

DRAFT
Initial Study
Outfront Media LED Billboards Project
Alameda County, California

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ACRONYMS AND ABBREVIATIONS

°C	degrees Celsius (Centigrade)
°F	degrees Fahrenheit
µg/m ³	micrograms per cubic meter
ACFD	Alameda County Fire Department
ALCP	Airport Land Use Compatibility Plan
ARB	California Air Resources Board
BAAQMD	Bay Area Air Quality Management District
BMPs	Best Management Practices
Caltrans	California Department of Transportation
CAP	Clean Air Plan
CCR	California Code of Regulations
cd/m ²	candela per square meter
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CHL	California Historic Landmarks List
CLUP	Comprehensive Airport Land Use Plan
CPHI	California Points of Historical Interest
CR	California Register of Historic Resources
DOT	United States Department of Transportation
EBMUD	East Bay Municipal Utility District
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulations
FCS	FirstCarbon Solutions
fps	feet-per-seconds
GHGs	greenhouse gas emissions
HRI	California State Historical Resources Inventory
IS	Initial Study
LED	light-emitting diode
MIR	maximum impacted sensitive receptor
MM	Mitigation Measure
NAHC	California Native American Heritage Commission
NR	National Register of Historic Places
NWIC	Northwest Information Center
OLSD	Oro Loma Sanitary District
OSHA	Occupational Safety and Health Administration

Acronyms and Abbreviations

PG&E	Pacific Gas and Electric Company
RWQCB	Regional Water Quality Control Board
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TCR	Tribal Cultural Resources
UPRR	Union Pacific Railroad
UCMP	University of California Museum of Paleontology
VMT	vehicle miles travelled
VOC	volatile organic compounds

SECTION 1: INTRODUCTION

The project sponsor, Outfront Media, proposes to install two new electronic billboards and remove eight existing billboards (with 16 billboard sign faces, total) located in the central portion of Alameda County along two freeway corridors. This LED Billboards Project would encompass nine private properties and one public right-of-way (referred to herein as the project site). The portions of the project site where the new billboards would be sited, being located along commercially focused transportation corridors.

The purpose of this Initial Study (IS) is to identify potential environmental impacts from implementation of the proposed LED Billboards Project (referred to herein as the proposed project) within Alameda County, California. Pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15367, Alameda County (County) is the Lead Agency in the preparation of this IS and additional environmental review documentation required for the proposed project. The County has discretionary authority over the proposed project. The intended use of this IS is to determine the level of environmental impacts resulting from the proposed project; where a potentially significant impact is found, to identify mitigation measures that reduce such impacts to a less than significant level; and to provide the basis for input from public agencies, organizations, and interested members of the public.

The remainder of this section provides a brief description of the proposed project location and the characteristics of the proposed project. Section 2 includes an environmental checklist giving an overview of the potential impacts that may result from project implementation. Each individual subsection elaborates on the information contained in the environmental checklist, along with justification for the responses provided in the environmental checklist.

1.1 - Project Location

The project proposes the installation of two electronic billboards at two different sites, and removal of eight billboards at eight locations (distributed across seven properties) in unincorporated Alameda County near the city of Hayward, California (Exhibit 1). One new billboard location, hereinafter referred to as the Arbor location, is at the southwestern end of Arbor Avenue (22083 Arbor Avenue), just north of West A Street. The Arbor site is near the intersection of West A Street and Interstate 880 (I-880). The other new billboard location, hereinafter referred to as the Langton location, is at the northern cul-de-sac end of Langton Way, north of East Lewelling Boulevard. The Langton site is adjacent to Interstate 238 (I-238). The eight billboard removal locations located within the vicinity of each of the new billboard locations, four proximate to each site, are further detailed later in this chapter under the proposed project description section (Exhibit 2 and Exhibit 3).

1.2 - Existing Project Site Characteristics and Surrounding Land Uses

The proposed Arbor Avenue site is on the northern portion of the parcel, immediately east of I-880. The site is currently vacant. There is a service station to the east across Arbor Avenue, on property under the same ownership as the project site. North of the Arbor site is a mix of single-family and

multi-family residential buildings. A multi-family residential development is located to the east (the Hayward Village Senior Apartments).

The existing Langton site is at the end of a cul-de-sac that is adjacent to I-238 at the northern terminus of Langton Way. The cul-de-sac is paved and has curb, gutter, sidewalk, and storm drainage inlets. A retaining wall encircles the cul-de-sac, and behind the retaining wall are a sound wall along I-238 and landscaping consisting of grass and small trees. This cul-de-sac is bordered by single-family residences on its western side, with residential and commercial land uses on the eastern side.

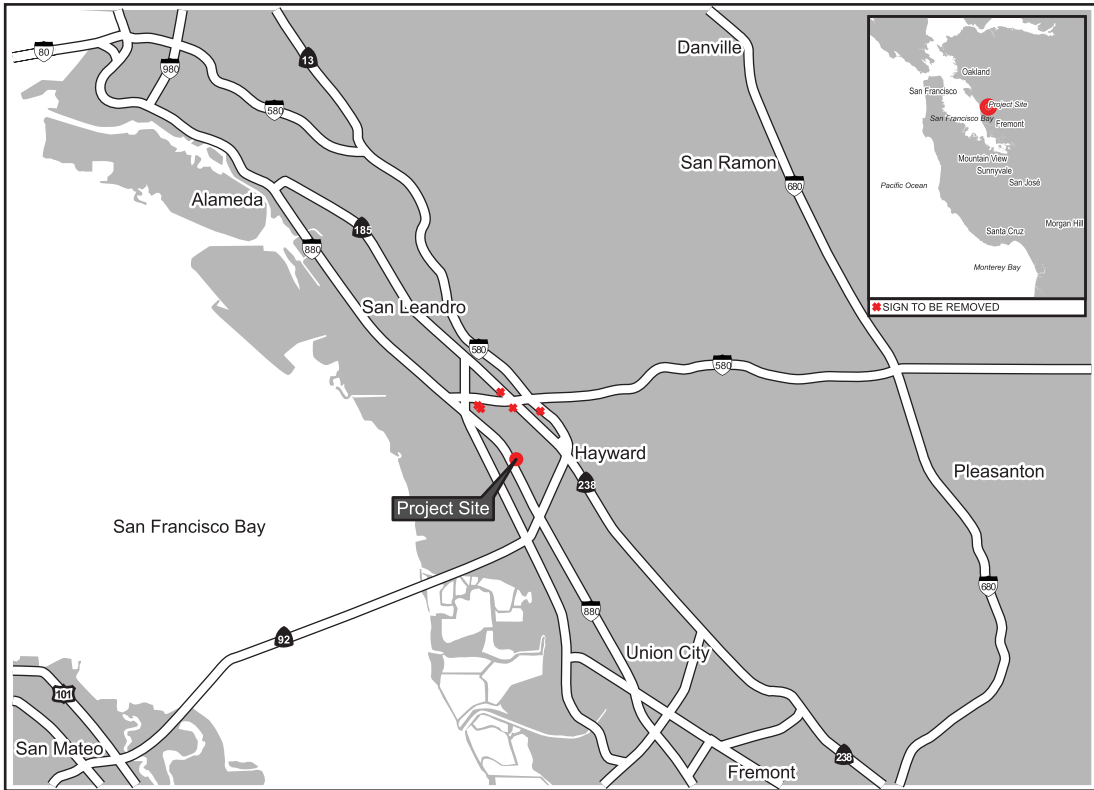
1.3 - Proposed Project Description

1.3.1 - Arbor-Location Component

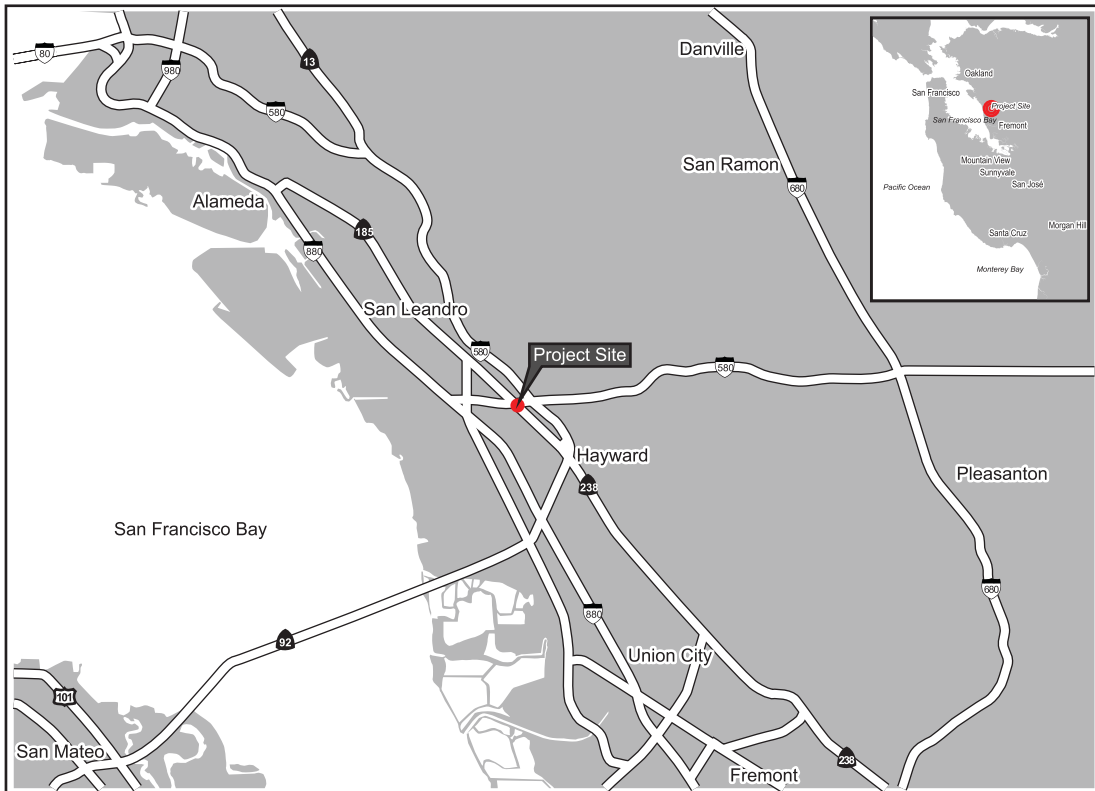
The Arbor-location component of the proposed project includes installation of one new electronic billboard with two light-emitting diode (LED) display faces and removal of four existing billboards with a total of eight traditional sign faces.

The new billboard would be constructed on private property, specifically Assessor's Parcel Number (APN) 429-77-33-4. It would be a V-shaped with north- and south-facing LED displays that would be visible to vehicles traveling in both northbound and southbound directions on I-880. The proposed billboard structure would be 80 feet in height overall (Exhibit 4). The displays on the billboard would be a flag design structure mounted on a support column. The aboveground column supporting the billboard would be approximately 66 feet tall as measured from grade level on Arbor Street. The column would be within an elliptical pole cover with a smaller diameter of 3.6 feet and a larger diameter of 4 feet. The billboard frames would be 14 feet by 48 feet (height by width) and would be equipped with upper and lower rear catwalks measuring approximately 2.5 feet wide and extending along the length of the back of the billboards. Access to the catwalks would be via an access ladder attached to the catwalk deck. The advertising surface area of each billboard face would be 672 square feet, or 1,344 square feet total for both. A site plan is shown in Exhibit 5.

The proposed new billboard would be connected to existing power lines in the project area (see Exhibit 5) and operate 24 hours per day, 7 days per week. The illuminated double-sided billboard would cycle through a rotation of images on its display and is proposed to operate under specific criteria to limit the potential for distracting vehicle drivers' viewing of the display. These criteria include (1) images from the billboard would rotate once every 8 seconds and (2) light levels emitted from the billboard would adjust to respond to darker and lighter conditions to provide contrast. Additionally, the maximum ambient light output level of the digital billboard sign faces would be 0.3-foot candle at a distance of 250 feet. Furthermore, the billboards would not show video or motion, nor would they emit noise or audio.



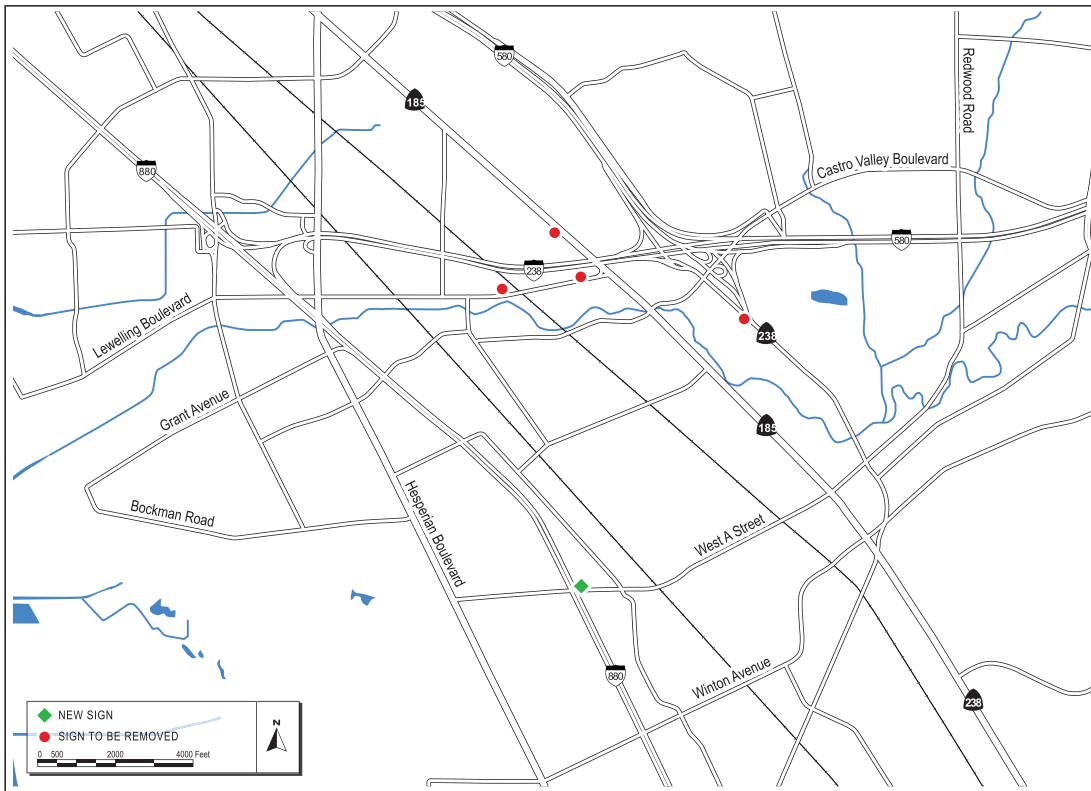
Arbor



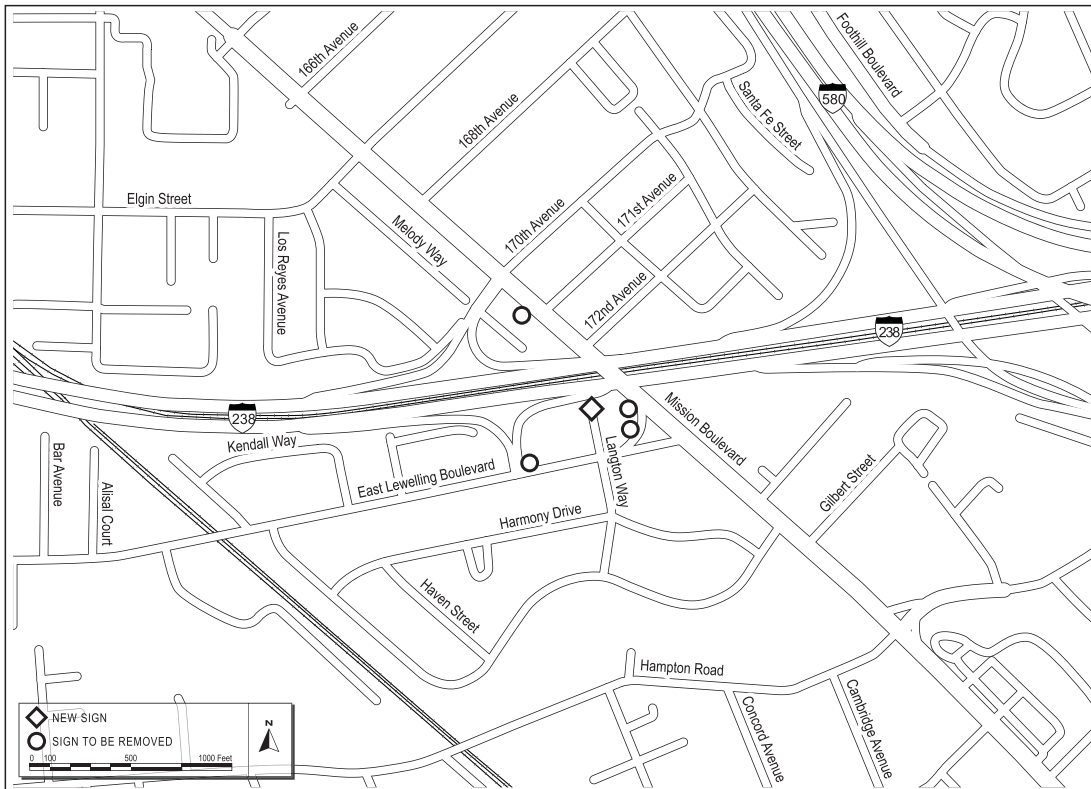
Langton



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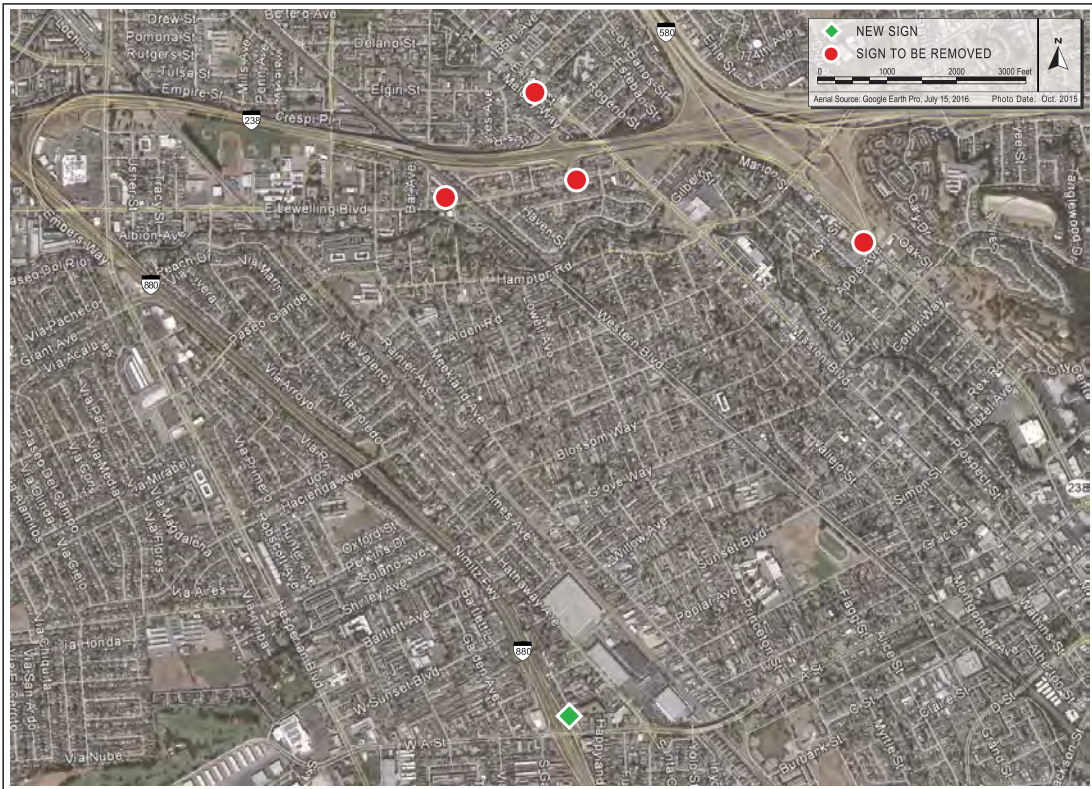


Arbor



Langton

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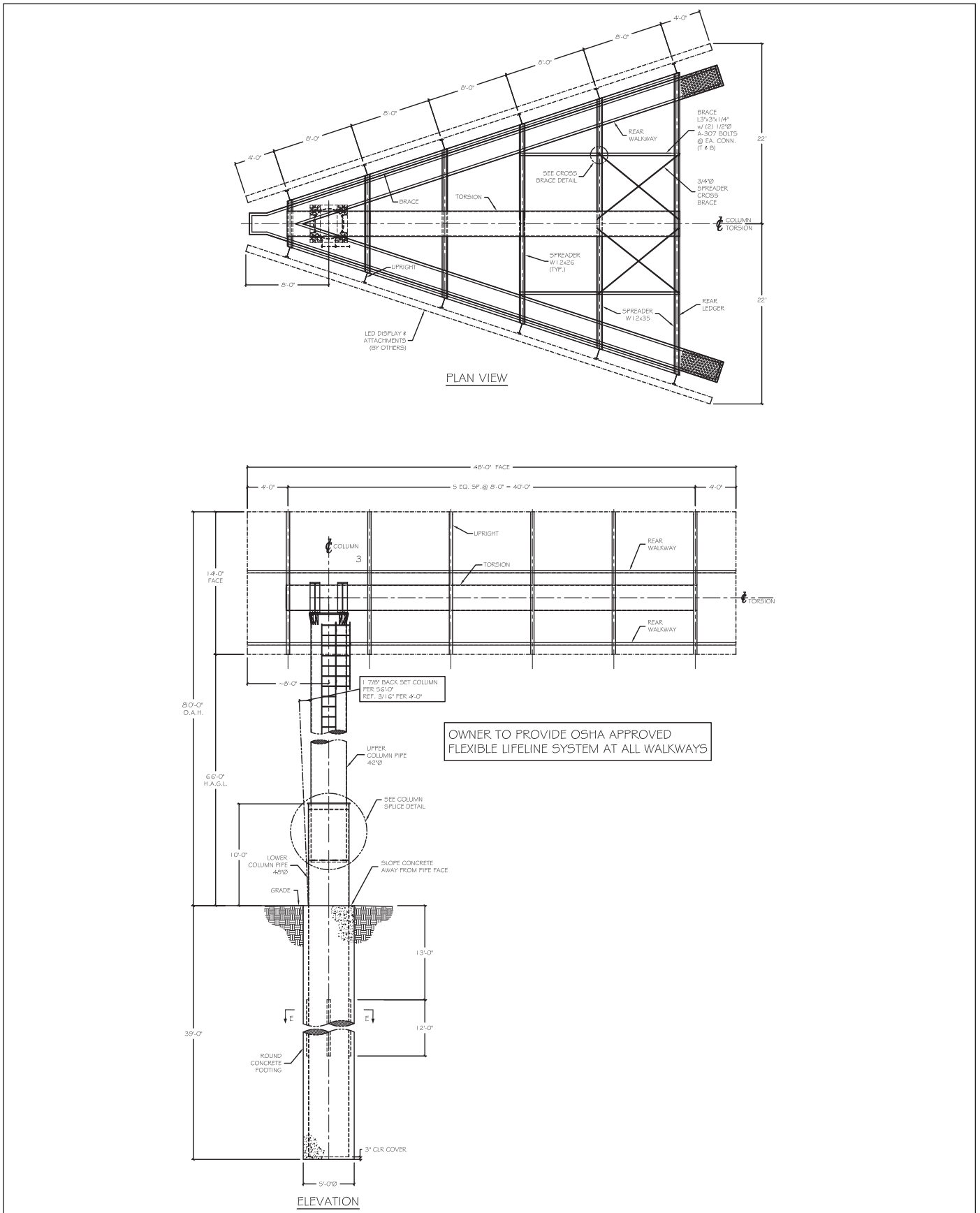


Arbor



Langton

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The foundation used for the proposed new structure would be a drilled shaft with a poured concrete footing. The column foundation would be five feet in diameter and would extend to a depth of 39 feet below the ground surface. The excess soils from excavation would be from the project site to Crete Crush, a recycling facility in Rancho Cordova. The excavation would result in an insignificant amount of excess soil, approximately 53 cubic yards. The total transported soils would require four additional truck trips to and from the location. Soils would be screened for suitability prior to disposal on the adjacent property consistent with applicable laws and regulations. If contaminated soils are encountered, the applicant would use Central Valley Environmental Corporation to remediate and dispose of the soils. Billboard construction would require 2 to 4 weeks to complete.

