted to generate smaller magnitude earthquakes as it is not a designated Alquist-Priolo Earthquake Fault. The project site is not located on an existing fault line. Furthermore, installation of the proposed digital LED billboard and removal of four (4) existing static billboards faces and two (2) sign poles will be subject to all applicable Federal, State, and local building code regulations, including the California Building Code (CBC) seismic standards as approved by the Garden Grove Building and Safety Division and City approved demolition permit. With adherence to all applicable City, State, and local building regulations impacts will be less than significant.

a.ii) **Strong seismic ground shaking?**

Less Than Significant Impact. The project site is located in Southern California, an area that is subject to strong seismic ground shaking. The proposed project is subject to the seismic design criteria of the California Building Code (CBC). The 2016 California Building Code (CBC; Title 14, California Code of Regulations, Part 2) contains seismic safety provisions with the aim of preventing building collapse during a design earthquake. The proposed project would not have any occupiable space, and no occupants would be susceptible to earthquake destruction. A design earthquake is one with a two percent chance of exceedance in 50 years, or an average return period of 2,475 years. Adherence to the CBC's requirements and consideration of the project site's seismic coefficients would reduce the potential of the structure from collapsing during an earthquake, thereby minimizing injury and loss of life. The Seismic Coefficients are dimensionless coefficients which represent the (maximum) earthquake acceleration as a fraction of the acceleration due to gravity. Typical values are in the range of 0.1 to 0.3. If seismic coefficients are defined, a seismic force will be applied to each column in the sliding mass as follows:

Seismic Force = Seismic Coefficient * Column Weight
= Seismic Coefficient * volume of column * Unit Weight of column material

[18] California State Department of Conservation. Cities and Counties Affected by Alquist-Priolo Earthquake Fault Zones as of March 2019.

The seismic force is applied through the geometric centroid of each column, according to the selected orientation method as described above. Although structures may be damaged during earthquakes, adherence to seismic design requirements and consideration of the Project site's seismic coefficients would minimize damage to property because the structure is designed not to collapse. Adherence to existing regulations would reduce the risk of loss, injury, and death; therefore, impacts due to strong ground shaking would be less than significant.

a.iii) **Seismic-related ground failure, including liquefaction?**

Less than Significant Impact. Liquefaction is a phenomenon that occurs when soil undergoes transformation from a solid state to a liquefied condition due to the effects of increased pore-water pressure. This typically occurs where susceptible soils (particularly soils in the medium sand to silt range) are located over a high groundwater table. A high groundwater table is described as one within 50 feet of the surface. The depth to groundwater on the site is approximately 200 feet. According to the City of Garden Grove 2030 General Plan (Exhibit SAF-2), the Project area has been subject to historic occurrence of liquefaction, or local geological, geotechnical, and groundwater conditions indicate a potential for permanent ground displacement such that mitigation as defined in Public Resources Code Section 2693(c) would be required. Appropriate measures that reduce the ground shaking and liquefaction effects of earthquakes are identified in the California Building Code, including specific provisions for seismic design, and addressed in the City of Garden Grove General Plan goals and policies, including Goal SAF-6, Policy SAF-6.1, and SAF-6.3. Development within the City requires investigation for liquefaction potential. The Seismic Hazards Mapping Act specifies that the lead agency of the project may withhold development permits until geologic or soils investigations are conducted for specific sites and mitigation measures are incorporated into plans to reduce hazards associated with seismicity and unstable soils. If a geologic report concludes liquefaction impacts cannot be reduced to less than significant, with mitigation as necessary, development will not be permitted. Given the developed nature of the site and the surrounding area, the Project would not be result in direct or indirect seismic-related ground failure, including liquefaction with compliance with existing CBC regulations (Chapter 18), which would limit liquefaction impacts to less than significant.. Therefore, the proposed project would not expose people or structures to potential ground failure due to liquefaction.

a.iv) **Landslides?**

No Impact. The project site is not mapped in an area of potential earthquake-induced landslide movement on the State of California Seismic Hazards Zones Map. Structures built below or on slopes subject to failure or landslides may expose people and structures to harm. The project site and surrounding area is in a flat, urbanized setting devoid of steep slopes. In addition, the proposed project does not include any residential use. Therefore, the project would not expose people or structures to injury or loss due to landslides; no impact would occur.

b) **Result in substantial soil erosion or the loss of topsoil?**

No Impact. There is a low likelihood of native topsoil occurring on the project site because the site has been developed and covered with paving and structures. The proposed project has the potential to expose superficial soils to wind and water erosion during construction activities. Wind erosion would be minimized through soil stabilization measures required by SCAQMD Rule 403 (Fugitive Dust), such as daily watering. Water erosion would be prevented through the City of Garden Grove's standard erosion control practices required pursuant to the CBC and the National Pollution Discharge Elimination System (NPDES), such as the use of silt fencing or sandbags. Following project construction, the project site

would be covered completely by paving, structures, and landscaping. Therefore, impacts due to erosion of topsoil would be less than significant with implementation of existing regulations.

c) **Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?**

Less Than Significant Impact. Lateral spreading of the ground surface during a seismic activity usually occurs along the weak shear zones within a liquefiable soil layer and has been observed to generally take place toward a free face (i.e. retaining wall, slope, or channel) and to lesser extent on ground surfaces with a very gentle slope. Liquefaction occurs when seismic waves pass through saturated granular soil, distorting its granular structure, and causing some of the empty spaces between granules to collapse. Due to the absence of liquefaction potential on or near the project site (depth to groundwater is approximately 200 feet) and the urbanized character of the area, the potential for lateral spread occurring on or off the project site is considered negligible.

Liquefaction is a phenomenon that occurs when soil undergoes transformation from a solid state to a liquefied condition due to the effects of increased pore-water pressure. This typically occurs where susceptible soils (particularly soils in the medium sand to silt range) are located over a high groundwater table. Affected soils lose all strength during liquefaction and foundation failure can occur. According to the Seismic Hazard Evaluation of the Anaheim 7.5-minute quadrangle, approximately two-thirds of the City is located in Zone of Required Investigation for liquefaction. This indicates that the area has been subject to historic occurrence of liquefaction, or local geological, geotechnical, and groundwater conditions indicate a potential for permanent ground displacement such that mitigation as defined in Public Resources Code Section 2693(c) would be required. Appropriate measures that reduce the ground shaking and liquefaction effects of earthquakes are identified in the California Building Code, including specific provisions for seismic design, and addressed in the City of Garden Grove General Plan goals and policies, including Goal SAF-6, Policy SAF-6.1, and SAF-6.3. Development within the City requires investigation for liquefaction potential. The Seismic Hazards Mapping Act specifies that the lead agency of the project may withhold development permits until geologic or soils investigations are conducted for specific sites and mitigation measures are incorporated into plans to reduce hazards associated with seismicity and unstable soils. If a geologic report concludes liquefaction impacts cannot be reduced to less than significant, with mitigation as necessary, development will not be permitted. In addition, given the developed nature of the site and the surrounding area, the project would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. Therefore, impacts will be less than significant. Compliance with existing CBC regulations (Chapter 18) would limit hazard impacts arising from unstable soils to less than significant.

d) **Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1997), creating substantial direct or indirect risks to life or property?**

No Impact. The proposed project would not be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1997). Moreover, because the project site is currently developed, subsurface soils would have been excavated, and compacted in accordance with standard building code practices, including removal of any expansive or other non-engineered soils; no impacts related to expansive soils would occur. Therefore, no impact would occur.

e) **Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?**

No Impact. The project will not involve discharge into the municipal sewer system. Therefore, no impact would occur.

f) **Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?**

Less than Significant Impact. The project site is underlain by younger Quaternary Alluvium, derived primarily from alluvial fan deposits. These deposits typically do not contain significant vertebrate fossils. In addition, significant fill material was utilized in paving the current project site, as is common practice in such improvements. Based on the construction methodology for implementation of a proposed sign, the project would require excavation of the underlain fill material from the previous development. Following construction of the digital LED billboard, the project site would remain completely covered by paving, structures, the proposed sign, and landscaping. Given the nature of the proposed project, installation of a digital LED billboard and the relocation of four static billboard signs; there is a low likelihood of impacts to paleontological resources. The largely urbanized areas of the City of Garden Grove and small project footprint would not likely lead to the direct or indirect destruction of a unique paleontological resource or unique geologic feature. Nevertheless, Mitigation Measures GEO-1 through GEO-2 are provided to reduce potentially significant impacts to a less than significant level regarding previously undiscovered paleontological resources or unique geological features that may be accidentally encountered during Project implementation.

Mitigation Measure GEO-1: Conduct Paleontological Sensitivity Training for Construction Personnel. The applicant shall retain a professional paleontologist, who meets the qualifications set forth by the Society of Vertebrate Paleontology and shall conduct a paleontological sensitivity training for construction personnel prior to commencement of excavation activities. The training will include a handout and will focus on how to identify paleontological resources that may be encountered during earthmoving activities and the procedures to be followed in such an event, the duties of paleontological monitors, notification and other procedures to follow upon discovery of resources, and the general steps a qualified professional paleontologist would follow in conducting a salvage investigation if one is necessary.

Mitigation Measure GEO-2: Conduct Periodic Paleontological Spot Checks during Grading and Earth-moving Activities. The applicant shall retain a professional paleontologist who meets the qualifications set forth by the Society of Vertebrate Paleontology and shall conduct periodic Paleontological Spot Checks beginning at depths below six feet to determine if construction excavations have extended into older Quaternary deposits. After the initial paleontological spot check, further periodic checks will be conducted at the discretion of the qualified paleontologist. If the qualified paleontologist determines that construction excavations have extended into the older Quaternary deposits, construction monitoring for paleontological resources will be required. The applicant shall retain a qualified paleontological monitor, who will work under the guidance and direction of a professional paleontologist, who meets the qualifications set forth by the Society of Vertebrate Paleontology. The paleontological monitor shall be present during all construction excavations (e.g., grading, trenching, or clearing/grubbing) into the older Pleistocene alluvial deposits. Multiple earth-moving construction activities may require multiple paleontological monitors. The frequency of monitoring shall be based on the rate of excavation and grading activities, proximity to known paleontological resources and/or unique geological features, the materials being excavated (native versus artificial fill soils), and the depth of excavation, and if found, the abundance and type of paleontological resources and/or unique geological features encountered. Full-time monitoring can be reduced to part-time inspections if determined adequate by the qualified professional paleontologist.

Mitigation Measure GEO-3: Cease Ground-Disturbing Activities and Implement Treatment Plan if Paleontological Resources Are Encountered. If paleontological resources and or unique geological features are unearthed during ground-disturbing activities, ground-disturbing activities shall be halted or diverted away from the vicinity of the find so that the find can be evaluated. A buffer area of at least 50 feet shall be established around the find where construction activities shall not be allowed to continue until appropriate paleontological treatment plan has been approved by the applicant and the County. Work shall be allowed to continue outside of the buffer area. The applicant and County shall coordinate with a professional paleontologist, who meets the qualifications set forth by the Society of Vertebrate Paleontology, to develop an appropriate treatment plan for the resources. Treatment may include implementation of paleontological salvage excavations to remove the resource along with subsequent laboratory processing and analysis or preservation in place. At the paleontologist's discretion and to reduce construction delay, the grading and excavation contractor shall assist in removing rock samples for initial processing.

Mitigation Measure GEO-4: All significant fossils collected, if any, will be prepared in a properly equipped paleontology laboratory to a point ready for curation. Preparation will include the careful removal of excess matrix from fossil materials and stabilizing and repairing specimens, as necessary. Following laboratory work, all fossils specimens will be identified to the lowest taxonomic level, cataloged, analyzed, and delivered to a regionally-accredited museum repository, such as the SBCM in Redlands or the NHMLAC in Los Angeles, for permanent curation and storage. The cost of curation is assessed by the repository and is the responsibility of the landowner. A final report should be prepared to describe the results of the paleontological mitigation monitoring efforts. The report will include a summary of the field methods, laboratory methods (if any), an overview of the geology and paleontology of the construction site, a list of taxa recovered (if any), an analysis of fossils recovered (if any) and their scientific significance, and recommendations. If the monitoring efforts produce fossils, then a copy of the report also will be submitted to the curation facility.

4.8 – Greenhouse Gas Emissions

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☑	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☑	☐

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

Less than Significant Impact. GHG emissions for the project were quantified utilizing the California Emissions Estimator Model (CalEEMod) Version 2016.3.2 to determine if the project would have a cumulatively considerable impact related to greenhouse gas emissions. A numerical threshold for determining the significance of greenhouse gas emissions in the South Coast Air Basin has not officially been adopted by the SCAQMD. Greenhouse gases differ from other emissions in that they contribute to the "greenhouse effect." Construction and operation of the proposed digital LED billboard would create short-term construction-related greenhouse gas emissions. A numerical threshold for determining the significance of greenhouse gas emissions in the South Coast Air Basin has not officially been adopted by the SCAQMD. As an interim threshold based on guidance provided in the CAPCOA CEQA and Climate Change white paper, a non-zero threshold based on Approach 2 of the SCAQMD handbook would be used. Threshold 2.5 (Unit-Based Thresholds Based on Market Capture) establishes a numerical threshold based on capture of approximately 90 percent of emissions from future development. The latest proposed threshold developed by SCAQMD using this method is 3,000 metric tons carbon dioxide equivalent (MTCO2E) per year for commercial and residential projects. This threshold is based on the review of 711 CEQA projects.

The CEQA Guidelines require a lead agency to make a good-faith effort based, to the extent possible, on scientific and factual data to describe, calculate, or estimate the amount of GHG emissions resulting from a project. Operational emissions associated with the proposed digital LED billboard would not include GHG emissions from mobile sources (transportation), water use and treatment, or waste disposal. Electricity use of each of the proposed digital LED billboard faces is considered to be nominal (less than 1.0 MTCO2E annually). It is therefore assumed that, given the limited scope of construction and minimal operational electricity demand of the proposed digital LED billboard, greenhouse gas emissions associated with the proposed project would not exceed SCAQMD's proposed 3,000 MTCO2E threshold; therefore, impacts would be less than significant.

b) **Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?**

Less than Significant Impact. The City has adopted the 2016 edition of the CBC, including the California Green Building Standards Code. Construction of the proposed digital LED billboard would be subject to the California Green Building Standards Code. The City of Garden Grove does not have any additional adopted plans, policies, standards, or regulations related to climate change and GHG emissions. The project's consistency with AB 32 and SB 32 are discussed below.

AB 32 Consistency. Assembly Bill 32 (AB 32) was adopted in 2006 and requires California to reduce its GHG emissions to 1990 levels by 2020. The California Air Resources Board (CARB) identified reduction measures to achieve this goal as set forth in the CARB Scoping Plan. Thus, projects that are consistent with the CARB Scoping Plan are also consistent with AB 32 goal.

The project would generate GHG emissions, directly and indirectly, from a variety of sources which would all emit GHG emissions. The CARB Scoping Plan includes strategies for implementation at the statewide level to meet the goals of AB 32. These strategies serve as statewide measures to reduce GHG emissions levels. The project would not be subject to the applicable measures established in the Scoping Plan because these measures are implemented at the state level. Therefore, the project would not conflict or otherwise interfere with implementation of AB 32.

SB 32 Consistency. Senate Bill 32 (SB 32) was adopted in 2016 and requires the state to reduce statewide GHG emissions 40 percent below 1990 levels by 2030. SB 32 codifies the reduction target issued in Executive Order B-30-15. SB 32 builds upon the AB 32 goal of 1990 levels by 2020 and provides an interim goal to achieving Executive Order S-3-05's 2050 reduction goal of 80 percent below 1990 levels.

The CARB 2017 Scoping Plan identified reduction measures to achieve the SB 32 GHG reduction goal. Like the previously adopted Scoping Plans, the 2017 Scoping Plan includes statewide reduction measures that are implemented at the state level. The project would be subject to the applicable measures established in the 2017 Scoping Plan because these measures are implemented at the state level.

Additionally, the 2014 Scoping Plan Update indicates "California is on track to meet the near-term 2020 greenhouse gas limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32"; and it recognizes the potential for California to "reduce emissions by 2030 to levels squarely in line with those needed in the developed world and to stay on track to reduce emissions to 80 percent below 1990 levels by 2050."

Moreover, the project does not propose facilities or operations that would substantively interfere with any future County-mandated, state-mandated, or federally-mandated regulations enacted or promulgated to legally require development to assist in meeting state-adopted GHG emissions reduction targets, including those established under Executive Order S-3-05, Executive Order B-30-15, SB 32, or the 2017 Scoping Plan.

Therefore, the project would not conflict with implementation of SB 32 or otherwise interfere with implementation of this or future goals. Impacts will be less than significant.

4.9 – Hazards and Hazardous Materials

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☑	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☑	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☑	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☑
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☑
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☑
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☑

a) **Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?**

Less Than Significant Impact. Construction and operation of the proposed digital LED billboard will not involve transport, use of disposal of significant amounts of hazardous materials requiring special control measures. The small amount of paints and other substances used for maintenance of equipment will be used in accordance with their labeling, thus the project will have no impact on the public or the environment through the routine transport, use, or disposal of hazardous materials. During the project construction and installation of the digital LED billboard, a hole will be drilled, and the excavated soil will be transported offsite.

Additionally, the project may include minor trenching to connect to electrical supply. Prior to construction activities, the sites will be assessed for the presence of hazardous materials, which, if present, will be handled according to existing federal, state, and City regulations regarding hazardous materials handling and disposal. Therefore, the project will not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

b) **Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?**

Less Than Significant Impact. The proposed new electronic digital LED billboard will not utilize hazardous materials and will not produce hazardous wastes. The project includes removal of four (4) existing static billboard faces and two (2) sign poles at two separate locations in the City. The billboards proposed to be removed do not contain asbestos or other hazardous materials; existing structures will be removed via crane and transported to a recycling facility. The project applicant will also be required to comply with the City's ordinances for construction materials, which requires diversion of at least 50 percent of the project's demolition waste, as well as completion of a Construction Waste Management Plan, to be reviewed and approved by the City. Prior to construction activities, the sites will be assessed for the presence of hazardous materials, which, if present, will be handled according to existing federal, state, and City regulations regarding hazardous materials handling and disposal. Therefore, the project will not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

c) **Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?**

Less Than Significant Impact. Dwight D. Eisenhower Elementary is located 0.06 miles south of the project site, Peters Elementary School is located 0.96 miles west of the project site, and Lampson Elementary school is located 0.73 miles northeast of the project site. The above-mentioned schools would not be subject to any hazardous waste as a result of implementation of the proposed project. Construction and Operation of the proposed digital LED billboard and removal of the four existing static billboard faces and two sign poles will not generate any hazardous emissions, or storage, handling, production or disposal of acutely hazardous waste. The proposed digital LED billboard would not utilize hazardous materials or produce hazardous wastes. No demolition of existing structures would be necessary that would expose persons to asbestos or other hazardous materials. Prior to construction activities, the sites will be assessed for the presence of hazardous materials, which, if present, will be handled according to existing federal, state, and City regulations regarding hazardous materials handling and disposal. Therefore, the proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

d) **Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?**

No Impact. Neither the project site or the existing signs to be removed are located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.[19] Therefore, the proposed project would not create a significant hazard to the public or the environment.

e) **For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?**

No Impact. There are no public airports or private airstrips within two miles of the City of Garden Grove or the project site. The closest airport is the Orange County Airport located 6.40 miles southeast of the project site in the City of Santa Ana. The next closest airport or private airstrip is the Los Alamitos Army Airfield which is located approximately 8.7 miles west of the project site. The project site and locations of existing signs to be removed are not located within an airport land use plan. As such, no impact would occur.

f) **Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

No Impact. The project site is located in an existing commercial development, and no changes to the transportation circulation or an existing emergency response plan or evacuation plan would occur as a result of construction or operation of the proposed digital billboard. Therefore, no impact would occur.

g) **Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?**

No Impact. As noted by CALFIRE Fire Hazard Severity Zone Maps[20], the proposed project is not located in an area of high fire threat. Furthermore, as determined by the City of Garden Grove 2030 General Plan Land Use Element, the project area is not located in a fire threat zone, and the existing land uses are built-out commercial uses surrounding the project site. Therefore, the project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

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[19] California Department of Toxic Substances Control. EnviroStor. www.envirostor.dtsc.ca.gov/public/search.asp [Accessed March 10, 2019]

[20] Orange County Fire Hazard Severity Zones in SRA. November 7, 2007.

