Final

ENVIRONMENTAL IMPACT REPORT

SAN FERNANDO SOUNDSTAGE CAMPUS EIR

CITY OF GLENDALE

(SCH No. 2022090166)

Prepared for:

City of Glendale
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Appendices

1.0 INTRODUCTION

A. PURPOSE

As described in California Environmental Quality Act Guidelines (CEQA Guidelines) Section 15089, California Code of Regulations, title 14, Section 15089, a lead agency must prepare a Final Environmental Impact Report (Final EIR) before approving a project. This Final EIR for the San Fernando Soundstage Campus Project (Project) has been prepared in accordance with CEQA Guidelines Section 15132, which lists the required contents for a Final EIR. As required by that section, this Final EIR consists of the following: the March 2023 Draft EIR for the Project; corrections, clarifications, and additions to the Draft EIR; copies of the comment letters received on the Draft EIR; a list of persons, organizations, and public agencies commenting on the Draft EIR; responses to all comments received; a Mitigation Monitoring and Reporting Program (MMRP); and other information added for clarification by the lead agency, each described further below.

B. ENVIRONMENTAL REVIEW PROCEES

As defined in CEQA Guidelines Section 15050, the City of Glendale is the Lead Agency responsible for preparing the EIR for the Project. The City determined that preparation of an EIR was required for the Project after conducting preliminary review and preparing an Initial Study for the Project, dated September 8, 2022, in accordance with CEQA Guidelines Sections 15060 and 15063. In compliance with CEQA Guidelines Section 15082, a Notice of Preparation (NOP) was issued on September 12, 2022, to the State Clearinghouse, various public agencies, and other interested parties for the required 30-day review and comment period. All NOP comments relating to the EIR were reviewed and the issues raised in those comments were considered in the preparation of the Draft EIR. The NOP, including the Initial Study, the NOP comments received by the County, and the Scoping Meeting comments, are contained in Appendix A of the Draft EIR. The Draft EIR was circulated for a 30-day public review period, which is 2 days longer than required by CEQA, from April 3, 2023, to May 3, 2023.

C. CONTENTS OF THE FINAL EIR

Section 1.0: Introduction. This section summarizes the Project under consideration and describes the contents of the Final EIR. This chapter also contains a list of all agencies or persons who submitted comments on the Draft EIR during the public review period, presented in the following order: federal, State, and local agency; tribal entity; organization; individual; and date received.

Section 2.0: Responses to Written Comments. This section contains the comment letters received by the City of Glendale, Community Development Department – Planning Division, the Draft EIR, followed by responses to individual comments. Each comment letter is numbered and identified for reference, and the individual comments in each letter are also identified by number. Each comment letter is followed by written responses to each of the comments in that letter.

Some comments that were submitted to the City of Glendale, Community Development Department – Planning Division, do not pertain to substantial environmental issues or do not address the adequacy of the analysis contained in the Draft EIR. Responses to such comments, though not required, are included to provide additional information. When a comment does not directly pertain to environmental issues analyzed in the Draft EIR, does not ask a question about the adequacy of the analysis contained in the Draft EIR, expresses an opinion related to the merits of the Project, or does not question an element of or conclusion of the Draft EIR, the response notes the comment and may provide additional information where appropriate. Many comments express opinions about the merits or specific aspects of the Project and these are included in the Final EIR for consideration by the decision-makers.

Section 3.0: Corrections, Clarifications, and Additions to the Draft EIR. This section describes changes and refinements made to the Project since publication of the Draft EIR. These refinements, clarifications, amplifications, and corrections, which are described in the beginning of the section, would not change the environmental analysis and conclusions presented in the Draft EIR for the reasons discussed in this section. This section also summarizes text changes made to the Draft EIR in response to comments. Changes to the text of the Draft EIR are shown by either ~~strikethrough~~ where text has been deleted, or double underline where new text has been inserted.

Section 4.0: Mitigation Monitoring and Reporting Program. This section contains the Mitigation Monitoring and Reporting Program (MMRP) required by Public Resources Code section 21081.6(a).

2.0 RESPONSES TO WRITTEN COMMENTS

A. INTRODUCTION

This section includes copies of the comment letters received by the City of Glendale, Community Development Department – Planning Division, on the Draft Environmental Impact Report (EIR). Each letter is numbered for reference and the individual comments in each letter are identified by number. Each comment letter is followed by written responses to each of the comments in that letter.

The letters and responses are organized into the following categories: public agencies, private organizations, public businesses, and individuals. Following each comment letter is a response by the City of Glendale, Community Development Department – Planning Division, that supplements, clarifies, or amends information provided in the Draft EIR, that refers the reader to the appropriate place in the Draft EIR or Responses to Written Comments section where the requested information can be found, or that otherwise responds to the comment.

Where changes to the Draft EIR have been made in response to the comments on the Draft EIR, these changes are included in the response following the comment; changes to the text of the Draft EIR as a result of comments are also provided in **Section 2.0: Corrections, Clarifications, and Additions to the Draft EIR**. Where revisions to mitigation measures have been made in response to the comments on the Draft EIR, these changes are included in the response following the comment and are also provided in **Section 4.0: Mitigation Monitoring and Reporting Program** in this Final EIR.

FRANCESCA SMITH

May 3, 2023- revised

Ms. Aileen Babakhani, Planner
City of Glendale, Community Development Department- Planning Division
633 E. Broadway, Room 103
Glendale, CA 91206
via e-mail ababakhani@glendaleca.gov

RE: Comments on Draft Environmental Impact Report for San Fernando Sound Stage Campus Project

Dear Ms. Babakhani**:**

Thanks for the opportunity to comment on the above-referenced Draft Environmental Impact Report (DEIR). This letter focuses on inadequacies and errors made regarding cultural resources impacts and focuses on the Main and Shipping Buildings that together comprise the Hollywood Water Heater Co. at 5426 San Fernando Road.

Historic Significance of 5426 San Fernando Road

The DEIR inexplicably states "The Project Site does not contain any historic buildings as discussed in Section 4.3: Cultural Resources" (page 4.1-24). The Main and Shipping Buildings at the project subject property, 5426 San Fernando Road was found to be individually eligible for listing in the Glendale Register of Historical Resources in the South Glendale Historic Resources Assessment technical report for the South Glendale Community Plan (2018). See Attachment 1.

Based on that finding, the City of Glendale, which is the Lead Agency for this project under the California Environmental Quality Act should consider it a "presumptive" historical resource. A presumptive historical resource is defined in the California Code of Regulations as *"A resource* included in a local register of historical resources or *identified as significant in an historical resources survey"* (CCR, Section 15064.1 (a)(2)). 1-1

In the Cultural Resources Appendix to the Draft EIR, two different consultants re-evaluated the subject property but neither found the property to be locally significant. Whether or not a property is historically significant is the purview of the Lead Agency under CEQA, not a developer's consultants. 1-2

The South Glendale Historic Resources Assessment results have been questioned unsuccessfully more than once by the project proponent's consultants, ESA and Sapphos. The last time ESA was publicly proven wrong was for their evaluation of Harriet & Adolph Becker Residence at 1642 South Central Avenue for historic significance where alterations to the rare 1913 Craftsman style house were grossly exaggerated (Final 1642 S. Central Ave. Glendale, California Historic Resources Assessment Prepared for Levon Flilian, August 2018). In that case, the City Council, staff and The Glendale Historical Society disagreed with their opinion and the consultant's 1-3

findings were overturned (June 11, 2019 Item 9a. (Demolition Permit Application No. PDPRV1821880)).

A few examples of instances where ESA, its predecessors and key staff have supported project proponents' proposals against designation, in favor of demolition or substantial alterations to known or assumed historical resources include:

Table 1

Property	*Role, Notes*	*Year*
Philip Ahn House 6877-6811 Alta Loma Drive Los Angeles	Recommended against designation of a property identified in Survey LA in 2015 as a rare example of a Craftsman style home with Japanese influences, and unique hillside example of streetcar residential development in Hollywood, associated with the original 1920s development. In 2018, SurveyLA's "Korean Americans in Los Angeles Historic Context Statement" found the property additionally eligible for designation for its association with notable tenant, actor Philip Ahn. The Los Angeles Conservancy supported the designation. See https://www.laconservancy.org/issues/philip-ahnkurt-cobain-residence	2022
Berger-Winston Building 744 Ridgley Drive Los Angeles	On behalf of the owner, presented a case against the designation of a Chateauesque style apartment building constructed in 1937. Architectural Resources Group advocated for its designation, which was successful. See https://planning.lacity.org/StaffRpt/CHC/2017/7-20-2017/BergerWinstonAptBldg_744SRidgeleyDr_Final.pdf and *Larchmont Chronicle* June 29, 2017	2017
2017 Wurfl Court 1450-1456 Echo Park Avenue Los Angeles	For the owner, worked unsuccessfully to avoid designation of a 1922 Bungalow court. See https://planning.lacity.org/StaffRpt/CHC/2017/3-02-2017/WurflCourt_Final.pdf	2017
Lytton Savings Building 8150 Sunset Boulevard	Prepared the documentation that enabled demolition of the locally designated Lytton Savings Building built in 1960. Project was strongly opposed by and unsuccessfully litigated by the Los Angeles Conservancy. No replacement project has been built in place resource which was demolished. See https://www.laconservancy.org/issues/chase-bank-lytton-center	2013-2016
154 Pearl Street Laguna Beach	While at earlier iteration of firm (PCR), Margarita Wuellner advocated for the property owner to limit a historic property's period of significance to allow significant alterations and a very large additional residence to be built at the 1883 property. Village Laguna opposed the re-evaluation's findings and the project. See https://www.latimes.com/socal/daily-pilot/news/tn-cpt-1217-cottage-20101217-story.html and 154 Pearl St, Laguna Beach, CA 92651 | Zillow	2014
"Old Landing Site" Newport Beach	While at PCR, Margarita Wuellner prepared a letter to the City of Newport Beach asserting that California Historical Landmark #198, designated in 1935 was no longer historically significant. The plaque was removed. See https://www.californiahistoricallandmarks.com/landmarks/chl-198	2013

1-3

The other consultant, Sapphos, notably prepared cultural resources technical reports for the 534 N. Kenwood Street project which was recently successfully litigated by The Glendale Historical Society because of expected historical resources impacts.

Examples of Sapphos Environmental, Inc. instances where project proponents' proposals for demolition or substantial alterations were supported are in Table 2 on pages 2 and 3.