The Arbor-location component of the proposed project would also remove four existing traditional billboards with a total of eight sign faces within the County. Exhibit 6-a through 6-d shows the daytime views of following locations of billboards that would be removed:

- One existing double-sided billboard at 604 East Lewelling Boulevard (Permit Nos. 2103 and 2104), on the north side of Lewelling Boulevard immediately west of the Union Pacific Railroad (UPRR) tracks (APN 413-27-59). The billboard is located on a property developed with a single-story building currently used for specialty automotive repair services. The site, located on a major thoroughfare, is surrounded by commercial and light industrial uses to the west, and railroad tracks and residential homes to the east.
- One existing double-sided billboard at 21215 Foothill Boulevard (Permit Nos. 2306 and 2552), on the south side of Foothill Boulevard/I-238 approximately 260 feet northwest of Apple Avenue (APN 414-86-32). The billboard is located on a property developed with single-family residences. The site, located along a major thoroughfare, is surrounded by commercial uses to the north, south, and west, and various roadways, commercial development, and multi-family housing to the east.
- One existing double-sided billboard at 905 East Lewelling Boulevard (Permit Nos. 1736 and 2442), on the south side of Lewelling Boulevard across the street from the Lewelling Boulevard/I-238 off-ramp (APN 414-26-13). The billboard is located on a property developed with a single-story commercial building. The site is located along a major thoroughfare and surrounded by commercial, office, and residential uses.
- One existing double-sided billboard at 16841 East 14th Street (Permit Nos. 2204 and 2205), on the northwest side of East 14th Street approximately 315 feet northwest of 170th Avenue (APN 80B-301-10-2). The billboard is located on a property developed with a single-story building currently used for commercial activities. The site is located along a major thoroughfare and surrounded by commercial and residential uses.

Hand tools and small crane rigs would be used to remove the billboards. The top of the billboards would first be disassembled and removed, and then the poles would be cut at the ground. Only the above-grade portion of the billboard structures would be removed. Below-surface foundations would remain in place. Materials from the removed billboard would be transported to a recycling facility and/or appropriate landfill. It would take approximately one to two working days to remove

each of the existing billboard structures. Removal of all four billboard structures would take approximately two weeks.

1.3.2 - Langton-Location Component

The Langton-location component of the proposed project includes installation of one new electronic billboard with two LED-display faces and removal of four existing billboards with a total of eight traditional sign faces.

The new billboard would be constructed within the County's public right-of-way. It would be a V-shaped with west- and east-facing LED digital displays that would be visible to vehicles traveling in both eastbound and westbound directions on I-238. The proposed billboard structure would be 80 feet in height overall (Exhibit 7). The displays on the billboard would be a flag design structure that would be mounted on a supporting column. The aboveground column supporting the billboard would be approximately 66 feet tall as measured from grade level on Langton Way. The column would be within an elliptical pole cover with a smaller diameter of 3.6 feet and a larger diameter of 4 feet. The billboard frames would be 14 feet by 48 feet (height by width) and would be equipped with upper and lower rear catwalks measuring approximately 2.5 feet wide and extending along the length of the back of the billboards. Access to the catwalks would be via an access ladder attached to the catwalk deck. The advertising surface area of each billboard face would be 672 square feet, or 1,344 square feet total for both. A site plan is shown in Exhibit 8.

The proposed new billboard would be connected to existing power lines in trenching in the project area (see Exhibit 8) and operate 24 hours per day, seven days per week. The illuminated double-sided billboard would cycle through a rotation of images on its display and is proposed to operate under specific criteria to limit the potential for distracting vehicle drivers' viewing of the display. These criteria include (1) images from the billboard would rotate once every eight seconds and (2) light levels emitted from the billboard would adjust to respond to darker and lighter conditions to provide contrast. Additionally, the maximum ambient light output level of the digital billboard sign faces would be 0.3-foot candle at a distance of 250 feet. Furthermore, the billboards would not show video or motion, nor would they emit noise or audio.

The foundation used for the proposed new structure would be a drilled shaft with a poured concrete footing. The column foundation would be 5 feet in diameter and would extend to a depth of 41 feet below the ground surface. The excess soils from excavation would be from the project site to Crete Crush, a recycling facility in Rancho Cordova. The excavation would result in an insignificant amount of excess soil, approximately 53 cubic yards. If contaminated soils are encountered, the applicant would use Central Valley Environmental Corporation to remediate and dispose of the soils.

The Langton-location component of the proposed project would also remove four existing traditional billboards with a total of eight sign faces within the County. Exhibits 9-a through 9-d show the daytime views and locations of billboards that would be removed:

- Sign structure with two advertising panel sign faces: one 12 feet by 24 feet (height by width), and the other of smaller dimension at 17081 East 14th Street adjacent to the I-238 on-ramp

(Permit Nos. 1299 and 4901) on the south side of East 14th Street south of 170th Avenue (APN 80B-302-3-1). The billboard is located on a property developed with a single-story residential building and an adjacent carport. The site is located along a major thoroughfare and surrounded by commercial and residential uses.

- Sign structure with two advertising panel sign faces each 12 feet by 24 feet at 910 East Lewelling Boulevard adjacent to the I-238 on-ramp (Permit Nos. 1453 and 2078) on the north side of East Lewelling Boulevard, east of the I-238 eastbound on-ramp (APN 414-6-41). The billboard is on a property developed with a single-story office building. The site is located along a major thoroughfare and surrounded by commercial, office, and residential uses
- Two billboards, each with two advertising panel sign faces that are 12 feet by 24 feet (height by width), for a total of two structures and four sign faces at 970 East Lewelling Boulevard (Permit Nos. 2058, 2163, 2767, and 2768) on the north side of East Lewelling Boulevard at Mission Boulevard (APN 414-6-46). These billboards are on a property developed with a single-story commercial building and limousine storage parking lot. The site is located near the Langton Way site for the proposed LED billboard, at the corner of two major thoroughfares, and is surrounded by commercial and residential development.

Hand tools and small crane rigs would be used to remove the billboards. The top of the billboards would first be disassembled and removed, and then the poles would be cut at the ground. Only the above-grade portion of the billboard structures would be removed. Below surface foundations would remain in-place. Materials from the removed billboard would be transported to a recycling facility and/or appropriate landfill. It would take approximately one to two working days to remove each of the existing billboard structures. Removal of all four billboard structures would take approximately two weeks.

1.4 - Billboard-specific Regulatory Context

1.4.1 - Relevant Siting/Provision Regulations and Standards

Alameda County's Billboard Ordinance, adopted in 2008, prohibits new billboards unless they are part of a relocation program. The goal of the program is to remove at least 50 percent of the billboards in the unincorporated County and to locate any new billboards along commercial corridors (no residential or agricultural zoning). The County adopted a Billboard Consolidation and Relocation Program (Program) in order to comply with the program. The Program provides that the County shall endeavor to work with outdoor advertising media companies to remove 50 percent of existing billboards located on secondary arterial roadways; in exchange, the County has committed to work with the media companies to approve permits for the development of a limited number of new digital billboards on interstate highway locations.

Alameda County Municipal Code Section 17.52.515(A)(3) provides that, consistent with Section 5412 of the Outdoor Advertising Act, billboards and advertising signs may be installed, moved, altered, expanded, modified, replaced, or otherwise maintained and operated pursuant to a relocation agreement, provided that every subject billboard or advertising sign shall fully comply with County's

site development review process and criteria, such as minimum ground clearance and building and curb setbacks, as set forth under Sections 17.54.220 and 17.54.226 of the Alameda County Municipal Code.

1.4.2 - Relevant Lighting Regulations and Standards

The California Department of Transportation (Caltrans) Outdoor Advertising Act and Regulations 2011 Edition (Outdoor Advertising Act) addresses illumination generated by advertising displays by stating that displays may not “interfere with the effectiveness of, or obscure any official traffic sign, device, or signal . . . nor shall any advertising display cause beams or rays of light to be directed at the traveled ways if the light is of an intensity or brilliance as to cause glare or to impair the vision of any driver, or to interfere with any driver’s operation of a motor vehicle.” Caltrans regulations prohibit images on signs from changing more than once every four seconds.¹

With respect to the brightness of signs, Business and Professions Code section 5403(g) defines the brightness standard for changeable electronic variable message billboards in relation to Vehicle Code section 21466.5, which provides:

No person shall place or maintain or display, upon or in view of any highway, any light of any color of such brilliance as to impair the vision of drivers upon the highway. A light source shall be considered vision impairing when its brilliance exceeds the values listed below.

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-lambert shall not exceed 500 plus 100 times the angle, in degrees, between the driver’s line of sight and the light source.

The Outdoor Advertising Association of America (OAAA), however, recommends more conservative lighting intensity standards for billboards of the proposed size. The project commits to a maximum ambient light output level of 0.3-foot candle at a distance of 250 feet from the billboards, as recommended by the OAAA. The light levels emitted from the billboards would be set to adjust based upon ambient light conditions at any given time (i.e., nighttime versus daytime).

¹ California Department of Transportation. 2011. Outdoor Advertising Act and Regulations 2011 Edition. California Business Professional Code § 5200–§5486.



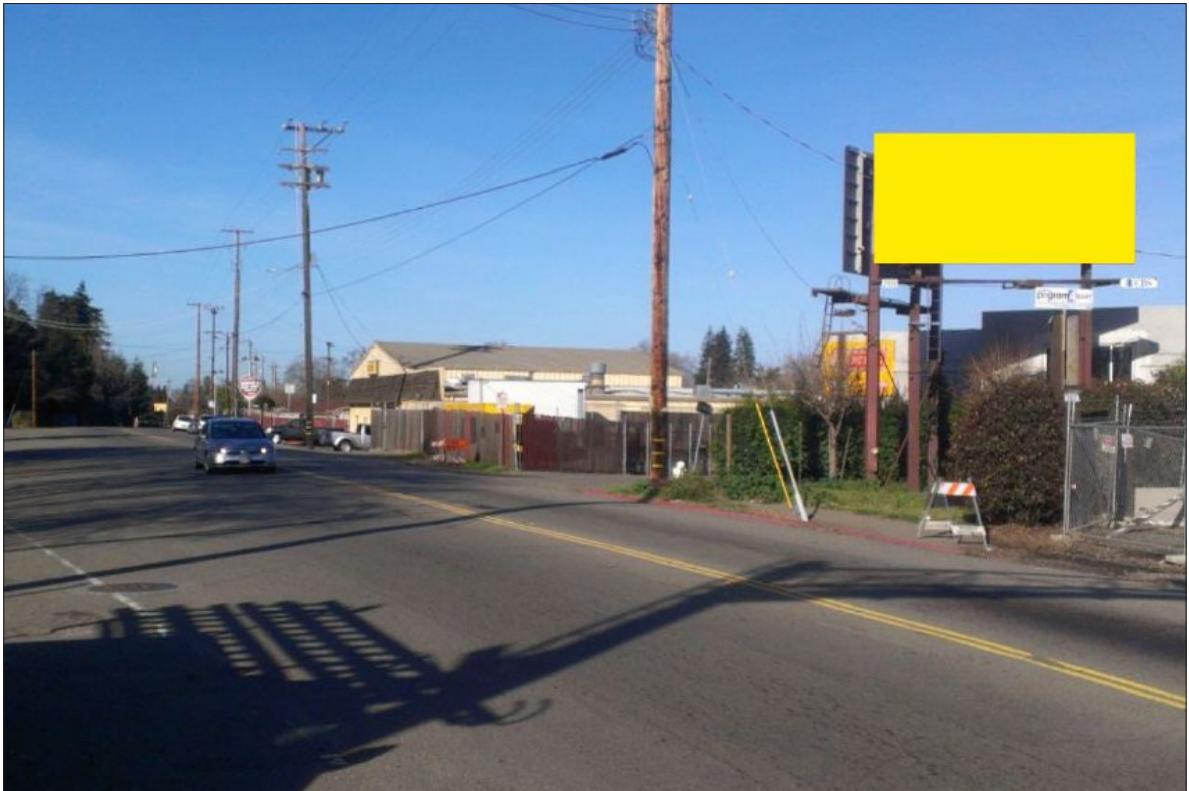
Sign #1736-1 E. Lewelling 345 ft W/O Langton Way facing East



Sign #24422 E. Lewelling Blvd 345 ft W/O Langton Way facing West

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Sign #2103-2 E. Lewelling & Wickman Place facing East



Sign #2104-1 E. Lewelling & Wickman Place facing Southwest

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Sign #2306-2 Foothill 400 ft N/O Apple W/S facing Northwest



Sign #2552-1 Foothill 400 ft N/O Apple W/S facing Southeast

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Sign #2204-2 E. 14th 310 ft N/O 170th Avenue W/S facing North

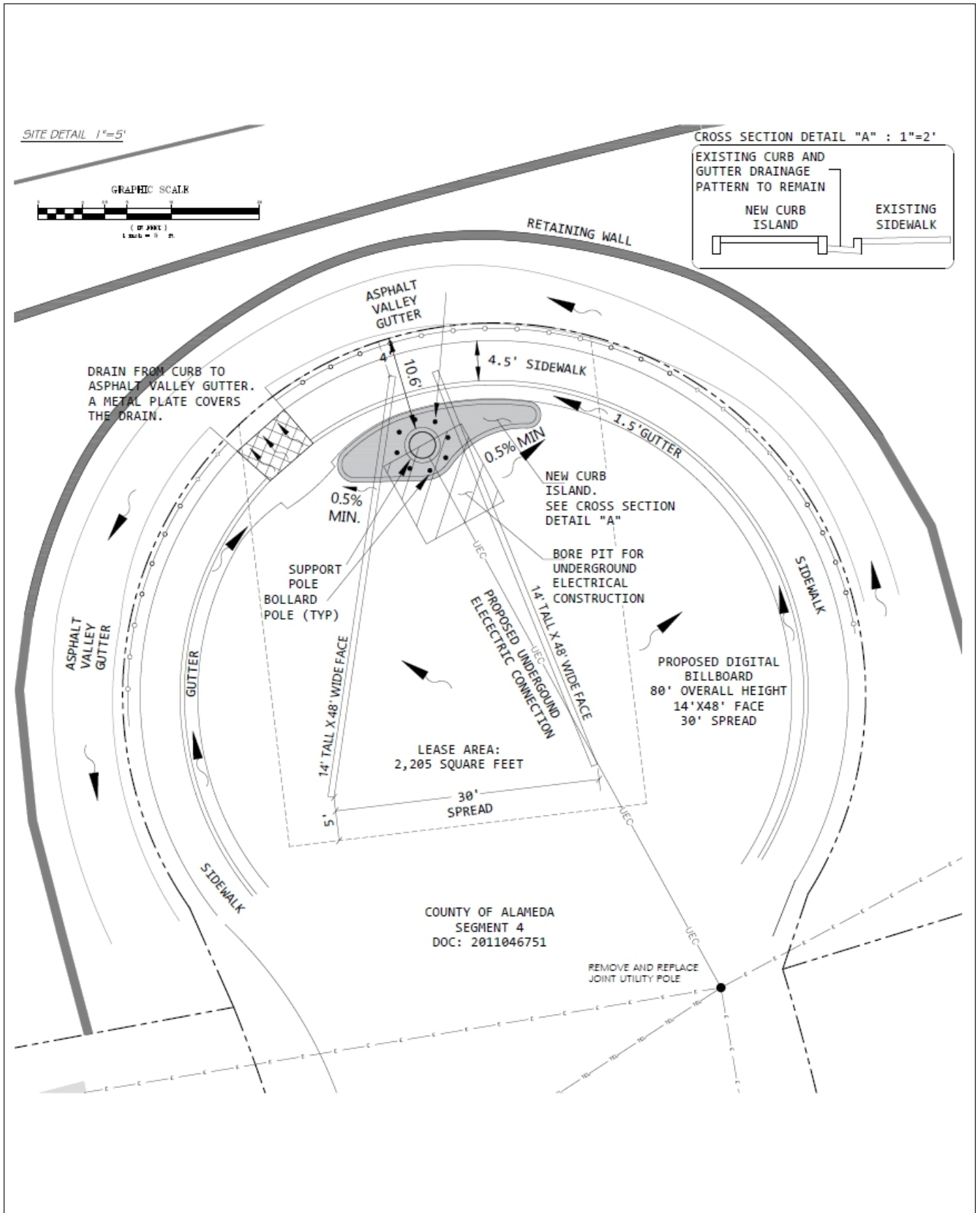


Sign #2205-1 E. 14th 310 ft N/O 170th Avenue W/S facing South

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Sign #4901-2 E. 14th & 171st Avenue facing Southeast



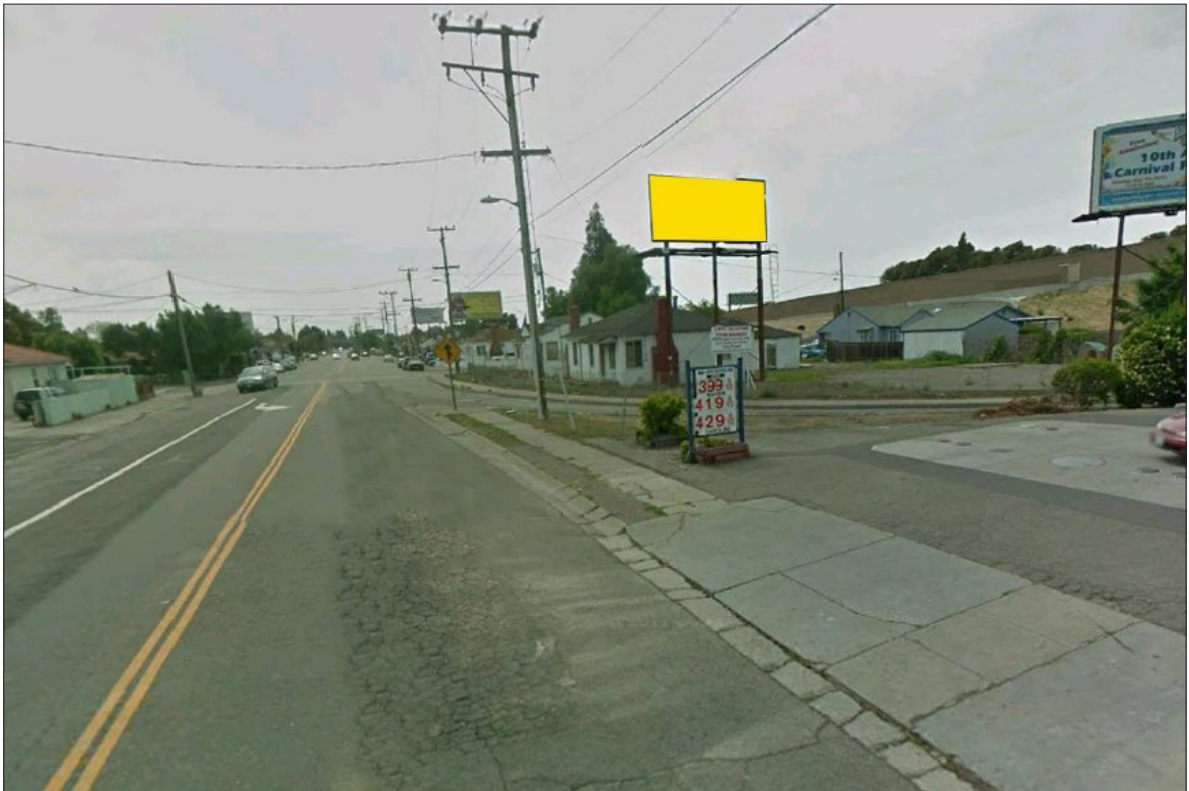
Sign #1299-1 E. 14th & 171st Avenue facing Northwest

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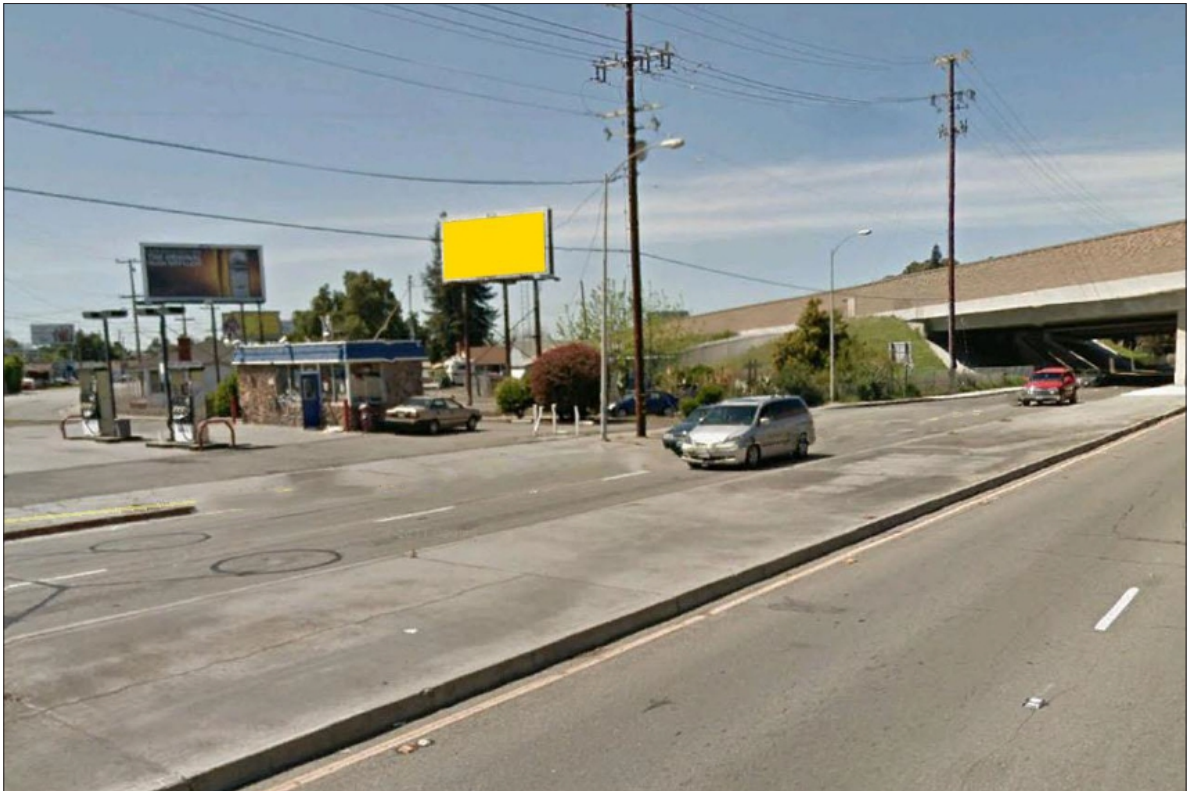
Sign #21631 E. Lewelling Blvd 160 ft W/O Mission Blvd facing West



Sign #27682 E. Lewelling Blvd 160 ft W/O Mission Blvd facing East

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Sign #20582 Mission 190 ft N/O E. Lewelling W/S facing Southeast



Sign #2767 E. Lewelling Blvd 160 ft W/O Mission Blvd

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Sign #1453-2 E. Lewelling Blvd 350 ft W/O Langton Way facing East



Sign #20781 E. Lewelling Blvd 350 ft W/O Langton Way facing West

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1.5 - Required Approvals

The following discretionary approvals are required by Alameda County and Caltrans for approval of the proposed project:

- The adoption of the IS/MND is required with the approval of the SDR;
- Site Development Review by Alameda County per the County's Billboard Ordinance (Alameda County Code Section 17.54.226);
- Building Permits;
- Encroachment Permits; and
- Outdoor Advertising Permit/Relocation Agreement approval by the California Department of Transportation (Caltrans).

In addition, the proposed project would require ministerial approvals, including but not limited to grading and building permits.