4.10 – Hydrology and Water Quality

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☑	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☑
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would:	☐	☐	☐	☑
i) result in substantial erosion or siltation on-or off-site;	☐	☐	☐	☑
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-or-offsite;	☐	☐	☑	☐
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☐	☑
iv) Impede or redirect flood flows?	☐	☐	☐	☑
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☑	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☑	☐

a) **Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?**

Less than Significant Impact. Operation of the proposed digital LED billboard would not involve the use of water or generation of wastewater. Short-term surface water quality impacts would potentially occur during construction of the sign due to construction-related activities such as drilling the excavated sign hole for the foundation and pouring concrete. Runoff of loose soils and/or construction wastes and fuel during a rainstorm could flow into local storm drains as a result of project construction. Such contaminated runoff could potentially threaten downstream water resources that receive runoff from the local drainage network. Standard construction BMP's such as silt fencing, storm drain inlet protection, and proper material and waste storage will ensure surface water quality is not substantially degraded during construction. Compliance with the NPDES Area Wide Stormwater Program and the City's standard stormwater runoff provisions for construction activities, such as runoff control and other measures set forth in the City of Garden Grove Municipal Code Chapter 6.40 (Stormwater Quality), would ensure that the project does not violate any water quality standards or any waste discharge requirements during construction. Due to the lack of significant grading, earth-moving activities, and paving as part of the project, impact would be less than significant.

b) **Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?**

No Impact. The proposed digital LED billboard would not require water to operate. The project site is paved and provides little to no infiltration of water into groundwater aquifers. The project site does not support any groundwater production systems, and construction and operation of the proposed digital LED billboard would not interfere with the operation of any production system. Development of the proposed digital LED billboard would not substantially change the amount of existing impervious surface area and would not have a substantial impact on groundwater recharge. Trenching for the propose digital billboard will be approximately 6 feet; which is nowhere near the depth to the groundwater at the project site (50 ft.). Development of the sign would include drilling eight feet in diameter hole to a depth of 6 feet to complete the foundation hole. The foundation hole would be filled with concrete resulting in minimal effects to groundwater. Any groundwater extracted as a result of construction would be controlled pursuant to City-required Best Management Practices (BMPs) pursuant to its' NPDES permit. Therefore, the proposed project would not have a significant impact.

c) **Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would:**

No Impact. The project site is fully developed and surrounded by areas that are developed. No streams or water resource features occur on the project site. In addition, the proposed project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of a course, stream or river, or through the addition of impervious surfaces as the installation of the proposed digital LED billboard would occur in a developed paved area. As such, with adherence to existing Federal, State and local regulations no impact would occur.

i) **Result in substantial erosion or siltation on-or off-site?**

No Impact. The proposed project would install a digital LED billboard sign in a previously developed area. No native soil would be disturbed. All construction activities would require proper containment of

fill soils and storm water Best Management Practices in accordance with an approved Storm Water Pollution Prevention Plan. Therefore, the proposed project would have no impact on erosion or siltation.

ii) **substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-or-offsite?**

Less than Significant Impact. The project would not contribute to an increase in surface runoff as the project site was previously paved. The sign pole will be backfilled, and the surrounding pole area would be incased in concrete. The project site is located in Special Flood Hazard Area, as mapped by the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) and is therefore subject to inundation by the 1% annual chance flood. As such, the project site is subject to flooding. However, the proposed digital LED billboard, given its small footprint, would not impede or redirect flood flows. Therefore, as no native soil is being replaced with an impermeable surface the project would not substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-or-offsite. Therefore, a less than significant impact would occur.

iii) **Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?**

No Impact. The project site is located in a developed area with existing storm sewer drains. A storm drain is located within 5 feet of the project site. All soils excavated during project construction would be covered and contained to adhere to Best Management Practices for avoidance of pollutants and excess surface water runoff. The project would not increase the amount of impervious surface. The project site would not exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, therefore the project would result in no impact.

iv) **Impede or redirect flood flows?**

No Impact. The proposed project, a digital billboard, would not redirect flood flows. Therefore, no impact would occur.

d) **In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?**

Less than Significant Impact. The proposed project would not be located in a tsunami or seiche zone. The project site is located in a Special Flood Hazard Area, as mapped by the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) Map 06059C0143J[21] and is therefore subject to inundation by the 1% annual chance flood. As such, the project site is subject to flooding. However, the proposed digital LED billboard, given its small footprint, would not risk release of pollutants due to project inundation. Therefore, the project would have a less than significant impact.

e) **Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?**

Less than significant Impact. The project site is located in a Special Flood Hazard Area, as mapped by FEMA Flood Insurance Rate Maps. The installation of the digital LED billboard would-be built-in

[21] Federal Emergency Management Plan Firm Panel Map.

accordance with FEMA guidelines and applicable City of Garden Grove Municipal Code. The City receives its water from two main sources, including local well water from the Lower Santa Ana River Groundwater Basin, which is managed by the Orange County Water District, and imported water from the Municipal Water District of Orange County (MWDOC). MWDOC is Orange County wholesale supplier and is a member agency of the Metropolitan Water District of Southern California.[22] The project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. The project will be subject to all applicable water quality controls, and neither requires water to operate nor increases impervious surface that could interfere with groundwater recharge. Therefore, the project would not result in a significant impact.

[22] Urban Water Management Plan Garden Grove 2015.

4.11 – Land Use and Planning

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☑
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☑	☐

a) **Physically divide an established community?**

No Impact. Construction of the new digital LED billboard project would not physically divide the surrounding community since the proposed sign would not obstruct or in any way change access to the existing community. The project site is located in an existing developed parking lot of a business\office park and would not impact any roadways or traffic circulation patters within the existing community. The proposed digital LED billboard project would not create any barriers to access to a community or require removal of any housing. As such, the proposed project would have no impact.

b) **Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?**

Less than Significant Impact. The proposed project site is located along the SR-22 Freeway corridor in a completely urbanized area and has a zoning designation of Planned Unit Development (PUD-102-74) and a land use designation of International West Mixed Use. The Garden Grove Municipal Code generally prohibits the establishment of new billboards to minimize visual impact, Municipal Code Section 9.20.110 allows the owner of an existing legal non-conforming billboard located within the City to apply to relocate a billboard to another location within the City. Such relocated billboards may be converted to include digital displays if located within the Garden Grove (22) Freeway Corridor (per the Code, the area within the City comprised of the land within 300 feet of either edge of the SR 22 Freeway right-of-way). The project applicant has provided a relocation plan to comply with the Municipal Code requirements for digital LED billboard installations.

The proposed project includes the removal of four existing static billboard faces and two sign poles within the SR-22 Freeway corridor and thus is consistent with City policies and regulations intended to avoid adverse environmental effects. The proposed project site is located along the SR-22 Freeway corridor. The proposed project does not require a General Plan Amendment and would not conflict with any General Plan policies designed to protect the environment. The proposed digital LED billboard is consistent with the intent of the freeway corridor and surrounding land use designations, which are intended to provide for a range of commercial and industrial uses such as the proposed digital LED billboard. The proposed digital LED billboard is required to comply with the City of Garden Grove Municipal Code requirements for billboards and digital billboards in particular. The proposed digital LED

billboard would be located in a completely commercial/industrial area, at least 350 feet away from residential dwellings, as required by the zoning ordinance. The nearest sensitive receptor to the proposed billboard is located approximately 415 feet away. Therefore, the proposed project would have a less than significant impact.

4.12 – Mineral Resources

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☑
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, Specific Plan or other land use plan?	☐	☐	☐	☑

a) **Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?**

No Impact. The proposed project is located in a completely urbanized area of the City of Garden Grove. No known mineral extraction or processing exists or in the vicinity of the project site. In addition, no known resources exist within the City of Garden Grove.[23] Therefore, the proposed project would not result in the loss of availability of important minerals.

b) **Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, Specific Plan or other land use plan?**

No Impact. According to the City of Garden Grove General Plan 2030 Conservation Element, no known mineral resources occur within the project site. Furthermore, the project site is located in an area that has no local plan, specific plan or other land use plan determination of locally important mineral resources. Therefore, the proposed project would have no impact.

[23] City of Garden Grove. *Garden Grove General Plan 2030: Conservation Element*.

4.13 – Noise

Would the project result in:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☑	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☑	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☑

Background

Noise can be defined as unwanted sound which consists of energy waves that people receive and interpret. Sound pressure levels are described in logarithmic units or ratios of sound pressures to a reference pressure, squared. These units are called *bels*.

To account for the range of sound that human hearing perceives, a modified scale is utilized known as the A-weighted decibel (dBA). Since the decibels are logarithmic units, sound pressure levels cannot be added or subtracted by ordinary arithmetic means. Typically doubling the traffic volume on a street or the speed of the traffic will increase the traffic noise level by 3-dBA. A 3-dBA change in sound is the beginning at which humans generally notice a barely perceptible change in sound, and a 5-dBA change is generally readily perceptible.[24]

The project site is located in an urbanized area of the City of Garden Grove along the SR-22 Freeway. The existing ambient noise levels near the project site are primarily generated by traffic noise from the SR-22 Freeway. There are no discernible stationary noise sources within the project site. In addition, there are no sensitive receptors in close proximity to the project site; the nearest being mobile-homes approximately 415 feet to the west of the proposed billboard location.

[24] California Department of Transportation. *Basics of Highway Noise: Technical Noise Supplement*. November 2009.

The proposed digital LED billboard will not include any noise generating components. Long-term operations of the digital LED billboard would not result in exposure of noise levels that exceed the standards of the Municipal Code nor would the long-term operations of the proposed project exceed ambient noise level conditions. Therefore, impacts would be less than significant.

a) **Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

Less than Significant Impact. The City's Municipal Code Chapter 8.47 ("Noise Control") contains the City's noise level standards, including Municipal Code Sections 8.47.040 ("Ambient Base Noise Levels") and 8.47.050 ("General Noise Regulation"). Construction of the proposed digital LED billboard would result in minimal, short-term construction-related noise, involving mostly vehicle noise, which is anticipated to last for two to three weeks. Other sources of construction-related noise will be on-site construction equipment such as generators and cranes. Project-related construction would result in short-term increases in noise levels and groundborne vibration on and immediately surrounding the site. As the proposed project size is small, and the duration is short, the proposed digital LED billboard would not increase short-term noise over the State recommended noise compatibility standards.[25] or local noise ordinances. In addition, construction noise is exempt during the hours of 7:00 a.m. to 10:00 p.m. Furthermore, the proposed digital LED billboard will not produce operational noise (other than periodic, routine site maintenance) and is not located near any sensitive receptors. As such, impacts would be less than significant.

b) **Generation of excessive groundborne vibration or groundborne noise levels?**

Less than Significant Impact. Vibration is the movement of mass over time. It is described in terms of frequency and amplitude and unlike sound there is no standard way of measuring and reporting amplitude. Vibration can be described in units of velocity (inches per second) or discussed in decibel (dB) units in order to compress the range of numbers required to describe vibration. Vibration impacts to buildings are generally discussed in terms of peak particle velocity (PPV) which describes particle movement over time (in terms of physical displacement of mass). For purposes of this analysis, PPV is used to describe all vibration for ease of reading and comparison. Vibration can impact people, structures, and sensitive equipment.[26] The primary concern related to vibration and people is the potential to annoy those working and residing in the area. Vibration with high enough amplitude can damage structures (such as crack plaster or destroy windows). Groundborne vibration can also disrupt the use of sensitive medical and scientific instruments such as electron microscopes. Common sources of vibration within communities include construction activities and railroads. Operation of the proposed digital LED billboard would not include uses that cause vibration.

Groundborne vibration generated by construction is usually highest during pile driving, rock blasting, soil compacting, jack hammering, and demolition-related activities. Next to pile driving, grading activities have the greatest potential for vibration impacts if large bulldozers, large trucks, or other heavy equipment are used. Demolition of the existing billboards and construction of the proposed digital LED billboard would not include demolition, site clearing, grading, or other earth-moving activities that require any of the previously listed equipment. In other words, none of the aforementioned equipment/vehicles

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[25] California Governor's Office of Planning and Research. *General Plan Guidelines*. 2003.

[26] California Department of Transportation. Transportation- and Construction-Induced Vibration Guidance Manual. June 2004.

will be used to perform demolition, clear the project site, etc. Therefore, the proposed project is not anticipated to result in vibration impacts. Activities associated with construction and operation of the proposed digital LED billboard would not result in any vibration-related impacts to adjacent properties. Therefore, impacts would be less than significant.

c) **For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?**

No Impact. No airport land use plans apply to the area, and the proposed project site is not located within two miles of an airport. No impacts to airport land use plans or airports could occur. There are also no private airstrips in the project vicinity; there would be no impacts related to excessive noise near a private airstrip. Therefore, no impact would occur.

4.14 – Population and Housing

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☑
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑

a) **Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?**

No Impact. The relocation of four (4) existing static billboard faces and two (2) sign poles, and installation of one new digital LED billboard does not call for the establishment of any new housing. In addition, the proposed project would not extend roads or other infrastructure or include any job-creating uses. Operation and maintenance of the proposed sign would only require periodic site visits by a small crew. Therefore, the proposed project would not induce substantial population growth in the City of Garden Grove. As such, no impacts would occur.

b) **Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?**

No Impact. The project does not propose removal of any housing; thus, no impact will occur from the removal of the four existing static billboards and two sign poles or the installation of the new digital LED billboard. No persons will be displaced as a result of the removal of the four existing billboards or the installation of the new digital LED billboard. Therefore, no impact would occur related to displacement of people or housing.

4.15 – Public Services

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Fire protection?	☐	☐	☐	☑
b) Police protection?	☐	☐	☐	☑
c) Schools?	☐	☐	☐	☑
d) Parks?	☐	☐	☐	☑
e) Other public facilities?	☐	☐	☐	☑

a) **Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:**

Fire protection?

No Impact. No new fire stations or other capital improvements would be needed to accommodate the proposed project. In addition, no new fire personnel will need to be hired in order to maintain existing service rations and response times, as the project would not increase population or the need to service an increased population. With adherence to Federal, State and local building and safety regulations, the proposed project would not increase demand for fire protection services. Therefore, the proposed project would have a less than significant impact to fire protection services.

b) **Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:**

Police protection?

No Impact. The proposed project would not include any uses that would require police protection services. Construction of the proposed project would not result in any need for additional police protection services. The proposed project would not create new households that could increase usage

of local and regional police facilities. Therefore, the project would have no impact on police protection services.

c) **Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:**

Schools?

No Impact. The proposed project would not result in the construction of new housing or create a demand for new housing resulting in an increase in the school age student population. Therefore, the proposed project would not have an impact on schools.

d) **Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:**

Parks?

No Impact. The proposed project would not generate new permanent employment or housing for residences that may increase the demand for new or existing park and or recreational facilities. Therefore, no impact would occur as a result of removal of the four existing static billboard signs and two sign poles or the installation of the new digital LED billboard sign.

e) **Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:**

Other public facilities?

No Impact. The project will not generate any new households or residences that might increase demand for other public facilities. The proposed project would not include construction of any library facilities and would not require construction or improvement of any such facilities. In addition, the proposed project would not create new households that could increase usage of local and regional library facilities. Therefore, no impact would occur.

4.16 – Recreation

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☑
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☑

a) **Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?**

No Impact. The project will not result in the creation of new households and will not increase use of local and regional parks and recreational facilities. No parks or open space would be impacted as a result of installation of the proposed digital LED billboard project. Therefore, the project would have no impact.

b) **Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?**

No Impact. The project does not include and will not result in the construction of any households nor would the project remove or reduce recreational areas within the City of Garden Grove. The project would not require construction or improvement of any offsite recreation facilities or the expansion of recreational facilities. Therefore, the project would have no impact.

4.17 – Transportation

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	☑
b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)	☐	☐	☑	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☑	☐	☐
d) Result in inadequate emergency access?	☐	☐	☑	☐

a) **Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?**

No Impact. Construction and operation of the proposed digital LED billboard would generate only minimal vehicle trips on existing public streets. During construction activity, per standard City practices the applicant would be required to prepare and implement a temporary traffic control plan, as warranted. The project site is located within a paved parking lot and not directly located on any mass transit routes or within a bicycle or pedestrian trail. No modifications to any mass transit routes, bicycle or pedestrian trails would occur as a result of implementation of the proposed project. Therefore, no impact would occur.

b) **Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)**

Less than Significant Impact. The proposed project would not require vehicle trips to the site for operations and would not generate vehicle trips that would have an impact on Levels of Service. No residential use is planned. Therefore, the proposed project would not be subject to calculations for Vehicle Miles Traveled. In addition, the proposed project would not propose any changes to the circulation of existing roadways to which Vehicle Miles Traveled would increase for surrounding uses. Therefore, the proposed project would have a less than significant impact.

c) **Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?**

Less than Significant Impact with Mitigation Incorporated. The proposed project would not create a hazard as the constructed billboard would be required to adhere to all Caltrans regulations for

placement, reflection, and visibility. The proposed digital LED billboard would be visible primarily from SR-22 Freeway, to which it would be oriented, but would also be visible from surrounding public streets. State and Federal law also establish a minimum spacing distance between digital billboards of 1,000 feet, which the proposed billboard would comply with. No changes in roadway configuration are proposed with installation of the new digital LED billboard. Furthermore, the City of Garden Grove would review all site plan designs and the developer architect will submit the approved site plan configuration to Caltrans for review and approval.

Light, glare and changeable imagery that could be shown on the LED billboard does have the potential to create significant safety hazard conditions if not properly controlled. The application of Mitigation Measures TRANS-1 and TRANS-2 would address these potential safety hazards conditions such that project impacts would be less than significant.

d) **Result in inadequate emergency access?**

Less than Significant Impact. The project will have a less than significant impact with regard to emergency access. The project would involve the construction of a digital LED billboard within the SR-22 Freeway Corridor, but it will not be located such that it will in any way block or imped vehicle accessibility. During construction activity, per standard City practices the applicant would be required to prepare and implement a temporary traffic control plan, as warranted.