Table 2

Property	*Role, Notes*	*Year*
Chili Bowl 2244 West Pico Boulevard, Los Angeles	Sapphos was hired after programmatic-style 1935 building was nominated as Cultural-Historic Monument, opposed by the Los Angeles Conservancy See https://www.laconservancy.org/issues/chili-bowl-west-los-angeles	2022

Property	*Role, Notes*	*Year*
Pig N'Whistle 6714 Hollywood Boulevard, Hollywood Boulevard Commercial & Entertainment Historic District, Los Angeles	Prepared after-the-fact memo reviewing and approving highly controversial alterations made without permits to National Register-listed historic district contributor built in 1927. Project was opposed by the Los Angeles Conservancy and Hollywood Heritage. See https://laist.com/news/food/why-gutting-the-pig-n-whistle-was-a-betrayal-for-hollywood-history-buffs and https://www.hhprc.org/update-on-the-pig-n-whistle	2022
2960 St. Gregory Road Glendale	Recommended alterations to Mid-Century Modern residence designed by Charles Walton, AIA, in 1962. Project was opposed by The Glendale Historical Society.	2022
Crenshaw Women's Center 1027 South Crenshaw Boulevard Los Angeles	Hired after the building, constructed in 1920 and found to possess associative significance, had been nominated as a Cultural-Historic Monument. Project was opposed by the Los Angeles Conservancy See https://www.laconservancy.org/issues/crenshaw-womens-center	2021
John K. Van de Kamp House 801 South San Rafael Avenue Pasadena	Hired after Monterey Revival style residence built by Holmes Tuttle in 1947 was nominated as a local historic resource. Project was opposed by Pasadena Heritage. See https://www.pasadenanow.com/main/historic-commission-to-consider-landmark-designation-for-van-de-kamp-home	2021
1039 W. Mountain Street, North Cumberland Heights Historic District, Glendale	Recommended changing Spanish Colonial Revival style residence built in 1925 from historic district contributor to district non-contributor and found alterations that were not in conformance with Secretary of the Interior's Standards for Rehabilitation were acceptable. Project was opposed by The Glendale Historical Society.	2020
William R. Homes Residence 1515 Opechee Way, Glendale	Recommended demolition of Monterey Revival style home constructed in 1941.	2019
Helen & Frank Genuser Residence 2275 South Oak Knoll Avenue San Marino	Supported demolition of a Culver Heaton, AIA-designed Ranch style home built in 1954. See https://cms9files.revize.com/sanmarinoca/FINAL%20AGENDA_1.22.20.pdf	2018
352-358 West Milford Street Glendale	Supported demolition of Craftsman style house built in 1920 that was identified as locally significant in South Glendale Historic Resources Assessment. Project was opposed by The Glendale Historical Society	2017
361 Myrtle Street Glendale	Supported demolition of Craftsman style house built in 1920 that was identified as historic South Glendale Historic Resources Assessment. Project was opposed by The Glendale Historical Society.	2017
1849 Los Encinos Avenue Glendale	Supported demolition of residence constructed in 1934.	2017
8000 – 8012 Fountain Avenue West Hollywood	Supported demolition of "twin" Minimal Traditional/Moderne apartment buildings built in 1937 with replacement by a 30-unit, four story, multi-family building. See https://www.weho.org/Home/Components/Calendar/Event/17140/	2017

1-3

These firms' findings follow an unmistakable pattern of allowing developers to choose whether their properties are historically significant or not. This is not to say that ESA and Sapphos never find properties to be historically significant, but when development and demolition are proposed, their findings all too often support the project applicants' purposes. If a project applicant's goal is to demolish a building that has already been found to be eligible for local registers, these (and a few other) consultants are known to relish the opportunity to oppose the property's already proven historic significance.

The fact that ESA or Sapphos sides with developers in one or even several controversial cases is not the problem. Disagreement among experts is common in this and in other fields. When the

same firm, hired by developers, appears over and over on the same "sides" of cases, arguing against local eligibility when the project proponents' desires to demolish buildings could not be clearer, that evidence must also be taken into consideration.

These consultants have surprisingly strong opinions regarding Glendale Register eligibility as cited in Tables 1 and 2. It demonstrates that these consultants are not objective as fundamental ethical practice would require. Ethical standards were first developed to define and guide historic preservation materials conservation practice in the United States in the 1960s with the publication of the American Institute of Conservation's Code of Ethics. For the built environment, preparation of the first iteration of Secretary of the Interior's Standards for Rehabilitation followed in 1977. Identification standards are stipulated in *The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation*. Standard I. is "Identification of Historic Properties is Undertaken to the Degree Required to Make Decisions." All necessary information should be used, including use of resources such as city directories. In this case, the consultants missed or did not look far enough (local city directories from the 1930s or historic photos of Glendale, each of which are on the internet) to perform the intensive research needed to apply what should be their professional judgment. In addition, both missed the essential fact that the subject property Main Building is Streamline Moderne, a style that was not popular or prevalent after the end of World War II.

1-3 cont'd

No instances were found where either consultant has participated in listing a property in the Glendale Register or more importantly, neither has ever been known to present the case to prove that a property *was eligible* for listing. However, these consultants continue insisting properties are not locally significant in Glendale, only in cases where demolition and replacement projects are proposed. Based on these facts and practices, it is herewith urged that these firms be removed by the City of Glendale, with Pamela O'Connor and Kaplan Chase Kaplan[1] be removed from any lists of pre-approved consulting firms for environmental review. As a qualified architectural historian, I review consultants' work and make comments regarding their accuracy and conclusions (Attachment 2).

Hollywood Water Heater Company

Despite both developer-paid consultants' insistence that 5426 San Fernando Road was constructed in 1946 and 1947, based only on County Tax Assessor's records, the when abutting buildings existed as early as 1935, consistent with their architectural style.

The first known tenant or owner of the subject property was Hollywood Water Heater Company. Hollywood Water Heater Co. was listed in the *Glendale City Directory* at the subject property address in 1935, 1937, 1938, and 1941-1945, not the radiator company. The excerpt in Figure 1 on page 5 is from the 1938 Glendale City Directory. It is doubtful that a water heater company operated out of the earlier, small wood frame buildings described in their reports.

1-4

[1] It should be noted that Kaplan Chen Kaplan have never been known to find a property in Glendale to be locally eligible.

The results of their flawed evaluations have consistently been challenged by The Glendale Historical Society.

Those previous evaluations, each of which found the properties not eligible for the local register were for the Wanda & Thomas Bistange Residence at 1766 Cielito Road (2022); 540, 607, 610 and 633 N. Central Avenue, 204 W. Wilson Avenue (designed by noted architect, Stiles O. Clements), 3901 San Fernando Road (estimated 2013) and 512 West Doran Street (2014, overridden by City of Glendale staff).

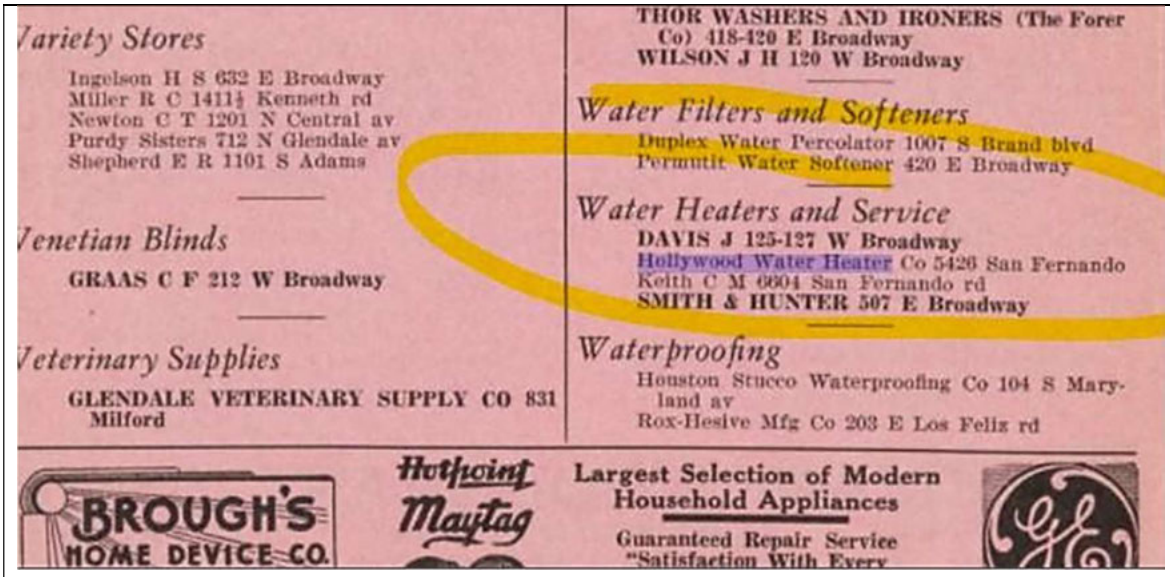


Figure 1: Glendale city directory, depicting Hollywood Water Heater Co. circled in yellow and highlighted in purple at 5426 San Fernando Road (1938, page 465).

Hollywood Water Heater Co. at 5426 San Fernando Road was listed in *Pacific Coast Gas Association Proceedings* in 1937 (on page 145) and again in 1938 (page 217 in Volumes 28 and 29). Hollywood Water Heater Co. was owned by George W. Kite, Jr. and Minnie L Kite. Mr. Kite was the Manager of the company and held at least one U.S. patent for a unique water heater system. After Mr. Kite died in 1940, his wife became the president. With their family, she lived at 869 Cumberland Road in Glendale in a home that still exists. Mrs. Kite died in 1956. The firm relocated to Brazil Street in Glendale by 1947 (*Dun & Bradstreet Reference Book* 1948).

1-4 cont'd

<u>5426 San Fernando Road Was Completed Before 1935</u>

As described above, the property each of the consultants re-evaluated, Hollywood Water Heater Company at 5426 San Fernando Road was completed before 1935 as demonstrated in the city directory research, not 1946 and 1947 as both incorrectly assert (see justification in Figure 2 on page 6, dated 1937). Because of that difference in dates, the Main and Shipping buildings were completed *before*, not after the second World War and is therefore Pre- not Post-World War II. That difference in dates is significant.

The South Glendale Historic Context (2018) established in the Theme: Industrial Development (1890-1955) that in the San Fernando Road corridor (and elsewhere), that "resources from the pre-World War II era of development are rare." The main building and the connected shipping building were completed in or before 1935. That survey identified the subject property as individually locally significant (5S3).

1-5

Figure 2: Black and white photo of Hollywood Water Heater Co. Shipping Building (foreground) and Main Building (right side) by photographer Dick Whittington. It is entitled "Buildings by railroad tracks, Southern California, 1937". Description is "Photograph of buildings by railroad tracks, Southern California, 1937." Detail described "Hollywood W[at]er Heater C[o.]…" The exact angle of the view is unknown but it may be northwest. Source: University of Southern California Digital Library at http://digitallibrary.usc.edu/digital/collection/ p15799coll170/id/71444

The South Glendale Historic Context established registration requirements in the category, "Industrial Development: Integrity Considerations"

> In order to be eligible for listing at the federal or state levels, a property must retain sufficient integrity to convey its historic significance under the Industrial Development theme... Standard preservation practice requires that a property retain the ability to convey its significance in order to be eligible for designation. Due to tremendous development pressures throughout South Glendale's history, properties from this period are relatively rare; therefore a greater degree of alteration may be acceptable" (emphasis added).

1-5 cont'd

The few alterations are minor and the addition of buildings on the property have no bearing on its historic significance. As an industrial property, additional buildings are often built in a complex as needed. The Shipping Building, which was also constructed before 1937 according to photographic evidence in Figure 2 above) abuts the Main Building. It was likely added onto and altered more than the Main Building (see Figure 3 on page 7).

The South Glendale Historic Context, in "Industrial Development: Integrity Considerations" further directed:

> A property important for illustrating a particular architectural style or construction technique *must retain most of the physical features that constitute that style* or technique. *An industrial property significant under Criterion C/3/3* (Architecture) *should retain integrity of design, workmanship, materials, and feeling, at a minimum, in order to be eligible for its architectural merit. A property that has lost some historic materials or details can be eligible if it retains the majority of the features that illustrate its style in terms of the massing, spatial relationships, proportion, pattern of windows and doors*, texture of materials, and ornamentation. The property is not eligible, however, if it retains some basic features conveying massing but has lost the majority of the features that once characterized its style (emphasis added).

Figure 3: Annotated aerial photograph of Hollywood Water Heater Co. Main Building (outlined in red) and Shipping Building (original exterior demising walls approximately outlined in blue). View southeast. Source: Loop net at https://www.loopnet.com/Listing/5426-5430-San-Fernando-Rd-Glendale-CA/22904260/

1-5 cont'd

In "Industrial Development: Registration Requirements" the City Survey additionally directed

> To be eligible under the Industrial Development theme, a property must: date from the period of significance [which in this case is 1935]; represent one of the early industries in Glendale... [water heaters]; represent a rare or unique industrial property type; display most of the character-defining features of the property type or style [Streamline Moderne style, with limited, primarily additive additions]; and retain the essential aspects of integrity for listing in the National or California Registers.