1.6 - Intended Uses of this Document

This IS has been prepared to determine the level of environmental impacts associated with demolition of the eight listed signs and the construction of the two LED signs and, where a significant impact might occur, to identify appropriate mitigation that would reduce impacts to less than significant levels. This document will also serve as a basis for soliciting comments and input from members of the public and public agencies regarding the proposed project. The IS will be circulated for a minimum of 30 days, during which period comments concerning the analysis contained in the IS should be sent to:

Damien Curry, Planner
Alameda County Planning Department
Community Development Agency
224 West Winton Avenue, Suite 111
Hayward, CA 94544
Phone: 510.670.6684
Email: damien.curry@acgov.org

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SECTION 2: ENVIRONMENTAL CHECKLIST AND ENVIRONMENTAL EVALUATION

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.			
<input checked="" type="checkbox"/>	Aesthetics	<input type="checkbox"/>	Agriculture and Forestry Resources
<input checked="" type="checkbox"/>	Biological Resources	<input checked="" type="checkbox"/>	Cultural
<input type="checkbox"/>	Greenhouse Gas Emissions	<input checked="" type="checkbox"/>	Hazards/Hazardous Materials
<input type="checkbox"/>	Land Use/Planning	<input type="checkbox"/>	Mineral Resources
<input type="checkbox"/>	Population/Housing	<input type="checkbox"/>	Public Services
<input checked="" type="checkbox"/>	Transportation/Traffic	<input type="checkbox"/>	Tribal Cultural Resources
<input checked="" type="checkbox"/>	Mandatory Findings of Significance		

Environmental Determination

On the basis of this initial evaluation:

- 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 will 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 measure 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.

Date: 9/4/18 Signed: 

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
1. Aesthetics <i>Would the project:</i>				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

Project Area

The State of California designates certain segments of state highways as scenic routes. In the vicinity of the Arbor project site, I-880 in the vicinity of the project site is not a State designated scenic highway, nor is it eligible to become one. The nearest scenic highway to the proposed billboard site is approximately 5 miles north on a portion I-580. With respect to the Langton site, I-238 in the vicinity of the project site is not a State designated scenic highway, nor is it eligible to become one. The nearest scenic highway to the proposed billboard site is approximately 3.5 miles north on a portion of I-580. However, a closer portion of I-580 is eligible to become a State designated scenic highway and is approximately 0.41 mile from the Langton project site.

Locally, the Scenic Route Element of the Alameda County General Plan (adopted in May 1966 and amended through 1994) designates all of the interstate and state highways, and many local highways and routes throughout Alameda County as scenic routes.² In the immediate project area, I-880 and I-238 are designated Scenic Freeways and Expressways scenic route. In addition, the Ashland and Cherryland Business Districts Specific Plan indicates that Lewelling/East Lewelling Boulevard should “be identified as a ‘scenic route,’ based on its potential designation as one of the County’s urban parkways and its role in linking several important cultural resources” (Ashland and Cherryland Business Districts Specific Plan, p. 8-12).³ Meanwhile, there is no designated scenic corridor by the Eden Area General Plan.

² Alameda County. 1966. Alameda County General Plan. May.

³ Alameda County. 2015. Ashland and Cherryland Business Districts Specific Plan. December.

In approving development along scenic corridors, the County's General Plan provides that, in Developed Areas, the County must adopt "requirements to insure preservation of outstanding views, through preservation of existing trees, establishment of new landscaping, and controls on the location and type of utility and communication towers, poles, and lines, and of outdoor advertising signs and structures" (General Plan Scenic Route Element, p. 4). In addition, signs should be regulated to prevent conglomerations of unsightly signs along roadsides, and attention should be paid to a structure's architecture and design so as to ensure neighborhood compatibility (General Plan Scenic Route Element, pp. 12 and 22).

Arbor Site

Photo simulations of the Arbor Avenue site with daytime views from I-880 were completed by Digital Imaging Studio. Views of the project site were used to prepare photo simulations of the proposed billboard, as it would be experienced by vehicles travelling along the roadway. The vantage points from which the photographs were taken (looking north and south toward the Arbor Avenue site, looking north and south from northbound and southbound I-880, respectively), are shown in Exhibit 10.⁴ Daytime photographs of the existing conditions in the project area and the post-project photo simulations are shown in Exhibit 10-a through Exhibit 10-d.

Langton Site

Photo simulations of the Langton Way site with daytime views from I-238 were completed by Digital Imaging Studio. Views of the project site were used to prepare photo simulations of the proposed billboard, as it would be experienced by vehicles travelling along the roadway. The vantage points from which the photographs were taken (looking north toward the Langton Way cul-de-sac, from northbound and southbound I-238, respectively), are shown in Exhibit 11.⁵ Daytime photographs of the existing conditions in the project area and the post-project photo simulations are shown in Exhibit 11-a through Exhibit 11-c.

Environmental Evaluation

Would the project:

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

Less than significant impact.

Arbor Site

The Arbor Avenue billboard would not substantially block views of the hillsides to the north and east of I-880, as shown in Exhibits 10c and 10d. Because of the flat topography, freeway and surrounding development, views of the proposed billboard site would be limited to the immediate area. Views of the hillsides are substantially blocked by existing development and landscaping, and installation of the proposed billboard would not significantly impact scenic views. There are no significant scenic

⁴ Digital Imaging Studio, Inc. 2016. Photo simulations for Arbor Avenue Billboard. August.

⁵ Ibid.

resources in the project vicinity which would be damaged from implementation of the proposed project. The impact on scenic vistas would be less than significant.

Langton Site

The Langton Way billboard would not substantially block views of the hillsides to the north and east of I-238, as shown in Exhibits 11b and 11c. Because of the flat topography, elevated freeway and surrounding development, views of the proposed billboard site would be limited to the immediate area. Views of the hillsides are substantially blocked by existing development and landscaping, and installation of the proposed billboard would not significantly impact scenic views. There are no significant scenic resources in the project vicinity that would be damaged from implementation of the proposed project. The proposed project shall be consistent with Goal LU.12 in the Ashland and Cherryland Business District Specific Plan, which states that the County should not approve projects that have a substantial adverse effect on scenic vistas, scenic resources or the existing visual quality or character of the Plan Area. The impact on scenic vistas would be less than significant.

Removal Sites

The project entails the removal of 16 existing, illuminated billboard sign faces, and this component of the project would have a beneficial impact.

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

Less than significant impact.

Arbor Site

I-880 in the vicinity of the project site is not a State-designated scenic highway, nor is it eligible to become one. The nearest State-designated scenic highway to the proposed billboard site is approximately 5 miles north on a portion I-580. A closer portion of I-580 is an eligible become a State-designated scenic highway, and is approximately 0.41 mile from the Langton project site, but is not so currently designated. However, the County General Plan does designate I-880 a scenic highway.

In such circumstances, signs are permitted so long as they do not impact any scenic resources, and have a design that is compatible with the surrounding area. Here, the surrounding environment is an urbanized area located adjacent to an elevated major highway, and is surrounded by urban development that includes highway infrastructure, sound walls, utility poles, a gas station, a four-story senior housing facility, and paved streets and parking lots. There are no scenic resources located on-site or nearby the project site. The East Bay hills, meanwhile, are located a far distance from the site, and surrounding development currently blocks views of the hills. The sign itself, meanwhile, has been designed such that it is oriented toward highway motorists and at brightness levels well below applicable standards (see discussion of light and glare, below). The proposed billboard would not directly affect scenic resources, such as trees or rock outcrops along a scenic highway, or block views of scenic vistas. The impact would be less than significant.



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Existing



Proposed

SOURCE: Digital Imaging Studio, 6/28/2016.

Source: Digital Imaging Studio, 06/15/2018.

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Source: Digital Imaging Studio, 06/15/2018.

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Exhibit 10c
Arbor Photograph Simulation Views

OUTFRONT MEDIA • OUTFRONT MEDIA LED BILLBOARD PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

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Langton Site

I-238 in the vicinity of the project site is not a State-designated scenic highway, nor is it eligible to become one. The nearest state-designated scenic highway to the proposed billboard site is approximately 3.5 miles north on a portion of I-580. However, the County General Plan does designate I-880 as a scenic highway, and the Ashland and Cherryland Business Districts Specific Plan indicates that Lewelling/East Lewelling Boulevard should be identified as a scenic route, based on its potential designation as one of the County's urban parkways and its role in linking several important cultural resources.

In such circumstances, signs are permitted so long as they do not impact any scenic resources, and have a design that is compatible with the surrounding area. Here, the surrounding environment is an urbanized area located adjacent to an elevated major highway, and is surrounded by urban development that includes highway infrastructure (including multiple highway overpasses at the intersection of I-238 and I-580), sound walls, utility poles, and paved streets and parking lots. There are no scenic resources located on-site or nearby the project site. The East Bay hills, meanwhile, are located a far distance from the site, and surrounding development currently blocks views of the hills. The sign itself, meanwhile, has been designed such that it is oriented toward highway motorists and at brightness levels well below applicable standards (see discussion of light and glare, below). The proposed billboard would not directly affect scenic resources, such as trees or rock outcrops along a scenic highway, or block views of scenic vistas. The impact would be less than significant.

Removal Sites

The proposed project entails the removal of 16 existing, illuminated billboard sign faces, and this component of the proposed project would have a beneficial impact.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Less than significant impact. The project area is located along the I-880 and I-238 corridors. It is developed with residential and commercial buildings, minimal landscaping, roadway signage, and aboveground infrastructure, including power lines. There are residences adjacent to the Arbor site located approximately 100 feet from the proposed billboard sign. Two residences on Langton Way are located between approximately 40 and 50 feet from the proposed billboard sign, respectively. The signs designated for removal are also located in urban environments, with commercial, light industrial, and residential uses located nearby, as discussed in greater detail in the Project Description.

The Alameda County Billboard Relocation Agreement for the proposed project entails the removal of these 16 existing billboard sign faces on local streets in exchange for the installation of the proposed double-sided digital billboard along I-880 and double-sided digital billboard along I-238. The project would result in an overall reduction of billboard sign faces within the County, and the relocation of billboard advertisements from local streets to I-880 and I-238 where advertisements would be directed at highway through-traffic rather than local drivers.

Arbor Site

The existing visual setting consists of a developed area adjacent to a heavily traveled highway. Installation of a 80-foot LED digital billboard would add an additional structure. Although it would not obstruct views of scenic resources, it would add a vertical element to the residential area. The project site is currently a vacant lot with ruderal vegetation, and has been subject to illegal dumping in the past. The surrounding environment is an urbanized area located adjacent to an elevated major highway, and is surrounded by urban development that includes highway infrastructure (including an overpass), sound walls, utility poles, street lights, a gas station, a four-story senior housing facility, and paved streets and parking lots, with fast-food restaurants and hotels located slightly farther away. There is another LED billboard located on I-880 approximately one-mile south of the project site. The sign itself, meanwhile, has been designed such that it is oriented toward highway motorists and at brightness levels well below applicable standards (see discussion of light and glare, below). Therefore, and as seen in Exhibits 10a–10d, the sign is consistent with the surrounding, mixed-use environment that sits adjacent to I-880, and would not substantially degrade the existing visual character or quality of the project site or its surroundings. Impacts would be less than significant.

Langton Site

The existing visual setting consists of a developed area adjacent to a heavily traveled highway. Installation of an 80-foot LED digital billboard would add an additional structure. Although it would not obstruct views of scenic resources, it would add a vertical element to the residential and commercial area. More specifically, the project site is a paved cul-de-sac, located adjacent to an elevated major highway that is surrounded by urban development, including highway infrastructure (including multiple highway overpasses at the intersection of I-238 and I-580), sound walls, utility poles, commercial development, residential development, and paved streets and parking lots. The sign itself, meanwhile, has been designed such that it is oriented toward highway motorists and at brightness levels well below applicable standards (see discussion of light and glare, below). As seen in Exhibits 11b and 11c, the billboard would be generally compatible with the existing urban character of the area. Therefore, the proposed billboard would not substantially degrade the existing visual character or quality of the project site or its surroundings, and impacts would be less than significant.

Removal Sites

The eight static billboards, consisting of 16 billboard faces, that would be removed are approximately 20 to 30 feet in height and located on East Lewelling Boulevard, on East 14th Street Mission Boulevard, and other local streets. The removal of these signs, as well as the construction of the two, proposed LED billboards, would be undertaken pursuant to a County program designed to reduce the number of signs in the County. Each sign designated for removal is located in a mixed-use, urban environment along public roadways, and approximately 12 sign faces are located near or visible from East Lewelling/Lewelling Boulevard, which the Ashland and Cherryland Business Districts Specific Plan identifies as a scenic roadway. The removal component of the proposed project would therefore have an environmental benefit on the aesthetic environment.

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. Nighttime lights in the proposed billboard area include streetlights, security lights on residential and/or commercial buildings surrounding the site, lights from cars, and other illuminating signs. The billboards are proposed in urban areas of the County where night lighting is ubiquitous.

Arbor Site

For the Arbor site, the closest sensitive receptors are located at the single-family residences approximately 100 feet north of the site. The nighttime light sources in this area come from local street lighting and from the adjacent commercial area to the south. The existing sound wall along I-880 prevents highway vehicle lights from affecting residence.

Langton Site

For the Langton site, the closest sensitive receptors are located at the single-family residences approximately 40 and 50 feet south of the site. The nighttime light source in the residential area is local street lighting. The existing sound wall along I-238 prevents lights from affecting the single-family residences.

Removal Sites

The eight static billboards, consisting of 16 billboard faces, that would be removed are approximately 20 to 30 feet in height and located on East Lewelling Boulevard, on East 14th Street Mission Boulevard, and other local streets. This removal component of the proposed project would function as a benefit in terms of driver distraction.

Analysis of Sign Brightness

A careful analysis of the signage lighting effects has been undertaken, given that there exist homes as close as 40 feet away.

Alameda County has no formal requirements regarding brightness or light intensity of advertising signs, though the State of California has adopted lighting restrictions. Business and Professions Code section 5403(g) defines the brightness standard for changeable electronic variable message billboards in relation to Vehicle Code section 21466.5, which provides:

No person shall place or maintain or display, upon or in view of any highway, any light of any color of such brilliance as to impair the vision of drivers upon the highway. A light source shall be considered vision impairing when its brilliance exceeds the values listed below.

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-lambert shall not exceed 500 plus 100 times the angle, in degrees, between the driver's line of sight and the light source.

Under the foregoing, the most conservative brightness limit with which the signs would have to comply is 500 foot lamberts,⁶ which is equivalent to 1,713 units.

Outfront proposes to operate the signage nighttime limit in accordance with the recommendations of the Outdoor Advertising Association of America (OAAA), which indicates that the maximum ambient light output should be 0.3-foot candle at a distance of 250 feet from billboard sign faces.⁷ For a frame of reference, 0.3-foot candle is comparable in brightness to the light emanating from a computer monitor, and the light levels emitted from the proposed billboards would be set to adjust based upon ambient light conditions at any given time (i.e., nighttime versus daytime). To ensure the lighting of signs does not exceed 0.3-foot candle at 250 feet, the proposed project would ensure that the nighttime brightness of white board faces never exceeds the maximum nighttime luminance value for the display of 300 candela per square meter (cd/m^2). This would also be similar to dimming the sign levels to less than three percent of maximum power. The proposed billboard will have built-in programmable controllers, allowing both time of day and intensity programming.

These operational parameters (i.e., 0.3-foot candle at 250 feet) translate into a brightness of about 300 nits, 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. To confirm the signage compliance with these standards, a lighting study, located in Appendix A of this Initial Study, was prepared for this project, which took into account the height of the signage faces and their orientation. These studies demonstrate that the proposed billboard are not expected to shine light on nearby homes or yards above 0.3-foot candle.⁸ Based on Outfront Media's plan set and billboard light specifications, the brightness levels at nighttime are not anticipated to result in unwanted spill and trespass light toward adjacent residential properties. However, this IS/MND conservatively has determined that unwanted light trespass from the proposed project could result in a significant impact, and that implementation of Mitigation Measures (MM) AES-1, and AES-2 are required to ensure that impacts are less than significant.

Analysis of Driver Distraction

Driver distraction could occur due to the changing of electronic messages on the proposed LED billboards.

California law allows LED billboards to operate at a minimum dwell time of no less than four seconds before the display may transition to the next image. This requirement is set forth in Business and

⁶ This calculation assumes a minimum measured brightness in the field of view of less than 10 foot-lamberts, and a view angle of zero degrees (i.e., directly in front of the driver).

⁷ Setting a standard in foot candles is a more appropriate metric by which to judge impacts on sensitive receptors, as a foot candela measures light intensity experienced at the receptor, whereas measurement in candela/square meters or nits reveals only the intensity of light at its source.

⁸ EXP. 2017. Digital Billboards Photometric Analysis. May.

Professions Code second 5405(d)(1), which provides, in pertinent part, “. . . no message center display may include any illumination or message change that is in motion or appears to be in motion or that changes in intensity or exposes its message for less than four seconds.” The Outdoor Advertising Association of American, or OAAA, likewise recommends that billboards display a message for no less than 4 seconds⁹ The Federal Highway Administration, meanwhile, has approved of a similar dwell time standard. According to a FHWA memorandum, the acceptable range for the “[d]uration of each display is generally between 4 and 10 seconds—8 seconds is recommended.”¹⁰

Per industry standard, the proposed project’s compliance with an 8-second dwell time standard, which contemplates a change in messaging that is twice as slow as the California state minimum 4-second standard, would avoid any significant potential to distract drivers, and driver distraction studies confirm this determination.

Driver distraction studies have typically uses in-vehicle eye-tracking equipment to monitor the direction of drivers eye glances, then associate those glances with changes in driving behavior such as following distance to the vehicle in front, maintaining speed or ability to have vehicle remain centered in the lane. Using this method, Lee and colleagues (2007)¹¹ concluded that the differences in driver behavior that they detected were on a par with those associated with daily driving. Ducik and colleagues (2013)¹² found changes in eye glances associated with the signs but no change in driver behavior; as a result they were unable to draw conclusions about the relationship between the billboards and road safety. A third study using eye glance data (Belyusar et al. 2014)¹³ found associations between glances and driver behavior but at only one site, which was an isolated location along one highway. The driver behavior in this circumstance is different from in contexts where traffic is heavy and drivers’ attention is demanded by other vehicles and road users. In a study including complex urban driving environments (Smiley et al. 2005),¹⁴ the majority of driver glances were on the road ahead (76%) and average eye glance duration toward digital signs was 0.5 seconds. Smiley and colleagues found that glances at static signs were made at even closer vehicle spacing and wider viewing angles than for digital signs.

Difficulties are also present when seeking to associate the presence of digital billboards to crashes directly. One study (Smiley et al. 2005) used sign locations and comparison sites without signs in combination with the best available research methods (e.g., similar to Manual, Highway Safety, 2010) and was unable to find significant changes in crash frequency with digital signs. Downtown intersection locations showed an increase in crashes, but the change was not statistically significant. A freeway site showed a significant decrease in crashes, but this was questioned on grounds of an

⁹ California Department of Transportation. 2012. Caltrans Division of Research and Innovation, Effects of Outdoor Advertising Displays on Driver Safety, p.9. October 11.

¹⁰ U.S. Dept. of Transportation. 2007. Fed. Highway Admin., Guidance On Off-Premise Changeable Message Signs, p.2. September 25.

¹¹ Lee, S E; McElheny, M J; Gibbons, R. 2007. Driving performance and digital billboards. Virginia Tech Transportation Institute, p. 89.

¹² Dukic, Tania; Ahlstrom, Christer; Patten, Christopher; Kettwich, Carmen; Kircher, Katja. 2013. Effects of Electronic Billboards on Driver Distraction. Traffic Injury Prevention, Volume 14, Issue 5, 2013, pp 469-476.

¹³ Belyusar, Daniel; Reimer, Bryan; Shoup, Annie; Jokubaitis, Bradford; Pugh, Brahmi; Mehler, Bruce; Coughlin, Joseph F. 2014. A Preliminary Report on the Effects of Digital Billboards on Glance Behavior during Highway Driving. Transportation Research Board 93rd Annual Meeting, Transportation Research Board, p. 18.

¹⁴ Smiley, A., B., Persaud, B., Bahar, G., Mollett, C., Lyon, C., Smahel, T. and Kelman, W.L., Traffic Safety Evaluation of Video Advertising Signs, Transportation Research Record 1937, Transportation research Board, Washington D.C., pp. 105-112.

inappropriate comparison group. This study also found that drivers monitor other highway signs and pedestrians at least as often or more often than digital signs.

Finally, an analysis of the signage design and visibility from highway travel lanes demonstrates neither the signs nor their locations are unique. For instance, the Langton site, which sits along a highway segment with various signs and on- and off-ramps, was evaluated to determine whether the display faces would be situated within the normal cone of vision (Safe Driver Training, 2017)¹⁵ of the driver on I-238 in each approach. In general, it is desirable for the billboard to be within both the vertical and horizontal cone of view of the driver (Rempel et al., 2015)¹⁶. This means that the driver will be able to perceive the billboard more quickly and process the information with a shorter glance duration than if the billboard were outside the vertical or horizontal cone, because the displays are situated within areas where the driver commonly scans for information while driving.

The determination of the cone of vision requires several distances to be determined, beginning with the stopping sight distance. (Manual of Uniform Traffic Control Devices 2009).¹⁷ The stopping sight distance is the distance estimated to be needed by a driver to perceive an object, then reach a stop before hitting the object in the road. Using standard values derived from U.S. drivers, an engineer is able to calculate this distance and use it to compare different road design or operating conditions.

Using the values and equations in a reference (Manual of Uniform Traffic Control Devices 2009), one calculates a stopping sight distance of 645 ft. for a road with a 65 mph speed limit. The other distance needed to form the cone of vision is the distance of the digital billboard from the edge of the road. As shown in Figures 1 and 2, below, the distance is 70 ft. for the westbound direction and approximately 200 for the eastbound direction. Using these distances and sign dimensions, the horizontal and vertical angle between the driver’s eye and the digital billboard at its proposed location are calculated. The Langton Way site calculations are compared with acceptable cones of vision cited in a recent study (Rempel et al. 2016), as shown in Table 1.

Table 1: Comparison of Langton Way Cone of Vision with the Literature

Category	Rempel, et al. (deg.)	Langton Way (WB/EB in deg.)
Horizontal Cone of Vision	20	6.2/17.2
Vertical Cone of Vision	15	3.5/3.5

¹⁵ Safe Driver Training (SDT). 2017. Chapter 20, Driving Vision. Website: www.sdt.com.au. Accessed September, 2017.

¹⁶ Rempel, G; Montufar, J; Forbes, G; Dewar. R. Digital and Projected Advertising Displays: Regulatory and Road Safety Assessment Guidelines. Transportation Association of Canada, 2015, 1 v., 116p+1optical disc, 12cm.

¹⁷ Manual on Uniform Traffic Control Devices, State of Washington (Exhibit 1260-1), based on MUTCD Federal Highway Administration, Washington, D.C. 2009.



Figure 1: Distance of Billboard from Edge of I-238 South



Figure 2: Distance of Billboard from Edge of I-238 North

These calculations show that the digital billboard at the Langton site is within the desirable cone of vision for both vertical (3.5 degrees vs. 15 degrees) and horizontal (6.2 and 17.2 degrees vs. 20 degrees) dimensions (Rempel et al. 2016). The Langton sign is generally representative of the sign at the Arbor site.

Based on the above, there is no evidence that the operation of electronic billboards will cause changes in crashes, eye glances or driver behavior. As such, upon implementation of Outfront Media's plan set and billboard light specifications, the brightness levels at nighttime are not anticipated to distract drivers on I-238 and I-880. However, this IS/MND conservatively has determined that unwanted light trespass from the proposed project could result in significant impacts, and that implementation of MM AES-1, and AES-2 are required to ensure that impacts are less than significant.

- MM AES-1** The LED billboard will include an operating mechanism (hardware or software controlled) that turns off the display or turns it to all black in the event of a malfunction or failure in any system or subsystem that results in the display wholly or partly appearing to flash.
- MM AES-2** The signage operational lighting parameters will be provided to Alameda County Planning Department for review and approval prior to regular operation of the LED billboard, and shall be implemented by the project proponent to ensure no residents or drivers will be adversely affected or impacted by trespass glare lighting.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
<p>2. Agriculture and Forestry Resources <i>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 Dept. 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:</i></p>				
<p>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?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>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))?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>d) Result in the loss of forest land or conversion of forest land to non-forest use?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>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?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Project Area

There are no agricultural land or forested areas within the immediate project area. The Department of Conservation Farmland Inventory Map shows the project area as Urban Land.

Arbor Site

No agricultural land or forested area is located on the Arbor portion of the project site.

Langton Site

No agricultural land or forested area is located on the Langton portion of the project site.