Mitigation Measures

TRANS-1

The operator of the digital LED billboard shall comply with the following at all times: No special visual effects that include moving or flashing lights shall accompany the transition between two successive messages, and no special visual effects shall accompany any message display. No special visual effects that include moving or flashing lights shall accompany the transition between two successive messages, and no special visual effects shall accompany any message display. The minimum display duration time for messages shall be not less than eight (8) seconds, and the minimum display time between messages shall be not more than one second. The digital LED billboard shall not contain any software, hardware, or other technology that would allow the billboard to interact with drivers, vehicles or any device located in vehicles, including, but not limited to, a radio frequency identification device, geographic positions system, or other device. In the event of any failure or combination of failures that affect the digital billboards' luminance, the operator shall default to an output level no higher than four (4) percent of the maximum luminance of the billboard. If this cannot be achieved, then the display shall be required to default to an "off" position until the problem can be resolved.

In order to ensure establishment and continued operation of the billboards within acceptable safety ranges, the Mitigation Measure TRANS-2 is included.

Mitigation Measure TRANS-2

The operator of any digital billboard operated within the City of Garden Grove shall submit, within 30 days following June 30 of each year, a written report regarding operation of each digital billboard during the preceding period of July 1 to June 30. The operator may submit a combined report for all such digital billboards operated by such operator within the City limits. The report shall be submitted to the Office of the City Manager and the City Attorney, and shall include the following information:

- Status of the operator's license as required by California Business and Professions Code para 5300 et seq.;
- Status of the required permit for individual digital billboards, as required by California Business and Professions Code sections 5350 et seq.;
- Compliance with the California Outdoor Advertising Act, California Business and Professions Code section 5200 and all regulations adopted pursuant to such Act;
- Compliance with California Vehicle Code section 21466.5 and 21467;
- Compliance with provisions of written agreements between the U.S. Department of Transportation and the California Department of Transportation pursuant to the federal Highway Beautification Act (23 U.S.C. § 131);
- Compliance with mitigation measures and/or conditions of approval adopted as part of the project approval;
- Each written or oral complaint received by the operator, or conveyed to the operator by any government agency or any other person, regarding operation of digital billboards within the City of Garden Grove and a summary of how each complaint was resolved;
- Each malfunction or failure of a digital billboard operated by the operator within the City of Garden Grove, which shall include only those malfunctions or failures that are visible to the naked eye, including reason for the malfunction and the duration and confirmation of repair; and
- Operating status of each digital billboard operated by the operator within the City of Garden Grove, including estimated date of repair and return to normal operation of any digital billboard identified in the report as not operating in normal mode.

4.18 – Tribal Cultural Resources

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a Cultural Native American tribe, and that is:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Listed or eligible for listing in the California Register of Historical resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	☐	☐	☐	☑
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☑	☐	☐

a) **Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a Cultural Native American tribe, and that is:**

Listed or eligible for listing in the California Register of Historical resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?

No Impact. The project site is not listed as an eligible California historical resource or in a local register of historic resources. The project site is a small parking area in a previously developed parcel of land that is not determined to be of historical significance. Therefore, the project would have no impact.

b) **Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a Cultural Native American tribe, and that is:**

A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code

Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

Less Than Significant with Mitigation Incorporation. A resource is determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Assembly Bill (AB) 52

Assembly Bill (AB) 52 specifies that a project that may cause a substantial adverse change to a defined Tribal Cultural Resource (TCR) may result in a significant effect on the environment. AB 52 requires tribes interested in development projects within a traditionally and culturally affiliated geographic area to notify a lead agency of such interest and to request notification of future projects subject to CEQA prior to determining if a negative declaration, mitigated negative declaration, or environmental impact report is required for a project. The lead agency is then required within 14 days of deeming a development application subject to CEQA complete to notify the requesting tribe, and invite the tribe consult on the project. AB 52 identifies examples of mitigation measures that will avoid or minimize impacts to TCR.

Pursuant to California AB 52, Native American Tribes that previously requested the City to notify them about projects of interest were given a 30-day notice to request consultation regarding the project on February 13, 2019. A total of 19 tribes were notified of the proposed project. A notification list is maintained by the City of Garden Grove and tribes requesting notification were sent notification via certified mail by the City of Garden Grove. The 30-day period concluded on March 15, 2019 and no requests for consultation were received (see Appendix D, Cultural Resources Results).

Despite the heavy disturbances of the project area displaced or submerged archaeological resources relating to TCRs may occur at depth. Due to this uncertainty, Mitigation Measures CUL-1 and CUL-2 are included in Section 4.5 to address any previously undiscovered archaeological resources relating to Tribal Cultural Resources encountered during project implementation. Incorporation of Mitigation Measures CUL-1 and CUL-2 will ensure that potential impacts to TCRs are less than significant through requirements for evaluation, salvage, curation, and reporting.

4.19 – Utilities and Service Systems

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☑	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☐	☑
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☑
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☐	☑
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☑

a) **Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?**

Less Than Significant. The proposed digital LED billboard would use electrical power service that is currently provided by Southern California Edison. The proposed digital LED billboard would be constructed pursuant to current electrical codes, including Title 24 of the State Building Code. These standards would ensure that electrical energy would be used efficiently. Operation of the proposed billboard would not generate any solid waste or wastewater, nor would the project require a supply of potable water. All waste materials associated with the removal of the existing billboards and sign poles would be recycled or deposited in landfills in compliance with State and local laws. Construction and

operation of the proposed digital LED billboard would include coordination with utility companies for underground service alert to prevent conflicts with subterranean utilities and all undergrounding would comply with the City of Garden Grove Municipal Code Section 9.48.030. No new or expanded electrical, natural gas, or telecommunications facilities would be required as a result of the proposed project. Therefore, a less than significant impact would occur.

b) **Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?**

No Impact. The proposed project is a digital LED billboard that does not require a water supply for operation. Therefore, the project would have no impact.

c) **Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?**

No Impact. The proposed project does not include any proposed use that would result in a need for wastewater treatment. Therefore, the project would not impact the capacity of the existing wastewater treatment facilities servicing the City of Garden Grove.

d) **Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?**

No Impact. The proposed project does not include any residential or commercial space and would not generate solid waste. Temporary construction waste would be hauled offsite in accordance with all Federal, State, and local regulations. Therefore, the proposed project would not exceed State or local standards., As such, the proposed project would have no impact.

e) **Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?**

No Impact. The digital LED billboard would not generate any solid waste during operation. Temporary construction waste would be hauled offsite in accordance with all Federal, State, and local regulations. Therefore, the proposed project would result in no impact.

4.20 – Wildfire

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☑
b) Due to slope, prevailing winds, and other factors, exacerbate wildlife risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☑
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk of that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☑
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☑

a) **Substantially impair an adopted emergency response plan or emergency evacuation plan?**

No Impact. The proposed digital LED billboard is located on a paved lot in an urban area of the City of Garden Grove. The project would be constructed pursuant to current electrical codes, including Title 24 of the State Building Code. These standards would ensure that electrical energy would be used safely, and periodic site inspections would reduce potential for fire risk. The City of Garden Grove Fire Department Chief and Garden Grove Police Chief are the primarily decision makers in evaluating what areas need to be evacuated in a wildfire incident. The evacuation procedures and plans are administered in a time of evacuation by the Emergency Operations Center located in the City of Garden Grove Police Department. In the event of evacuation, the City would designate an Evacuation Center where local residents may evacuate to. The Fire Chief would monitor protocols such as the National Weather Service Red Flag warnings (Warning indicating incidences of high sustained winds with dry conditions that precipitate wildfires) and coordinate with local government officials well as businesses to determine if an evacuation is warranted based on the conditions. The project site is not located in a Very High Fire Hazard Severity Zone and no residential use is proposed. Therefore, no impact would occur.

b) **Due to slope, prevailing winds, and other factors, exacerbate wildlife risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?**

No Impact. The project site is located in a flat surface area with no steep hills or slopes. No native vegetation occurs on the project site and though the project site would experience prevailing winds such as the Santa Ana winds, the proposed project would not exacerbate wildfire risks. Therefore, no impact would occur.

c) **Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?**

No Impact. In accordance with Senate Bill No. 1241, the Director of Forestry and Fire Protection must identify areas in the State of California that are considered Very High Fire Hazard Severity Zones. Fire threats occur as a result of a combination of climate, topography, vegetation and developmental site characteristics. High fire hazard risks areas are found in areas adjoining the Santa Ana Mountains and foothills. Development that encroaches upon wildland area can expose occupants to a higher fire risk. The project is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones, The proposed project would not result in wildfire impacts as the project is located in an urbanized area with commercial uses located adjacent to the project site and is not located in an area adjacent to wildlands. The project would not require the installation or maintenance of associated infrastructure that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. Therefore, no impact would occur.

d) **Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?**

No Impact. Wildland fires are defined as any non-structure fire, other than prescribed burns, that occur in an undeveloped or natural environment. Operation of the proposed billboard would not generate any known risk of wildfire furthermore no residential uses are proposed. The proposed project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire instability or drainage changes. Therefore, no impact would occur.

4.21 – Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☑	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable?	☐	☐	☐	☑
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☑	☐	☐

a) **Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?**

Less Than Significant with Mitigation Incorporated. The proposed digital LED billboard would not impact any agricultural or forest resources, as discussed in Section 4.2. The project site is located within an urbanized area with no natural habitat. The project would not significantly impact any sensitive plants, plant communities, fish, wildlife, or habitat for any sensitive species as discussed in Section 4.4. The project would not significantly impact any mineral resources, as discussed in section 4.12. Adverse impacts to population and housing would not occur, as shown in Section 4.14. The project would not significantly impact the administration of public resources, as discussed in Section 4.15. The project would not significantly impact recreation facilities and/or resources, as discussed in Section 4.16. Adverse impacts to utilities and service systems would not occur, as discussed in Section 4.19. The environmental analysis provided in Section 4.3 concludes that impacts related to emissions of criteria pollutants and other air quality impacts would be less than significant. Section 4.5 concludes that impacts related to cultural resources would be less than significant

with mitigation incorporated. Section 4.7 concludes that impacts related to geology and soils would be less than significant. The project would not significantly impact the environment with concern to the routine transport of hazardous materials, as concluded in Section 4.9. Impacts to hydrology and water quality were shown to be less than significant in Section 4.10. Impacts to land use and planning would occur because of the project, as discussed in Section 4.11 would be less than significant with mitigation incorporated. Aesthetics as noted in Section 4.1 would be less than significant with mitigation incorporated. The environmental analysis provided in Section 4.13 concludes that impacts related to noise would be less than significant. Based on the preceding analysis of potential impacts in the responses to items 4.1 thru 4.20, no evidence is presented that this project would degrade the quality of the environment. The City hereby finds that impacts related to aesthetics, cultural resources, and traffic would be less than significant with mitigation incorporation as discussed in Section 4.1, 4.5, 4.17, and 4.18 respectively.

b) **Does the project have impacts that are individually limited, but cumulatively considerable?**

No Impact. Cumulative impacts can result from the interactions of environmental changes resulting from one proposed project with other past, present, and future projects that affect the same resources. As an example, impacts to utilities and infrastructure systems, public services, transportation network elements, air basin, watershed, or other physical conditions. Such impacts could be short-term and temporary, usually consisting of overlapping construction impacts, as well as long term, due to the permanent land use changes involved. Such impacts are expected to be less than significant for this project due to the fact that there are no other similar projects taking place within 1,000 feet of the proposed project, which is the minimum distance allowed in the Garden Grove Billboard Ordinance between digital billboards in the City. The removal of the four existing static billboards and two sign poles and the installation of the new digital LED billboard will not substantially impact the environment. Therefore, no cumulative impacts would occur.

c) **Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?**

Less Than Significant with Mitigation Incorporated. Based on the analysis of the project's impacts in the responses to items 4.1 thru 4.20, there are no indications that this project could result in substantial adverse effects on the environment, including human beings. While there will be limited temporary adverse effects during construction related to noise and criteria pollutant emissions, these were determined to be reduced to less than significant. Long-term effects will include minor changes to the visual character of the site and surrounding roadways due to the addition of the digital billboard to the area, and associated changes to lighting conditions. However, these changes are anticipated to be consistent with the existing aesthetic character and land uses of the urbanized area within the SR-22 corridor. Moreover, mitigation is incorporated to reduce the level of significance related to light and glare and traffic safety to a less-than-significant level. The analysis herein concludes that direct and indirect environmental effects will at worst require mitigation to reduce to less than significant levels.

Generally, environmental effects will result in less than significant impacts. Based on the analysis in this Initial Study, the City finds that direct and indirect impacts to human beings will be less than significant with proposed mitigation incorporated. As discussed throughout this Initial Study, the removal of the existing billboards and construction and operation of the proposed new digital LED billboard will generally result in less than significant environmental impacts (with mitigation incorporated).

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5 References

5.1 – List of Preparers

City of Garden Grove (Lead Agency)

Community and Economic Development Department
11222 Acacia Parkway
Garden Grove, CA 92840

Paul Guerrero, Senior Program Specialist

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1500 Iowa Avenue, Suite 110
Riverside, California 92507
951-787-9222

Bob Prasse, Director of Environmental Services
C.J. Davis, Senior Project Associate
Cameron Hile, Associate Analyst

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Mitigation Measure AES-1: The applicant shall demonstrate compliance with a maximum 0.3 foot-candle increase over ambient light at 250 feet from the sign face during nighttime conditions upon initial start-up through field-testing. If subsequent complaints consisting of direct personal impacts are received by the City of Garden Grove, the City shall require the applicant to fund follow-up field-testing by an independent contractor or City staff trained in the use of a handheld photometer to demonstrate continued compliance. If increases in ambient light are found to be above the 0.3 foot-candle level, the dimming level shall be adjusted until this level can be demonstrated.

Mitigation Measure AES-2: Signs shall be installed with sensors, which automatically lower light output in accordance with atmospheric conditions (i.e. cloudy or overcast weather). Throughout sign operation, the dimness setting of the LED sign shall be adjusted in real time, so it does not exceed the level of illumination identified under Mitigation Measure AES-1.

Mitigation Measure CUL-1: *Conduct Archaeological Sensitivity Training for Construction Personnel*. The project proponent shall retain a qualified professional archaeologist who meets U.S. Secretary of the Interior's Professional Qualifications and Standards, to conduct Archaeological Sensitivity Training for construction personnel prior to commencement of excavation activities. The training session shall be carried out by a cultural resources professional with expertise in archaeology, who meets the U.S. Secretary of the Interior's Professional Qualifications and Standards. The training session will include a handout and will focus on how to identify archaeological resources that may be encountered during earthmoving activities and the procedures to be followed in such an event, the duties of archaeological monitors, and the general steps a qualified professional archaeologist would follow in conducting a salvage investigation if one is necessary.

Mitigation Measure CUL-2: *Cease Ground-Disturbing Activities and Implement Treatment Plan if Archaeological Resources Are Encountered.* In the event that archaeological resources are unearthed during ground-disturbing activities, ground-disturbing activities shall be halted or diverted away from the vicinity of the find so that the find can be evaluated. A buffer area of at least 50 feet shall be established around the find where construction activities shall not be allowed to continue until a qualified archaeologist has examined the newly discovered artifact(s) and has evaluated the area of the find. Work shall be allowed to continue outside of the buffer area. All archaeological resources unearthed by project construction activities shall be evaluated by a qualified professional archaeologist, who meets the U.S. Secretary of the Interior's Professional Qualifications and Standards. Should the newly discovered artifacts be determined to be prehistoric, Native American Tribes/Individuals should be contacted and consulted and Native American construction monitoring should be initiated. The Applicant and City shall coordinate with the archaeologist to develop an appropriate treatment plan for the resources. The plan may include implementation of archaeological data recovery excavations to address treatment of the resource along with subsequent laboratory processing and analysis.

Mitigation Measure GEO-1: *Conduct Paleontological Sensitivity Training for Construction Personnel*. The applicant shall retain a professional paleontologist, who meets the qualifications set forth by the Society of Vertebrate Paleontology and shall conduct a paleontological sensitivity training for construction personnel prior to commencement of excavation activities. The training will include a handout and will focus on how to identify paleontological resources that may be encountered during earthmoving activities and the procedures to be followed in such an event, the duties of paleontological monitors, notification and other procedures to follow upon discovery of

resources, and the general steps a qualified professional paleontologist would follow in conducting a salvage investigation if one is necessary.

Mitigation Measure GEO-2: *Conduct Periodic Paleontological Spot Checks during Grading and Earth-moving Activities*. The applicant shall retain a professional paleontologist who meets the qualifications set forth by the Society of Vertebrate Paleontology and shall conduct periodic Paleontological Spot Checks beginning at depths below six feet to determine if construction excavations have extended into older Quaternary deposits. After the initial paleontological spot check, further periodic checks will be conducted at the discretion of the qualified paleontologist. If the qualified paleontologist determines that construction excavations have extended into the older Quaternary deposits, construction monitoring for paleontological resources will be required. The applicant shall retain a qualified paleontological monitor, who will work under the guidance and direction of a professional paleontologist, who meets the qualifications set forth by the Society of Vertebrate Paleontology. The paleontological monitor shall be present during all construction excavations (e.g., grading, trenching, or clearing/grubbing) into the older Pleistocene alluvial deposits. Multiple earth-moving construction activities may require multiple paleontological monitors. The frequency of monitoring shall be based on the rate of excavation and grading activities, proximity to known paleontological resources and/or unique geological features, the materials being excavated (native versus artificial fill soils), and the depth of excavation, and if found, the abundance and type of paleontological resources and/or unique geological features encountered. Full-time monitoring can be reduced to part-time inspections if determined adequate by the qualified professional paleontologist.

Mitigation Measure GEO-3: *Cease Ground-Disturbing Activities and Implement Treatment Plan if Paleontological Resources Are Encountered*. If paleontological resources and or unique geological features are unearthed during ground-disturbing activities, ground-disturbing activities shall be halted or diverted away from the vicinity of the find so that the find can be evaluated. A buffer area of at least 50 feet shall be established around the find where construction activities shall not be allowed to continue until appropriate paleontological treatment plan has been approved by the applicant and the County. Work shall be allowed to continue outside of the buffer area. The applicant and County shall coordinate with a professional paleontologist, who meets the qualifications set forth by the Society of Vertebrate Paleontology, to develop an appropriate treatment plan for the resources. Treatment may include implementation of paleontological salvage excavations to remove the resource along with subsequent laboratory processing and analysis or preservation in place. At the paleontologist's discretion and to reduce construction delay, the grading and excavation contractor shall assist in removing rock samples for initial processing.

Mitigation Measure GEO-4: All significant fossils collected, if any, will be prepared in a properly equipped paleontology laboratory to a point ready for curation. Preparation will include the careful removal of excess matrix from fossil materials and stabilizing and repairing specimens, as necessary. Following laboratory work, all fossils specimens will be identified to the lowest taxonomic level, cataloged, analyzed, and delivered to a regionally-accredited museum repository, such as the SBCM in Redlands or the NHMLAC in Los Angeles, for permanent curation and storage. The cost of curation is assessed by the repository and is the responsibility of the landowner. A final report should be prepared to describe the results of the paleontological mitigation monitoring efforts. The report will include a summary of the field methods, laboratory methods (if any), an overview of the geology and paleontology of the construction site, a list of taxa recovered (if any), an analysis of fossils recovered (if any) and their scientific significance, and recommendations. If the monitoring efforts produce fossils, then a copy of the report also will be submitted to the curation facility.