The main building is a rare extant example of the Streamline Moderne style in Glendale. Streamline Moderne architecture was popular between 1934 and 1945. The style is characterized by a lack of ornamentation. Decorative features are generally limited to stylized functional features, like flat canopies, rounded forms and linear elements, such as applied trim or grooves in smooth finish materials (See Figures 2 and Figures 4-6). The South Glendale Survey asserted in the "Sub-Theme: Streamline Moderne" that

1-6

> The constraints of the Great Depression cut short the development of Art Deco architecture, but replaced it with a more pure expression of modernity, the Streamline Moderne. Characterized by smooth surfaces, curved corners, and sweeping horizontal lines, Streamline Moderne is considered to be the first thoroughly Modern architectural style to achieve wide acceptance among the American public. Inspired by the industrial designs of the period, the style was popular throughout the United States in the late 1930s...

Figure 4: View southeast of Main Building of Hollywood Water Heater Co. from Milford Street, dated Sept 2022. Source: Google Maps at https://www.google.com/maps/@34.1522409,-118.2741785,3a,75y,165.76h,84.89t/ data=!3m7!1e1!3m5!1s_KeT-2ZibLVRO0ISHXJ5Wwg!2e0!5s20220901T000000!7i16384!8i8192?hl=en-US

As demonstrated in Figures 2-6, the Main Building of Hollywood Water Heater Co. retains a majority of its Streamline Moderne features:

- original, distinctive parallelogram plan with a radiused character-defining corner;
- its single-story block-like massing, with punched openings;
- the distinctive corner-wrapping, cantilevered canopy;
- restrained ornamentation;
- banks of multi-light steel-sash (some reversibly overpainted) windows.

Figure 5: View east of main Hollywood Water Heater Building from San Fernando Road, dated Sept 2022. Source: Google Maps at https://www.google.com/maps/@34.1517383,-118.274298,3a,75y,78.73h,91.84t/data=!3m7!1e1!3m5!1sfhuS0ZRdOorW6WbmWxqtQw!2e0!5s20220901T000000!7i16384!8i8192?hl=en-US

1-6 cont'd

The main entrance is a single slab door with full-height glass sidelights and a transom set at a 45-degree angle at the street corner (Figure 6). The entrance is on a raised podium which has

stack bond brick planters which are notably curved on the north side, flanking the concrete stairs that are wide at the base and narrow at the top, creating a sense of compression. Large storefront display windows on the sides of the entrance have been enclosed but appear to remain extant.

Figure 6: Corner view of Main Building Hollywood Water Heater Co.entrance, September 2022. Note the curved form, the canopy and simple stripped classicism at cornice. Source: Google Maps at https://www.google.com/maps/@34.1522533,-118.274388,3a,75y,153.81h,89.53t/data=!3m6!1e1!3m4!1soenva0mkaUuHx62nhXYbpA!2e0!7i16384!8i8192?hl=en-US

1-6 cont'd

The project consultants each erred in identifying the Hollywood Water Company buildings' dates of construction by 11-12 years in the Cultural Appendix to the DEIR. The Sapphos memo describes 1947 as the date of construction on pages 1 and 2 (May 18, 2021). The ESA memo dated August 11, 2021 states the Hollywood Water Co. Main Building was constructed in 1947 with the Shipping Building built in 1946 on pages 1, 2, 11, 18, 26, 27, 28, 34, 40, 41 and 45. The photograph in Figure 2, as well as simple city directory research from the 1930s proves the two consulting firms *each* wrong in dating as well as evaluating the subject property for historic significance.

1-7

The ESA memo further misstated on page 9 that "The City of Glendale Dies not have a context statement for the Streamline Moderne style" when the South Glendale Survey described a "Sub-Theme [of the] Streamline Moderne" style. It is quoted on page 7 of this letter. Instead, they relied on SurveyLA, which is not applicable to Glendale, particularly when there are established registration requirements in the South Glendale Survey and moreover missed the fact that the architectural trend had largely ended by 1946. Furthermore, Glendale has very few examples of the Streamline Moderne style, which makes this rare example all the more significant and allows more leeway regarding alterations. The ESA memo named only three other examples of the short lived style, citing "higher integrity"(page 43). Those properties are listed below and are either not applicable (properties 2 and 3) or do not possess any more complete integrity than the Hollywood Water Heater Co. (property 1):

1-8

1. **Commercial Camera Company Building** at 701 West Broadway was completed in 1941. It is described in the South Glendale Historic Resources Survey, Appendix B: Property Table -Individually Eligible Properties as Industrial vernacular "primary door replaced, entrance altered" (page 12).

2. **221 N. Brand Boulevard Building was** built in 1951, long after Streamline Moderne style had waned in popularity. The entire pedestrian level has been replaced by contemporary storefront including the entrance (date unknown).
3. **Glendale Presbyterian Church, Stewart Hall** at 305 East Harvard Street was constructed in 1951 as well. That was long after Streamline Moderne was a popular architectural style. The South Glendale Historic Resources Survey, Appendix B: Property Table - Individually Eligible Properties described the property as "Late Moderne," in style and its entrance is notably also altered and reconfigured (page 34).

1-8 cont'd

Thus of the three examples cited as retaining better integrity, each of the three has altered entrances and only one is actually Streamline Moderne in style. That makes property 1 on page 9 the only comparable property to the subject property. Because these three examples were not actually any "better" examples of the Streamline Moderne style possessing supplementary integrity than the Hollywood Water Heater Co. property, that makes the Main and Shipping Buildings at 5426 San Fernando Road more clear representatives of an increasingly rare architectural style with adequate integrity to be recognizable to their original appearances.

Because the consultants did not prove their ostensible points, misunderstood when the Hollywood Water Heater Co. Building was constructed, and used inappropriate comparisons to prove their points it is concluded that the Main and Shipping Buildings at 5426 San Fernando Road are indeed eligible for listing in the Glendale Register under Criteria 1 for associative significance as "resources from the pre-World War II era of development [which] are rare" and Criteria 3 for design significance under the "Sub-Theme: Streamline Moderne" style architecture with a Period of Significance of 1935 when it was completed.

1-9

The subject property is, as the City of Glendale already established, locally significant for its associative and design importance and thus is a presumptive historical resource for the purposes of CEQA. The proposed project and an updated focused EIR must be reviewed by the Historic Preservation Commission in accordance with the requirements in the current municipal code.

It does not mean that the proposed project cannot ever come to fruition, however it does mean that alternatives to the demolition of Hollywood Water Heater Co. Building at 5426 San Fernando Road must be studied in another focused environmental document to avoid or reduce related significant impacts on the environment. Alternatives should include at least one that retains the historical resource and would rehabilitate it in accordance with the Standards for Rehabilitation, consider a smaller project if necessary, as well as a different location that need not be owned by the project proponents, as proven in previous CEQA cases.

1-10

I appreciate the opportunity to comment on this important project. Please ensure that my comments are included in the Administrative Record for this project and are fully considered.

1-11

Sincerely,

Francesca Smith

Francesca Smith
Qualified Architectural Historian

Attachments

1- Subject Property DPR 523 form
2- *Curriculum vitae* for Francesca Smith

cc: Dr. Suzie Abajian, City Clerk

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

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 5S3
Other Listings

Page 1 of 2 **Resource Name or #:** 5426 San Fernando Rd

P1. Other Identifier

***P2. Location:** **Not for Publication** **Unrestricted**

***a. County** Los Angeles and (P2c, P2e, and P2b or P2d. Attach a Location Map as Necessary.)

***b USGS 7.5' Quad** Burbank **Date** 2018 **T** 1N **; R** 13W **;** **of** **of Sec** **B. M.**

c. Address 5426 San Fernando Rd **City** Glendale **Zip** 91203

d. UTM: Zone , **mE/** **mN** **e. Other Locational Data:** APN: 5638018032

***P3a. Description**

Character-defining Features

- One-story height
- Irregular plan, simple massing, asymmetrical composition
- Reinforced concrete and steel construction
- Flat roof with parapet and cantilevered canopies
- Unadorned cement plaster wall surfaces with brick accent panels
- Corner entrance set back from sidewalk with wide concrete steps and raised brick planters
- Flush metal door with sidelights
- Flush-mounted, steel sash, divided light awning and fixed windows
- Rounded corner

Alterations

No major alterations

Integrity

The property retains integrity of location, design, setting, materials, workmanship, feeling, and association.

1-1

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

***P3b. Resource Attributes:**
HP8. Industrial building

***P4. Resources Present** ■ Building

***P5b. Description of Photo**
View Southeast, 2017

***P6. Date Constructed/Age and Source**
1946; 1947; 1962; 1967; 1977, LA County Tax Assessor

***P7. Owner and Address**

***P8. Recorded by:**
Historic Resources Group
12 S Fair Oaks Ave, Suite 200
Pasadena, CA 91105

***P9. Date Recorded** 2017

***P10. Survey Type** Intensive

***P11. Report Citation:** Historic Resources Group, City of Glendale South Glendale Historic Context Statement, September 30, 2014.

***Attachments:** ■Building, Structure, and Object Record

State of California -- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #
HRI #

Page 2 of 2 **NRHP Status Code** 5S3

***Resource Name or #:** 5426 San Fernando Rd

B1. Historic Name:
B2. Common Name: Ver

B3. Original Use: Industrial
B4. Present Use: Industrial

***B5. Architectural Style:** Industrial Vernacular

***B6. Construction History:**
File also lists 5420-5426 as address. 1929 Certificate of Inspection shows early use as an industrial building for the Glendale Lumber Co. PERMIT: 1940, Fence alteration for owner, Hollywood Water Heater. PERMIT: 1947, Addition of room to existing offices for owner Emma Boyd by contractor W.R. Harter. No architect listed. First mention of Products Research Co. is 1951. PERMIT: 1956, Owner is Products Research Co. PERMIT: 1957, Conversion of area to offices for owner E.E. Boyd. PERMIT: 195X, Repairs due to fire damage for owner Emma E. Boyd with architect listed as Eugene D. Birnbaum and contractor as Edgar N. Gregg. PERMIT: 1957, Construction of wall in warehouse building for owners Ruth Jennings, Edna Boyd, and Helen Gregg. 1957 Certificate of Inspection shows owner as Jennings, Gregg and Boyd.

Owner History:
Address not listed in available city directories.

***B7. Moved** No **Date:** **Original Location** ***B8. Related Features**

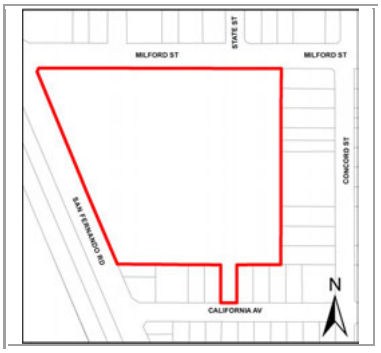
B9a. Architect: **b. Builder:**

B10. Significance: Industrial Development: Industrial Development (1890-1955) **Area** South Glendale

Period of Significance: 1946; 1947 **Property Type:** Industrial **Applicable Criteria:** 1

This property was evaluated during the 2017 South Glendale historic resources survey. It is eligible for listing in the Glendale Register under local Criterion 1 as an excellent example of industrial development from the immediate post-World War II period, representing the continued growth of San Fernando Road as an important industrial corridor in South Glendale.

B11. Additional Resource Attributes:



***B12. References**
Historic Resources Group, City of Glendale South Glendale Historic Context Statement, September 30, 2014.
City of Glendale Building Permits.
Glendale City Directories.
Sanborn Fire Insurance Maps.

B13. Remarks:

***B14. Evaluator:** Christine Lazzaretto; Robby Aranguren

***Date of Evaluation:** December 2017

1-1 cont'd

Attachment 2

FRANCESCA G. SMITH

Experience

Principal Architectural Historian **State of California** 2011-present
As professionally qualified staff to state agency, responsible for built environment review of federal, state and local assistance projects in Los Angeles and Ventura counties. Act on behalf of Federal Highways Administration under *First Amended Programmatic Agreement Among The Federal Highway Administration, The Advisory Council On Historic Preservation, The California State Historic Preservation Officer, And The California Department Of Transportation Regarding Compliance With Section 106 Of The National Historic Preservation Act, As It Pertains To The Administration Of The Federal-Aid Highway Program In California*. Prepare determinations of National Register eligibility, analyze project effects, identify mitigation and prepare agreement documents for federal and state projects. Review and approve consultants' work for conformance with above-referenced *Programmatic Agreement* and coordinate with State Historic Preservation Officer. Reviewed all alterations to and maintenance for more than 100 state-owned historic properties.