Environmental Evaluation

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:

- 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 does not support commercial-scale cultivated agricultural activities. The California Department of Conservation Farmland Mapping and Monitoring Program mapping for Alameda County designates the project site as "Urban and Built-Up Land" on the Alameda County Important Farmland 2012 map.¹⁹ Therefore, development of the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use. No impact would occur.

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

No impact. The project site has split zone designations. The Arbor site, located within unincorporated area of Alameda County within the Hayward Acres area, has a land use designation of General Commercial in the Eden Area Plan and is zoned Neighborhood Commercial (CN). The Langton site is located in a public right-of-way and does not have a zoning designation. According to the Alameda County Ashland and Cherryland Business District Specific Plan, the project site is within the West Eden Corridor the area has a General Commercial land use designation. The project site zoning designations are non-agricultural. The California Department of Conservation Farmland Mapping and Monitoring Program mapping for Alameda County designates the project site "Urban and Built-Up Land" on the Alameda County Williamson Act Map FY 2013/2014. The land is not encumbered by a Williamson Act contract. Therefore, the proposed project would not conflict with existing agricultural zoning or with a Williamson Act contract. No impact would occur.

¹⁹ California Department of Conservation. 2015. Alameda County Important Farmlands Map. Accessed online.

- 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 has split zone designations. The Arbor site, located within unincorporated area of Alameda County within the Hayward Acres area, has a land use designation of General Commercial in the Eden Area Plan and is zoned Neighborhood Commercial (CN). The Langton site is located in a public right-of-way and does not have a zoning designation. According to the Alameda County Ashland and Cherryland Business District Specific Plan, the project site is within the West Eden Corridor and the area has a General Commercial land use designation. The project site zoning designations are non-forest land zoning districts. This condition precludes the possibility of a conflict with a forest zoning designation. No impact would occur.

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

No impact. The project site does not contain nor is it adjacent to any forested land. The surrounding properties are paved and developed. As stated in the Public Resource Code, "Forest land" is land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. There would be no loss of forest land or conversion of forest land to non-forest use as a result of the proposed project. No impacts would occur.

- 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 project is not adjacent to or in the immediate vicinity of any existing agricultural operations. There is no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance in Windsor. The project is not considered suitable forest land. This condition precludes the possibility of the loss of forest land. Therefore, no impacts would occur.

Mitigation Measures

None.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
3. Air Quality <i>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.</i> <i>Would the project:</i>				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

Project Area

The project is located within the San Francisco Bay Area Air Basin, which consists of the entirety of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties; the western portion of Solano County; and the southern portion of Sonoma County. The Air Basin is characterized by complex terrain consisting of coastal mountain ranges, inland valleys, and bays. The regional climate of the Air Basin is characterized by mildly dry summers and moderately wet winters. The region experiences moderate humidity with wind patterns consisting of mild onshore breezes during the day. The location of a strong subtropical high-pressure cell located in the Pacific Ocean induces foggy mornings and moderate temperatures during the summer, as well as occasional rainstorms during the winter.

The air pollutants for which national and state standards have been promulgated and that are most relevant to air quality planning and regulation in the Bay Area include ozone, nitrogen oxides (NO_x), carbon monoxide (CO), respirable particulate matter (PM₁₀), and fine particulate matter (PM_{2.5}). In addition, toxic air contaminants (TACs) are of concern in the Bay Area. Each of these pollutants is briefly described below. Other pollutants that are regulated but not considered an issue in the

project area are sulfur dioxide, vinyl chloride, sulfates, hydrogen sulfide, and lead; the proposed project would not emit substantial quantities of those pollutants; therefore, they are not discussed.

- Ozone is a gas that is formed when reactive organic gases (ROG) and NO_x—both byproducts of internal combustion engine exhaust—undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are conducive to its formation. Health effects can include the following: irritate respiratory system; reduce lung function; cause breathing pattern changes; reduce breathing capacity; inflame and damage cells that line the lungs; make lungs more susceptible to infection; aggravate asthma; aggravate other chronic lung diseases; cause permanent lung damage; cause some immunological changes; increase mortality risk; cause vegetation and property damage.
- CO is a colorless, odorless gas produced by the incomplete combustion of fuels. CO concentrations tend to be the highest during the winter morning, with little to no wind, when surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines—unlike ozone—and motor vehicles operating at slow speeds are the primary source of CO in the Bay Area, the highest ambient CO concentrations are generally found near congested transportation corridors and intersections. Potential health effects from CO ranges depending on exposure: slight headaches; nausea; aggravation of angina pectoris (chest pain) and other aspects of coronary heart disease; decreased exercise tolerance in persons with peripheral vascular disease and lung disease; impairment of central nervous system functions; possible increased risk to fetuses; death.
- PM₁₀ and PM_{2.5} consist of extremely small, suspended particles or droplets 10 microns and 2.5 microns or smaller in diameter. Some sources of particulate matter, like pollen and windstorms, are naturally occurring. However, in populated areas, most particulate matter is caused by road dust, diesel soot, combustion products, abrasion of tires and brakes, and construction activities. Health effects from short-term exposure (hours per days) can include the following: irritation of the eyes, nose, throat; coughing; phlegm; chest tightness; shortness of breath; aggravation of existing lung disease causing asthma attacks and acute bronchitis; those affected with heart disease can suffer heart attacks and arrhythmias. Health effects from long-term exposure can include the following: reduced lung function; chronic bronchitis; changes in lung morphology; or death.
- TACs refers to a diverse group of air pollutants that can affect human health, but have not had ambient air quality standards established for them. Diesel particulate matter (DPM) is a toxic air contaminant that is emitted from construction equipment and diesel fueled vehicles and trucks. Some short-term (acute) effects of DPM exposure include eye, nose, throat, and lung irritation, coughs, headaches, light-headedness, and nausea. Studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems. Human studies on the carcinogenicity of diesel particulate matter demonstrate an increased risk of lung cancer, although the increased risk cannot be clearly attributed to diesel exhaust exposure.

Construction and operation of the proposed project would be subject to applicable Bay Area Air Quality Management District (BAAQMD) rules and requirements. The BAAQMD CEQA Guidelines were developed to assist local jurisdictions and lead agencies in complying with the requirements of CEQA regarding potentially adverse impacts to air quality.²⁰

Arbor Site

The Arbor portion of the project site is not a source of TACs or criteria pollutants.

Langton Site

The Langton portion of the project site is not a source of TACs or criteria pollutants.

Removal Sites

The removal locations are not sources of TACs or criteria pollutants.

Environmental Evaluation

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:

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

Less than significant impact. The 2017 Clean Air Plan (CAP) is the currently applicable regional air quality plan (AQP) for the San Francisco Bay Air Basin. The primary goals of the 2017 CAP are to protect public health and protect the climate. The 2017 CAP acknowledges that the BAAQMD's two stated goals of protection are closely related. As such, the 2017 CAP identifies a wide range of control measures intended to decrease both criteria pollutants²¹ and greenhouse gases (GHGs).²² Since the proposed project does not involve population or employment growth, determining consistency with the 2017 CAP involves assessing whether applicable control measures contained in the 2017 CAP are implemented and if implementation of the proposed project would disrupt or hinder implementation of AQP control measures. The control measures are organized into five categories: stationary and area source control measures, mobile source measures, transportation control measures, land use and local impact measures, and energy and climate measures. The control measures are geared towards traditional land uses (e.g., residential, commercial, industrial uses) and buildings. None of the control measures contained in the 2017 CAP are applicable to the operations of signs; however, all projects within BAAQMD's jurisdiction are required to implement the BAAQMD Best Management Practices (BMPs) during construction activities. As discussed in

²⁰ BAAQMD. 2017. CEQA Guidelines. May. Website: http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed July 16, 2018.

²¹ EPA has established national ambient air quality standards (NAAQS) for six of the most common air pollutants—carbon monoxide, lead, ground-level ozone, particulate matter, nitrogen dioxide, and sulfur dioxide—known as “criteria” air pollutants (or simply “criteria pollutants”).

²² BAAQMD 2017. Final 2017 Clean Air Plan. Website: http://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en. Accessed July 16, 2018.

Impact b), the proposed project would implement all BMPs for construction activities and would be consistent with the assumptions in the AQP. Furthermore, the proposed project would not include any special features that would disrupt or hinder implementation of the AQP control measures. Therefore, the proposed project would not obstruct implementation of the 2017 CAP. The impact would be less than significant.

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

Less than significant impact. This impact relates to localized and regional criteria pollutant impacts. Emissions resulting from various aspects of the proposed project are discussed separately below.

Construction

Construction Fugitive Dust

For all proposed projects, BAAQMD recommends the implementation of BMPs, whether or not construction-related emissions exceed applicable thresholds of significance. As such, to ensure construction emission impacts are less than significant, the proposed project would apply the following BAAQMD BMPs during construction activities at the Arbor and Langton sites:

- Exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered with non-potable water two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All roadways, driveways, and sidewalks shall be paved as soon as possible.
- Idling times shall be minimized either by shutting equipment off when not in use or by reducing the maximum idling time to 5 minutes (as required by the California Airborne Toxics Control Measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
- A publicly visible sign shall be posted with the telephone number and person to contact at the City regarding dust complaints. This person shall respond and take corrective action within 48 hours of a complaint or issue notification. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

Construction: ROG, NO_x, PM₁₀ (exhaust), and PM_{2.5} (exhaust)

Construction emissions were estimated for the activities associated with the installation of the billboard at the Arbor Site, the installation of the billboard at the Langton Site, and the removal of

the existing billboards associated with both the Arbor and Langton sites. Based on applicant-provided information, it is expected that construction activities associated with the proposed project would last two to four weeks. The construction schedule used to estimate emissions is shown in Table 2. The off-road construction equipment list is shown by construction phase in Table 3. The exhaust emissions generated by construction equipment are based on the hours of operation, horsepower, and load factors of the equipment. The duration of construction activity and associated equipment represent a reasonable approximation of the expected construction fleet as required by CEQA guidelines. The number of off-site trips assumed to occur during construction of the proposed project is shown in Table 4. Additional trips were included to account for the transport of material and removed billboards.

Table 2: Combined Construction Schedule

Phase	Phase Start Date	Phase End Date	Total Number Of Working Days
Arbor Site			
Grading	10/1/2018	10/1/2018	1
Building Construction (Installation of Billboard)	10/2/2018	10/26/2018	19
Paving	10/25/2018	10/26/2018	2
Langton Site			
Grading	10/1/2018	10/1/2018	1
Building Construction (Installation of Billboard)	10/2/2018	10/26/2018	19
Paving	10/25/2018	10/26/2018	2
Removal Sites			
Demolition	10/1/2018	10/22/2018	16
Source: CalEEMod Output (see Appendix B).			

Table 3: Construction Equipment Assumptions

Activity	Equipment	Amount	Hours per Day	Horsepower	Load Factor
Arbor Site					
Grading	Bore/Drill Rigs	1	8	221	0.50
	Concrete/Industrial Saws	1	2	81	0.73
	Tractors/Loaders/Backhoes	1	3	97	0.37
Building Construction (Installation of Billboard)	Cranes	1	4	231	0.29
	Forklifts	1	6	89	0.20

Table 3 (cont.): Construction Equipment Assumptions

Activity	Equipment	Amount	Hours per Day	Horse-power	Load Factor
Paving	Cement and Mortar Mixers	1	2	9	0.56
Langton Site					
Grading	Bore/Drill Rigs	1	8	221	0.50
	Concrete/Industrial Saws	1	2	81	0.73
	Tractors/Loaders/Backhoes	1	3	97	0.37
Building Construction (Installation of Billboard)	Cranes	1	4	231	0.29
	Forklifts	1	6	89	0.20
Paving	Cement and Mortar Mixers	1	2	9	0.56
Removal Sites					
Demolition	Concrete/Industrial Saws	1	8	81	0.73
	Rubber Tired Dozers	0	0	247	0.4
	Tractors/Loaders/Backhoes	1	6	97	0.37
	Cranes	1	2	231	0.29

Source: CalEEMod Output (see Appendix B).

Table 4: Combined Construction Off-site Trips

Construction Phase	Construction Trips		
	Worker Trips per Day	Vendor Trips per Day	Total Haul Trips
Arbor Site			
Grading	8	2	8
Building Construction (Installation of Billboard)	8	2	0
Paving	8	2	0
Langton Site			
Grading	8	2	8
Building Construction (Installation of the Billboard)	8	2	0
Paving	8	2	0
Removal Sites			
Demolition	8	2	16

Source: Source: CalEEMod Output (see Appendix B).

Annual project construction emissions prior to the application of mitigation are shown in Table 5. Average daily construction emissions are compared with the significance thresholds in Table 6.

Table 5: Annual Construction Emissions (Unmitigated)

Construction Phase	Tons/Year			
	ROG	NO _x	PM ₁₀ (Exhaust)	PM _{2.5} (Exhaust)
Arbor Site				
Grading	0.000	0.005	0.000	0.000
Building Construction (Installation of the Billboard)	0.004	0.046	0.002	0.002
Paving	0.000	0.000	0.000	0.000
<i>Arbor Site Total</i>	0.005	0.051	0.003	0.002
Langton Site				
Grading	0.000	0.005	0.000	0.000
Building Construction (Installation of Billboard)	0.004	0.046	0.002	0.002
Paving	0.000	0.000	0.000	0.000
<i>Langton Site Total</i>	0.005	0.051	0.003	0.002
Removal Sites				
Demolition	0.007	0.066	0.004	0.004
<i>Removal Sites Total</i>	0.007	0.066	0.004	0.004
Total Construction Emissions	0.017	0.169	0.009	0.009
Notes: ROG = reactive organic gases NO _x = oxides of nitrogen PM ₁₀ = particulate matter 10 microns in diameter PM _{2.5} = particulate matter 2.5 microns in diameter Sums were calculated using unrounded numbers from the CalEEMod Output. Source: CalEEMod Output (see Appendix B).				

Table 6: Construction Emissions (Unmitigated Average Daily Rate)

Parameter	Air Pollutants			
	ROG	NO _x	PM ₁₀ ¹	PM _{2.5} ¹
Total Emissions (tons/yr)	0.017	0.169	0.009	0.009
Total Emissions (lbs/yr)	34	338	18	18
Average Daily Emissions (lbs/day) ²	1.6	15.4	0.8	0.8
Significance Threshold (lbs/day)	54	54	82	54
Exceeds Significance Threshold?	No	No	No	No

Table 6 (cont.): Construction Emissions (Unmitigated Average Daily Rate)

Parameter	Air Pollutants			
	ROG	NO _x	PM ₁₀ ¹	PM _{2.5} ¹
Notes: ¹ Exhaust only ² Calculated by dividing the total lbs by the total 22 working days of construction for the duration of construction. Calculations use unrounded totals. lbs = pounds ROG = reactive organic gases NO _x = oxides of nitrogen PM ₁₀ = particulate matter 10 microns in diameter PM _{2.5} = particulate matter 2.5 microns in diameter Source: CalEEMod Output (see Appendix B).				

As shown in Table 6, the combined construction emissions from all components of the proposed project are below the recommended thresholds of significance. Therefore, project construction would have a less than significant impact.

Operational Emissions

Operational CO Hotspot

CO emissions from project-related traffic would be the greatest pollutant of concern at the local level, since congested intersections with a large volume of traffic have the greatest potential to cause high, localized concentrations of CO.

BAAQMD recommends a screening analysis to determine whether a project has the potential to contribute to a CO hotspot. The screening criteria identify when subsequent site-specific CO dispersion modeling is necessary.

BAAQMD considers a project’s local CO emissions to be less than significant the following screening criteria are met:

- The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans; or
- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour; or
- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

Billboards require occasional upkeep and maintenance activities, which generate vehicle trips. The long-term operation of the proposed billboard sign would include vehicle trips with minimal and irregular maintenance activities, occurring only as needed (less than once per month and likely only

one vehicle). The expected increase in traffic would not substantially increase traffic volumes at any affected intersection. Therefore, the proposed project would not exceed the CO screening criteria. Furthermore, the adjacent roadways are not located in an area where vertical or horizontal mixing is substantially limited. Therefore, based on the above criteria, the proposed project would have a less than significant impact related to CO hotspots.

Operations: ROG, NO_x, PM₁₀, and PM_{2.5}

The BAAQMD has also developed screening criteria whereby an agency can quickly determine whether a given development project has the potential to exceed adopted pollution thresholds. If all of the screening criteria are met by a proposed project, then the lead agency or applicant would not need to perform a detailed air quality assessment of their project's air pollutant emissions. Although the screening criteria do not include a category for billboards, a comparison to the land uses in that screening table can be used to inform the operational analysis. For instance, BAAQMD has determined that, to violate operational emissions criteria, a use more intense than a 451-unit apartment building would have to be constructed. The project consists of two LED billboards, each requiring minimal and irregular maintenance activities, occurring only as needed (less than once per month and likely only one vehicle). Operation of the of two LED billboards entails significantly less activity than operation of a 451-unit apartment building. Accordingly, operational criteria pollutant emissions would not be anticipated to exceed the recommended thresholds of significance. Therefore, the proposed project's long-term operational impacts would be less than significant.

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

Less than significant impact. The BAAQMD's thresholds of significance represent the allowable amount of emissions each project can generate without generating a cumulatively considerable contribution to regional air quality impacts. The region is non-attainment for the federal and state ozone standards, the state PM₁₀ standards, and the federal and state PM_{2.5} standards. Therefore, a project that would not exceed the BAAQMD thresholds of significance on a project level also would not be considered to result in a cumulatively considerable contribution to these regional air quality impacts. Impacts related to construction and operations of the proposed project are addressed separately below.

Construction Emissions

Emissions from construction-related activities are generally short-term in duration but may still cause adverse air quality impacts. The project would generate emissions from construction equipment exhaust, worker travel, and fugitive dust. These construction emissions include criteria air pollutants and precursors from the operation of heavy construction equipment. As provided in the discussion under Impact 3b, the proposed project's construction emissions would not exceed any significance threshold adopted for this project. Therefore, the proposed project would have a less than significant cumulative impact during construction.

Operational Emissions

As provided in the discussion under Impact 3b, the proposed project's operational emissions would not be anticipated to exceed any significance threshold adopted for this project. Therefore, project operations would have a less than significant cumulative impact.

d) Expose sensitive receptors to substantial pollutant concentrations?

Less than significant impact with mitigation incorporated. The BAAQMD considers a sensitive receptor to be any facility or land use that includes members of the population who are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. If a project is likely to be a place where people live, play, or convalesce, it should be considered a receptor. It should also be considered a receptor if sensitive individuals are likely to spend a significant amount of time there. Examples of receptors include residences, schools and school yards, parks and play grounds, daycare centers, nursing homes, and medical facilities. Playgrounds could be play areas associated with parks or community centers. The project sites are located in the vicinity of sensitive receptors, including single family homes. The closest sensitive receptors are existing homes located as close as 40 to 50 feet to where project components will be placed.

The following analysis evaluates whether the proposed project would result in construction or operational-period impacts to sensitive receptors. To result in a less than significant impact, the following three criteria were applied to determine the significance of project emissions to sensitive receptors:

- **Criterion 1:** Construction of the project would not result in localized emissions that, if when combined with background emissions, would result in exceedance of any health-based air quality standard.
- **Criterion 2:** Operation of the project would not result in localized emissions that, if when combined with background emissions, would result in exceedance of any health-based air quality standard.
- **Criterion 3:** Construction of the project would not result in an exceedance of asbestos exposure.

Criterion 1: Project Construction Toxic Air Pollutants

Diesel particulate matter (DPM) has been identified by the California Air Resources Board as a carcinogenic substance. Major sources of DPM include off-road construction equipment and heavy-duty delivery truck and worker activities. For purposes of this analysis, DPM is represented as exhaust emissions of PM_{2.5}.

Estimation of Construction DPM Emissions

Construction emissions from two billboard construction sites were the same. Construction exhaust emissions of DPM were estimated using the CalEEMod model (version 2016.3.2), and the results are summarized in Table 7. As described in Project Description section, the Langton construction site is

closer to existing residents than the Arbor site. Therefore, the construction health impact analysis was developed in Langton site, providing a worst-case scenario.

Table 7: Project DPM Construction Emissions

Year	Annual Average On-site DPM (grams/m ² -sec)	Annual Average Off-site DPM (grams/sec)
DPM Construction Emissions (No Mitigation)		
10/2018 to 10/2018	5.76E-04	5.19E-07
DPM Construction Emissions (Tier III Mitigation)		
10/2018 to 10/2018	2.74E-04	5.19E-07

Source: CalEEMod and FirstCarbon Solutions; see Appendix B.

Estimation of Cancer Risks

The BAAQMD has developed a set of guidelines for estimating cancer risks that provide adjustment factors that emphasize the increased sensitivities and susceptibility of young children to exposures to TACs (BAAQMD, 2016). These adjustment factors include age-sensitivity weighting factors, age-specific daily breathing rates, and age-specific time-at-home factors. The recommended method for the estimation of cancer risk is shown in the equations below with the cancer risk adjustment factors provided in Table 8 for several types of sensitive/residential receptors (infant, child, and adult).

$$\text{Cancer Risk} = C_{\text{DPM}} \times \text{Inhalation Exposure Factor} \quad (\text{EQ-1})$$

Where:

Cancer Risk = Total individual excess cancer risk defined as the cancer risk a hypothetical individual faces if exposed to carcinogenic emissions from a particular source for specified exposure durations; this risk is defined as an excess risk because it is above and beyond the background cancer risk to the population; cancer risk is expressed in terms of risk per million exposed individuals.

C_{DPM} = Period average DPM air concentration calculated from the air dispersion model in $\mu\text{g}/\text{m}^3$

Inhalation is the most important exposure pathway to impact human health from DPM and the inhalation exposure factor is defined as follows:

$$\text{Inhalation Exposure Factor} = \text{CPF} \times \text{EF} \times \text{ED} \times \text{DBR} \times \text{AAF/AT} \quad (\text{EQ-2})$$

Where:

CPF = Inhalation cancer potency factor for the TAC: $1.1 \text{ (mg/kg-day)}^{-1}$ for DPM

EF = Exposure frequency (days/year)

ED = Exposure duration (years of construction)

AAF = set of age-specific adjustment factors that include age sensitivity factors (ASF), daily breathing rates (DBR), and time at home factors (TAH)—see Table 8:
 AT = Averaging time period over which exposure is averaged (days)

The California Office of Environmental Health Hazards Assessment (OEHHA)-recommended values for the various cancer risk parameters shown in EQ 2, above, are provided in Table 8.

Table 8: Exposure Assumptions for Cancer Risk

Receptor Type	Exposure Frequency		Construction Exposure Duration (month) ⁽²⁾	Age Sensitivity Factors	Time at Home Factor (%)	Daily Breathing Rate ⁽¹⁾ (l/kg-day)
	Hours/day	Days/year				
Sensitive/Residential—Infant						
3 rd Trimester	24	350	1	10	85	361
0–2 years	24	350	1	10	85	1,090
Sensitive Receptor—Child						
3–16 years	24	350	1	3	72	572
Sensitive Receptor—Adult						
> 16 to 30 years	24	350	1	1	73	261
Notes: ⁽¹⁾ The daily breathing rates recommended by the BAAQMD for sensitive/residential receptors assume the 95 th percentile breathing rates for all individuals less than 2 years of age and 80 th percentile breathing rates for all older individuals. ⁽²⁾ The exposure duration is 1 month corresponding to the duration of construction (l/kg-day) = liters per kilogram body weight per day Source: BAAQMD 2016. Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines. Website: http://www.baaqmd.gov/~media/files/planning-and-research/rules-and-regs/workshops/2016/reg-2-5/hra-guidelines_clean_jan_2016-pdf.pdf?la=en .						

Estimation of Non-Cancer Chronic Hazards

An evaluation of the potential non-cancer effects of chronic chemical exposures was also conducted. Adverse health effects are evaluated by comparing the annual receptor concentration of each chemical compound with the appropriate reference exposure limit (REL). Available RELs promulgated by the OEHHA were considered in the assessment.

Risk characterization for non-cancer health hazards from TACs is expressed as a hazard index (HI). The HI is a ratio of the predicted concentration of the proposed project’s emissions to a concentration considered acceptable to public health professionals, termed the REL.