Mitigation Measure TRANS-1: The operator of the digital LED billboards shall comply with the following at all times:

a) No special visual effects that include moving or flashing lights shall accompany the transition between two successive messages, and no special visual effects shall accompany any message display.
b) The minimum display duration time for messages shall be not less than eight seconds, and the minimum display time between messages shall be not more than one second.
c) The minimum font size shall be established for the maximum speed on SR-22 freeway. The font size standard shall be in accordance with the sign industry's best practices formula.
d) Prior to implementing any of the following, the operator shall submit a request and obtain permission from the City: installing, implementing or using any technology that would allow interaction with drivers, vehicles or any device located in vehicles, including, but not limited to, a radio frequency identification device, geographic positions system, or other device.
e) In the event of any failure or combination of failures that affect the digital billboards' luminance, the operator shall impose a default to an output level no higher than 4 percent of the maximum luminance of the billboard. If this cannot be achieved, then the display shall be required to default to an "off" position until the problem can be resolved.

Mitigation Measure TRANS-2: The operator of the digital LED billboard shall submit, within 30 days following June 30 of each year, a written report regarding operation of each digital billboard during the preceding period of July 1 to June 30. The operator may submit a combined report for all such digital billboards operated by such operator within the SR-22 freeway corridor. The report shall, when appropriate, identify incidents or facts that relate to specific digital billboards. The report shall be submitted to the Office of the City Manager and the City Attorney, and shall include the following information:

a) Status of the operator's license as required by California Business and Professions Code para 5300 et seq.;
b) Status of the required permit for individual digital billboards, as required by California Business and Professions Code para. 5350 et seq.;
c) Compliance with the California Outdoor Advertising Act, California Business and Professions Code para 5200 and all regulations adopted pursuant to such Act;
d) Compliance with California Vehicle Code para 21466.5 and 21467;
e) Compliance with provisions of written agreements between the U.S. Department of Transportation and the California Department of Transportation pursuant to the federal Highway Beautification Act (23 U.S.C. §131);
f) Compliance with mitigation measures and/or conditions of approval adopted as part of the project approval;
g) Each written or oral complaint received by the operator, or conveyed to the operator by any government agency or any other person, regarding operation of digital billboards within the Garden Grove (SR-22) Freeway Corridor;
h) Each malfunction or failure of a digital billboard operated by the operator within the Garden Grove (SR-22) Freeway Corridor, which shall include only those malfunctions or failures that are visible to the naked eye, including reason for the malfunction, duration and confirmation of repair; and
i) Operating status of each digital billboard operated by the operator within the Garden Grove (SR-22) Freeway Corridor, including estimated date of repair and return to normal operation of any digital billboard identified in the report as not operating in normal mode.

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OUTFRONT MEDIA GARDEN GROVE DIGITAL BILLBOARD PROJECT Mitigated Negative Declaration: Mitigation Monitoring Reporting Program							
Mitigation Measures		**Monitoring Timing/ Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
Aesthetics Mitigation Measure							
AES-1	The applicant shall demonstrate compliance with a maximum 0.3 foot-candle increase over ambient light at 250 feet from the sign face during nighttime conditions upon initial start-up through field-testing. If subsequent complaints consisting of direct personal impacts are received by the City of Garden Grove, the City shall require the applicant to fund follow-up field-testing by an independent contractor or City staff trained in the use of a handheld photometer to demonstrate continued compliance. If increases in ambient light are found to be above the 0.3 foot-candle level, the dimming level shall be adjusted until this level can be demonstrated.	Prior to Issuance of Building Permit	Field-testing	Community Development Department			
AES-2	Signs shall be installed with sensors, which automatically lower light output in accordance with atmospheric conditions (i.e. cloudy or overcast weather). Throughout sign operation, the dimness setting of the LED sign shall be adjusted in real time, so it does not exceed the level of illumination identified under Mitigation Measure AE-1.	Prior to Issuance of Building Permit; Throughout operation	Field-testing	Community Development Department			
Cultural and Tribal Resources Mitigation Measures							
CUL-1	*Conduct Archaeological Sensitivity Training for Construction Personnel*. The project proponent shall retain a qualified professional archaeologist who meets U.S. Secretary of the Interior's Professional Qualifications and Standards, to conduct Archaeological Sensitivity Training for construction personnel prior to commencement of excavation activities. The training session shall be carried out by a cultural resources professional with expertise in archaeology, who meets the U.S. Secretary of the Interior's Professional Qualifications and Standards. The training session will include a handout and will focus on how to identify archaeological resources that may be encountered during earthmoving activities and the procedures to be followed in such an event, the duties of archaeological monitors, and the general steps a qualified professional archaeologist would follow in conducting a salvage investigation if one is necessary.	Prior to construction	Conduct training	Community Development Department			
CUL-2	*Cease Ground-Disturbing Activities and Implement Treatment Plan if Archaeological Resources Are Encountered.* In the event that archaeological resources are unearthed during ground-disturbing activities, ground-disturbing activities shall be halted or diverted away from the vicinity of the find so that the find can be	During Grading and throughout construction	Grading and excavation	Community Development Department			

OUTFRONT MEDIA GARDEN GROVE DIGITAL BILLBOARD PROJECT Mitigated Negative Declaration: Mitigation Monitoring Reporting Program							
Mitigation Measures		**Monitoring Timing/ Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
	evaluated. A buffer area of at least 50 feet shall be established around the find where construction activities shall not be allowed to continue until a qualified archaeologist has examined the newly discovered artifact(s) and has evaluated the area of the find. Work shall be allowed to continue outside of the buffer area. All archaeological resources unearthed by project construction activities shall be evaluated by a qualified professional archaeologist, who meets the U.S. Secretary of the Interior's Professional Qualifications and Standards. Should the newly discovered artifacts be determined to be prehistoric, Native American Tribes/Individuals should be contacted and consulted and Native American construction monitoring should be initiated. The Applicant and City shall coordinate with the archaeologist to develop an appropriate treatment plan for the resources. The plan may include implementation of archaeological data recovery excavations to address treatment of the resource along with subsequent laboratory processing and analysis.						
GEO-1	Conduct Paleontological Sensitivity Training for Construction Personnel. The applicant shall retain a professional paleontologist, who meets the qualifications set forth by the Society of Vertebrate Paleontology and shall conduct a paleontological sensitivity training for construction personnel prior to commencement of excavation activities. The training will include a handout and will focus on how to identify paleontological resources that may be encountered during earthmoving activities and the procedures to be followed in such an event, the duties of paleontological monitors, notification and other procedures to follow upon discovery of resources, and the general steps a qualified professional paleontologist would follow in conducting a salvage investigation if one is necessary.	Prior to construction	Conduct training	Community Development Department			
GEO-2	Conduct Periodic Paleontological Spot Checks during Grading and Earth-moving Activities. The applicant shall retain a professional paleontologist who meets the qualifications set forth by the Society of Vertebrate Paleontology and shall conduct periodic Paleontological Spot Checks beginning at depths below six feet to determine if construction excavations have extended into older Quaternary deposits. After the initial paleontological spot check, further periodic checks will be conducted at the discretion of the qualified paleontologist. If the qualified paleontologist determines that construction excavations have extended into the older Quaternary deposits, construction monitoring for paleontological resources will be required. The applicant shall retain a qualified paleontological monitor, who will work under the guidance and direction of a professional	During Grading and throughout construction	Grading and excavation	Community Development Department			

OUTFRONT MEDIA GARDEN GROVE DIGITAL BILLBOARD PROJECT Mitigated Negative Declaration: Mitigation Monitoring Reporting Program							
Mitigation Measures		**Monitoring Timing/ Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
	paleontologist, who meets the qualifications set forth by the Society of Vertebrate Paleontology. The paleontological monitor shall be present during all construction excavations (e.g., grading, trenching, or clearing/grubbing) into the older Pleistocene alluvial deposits. Multiple earth-moving construction activities may require multiple paleontological monitors. The frequency of monitoring shall be based on the rate of excavation and grading activities, proximity to known paleontological resources and/or unique geological features, the materials being excavated (native versus artificial fill soils), and the depth of excavation, and if found, the abundance and type of paleontological resources and/or unique geological features encountered. Full-time monitoring can be reduced to part-time inspections if determined adequate by the qualified professional paleontologist.						
GEO-3	Cease Ground-Disturbing Activities and Implement Treatment Plan if Paleontological Resources Are Encountered. If paleontological resources and or unique geological features are unearthed during ground-disturbing activities, ground-disturbing activities shall be halted or diverted away from the vicinity of the find so that the find can be evaluated. A buffer area of at least 50 feet shall be established around the find where construction activities shall not be allowed to continue until appropriate paleontological treatment plan has been approved by the applicant and the County. Work shall be allowed to continue outside of the buffer area. The applicant and County shall coordinate with a professional paleontologist, who meets the qualifications set forth by the Society of Vertebrate Paleontology, to develop an appropriate treatment plan for the resources. Treatment may include implementation of paleontological salvage excavations to remove the resource along with subsequent laboratory processing and analysis or preservation in place. At the paleontologist's discretion and to reduce construction delay, the grading and excavation contractor shall assist in removing rock samples for initial processing.	During Grading and throughout construction	Grading and excavation	Community Development Department			
GEO-4	All significant fossils collected, if any, will be prepared in a properly equipped paleontology laboratory to a point ready for curation. Preparation will include the careful removal of excess matrix from fossil materials and stabilizing and repairing specimens, as necessary. Following laboratory work, all fossils specimens will be identified to the lowest taxonomic level, cataloged, analyzed, and delivered to a regionally-accredited museum repository, such as the SBCM in Redlands or the NHMLAC in Los Angeles, for permanent curation and storage.	During Grading and throughout construction	Report submission	Community Development Department			

OUTFRONT MEDIA GARDEN GROVE DIGITAL BILLBOARD PROJECT Mitigated Negative Declaration: Mitigation Monitoring Reporting Program							
Mitigation Measures		**Monitoring Timing/ Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
	The cost of curation is assessed by the repository and is the responsibility of the landowner. A final report should be prepared to describe the results of the paleontological mitigation monitoring efforts. The report will include a summary of the field methods, laboratory methods (if any), an overview of the geology and paleontology of the construction site, a list of taxa recovered (if any), an analysis of fossils recovered (if any) and their scientific significance, and recommendations. If the monitoring efforts produce fossils, then a copy of the report also will be submitted to the curation facility.						
Transportation and Traffic Mitigation Measures							
TRANS-1	The operator of the digital LED billboards shall comply with the following at all times: a) No special visual effects that include moving or flashing lights shall accompany the transition between two successive messages, and no special visual effects shall accompany any message display. b) The minimum display duration time for messages shall be not less than eight seconds, and the minimum display time between messages shall be not more than one second. c) The minimum font size shall be established for the maximum speed on SR-22 freeway. The font size standard shall be in accordance with the sign industry's best practices formula. d) Prior to implementing any of the following, the operator shall submit a request and obtain permission from the City: installing, implementing or using any technology that would allow interaction with drivers, vehicles or any device located in vehicles, including, but not limited to, a radio frequency identification device, geographic positions system, or other device. e) In the event of any failure or combination of failures that affect the digital billboards' luminance, the operator shall impose a default to an output level no higher than 4 percent of the maximum luminance of the billboard. If this cannot be achieved, then the display shall be required to default to an "off" position until the problem can be resolved.	Prior to Issuance of Building Permit	Field-testing	Community Development Department			

OUTFRONT MEDIA GARDEN GROVE DIGITAL BILLBOARD PROJECT Mitigated Negative Declaration: Mitigation Monitoring Reporting Program							
Mitigation Measures		**Monitoring Timing/ Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
TRANS-2	The operator of the digital LED billboard shall submit, within 30 days following June 30 of each year, a written report regarding operation of each digital billboard during the preceding period of July 1 to June 30. The operator may submit a combined report for all such digital billboards operated by such operator within the SR-22 freeway corridor. The report shall, when appropriate, identify incidents or facts that relate to specific digital billboards. The report shall be submitted to the Office of the City Manager and the City Attorney, and shall include the following information: a) Status of the operator's license as required by California Business and Professions Code para 5300 et seq.; b) Status of the required permit for individual digital billboards, as required by California Business and Professions Code para. 5350 et seq.; c) Compliance with the California Outdoor Advertising Act, California Business and Professions Code para 5200 and all regulations adopted pursuant to such Act; d) Compliance with California Vehicle Code para 21466.5 and 21467; e) Compliance with provisions of written agreements between the U.S. Department of Transportation and the California Department of Transportation pursuant to the federal Highway Beautification Act (23 U.S.C. § 131); f) Compliance with mitigation measures and/or conditions of approval adopted as part of the project approval; g) Each written or oral complaint received by the operator, or conveyed to the operator by any government agency or any other person, regarding operation of digital billboards within the Garden Grove (SR-22) Freeway Corridor; h) Each malfunction or failure of a digital billboard operated by the operator within the Garden Grove (SR-22) Freeway Corridor, which shall include only those malfunctions or failures that are visible to the naked eye, including reason for the malfunction, duration and confirmation of repair; and i) Operating status of each digital billboard operated by the operator within the Garden Grove (SR-22) Freeway Corridor, including estimated date of repair and return to normal operation of any digital billboard	During Operation	Field-testing	Community Development Department			

OUTFRONT MEDIA GARDEN GROVE DIGITAL BILLBOARD PROJECT Mitigated Negative Declaration: Mitigation Monitoring Reporting Program							
Mitigation Measures		**Monitoring Timing/ Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
	identified in the report as not operating in normal mode.						

7 Appendix Materials

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APPENDIX A- VISUAL IMPACT SIMULATION

MIG – March 2019

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Initial Image locations

Outfront Media LED Sign

Garden Grove, CA

March 6, 2019

Prepared by:

MIG

Keymap


Garden Grove Boulevard
Partridge Street
Cottage Road
SIGN LOCATION
VIEW
1
VIEW
2
VIEW
3
Garden Grove Freeway (22)
400 ft

View 1 - View from westbound travel lanes (Existing)

View 1 - View from westbound travel lanes (Proposed LED Sign)

View 2 - View from Garden Grove Boulevard and Haster Street on-ramp (Existing)

View 2 - View from Garden Grove Boulevard and Haster Street on-ramp (Proposed LED Sign)

View 3 - View from eastbound travel lanes (Existing)

View 3 - View from eastbound travel lanes (Proposed LED Sign)

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Garden Grove Digital Billboard

South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Commercial	1.00	User Defined Unit	0.10	200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	8			**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 - Per Site Plan

Energy Use -

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	0.00	200.00
tblLandUse	LotAcreage	0.00	0.10

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	1.0016	9.8207	8.1397	0.0134	0.8645	0.6054	1.4025	0.4434	0.5569	0.9567	0.0000	1,277.6932	1,277.6932	0.3568	0.0000	1,283.3133
Maximum	**1.0016**	**9.8207**	**8.1397**	**0.0134**	**0.8645**	**0.6054**	**1.4025**	**0.4434**	**0.5569**	**0.9567**	**0.0000**	**1,277.6932**	**1,277.6932**	**0.3568**	**0.0000**	**1,283.3133**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	1.0016	9.8207	8.1397	0.0134	0.8645	0.6054	1.4025	0.4434	0.5569	0.9567	0.0000	1,277.6932	1,277.6932	0.3568	0.0000	1,283.3133
Maximum	**1.0016**	**9.8207**	**8.1397**	**0.0134**	**0.8645**	**0.6054**	**1.4025**	**0.4434**	**0.5569**	**0.9567**	**0.0000**	**1,277.6932**	**1,277.6932**	**0.3568**	**0.0000**	**1,283.3133**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.4800e-003	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
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	**4.4800e-003**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

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	4.4800e-003	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
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	**4.4800e-003**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2019	6/14/2019	5	10	
2	Site Preparation	Site Preparation	6/15/2019	6/17/2019	5	1	
3	Grading	Grading	6/18/2019	6/19/2019	5	2	
4	Building Construction	Building Construction	6/20/2019	11/6/2019	5	100	
5	Paving	Paving	11/7/2019	11/13/2019	5	5	
6	Architectural Coating	Architectural Coating	11/14/2019	11/20/2019	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 300; Non-Residential Outdoor: 100; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Garden Grove Digital Billboard - South Coast Air Basin, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	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
Demolition	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9530	8.6039	7.6917	0.0120		0.5371	0.5371		0.5125	0.5125		1,159.6570	1,159.6570	0.2211		1,165.1847
Total	**0.9530**	**8.6039**	**7.6917**	**0.0120**		**0.5371**	**0.5371**		**0.5125**	**0.5125**		**1,159.6570**	**1,159.6570**	**0.2211**		**1,165.1847**

3.2 Demolition - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0486	0.0340	0.4479	1.1900e-003	0.1118	8.7000e-004	0.1127	0.0296	8.1000e-004	0.0305		118.0362	118.0362	3.7000e-003		118.1286
Total	**0.0486**	**0.0340**	**0.4479**	**1.1900e-003**	**0.1118**	**8.7000e-004**	**0.1127**	**0.0296**	**8.1000e-004**	**0.0305**		**118.0362**	**118.0362**	**3.7000e-003**		**118.1286**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9530	8.6039	7.6917	0.0120		0.5371	0.5371		0.5125	0.5125	0.0000	1,159.6570	1,159.6570	0.2211		1,165.1847
Total	**0.9530**	**8.6039**	**7.6917**	**0.0120**		**0.5371**	**0.5371**		**0.5125**	**0.5125**	**0.0000**	**1,159.6570**	**1,159.6570**	**0.2211**		**1,165.1847**

3.2 Demolition - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0486	0.0340	0.4479	1.1900e-003	0.1118	8.7000e-004	0.1127	0.0296	8.1000e-004	0.0305		118.0362	118.0362	3.7000e-003		118.1286
Total	**0.0486**	**0.0340**	**0.4479**	**1.1900e-003**	**0.1118**	**8.7000e-004**	**0.1127**	**0.0296**	**8.1000e-004**	**0.0305**		**118.0362**	**118.0362**	**3.7000e-003**		**118.1286**

3.3 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.7195	8.9170	4.1407	9.7500e-003		0.3672	0.3672		0.3378	0.3378		965.1690	965.1690	0.3054		972.8032
Total	**0.7195**	**8.9170**	**4.1407**	**9.7500e-003**	**0.5303**	**0.3672**	**0.8975**	**0.0573**	**0.3378**	**0.3951**		**965.1690**	**965.1690**	**0.3054**		**972.8032**

3.3 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0243	0.0170	0.2240	5.9000e-004	0.0559	4.4000e-004	0.0563	0.0148	4.0000e-004	0.0152		59.0181	59.0181	1.8500e-003		59.0643
Total	**0.0243**	**0.0170**	**0.2240**	**5.9000e-004**	**0.0559**	**4.4000e-004**	**0.0563**	**0.0148**	**4.0000e-004**	**0.0152**		**59.0181**	**59.0181**	**1.8500e-003**		**59.0643**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.7195	8.9170	4.1407	9.7500e-003		0.3672	0.3672		0.3378	0.3378	0.0000	965.1690	965.1690	0.3054		972.8032
Total	**0.7195**	**8.9170**	**4.1407**	**9.7500e-003**	**0.5303**	**0.3672**	**0.8975**	**0.0573**	**0.3378**	**0.3951**	**0.0000**	**965.1690**	**965.1690**	**0.3054**		**972.8032**

3.3 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0243	0.0170	0.2240	5.9000e-004	0.0559	4.4000e-004	0.0563	0.0148	4.0000e-004	0.0152		59.0181	59.0181	1.8500e-003		59.0643
Total	**0.0243**	**0.0170**	**0.2240**	**5.9000e-004**	**0.0559**	**4.4000e-004**	**0.0563**	**0.0148**	**4.0000e-004**	**0.0152**		**59.0181**	**59.0181**	**1.8500e-003**		**59.0643**