Senior Architectural Historian **various private consulting firms** 1990-1997 and 2000-2011
Prepared built environment environmental documentation including complex Environmental Impact Statements (EISes), Environmental Impact Reports (EIRs) and technical documents for various projects to comply with federal, state and local requirements for projects undertaken by public agencies and private developers. Successful Section 106, National Environmental Policy Act and California Environmental Quality Act (CEQA) review required management of effective cooperation among junior staff and outside consultants, including transit and transportation, energy, and public works projects. Numerous projects required analysis for compliance with the *Secretary of the Interior's Standards for Treatment* (*Standards*) and or with local design guidelines. Prepared evaluations of historic significance, analyze effects of complex projects for Section 106 clearance, impacts for CEQA conformance, and recommended mitigation measures to avoid or reduce effects (federal) or impacts (state projects). Prepared draft Memoranda of Agreement and Programmatic Agreements. For Los Angeles Unified School District (LAUSD), prepared evaluations for significance and analyzed project-related effects. Reviewed other consultants' and disciplines' work for compliance with requirements in CEQA. Acted as lead on numerous successful certified (tax credit) rehabilitations with developers, architects and engineers and contractors, including limited construction management, completing more than 400 units. Worked closely with building departments and fire-life safety reviewers, using the California Historical Building Code, to meet project goals and achieve code consistency. Performed design review, prepared and presented staff reports for review by cities of Beverly Hills, Carmel, Monterey, Orange and Vallejo.

Mills Act Manager, Specialized Historic Preservation Planner **Cities of Los Angeles and Pasadena** 1997- 2000
Coordinated and oversaw review of new construction and/or historic preservation projects. Prepared and presented complex analyses for staff and City Manager reports, including graphics, as staff to Design and Cultural Heritage commissions as well as City Council. Managed public counters with other planners, assisting the public and performing plan check including design review for conformance with local design guidelines and *Standards*. Performed sign review for central district and Old Pasadena and oversaw City of Gardens (multi-family residential) design review, from plan check through issuance of Certificates of Occupancy. Prepared Request for Proposals and managed contract administration of consultant for successful Certified Local Government Grant project. Managed successful, growing Mills Act program including coordination with County Assessor and property owners.

Education
M.S. Real Estate Development (historic preservation focus), Columbia University, New York 1986
Master's Thesis- "Redevelopment of the Grand Central Market, Los Angeles"
B.A. Political Science (architectural history emphasis), The College of Charleston, South Carolina 1981

Supplemental Experience
Glendale Design Review Board, former member
California Preservation Foundation, Los Angeles Conservancy, National Trust for Historic Preservation
The Glendale Historical Society (TGHS), Society of Architectural Historians-Southern California Chapter, Pasadena Heritage and Los Angeles City Historical Society- former member of Boards of Directors. TGHS Advocacy efforts received Los Angeles Conservancy Preservation Award in 2020.
Lecturer and teaching assistant, UCLA Extension courses: history, "Undiscovered Los Angeles: Water & Steel" (1997 and 2001); "Historic Preservation- State of the Art" (1997) and Construction Management (1995 and 1996) and USC: historic preservation documentation (2011).
Wells Fargo Realty Advisors, Analyst Officer, 1988-1990
Private real estate development, Project Engineer or Project Manager, 1986-1988. Responsible for development of more than 1.5 million square feet of medical-related, office and retail buildings.
Reader: Huntington Library and Library of Congress.

FRANCESCA G. SMITH

Partial List of Publications and Reports All projects consisted of preparation of Cultural Resources sections and technical reports in Los Angeles, California, unless otherwise noted.

Environmental Impact Statements (EIS)

Interstate 110 Flyover. Caltrans District 7, current project.

Interstate 105 and 110, ExpressLanes. Caltrans District 7, 2021.

Crenshaw LAX Transit Project. Los Angeles County Transportation Administration (METRO) 2008, 2010. Prepared Preliminary Environmental Assessment and built environment identification. Reviewed preliminary analyses of effects.

Regional Connector. METRO and CDM, 2010. Prepared alternatives analysis and draft built environment cultural resources sections for complex downtown transit project with multiple alternatives.

State Route 180 (Fresno, CA). Caltrans District 6, 2008. Peer-reviewed historic resources and community impact sections.

Mid-Jordan Transit Corridor (Salt Lake County, UT). Utah Transit Authority, 2006. Peer-reviewed parklands and open space, Section 4 (f), and historic resources sections, as well as Determination of Eligibility and Finding of Effects.

Conrail Railroad Acquisition by Norfolk Southern Railroad and CSX. Surface Transportation Board (STB), 1997-98. Prepared Section 106 compliance for nationwide railroad merger in the states of Alabama, Florida, Georgia, Indiana, Kentucky, Louisiana, Mississippi, Ohio, Tennessee and West Virginia.

DART North Central Corridor LRT Extension, with Finding of Effect and Agreement-Based Determination of No Adverse Effect (Dallas, Texas). Dallas Area Rapid Transit (DART), Federal Transit Administration, (FTA), 1997.

Environmental Impact Reports (EIRs)

Imperial Hardware (Riverside, CA). City of Riverside, 2011.

Riverside Central Library (Riverside, CA). City of Riverside, 2011.

Stone Boat Yard (Alameda, CA). City of Alameda, 2011.

South of Market (SoMa) Specific Plan (San Francisco, CA) City and County of San Francisco, 2011.

First & Mission (San Francisco, CA) City and County of San Francisco, 2011.

East Los Angeles College Satellite Campus Project (South Gate, CA). Los Angeles Community College District and TAHA, 2009. Prepared built environment identification and analyses of effects. Add-on work included participation in Master Plan team.

Los Angeles Unified School District (LAUSD) New School Construction Program, Program EIR Exemptions. LAUSD, 2005.

Central Los Angeles Area New Learning Center #1 (Ambassador Hotel site). LAUSD, June 2003.

Creekside Center Project (Arroyo Grande, CA, draft and final). City of Arroyo Grande, 2003. Additional impacts analysis, August 2004.

9th & Flower, South Park Mixed-Use Development (draft, final and two addenda). CIM Group and CRA, 2002, 2004 and 2005.

*Palladium Proje*ct (San José, CA). Reviewer, San José Redevelopment Agency (SJRDA) 2002.

Los Angeles Central Area High School #9. LAUSD 2001.

Los Angeles Central Area High School #2. LAUSD 2002.

Maranatha High School (Sierra Madre). (Reviewer) City of Sierra Madre, Dorn-Platz Realty. 2001.

University of California at Irvine Medical Center, Orange (draft). Bonterra Consulting, 2001.

Long Beach Naval Shipyard (Roosevelt Island). City and Port of Long Beach, 1998.

Adelante Eastside Redevelopment Project (draft). CRA, 1997.

Barham Cahuenga Improvement Project, In Los Angeles County (including Historic Resource Evaluation Report). City and County of Los Angeles, City of Burbank, Caltrans District 7, Federal Highway Administration (FHWA), 1997.

The Grand (Lindon) Hotel Project. City of Beverly Hills, 1996.

Broadway State Office Building. California State Department of General Services, 1996. Received Los Angeles Conservancy Preservation Award in 2000.

South Central Revitalization Project. CRA, 1995.

East Central Interceptor Sewer. City of Los Angeles, Bureau of Engineering, 1995.

California Museum of Science & Industry. State of California Department of General Services. 1993.

Playa Vista. Maguire Thomas Partners, City of Los Angeles, 1991. Prepared built environment cultural resources technical report focused on Hughes Aircraft Factory.

Environmental Impact Statements/Environmental Impact Reports (EIS/EIRs)

710 North. METRO and Caltrans, 2017.

Alameda Corridor Transportation Project. Alameda Corridor Authority, 2006. Prepared Section 106 compliance, evaluating bridges for historic significance as part of a regionally significant railroad project.

Mid-City Red Line Extension. METRO, FTA. 1995.

FRANCESCA G. SMITH

Mission Valley East Transit Improvements Project (Mission Valley, CA). Metropolitan (San Diego) Transit Development Board, FTA, 1995.

Environmental Assessments (EAs)

Interstate 105 ExpressLanes Project. Metro and Caltrans 2020 and 2022. Prepared Section 106 and CEQA compliance for alterations to historically significant freeway. Prepared Finding of Effect and Supplemental Finding of Effect as well as all built environment technical resports.

Sbx E Street Corridor (San Bernardino, CA). Omnitrans and Parsons, 2009. Prepared cultural resources technical reports and EA section for bus rapid transit project,

Interstate-15 Improvements, Sloan Road to Tropicana Boulevard (Las Vegas and Clark County, Nevada). Nevada Department of Transportation, 2009.

Evaluation of seven parcels (San José, CA). San José Redevelopment Agency (SJRDA), 2002.

Hudson Apartments- 290 North Hudson Avenue (Pasadena, CA). City of Pasadena. 2000. Prepared complete initial environmental study for 140-unit apartment project.

Meridian Court- 591 South Marengo Avenue (Pasadena, CA). City of Pasadena. 1999. Prepared cultural resources section for initial environmental study of 10-unit condominium project, immediately adjacent to Wallace Neff's former office (b. 1926) including demolition of two residences constructed in 1910s.

Palm Court- 214 South Madison Avenue (Pasadena, CA). City of Pasadena. 1999. Prepared complete initial environmental study for 19-unit condominium project, including relocation of Emma Black House, a Greene & Greene-designed residence built in 1908.

Union Pacific/Southern Pacific Railroads Merger. Section 106 compliance for nationwide railroad merger in states of Texas and Colorado, STB, 1997.

McKinney Avenue Trolley Extension (Dallas, TX). City of Dallas, May 1997.

DART Northeast Corridor (Dallas, TX). DART, FTA, 1996.

Del Amo Boulevard Overcrossing, In Los Angeles County. City of Carson, Caltrans District 7, FHWA, 1996.

In-Service Engineering Staging Facility and Engineering Lab at Hangar 19, San Diego. US Air Force, 1994.

North Wardlow Station (Long Beach, CA). METRO, FTA, 1993. Prepared initial environmental study for relocation of light rail station to vacant parcel adjacent to residential area.

State Route-68 (Monterey, CA). Prepared complete initial environmental study for conversion of two-lane highway to freeway. FHWA, 1992.

Certified Rehabilitations (Investment Tax Credits)

Southern California Gas Company Complex. Parts 1, 2 and 3. CIM Group, 2006. Recipient of 2004 Los Angeles *Downtown News* Downtowners of Distinction "Community Financial District" award.

830 South Flower Street building. Parts 1 and 2. CIM Group, 2006.

Hollywood Roosevelt Hotel. Early Review and Part 1. Goodwin Gaw, 2005. Subject of E! television series entitled "*Hotspot*."

Far East Café Building. Parts 1, 2, 3 and tenant improvements. Little Tokyo Service Center, Community Development Corporation, current project. Featured and interviewed on HGTV "Saving America's Treasures" and Recipient of 2004 Los Angeles Conservancy Preservation Award.

Twohy Building (San José). Parts 1, 2, 3 and tenant improvements. CIM Group, 2003. Recipient of 2004 California Preservation Foundation, Preservation Design Award, Rehabilitation & Reuse category.

Brockman Building. Part 1. Sage Hospitality, 2001.

Homer Laughlin Building. Parts 1 and 2. Ira Yellin, 1991.

Culver Hotel (Culver City, CA). Parts 1 and 2. Louis Catlet, 1991.