To quantify non-carcinogenic impacts, the hazard index approach was used.

$$HI = C_{ann}/REL \quad (EQ-3)$$

Where:

HI = chronic hazard index

C_{ann} = annual average concentration of TAC as derived from the air dispersion model ($\mu\text{g}/\text{m}^3$)

REL = reference exposure level above which a significant impact is assumed to occur ($\mu\text{g}/\text{m}^3$)

The estimated health and hazard impacts at the maximum impacted sensitive receptor (MIR) from the proposed project's construction emissions are provided in Table 9.

Table 9: Estimated Health Risks and Hazards: Project Construction—Unmitigated

Health Impact Metric	Cancer Risk (risk per million)	Chronic Non-Cancer Hazard Index ⁽²⁾	Annual PM _{2.5} Concentration ($\mu\text{g}/\text{m}^3$)
Risks and Hazards at the Maximum Impacted Sensitive Receptor (MIR) ⁽¹⁾	4.2	0.07	0.4
BAAQMD Significance Threshold	10.0	1.0	0.3
Exceeds Individual Source Threshold?	No	No	YES
Notes: ¹ Maximum impacted sensitive receptor is a resident along Langton Way 70 feet of the project site. ² Chronic non-cancer hazard index was estimated by dividing the annual DPM concentration (as PM _{2.5} exhaust) by the REL of 5 $\mu\text{g}/\text{m}^3$. Source: CalEEMod and FirstCarbon Solutions; see Appendix B.			

As shown above, the construction emissions from the proposed project prior to mitigation would exceed the BAAQMD's PM_{2.5} emission threshold. Therefore, mitigation measures would be implemented. The health risk impacts with tier III mitigation measures are provided in Table 10.

Table 10: Estimated Health Risks and Hazards: Project Construction—Tier III Mitigated

Health Impact Metric	Cancer Risk (risk per million)	Chronic Non-Cancer Hazard Index ⁽²⁾	Annual PM _{2.5} Concentration ($\mu\text{g}/\text{m}^3$)
Risks and Hazards at the Maximum Impacted Sensitive Receptor (MIR) ⁽¹⁾	2.0	0.03	0.2
BAAQMD Significance Threshold	10.0	1.0	0.3
Exceeds Individual Source Threshold?	No	No	No
Notes: ¹ Maximum impacted sensitive receptor is resident along Langton Way 70 feet of the project site. ² Chronic non-cancer hazard index was estimated by dividing the annual DPM concentration (as PM _{2.5} exhaust) by the REL of 5 $\mu\text{g}/\text{m}^3$. Source: CalEEMod and FirstCarbon Solutions; see Appendix B.			

As shown above, with implementation of Tier III mitigation measures, the health risk impacts and PM_{2.5} emissions from construction emissions would not exceed BAAQMD's threshold of significance.

Criterion 2: Project Operation Localized Emissions

The proposed project would entail the operation of electronic billboards, which have no localized emissions. Maintenance would involve irregular trips to the sites, usually involving only one light vehicle. Therefore, the proposed project would not expose sensitive receptors to substantial criteria air pollutant concentrations during operation or result in localized emissions that, if when combined with background emissions, would result in exceedance of any health-based air quality standard. Impacts relating to Criterion 2 would be less than significant.

Criterion 3: Asbestos from Demolition

As discussed in Section 8-Hazards and Hazardous Materials, there is potential for asbestos-containing materials to be present within the project area due to the presence of structures that predate the federal prohibition of asbestos-containing materials. Any demolition of existing buildings and structures would be subject to BAAQMD Regulation 11, Rule 2 (Asbestos Demolition, Renovation, and Manufacturing), which is intended to limit asbestos emissions from demolition or renovation of structure and the associated disturbance of asbestos-containing waste material generated or handled during these activities. By complying with BAAQMD Regulation 11, Rule 2, thereby minimizing the release of airborne asbestos emissions, demolition activity would not result in a significant impact to air quality. Impacts relating to Criterion 3 would be less than significant.

MM AQ-1 All off-road construction equipment greater than 50 horsepower must be equipped with engines meeting the USEPA Tier III emission standard.

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

Less than significant impact. The proposed project would consist of the removal of 16 existing billboard sign faces on local streets in exchange for the installation of the proposed double-sided digital billboard along I-880 at the Arbor site and a double-sided digital billboard along I-238 at the Langton site. The project would not be a source of odor during operations. During construction, a limited number of diesel engines would be operated on the project site for limited durations. Diesel exhaust and VOCs from these diesel engines would be emitted during construction of the proposed project, which are objectionable to some; however, the duration of construction activities is expected to short (two to four weeks), emissions would disperse rapidly from the project site, and diesel exhaust odors would be consistent with existing vehicle odors in the area. Considering this information, construction and operation of the proposed project would not create objectionable odors affecting a substantial number of people; impacts would be less than significant.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
4. Biological Resources <i>Would the project:</i>				
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Project Area

The project area is located in residential and commercially developed areas that have no natural or sensitive habitats, including wetlands and riparian habitats.

Arbor Site

The Arbor portion of the project site is located amongst residential and commercial developments and/or adjacent to roadways or a major highway and have no natural or sensitive habitats.

Langton Site

The Langton portion of the project site is located amongst residential and commercial developments and/or adjacent to roadways or a major highway and have no natural or sensitive habitats.

Removal Sites

As discussed more extensively in the project description, the removal sites are all located in urban environments.

Environmental Evaluation

Would the project:

- 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?**

Less than significant impact with mitigation incorporated. The proposed billboard locations and the billboard removal sites are located on residential and commercial developments and have no natural or sensitive habitats, including wetlands and riparian habitats, present on the sites.

Existing Billboards

Nesting raptors and other migratory birds are protected under the Migratory Bird Treaty Act and California Department of Fish and Wildlife (CDFW) Code Sections 3503, 3503.5, and 2800. As stated above, raptors (such as falcons, hawks, eagles, and owls) and other migratory birds may utilize the existing billboards for foraging or nesting. Construction disturbance near raptor nests can result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. The loss of the billboards on-site would result in nesting raptors having to relocate to another site. Relocation of mature raptors or migratory birds by itself would not be significant. However, disturbance that causes abandonment and/or loss of reproductive effort is considered a taking by the CDFW, and would, therefore, be considered a significant impact. With the implementation of MMs BIO-1 and BIO-2 prior to the removal of the billboards, construction impacts that could result in the loss of fertile eggs, nesting raptors or other migratory birds, or abandonment would be minimized to a level that would be less than significant.

MM BIO-1 Construction shall be scheduled to avoid the nesting season to the extent feasible. The nesting season for most birds, including most raptors in the San Francisco Bay area, extends from February through August.

MM BIO-2 If it is not possible to schedule billboard removal between September and January, pre-construction surveys for nesting birds shall be completed by a qualified ornithologist to ensure that no nests will be disturbed during project implementation. This survey shall be completed no more than 14 days prior to the initiation of demolition activities during the early part of the breeding season (February through April) and no more than 30 days prior to the initiation of these

activities during the late part of the breeding season (May through August). During this survey, the ornithologist will inspect all billboards and other possible nesting habitats immediately adjacent to the demolition areas for nests. If an active nest is found sufficiently close to work areas to be disturbed by demolition, the ornithologist, in consultation with the California Department of Fish and Wildlife (CDFW), will determine the extent of a demolition-free buffer zone to be established around the nest, typically 250 feet, to ensure that raptor or migratory bird nests will not be disturbed during project demolition.

Proposed Billboards

Migrating birds, such as songbirds, can be affected by human-built structures because of their propensity to migrate at night, their low flight altitudes, and their tendency to be disoriented by artificial light, making them vulnerable to collision with obstructions, which could eventually lead to their injury or mortality. In addition, birds migrating at night can be strongly attracted to sources of artificial light, particularly during periods of inclement weather. Exposure to a light field, specifically red and white lights, at night can distort normal flights and cause the birds to become more susceptible to collision with structures. Transparent and reflective glass can reflect or make the nearby environment (such as trees, vegetation, or food source) visible through structures, which could also lead to migrating bird collision.

The Langton and Arbor sites' billboard LED lights would not create large illuminated zones that can be attractive to night flying birds. Colors on the billboard would change every eight seconds and would not be predominately red or white at night. The billboard would not have transparent or reflective surfaces; such as glass or windows that would lead to bird collision. For these reasons, operation of the Arbor Avenue and Langton Way billboard would not have a significant impact on the movement of migrating birds.

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

No impact. The proposed billboard locations and the billboard removal sites are located on residential and commercial developments and have no natural or sensitive habitats, including wetlands and riparian habitats, present on the sites. Therefore, no impacts would occur.

- c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

No impact. The proposed billboard locations and the billboard removal sites are located on residential and commercial developments and have no natural or sensitive habitats, including wetlands and riparian habitats, present on the sites. Therefore, no impacts 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 wildlife nursery sites?**

No impact. There are no wildlife nurseries on the project sites, nor are there any wildlife movement corridors located on or near the project sites. The location of project activities is an urban environment with no habitat on-site or nearby; therefore, no impacts to federally protected wetlands would occur because of project implementation.

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

No impact. Since there are no trees on the project sites, the proposed project would not conflict with any local policies or ordinances protecting biological resources.

- 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 project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or another approved local, regional, or state habitat conservation plan. Project activities would all take place in an urbanized environment that has largely been built out with other uses. As such, there is no impact.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
5. Cultural and Resources <i>Would the project:</i>				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Environmental Evaluation

The proposed project involves the removal of eight existing billboards, and the construction of two new LED digital billboards. The billboards slated for removal would have their poles cut at ground level; only the aboveground portion of the billboard structures would be removed, while the subsurface foundation would remain. Construction of new LED digital billboards are proposed at two locations, referred to previously as the Arbor site and the Langdon site. Each location would require boring a hole for the foundation of the billboard. The Arbor site consists of an unpaved, undeveloped lot. The Arbor site foundation would be 5 feet in diameter and would extend to a depth of 39 feet below ground surface. The Langton site is currently paved. The Langton site foundation would be five feet in diameter, and would extend to a depth of 41 feet below ground surface.

This section describes the existing cultural resources setting and potential effects from project implementation on the project site and its surrounding area. Descriptions and analysis in this section are based on information provided by the California Native American Heritage Commission (NAHC), Northwest Information Center (NWIC), National Register of Historic Places (NR), California Register of Historic Resources (CR), California Historical Landmarks list (CHL), California Points of Historical Interest list (CPHI), California State Historic Resources Inventory (HRI), and the University of California Museum of Paleontology (UCMP) Paleontological Database. The record search results, NAHC correspondence, and paleontological reports are provided in Appendix C.

Arbor Site

In order to determine the presence or absence of cultural and historical resources within the Arbor site location, FirstCarbon Solutions (FCS) conducted a records search for the project site and a 0.5 mile radius surrounding the site at the NWIC on June 5, 2018. The current inventories of the NR, CR,

CHL, CPHI, and the HRI listings for Alameda County were also reviewed to determine the existence of previously documented local historical resources.

According to *Archaeology in Alameda County: A Handbook for Planners*, the Arbor site is located in an area within the high range for archaeological sensitivity in Alameda County. Results from the NWIC indicate that three resources are on file within a 0.5 mile radius of the Arbor site. Of the three resources, none are located within the project site. All three of the resources are historic in nature, and no prehistoric resources have been recorded within the 0.5 mile radius. In addition, nineteen area-specific survey reports are on file with the NWIC for the 0.5 mile search radius, five of which address the Arbor site specifically. Of the five previous surveys, S-012923 surveyed the Arbor site in its entirety in 1977, indicating that the site had been extensively surveyed for cultural resources. A copy of the NWIC records search results may be found in Appendix C-1.

On May 10, 2018, FCS sent a letter to the NAHC in an effort to determine whether any sacred sites are listed on its Sacred Lands File in proximity to the Arbor site. A response from the NAHC was received on May 29, 2018 indicating that the Sacred Lands File search failed to indicate the presence of Native American cultural resources in the immediate vicinity. The NAHC included a list of six local tribal representatives available for consultation. To ensure that all Native American knowledge and potential prehistoric concerns about the proposed project are addressed, a letter containing project information and requesting any additional information was sent to each tribal representative on June 7, 2018. No responses have been received to date. Tribal consultation efforts conducted by Alameda County pursuant to AB-52 also did not receive any responses from tribes interested in consulting on the proposed project. A copy of the NAHC and Tribal Correspondence may be found in Appendix C-2.

On May 30, 2018, FCS consulting Paleontologist Dr. Ken Finger conducted a search of the UCMP database for the Arbor site. According to the part of the geologic map of Graymer, Jones, and Brabb (2007), the Arbor site is located on undivided surficial deposits (Qu), which, if Pleistocene, are potentially fossiliferous deposits. Four other units occur in this area: gabbro (gb), the Cretaceous-Jurassic Knoxville (Kjk) and Joaquin Miller (Kjm) formations, and Jurassic keratophyre and quartz keratophyre (Jsv). The Knoxville and Joaquin Miller formations units are sedimentary and therefore could be fossiliferous.

The UCMP database was first searched for locality and specimen records from Pleistocene alluvium in Alameda County. The results are 58 localities yielding 233 late Pleistocene (Rancholabrean) vertebrates, and six localities yielding 845 middle Pleistocene (Irvingtonian) vertebrates (see attached faunal list). Many of the specimens from both ages have been described and figured in professional publications. The only locality within the area of the map shown in this report is V5258 ("Hayward Freeway") near the intersection of Hacienda Boulevard and the Nimitz Freeway; it yielded a thoracic vertebra of the long-horned bison (*Bison latifrons*). Although unlikely to be impacted by excavations into the subsurface of at the Arbor site, the Knoxville and Joaquin Miller formations were also searched for vertebrate localities. The Knoxville Formation is represented only by one locality in Tehama County, while no localities are listed for the Joaquin Miler Formation. Hence, only

the undivided Quaternary deposits, if Pleistocene, are of concern here and their paleontological potential appears to be very low. A copy of Dr. Finger's report may be found in Appendix C-3.

Langton Site

In order to determine the presence or absence of cultural and historical resources within the Langton site location, FCS conducted a records search for the project site and a 0.5 mile radius surrounding the site at the NWIC on June 5, 2018. The current inventories of the NR, CR, CHL, CPHI, and the HRI listings for Alameda County were also reviewed to determine the existence of previously documented local historical resources.

According to *Archaeology in Alameda County: A Handbook for Planners*, the Langton site is located in an area within the moderate range for archaeological sensitivity in Alameda County. Results from the NWIC indicate that seventeen resources are on file within a 0.5 mile radius of the Langton site. Of the seventeen resources, none are located within the project site. All seventeen of the resources are historic in nature, and no prehistoric resources have been recorded within the 0.5 mile radius. In addition, nineteen area-specific survey reports are on file with the NWIC for the 0.5 mile search radius, three of which address the Langton site specifically. Of the three previous surveys, S-002809, S-031143, and S-030655 surveyed the Langton site in its entirety, indicating that the site has been extensively surveyed for cultural resources. A copy of the NWIC records search results may be found in Appendix C-1.

On May 10, 2018, FCS sent a letter to the NAHC in an effort to determine whether any sacred sites are listed on its Sacred Lands File in proximity to the Langton site. A response from the NAHC was received on May 29, 2018 indicating that the Sacred Lands File search failed to indicate the presence of Native American cultural resources in the immediate vicinity. The NAHC included a list of six local tribal representatives available for consultation. To ensure that all Native American knowledge and potential prehistoric concerns about the proposed project are addressed, a letter containing project information and requesting any additional information was sent to each tribal representative on June 7, 2018. No responses have been received to date. Tribal consultation efforts conducted by Alameda County pursuant to AB-52 also did not receive any responses from tribes interested in consulting on the proposed project. A copy of the NAHC and Tribal Correspondence may be found in Appendix C-2.

On May 30, 2018, FCS consulting Paleontologist Dr. Ken Finger conducted a search of the UCMP database for the Langton site. According to the part of the geologic map of Graymer, Jones, and Brabb (2007), the Langton site is located on undivided surficial deposits (Qu), which, if Pleistocene, are potentially fossiliferous deposits. Four other units occur in this area: gabbro (gb), the Cretaceous-Jurassic Knoxville (Kjk) and Joaquin Miller (Kjm) formations, and Jurassic keratophyre and quartz keratophyre (Jsv). The Knoxville and Joaquin Miller formations units are sedimentary and therefore could be fossiliferous.

The UCMP database was first searched for locality and specimen records from Pleistocene alluvium in Alameda County. The results are 58 localities yielding 233 late Pleistocene (Rancholabrean) vertebrates, and six localities yielding 845 middle Pleistocene (Irvingtonian) vertebrates (see attached faunal list). Many of the specimens from both ages have been described and figured in

professional publications. The only locality within the area of the map shown in this report is V5258 ("Hayward Freeway") near the intersection of Hacienda Boulevard and the Nimitz Freeway; it yielded a thoracic vertebra of the long-horned bison. Although unlikely to be impacted by excavations into the subsurface of at the Langton site, the Knoxville and Joaquin Miller formations were also searched for vertebrate localities. The Knoxville Formation is represented only by one locality in Tehama County, while no localities are listed for the Joaquin Miler Formation. Hence, only the undivided Quaternary deposits, if Pleistocene, are of concern here and their paleontological potential appears to be very low. A copy of Dr. Finger's report may be found in Appendix C-3.

Removal Sites

As discussed more extensively in the project description, the billboards slated for removal would have their poles cut at ground level; only the aboveground portion of the billboard structures would be removed, while the subsurface foundation would remain. As such, any historic or prehistoric cultural resources present in the ground beneath the existing billboards would not be disturbed as part of the billboard removal process, and do not need to be considered further.

Would the project:

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

Less than significant impact with mitigation incorporated. The results of the NWIC records search show that three recorded cultural resources lie within 0.5 mile of the Arbor site, and seventeen cultural resources lie within a 0.5 mile of the Langton site. Of these resources, all are historic buildings or structures; however, none are located within or will be adversely impacted by project implementation at either the Arbor or Langton sites. Furthermore, complete surveys of both sites failed to reveal any buildings, structures, or other historic resources located within the two project sites. For these reasons, along with the small project footprints in both locations, the potential for the proposed project to have an adverse effect on historic resources is considered low.

While unlikely, subsurface construction activities always have the potential to damage or destroy previously undiscovered historic-era resources. Historic resources can include wood, stone, foundations, and other structural remains; debris-filled wells or privies; and deposits of wood, glass, ceramics, and other refuse. Accordingly, implementation of MM CUL-1 would reduce potential impacts to undiscovered historic resources to a less than significant level.

- MM CUL-1** In the event a significant cultural resource is encountered during subsurface earthwork activities, all construction activities within a 100-foot radius of the find shall cease and workers should avoid altering the materials until an archaeologist who meets the Secretary of the Interior's Professional Qualification Standards for Archaeology has evaluated the situation. The Applicant shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. Any previously undiscovered resources found during construction activities shall be recorded on appropriate Department of Parks and Recreation (DPR) forms and evaluated for significance in terms of CEQA criteria by a qualified

archaeologist. Significant cultural resources consist of but are not limited to stone, bone, glass, ceramics, fossils, wood, or shell artifacts, or features including hearths, structural remains, or historic dumpsites. If the resource is determined significant under CEQA, the qualified archaeologist shall prepare and implement a research design and archaeological data recovery plan that will capture those categories of data for which the site is significant in accordance with Section 15064.5 of the CEQA Guidelines. The archaeologist shall also perform appropriate technical analyses, prepare a comprehensive report complete with methods, results, and recommendations, and provide for the permanent curation of the recovered resources. The report shall be submitted to the County of Alameda, the Northwest Information Center, and the State Historic Preservation Office (SHPO), if required.

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 results of the NWIC records search show that three recorded cultural resources lie within 0.5 mile of the Arbor site, and seventeen cultural resources lie within a 0.5 mile of the Langton site. Of these resources, none are prehistoric in nature, and none are located within or will be adversely impacted by project implementation at either the Arbor or Langton sites. No Tribal Cultural Resources (TCRs) were identified as part of the NAHC Sacred Lands File search or through subsequent outreach and correspondence with Native American representatives. Previous surveys also failed to identify additional archaeological resources in either project area. For these reasons, along with the limited area of excavation in both locations, the potential for the proposed project to have an adverse effect on archaeological resources is considered low.

While unlikely, there is always a possibility that subsurface excavations may encounter previously undiscovered archaeological resources during project construction. Such resources could consist of but are not limited to stone, bone, wood, or shell artifacts or features, including hearths and structural elements. Accordingly, this could be a significant impact. Implementation of MM CUL-1 would ensure that this potential impact is reduced to a less-than-significant level.

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

Less than significant impact with mitigation incorporated. Dr. Finger's report concluded that the site is located on undivided surficial deposits (Qu), which, if Pleistocene, are potentially fossiliferous, however the overall paleontological potential of these deposits appears to be very low.

Although not anticipated, sub-surface construction activities associated with the proposed project, could result in a significant impact to paleontological resources, if encountered. Paleontological resources may include, but are not limited to, fossils from mammoths, saber-toothed cats, rodents, reptiles, and birds. Accordingly, implementation of MM CUL-2 will be required to reduce potential impacts to paleontological resources that may be discovered during project construction. With the incorporation of mitigation, impacts associated with paleontological resources would be less than significant.

MM CUL-2 In the event that fossils or fossil-bearing deposits are discovered during construction activities, excavations within a 100-foot radius of the find shall be temporarily halted or diverted. The Project contractor shall notify a qualified paleontologist to examine the discovery. The applicant shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. The paleontologist shall document the discovery as needed in accordance with Society of Vertebrate Paleontology standards and assess the significance of the find under the criteria set forth in CEQA Guidelines Section 15064.5. The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction activities are allowed to resume at the location of the find. If the Applicant determines that avoidance is not feasible, the paleontologist shall prepare an excavation plan for mitigating the effect of construction activities on the discovery. The plan shall be submitted to the County of Alameda for review and approval prior to implementation, and the Applicant shall adhere to the recommendations in the plan.

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

Less than significant impact with mitigation incorporated. Less than significant with mitigation incorporated. No human remains or cemeteries are known to exist within or near the project area. However, there is always the possibility that subsurface construction activities associated with the proposed project, such as trenching and grading, could potentially damage or destroy previously undiscovered human remains. Accordingly, this could be a significant impact. In the event of the accidental discovery or recognition of any human remains, CEQA Guidelines Section 15064.5; Health and Safety Code Section 7050.5; Public Resources Code Section 5097.94 and Section 5097.98 must be followed. In the unlikely event human remains are discovered, implementation of Mitigation Measure CUL-3 would reduce this impact to a less than significant level.

MM CUL-3 In the event of the accidental discovery or recognition of any human remains, CEQA Guidelines Section 15064.5; Health and Safety Code Section 7050.5; Public Resources Code Section 5097.94 and Section 5097.98 must be followed. If during the course of project development there is accidental discovery or recognition of any human remains, the following steps shall be taken:

1. There shall be no further excavation or disturbance within 100 feet of the remains until the County Coroner is contacted to determine if the remains are Native American and if an investigation of the cause of death is required. If the coroner determines the remains to be Native American, the coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours, and the NAHC shall identify the person or persons it believes to be the most likely descendant (MLD) of the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work within 48 hours, for means of treating or disposing of, with appropriate

dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98.

2. Where the following conditions occur, the landowner or his or her authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the most likely descendant or on the project site in a location not subject to further subsurface disturbance:
 - The NAHC is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 48 hours after being notified by the commission.
 - The descendant identified fails to make a recommendation.
 - The landowner or his authorized representative rejects the recommendation of the descendant, and mediation by the NAHC fails to provide measures acceptable to the landowner.

Additionally, California Public Resources Code Section 15064.5 requires the following relative to Native American Remains:

- When an initial study identifies the existence of, or the probable likelihood of, Native American Remains within a project, a lead agency shall work with the appropriate Native Americans as identified by the Native American Heritage Commission as provided in Public Resources Code Section 5097.98. The applicant may develop a plan for treating or disposing of, with appropriate dignity, the human remains and any items associated with Native American Burials with the appropriate Native Americans as identified by the Native American Heritage Commission.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
6. Geology and Soils <i>Would the project:</i>				
a) Expose people or structures to 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.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Project Area

Regionally, the Alameda County is situated in the eastern portion of the San Francisco Bay area within the Coast Range Geomorphic Province of California. The Coast Range Geomorphic Province is characterized by a series of northwest-trending mountain ranges and intervening valleys that align subparallel with the San Andreas Fault System. The Northern California region contains a number of active, potentially active, and inactive faults, and it is considered a region of high seismic activity.