3.4 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.9530	8.6039	7.6917	0.0120		0.5371	0.5371		0.5125	0.5125		1,159.6570	1,159.6570	0.2211		1,165.1847
Total	**0.9530**	**8.6039**	**7.6917**	**0.0120**	**0.7528**	**0.5371**	**1.2898**	**0.4138**	**0.5125**	**0.9263**		**1,159.6570**	**1,159.6570**	**0.2211**		**1,165.1847**

3.4 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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	0.0486	0.0340	0.4479	1.1900e-003	0.1118	8.7000e-004	0.1127	0.0296	8.1000e-004	0.0305		118.0362	118.0362	3.7000e-003		118.1286
Total	**0.0486**	**0.0340**	**0.4479**	**1.1900e-003**	**0.1118**	**8.7000e-004**	**0.1127**	**0.0296**	**8.1000e-004**	**0.0305**		**118.0362**	**118.0362**	**3.7000e-003**		**118.1286**

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					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.9530	8.6039	7.6917	0.0120		0.5371	0.5371		0.5125	0.5125	0.0000	1,159.6570	1,159.6570	0.2211		1,165.1847
Total	**0.9530**	**8.6039**	**7.6917**	**0.0120**	**0.7528**	**0.5371**	**1.2898**	**0.4138**	**0.5125**	**0.9263**	**0.0000**	**1,159.6570**	**1,159.6570**	**0.2211**		**1,165.1847**

3.4 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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	0.0486	0.0340	0.4479	1.1900e-003	0.1118	8.7000e-004	0.1127	0.0296	8.1000e-004	0.0305		118.0362	118.0362	3.7000e-003		118.1286
Total	**0.0486**	**0.0340**	**0.4479**	**1.1900e-003**	**0.1118**	**8.7000e-004**	**0.1127**	**0.0296**	**8.1000e-004**	**0.0305**		**118.0362**	**118.0362**	**3.7000e-003**		**118.1286**

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9576	9.8207	7.5432	0.0114		0.6054	0.6054		0.5569	0.5569		1,127.6696	1,127.6696	0.3568		1,136.5892
Total	**0.9576**	**9.8207**	**7.5432**	**0.0114**		**0.6054**	**0.6054**		**0.5569**	**0.5569**		**1,127.6696**	**1,127.6696**	**0.3568**		**1,136.5892**

3.5 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	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**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9576	9.8207	7.5432	0.0114		0.6054	0.6054		0.5569	0.5569	0.0000	1,127.6696	1,127.6696	0.3568		1,136.5892
Total	**0.9576**	**9.8207**	**7.5432**	**0.0114**		**0.6054**	**0.6054**		**0.5569**	**0.5569**	**0.0000**	**1,127.6696**	**1,127.6696**	**0.3568**		**1,136.5892**

3.5 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	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**

3.6 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8300	7.8446	7.1478	0.0113		0.4425	0.4425		0.4106	0.4106		1,055.1823	1,055.1823	0.3016		1,062.7231
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8300**	**7.8446**	**7.1478**	**0.0113**		**0.4425**	**0.4425**		**0.4106**	**0.4106**		**1,055.1823**	**1,055.1823**	**0.3016**		**1,062.7231**

3.6 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0874	0.0612	0.8063	2.1300e-003	0.2012	1.5700e-003	0.2028	0.0534	1.4500e-003	0.0548		212.4651	212.4651	6.6600e-003		212.6315
Total	**0.0874**	**0.0612**	**0.8063**	**2.1300e-003**	**0.2012**	**1.5700e-003**	**0.2028**	**0.0534**	**1.4500e-003**	**0.0548**		**212.4651**	**212.4651**	**6.6600e-003**		**212.6315**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8300	7.8446	7.1478	0.0113		0.4425	0.4425		0.4106	0.4106	0.0000	1,055.1823	1,055.1823	0.3016		1,062.7231
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8300**	**7.8446**	**7.1478**	**0.0113**		**0.4425**	**0.4425**		**0.4106**	**0.4106**	**0.0000**	**1,055.1823**	**1,055.1823**	**0.3016**		**1,062.7231**

3.6 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0874	0.0612	0.8063	2.1300e-003	0.2012	1.5700e-003	0.2028	0.0534	1.4500e-003	0.0548		212.4651	212.4651	6.6600e-003		212.6315
Total	**0.0874**	**0.0612**	**0.8063**	**2.1300e-003**	**0.2012**	**1.5700e-003**	**0.2028**	**0.0534**	**1.4500e-003**	**0.0548**		**212.4651**	**212.4651**	**6.6600e-003**		**212.6315**

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.3708					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**0.6372**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.7 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	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**

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	0.3708					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**0.6372**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.7 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	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

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Commercial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Commercial	16.60	8.40	6.90	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
User Defined Commercial	0.550339	0.043800	0.200255	0.122233	0.016799	0.005871	0.020633	0.029727	0.002027	0.001932	0.004726	0.000704	0.000955

5.0 Energy Detail

Historical Energy Use: Y

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

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					
User Defined Commercial	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**

5.2 Energy by Land Use - NaturalGas

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					
User Defined Commercial	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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	4.4800e-003	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	4.4800e-003	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	5.1000e-004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.9600e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**4.4800e-003**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

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	5.1000e-004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.9600e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**4.4800e-003**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Garden Grove Digital Billboard

South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Commercial	1.00	User Defined Unit	0.10	200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	8			**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 - Per Site Plan

Energy Use -

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	0.00	200.00
tblLandUse	LotAcreage	0.00	0.10

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	1.0064	9.8207	8.0987	0.0133	0.8645	0.6054	1.4025	0.4434	0.5569	0.9567	0.0000	1,270.3738	1,270.3738	0.3568	0.0000	1,275.9882
Maximum	**1.0064**	**9.8207**	**8.0987**	**0.0133**	**0.8645**	**0.6054**	**1.4025**	**0.4434**	**0.5569**	**0.9567**	**0.0000**	**1,270.3738**	**1,270.3738**	**0.3568**	**0.0000**	**1,275.9882**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	1.0064	9.8207	8.0987	0.0133	0.8645	0.6054	1.4025	0.4434	0.5569	0.9567	0.0000	1,270.3738	1,270.3738	0.3568	0.0000	1,275.9882
Maximum	**1.0064**	**9.8207**	**8.0987**	**0.0133**	**0.8645**	**0.6054**	**1.4025**	**0.4434**	**0.5569**	**0.9567**	**0.0000**	**1,270.3738**	**1,270.3738**	**0.3568**	**0.0000**	**1,275.9882**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.4800e-003	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
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	**4.4800e-003**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

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	4.4800e-003	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
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	**4.4800e-003**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2019	6/14/2019	5	10	
2	Site Preparation	Site Preparation	6/15/2019	6/17/2019	5	1	
3	Grading	Grading	6/18/2019	6/19/2019	5	2	
4	Building Construction	Building Construction	6/20/2019	11/6/2019	5	100	
5	Paving	Paving	11/7/2019	11/13/2019	5	5	
6	Architectural Coating	Architectural Coating	11/14/2019	11/20/2019	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 300; Non-Residential Outdoor: 100; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Garden Grove Digital Billboard - South Coast Air Basin, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	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
Demolition	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9530	8.6039	7.6917	0.0120		0.5371	0.5371		0.5125	0.5125		1,159.6570	1,159.6570	0.2211		1,165.1847
Total	**0.9530**	**8.6039**	**7.6917**	**0.0120**		**0.5371**	**0.5371**		**0.5125**	**0.5125**		**1,159.6570**	**1,159.6570**	**0.2211**		**1,165.1847**

3.2 Demolition - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0533	0.0373	0.4070	1.1100e-003	0.1118	8.7000e-004	0.1127	0.0296	8.1000e-004	0.0305		110.7167	110.7167	3.4700e-003		110.8035
Total	**0.0533**	**0.0373**	**0.4070**	**1.1100e-003**	**0.1118**	**8.7000e-004**	**0.1127**	**0.0296**	**8.1000e-004**	**0.0305**		**110.7167**	**110.7167**	**3.4700e-003**		**110.8035**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9530	8.6039	7.6917	0.0120		0.5371	0.5371		0.5125	0.5125	0.0000	1,159.6570	1,159.6570	0.2211		1,165.1847
Total	**0.9530**	**8.6039**	**7.6917**	**0.0120**		**0.5371**	**0.5371**		**0.5125**	**0.5125**	**0.0000**	**1,159.6570**	**1,159.6570**	**0.2211**		**1,165.1847**

3.2 Demolition - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0533	0.0373	0.4070	1.1100e-003	0.1118	8.7000e-004	0.1127	0.0296	8.1000e-004	0.0305		110.7167	110.7167	3.4700e-003		110.8035
Total	**0.0533**	**0.0373**	**0.4070**	**1.1100e-003**	**0.1118**	**8.7000e-004**	**0.1127**	**0.0296**	**8.1000e-004**	**0.0305**		**110.7167**	**110.7167**	**3.4700e-003**		**110.8035**

3.3 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.7195	8.9170	4.1407	9.7500e-003		0.3672	0.3672		0.3378	0.3378		965.1690	965.1690	0.3054		972.8032
Total	**0.7195**	**8.9170**	**4.1407**	**9.7500e-003**	**0.5303**	**0.3672**	**0.8975**	**0.0573**	**0.3378**	**0.3951**		**965.1690**	**965.1690**	**0.3054**		**972.8032**

3.3 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0267	0.0187	0.2035	5.6000e-004	0.0559	4.4000e-004	0.0563	0.0148	4.0000e-004	0.0152		55.3584	55.3584	1.7400e-003		55.4018
Total	**0.0267**	**0.0187**	**0.2035**	**5.6000e-004**	**0.0559**	**4.4000e-004**	**0.0563**	**0.0148**	**4.0000e-004**	**0.0152**		**55.3584**	**55.3584**	**1.7400e-003**		**55.4018**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.7195	8.9170	4.1407	9.7500e-003		0.3672	0.3672		0.3378	0.3378	0.0000	965.1690	965.1690	0.3054		972.8032
Total	**0.7195**	**8.9170**	**4.1407**	**9.7500e-003**	**0.5303**	**0.3672**	**0.8975**	**0.0573**	**0.3378**	**0.3951**	**0.0000**	**965.1690**	**965.1690**	**0.3054**		**972.8032**

3.3 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0267	0.0187	0.2035	5.6000e-004	0.0559	4.4000e-004	0.0563	0.0148	4.0000e-004	0.0152		55.3584	55.3584	1.7400e-003		55.4018
Total	**0.0267**	**0.0187**	**0.2035**	**5.6000e-004**	**0.0559**	**4.4000e-004**	**0.0563**	**0.0148**	**4.0000e-004**	**0.0152**		**55.3584**	**55.3584**	**1.7400e-003**		**55.4018**

3.4 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.9530	8.6039	7.6917	0.0120		0.5371	0.5371		0.5125	0.5125		1,159.6570	1,159.6570	0.2211		1,165.1847
Total	**0.9530**	**8.6039**	**7.6917**	**0.0120**	**0.7528**	**0.5371**	**1.2898**	**0.4138**	**0.5125**	**0.9263**		**1,159.6570**	**1,159.6570**	**0.2211**		**1,165.1847**

3.4 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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	0.0533	0.0373	0.4070	1.1100e-003	0.1118	8.7000e-004	0.1127	0.0296	8.1000e-004	0.0305		110.7167	110.7167	3.4700e-003		110.8035
Total	**0.0533**	**0.0373**	**0.4070**	**1.1100e-003**	**0.1118**	**8.7000e-004**	**0.1127**	**0.0296**	**8.1000e-004**	**0.0305**		**110.7167**	**110.7167**	**3.4700e-003**		**110.8035**

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					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.9530	8.6039	7.6917	0.0120		0.5371	0.5371		0.5125	0.5125	0.0000	1,159.6570	1,159.6570	0.2211		1,165.1847
Total	**0.9530**	**8.6039**	**7.6917**	**0.0120**	**0.7528**	**0.5371**	**1.2898**	**0.4138**	**0.5125**	**0.9263**	**0.0000**	**1,159.6570**	**1,159.6570**	**0.2211**		**1,165.1847**

3.4 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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	0.0533	0.0373	0.4070	1.1100e-003	0.1118	8.7000e-004	0.1127	0.0296	8.1000e-004	0.0305		110.7167	110.7167	3.4700e-003		110.8035
Total	**0.0533**	**0.0373**	**0.4070**	**1.1100e-003**	**0.1118**	**8.7000e-004**	**0.1127**	**0.0296**	**8.1000e-004**	**0.0305**		**110.7167**	**110.7167**	**3.4700e-003**		**110.8035**

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9576	9.8207	7.5432	0.0114		0.6054	0.6054		0.5569	0.5569		1,127.6696	1,127.6696	0.3568		1,136.5892
Total	**0.9576**	**9.8207**	**7.5432**	**0.0114**		**0.6054**	**0.6054**		**0.5569**	**0.5569**		**1,127.6696**	**1,127.6696**	**0.3568**		**1,136.5892**

3.5 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	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**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9576	9.8207	7.5432	0.0114		0.6054	0.6054		0.5569	0.5569	0.0000	1,127.6696	1,127.6696	0.3568		1,136.5892
Total	**0.9576**	**9.8207**	**7.5432**	**0.0114**		**0.6054**	**0.6054**		**0.5569**	**0.5569**	**0.0000**	**1,127.6696**	**1,127.6696**	**0.3568**		**1,136.5892**

3.5 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	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**

3.6 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8300	7.8446	7.1478	0.0113		0.4425	0.4425		0.4106	0.4106		1,055.1823	1,055.1823	0.3016		1,062.7231
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8300**	**7.8446**	**7.1478**	**0.0113**		**0.4425**	**0.4425**		**0.4106**	**0.4106**		**1,055.1823**	**1,055.1823**	**0.3016**		**1,062.7231**

3.6 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0960	0.0672	0.7326	2.0000e-003	0.2012	1.5700e-003	0.2028	0.0534	1.4500e-003	0.0548		199.2901	199.2901	6.2500e-003		199.4463
Total	**0.0960**	**0.0672**	**0.7326**	**2.0000e-003**	**0.2012**	**1.5700e-003**	**0.2028**	**0.0534**	**1.4500e-003**	**0.0548**		**199.2901**	**199.2901**	**6.2500e-003**		**199.4463**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8300	7.8446	7.1478	0.0113		0.4425	0.4425		0.4106	0.4106	0.0000	1,055.1823	1,055.1823	0.3016		1,062.7231
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8300**	**7.8446**	**7.1478**	**0.0113**		**0.4425**	**0.4425**		**0.4106**	**0.4106**	**0.0000**	**1,055.1823**	**1,055.1823**	**0.3016**		**1,062.7231**

3.6 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0960	0.0672	0.7326	2.0000e-003	0.2012	1.5700e-003	0.2028	0.0534	1.4500e-003	0.0548		199.2901	199.2901	6.2500e-003		199.4463
Total	**0.0960**	**0.0672**	**0.7326**	**2.0000e-003**	**0.2012**	**1.5700e-003**	**0.2028**	**0.0534**	**1.4500e-003**	**0.0548**		**199.2901**	**199.2901**	**6.2500e-003**		**199.4463**

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.3708					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**0.6372**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.7 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	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**

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	0.3708					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**0.6372**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.7 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	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

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Commercial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Commercial	16.60	8.40	6.90	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
User Defined Commercial	0.550339	0.043800	0.200255	0.122233	0.016799	0.005871	0.020633	0.029727	0.002027	0.001932	0.004726	0.000704	0.000955

5.0 Energy Detail

Historical Energy Use: Y

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

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					
User Defined Commercial	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**

5.2 Energy by Land Use - NaturalGas

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					
User Defined Commercial	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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	4.4800e-003	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	4.4800e-003	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	5.1000e-004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.9600e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**4.4800e-003**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

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	5.1000e-004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.9600e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**4.4800e-003**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Garden Grove Digital Billboard

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Commercial	1.00	User Defined Unit	0.10	200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	8			**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 - Per Site Plan

Energy Use -

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	0.00	200.00
tblLandUse	LotAcreage	0.00	0.10

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.0581	0.5717	0.4523	6.9000e-004	2.2000e-003	0.0351	0.0373	7.6000e-004	0.0325	0.0332	0.0000	62.0284	62.0284	0.0183	0.0000	62.4858
Maximum	**0.0581**	**0.5717**	**0.4523**	**6.9000e-004**	**2.2000e-003**	**0.0351**	**0.0373**	**7.6000e-004**	**0.0325**	**0.0332**	**0.0000**	**62.0284**	**62.0284**	**0.0183**	**0.0000**	**62.4858**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.0581	0.5717	0.4523	6.9000e-004	2.2000e-003	0.0351	0.0373	7.6000e-004	0.0325	0.0332	0.0000	62.0283	62.0283	0.0183	0.0000	62.4857
Maximum	**0.0581**	**0.5717**	**0.4523**	**6.9000e-004**	**2.2000e-003**	**0.0351**	**0.0373**	**7.6000e-004**	**0.0325**	**0.0332**	**0.0000**	**62.0283**	**62.0283**	**0.0183**	**0.0000**	**62.4857**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-1-2019	8-31-2019	0.3465	0.3465
2	9-1-2019	9-30-2019	0.1155	0.1155
		Highest	0.3465	0.3465

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	8.2000e-004	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
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	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	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.2000e-004**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	8.2000e-004	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
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	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	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.2000e-004**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

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

3.0 Construction Detail

Construction Phase

Garden Grove Digital Billboard - South Coast Air Basin, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2019	6/14/2019	5	10	
2	Site Preparation	Site Preparation	6/15/2019	6/17/2019	5	1	
3	Grading	Grading	6/18/2019	6/19/2019	5	2	
4	Building Construction	Building Construction	6/20/2019	11/6/2019	5	100	
5	Paving	Paving	11/7/2019	11/13/2019	5	5	
6	Architectural Coating	Architectural Coating	11/14/2019	11/20/2019	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 300; Non-Residential Outdoor: 100; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	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
Demolition	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.7700e-003	0.0430	0.0385	6.0000e-005		2.6900e-003	2.6900e-003		2.5600e-003	2.5600e-003	0.0000	5.2601	5.2601	1.0000e-003	0.0000	5.2852
Total	**4.7700e-003**	**0.0430**	**0.0385**	**6.0000e-005**		**2.6900e-003**	**2.6900e-003**		**2.5600e-003**	**2.5600e-003**	**0.0000**	**5.2601**	**5.2601**	**1.0000e-003**	**0.0000**	**5.2852**

3.2 Demolition - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.9000e-004	2.0900e-003	1.0000e-005	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5101	0.5101	2.0000e-005	0.0000	0.5105
Total	**2.4000e-004**	**1.9000e-004**	**2.0900e-003**	**1.0000e-005**	**5.5000e-004**	**0.0000**	**5.5000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.5101**	**0.5101**	**2.0000e-005**	**0.0000**	**0.5105**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.7700e-003	0.0430	0.0385	6.0000e-005		2.6900e-003	2.6900e-003		2.5600e-003	2.5600e-003	0.0000	5.2601	5.2601	1.0000e-003	0.0000	5.2852
Total	**4.7700e-003**	**0.0430**	**0.0385**	**6.0000e-005**		**2.6900e-003**	**2.6900e-003**		**2.5600e-003**	**2.5600e-003**	**0.0000**	**5.2601**	**5.2601**	**1.0000e-003**	**0.0000**	**5.2852**