Engine Co. No. 28. Parts 1, 2 and 3. Linda Griego, 1986.

Reviews for conformance with *Standards*

Confidential project originally designed by George Washington Smith with alterations by Cliff May (Santa Barbara County). 2012.

Buchanan Garage (San Francisco, CA). 2011.

Hotel Green, 86 S. Fair Oaks Project. (Pasadena, CA). 2011 and later.

Far Bar (Far East Café). 20111-2017. Reviewed proposed alterations to National Historic Landmark.

Hugo Reid Adobe (Los Angeles County Arboretum). County of Los Angeles, 2010.

Holiday Bowl Coffee Shop and Majestic Pontiac sign. Axiom Properties, City of Los Angeles Cultural Heritage Commission and Crenshaw Corridor Specific Plan, 2006.

Hollywood Roosevelt Hotel and Spare Room. Goodwin Gaw, CRA and City of Los Angeles Planning Department, 2005, 2009, 2011.

Shakespeare Bridge. 1999.

California Club. 1999.

Union Station. 1999.

FRANCESCA G. SMITH

National Historic Landmark and National Register of Historic Places Nominations
Mission San Gabriel (San Gabriel, CA) current project.
Piedras Blancas Light Station (San Simeon, CA) 2009.
Killingsworth, Brady & Smith Building (Long Beach, CA) KSM Architecture, listed 2009.
General Sedgwick Tower (Bronx, NY), *pro bono*, determined eligible for National Register, 2007.
Southern *California Gas Company Complex*. CIM/Flower LLC, listed 2004.
Twohy Building (San José, CA) CIM/Twohy LLC, listed 2003.
Sam and Alfreda Maloof Complex (Rancho Cucamonga, CA) listed 2010.
Breed Street Schul/Congregation Talmud Torah (Boyle Heights) listed 2001.
Warner Grand Theatre (San Pedro, CA) listed 1998.

Local Landmark and California Register of Historical Resources Applications
Glendale Civic Auditorium (Glendale, CA) listed in California Register 2018.
Brockmont Park Historic District (Glendale, CA) designated local historic district, 2014.
Fire Station #21. 1187 East 52nd Street, designated City of Los Angeles Historic-Cultural Monument (H-CM) #787, 2004.
Southern California Gas Company Complex. CIM Group, designated City of Los Angeles H-CM #789, 2004.
Gans Brothers Building, 814 South Spring Street, Flatiron Development Group, LLC, designated H-CM #737, 2002.
141-147 Bay Street- Bay Craftsman Cluster (Santa Monica). Morris Abram and Bill Bridges, designated local historic district, 2000.

Historic Property Survey Reports and Historic Resource Evaluation Reports (selected projects)
Interstate 105 Crenshaw. Caltrans District 7, 2021.
Interstate 105 Tunnel Lighting Project. Caltrans District 7, 2021.
Interstate 105 Express Lanes Project (Los Angeles County). METRO and Caltrans District 7, 2019.
Interstate 210 Soundwalls (Glendale and Los Angeles County, CA). Caltrans District 7, 2019.
State Route 14 Avenue N Interchange (Palmdale, CA). Caltrans District 7, 2019.
Interstate 5 Freight Corridor (Los Angeles County). Caltrans District 7, 2018.
Interstate 405 Western/Crenshaw (Torrance, CA). Caltrans District 7, 2016.
San Gabriel Walnut Intersection (San Gabriel, CA). Caltrans District 7, 2014.
Interstate 5 Silverbow to Orr & Day Road (Norwalk, CA). Caltrans District 7, 2012.
Hollywood Crossroads Transit Corridor. CRA, CDM, 2010.
Twin Cities Road/Route 99 Interchange Modification Project (Galt, CA). Caltrans District 3, 2010.
Sunset Avenue Grade Separation Project (Banning, CA). Caltrans District 8, 2010.
North Fort Bragg Coastal Trail (Fort Bragg, CA). Caltrans District 5, 2010.
Hollister Avenue Bridge Seismic Retrofit Project (Goleta, CA). Evaluated 1880s-era railroad bridge for historic significance. Caltrans District 5. 2010.
Nogales Street Grade Separation and Gale Avenue/Walnut Drive Widening Project (City of Industry, CA). ACE, Caltrans District 7, 2009.
6th Street Viaduct Improvements Project. Caltrans District 7, 2007.
Pacific Electric Inland Empire Bike Trail Project for the City of Fontana. Also prepared Finding of Effect. Caltrans District 8, 2009.
US-101 Del Norte Overcrossing, In Ventura County. City of Oxnard, Caltrans District 7, 2007.
US-101/Wendy Drive Interchange Improvement Project (Newberry Park, CA). Caltrans District 7, 2007.
State Route-57 Widening, Cities of Placentia, Fullerton and Brea, In Orange County. Bonterra Consulting, Caltrans District 12, 2006.
State Route-118 Widening Between Spring Road and Moorpark Avenue, In Ventura County. City of Moorpark, Caltrans District 7, 2006.
Santiago Creek Bicycle Trail Bridge. Responsible for preparation of Archaeological Survey Report as well. City of Orange, Caltrans District 12, 2005.
Santiago Creek Bicycle Trail. City of Orange, Caltrans District 12, Bonterra Consulting, 2002.
Sepulveda Boulevard Overcrossing at Alameda Street, In Los Angeles County. City of Carson, Caltrans District 7, FHWA, 1996.
Orange Show Road Extension, San Bernardino, California. City of San Bernardino, Caltrans District 8, FHWA, 1995.
Interstate-10 Between Baldwin Avenue and Interstate-605, In Los Angeles County (Segment 1). NegDec/FONSI. Caltrans District 7, FHWA, 1993.
Interstate-10 Between Puente and Citrus Avenues, In Los Angeles County (Segment 2). Caltrans District 7, FHWA, 1995.
Interstate-10 Between Citrus Avenue and Routes 57, 71 and 210, In Los Angeles County (Segment 3). Caltrans District 7, FHWA, 1994.

FRANCESCA G. SMITH

Interstate-10 Between State Route 57/Interstate-210 and The Los Angeles/San Bernardino County Lines and Interstate-15, In Los Angeles County (Segment 4A). NegDec/FONSI. Caltrans District 7, FHWA, 1993.

Interstate-10 Between The Los Angeles/San Bernardino County Lines and Interstate-15, In San Bernardino County (Segment 4B). San Bernardino County Associated Governments, Caltrans District 8, FHWA, 1993.

Proposed Widening of Interstate-Route 15 and Reconstruction of The 15/40 Interchange, From Lenwood Road to East Main Street, Barstow, In San Bernardino County. NegDec/FONSI. Caltrans District 8, Nevada Department of Transportation, FHWA, 1994.

Interstate-10/Monterey Avenue Overcrossing. City of Palm Desert, Caltrans District 11, FHWA, 1992.

State Route-120 Oakdale Bypass Interchange Improvement Project, In Stanislaus County. Caltrans District 10, FHWA, 1993.

Historic Assessments

Confidential projects (5 buildings). Major university, 2011.

Confidential project. Housing Corporation for the City of Los Angeles, 2011.

Piedras Blancas Light Station (San Simeon, CA). Piedras Blancas Light Station Board of Directors, 2010.

Cultural Resources Technical Report For Mammoth Crossing Project (Mono County, CA). City of Mammoth, 2009.

Addendum To The Cultural Resources Assessment For The Foothill Parkway Westerly Extension Project (Corona, CA). 2009.

Archaeological Survey, Evaluation And Eligibility Investigation For Three Bedrock Milling Feature Sites (unincorporated San Diego County, CA). Stonemark Estates, 2010.

Preliminary Cultural Resources Survey For Formation of the Wiseburn Unified School District Project (El Segundo, Hawthorne and unincorporated Los Angeles County, CA). TAHA, 2008.

Proposed South Region Elementary School No. 9 Project (South Gate, CA). Cultural Resources Initial Technical Report and Phase I Site Investigation, Intensive Survey. LAUSD 2008.

*Proposed South Region Middle School No. 3 Project (*Walnut Park, CA). Cultural Resources Initial Technical Report and Phase I Site Investigation, Intensive Survey, LAUSD 2008.

Class III Cultural Resources Inventory For Border Fuel Break Project (San Diego County, CA). Bureau of Land Management, 2008.

Foster's Old Fashion Freeze Property- 590 Marsh Street (San Luis Obispo, CA). City of San Luis Obispo, 2008.

Thomas Roads Improvements Projects (Bakersfield, CA). Built Environment Historic Context Statement, 2008.

10757 - 10763½ Wilkins Avenue. Weston Benshoof Rochefort Rubalcava & MacCuish, LLP, 2003.

*Strick Residence- 1911 La Mesa Drive (*Santa Monica, CA*).* Evaluation of single-family residence attributed to Oscar Neimeyer for historic significance. Property is only known example in the United States credited to the noted Brazilian architect. Harding, Larmore, Kozal & Kutcher, 2002.

Fire Station #21 – Southeast Los Angeles (1162-1192 East 51st Street and 1165-1187 East 52nd Street) City of Los Angeles Bureau of Engineering, 2002. Later designated a City Historic-Cultural Monument (2004).

Fire Station #65 (9912, 9916 and 9920 Holmes Avenue, 1807, 1811 and 1825 East Century Boulevard and 9909 and 9917 Bandera Street, Watts) City of Los Angeles Bureau of Engineering, 2002.

666 South Bonnie Brae Street. CRA, 2002.

Star Court-1951-1959 Beachwood Drive (Hollywood, CA). City of Los Angeles, CFF Properties, 2002.

Broad Street Mixed-Use Project (San Luis Obispo, CA). City of San Luis Obispo, Oasis Landscape Architecture & Planning (Oasis), 2002.

Walnut-Toro Properties (San Luis Obispo, CA). City of San Luis Obispo, Oasis, 2002.

Phase I: El Encanto Hotel- 1900 Lassuen Road (Santa Barbara, CA). City of Santa Barbara, with Alexandra Cole, TynanGroup, 2002.

Hillview Apartments- 6807 Hollywood Boulevard (Hollywood). CRA, Millennium Holdings, 2001.

Automobile Club of Southern California, Hollywood Branch Office/Liberty Records- 6902 Sunset Boulevard (Hollywood). CRA, Reliable Properties, 2001.

Gas Station Building- 11757 East Hadley Street (Whittier, CA). City of Whittier, Whittier Redevelopment Agency, Melvyn Green & Associates, Inc., 2001.

Esperion Duarte/Dream Theater Building- 693-699 Lighthouse Avenue; Mission Building- 685-691 Lighthouse Avenue; and Garnero's Hector de Smet Bakery- 665 Lighthouse Avenue (Monterey, CA). The Cannery Row Company, City of Monterey, 2001.

Mutual Don Lee Broadcasting/AIDS Project LA- 1313 North Vine Street (Hollywood). CRA, Accord Interests, 2000.

1351-53, 1357-59 South Alvarado Street and 1336-38 South Hoover Street. CRA, 2000.

Bowden Ranch Estates Project (San Luis Obispo, CA). City of San Luis Obispo, Oasis, Bowden Ranch Estates, 2000.

811 El Capitan Way- The Log Cabin (San Luis Obispo, CA). City of San Luis Obispo, Oasis, Covey III, 2000

1230 Montana Avenue- Moeller Murphy Moeller Mortuary (Santa Monica). City of Santa Monica, Damavandi Capital LLC, 2000.

4641 Morro Drive (Woodland Hills, CA). City of Los Angeles, Accord Interests LLC, 2000.

914 Royal Street and 1210 West 30th Street. University of Southern California, 2000.

2600 Wilshire Boulevard- Home Savings of America (Santa Monica, CA). City of Santa Monica, Payless Cellular, Inc., 2000.

Zions German Methodist Episcopal Church (Carson, CA). City of Carson, 1998.

FRANCESCA G. SMITH

Atchison, Topeka and Santa Fé Railroad Yard and Shops (San Bernardino, CA). City of San Bernardino, The Atchison, Topeka and Santa Fe Railway Company, 1993-94.