The Hayward Fault, one of the ten major faults that make up the San Andreas Fault Zone, runs through the western part of Castro Valley, crossing I-238 west of the I-580 interchange.

Arbor Site

The fault is approximately 1.24 miles from the Arbor portion of the project site. This portion of the project site is underlain by 77.4 percent Botella loam and 22.6 percent Danville silty clay loam.²⁶

Langton Site

The fault is approximately 0.54 mile from the Langton portion of the project site. This portion of the project site is underlain by Yolo silt loam.²⁷ The project site is in the middle of a paved cul-de-sac, surrounded by urban development, including highway structures built by Caltrans to support operation of I-238, including retaining and noise walls.

Environmental Evaluation

Would the project:

- a) **Expose people or structures to 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.**

Less than significant impact. There are no mapped faults within the project site. The project site is not located in an Alquist-Priolo Earthquake Fault Zone, though the Langton site is located approximately 0.54 mile from the Alquist-Priolo Earthquake Fault Zone and the Arbor site is located approximately 1.24 miles from the Alquist-Priolo Earthquake Fault Zone.²⁸ To ensure the proposed project billboards are constructed safely, construction and design would be undertaken using standard engineering and seismic safety design techniques in accordance with the 2016 California Building Code. As such, the impact related to potential rupture of a known earthquake fault would be less than significant.

- ii) **Strong seismic ground shaking?**

Less than significant impact. The project site is located within a seismically active region and strong shaking would be expected during the lifetime of the proposed project, which could damage future improvements on the site and expose people to injury. According the Eden Area General Plan, the fault system that includes the Hayward and Rodgers Creek faults has a 2 percent probability of

²⁶ United States Department of Agriculture. Web Soil Survey. Website: <http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>. Accessed January, 2018.

²⁷ Ibid.

²⁸ California Department of Conservation. 2012. California Geological Survey: Earthquake Zones of Required Investigation, Hayward Quadrangle. September. Website: http://gmw.consrv.ca.gov/shmp/download/quad/HAYWARD/maps/Hayward_EZRIM.pdf.

generating an earthquake with a magnitude equal to or greater than 6.7 within the next 30 years.²⁹ However, the proposed project shall comply with the Standard Permit Condition. Separately and independently, to avoid or minimize potential damage from seismic shaking and liquefaction, the proposed project shall be built using standard engineering and seismic safety design techniques in accordance with the 2016 California Building Code. The impact would be less than significant.

iii) Seismic-related ground failure, including liquefaction?

Less than significant impact. According to the United States Geological Survey (USGS) Susceptibility Map of the San Francisco Bay Area,³⁰ the Langton and Arbor sites are located in a moderate Liquefaction Hazard Zone. Liquefaction is the result of seismic activity and is characterized as the transformation of loosely water-saturated soils from a solid state to a liquid state after ground shaking. Variables that contribute to liquefaction include age of the soil, soil type, soil cohesion, soil density, and groundwater level. Soils most susceptible to liquefaction are loose, uniformly graded, fine-grained sands. Both the Langton and Arbor Avenue are located in urban environments with substantial development having occurred on adjacent parcels, including a four-story senior center, highway infrastructure, and substantial noise walls. With adherence to and implementation of, separately and independently, the 2016 California Building Code and the Standard Permit Condition previously described, the proposed project would not result in significant impact.

iv) Landslides?

Less than significant impact. Both Arbor and Langton sites are relatively flat and, therefore, the probability of landslides occurring during a seismic event is low. Therefore, a landslide-related impact would be less than significant.

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

Less than significant impact. Removal of the existing billboards and the construction of the proposed LED digital billboard would not result in substantial soil erosion or loss of topsoil. The project's earth-disturbing activities consist of only drilling two holes for the foundations of the two proposed billboards. To the extent soils are spread across the Arbor site, grading will occur in compliance with County ordinances and state and federal requirements, as set forth in more detail in the hydrology section of this study. Impacts therefore would be less than significant.

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 typically occurs as a form of horizontal displacement of a relatively flat-lying alluvial material toward an open or "free" face such as an open body of water, channel, or excavation. There are no creeks or open bodies of water adjacent to the site for

²⁹ Alameda County. 2010. Eden Area General Plan. March.

³⁰ United States Geological Survey. Susceptibility Map of the San Francisco Bay Area. Website: <https://geomaps.wr.usgs.gov/sfgeo/liquefaction/susceptibility.html>.

lateral spreading to occur and, therefore, the potential for lateral spreading to affect the site is low. Furthermore, according to the USGS Susceptibility Map of the San Francisco Bay Area, the site is located in a Liquefaction Hazard Zone. Liquefaction is the result of seismic activity and is characterized as the transformation of loosely water-saturated soils from a solid state to a liquid state after ground shaking. Variables that contribute to liquefaction include age of the soil, soil type, soil cohesion, soil density, and groundwater level. Soils most susceptible to liquefaction are loose, uniformly graded, fine-grained sands. With the implementation of the Standard Permit Condition previously described and, separately and independently, adherence to the 2016 California Building Code, the proposed project would not result in significant impact.

- d) **Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?**

Less than significant impact. According to the Web Soil Survey by United States Department of Agriculture, the project site is not located on expansive soil.³¹ Therefore, the proposed project would no create substantial risks to life or property. The impact would be less than significant.

- 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 wastewater?**

No impact. The project does not propose to use septic tanks or alternative wastewater disposal systems. No impact would occur.

Mitigation Measures

None.

³¹ United States Department of Agriculture. Web Soil Survey. Website: <http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>. Accessed January, 2018.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
7. Greenhouse Gas Emissions <i>Would the project:</i>				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

Project Area

The project area contains residential and commercial land uses as well as transportation corridors. The existing land uses generate GHG emissions through use of electricity and natural gas and through vehicle use traveling to/from these land uses along the transportation corridors.

Arbor Site

The Arbor portion of the project site is not producing any GHG emissions.

Langton Site

The Langton portion of the project site is not producing any GHG emissions.

Environmental Evaluation

Would the project:

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

Less than significant impact. The project is located in the San Francisco Bay Area Air Basin, which is regulated by the BAAQMD. Projects generate GHG emissions during construction and operation (e.g., mobile emissions, emissions from generation of electricity for operations, emissions of from the manufacturing and transport of building materials). The BAAQMD’s project-level significance threshold for operational GHG generation was deemed appropriate to use when determining the proposed project’s potential GHG impacts. The thresholds suggested by the BAAQMD for project-level operational GHG generation are as follows:

- Compliance with a qualified GHG Reduction Strategy, or
- 1,100 metric tons carbon dioxide equivalent per year (MT CO₂e per year), or
- 4.6 metric tons CO₂e per service population (residents + employees) per year.

This analysis is restricted to GHGs identified by Assembly Bill (AB) 32, which include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Construction and operation of the proposed project are addressed separately below.

Construction GHG Emissions

During project construction, GHGs would be generated by construction activities such as site clearing, the operation of heavy-duty construction vehicles, materials and debris hauling, paving, and construction worker vehicle trips. These emissions would be considered short-term in duration. The BAAQMD does not have an adopted threshold of significance for construction-related GHG emissions; however, the BAAQMD does recommend that lead agencies quantify, disclose, and provide a significance determination for construction-related GHG emissions. Thus, the operational emissions bright-line threshold of 1,100 MT CO₂e per year is used for this analysis to determine significance of the proposed project’s construction-related emissions.

Construction emissions were estimated using CalEEMod (version 2016.3.2). Construction assumptions used to estimate GHG emissions are consistent with those used to estimate air pollutant emissions, as described under Impact 3b. Table 11 shows the GHG emissions were estimated to be 19.8 MT CO₂e generated by project construction, indicating that the construction-related GHG emissions are below 1,100 MT CO₂e per year. Therefore, construction-related GHG emissions would be less than significant.

Table 11: Construction GHG Emissions

Construction Phase	Total MT CO ₂ e/year
Arbor Site	
Grading	0.9
Building Construction (Installation of Billboard)	4.6
Paving	0.1
<i>Arbor Site Total</i>	5.6
Langton Site	
Grading	0.9
Building Construction (Installation of Billboard)	4.6
Paving	0.1
<i>Langton Site Total</i>	5.6
Removal Sites	
Demolition	8.6
<i>Removal Sites Total</i>	8.6
Total Construction Emissions	19.8
Threshold of Significance	1,100
Does project exceed threshold?	No

Table 11 (cont.): Construction GHG Emissions

Construction Phase	Total MT CO ₂ e/year
Notes: Due to rounding, total MT CO ₂ e may be marginally different from CalEEMod output. MT CO ₂ e = metric tons of carbon dioxide equivalents Source: CalEEMod Output (Appendix B).	

Operational GHG Emissions

Operational or long-term GHG emissions occur over the life of the proposed project. Sources for operational emissions include:

- **Motor Vehicles:** These emissions refer to GHG emissions contained in the exhaust from the cars and trucks that would travel to and from the project site.
- **Indirect Electricity:** These emissions refer to those generated by off-site power plants to supply electricity required for the proposed project.
- **Water Transport:** These emissions refer to those generated by the electricity required to transport and treat the water to be used on the project site.
- **Waste:** These emissions refer to the GHG emissions produced by decomposing waste generated by the proposed project.

Motor vehicle, water, and waste sources of GHG emissions would be negligible during operation. LED digital billboards (programmable electronic signs) are subject to energy efficiency requirements under Title 24 of the California Code of Regulations. The billboard is required to be dimmable, which would reduce energy use and GHG emissions associated with the generation of electricity. The proposed LED digital billboard would be illuminated 24 hours per day, 365 days per year. The light levels emitted from the billboard would be set to adjust based upon ambient light conditions at any given time (i.e., nighttime versus daytime). Each proposed billboard would be used for a total of 8,760 hours per year which would require the use of approximately 66.045 megawatt-hours of electricity annually. Pacific Gas and Electric Company (PG&E) would supply the electrical energy needed to illuminate each billboard. It is unclear how much electricity currently is used to power the 16 illuminated, traditional billboard faces that the project would remove; therefore, this energy usage is not factored into the environmental baseline.

Based on an estimated 66.045 megawatt-hours of electricity use annually for each billboard, each of the proposed project’s electronic billboards would be expected to generate 19 MT CO₂e/year, for a total of approximately 38 MT CO₂e/year.

Billboards require occasional upkeep and maintenance activities, which generate vehicle trips and resulting GHG emissions. The removal of eight billboard structures in exchange for two, however,

would not likely increase the overall vehicle miles traveled (VMT); for this reason, GHG emissions related to the maintenance and upkeep of the new billboard would not increase.

The project's expected net annual GHG emissions of about 38 MT CO₂e/year would not exceed the BAAQMD's threshold of 1,100 MT CO₂e/year, and, therefore, GHG impacts related to the operation of the proposed project would be less than significant.

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

Less than significant impact. The Alameda County (Unincorporated Areas) Community Climate Action Plan was approved and adopted as an element of the Alameda County General Plan on February 4, 2014. The Climate Action Plan outlines actionable items that, if successfully implemented, would reduce GHG emissions generated within unincorporated areas of Alameda County to 15 percent below 1990 levels by 2050. There are several implementation action items related to energy, most of which relate to energy use in commercial or residential buildings. None of the implementation action items would be directly applicable to the operations of two billboards.

The project would not conflict with the policies, regulations or guidelines in the County's Community Climate Action Plan, Bay Area CAP, or any other applicable plan and/or regulations adopted for the purposes of reducing GHG emissions. Furthermore, as discussed in Impact 7a, the proposed project would not generate substantial GHG emissions during either construction or operations. Considering this information, the impact would be less than significant.

Mitigation Measures

None.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
8. Hazards and Hazardous Materials <i>Would the project:</i>				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

Project Area

The project area contains residential and commercial land uses as well as transportation corridors. The land uses may utilize some hazardous materials through use of cleaning products, and trucks may transport hazardous materials along the transportation corridors. No known Cortese list sites are located on the project area. The project area is also not located within the vicinity of a public or private airport. Finally, the area is urban in nature and not proximate to wildlands.

Arbor Site

The existing billboards that are to be removed on the Arbor portion of the project site, were constructed in the 1970s and may contain asbestos-containing materials and/or lead-based paint. This portion of the project site is not located on the Cortese list or within the vicinity of a public or private airport. In addition, this portion of the project site is not proximate to wildlands.

A gas station, located across the street (391 West A Street), was the subject of environmental remediation for gasoline contamination. Since 1987, 13 groundwater monitoring wells, five soil vapor vadose zone wells, three vapor extraction wells, six sparge probes, and one injection well were installed at the subject property. Additionally, four soil borings, five test pits, and five hand auger borings were advanced at the subject property. Remedial actions included light nonaqueous petroleum liquid (LNAPL) removal, soil vapor extraction, oxygen releasing compound applications, air sparging, and hydrogen peroxide injection. Groundwater monitoring continued on-site until 2012 and on December 6, 2013, the subject property was granted “no further action required” in a letter from the Regional Water Quality Control Board (RWQCB). It is believed that residual groundwater contamination has extended beneath Arbor Avenue and the southeastern portion of the Arbor site.

Langton Site

The existing billboards that are to be removed on the Langton portion of the project site were constructed in the 1970s and may contain asbestos-containing materials and/or lead-based paint. This portion of the project site is not located on the Cortese list or within the vicinity of a public or private airport. In addition, this portion of the project site is not proximate to wildlands.

About 300 feet west of the Langton site, a gas station at 17715 Mission Boulevard (up-gradient from the project site) was identified as having leaking underground gasoline storage tanks. The cleanup status with the RWQCB is open, and residual petroleum hydrocarbons may have migrated, and may be present in, on-site soils. These soils and groundwater could be encountered where the foundation is drilled below the existing pavement on the site.

Environmental Evaluation

Would the project:

- 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 with mitigation incorporated. Project construction activities may involve the use, transport and disposal of hazardous materials such as gasoline, diesel fuel, lubricating oil, hydraulic oil, lubricating grease, automatic transmission fluid, paints, solvents, glues, and other substances used during construction. Construction of the proposed project would also require the use of gasoline and diesel-powered heavy equipment, such as bulldozers, backhoes, water pumps and air compressors. If not appropriately managed, accidental spills of these hazardous materials could result in a significant impact.

All construction activities would be required to conform to Title 49 of the Code of Federal Regulations, United States Department of Transportation (DOT), State of California, and local laws, ordinances and procedures. The project also is subject to the Alameda County Clean Water Program and the development runoff requirements of the City's National Pollutant Discharge Elimination System (NPDES) permit, which requires BMPs for reduction of erosion, sediment, and pollutants in runoff waters.

With adherence to applicable state, local, and federal requirements, impacts would be less than significant.

For the billboards that would be removed as part of the proposed project, only the above-grade portion of the existing billboard structures would be removed, and the below surface foundations would remain. Disposal of the billboard structures would comply with local and state regulations. The existing billboard structures were constructed in the 1970s and, therefore, could contain asbestos-containing materials and/or lead-based paint. However, the impacts related to asbestos-containing materials and lead-based paint would be less than significant with the implementation of MM HAZ-1.

To the extent the Arbor site would be graded with soils extracted from drilling at the Arbor and Langton sites, all soils would be tested prior to distribution or, if contamination was detected, disposed of appropriately at an off-site facility, all in accordance with all applicable law, and as further identified in MM HAZ-2. Any potential, then, for project construction to create a significant hazard would be rendered less than significant with the implementation of MM HAZ-2.

Finally, operation of the proposed project, which entails the changing of messages on electronic billboard faces and sporadic maintenance by a de minimis number of workers and trucks, would not involve the use of any hazardous materials with the potential to significantly impact the public. Maintenance and operation of the 16 existing, illuminated displays in fact entails a greater degree of maintenance, and so it is anticipated that operation of the proposed project would be associated with less risk to the public than maintaining the current sign inventory.

- MM HAZ-1** The following measures will be implemented during billboard removal activities to reduce potential impacts to construction workers associated with lead-based paint or other hazardous building materials (e.g., Universal Wastes):
- In conformance with state and local laws, including California Health and Safety Code section 19827.5, a visual inspection and possible sampling shall be completed prior to the removal of the billboard structures to determine the presence of asbestos, lead-based paint, or other hazardous building materials.
 - If this assessment finds presence of such materials, the project applicant shall create and implement a health and safety plan to ensure workers are not exposed to contaminants in excess of Occupational Safety and Health Administration (OSHA) and other applicable state and federal standards and associated risks associated with hazardous materials during demolition, renovation of affected structures, transport, and disposal.
 - During billboard removal activities, all materials containing lead-based paint shall be removed in accordance with California Division of Occupational Safety and Health (CalOSHA) Lead in Construction Standard, Title 8, CCR 1532.1, including employee training, employee air monitoring and dust control.
 - During billboard removal activities, all materials containing asbestos shall be handled and removed by qualified professionals in accordance with applicable regulations, including BAAQMD Regulation 11, Rule 2; Title 22, California Code of Regulations, Section 66261.24; Title 8, California Code of Regulations, Section 1532.1; and Title 40, Code of Federal Regulations, Part 745.
 - Any debris or soil containing asbestos lead-based paint or coatings shall be disposed of at landfills that meet acceptance criteria for the waste being disposed.

MM HAZ-2 The soil excavated from the site and any groundwater extracted during de-watering activities shall be appropriately tested prior to building permit issuance for chemicals related to the gas station use. If contamination is detected, soil materials and groundwater will be disposed of in accordance with state regulations for hazardous waste.

Soil and other hazardous materials removed from the site shall be characterized and disposed of according to the Alameda County Waste Management Authority. Contaminated soil and groundwater that exceeds regulatory thresholds shall be handled by trained personnel using appropriate protective equipment and engineering and dust controls, in accordance with local, state, and federal laws. If soils or groundwater to be removed from the site is found to be contaminated, it shall be hauled off-site and disposed of at a licensed hazardous materials disposal site.

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 with mitigation incorporated. As explained above, construction activities would require the use and transport of potentially hazardous materials including oils and combustible fuels but would not be stored in large quantities on-site. The applicant and its contractors must implement and comply with all relevant local, state, and federal regulations related to the handling, transport, and storage of hazardous materials.

Disturbance of on-site soils would be limited to removal of soil in the immediate area of the project site required to install a foundation for the billboard. The foundation at the Arbor site would be 5 feet in diameter and about 39 feet deep. The foundation at the Langton site would be 5 feet in diameter and about 41 feet deep.

Arbor Site

At the Arbor site, a gas station, located across the street (391 West A Street), was the subject of environmental remediation for gasoline contamination.³² Since 1987, 13 groundwater monitoring wells, 5 soil vapor vadose zone wells, three vapor extraction wells, six sparge probes, and one injection well were installed at the subject property. Additionally, four soil borings, five test pits, and five hand auger borings were advanced at the subject property. Remedial actions included light nonaqueous petroleum liquid (LNAPL) removal, soil vapor extraction, oxygen releasing compound applications, air sparging, and hydrogen peroxide injection. Groundwater monitoring continued on-site until 2012 and on December 6, 2013, the subject property was granted “no further action required” in a letter from the RWQCB. It is believed that residual groundwater contamination has extended beneath Arbor Avenue and the southeastern portion of the Arbor site. It is anticipated that these drilling activities will be conducted in a single day. As explained above, any soils removed from the project sites will be tested prior to their application or disposal. In terms of encountering contaminated water, the contractor performing de-watering activities will utilize 10,000-gallon trucks to contain any extracted water volumes, whereupon the quality of the water will be tested. The applicant’s contractor will then haul all fluids off-site in tanker trucks, and dispose of it according to appropriate regulations depending on water quality, as set forth in MM HAZ-2. Any potential, then, for project construction to create a significant hazard with respect to soils or groundwater would be rendered less than significant with the implementation of MM HAZ-2.

Langton Site

A similar condition exists with respect to the Langton site. About 300 feet west of the Langton site, a gas station at 17715 Mission Boulevard (up-gradient from the project site) was identified as having leaking underground gasoline storage tanks.³³ The cleanup status with the RWQCB is open, and residual petroleum hydrocarbons may have migrated, and may be present in, on-site soils. These soils and groundwater could be encountered where the foundation is drilled below the existing

³² State Water Resources Control Board. 2016. GeoTracker. UNOCAL STATION #3791 Case Closure Summary. Website: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101470.

³³ State Water Resources Control Board. 2016. GeoTracker. ABE Petroleum 17715 Mission Boulevard Alameda County Case Summary.

pavement on the site. It is anticipated that these drilling activities will be conducted in a single day. As explained above, any soils removed from the project sites will be tested prior to their application or disposal. In terms of encountering contaminated water, the contractor performing de-watering activities will utilize 10,000-gallon trucks to contain any extracted water volumes, whereupon the quality of the water will be tested. The applicant's contractor will then haul all fluids off-site in tanker trucks, and dispose of it according to appropriate regulations depending on water quality, as set forth in MM HAZ-2. Any potential, then, for project construction to create a significant hazard with respect to soils or groundwater would be rendered less than significant with the implementation of MM HAZ-2.

Removal Sites

For the billboards that would be removed as part of the proposed project, only the above-grade portion of the existing billboard structures would be removed, and the below surface foundations would remain. Disposal of the billboard structures would comply with local and state regulations. The existing billboard structures were constructed in the 1970s and, therefore, could contain asbestos-containing materials and/or lead-based paint. However, the impacts related to asbestos-containing materials and lead-based paint would be less than significant with the implementation of MM HAZ-1.

Project Operation (Langton and Arbor Sites)

Finally, operation of the proposed project, which entails the changing of messages on electronic billboard faces and sporadic maintenance by a de minimis number of workers and trucks, would not involve the use of any hazardous materials with the potential to significantly impact the public. Maintenance and operation of the 16 existing, illuminated displays in fact entails a greater degree of maintenance, and so it is anticipated that operation of the proposed project would be associated with less risk of a release of hazardous materials than maintaining the current sign inventory. Impacts from operation of the signs, then, would be less than significant.

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

No impact.

Arbor Site

The proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. The nearest school is approximately 0.4 mile away. No significant impact would occur.

Langton Site

The proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. The nearest school is approximately 1 mile away. No significant impact would occur.

Removal Sites

Most of the signs designated for removal are not located within 0.25 mile of an existing or proposed school. It is only the sign at 21215 Foothill Boulevard that is located within 0.25 mile of an existing school; specifically, it is located about 375 yards (or 0.23 mile) from the Strobridge Elementary School. However, the demolition activities occurring at the site consist of the removal of a single sign structure to grade, involving the use of hand tools and small crane rigs, with demolition activities occurring during the course of one to two days. To the extent there is any significant likelihood of a risk of hazardous emissions within 0.25 mile of the school, adherence to MM HAZ-1 and all applicable federal, state, and local regulations would mitigate impacts to a less than significant level.

- 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?**

Less than significant impact. Both Langton and Arbor sites are not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. However, the project sites are nearby listed hazardous materials site, as described previously in Impacts 8a) and 8b). The impact would be less than significant.

- 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 for people residing or working in the project area?**

Less than significant impact.

Arbor Site

The closest airport is the Hayward Executive Airport, located over 1 mile southwest of the project site. The project site is located within the Hayward Executive Airport Influence Area and within Zone 6 Traffic Pattern Zone. The Federal Aviation Administration, however, reviewed the proposed project specifications and determined on November 30, 2017 that the proposed project would present no hazards to air navigation. The impact therefore would be less than significant.

Langton Site

The closest airport is the Hayward Executive Airport, located over 2 miles southwest of the project site. The project site is not located within the Hayward Executive Airport Influence Area. Nevertheless, the Federal Aviation Administration reviewed the proposed project specifications and determined on November 30, 2017 that the proposed project would present no hazards to air navigation. The impact would be less than significant.

Removal Sites

The removal sites are generally located in the same vicinity as the Langton site. Two billboards at 1 and 2 East Lewelling Boulevard are the signs closest to the Hayward Executive Airport, which is located nearly 1.5 miles southwest of the project site. An airport land use plan has been adopted for

the Airport, and the two, aforementioned billboards are not located within the airport's Influence Area. The impact therefore would be less than significant.

- f) **For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?**

Less than significant impact.

Arbor Site

The project site is located within Hayward Executive Airport's Influence Area and within Zone 6 Traffic Pattern Zone.³⁴ The proposed billboard would be approximately 80 feet in height. The project site is within the Hayward Airport Comprehensive Airport Land Use Plan (CLUP), which indicates that they are subject to Federal Aviation Administration (FAA), Federal Aviation Regulations (FAR) Part 77, Objects Affecting Navigable Airspace regulations height restrictions. The proposed project would exceed 48 feet in height and therefore, had to be reviewed by the FAA. On November 30, 2017, the applicant obtained a Determination of No Hazard to air navigation from the FAA.