3.2 Demolition - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.9000e-004	2.0900e-003	1.0000e-005	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5101	0.5101	2.0000e-005	0.0000	0.5105
Total	**2.4000e-004**	**1.9000e-004**	**2.0900e-003**	**1.0000e-005**	**5.5000e-004**	**0.0000**	**5.5000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.5101**	**0.5101**	**2.0000e-005**	**0.0000**	**0.5105**

3.3 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6000e-004	4.4600e-003	2.0700e-003	0.0000		1.8000e-004	1.8000e-004		1.7000e-004	1.7000e-004	0.0000	0.4378	0.4378	1.4000e-004	0.0000	0.4413
Total	**3.6000e-004**	**4.4600e-003**	**2.0700e-003**	**0.0000**	**2.7000e-004**	**1.8000e-004**	**4.5000e-004**	**3.0000e-005**	**1.7000e-004**	**2.0000e-004**	**0.0000**	**0.4378**	**0.4378**	**1.4000e-004**	**0.0000**	**0.4413**

3.3 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.0000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0255	0.0255	0.0000	0.0000	0.0255
Total	**1.0000e-005**	**1.0000e-005**	**1.0000e-004**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0255**	**0.0255**	**0.0000**	**0.0000**	**0.0255**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6000e-004	4.4600e-003	2.0700e-003	0.0000		1.8000e-004	1.8000e-004		1.7000e-004	1.7000e-004	0.0000	0.4378	0.4378	1.4000e-004	0.0000	0.4413
Total	**3.6000e-004**	**4.4600e-003**	**2.0700e-003**	**0.0000**	**2.7000e-004**	**1.8000e-004**	**4.5000e-004**	**3.0000e-005**	**1.7000e-004**	**2.0000e-004**	**0.0000**	**0.4378**	**0.4378**	**1.4000e-004**	**0.0000**	**0.4413**

3.3 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.0000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0255	0.0255	0.0000	0.0000	0.0255
Total	**1.0000e-005**	**1.0000e-005**	**1.0000e-004**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0255**	**0.0255**	**0.0000**	**0.0000**	**0.0255**

3.4 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.5000e-004	8.6000e-003	7.6900e-003	1.0000e-005		5.4000e-004	5.4000e-004		5.1000e-004	5.1000e-004	0.0000	1.0520	1.0520	2.0000e-004	0.0000	1.0570
Total	**9.5000e-004**	**8.6000e-003**	**7.6900e-003**	**1.0000e-005**	**7.5000e-004**	**5.4000e-004**	**1.2900e-003**	**4.1000e-004**	**5.1000e-004**	**9.2000e-004**	**0.0000**	**1.0520**	**1.0520**	**2.0000e-004**	**0.0000**	**1.0570**

3.4 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	4.0000e-005	4.2000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1020	0.1020	0.0000	0.0000	0.1021
Total	**5.0000e-005**	**4.0000e-005**	**4.2000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1020**	**0.1020**	**0.0000**	**0.0000**	**0.1021**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.5000e-004	8.6000e-003	7.6900e-003	1.0000e-005		5.4000e-004	5.4000e-004		5.1000e-004	5.1000e-004	0.0000	1.0520	1.0520	2.0000e-004	0.0000	1.0570
Total	**9.5000e-004**	**8.6000e-003**	**7.6900e-003**	**1.0000e-005**	**7.5000e-004**	**5.4000e-004**	**1.2900e-003**	**4.1000e-004**	**5.1000e-004**	**9.2000e-004**	**0.0000**	**1.0520**	**1.0520**	**2.0000e-004**	**0.0000**	**1.0570**

3.4 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	4.0000e-005	4.2000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1020	0.1020	0.0000	0.0000	0.1021
Total	**5.0000e-005**	**4.0000e-005**	**4.2000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1020**	**0.1020**	**0.0000**	**0.0000**	**0.1021**

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0479	0.4910	0.3772	5.7000e-004		0.0303	0.0303		0.0279	0.0279	0.0000	51.1502	51.1502	0.0162	0.0000	51.5548
Total	**0.0479**	**0.4910**	**0.3772**	**5.7000e-004**		**0.0303**	**0.0303**		**0.0279**	**0.0279**	**0.0000**	**51.1502**	**51.1502**	**0.0162**	**0.0000**	**51.5548**

3.5 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	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**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0479	0.4910	0.3772	5.7000e-004		0.0303	0.0303		0.0279	0.0279	0.0000	51.1502	51.1502	0.0162	0.0000	51.5548
Total	**0.0479**	**0.4910**	**0.3772**	**5.7000e-004**		**0.0303**	**0.0303**		**0.0279**	**0.0279**	**0.0000**	**51.1502**	**51.1502**	**0.0162**	**0.0000**	**51.5548**

3.5 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	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**	**0.0000**

3.6 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.0700e-003	0.0196	0.0179	3.0000e-005		1.1100e-003	1.1100e-003		1.0300e-003	1.0300e-003	0.0000	2.3931	2.3931	6.8000e-004	0.0000	2.4102
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.0700e-003**	**0.0196**	**0.0179**	**3.0000e-005**		**1.1100e-003**	**1.1100e-003**		**1.0300e-003**	**1.0300e-003**	**0.0000**	**2.3931**	**2.3931**	**6.8000e-004**	**0.0000**	**2.4102**

3.6 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-004	1.7000e-004	1.8800e-003	1.0000e-005	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4591	0.4591	1.0000e-005	0.0000	0.4595
Total	**2.2000e-004**	**1.7000e-004**	**1.8800e-003**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**5.0000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.4591**	**0.4591**	**1.0000e-005**	**0.0000**	**0.4595**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.0700e-003	0.0196	0.0179	3.0000e-005		1.1100e-003	1.1100e-003		1.0300e-003	1.0300e-003	0.0000	2.3931	2.3931	6.8000e-004	0.0000	2.4102
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.0700e-003**	**0.0196**	**0.0179**	**3.0000e-005**		**1.1100e-003**	**1.1100e-003**		**1.0300e-003**	**1.0300e-003**	**0.0000**	**2.3931**	**2.3931**	**6.8000e-004**	**0.0000**	**2.4102**

3.6 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-004	1.7000e-004	1.8800e-003	1.0000e-005	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4591	0.4591	1.0000e-005	0.0000	0.4595
Total	**2.2000e-004**	**1.7000e-004**	**1.8800e-003**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**5.0000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.4591**	**0.4591**	**1.0000e-005**	**0.0000**	**0.4595**

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	9.3000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.7000e-004	4.5900e-003	4.6000e-003	1.0000e-005		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004	0.0000	0.6383	0.6383	5.0000e-005	0.0000	0.6397
Total	**1.6000e-003**	**4.5900e-003**	**4.6000e-003**	**1.0000e-005**		**3.2000e-004**	**3.2000e-004**		**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.6383**	**0.6383**	**5.0000e-005**	**0.0000**	**0.6397**

3.7 Architectural Coating - 2019

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	9.3000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.7000e-004	4.5900e-003	4.6000e-003	1.0000e-005		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004	0.0000	0.6383	0.6383	5.0000e-005	0.0000	0.6397
Total	**1.6000e-003**	**4.5900e-003**	**4.6000e-003**	**1.0000e-005**		**3.2000e-004**	**3.2000e-004**		**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.6383**	**0.6383**	**5.0000e-005**	**0.0000**	**0.6397**

3.7 Architectural Coating - 2019

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Commercial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Commercial	16.60	8.40	6.90	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
User Defined Commercial	0.550339	0.043800	0.200255	0.122233	0.016799	0.005871	0.020633	0.029727	0.002027	0.001932	0.004726	0.000704	0.000955

5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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	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	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Commercial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Commercial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Commercial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Commercial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	8.2000e-004	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Unmitigated	8.2000e-004	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	9.0000e-005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.2000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Total	**8.1000e-004**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	9.0000e-005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.2000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Total	**8.1000e-004**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Commercial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Commercial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Commercial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Commercial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Garden Grove LED Digital Billboard Project

South Coast Air Basin, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Demolition	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	No Change	0	1	No Change	0.00
Excavators	Diesel	No Change	0	4	No Change	0.00
Concrete/Industrial Saws	Diesel	No Change	0	2	No Change	0.00
Cranes	Diesel	No Change	0	1	No Change	0.00
Forklifts	Diesel	No Change	0	3	No Change	0.00
Graders	Diesel	No Change	0	2	No Change	0.00
Pavers	Diesel	No Change	0	2	No Change	0.00
Rollers	Diesel	No Change	0	2	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	2	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	8	No Change	0.00
Generator Sets	Diesel	No Change	0	1	No Change	0.00
Paving Equipment	Diesel	No Change	0	2	No Change	0.00
Welders	Diesel	No Change	0	1	No Change	0.00
Aerial Lifts	Diesel	No Change	0	1	No Change	0.00
Bore/Drill Rigs	Diesel	No Change	0	1	No Change	0.00
Skid Steer Loaders	Diesel	No Change	0	1	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Air Compressors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Bore/Drill Rigs	8.60000E-004	1.06700E-002	1.15700E-002	2.00000E-005	5.50000E-004	5.10000E-004	0.00000E+000	1.46414E+000	1.46414E+000	4.70000E-004	0.00000E+000	1.47598E+000
Concrete/Industrial Saws	4.60000E-003	3.62800E-002	4.05500E-002	7.00000E-005	2.18000E-003	2.18000E-003	0.00000E+000	5.91422E+000	5.91422E+000	3.70000E-004	0.00000E+000	5.92359E+000
Cranes	2.18000E-003	2.59500E-002	1.01800E-002	3.00000E-005	1.07000E-003	9.80000E-004	0.00000E+000	2.43958E+000	2.43958E+000	7.90000E-004	0.00000E+000	2.45930E+000
Excavators	4.65000E-003	4.58400E-002	6.20900E-002	1.00000E-004	2.22000E-003	2.04000E-003	0.00000E+000	8.62030E+000	8.62030E+000	2.79000E-003	0.00000E+000	8.69000E+000
Forklifts	1.58000E-003	1.42700E-002	1.29800E-002	2.00000E-005	1.06000E-003	9.80000E-004	0.00000E+000	1.47720E+000	1.47720E+000	4.80000E-004	0.00000E+000	1.48915E+000
Graders	3.81000E-003	5.06000E-002	1.45200E-002	5.00000E-005	1.62000E-003	1.49000E-003	0.00000E+000	4.66452E+000	4.66452E+000	1.51000E-003	0.00000E+000	4.70223E+000
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Paving Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rubber Tired Dozers	8.64000E-003	9.06600E-002	3.30500E-002	7.00000E-005	4.44000E-003	4.08000E-003	0.00000E+000	6.00442E+000	6.00442E+000	1.94000E-003	0.00000E+000	6.05297E+000
Skid Steer Loaders	4.40000E-004	5.84000E-003	7.65000E-003	1.00000E-005	2.50000E-004	2.30000E-004	0.00000E+000	9.98750E-001	9.98750E-001	3.20000E-004	0.00000E+000	1.00682E+000
Tractors/Loaders/Backhoes	6.17000E-003	6.16900E-002	6.96600E-002	1.00000E-004	3.72000E-003	3.42000E-003	0.00000E+000	8.64341E+000	8.64341E+000	2.80000E-003	0.00000E+000	8.71329E+000

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Air Compressors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Bore/Drill Rigs	8.60000E-004	1.06700E-002	1.15700E-002	2.00000E-005	5.50000E-004	5.10000E-004	0.00000E+000	1.46414E+000	1.46414E+000	4.70000E-004	0.00000E+000	1.47598E+000
Concrete/Industrial Saws	4.60000E-003	3.62800E-002	4.05500E-002	7.00000E-005	2.18000E-003	2.18000E-003	0.00000E+000	5.91421E+000	5.91421E+000	3.70000E-004	0.00000E+000	5.92358E+000
Cranes	2.18000E-003	2.59500E-002	1.01800E-002	3.00000E-005	1.07000E-003	9.80000E-004	0.00000E+000	2.43958E+000	2.43958E+000	7.90000E-004	0.00000E+000	2.45930E+000
Excavators	4.65000E-003	4.58400E-002	6.20900E-002	1.00000E-004	2.22000E-003	2.04000E-003	0.00000E+000	8.62029E+000	8.62029E+000	2.79000E-003	0.00000E+000	8.68999E+000
Forklifts	1.58000E-003	1.42700E-002	1.29800E-002	2.00000E-005	1.06000E-003	9.80000E-004	0.00000E+000	1.47720E+000	1.47720E+000	4.80000E-004	0.00000E+000	1.48915E+000
Graders	3.81000E-003	5.06000E-002	1.45200E-002	5.00000E-005	1.62000E-003	1.49000E-003	0.00000E+000	4.66451E+000	4.66451E+000	1.51000E-003	0.00000E+000	4.70223E+000
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Paving Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rubber Tired Dozers	8.64000E-003	9.06600E-002	3.30500E-002	7.00000E-005	4.44000E-003	4.08000E-003	0.00000E+000	6.00441E+000	6.00441E+000	1.94000E-003	0.00000E+000	6.05296E+000
Skid Steer Loaders	4.40000E-004	5.84000E-003	7.65000E-003	1.00000E-005	2.50000E-004	2.30000E-004	0.00000E+000	9.98740E-001	9.98740E-001	3.20000E-004	0.00000E+000	1.00682E+000
Tractors/Loaders/Backhoes	6.17000E-003	6.16900E-002	6.96600E-002	1.00000E-004	3.72000E-003	3.42000E-003	0.00000E+000	8.64340E+000	8.64340E+000	2.80000E-003	0.00000E+000	8.71328E+000

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Bore/Drill Rigs	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Concrete/Industrial Saws	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.69084E-006	1.69084E-006	0.00000E+000	0.00000E+000	1.68817E-006
Cranes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Excavators	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.16005E-006	1.16005E-006	0.00000E+000	0.00000E+000	1.15075E-006
Forklifts	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Graders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	2.14384E-006	2.14384E-006	0.00000E+000	0.00000E+000	0.00000E+000
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Paving Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.66544E-006	1.66544E-006	0.00000E+000	0.00000E+000	1.65208E-006
Skid Steer Loaders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.00125E-005	1.00125E-005	0.00000E+000	0.00000E+000	0.00000E+000
Tractors/Loaders/Backhoes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.15695E-006	1.15695E-006	0.00000E+000	0.00000E+000	1.14767E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
No	Soil Stabilizer for unpaved Roads	PM10 Reduction		PM2.5 Reduction			
No	Replace Ground Cover of Area Disturbed	PM10 Reduction		PM2.5 Reduction			
No	Water Exposed Area	PM10 Reduction		PM2.5 Reduction		Frequency (per day)	

No	Unpaved Road Mitigation	Moisture Content %		Vehicle Speed (mph)			
No	Clean Paved Road	% PM Reduction	0.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Demolition	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Demolition	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Grading	Fugitive Dust	0.02	0.01	0.02	0.01	0.00	0.00
Grading	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting: Urban

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value 3
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	-0.01	0.13		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			

No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.00			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"				
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program				
	Commute	Commute Subtotal	0.00			

No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.00			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	50.00
No	Use Low VOC Paint (Residential Exterior)	50.00
No	Use Low VOC Paint (Non-residential Interior)	100.00
No	Use Low VOC Paint (Non-residential Exterior)	100.00
No	Use Low VOC Paint (Parking)	100.00
No	% Electric Lawnmower	
No	% Electric Leafblower	
No	% Electric Chainsaw	

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24		
No	Install High Efficiency Lighting		
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy		
No	Use Reclaimed Water		
No	Use Grey Water		
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction		
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape		

Solid Waste Mitigation

Mitigation Measures	Input Value

Institute Recycling and Composting Services Percent Reduction in Waste Disposed	

APPENDIX C- BIOLOGICAL RESOURCES RESULTS

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CNDDB Quad Species List 26 records.