Major Investment Studies
Los Angeles-Bakersfield High Speed Ground Transportation System. Caltrans, FTA, 1993.
The Corridor. Orange County Transportation Authority, 1996.

Environmental Constraints Analyses
Eastern Bypass (Temecula, CA). Western Riverside Council of Governments, 2007.
Ventura *Freeway Aerial Alignment Project Study Report*. METRO, 1993.
Santa Monica Boulevard Transit Parkway. METRO, 1993.

Bridge Alterations, Rehabilitations, Relocations, Evaluation of Adjacent New Construction
State Route 39, Van Ornum Bridge Alterations. Caltrans District 7, 2021.
Fletcher Drive Bridge (seismic retrofit). City of Los Angeles, Bureau of Engineering, Department of Public Works, HDR Engineering, Inc., 2002.
Gerald Desmond Bridge Replacement. City and Port of Long Beach, Caltrans, 2001.
North Broadway/Buena Vista Viaduct Rehabilitation/Reconstruction (seismic retrofit). City of Los Angeles, Bureau of Engineering, Department of Public Works, 1999.
Olympic Boulevard Bridge Rehabilitation/Reconstruction. City of Los Angeles, Bureau of Engineering, Department of Public Works, 1999.
La Loma Bridge, Evaluation of Historic Significance (Pasadena, CA) Listed in National Register in 2004. 1998.
Duck Creek Bridge Relocation (Dallas, Texas). DART, US Army Corps of Engineers, FTA, 1997.
White Rock Creek Bridge Rehabilitation and Adjacent New LRT Bridge (Dallas, Texas). DART, FTA, 1997.

Photographic Documentation
State New Elementary School #1 (Huntington Park, CA). LAUSD 2002.
Environmental Compliance For Los Angeles County Rail System. (Red Line Eastern Extension) METRO, 1997.
Metropolitan Water District (MWD) Headquarters, Union Station. MWD, 1997.

Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER)
Arroyo Seco Parkway (Pasadena Freeway). HAER No. CA-265. Caltrans District 7, 1999. Assisted in research effort.
State Exposition Building (Ahmanson Building, California Museum of Science and Industry). HABS No. CA-2608. State of California, National Park Service, 1996.

Historic Preservation Design Guidelines, Master and Preservation Plans
*Brockton Arcade Design Guidelines (*Riverside, CA). City of Riverside, current project.
East Los Angeles College Satellite Campus Project (City of South Gate). Berliner Architects, current project.
City of Monterey Design Guidelines, Cannery Row Conservation District. The Cannery Row Company, Monterey Bay Aquarium and City of Monterey, 2004.
*Villa Riviera (*Long Beach, CA). Villa Riviera Board of Directors, 2001.
Roosevelt Building. John Ash Group, 1991.

Miscellaneous
Co-Executive Producer
Commodore Schuyler Heim Bridge: Spanning Centuries of Progress. High definition, half-hour documentary film, 2015.
Peer Review
Historic Preservation Ordinance (*Carmel-By the Sea Municipal Code*, Chapter 17.41). City of Carmel-by-the-Sea, 2002.
General Plan/Coastal Land Use Plan, Land Use & Community Character Element. City of Carmel-by-the-Sea, adopted 2003.
Mills Act (Historical Property Contract) Application
324 Lawson Place, Glendale. Confidential client, City of Glendale, 2020.
Robert R. Blacker House, Pasadena (Greene & Greene, 1907). Confidential client, City of Pasadena, 2003.

Author or Researcher
"Preserving the Birth Place of Hip Hop, 1520 Sedgwick Tower." David Gest, *Panorama* (University of Pennsylvania School of Design), Spring 2007, Vol. XVI.

FRANCESCA G. SMITH

"Mail Chutes and Downtown Los Angeles Buildings" *Los Angeles City Historical Society Newsletter*, October 2003, Volume XXX, Issue 4.
Sacramento's Memorial Auditorium: Seven Decades of Memories. Bonnie Snyder and Paula Boghosian. (Sacramento: Sacramento Heritage Press) 1997.
Southern California's Car Culture Landmarks: A Drive Thru History of the Southland, Automobile Club of Southern California, 2000.

COMMENT LETTER NO. 1

Francesca Smith
Qualified Architectural Historian
Received via email. No address given.

Comment 1-1

The Draft EIR inexplicably states "The Project Site does not contain any historic buildings as discussed in Section 4.3: Cultural Resources" (page 4.1-24). The Main and Shipping Buildings at the project subject property, 5426 San Fernando Road was found to be individually eligible for listing in the Glendale Register of Historical Resources in the South Glendale Historic Resources Assessment technical report for the South Glendale Community Plan (2018). See Attachment 1.

Based on that finding, the City of Glendale, which is the Lead Agency for this project under the California Environmental Quality Act should consider it a "presumptive" historical resource. A presumptive historical resource is defined in the California Code of Regulations as "A resource included in a local register of historical resources or *identified as significant in an historical resources survey*" (CCR, Section 15064.1 (a)(2)).

Response 1-1

CEQA Guidelines Section 15064.5(a)(2) states that a resource identified in an historical resource survey meeting the requirements section 5024.1(g) of the Public Resources Code shall be presumed to be historically or culturally significant, unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

The buildings on the project site were evaluated in two separate historic resource assessments, contained in Appendix B of the Draft EIR, prepared in May 2021 and August 2021 by historians meeting the Secretary of the Interior's Professional Qualification Standards in the fields of History and Architectural History. These studies provide a more detailed and individualized evaluation of the buildings on the site than was conducted for South Glendale Historic Resources Assessment and provide a preponderance of evidence that demonstrates the buildings on the site are not historically or culturally significant.

As discussed in **Section 4.3, Cultural Resources**, of the Draft EIR, based on the evaluations in the May 2021 Historic Preservation Memo and the August 2021 Historical Resources Assessment (see **Appendix B** of the Draft EIR), the existing structures, Buildings 1A, office, and 1B, warehouse, on the Project site are not eligible for listing in the NRHP, CRHR, or Glendale Register of Historic Resources. The Project site has been reconstructed multiple times since its original development. While numerous buildings on the Project site were constructed following the post-war period, the original use of the buildings have not been retained, and the primary office building has been substantially altered. For these reasons, the Project site is not eligible for listing in a historic register and is not a presumptive historical resource as defined by CEQA.

These additional investigations consider the evaluation of the site conducted for the South Glendale Historic Resources Assessment and identify information on the survey form *that is not correct*. The subject building (Building 1A, 5454 San Fernando Road) was identified as having a "Mid-century Modern/Industrial" architectural style, with "No major alterations." As discussed in **Section 4.3, Cultural Resources,** on Page 4.3-30 of the Draft EIR, the construction history on the survey form included only a partial building permit history for the address 5426 San Fernando Road. Further research has identified building permits for the other seven structures located on the property and are not specific to Building 1A. Further, building permits for the property at 5430 and 5454 San Fernando were not included in the survey report or inventory, which resulted in an incomplete depiction of all the modifications undertaken at the property. Also, the survey did not mention the Streamline Moderne features that are present at Building 1A. Additionally, notable engineer Eugene Birnbaum was erroneously identified as having worked at the Project Site on an alteration building permit from the 1950s, as indicated in the 2017 DPR form. However, no such building permit was located in the permit search for any of the buildings on the property, as documented in this report.

Because the buildings on the Project site are not historical resources, the proposed demolition of the existing buildings to allow construction of the proposed Project would not result in a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5 and the Project's impacts would be less than significant.

Comment 1-2

In the Cultural Resources Appendix to the Draft EIR, two different consultants re-evaluated the subject property but neither found the property to be locally significant. Whether or not a property is historically significant is the purview of the Lead Agency under CEQA, not a developer's consultants.

Response 1-2

CEQA Guidelines Section 15084, Preparing the Draft EIR, states:

> (a) The draft EIR shall be prepared directly by or under contract to the Lead Agency.
>
> (b) The Lead Agency may require the project applicant to supply data and information both to determine whether the project may have a significant effect on the environment and to assist the Lead Agency in preparing the draft EIR. The requested information should include an identification of other public agencies which will have jurisdiction by law over the project.
>
> (c) Any person, including the applicant, may submit information or comments to the Lead Agency to assist in the preparation of the draft EIR. The submittal may be presented in any format, including the form of a draft EIR. The Lead Agency must consider all information and comments received. The information or comments may be included in the draft EIR in whole or in part.
>
> (d) The Lead Agency may choose one of the following arrangements or a combination of them for preparing a draft EIR.
>
> (1) Preparing the draft EIR directly with its own staff.
>
> (2) Contracting with another entity, public or private, to prepare the draft EIR.

(3) Accepting a draft prepared by the applicant, a consultant retained by the applicant, or any other person.

(4) Accepting a draft prepared by the applicant, a consultant retained by the applicant, or any other person.

(5) Using a previously prepared EIR.

(e) Before using a draft prepared by another person, the Lead Agency shall subject the draft to the agency's own review and analysis. The draft EIR which is sent out for public review must reflect the independent judgment of the Lead Agency. The Lead Agency is responsible for the adequacy and objectivity of the draft EIR.

Pursuant to the City's adopted CEQA Guidelines, the City retained Meridian Consultants to prepare the EIR, and the City and Meridian conducted a thorough review of all the materials submitted with the application, including, but not limited to, all historic resources assessments of the property.

The August 2021 Historical Resources Assessment was prepared by three historians, Margarita Jerabek-Bray, Ph.D., Alison Garcia Kellar, M.S., and Anokhi Varma, M.S., with qualifications that meet and exceed the *Secretary of the Interior's Professional Qualification Standards* in history, architectural history, or historic architecture. Jay Platt, the City's Principal Planner, also meets these qualifications and reviewed these studies. The information and determinations in the Draft EIR reflect the City's independent judgment, consistent with applicable CEQA requirements.

Comment 1-3

The South Glendale Historic Resources Assessment results have been questioned unsuccessfully more than once by the project proponent's consultants, ESA and Sapphos. The last time ESA was publicly proven wrong was for their evaluation of Harriet & Adolph Becker Residence at 1642 South Central Avenue for historic significance where alterations to the rare 1913 Craftsman style house were grossly exaggerated (Final 1642 S. Central Ave. Glendale, California Historic Resources Assessment Prepared for Levon Flilian, August 2018). In that case, the City Council, staff and The Glendale Historical Society disagreed with their opinion and the consultant's findings were overturned (June 11, 2019 Item 9a. (Demolition Permit Application No. PDPRV1821880).