Langton Site

The project site is not located within the Hayward Executive Airport's Influence Area. While the proposed LED digital billboard may be visible to aircraft taking off or landing at the Hayward Executive Airport and from the air traffic control tower, the proposed billboard would not conflict with FAA requirements. The Hayward Airport is located approximately 11,700 feet southwest of the Langton Way site. The proposed billboard would be 80 feet in height. Based on the FAA FAR Part 77 and the Hayward Airport Land Use Compatibility Plan (ALUC) regulations, the maximum height allowed for structures at the Langton Way billboard site is 116 feet above the ground surface.³⁵ The proposed billboard would not exceed this height and, therefore, would be consistent with FAA FAR Part 77 and ALUC regulations. Nevertheless, the applicant sought review of the Langton site by the FAA, which reviewed the proposed project specifications and determined on November 30, 2017 that the Langton sign would present no hazards to air navigation.

Removal Sites

The removal sites are generally located in the same vicinity as the Langton site. Two billboards at 1 and 2 East Lewelling Boulevard are the signs closest to the Hayward Executive Airport, which is located nearly 1.5 miles southwest of the project site. An airport land use plan has been adopted for the Airport, and the two aforementioned billboards are not located within the Airport's Influence Area. Moreover, the proposed project contemplates the removal of these signs. The impact therefore would be less than significant.

³⁴ Alameda County ALUC. 2010. Hayward Executive Airport: Airport Land Use Compatibility Plan. September.

³⁵ Ibid.

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

Less than significant impact with mitigation incorporated. The project would not interfere with any adopted emergency response plan or emergency evacuation plan, including the Multi-Jurisdictional Local Hazard Mitigation Plan for the San Francisco Bay Area.³⁶ The project consists of the removal of eight signs (with 16 sign faces) and the construction of two signs (with four sign faces). The Arbor sign is located on private property and has an insignificant potential to interfere with traffic or the evacuation during an emergency. The Langton sign is located in a public right-of-way, but the Alameda County Fire Department has reviewed the proposed project plans and determined on May 8, 2018 there is appropriate fire access to the site and surrounding parcels so long as the cul-de-sac is designated no parking. Implementation of MM HAZ-3, which requires the cul-de-sac curbs be designated no parking, would therefore reduce impacts to a less than significant level.

MM HAZ-3 The curbs along the cul-de-sac at the northern terminus of Langton Way shall be designated “no parking,” consistent with the direction of the Alameda County Fire Department.

h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

No impact. The project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires, because there are no wildlands on or surrounding the project site. The site has an extensive history of development. It is developed with residential and commercial buildings with minimal landscaping. No impact would occur.

³⁶ Association of Bay Area Governments. 2010. Multi-Jurisdictional Local Hazard Mitigation Plan for the San Francisco Bay Area. Taming Natural Disasters. (update).

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
9. Hydrology and Water Quality <i>Would the project:</i>				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted?)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Project Area

The project area is located in an urban area that is primarily covered with impervious surfaces in the form of buildings and paved roadways. The average annual precipitation in the San Francisco Bay area is approximately 19.9 inches per year (Western Regional Climate Center). The existing local stormwater network collects precipitation and drainage in the project area. No surface bodies of water exist within the project area, as the closest surface body of water is the San Francisco Bay located approximately 3.50 miles to the west of the project area.

Arbor Site

The Arbor project site of the new billboard is not paved and, thus, consists entirely of pervious surfaces. No surface bodies of water traverse this portion of the project site.

Langton Site

The Langton project site of the new billboard is currently paved and, thus, consists entirely of impervious surfaces. No surface bodies of water traverse this portion of the project site.

Removal Sites

The removal sites are located in urbanized areas, generally over rooftops and other impervious surfaces. No surface bodies of water traverse any of the removal sites.

Environmental Evaluation

Would the project:

a) Violate any water quality standards or waste discharge requirements?

Less than significant impact. The proposed project would install a digital, electronic LED billboard structure at both the Langton and Arbor sites. The project includes the removal of eight existing billboards with 16 illuminated faces, located throughout Alameda County. Construction activities could allow surface water to carry sediment from on-site erosion and small quantities of pollutants (e.g., oil or fuel used in construction equipment) off-site, thereby potentially affecting local waterways by degrading water quality. Implementation of BMPs as required by National Pollutant Discharge Elimination System Permit C.3 requirements would ensure impacts would be less than significant. Projects that disturb one or more acres of soil are required to obtain the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit), issued by the State Water Resources Control Board (SWRCB). The Construction General Permit requires the proposed project to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP will include project-specific BMPs that are designed to control drainage and to prevent erosion from reaching storm drains during construction activities. The proposed project entails limited construction activities for short durations at urban sites, and would not substantially

affect water quality standards. To the extent de-watering activities would occur, water would be stored in tanks, tested, and hauled off-site. The impact would be less than significant.

- b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted?)**

Less than significant impact. The proposed project would not utilize groundwater sources, and there would be no need to drill wells to supply water for the proposed project. In terms of impervious surface, the Langton sign would not add impervious surface to the project vicinity because the Langton site is currently a paved cul-de-sac. The Arbor site currently does consist of pervious surface, though the impervious surface added by the proposed project, which consists of the Arbor sign's 5-foot-diameter column, would add less than 20 square feet of impervious surface. This amount is insubstantial, and it is not anticipated the proposed project would not affect local aquifers.

However, it is possible that, for the Langton site, the groundwater table could be encountered during excavation to 41 feet and would require dewatering. It is possible that, for the Arbor site, the groundwater table could be encountered during excavation to 39 feet and would require dewatering. Because of the small size of the sites, it is anticipated that de-watering would be necessary for only a single day while the applicant's contractor drills into the sites and installs the foundation. Given the very short-duration in which dewatering would take place, it is not expected this activity would substantially deplete groundwater supplies or interfere substantially with groundwater recharge.

Meanwhile, demolition of the eight sign structures would involve the removal of the signs to grade level, and no disruption or change to impervious surfaces. No impact would therefore occur regarding the depletion of groundwater.

Likewise, operation of the proposed project is unlikely to deplete groundwater supplies or interfere with groundwater recharge. The advertising of goods and services on the proposed digital signs does not affect the volume, movement, or recharge of groundwater.

- c) Substantially alter the existing drainage pattern of area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?**

Less than significant impact.

Arbor Site

The project site consists entirely of pervious surfaces. Construction of the billboard's foundation structure would result in a small footprint (19.6 square feet) that would not substantially impact the amount of runoff from the site, nor would it substantially increase the amount of impervious surfaces compared with existing conditions. The impact on erosion or siltation on- or off-site would be less than significant.

Langton Site

The project site is currently paved and consists entirely of impervious surfaces. Construction of the billboard's foundation structure would result in a small footprint that would not substantially impact the amount of runoff from the site nor increase the amount of impervious surfaces, compared to existing conditions. The impact on erosion or siltation on- or off-site would be less than significant.

Removal Sites

The removal sites are located in urbanized areas, generally over rooftops and other impervious surfaces. Removal of the signs would not affect the amount of impervious surface on any of the removal sites, and would not impact runoff amounts.

- d) **Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?**

Less than significant impact.

Arbor Site

The project site consists entirely of pervious surfaces. Construction of the billboard's foundation structure would result in a small footprint (19.6 square feet) that would not substantially impact the amount of runoff from the site nor would it substantially increase the amount of impervious surfaces, compared to existing conditions. The proposed project would not substantially alter the existing drainage pattern of the site and substantially increase the rate or amount of surface runoff which would result in flooding. The impact would be less than significant.

Langton Site

The project site is currently paved and consists entirely of impervious surfaces. Construction of the billboard's foundation structure would result in a small footprint that would not substantially impact the amount of runoff from the site nor increase the amount of impervious surfaces, compared to existing conditions. The proposed project would not substantially alter the existing drainage pattern of the site and substantially increase the rate or amount of surface runoff which would result in flooding. The impact would be less than significant.

Removal Sites

The removal sites are located in urbanized areas, generally over rooftops and other impervious surfaces. Removal of the signs would not affect the amount of impervious surface on any of the removal sites, and would not impact the associated, existing drainage patterns.

- e) **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?**

Less than significant impact.

Arbor Site

The project site consists entirely of pervious surfaces. Construction of the billboard's foundation structure would result in a small footprint (19.6 square feet) that would not substantially impact the amount of runoff from the site nor would it substantially increase the amount of impervious surfaces, compared with existing conditions. The proposed project would not substantially contribute to runoff water, which would exceed the capacity of existing drainage systems or provide sources of polluted runoff. The impact would be less than significant.

Langton Site

The project site is currently paved and consists entirely of impervious surfaces. Construction of the billboard's foundation structure would result in a small footprint that would not substantially impact the amount of runoff from the site nor increase the amount of impervious surfaces, compared to existing conditions. The proposed project would not substantially contribute to runoff water, which would exceed the capacity of existing drainage systems or provide sources of polluted runoff. The impact would be less than significant.

Removal Sites

The removal sites are located in urbanized areas, generally over rooftops and other impervious surfaces. Removal of the signs would not affect the amount of impervious surface on any of the removal sites, and would not substantially contribute to runoff water that would exceed the capacity of existing drainage systems or provide sources of polluted runoff.

- f) **Otherwise substantially degrade water quality?**

Less than significant impact. The responses to Impacts 9a) through 9e) cover all the potential project impacts on water quality. The project would not substantially degrade water quality. The impact would be less than significant.

- g) **Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?**

No impact. No housing on the project site is proposed. This precludes the possibility of housing being placed within a 100-year flood hazard area. No impacts would occur.

- h) **Place within a 100-year flood hazard area structures which would impede or redirect flood flows?**

No impact. The Federal Emergency Management Agency (FEMA) flood maps identify areas that are prone to flooding. According to the FEMA Flood Insurance Rate Maps Number 06001C0278G and Number 06001C0286G, both the Arbor and Langton project sites are designated Zone X, Area of

Minimal Flood Hazard.³⁷ No housing on the project site is proposed. This precludes the possibility of structures being placed within a 100-year flood hazard area. No impacts would occur.

- i) **Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?**

No impact. There are no levees or dam in the vicinity of the project site. Therefore, impacts related to the failure of levees or dams would not be substantial. No impact would occur.

- j) **Inundation by seiche, tsunami, or mudflow?**

No impact. A seiche is a seismically or wind-induced wave on an enclosed body of water such as a lake or reservoir. There are no lakes or reservoirs in the vicinity, so there would be no seiche hazard. The Langton site is approximately 3.4 miles from the San Francisco Bay, where tsunami inundation is unlikely. The Arbor site is approximately 3 miles from the San Francisco Bay, where tsunami inundation is unlikely. The both project sites are located in a relatively flat area, so mudflows are unlikely to occur. No impact would occur.

Mitigation Measures

None.

³⁷ Federal Emergency Management Agency. 2009. National Flood Insurance Rate Map 06001C0278G. May.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
10. Land Use and Planning <i>Would the project:</i>				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural communities conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Project Area

The project area is an established urban community that has an extensive history of development. No habitat or natural communities conservation plans cover the project area.

Arbor Site

The Arbor portion of the project site would be located on private property not currently containing habitable structures. This location is zoned "Planned Development" (PD) by the 1459th Zoning Unit and designated "General Commercial" (GC) by the County General Plan. No habitat or natural communities conservation plans cover this portion of the project site.

Langton Site

The Langton portion of the project site would be located in a public right-of-way at the end of a cul-de-sac, and does not currently contain habitable structures. The area surrounding the Langton location is zoned "Corridor Neighborhood Commercial" by the Ashland Cherryland Business District Specific Plan and designated "General Commercial" (GC) by the County General Plan. No habitat or natural communities conservation plans cover this portion of the project site.

Removal Sites

The removal sites are located in urbanized areas, generally over rooftops and other impervious surfaces. The project entails the removal of a land use from these sites (i.e., signs), and it is not expected these removal activities will have any adverse land use effects. The removal of signs is viewed by the County, in fact, as a project benefit. Removal of the signs therefore is not discussed further in this section.

Environmental Evaluation

Would the project:

a) Physically divide an established community?

No impact. The physical division of an established community typically refers to the construction of a physical feature, such as an interstate highway or railroad tracks, or removal of a means of access, such as a local road or bridge that would impair mobility within an existing community or between a community and outlying area. Both Arbor and Langton sites are surrounded by established urban areas and have extensive history of development. As such, implementation of the proposed project would not disrupt or divide an established community and no impact would occur.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Less than significant impact. Both the County and Caltrans have jurisdiction because of the proximity to the freeway. Alameda County's Billboard Ordinance, adopted in 2008, prohibits new billboards unless they are part of the County's Billboard Consolidation and Relocation Program. The proposed project would comply with this Program and Alameda County Code Section 17.52.515(A)(3). Section 17.52.515(A)(3) provides that billboards and advertising signs may be installed, moved, altered, expanded, modified, replaced, or otherwise maintained and operated pursuant to a relocation agreement, provided that every subject billboard or advertising sign shall fully comply with County's site development review process and criteria, as set forth under Sections 17.54.220 and 17.54.226 of the County Code.

The proposed Langton site billboard would be located within the County's public right-of-way, which would require minimum ground clearance and building and curb setbacks, as well as issuance of a building permit. The proposed Arbor site billboard would require issuance of a building permit from Alameda County.

Alameda County has no formal requirements regarding brightness, dwell times, or light intensity of advertising signs. The project would be subject to the Caltrans Outdoor Advertising Act and Section 21466.5 of the California Vehicle Code. The project's compatibility with these standards is discussed extensively in Section 1.d of this study, and that discussion is incorporated by reference into this section.

There are residences located near each of the signs, one of which is located about 100 feet north of the Arbor sign, and two residences being located about 40 to 50 feet from the Langton sign. The height of the sign and the orientation of its sign faces were designed with these residences in mind, and a light study (see Appendix A) demonstrates that no nearby home would experience excessive light at the home or in any associated yard. Light levels at these locations would be at about 300 nits, meaning that the signs would always operate at one-sixth of the maximum brightness level set

forth by California state law. Each of the proposed signs, meanwhile, would be located in an urban environment characterized by highway infrastructure, sound walls, utility poles, commercial structures (e.g., gas stations, a four-story senior housing facility, taxi/limo service office) and paved streets and parking lots. With incorporation of MMs AES-1 and AES-2, this impact would be less than significant.

Arbor Site

The closest airport is the Hayward Executive Airport (Airport), located over 1 mile southwest of the project site. The project site is located within the Airport's Influence Area and within Zone 6 Traffic Pattern Zone. The proposed billboard would be approximately 80 feet in height. The project site is within the Hayward Airport CLUP, which indicates that they are subject to FAA FAR Part 77, Objects Affecting Navigable Airspace regulations height restrictions. The proposed project would exceed 48 feet in height and, therefore, had to be reviewed by the FAA. The FAA was consulted and issued a Determination of No Hazard to air navigation on November 30, 2017.

Langton Site

The proposed project would not conflict with any applicable land use plan, or local regulations. The project site is not located within the Airport's Influence Area. While the proposed LED digital billboard may be visible to aircraft taking off or landing at the Airport and from the air traffic control tower, the proposed billboard would not conflict with FAA requirements. The Hayward Airport is located approximately 11,700 feet southwest of the Langton Way site. The proposed billboard would be 80 feet in height. Based on the FAA FAR Part 77 and the Hayward ALUC regulations, the maximum height allowed for structures at the Langton Way billboard site is 116 feet above the ground surface. The proposed billboard would not exceed this height and, therefore, would be consistent with FAA FAR Part 77 and ALUC regulations. Nevertheless, the applicant did consult with the FAA on the sign, which determined the sign was not a hazard to air navigation.

c) Conflict with any applicable habitat conservation plan or natural communities conservation plan?

No impact. No Habitat Conservation Plans, Natural Community Conservation Plans, or other local, regional, or state habitat conservation plans apply to the project sites. Therefore, the proposed project would not result in any conflict with adopted plans. No impact would occur.

Mitigation Measures

None.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
11. Mineral Resources <i>Would the project:</i>				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Project Area

The project area does not support mineral extraction activities, nor do known mineral deposits exist in the project area.

Arbor Site

The Arbor portion of the project site does not support mineral extraction activities, nor do known mineral deposits exist on-site.

Langton Site

The Langton portion of the project site does not support mineral extraction activities, nor do known mineral deposits exist on-site.

Removal Sites

The removal portion of the project site does not support mineral extraction activities, nor do known mineral deposits exist on these properties.

Environmental Evaluation

Would the project:

- 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 project site does not support any mineral extraction activities, nor do any known mineral deposits exist on-site. Therefore, implementation of the proposed project would not 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. Therefore, no impacts would occur.

- 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. The project site does not support any mineral extraction activities, nor do any known mineral deposits exist on-site. Therefore, implementation of this project would not 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. Therefore, no impacts would occur.

Mitigation Measures

None.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
12. Noise <i>Would the project result in:</i>				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

Project Area

The project area contains major highways and other roadways, the consistent use of which by vehicles results in steady ambient noise levels.

Arbor Site

The Arbor portion of the project site is located adjacent to I-880 where there is ambient noise from regular vehicle trips.

Langton Site

The Langton portion of the project site is located adjacent to I-238 and near to SR-185 where there is ambient noise from regular vehicle trips.

Removal Sites

The removal sites generally are located north of the Arbor site and near the Langton site. They are situated in urban environments with noise primarily experienced from local and highway traffic.

Environmental Evaluation

Would the project result in:

- a) **Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

No impact. The proposed LED digital billboards are not designed to emit any sound, and the proposed project would not generate regular vehicle trips. Therefore, the proposed project would not expose people to excessive noise levels. No impact would occur.

- b) **Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?**

Less than significant impact. The County of Alameda has not established a standard for excessive groundborne vibration levels resulting from construction activities. However, the Federal Transit Administration (FTA) has established industry accepted standards for vibration impact criteria and impact assessment in its Transit Noise and Vibration Impact Assessment document (FTA 2006). The FTA guidelines include thresholds for construction vibration impacts for various structural categories.

In extreme cases, excessive groundborne vibration has the potential to cause structural damage to buildings. Common sources of groundborne vibration include construction activities such as blasting, pile driving and operating heavy earthmoving equipment. Construction vibration impacts on building structures are generally assessed in terms of peak particle velocity (PPV). For purposes of this analysis, project related impacts are expressed in terms of PPV.

Short-term Construction Vibration Impacts

Of the variety of equipment that would be used during construction, cranes would produce the greatest groundborne vibration levels. Cranes produce groundborne vibration levels ranging up to 0.051 inch per second (in/sec) peak particle velocity (PPV) at 25 feet from the operating equipment. Impact equipment such as pile drivers is not expected to be used during construction of this project.

Arbor Site

The closest off-site structure to the proposed construction areas is a single-family residence located north of the project site on Arbor Avenue. The facade of the nearest structure on this residential property would be located approximately 40 feet from proposed construction activity where heavy equipment would operate. At this distance, groundborne vibration levels would attenuate to less than 0.025 PPV from the operation of a crane. This is well below the FTA's damage threshold criteria of 0.12 in/sec PPV for the most sensitive type of structures: buildings extremely susceptible to

vibration damage. Therefore, impacts resulting from construction-related groundborne vibration levels would be less than significant.

Langton Site

The closest off-site structure to the proposed construction areas is a single-family residence located south of the project site on Langton Way. The nearest facade of this building would be located approximately 100 feet from proposed construction activity where heavy equipment would operate. At this distance, groundborne vibration levels would attenuate to less than 0.006 PPV from the operation of a crane. This is well below the FTA's damage threshold criteria of 0.12 in/sec PPV for the most sensitive type of structures: buildings extremely susceptible to vibration damage. Therefore, impacts resulting from construction-related groundborne vibration levels would be less than significant.

Operational Vibration Impacts

Implementation of the proposed project would not include any permanent sources that would expose persons in the project vicinity to groundborne vibration levels that could be perceptible without instruments at any existing sensitive land use in the project vicinity. In addition, there are no existing significant permanent sources of groundborne vibration in the project vicinity to which the proposed project would be exposed. Therefore, project operational groundborne vibration level impacts would be considered less than significant.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

No impact. The proposed LED digital billboards are not designed to emit any sound, and the proposed project would not generate regular vehicle trips. Therefore, the proposed project would not expose people to excessive noise levels. No impact would occur.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less than significant impact with mitigation incorporated. Policy P4 of the County's General Plan Noise Element provides that "all construction in the vicinity of noise sensitive land uses, such as residences, hospitals or convalescent homes, shall be limited to 7:00 a.m. to 7:00 p.m. Monday through Friday, and to 8:00 a.m. to 5:00 p.m. Saturday and Sunday." It further states that these "noise source standards may be exceeded as specified in the Alameda County Noise Ordinance in order to allow for temporary construction, demolition or maintenance noise and other necessary short-term noise events." The County's Noise Ordinance, in turn, found in Chapter 6.60 of the Code of Ordinances, provides that quantitative noise limits do not apply to temporary construction activities so long as they do not take place before 7:00 am and 7:00 pm. Finally, Policy P5 of the County's General Plan Noise Element provides that mitigation measures to reduce noise must be included in the appropriate environmental review document and required as a condition of any permit approval. Consistent with the above, the following impacts and mitigation measures are identified.

Removal of the eight existing billboard structures would take approximately two weeks (with 1 to 2 days needed to remove each sign) and involve the use of hand tools and small crane rigs. Construction of the proposed LED digital billboard would involve similar tools in addition to a drill to install the foundation. The LED digital billboards would require approximately 2 to 4 weeks to construct.

Noise generated by construction activities would temporarily elevate noise levels at adjacent noise sensitive receptors for a short duration. The proposed project could result in a significant impact, though application of the measures in MM NOI-1 would reduce impacts to less than significant levels.

With the incorporation of these standard practices, temporary noise impacts resulting from project construction would be considered less than significant.

MM NOI-1 The following construction best management practices are recommended to be included in the proposed project to reduce construction noise levels:

- Limit construction activities on the project site to the hours between 7:00 a.m. to 7:00 p.m., Monday through Friday. Construction will not occur on holidays.
- Equip all internal combustion engine driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- Unnecessary idling of internal combustion engines should be strictly prohibited.
- Located stationary noise-generating equipment such as air compressors or portable power generators as far as possible from sensitive receptors.
- Construct temporary noise barriers to screen stationary noise-generating equipment when located near adjoining sensitive land uses. Temporary noise barriers could reduce construction noise levels by five dBA.
- Utilize “quiet” air compressors and other stationary noise sources where technology exists.
- Route all construction traffic to and from the project site via designated truck routes where possible. Prohibit construction-related heavy truck traffic in residential areas where feasible.
- Control noise from construction workers’ radios to a point where they are not audible at existing residences bordering the project site.
- Designate a “disturbance coordinator” who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (starting too early, bad muffler, etc.) and will require that reasonable measures warranted to correct the problem be implemented. Conspicuously post a telephone number for the disturbance coordinator at the construction site and include in it the notice sent to neighbors regarding the construction schedule.

- 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 expose people residing or working in the project area to excessive noise levels?

Less than significant impact.

Arbor Site

The closest airport is the Hayward Executive Airport, located over 1 mile southwest of the Arbor site. The Arbor site is located within the Airport's Influence Area and within Zone 6 Traffic Pattern Zone. The proposed project would not generate noise nor would it expose receptors to excessive noise levels. Noise associated with operation of the proposed project would be undetectable and would not cumulate with aircraft noise. Construction noise, while detectable, would last for an extremely short time period, and impacts would be less than significant.

Langton Site

The proposed project would not generate noise nor would it expose people to excessive noise levels. The closest airport is the Hayward Executive Airport, located approximately over 2 miles southwest of the Langton site. The Langton site LED digital billboard is not located within the Airport's Influence Area and would not expose receptors to significant noise.

Removal Sites

The removal sites generally are located north of the Arbor site and near the Langton site. They are situated in urban environments with noise primarily experienced from local and highway traffic. The closest removal sites to the Hayward Executive Airport are located approximately 1.4 miles to the northeast, which is within the Airport's Influence Area. However, noise from demolition of the signs, while detectable, would last for an extremely short time period (1 to 4 days), and impacts would be less than significant.

- f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

Less than significant impact.