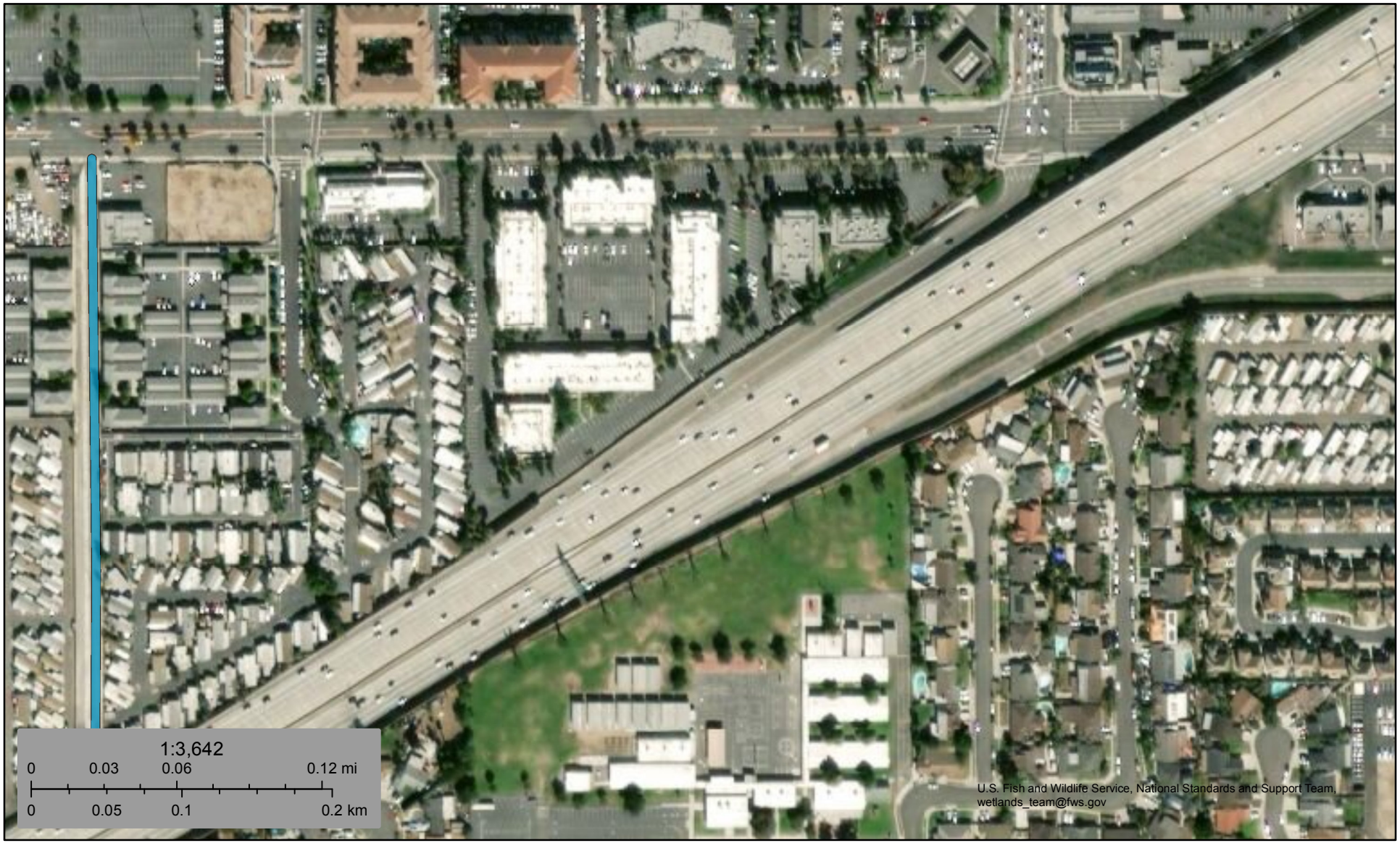
Element Type	Scientific Name	Common Name	Element Code	Federal Status	State Status	CDFW Status	CA Rare Plant Rank	Quad Code	Quad Name	Data Status	Taxonomic Sort
Animals - Amphibians	Spea hammondii	western spadefoot	AAABF02020	None	None	SSC	-	3311778	Anaheim	Unprocessed	Animals - Amphibians - Scaphiopodidae - Spea hammondii
Animals - Birds	Buteo swainsoni	Swainson's hawk	ABNKC19070	None	Threatened	-	-	3311778	Anaheim	Mapped	Animals - Birds - Accipitridae - Buteo swainsoni
Animals - Birds	Ardea alba	great egret	ABNGA04040	None	None	-	-	3311778	Anaheim	Unprocessed	Animals - Birds - Ardeidae - Ardea alba
Animals - Birds	Charadrius montanus	mountain plover	ABNNB03100	None	None	SSC	-	3311778	Anaheim	Unprocessed	Animals - Birds - Charadriidae - Charadrius montanus
Animals - Birds	Coccyzus americanus occidentalis	western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	-	-	3311778	Anaheim	Mapped	Animals - Birds - Cuculidae - Coccyzus americanus occidentalis
Animals - Birds	Icteria virens	yellow-breasted chat	ABPBX24010	None	None	SSC	-	3311778	Anaheim	Unprocessed	Animals - Birds - Icteriidae - Icteria virens
Animals - Birds	Setophaga petechia	yellow warbler	ABPBX03010	None	None	SSC	-	3311778	Anaheim	Unprocessed	Animals - Birds - Parulidae - Setophaga petechia
Animals - Birds	Polioptila californica californica	coastal California gnatcatcher	ABPBJ08081	Threatened	None	SSC	-	3311778	Anaheim	Unprocessed	Animals - Birds - Polioptilidae - Polioptila californica californica
Animals - Birds	Laterallus jamaicensis coturniculus	California black rail	ABNME03041	None	Threatened	FP	-	3311778	Anaheim	Mapped	Animals - Birds - Rallidae - Laterallus jamaicensis coturniculus
Animals - Birds	Athene cunicularia	burrowing owl	ABNSB10010	None	None	SSC	-	3311778	Anaheim	Unprocessed	Animals - Birds - Strigidae - Athene cunicularia
Animals - Birds	Contopus cooperi	olive-sided flycatcher	ABPAE32010	None	None	SSC	-	3311778	Anaheim	Unprocessed	Animals - Birds - Tyrannidae - Contopus cooperi
Animals - Birds	Pyrocephalus rubinus	vermilion flycatcher	ABPAE36010	None	None	SSC	-	3311778	Anaheim	Unprocessed	Animals - Birds - Tyrannidae - Pyrocephalus rubinus
Animals - Fish	Oncorhynchus mykiss irideus pop. 10	steelhead - southern California DPS	AFCHA0209J	Endangered	None	-	-	3311778	Anaheim	Mapped	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 10
Animals - Insects	Bombus crotchii	Crotch bumble bee	IIHYM24480	None	None	-	-	3311778	Anaheim	Mapped	Animals - Insects - Apidae - Bombus crotchii
Animals - Insects	Euphydryas editha quino	quino checkerspot butterfly	IILEPK405L	Endangered	None	-	-	3311778	Anaheim	Mapped and Unprocessed	Animals - Insects - Nymphalidae - Euphydryas editha quino
Animals - Mammals	Eumops perotis californicus	western mastiff bat	AMACD02011	None	None	SSC	-	3311778	Anaheim	Mapped	Animals - Mammals - Molossidae - Eumops perotis californicus
Animals - Reptiles	Anniella stebbinsi	southern California legless lizard	ARACC01060	None	None	SSC	-	3311778	Anaheim	Mapped	Animals - Reptiles - Anniellidae - Anniella stebbinsi
Animals - Reptiles	Phrynosoma blainvillii	coast horned lizard	ARACF12100	None	None	SSC	-	3311778	Anaheim	Mapped and Unprocessed	Animals - Reptiles - Phrynosomatidae - Phrynosoma blainvillii
Plants - Vascular	Centromadia parryi ssp. australis	southern tarplant	PDAST4R0P4	None	None	-	1B.1	3311778	Anaheim	Mapped	Plants - Vascular - Asteraceae - Centromadia parryi ssp. australis
Plants - Vascular	Symphyotrichum defoliatum	San Bernardino aster	PDASTE80C0	None	None	-	1B.2	3311778	Anaheim	Mapped	Plants - Vascular - Asteraceae - Symphyotrichum defoliatum
Plants - Vascular	Nasturtium gambelii	Gambel's water cress	PDBRA270V0	Endangered	Threatened	-	1B.1	3311778	Anaheim	Mapped	Plants - Vascular - Brassicaceae - Nasturtium gambelii
Plants - Vascular	Atriplex parishii	Parish's brittlescale	PDCHE041D0	None	None	-	1B.1	3311778	Anaheim	Mapped	Plants - Vascular - Chenopodiaceae - Atriplex parishii

Plants - Vascular	Juglans californica	southern California black walnut	PDJUG02020	None	None	-	4.2	3311778	Anaheim	Unprocessed	Plants - Vascular - Juglandaceae - Juglans californica
Plants - Vascular	Sidalcea neomexicana	salt spring checkerbloom	PDMAL110J0	None	None	-	2B.2	3311778	Anaheim	Mapped	Plants - Vascular - Malvaceae - Sidalcea neomexicana
Plants - Vascular	Abronia villosa var. aurita	chaparral sand-verbena	PDNYC010P1	None	None	-	1B.1	3311778	Anaheim	Mapped	Plants - Vascular - Nyctaginaceae - Abronia villosa var. aurita
Plants - Vascular	Camissoniopsis lewisii	Lewis' evening-primrose	PDONA030X0	None	None	-	3	3311778	Anaheim	Unprocessed	Plants - Vascular - Onagraceae - Camissoniopsis lewisii

U.S. Fish and Wildlife Service

National Wetlands Inventory

Garden Grove Digital Billboard Project



February 28, 2019

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper


LOS ANGELES
Seal Beach
ORANGE
Huntington Beach
Costa Mesa
Irvine
Newport Beach
Aliso Viejo
Laguna Niguel
Laguna Beach
Dana Point
San Clemente
SAN DIEGO
PACIFIC
OCEAN
LOCAL COASTAL PROGRAM AREAS
City of Aliso Viejo
City of Costa Mesa
City of Dana Point
City of Huntington Beach
City of Irvine
City of Laguna Beach
City of Laguna Niguel
City of Newport Beach
City of San Clemente
City of Seal Beach
County of Orange
Coastal Zone Boundary
(extends 3 nautical miles offshore)
Locations approximate.
For illustrative purposes only.
N
0
2.5
5 Miles
0
2.5
5 Kilometers

National Flood Hazard Layer FIRMette

FEMA

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/5/2019 at 6:48:14 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

APPENDIX D- CULTURAL RESOURCES RESULTS

MIG – March 2019

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Local Government Tribal Consultation List Request

Native American Heritage Commission
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
916-373-3710
916-373-5471 – Fax
nahc@nahc.ca.gov

Type of List Requested

☒ **CEQA Tribal Consultation List (AB 52)** – ***Per Public Resources Code § 21080.3.1, subs. (b), (d), (e) and 21080.3.2***

☐ **General Plan (SB 18)** -***Per Government Code § 65352.3.***

Local Action Type:

__ General Plan __ General Plan Element __ General Plan Amendment

__ Specific Plan __ Specific Plan Amendment __ Pre-planning Outreach Activity

Required Information

Project Title: Garden Grove LED Digital Billboard Project

Local Government/Lead Agency: Community Development Department, Planning Division

Contact Person: Mr. Paul Guerreo, Senior Analysist

Street Address: 1122 Acacia Parkway,

City: Garden Grove, California Zip: 92840

Phone: 714-741-5181 Fax:_____ Email: paulg@ggcity.org

Specific Area Subject to Proposed Action

County: Orange City/Community: Garden Grove

Project Description: The City of Garden Grove is considering the removal and relocation of up to four static billboard faces located at Chapman Avenue west of Santa Rosalia Street, and Garden Grove Boulevard east of Fairview street to the repurposed and installed as a new two-sided digital LED billboard on a parcel of land adjacent to the California State Route 22 Freeway (Project), as specified in the Garden Grove Municipal Code Title 9 Land Use Section 9.20.100 B.

Additional Request

☐ **Sacred Lands File Search -*Required Information:***

USGS Quadrangle Name(s): _____

Township: _____ Range: _____ Section(s):_____

NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691 Phone: (916) 373-3710
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov

February 13, 2019

Paul Guerreo
Community Development Department

VIA Email to: paulg@ggcity.org

RE: Native American Tribal Consultation, Pursuant to the Assembly Bill 52 (AB 52), Amendments to the California Environmental Quality Act (CEQA) (Chapter 532, Statutes of 2014), Public Resources Code Sections 5097.94 (m), 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2 and 21084.3, Garden Grove LED Digital Billboard Project, Orange County

Dear Mr. Guerreo:

Pursuant to Public Resources Code section 21080.3.1 (c), attached is a consultation list of tribes that are traditionally and culturally affiliated with the geographic area of the above-listed project. Please note that the intent of the AB 52 amendments to CEQA is to avoid and/or mitigate impacts to tribal cultural resources, (Pub. Resources Code §21084.3 (a)) ("Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.")

Public Resources Code sections 21080.3.1 and 21084.3(c) require CEQA lead agencies to consult with California Native American tribes that have requested notice from such agencies of proposed projects in the geographic area that are traditionally and culturally affiliated with the tribes on projects for which a Notice of Preparation or Notice of Negative Declaration or Mitigated Negative Declaration has been filed on or after July 1, 2015. Specifically, Public Resources Code section 21080.3.1 (d) provides:

> Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.

The AB 52 amendments to CEQA law does not preclude initiating consultation with the tribes that are culturally and traditionally affiliated within your jurisdiction prior to receiving requests for notification of projects in the tribe's areas of traditional and cultural affiliation. The Native American Heritage Commission (NAHC) recommends, but does not require, early consultation as a best practice to ensure that lead agencies receive sufficient information about cultural resources in a project area to avoid damaging effects to tribal cultural resources.

The NAHC also recommends, but does not require that agencies should also include with their notification letters, information regarding any cultural resources assessment that has been completed on the area of potential effect (APE), such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

   - A listing of any and all known cultural resources that have already been recorded on or adjacent to the APE, such as known archaeological sites;

   - Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;

   - Whether the records search indicates a low, moderate, or high probability that unrecorded cultural resources are located in the APE; and

   - If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

   - Any report that may contain site forms, site significance, and suggested mitigation measures.

     All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code section 6254.10.

3. The result of any Sacred Lands File (SLF) check conducted through the NAHC. The request form can be found at http://nahc.ca.gov/wpcontent/uploads/2015/08/Local-Govenment-Tribal-Consultation-List-Request-Form-update.pdf.
4. Any ethnographic studies conducted for any area including all or part of the APE; and
5. Any geotechnical reports regarding all or part of the APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS are not exhaustive and a negative response to these searches does not preclude the existence of a tribal cultural resource. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the event that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our consultation list remains current.

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

Sincerely,

Steven Quinn
Associate Governmental Program Analyst

Attachment

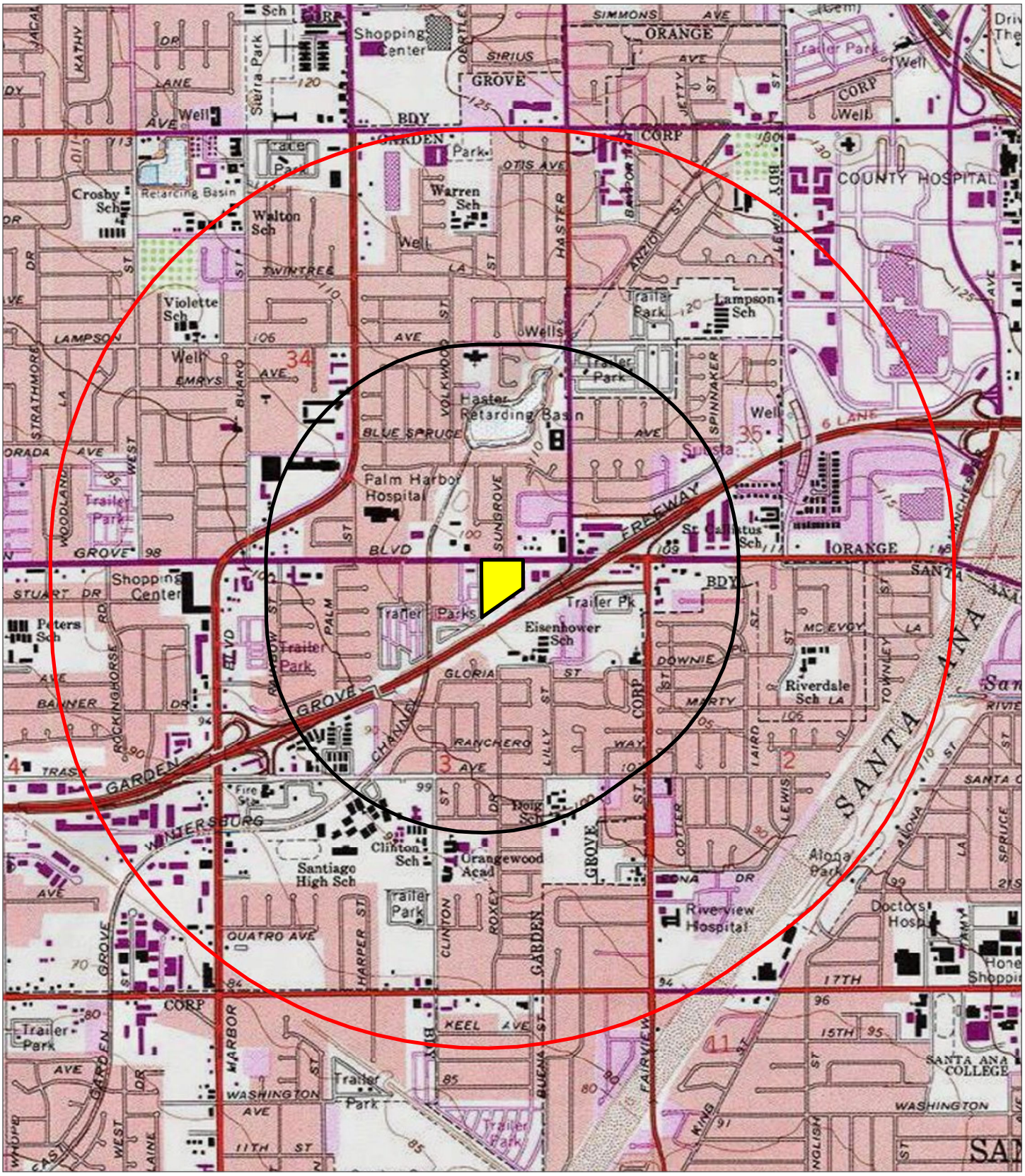

Figure 1 USGS Topographic Map

12812 Garden Grove Boulevard, Garden Grove, Orange County, CA

APPENDIX E- BILLBOARD RELOCATION PLAN

OUTFRONT Media – February 2019

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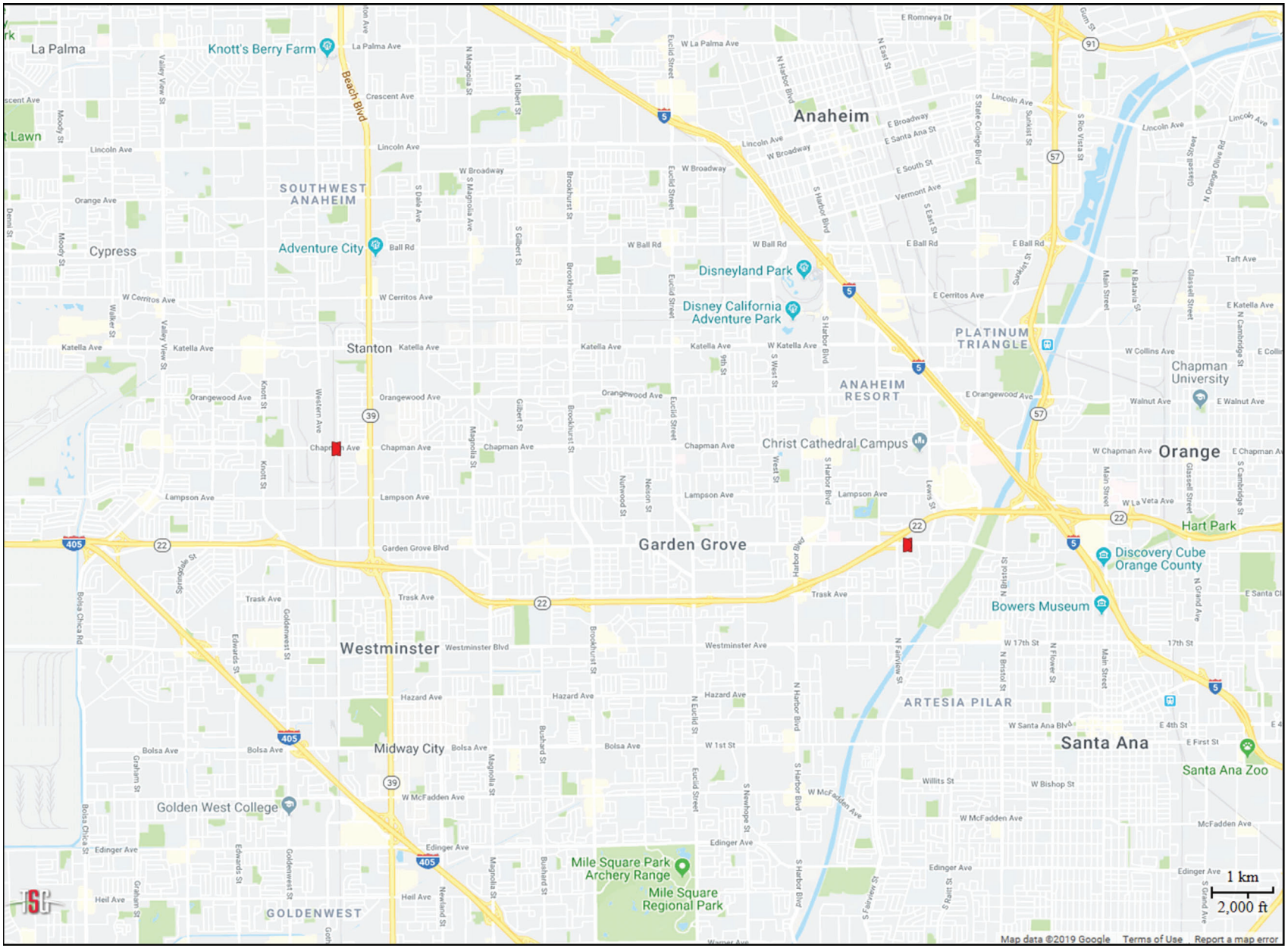