A few examples of instances where ESA, its predecessors and key staff have supported project proponents' proposals against designation, in favor of demolition or substantial alterations to known or assumed historical resources include:

Table 1

Property	Role, Notes	Year
Philip Ahn House 6877-6811 Alta Loma Drive Los Angeles	Recommended against designation of a property identified in Survey LA in 2015 as a rare example of a Craftsman style home with Japanese influences, and unique hillside example of streetcar residential development in Hollywood, associated with the original 1920s development. In 2018, SurveyLA's "Korean Americans in Los Angeles Historic Context Statement" found the property additionally eligible for designation for its association with notable tenant, actor Philip Ahn. The Los Angeles Conservancy supported the designation.	2022

Property	Role, Notes	Year
	See https://www.laconservancy.org/issues/philip-ahnkurt-cobain-residence	
Berger-Winston Building 744 Ridgley Drive Los Angeles	On behalf of the owner, presented a case against the designation of a Chateauesque style apartment building constructed in 1937. Architectural Resources Group advocated for its designation, which was successful. See https://planning.lacity.org/StaffRpt/CHC/2017/7-20-2017/BergerWinstonAptBldg_744SRidgeleyDr_Final.pdf and *Larchmont Chronicle* June 29, 2017	2017
2017 Wurfl Court 1450-1456 Echo Park Avenue Los Angeles	For the owner, worked unsuccessfully to avoid designation of a 1922 Bungalow court. See https://planning.lacity.org/StaffRpt/CHC/2017/3-02-2017/WurflCourt_Final.pdf	2017
Lytton Savings Building 8150 Sunset Boulevard	Prepared the documentation that enabled demolition of the locally designated Lytton Savings Building built in 1960. Project was strongly opposed by and unsuccessfully litigated by the Los Angeles Conservancy. No replacement project has been built in place of the resource which was demolished. See https://www.laconservancy.org/issues/chase-bank-lytton-center	2013-2016
154 Pearl Street Laguna Beach	While at earlier iteration of firm (PCR), Margarita Wuellner advocated for the property owner to limit a historic property's period of significance to allow significant alterations and a very large additional residence to be built at the 1883 property. Village Laguna opposed the re-evaluation's findings and the project. See https://www.latimes.com/socal/daily-pilot/news/tn-cpt-1217-cottage-20101217-story.html and 154 Pearl St, Laguna Beach, CA 92651 | Zillow	2014
"Old Landing Site" Newport Beach	While at PCR, Margarita Wuellner prepared a letter to the City of Newport Beach asserting that California Historical Landmark #198, designated in 1935 was no longer historically significant. The plaque was removed. See https://www.californiahistoricallandmarks.com/landmarks/chl-198	2013

The other consultant, Sapphos, notably prepared cultural resources technical reports for the 534 N. Kenwood Street project which was recently successfully litigated by The Glendale Historical Society because of expected historical resources impacts.

Examples of Sapphos Environmental, Inc. instances where project proponents' proposals for demolition or substantial alterations were supported are in Table 2 on pages 2 and 3.

Table 2

Property	Role, Notes	Year	
Chili Bowl 2244 West Pico Boulevard, Los Angeles	Sapphos was hired after programmatic-style 1935 building was nominated as Cultural-Historic Monument, opposed by the Los Angeles Conservancy See https://www.laconservancy.org/issues/chili-bowl-west-los-angeles	2022	
Pig N'Whistle 6714 Hollywood Boulevard, Hollywood Boulevard Commercial &	Prepared after-the-fact memo reviewing and approving highly controversial alterations made without permits to National Register-listed historic district contributor built in 1927. Project was opposed by the Los Angeles Conservancy and Hollywood Heritage. See https://laist.com/news/food/why-gutting-the-pig-n-whistle-was-a-betrayal-for-hollywood-history-buffs and https://www.hhprc.org/update-on-the-pig-n-whistle	2022"https://www.hhprc.org/update-on-the-pig-n-whistle	2022

Property	Role, Notes	Year
Entertainment Historic District, Los Angeles		
2960 St. Gregory Road Glendale	Recommended alterations to Mid-Century Modern residence designed by Charles Walton, AIA, in 1962. Project was opposed by The Glendale Historical Society.	2022
Crenshaw Women's Center 1027 South Crenshaw Boulevard Los Angeles	Hired after the building, constructed in 1920 and found to possess associative significance, had been nominated as a Cultural-Historic Monument. Project was opposed by the Los Angeles Conservancy See https://www.laconservancy.org/issues/crenshaw-womens-center	2021
John K. Van de Kamp House 801 South San Rafael Avenue Pasadena	Hired after Monterey Revival style residence built by Holmes Tuttle in 1947 was nominated as a local historic resource. Project was opposed by Pasadena Heritage. See https://www.pasadenanow.com/main/historic-commission-to-consider-landmark-designation-for-van-de-kamp-home	2021
1039 W. Mountain Street, North Cumberland Heights Historic District, Glendale	Recommended changing Spanish Colonial Revival style residence built in 1925 from historic district contributor to district non-contributor and found alterations that were not in conformance with Secretary of the Interior's Standards for Rehabilitation were acceptable. Project was opposed by The Glendale Historical Society.	2020
William R. Homes Residence 1515 Opechee Way, Glendale	Recommended demolition of Monterey Revival style home constructed in 1941.	2019
Helen & Frank Genuser Residence 2275 South Oak Knoll Avenue San Marino	Supported demolition of a Culver Heaton, AIA-designed Ranch style home built in 1954. See https://cms9files.revize.com/sanmarinoca/FINAL%20AGENDA_1.22.20.pdf	2018
352-358 West Milford Street Glendale	Supported demolition of Craftsman style house built in 1920 that was identified as locally significant in South Glendale Historic Resources Assessment. Project was opposed by The Glendale Historical Society	2017
361 Myrtle Street Glendale	Supported demolition of Craftsman style house built in 1920 that was identified as historic South Glendale Historic Resources Assessment. Project was opposed by The Glendale Historical Society.	2017
1849 Los Encinos Avenue Glendale	Supported demolition of residence constructed in 1934.	2017
8000 – 8012 Fountain Avenue West Hollywood	Supported demolition of "twin" Minimal Traditional/Moderne apartment buildings built in 1937 with replacement by a 30-unit, four story, multi-family building. See https://www.weho.org/Home/Components/Calendar/Event/17140/	2017

These firms' findings follow an unmistakable pattern of allowing developers to choose whether their properties are historically significant or not. This is not to say that ESA and Sapphos never find properties to be historically significant, but when development and demolition are proposed, their findings all too often support the project applicants' purposes. If a project applicant's goal is to demolish a building that has already been found to be eligible for local registers, these (and a few other) consultants are known to relish the opportunity to oppose the property's already proven historic significance.

The fact that ESA or Sapphos sides with developers in one or even several controversial cases is not the problem. Disagreement among experts is common in this and in other fields. When the same firm, hired by developers, appears over and over on the same "sides" of cases, arguing against local eligibility when the project proponents' desires to demolish buildings could not be clearer, that evidence must also be taken into consideration.

These consultants have surprisingly strong opinions regarding Glendale Register eligibility as cited in Tables 1 and 2. It demonstrates that these consultants are not objective as fundamental ethical practice would require. Ethical standards were first developed to define and guide historic preservation materials conservation practice in the United States in the 1960s with the publication of the American Institute of Conservation's Code of Ethics. For the built environment, preparation of the first iteration of Secretary of the Interior's Standards for Rehabilitation followed in 1977. Identification standards are stipulated in *The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation*. Standard I. is "Identification of Historic Properties is Undertaken to the Degree Required to Make Decisions." All necessary information should be used, including use of resources such as city directories. In this case, the consultants missed or did not look far enough (local city directories from the 1930s or historic photos of Glendale, each of which are on the internet) to perform the intensive research needed to apply what should be their professional judgment. In addition, both missed the essential fact that the subject property Main Building is Streamline Moderne, a style that was not popular or prevalent after the end of World War II.

No ©instances were found where either consultant has participated in listing a property in the Glendale Register or more importantly, neither has ever been known to present the case to prove that a property was eligible for listing. However, these consultants continue insisting properties are not locally significant in Glendale, only in cases where demolition and replacement projects are proposed. Based on these facts and practices, it is herewith urged that these firms be removed by the City of Glendale, with Pamela O'Connor and Kaplan Chase Kaplan1 be removed from any lists of pre-approved consulting firms for environmental review. As a qualified architectural historian, I review consultants' work and make comments regarding their accuracy and conclusions (Attachment 2).

Response 1-3

Please see **Response 1-2**. The historic resource evaluations incorporated into the City's Draft EIR were reviewed by City staff and the conclusion in the Draft EIR reflects the City's independent judgment, consistent with applicable CEQA requirements. Comments on and opinions about reports for other

projects in other jurisdictions are not relevant to the City of Glendale's environmental review of this proposed project and no additional response is provided for this reason.

Comment 1-4

Despite both developer-paid consultants' insistence that 5426 San Fernando Road was constructed in 1946 and 1947, based only on County Tax Assessor's records, when abutting buildings existed as early as 1935, consistent with their architectural style.

The first known tenant or owner of the subject property was Hollywood Water Heater Company. Hollywood Water Heater Co. was listed in the Glendale City Directory at the subject property address in 1935, 1937, 1938, and 1941-1945, not the radiator company. The excerpt in Figure 1 on page 5 is from the 1938 Glendale City Directory. It is doubtful that a water heater company operated out of the earlier, small wood frame buildings described in their reports.

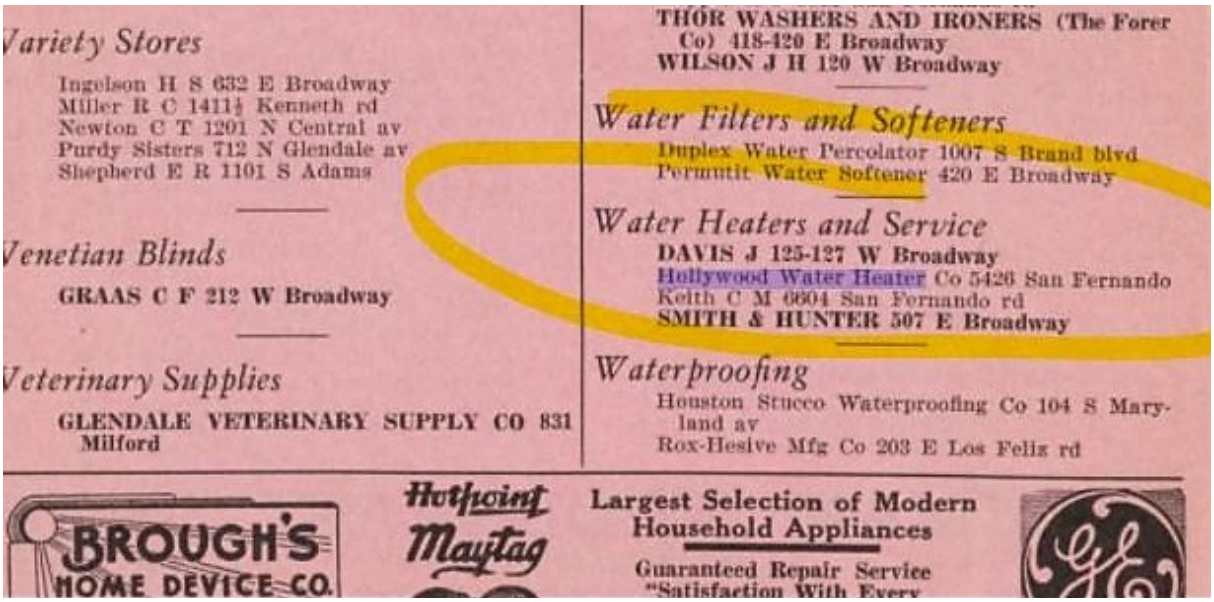


Figure 1: Glendale city directory, depicting Hollywood Water Heater Co. circled in yellow and highlighted in purple at 5426 San Fernando Road (1938, page 465).

Hollywood Water Heater Co. at 5426 San Fernando Road was listed in Pacific Coast Gas Association Proceedings in 1937 (on page 145) and again in 1938 (page 217 in Volumes 28 and 29). Hollywood Water Heater Co. was owned by George W. Kite, Jr. and Minnie L Kite. Mr. Kite was the Manager of the company and held at least one U.S. patent for a unique water heater system. After Mr. Kite died in 1940, his wife became the president. With their family, she lived at 869 Cumberland Road in Glendale in a home that still exists. Mrs. Kite died in 1956. The firm relocated to Brazil Street in Glendale by 1947 (Dun & Bradstreet Reference Book 1948).

Response 1-4

This comment fails to recognize that the Hollywood Water Heater Company (demolished 2009) was a separate building with a different address from the American Radiator & Standard Sanitary Corp (Subject Building). Furthermore, it appears that the previous surveys recorded the American Radiator & Standard Sanitary Corp. building incorrectly with an address of 5426 San Fernando Road, when the correct address of the Subject Building is 5454 San Fernando Road as documented in the Glendale City Directories and as depicted on the Sanborn maps (1950 and 1970).