Arbor Site

The closest airport is the Hayward Executive Airport, located over 1 mile southwest of the Arbor site. The Arbor site is located within the Airport's Influence Area and within Zone 6 Traffic Pattern Zone. The proposed project would not generate noise nor would it expose receptors to excessive noise levels. Noise associated with operation of the proposed project would be undetectable and would not cumulate with aircraft noise. Construction noise, while detectable, would last for an extremely short time period, and impacts would be less than significant.

Langton Site

The proposed project would not generate noise nor would it expose people to excessive noise levels. The closest airport is the Hayward Executive Airport, located approximately over 2 miles southwest of the Langton site. The Langton site LED digital billboard is not located within the Airport's Influence Area and would not expose receptors to significant noise.

Removal Sites

The removal sites generally are located north of the Arbor site and near the Langton site. They are situated in urban environments with noise primarily experienced from local and highway traffic. The closest removal sites to the Hayward Executive Airport are located approximately 1.4 miles to the northeast, which is within the Airport's Influence Area. However, noise from demolition of the signs, while detectable, would last for an extremely short time period (1 to 4 days), and impacts would be less than significant.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
13. Population and Housing <i>Would the project:</i>				
a) Induce substantial 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Project Area

According to the California Department of Finance, Alameda County’s estimated population for 2017 is approximately 1,660,202 and is expected to grow to 1,873,622 by 2030.

Arbor Site

The Arbor portion of the site is located within the vicinity of residential development, but no residences exist on this portion of the project site.

Langton Site

The Langton portion of the project site is located within the vicinity of residential development, but no residences exist on this portion of the project site.

Environmental Evaluation

Would the project:

- a) **Induce substantial 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 project would install two digital, electronic billboards at two locations in Alameda County. The project includes the removal eight existing billboards with 16 illuminated faces located

throughout Alameda County. The project would not induce population growth directly or indirectly. There would be no impact.

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

No impact. The proposed project would not displace any existing housing. Therefore, no construction of replacement housing is necessary. No impact would occur.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No impact. The proposed project would not displace any people. Therefore, no construction of replacement housing is necessary. No impact would occur.

Mitigation Measures

None.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
14. Public Services				
<i>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:</i>				
a) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Project Area

Fire service for the project area is provided by the Alameda County Fire Department (ACFD). Law enforcement services for the project area are provided by the Alameda County Sheriff’s Office. The project area is served by the San Lorenzo Unified School and Hayward Unified School Districts.

Arbor Site

There is no fire, police, schools or other governmental services facility on the Arbor portion of the project site. There are also no habitable structures that require emergency fire and police service access nor school-aged children on this portion of the project site.

Langton Site

There is no fire, police, schools or other governmental services facility on the Langton portion of the site. There are also no habitable structures that require emergency fire and police service access nor school-aged children on this portion of the project site.

Environmental Evaluation

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:

a) Fire protection?

Less than significant impact. Fire service for the project area is provided by the Alameda County Fire Department (ACFD). The ACFD, formed in 1993, brought together the Castro Valley Fire Department, the Eden Fire Department, and the County Fire Patrol under a single jurisdiction. San Lorenzo Station #1, Cherryland Station #2, and Ashland Station #3 are the three ACFD stations serve the Eden Area. The Cherryland Station #2 is the closest station to the project site, located approximately 0.95 mile south from the Langton site and 0.56 mile north from the Arbor site. The project proposes the removal eight existing billboards with 16 illuminated faces located throughout Alameda County and the installation of two electronic billboards at the Arbor and Langton sites. The proposed billboards would be constructed in conformance with current codes and regulations that would reduce potential fire hazards. Although the proposed project may increase the need for fire protection services at the Arbor and Langton site, fire service demand would be lessened overall insofar as the 16 illuminated display sign faces, build under older building code provisions, would no longer be operating. There would be no need, therefore, for new or expanded fire protection facilities, and project impacts of fire protection services would be less than significant.

b) Police protection?

Less than significant impact. Law enforcement services for the project area are provided by the Alameda County Sheriff's Office. The Sheriff's Office Department is staffed with 140 sworn officers. The Eden Township Substation, staffed with 70 officers, is the closest station to the project site. The station is located at 15001 Foothill Boulevard, approximately 1.73 miles northwest from the Langton project site and approximately 3.08 miles north from the Arbor project site. According to the Eden Area General Plan, the ratio of officers per thousand residents in the Eden Area is 0.92.³⁸ The proposed project would not increase the population and thus would result in an increased demand for police protection. While the construction of two new signs potentially could create a target for graffiti, the proposed project contemplates the removal of 16 sign faces, and the overall risk of property crime would be reduced. A less than significant impact would occur.

c) Schools?

No impact. The Eden Area is served by the San Lorenzo Unified School District and the Hayward Unified School District. The proposed project would not increase the population and thus would result in an increased demand for school facilities. No impact would occur.

d) Parks?

No impact. Implementation of the proposed project would not result in an increase in population or an increase in demand of existing parks and recreational facilities. The closest recreational facility to the Arbor site is Cannery Park, which is approximately 0.50 mile east of the site. The closest recreational facility to the Langton site is Meek Park, which is approximately 0.38 mile southwest of

³⁸ Alameda County. 2010. Eden Area General Plan. March.

the site. There would be no need for the construction of new parks and recreational facilities. No impact would occur.

e) Other public facilities?

No impact. The implementation of the proposed project would not result in an increase in population or an increase in demand for other public facilities. Therefore, there would be no need for the construction of new public facilities and no impact would occur.

Mitigation Measures

None.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
15. Recreation				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Project Area

There are no parks or other recreational facilities within the project area.

Arbor Site

The closest recreational facility to the Arbor portion of the project site is Cannery Park, which is located approximately 0.50 mile east.

Langton Site

The closest recreational facility to the Langton portion of the project site is Meek Park, which is located approximately 0.38 mile southwest.

Environmental Evaluation

- 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 would install two digital, electronic billboards at two locations in Alameda County. The project includes the removal eight existing billboards with 16 illuminated faces, located throughout Alameda County. The closest recreational facility to the Arbor site is Cannery Park, which is approximately 0.50 mile away. The closest recreational facility to the Langton site is Meek Park, which is approximately 0.38 mile away. The project would not generate new residents that could increase the demand and use of nearby parks or recreational facilities. Therefore, the proposed project would not result in any physical deterioration of recreational facilities. No impact would occur.

- 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 would install two digital, electronic billboards at two locations in Alameda County. The project includes the removal eight existing billboards with 16 illuminated faces, located throughout Alameda County. The project would not generate new residents that could increase the demand and use of nearby parks or recreational facilities. Therefore, construction or expansion of recreational facilities would not be required. No impact would occur.

Mitigation Measures

None.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
16. Transportation/Traffic <i>Would the project:</i>				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Project Area

The project area is urban and traversed by several roadways and major highways, including I-238 and I-880.

Arbor Site

The Arbor portion of the project site where a new billboard would be sited is located 150 feet east of I-880. The four billboards to be removed from this Arbor portion of the project site are located along East Lewelling Boulevard, SR-185, and Foothill Boulevard.

Langton Site

The Langton portion of the project site where a new billboard would be sited is located 100 feet south of I-238. The four billboards to be removed from this Langton portion of the project site are located along East Lewelling Boulevard and SR-185.

Environmental Evaluation

Would the project:

- a) **Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?**

No impact. The long-term operation of the proposed billboard sign would include vehicle trips with minimal and irregular maintenance activities, occurring only as needed (less than once per month and likely only one vehicle). Therefore, the proposed project would not increase traffic congestion on the surrounding roadways or freeways, or affect level of service standards at nearby intersections. Construction-related traffic, including truck and construction worker trips, would not substantially affect traffic conditions during the short duration of project construction of the new billboard and the removal of the existing billboards. No impact would occur.

- b) **Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?**

Less than significant impact. The project entails the construction and removal of signs. Construction and demolition activities would involve negligible traffic, generated largely during off-peak hours, and is not expected to affect traffic congestion on an individual or cumulative basis. In terms of operations, irregular maintenance of the two proposed signs would be required, though the removal of the 16 billboard sign faces would eliminate maintenance activities regarding those signs, resulting in an overall decrease in traffic. As such, impacts on traffic congestion and other County standards would be less than significant.

- c) **Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?**

Less than significant impact. The applicant consulted with the FAA on the Langton and Arbor signs, which reviewed the proposed project specifications and determined on November 30, 2017 that the signs would present no hazards to air navigation. Based on this review, as well as the viewing angles of the airport control tower and pilots landing aircraft, potential safety hazards to pilots and air traffic controllers would be less than significant. In addition, as discussed in Impact 1c) and Impact 8f), operation of the LED digital billboards is subject to all applicable regulations related to the

operational standards for programmable and non-programmable components of the billboard. The implementation of MM AES-1 and MM AES-2 would ensure that impacts remain less than significant.

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

Less than significant impact with mitigation incorporated. The project entails the removal of 16 sign faces and the construction of two new billboards with two sign faces each. To the extent the new signs would have any potential to distract drivers, this issue is addressed in Section 2.1(d), which is incorporated here by reference. With implementation of MM AES-1 and MM AES-2, this impact would be less than significant.

e) Result in inadequate emergency access?

Less than significant impact with mitigation incorporated. The project consists of the removal of eight signs and the construction of two signs. The Arbor sign is located on private property and has an insignificant potential to interfere with traffic access or the evacuation during an emergency. The Langton sign is located in a public right-of-way, but the Alameda County Fire Department has reviewed the proposed project plans and determined on May 8, 2018 there is appropriate fire access to the site and surrounding parcels so long as the cul-de-sac is designated no parking. Implementation of MM HAZ-3, which requires the cul-de-sac curbs be designated no parking, would therefore reduce impacts to a less than significant level.

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

No impact. The project would not conflict with public transit, bicycle, or pedestrian policies. No impact would occur.

Mitigation Measures

None.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
17. Tribal Cultural Resources <i>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 California Native American tribe, and that is:</i>				
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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Evaluation

This section describes the existing TCRs setting and potential effects from project implementation on the site and its surrounding area. Conclusions are based on initial consultation with the NAHC and subsequent consultation with tribal representatives identified by the NAHC who may have interest in or additional information on TCRs that may be impacted by project development. Copies of all consultation conducted by FirstCarbon Solutions (FCS) may be found in Appendix C. The review presents the methods employed to identify TCRs, assesses potential impacts to those resources, and presents recommendations to address potential impacts.

Regulatory Framework

California Assembly Bill 52

Assembly Bill 52 (AB 52) was signed into law on September 25, 2014, and provides that any public or private “project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment.” Tribal Cultural Resources include “[s]ites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are eligible for inclusion in the California Register of Historical Resources or included in a local register of historical resources.” Under prior law, Tribal Cultural Resources were typically addressed under the umbrella of “cultural resources,” as discussed above. AB 52 formally added the category of “tribal cultural resources” to CEQA, and extends the consultation and confidentiality requirements to all projects, rather than just projects subject to SB 18 as discussed above.

The parties must consult in good faith, and consultation is deemed concluded when either: (1) the parties agree to measures to mitigate or avoid a significant effect on a tribal cultural resource (if such

a significant effect exists); or (2) when a party concludes that mutual agreement cannot be reached. Mitigation measures agreed upon during consultation must be recommended for inclusion in the environmental document. AB 52 also identifies mitigation measures that may be considered to avoid significant impacts if there is no agreement on appropriate mitigation. Recommended measures include:

- Preservation in place
- Protecting the cultural character and integrity of the resource
- Protecting the traditional use of the resource
- Protecting the confidentiality of the resource

Permanent conservation easements with culturally appropriate management criteria.

Methodology

NAHC Sacred Lands File Record Search and Tribal Consultation

On May 10, 2018, FCS sent a letter to the NAHC in an effort to determine whether any sacred sites are listed on its Sacred Lands File within the project areas. A response from the NAHC was received on May 29, 2018 indicating that the Sacred Lands File search failed to indicate the presence of Native American cultural resources in the immediate vicinity of the project areas. The NAHC included a list of six local tribal representatives available for consultation. To ensure that all Native American knowledge and potential prehistoric concerns about the proposed project are addressed, a letter containing project information and requesting any additional information was sent to each tribal representative on June 7, 2018. No responses have been received to date. Tribal consultation efforts conducted by Alameda County pursuant to AB-52 also did not receive any responses from tribes interested in consulting on the proposed project.

Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, tribal cultural resources impacts resulting from the implementation of the proposed project would be considered significant if the proposed project would 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 California Native American tribe, and that is:

- 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.

Would the project:

- a) **Cause a substantial adverse change in the significance of a tribal cultural resource 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. Reviews of the California Register of Historical Resources, a records search conducted at the NWIC, and an NAHC Sacred Lands file search did not indicate the presence of Tribal Cultural Resources located in the immediate vicinity of the project sites. As such, no known eligible or potentially eligible Tribal Cultural Resources will be adversely affected by the proposed project.

- b) **Cause a substantial adverse change in the significance of a tribal cultural 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?**

Less than significant impact. No Tribal Cultural Resources significant to the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1 have been identified by the lead agency. FCS conducted tribal outreach with the six tribal representatives identified by the NAHC. As of this date, none of the tribes has responded or otherwise identified any tribal cultural resources associated with the project locations, and the City has not identified any tribal cultural resources in its capacity as Lead Agency. As such, no known TCRs would be adversely affected by the proposed project.

Mitigation Measures

None.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
18. Utilities and Service Systems				
<i>Would the project:</i>				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h) Encourage activities that result in the use of large amounts of energy, or use of energy in a wasteful manner? ³⁹	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

Project Area

Oro Loma Sanitary District (OLSD) provides wastewater service and East Bay Municipal Utility District (EBMUD) provides water service within the project area. In addition, both the Altamont and Vasco Road Landfills in Livermore serve the project area.

³⁹ This environmental issue question is included for purposes of addressing CEQA Guidelines Appendix F.

Arbor Site

The Arbor portion of the project site does not contain water or wastewater infrastructure and does not generate a demand for water supply, wastewater collection, or solid waste disposal.

Langton Site

The Langton portion of the project site does not contain water or wastewater infrastructure and does not generate a demand for water supply, wastewater collection, or solid waste disposal.

Removal Sites

The removal sites may contain water or wastewater infrastructure to support uses on each of the sites, though removal of the signs to grade would not involve any interference with these services.

Environmental Evaluation

Would the project:

- a) **Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?**

No impact. Wastewater treatment service in most of the Eden Area is provided by Oro Loma Sanitary District (OLSD). OLSD treats flows from its service area as well as the Castro Valley Sanitary District service area. Most of the wastewater from the Eden Area is handled at the San Lorenzo treatment plant, which has a peak dry weather treatment capacity of 20 million gallons per day (mgd) and the average dry weather wastewater flow of 15 mgd. The operation of the proposed billboard project would not generate demand for wastewater services, and thus would have no related impact.

- b) **Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

No impact. The operation of the proposed billboard project would not generate demand for wastewater services. Therefore, it would not require the construction or wastewater treatment facilities or new expansion of existing facilities. No impact would occur.

- c) **Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

No impact. The Arbor site consists entirely of pervious surfaces. Construction of the billboard's foundation structure would result in a small footprint (19.6 square feet) that would not substantially increase stormwater runoff from the site and the existing stormwater system would not be affected.

The Langton site is covered with impervious surfaces. Therefore, construction and installation of the proposed billboard would not increase stormwater runoff from the site and the existing stormwater system would not be affected.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

No impacts. East Bay Municipal Utility District (EBMUD) provides water service to the project area. The proposed project would not generate demand for water. Construction and operation of the proposed project would not result in existing water systems exceeding capacity or require the construction of new facilities. Therefore, there would be no impact on water supplies and existing entitlement and resources.

e) 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 operation of the proposed billboard project would not generate demand for wastewater services. Therefore, it would not require the construction or wastewater treatment facilities or new expansion of existing facilities. No impact would occur.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Less than significant impact. The removal of eight billboard structures would generate some waste materials that would be disposed of at landfills that accept demolition waste from contractors. Generally, there is enough capacity at landfills in northern California that are likely to receive solid waste materials that have not been diverted for resource recovery.

Two landfills serve Alameda County: the Altamont Landfill in Livermore and Vasco Road Landfill in Livermore. According to CalRecycle, the Altamont Landfill has a maximum permitted capacity of 124.4 million cubic yards, and a maximum permitted throughput of 11,150 tons per day. According to CalRecycle, the Vasco Road Sanitary Landfill has a maximum permitted capacity of 32.97 million cubic yards, and a maximum permitted throughput of 2,518 tons per day. Project construction activities would generate minimal solid waste associated with excel construction materials. Disposal of waste would comply with all applicable regulations. As such, the proposed project would have a less than significant impact on landfill capacity and solid waste regulations and would comply with all federal, state, and local statutes and regulations related to solid waste reduction and removal.

g) Comply with federal, state, and local statutes and regulations related to solid waste?

Less than significant impact. Solid waste disposal would follow the requirements of the franchised waste hauler, which must adhere to federal, state, and local statutes and regulations related to the collection of solid waste. The project would comply with all state and local waste diversion requirements. The Arbor site would be consistent with policies and actions stated in the Eden Area General Plan's Public Facilities and Service Element. Disposal of waste would comply with all applicable regulations. As such, the proposed project would have a less than significant impact on landfill capacity and solid waste regulations and would comply with all federal, state, and local statutes and regulations related to solid waste reduction and removal.

h) Encourage activities that result in the use of large amounts of energy, or use of energy in a wasteful manner?

Less than significant impact. The proposed project would result in a commitment of resources and energy during construction and operation, as described below.

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.⁴⁰ The annual energy use of a digital billboard can range from 50 to 320 MWh.⁴¹ Energy consumption for the proposed project is estimated at 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.⁴² 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 PG&E, which obtains its energy supplies from power plants and natural gas fields in northern 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 Northern California. PG&E 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, PG&E already met this goal by 2016 and provided 33% of its retail electricity

⁴⁰ Energy Solutions. 2014. Digital Billboard Energy Use in California. Website: https://www.etcc-ca.com/sites/default/files/reports/et1_4sdg8011_digitalbillboardreport_2014-7.pdf. Accessed July 20, 2018.

⁴¹ 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 July 20, 2018.

⁴² Energy Solutions. 2014. Digital Billboard Energy Use in California. Website: https://www.etcc-ca.com/sites/default/files/reports/et14sdg8011_digitalbillboardreport_2014-7.pdf. Accessed July 20, 2018.

from renewable energy resources⁴³. 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 2.16, Transportation, vehicle maintenance trips would be irregular (less than one per month), and the operation of the signs would not generate daily trips. Moreover, maintenance trips would be expected to be less frequent than those associated with maintenance of the 16 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). The California Natural Resources Agency ("CNRA") has stated that lifecycle analyses are not required under CEQA,⁴⁴ and in December 2009 CNRA issued new energy conservation guidelines for EIRs that make no reference to lifecycle emissions.⁴⁵ 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.⁴⁶

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.

Mitigation Measures

None.

⁴³ CPUC. 2018. Current Renewable Procurement Status. Website: http://www.cpuc.ca.gov/RPS_Homepage/. Accessed July 20, 2018.

⁴⁴ 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 February 4, 2010.

⁴⁵ 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.

⁴⁶ 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 February 4, 2010.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
19. Mandatory Findings of Significance				
a) Does the project have the potential to 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, 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Environmental Evaluation

- a) **Does the project have the potential to 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, 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 impact with mitigation incorporated. As described in Section 2.4, Biological Resources, the proposed project would not result in significant environmental impacts to wildlife or plant species. There are no known special-status species on the billboard construction or removal sites, though this analysis provides for mitigation in the event any nests are encountered. In addition, the proposed project would not adversely affect geology/soils or hydrology/water quality in any significant matter. The project includes mitigation and avoidance measures to reduce construction-related impacts related to archeological and paleontological resources. Therefore, with implementation of MMs BIO-1, BIO-2, CUL-1 and CUL-2, the proposed project would not degrade the quality of the environment at a project- or cumulative-level in terms of biological resources, geology/soils, hydrology/water quality, or cultural resources. See analyses under Topic 18b for

further discussion with regard to air quality and GHG emissions that can result in the potential degradation of the quality of the environment.

- b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?**

Less than significant impact. The combined effects of past, current, and future projects in the project area in combination with the proposed project—installation of two new electronic billboards and removal of eight traditional billboards in an urban area of Alameda County—would not result in significant cumulative impacts.

Operation of the proposed project would involve the display of messages on four electronic billboards near I-880 and I-238. Operation entails no noise production, minimal maintenance traffic (and less than currently occurs with maintenance of the eight signs to be removed), and no emissions. The project’s lighting would have the potential to cumulate with other reasonably foreseeable projects, but the proposed project’s lighting specifications (limiting operation to a maximum of 0.3-foot candle at 250 feet) takes account of existing ambient lighting. Moreover, the brightness of the LED sign faces would be dimmable to reflect ambient light conditions. Separately, there are no reasonably foreseeable development projects in the immediate vicinities of the Arbor and Langton sites that would have lighting impacts that could cumulate with the proposed project’s lighting. With respect to electricity usage, the LED lighting used in the proposed billboard would meet Title 24 requirements for energy efficiency. While the signs electricity usage is associated with off-site emissions where power is generated, the IS/MND’s analysis of greenhouse gases demonstrates the proposed project falls well below applicable BAAQMD thresholds, which account for cumulative impacts of climate change. Therefore, the proposed project, because of its size and utilization of energy efficient lighting, would not make a cumulatively considerable contribution to cumulative GHG emissions or result in an overall impact to local and regional levels of GHG emissions.

With respect to construction, the construction activities necessary to construct the two LED signs and demolish the eight existing signs is de minimis, requiring very little equipment and occurring within a timeframe of four weeks. However, as detailed in this IS/MND, equipment related to construction would result in dust, noise, risks related to the handling of hazardous materials, and potential impacts to cultural resources. Accordingly, the proposed project includes BAAQMD-recommended mitigation and avoidance measures to reduce temporary, construction-related impacts related to air quality; noise mitigation measures to reduce noise impacts to less than significance; protocols for handling hazardous materials so as to reduce risks to insignificant levels; and measures designed to ensure impacts to cultural resources are less than significant. These measures ensure not only that the proposed project, individually, would not have a significant impact, but that it would not make a considerable contribution to any cumulative impact. Meanwhile, the proposed project does not contemplate activities within close proximity of any reasonably foreseeable construction projects (i.e., at least 1,000 feet), and so the potential for

cumulative impacts to occur is low to non-existent. Therefore, with implementation of the foregoing mitigation measures, the proposed project would not result in adverse impacts at a project- or cumulative-level in terms of air quality or GHG emissions. See analyses under Topics 18a and 18c for further discussions with regard to cumulative impacts.

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

Less than significant impact with mitigation incorporated. The project would be consistent with the County's goals set forth in the Municipal Code such as the no new billboard policy (Section 17.52.515(A)(3)).

For the Langton site, removal of four billboard structures would improve aesthetics/visual quality along Lewelling Boulevard and East 14th Street. The proposed project would include mitigation measures to minimize light and glare and traffic hazards for vehicle drivers along I-238. For the Arbor site, removal of an additional four billboard structures would improve visual quality along Lewelling Boulevard, Foothill Boulevard, and East 14th Street. The proposed project would include mitigation measures to minimize light and glare and traffic hazards for vehicle drivers along I-880.

The project also would not make sizable contributions to traffic or noise or substantially change land uses. In addition, the proposed project would not affect public services, utilities, recreation, mineral resources, agriculture/forestry resources, or population/housing balance. With implementation of the mitigation measures discussed in Section 2.8, Hazards and Hazardous Materials, the proposed project would also not expose human beings to significant risks related to hazards/hazardous materials. Therefore, with implementation of Mitigation Measures HAZ-1 and HAZ-2, the proposed project would not cause direct or indirect substantial adverse effects on human beings at a project- or cumulative-level in terms of aesthetics/light-glare, traffic/traffic safety, noise, land use, public services, utilities, recreation, mineral resources, agriculture/forestry resources, population/housing, or hazards/hazardous materials. See analyses under Topics 18a and 18b for further discussions with regard to aesthetics, geology/soils, hydrology/water quality, air quality, and GHG emissions that can result in indirect substantial adverse effects on human beings.

Mitigation Measures

See Mitigation Measures AES-1, AES-2, AIR-1, BIO-1, BIO-2, CUL-1, CUL-2, HAZ-1, and HAZ-2.

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