OUTFRONT

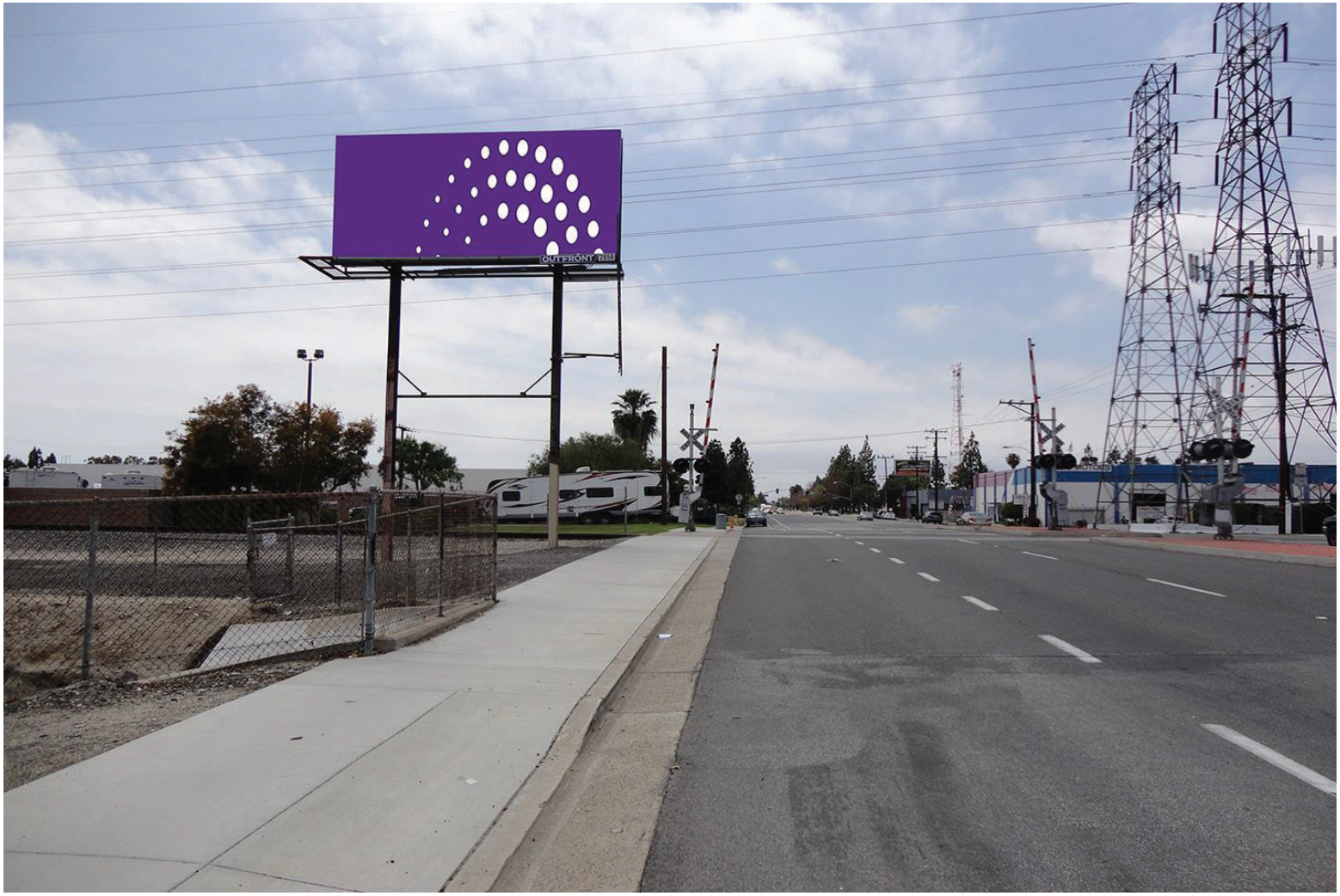
Location Map

Garden Grove Takedowns

- Posters (4)

2656-P Chapman S/L 150 W Santa Rosalia (PF) F/E

Los Angeles



18+ Weekly Imp: 40,827

Size: 10'5"x22'8"

Area: Garden Grove / 13 Orange Co.

Zip Code: 92841

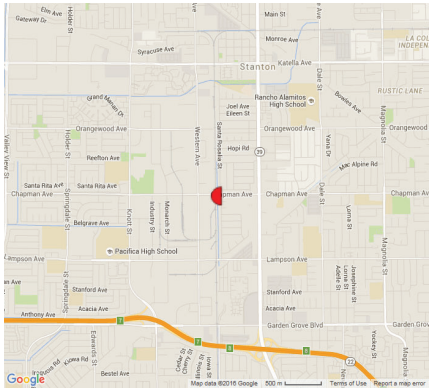
Material: Eco-Poster

Extensions: Not Allowed

Illuminated: No

Latitude: 33.78821

Longitude: -117.99898



geopath verified

Notes: POP photo not guaranteed and angles of photo may vary. Environment subject to change.

4080-P Chapman S/L 150 W Santa Rosalia (PF) F/W

Los Angeles

18+ Weekly Imp: 52,352

Size: 10'5"x22'8"

Area: Garden Grove / 13 Orange Co.

Zip Code: 92841

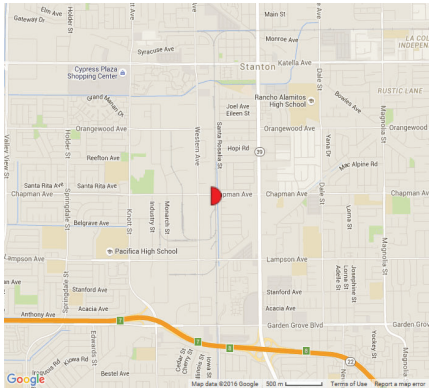
Material: Eco-Poster

Extensions: Not Allowed

Illuminated: No

Latitude: 33.78821

Longitude: -117.99898



geopath verified

Notes: POP photo not guaranteed and angles of photo may vary. Environment subject to change.

2666-P Garden Grove S/L 30 E Fairview (TP) F/E

Los Angeles

18+ Weekly Imp: 66,291

Size: 10'5"x22'8"

Area: Garden Grove / 13 Orange Co.

Zip Code: 92843

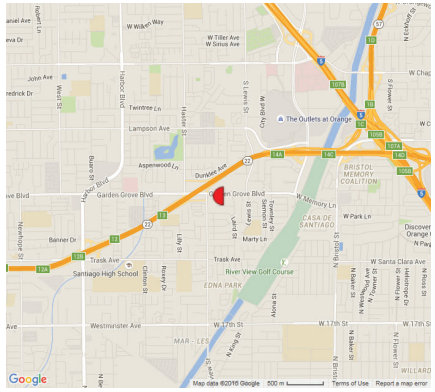
Material: Eco-Poster

Extensions: Not Allowed

Illuminated: No

Latitude: 33.77426

Longitude: -117.90137



geopath verified

Notes: POP photo not guaranteed and angles of photo may vary. Environment subject to change.

2680-P Garden Grove S/L 30 E Fairview (TP) F/W

Los Angeles

18+ Weekly Imp: 87,160

Size: 10'5"x22'8"

Area: Garden Grove / 13 Orange Co.

Zip Code: 92843

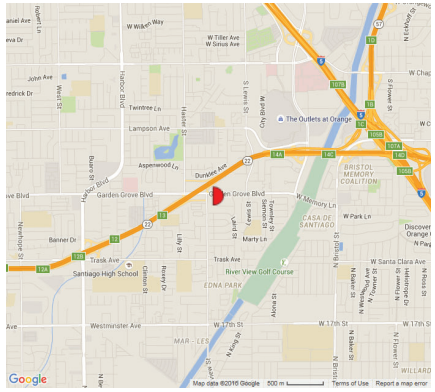
Material: Eco-Poster

Extensions: Not Allowed

Illuminated: No

Latitude: 33.77426

Longitude: -117.90137



geopath verified

Notes: POP photo not guaranteed and angles of photo may vary. Environment subject to change.

APPENDIX F- CALTRANS COMMENT LETTER AND RESPONSE

MIG – November 2019

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DEPARTMENT OF TRANSPORTATION
DISTRICT 12
1750 E 4TH ST, SUITE 100
SANTA ANA, CA 92705
PHONE (657) 328-6000
FAX (657) 328-6511
TTY 711
www.dot.ca.gov

Making Conservation a California Way of Life.

October 31, 2019

Mr. Paul Guerrero
City of Garden Grove
11222 Acacia Parkway
Garden Grove, CA 92840

File: IGR/CEQA
SCH#: 2019109007
IGR Log: 2019-01238
SR-22, PM: 8.613

Dear Mr. Guerrero:

Thank you for including the California Department of Transportation (Caltrans) in the review of The Initial Study/Mitigated Negative Declaration for the Outfront Media Garden Grove Digital Billboard Project. The City of Garden Grove has received an application for approval of a site plan, and related relocation agreement for the construction and operation of a new digital LED billboard pole sign adjacent to and abutting State Route 22 (SR-22) Freeway. The project applicant proposes to remove a total four (4) existing static billboard faces and two (2) sign poles located at Chapman Avenue west of Santa Rosalia Street and at Garden Grove Boulevard west of Beach Boulevard. The proposed new LED digital billboard will include a two-sided digital display and be 50 feet tall, with a digital display area of approximately 48 feet wide by 14 feet tall. The proposed LED digital billboard would be located within a parking lot adjacent to (SR) 22.

Caltrans is a responsible and commenting agency on this project and has the following comments:

Traffic Operations

1. The proposed new LED digital billboard location is nearby the intersection of Westbound SR-22 on-ramp and Garden Grove Boulevard/Haster Street. The digital billboard has the potential to create distraction for motorists who are not paying attention to the signals or the vehicles in queues as they approach the intersection.

2. The proposed LED digital billboard location is adjacent to the metered Westbound SR-22 on-ramp, where the ramp is a vertical and horizontal curve alignment. Before stopping at the ramp metering signal or entering the freeway, motorists must ascend the on-ramp to reach the ramp plateau. The proposed digital billboard location has the potential to create distraction to the motorists as they travel along the vertical and horizontal on-ramp alignment and as a result will not pay attention to the vehicles in queue.

3. Caltrans wishes to caution that the Westbound SR-22 on-ramp to Westbound SR-22 freeway junction creates a turbulent traffic stream due to merging traffic. The proposed billboard location has the potential to create distraction to the traveling motorists near the turbulence area of the on-ramp.

4. The Eastbound SR-22 segment just upstream of the proposed billboard location is identified as a segment of high collision concentration. The proposed billboard location has the potential to create distraction to the traveling motorists as they approach the billboard.

Traffic Operations- Outdoor Advertising

5. Any display visible from the National Highway System advertising off-premise commercial must obtain a permit from the Office of Outdoor Advertising (ODA) prior to placement. For any questions, please feel free to contact ODA Southern Area Manager George Anzo at (213) 897-4208 or george.anzo@dot.ca.gov.

Encroachment Permit

6. In the event of any activity in Caltrans right of way an Encroachment Permit will be required. For specific details on Encroachment Permits procedure, please refer to Encroachment Permits Manual at: https://dot.ca.gov/programs/traffic-operations/ep

Please continue to keep us informed of this project and any future developments that could potentially impact State transportation facilities. If you have any questions or would like to meet with us regarding these comments, please do not hesitate to call Maryam Molavi at (657) 328-6280.

Sincerely,

SCOTT SHELLEY.
Branch Chief, Regional-IGR-Transit Planning

November 7, 2019

To: Paul Guerrero
Senior Analyst
City of Garden Grove
11222 Acacia Parkway
Garden Grove, CA 92840

From: Cameron Hile
Senior Analyst
MIG, Inc
1500 Iowa Avenue, Suite 110
Riverside, CA 92507

CC: Collin Smith
Regional VP - Real Estate
Outfront Media
1731 Workman Street
Los Angeles, CA 90031

Subject: Response to Department of Transportation Letter Dated October 31, 2019

Dear Mr. Guerrero:

This letter is in response to comments submitted by Mr. Scott Shelley, Branch Chief, California Department of Transportation (Caltrans), dated October 31, 2019, regarding the proposed Outfront Media Garden Grove Digital Billboard Draft Initial Study and Mitigated Negative Declaration (IS/MND). Specifically, this letter is in response to Mr. Shelley's comments pertaining to the location of the proposed digital billboard. Mr. Shelley notes the sign would be located near the intersection of Westbound State Route 22 (SR-22) on-ramp and Garden Grove Boulevard at Haster Street, and that this has a potential to create a distraction for motorists as they approach the intersection. Mr. Shelley also notes the sign would be located adjacent to the Westbound SR-22 on-ramp, where the ramp is a vertical and horizontal curve alignment and has the potential to create a distraction for motorists ascending the on-ramp as they travel along the vertical and horizontal on-ramp alignment. Mr. Shelley further notes that the Westbound SR-22 on-ramp to Westbound SR-22 freeway junction creates a turbulent traffic stream due to merging traffic, and that the location of the proposed digital billboard has the potential to create distraction to the traveling motorists near the turbulence area of the on-ramp. Finally, Mr. Shelley notes that the Eastbound SR-22 segment just upstream of the proposed digital billboard location is identified as a segment of high collision concentration, and that the location of the proposed digital billboard has the potential to create distraction to the traveling motorists as they approach the billboard. Below is a brief response to Mr. Shelley's comments.

Generally, Caltrans notes that there may be the potential for the proposed digital billboard to be a distraction to motorists. Caltrans, however, does not present substantial evidence that illustrates

how or why this could potentially occur. In other words, Caltrans does not explain or support the basis for its assumptions.

Construction and operation of the proposed sign will adhere to all applicable Federal, State and local regulations and guidelines pertaining to digital billboards, including regulations and guidelines pertaining to siting of signs, design of signs, illumination, and timing and frequency of sign face changes. With adherence to Federal, State and local regulations and guidelines, the proposed digital billboard will not create a distraction for motorists approaching the intersection of Garden Grove Boulevard and Haster Street, for motorists ascending the Westbound SR-22 on-ramp, for motorists on the Westbound SR-22 freeway mainline, or for motorists on the Eastbound SR-22 freeway mainline. Applicable Federal, State and local regulations and guidelines are discussed in more detail below.

California regulates outdoor advertising in the Outdoor Advertising Act (Business and Professions Code §5240 et seq.). Caltrans is the agency charged with enforcing the law and regulations with regards to outdoor advertising on or near State facilities. Caltrans requires applicants for new outdoor lighting to demonstrate that the owner of the parcel consents to the placement of the sign, that the parcel on which the sign would be located is zoned commercial or industrial, and that local building permits are obtained and complied with. A digital LED billboard is identified as a "message center" in the statute, which is an advertising display where the message is changed more than once every two minutes, but no more than once every four seconds (Business and Professions Code §5216.4).

As discussed in Section 2.11, Page 7, of the IS/MND, the applicant is required to obtain a Department of Transportation Outdoor Advertising Act Permit from Caltrans. Further, as discussed in Section 2.12, Pages 7-9, of the IS/MND, the Outdoor Advertising Act contains a number of provisions relating to the construction and operation of billboards:

- The sign must be constructed to withstand a wind pressure of 20 pounds per square feet of exposed surface (§5401).

- No sign shall display any statements or words of an obscene, indecent, or immoral character (§5402).

- No sign shall display flashing, intermittent or moving light or lights (§5403[h]).

- Signs are restricted from areas within 300 feet of an intersection of highways or of highway and railroad rights-of-way, but a sign may be located at the point of interception, as long as a clear view is allowed for 300 feet, and no sign shall be installed that would prevent a traveler from obtaining a clear view of approaching vehicles for a distance of 500 feet along the highway (§5404).

- Message center signs may not include any illumination or message change that is in motion or appears to be in motion or that changes or exposes a message for less than four seconds. No message center sign may be located within 500 feet of an existing billboard, or 1,000 feet of another message center display, on the same side of the highway (§5405).

- No advertising display may be placed or maintained on property adjacent to a section of a freeway that has been landscaped if the advertising display is designed to be viewed primarily by persons traveling on the main–traveled way of the landscaped freeway (§ 5440).

Additional restrictions on outdoor signage are found in the California Vehicle Code. Vehicle Code §21466.5 prohibits the placing of any light source "…of any color of such brilliance as to impair the vision of drivers upon the highway." Specific standards for measuring light sources are provided. The restrictions may be enforced by Caltrans, the California Highway Patrol, or local authorities.

The Federal Highway Administration (FHWA) has entered into written agreements with various states as part of implementation of the Highway Beautification Act, including written agreements dated May 1965 and February 1968. The agreements generally provide that the State would control the construction of all outdoor advertising signs, displays, and devices within 660 feet of the interstate highway right-of-way. The agreements provide that such signs shall be erected only in commercial or industrial zones, and are subject to the following restrictions:

- No signs shall imitate or resemble any official traffic sign, signal, or device, nor shall signs obstruct or interfere with official signs.

- No signs shall be erected on rocks or other natural features.

- Signs shall be no larger than 25 feet in height and 60 feet in width, excluding border, trim, and supports.

- Signs on the same side of the freeway must be separated by at least 500 feet.

- Signs shall not include any flashing, intermittent or moving lights, and shall not emit light that could obstruct or impair the vision of any driver.

Finally, The Garden Grove Municipal Code includes sign standards for billboards (Municipal Code §9.20.110: Billboards) that allows for the construction of new billboards within the City only upon relocation of existing billboards. The sign standards prohibit relocation of billboards to a site that is closer than 300 feet to an existing billboard. The standards also provide maximum square footages for sign faces, and prohibits the construction of any electronic billboard within 1,000 feet of any other electronic billboard or within 350 feet of any residentially zoned property. The Application for the proposed digital billboard includes Conditions of Approval (COA) for Site Plan No. SP-076-2019. Specifically, COA No. 15 states:

> "The Applicant and the proposed Electronic Billboard shall comply will all applicable location, distance, size, operational, permit or licensing, and/or other requirements for off-premise electronic signs adjacent to the freeway right-of-way imposed by Federal or State law, including without limitation, the California Outdoor Advertising Act, California Business and Professions Code Section 5200, et. seq., and its implementing regulations, including applicable amendments thereto. To the extent such State or

> Federal requirements are stricter or more limiting than the requirements imposed pursuant to these Conditions of Approval, the stricter or more limiting State or Federal requirements shall apply. The Applicant shall demonstrate compliance with all applicable State and Federal requirements to the reasonable satisfaction of the Community and Economic Development Director prior to issuance of building permits and for as long as the relocated billboard remains in place on the subject Site."

The Project applicant will be required to obtain all applicable State permits and demonstrate compliance with all applicable regulations prior to issuance of construction permits by the City of Garden Grove. While it is not anticipated as part of development of the proposed Project, in the event of any activity in Caltrans right-of-way, an Encroachment Permit will be obtained by the applicant. With adherence to Federal, State and local regulations for digital billboards, the proposed digital billboard will not create a distraction for motorists approaching the intersection of Garden Grove Boulevard and Haster Street, for motorists ascending the Westbound SR-22 on-ramp, for motorists on the Westbound SR-22 freeway mainline, or for motorists on the Eastbound SR-22 freeway mainline. The applicant will continue to keep Caltrans informed of the proposed Project and any future developments that could potentially impact State transportation facilities. No further action is required in response to these comments. If you have any questions please feel to contact me at 951-787-9222 or cameronh@migcom.com.

Best Regards,

Cameron Hile, Senior Analyst, MIG Inc.