As noted in this comment, the Hollywood Water Heater Company (demolished 2009) was listed at the 5426 San Fernando Road Address in 1937, 1938, and 1941-45. However, this comment fails to also identify that the Hollywood Water Heater Co was also listed at 326 San Fernando Road in 1935 before the street addresses were changed, which is the first year the Hollywood Water Heater Company appears in the City Directory. Furthermore, the Hollywood Water Heater Company continues to be listed at the 5426 San Fernando Road address in 1947 and 1948.

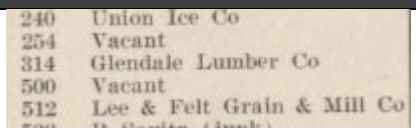
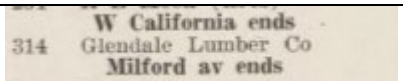
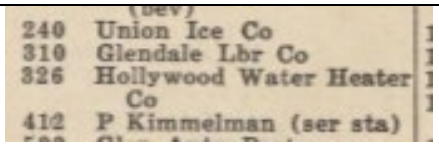
The Subject Building was a new separate building that was constructed on the Project site for the American Radiator Company Corporation and first listed in the Glendale City Directory at 5450 San Fernando Road in 1947, and at 5454 San Fernando Road in 1948. The 1950 Sanborn Map also shows the American Radiator and Sanitary Corp. with an address of 5454 San Fernando Road, confirming the address for the Subject Building. The American Radiator & Standard Sanitary Corp at 5454 San Fernando Road (Subject Building) was a new separate building constructed on the same property, next door, adjacent on the north of the old Hollywood Water Heater Company at 5426 San Fernando Road (demolished 2009).

By 1949, the Hollywood Water Heater Company (demolished 2009) is no longer listed in the City Directory and is replaced by Products Research Co. at 5426 San Fernando Road. But in 1949, the Subject Building – the American Radiator & Standard Sanitary Corp.– is still listed next door to the north at 5454 San Fernando Road, in the same City Directory and as a separate listing, indicating it was a separate building from the Hollywood Water Heater Company Building. In 1950, the Sanborn map depicts the American Radiator & Standard Sanitary Corp. at 5454 San Fernando Road (Subject Building), while the building formerly occupied by Hollywood Water Heater Company (demolished 2009) is shown at 5426 San Fernando Road as a separate industrial building that was used for felt gasket manufacturing, rubber sealants, and a laboratory (**Figure 2**). The rectangular footprint and spatial division of 5426 San Fernando Road (demolished 2009), with a main warehouse (wood truss roof) and attached flat-roofed rear section that is depicted on the Sanborn map, also appears on historic aerial views in that same location (**Figures 3-8**).

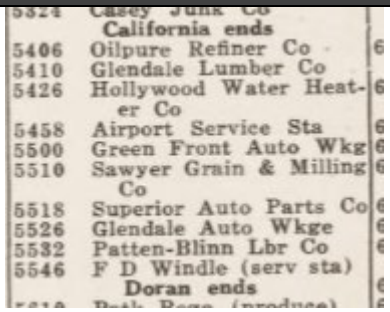
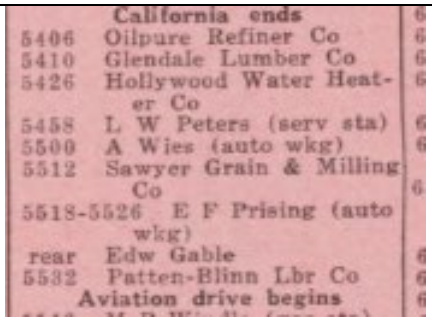
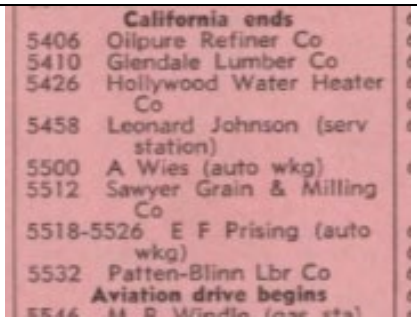
Nearly a decade later, in 1958, the Products Research Co is still listed at 5426 San Fernando Road (demolished 2009), but now Ames Harris Neville Co. is listed next door at 5454 San Fernando Road (Subject Building). By 1971, Products Research Corp. had taken over the use of the whole Project Site, including Products Research & Chemical Corp rubber sealants at 5426 San Fernando (demolished 2009). Next door, the Subject Building was occupied by Semco (Div. of Products Research & Chem Corp) at 5454

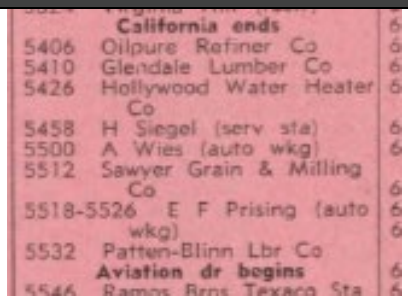
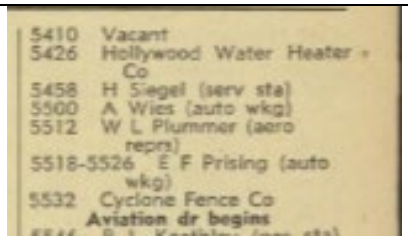
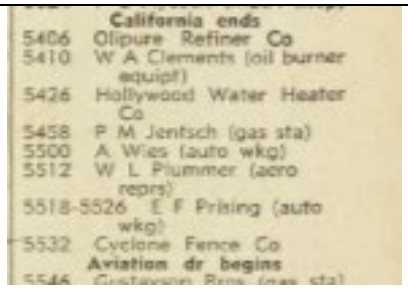
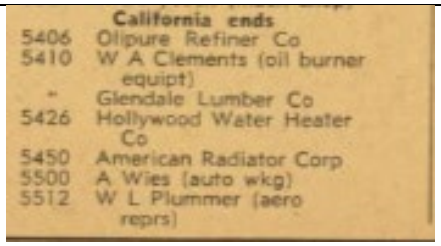
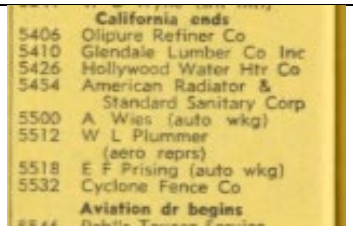
San Fernando Road. This is confirmed by the 1970 Sanborn Map (**Figure 6**) and historic aerial photographs of the Project site show the site's development (**Figures 3, 4, 5, 7, 8**). The 1970 Sanborn map (**Figure 6**) shows three buildings in the center of the project site that are labeled with addresses of 5426A (demolished 2009), 5426B, and 5426C, while the larger Subject Building to the north is labeled with the address of 5454, which is corroborated by the City Directory data, summarized in the table below. This City Directory data indicates that the building that originally housed the Hollywood Water Heater Company in 1935-1948 was repurposed for a new use in 1949 for the Products Research Co. (demolished 2009).

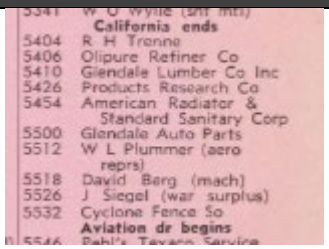
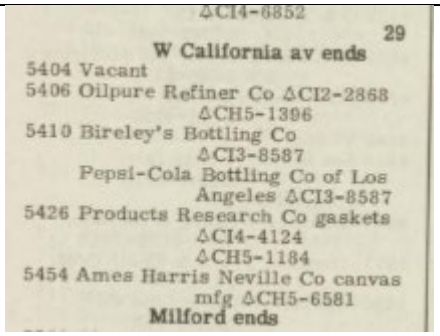
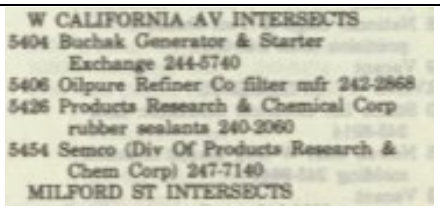
The Subject Building, originally occupied by the American Radiator & Standard Sanitary Corp., was built as a separate new warehouse and commercial office/sales facility in 1947 and continued in that use until at least 1949. Therefore, the commentor's statement that the first tenant or owner of the Subject Property was Hollywood Water Heater Company is not correct. The first known tenant or owner of the Subject Building was American Radiator & Standard Sanitary Corp. Furthermore, the building originally occupied by the Hollywood Water Heater Company, which was located to the south of the Subject Building, was demolished between January 2008 and May 2009[1] and is no longer extant (**Figure 16**).

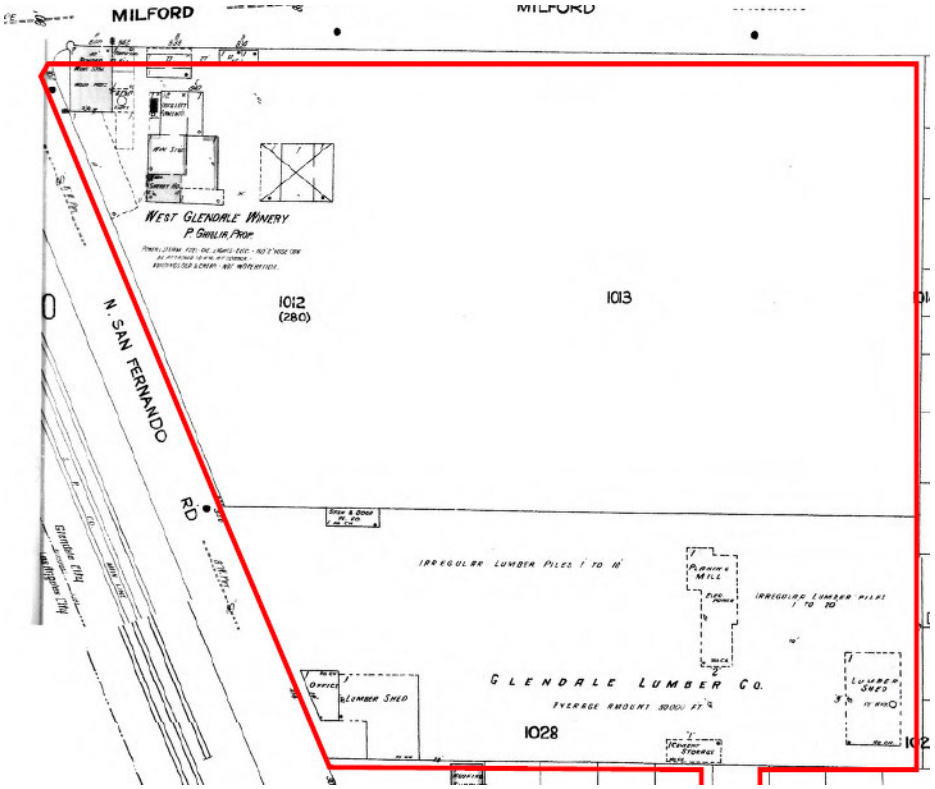
Glendale City Directory, Glendale Directory Company, P. O. Box 494, Glendale, Calif., 1935-1949 Glendale City Directory, R. L. Polk & Co., Los Angeles, Calif., 1958, 1971 Available online from the Glendale Historical Society			
Year	**Address**	**Occupants of Project Site**	**Source**
1928	San Fernando Road N	314 Glendale Lumber Co	 https://archive.org/details/cgl_000013/page/n153/mode/2up
1929	San Fernando Road N	314 Glendale Lumber Co	 https://archive.org/details/cgl_000014/page/n167/mode/2up
1935	San Fernando Road N	310 Glendale Lbr Co 326 Hollywood Water Heater Co	 https://archive.org/details/cgl_000015/page/n61/mode/2up

1 Google Earth Imagery, 1/8/2008, and 5/24/2009

Glendale City Directory, Glendale Directory Company, P. O. Box 494, Glendale, Calif., 1935-1949 Glendale City Directory, R. L. Polk & Co., Los Angeles, Calif., 1958, 1971 Available online from the Glendale Historical Society			
Year	**Address**	**Occupants of Project Site**	**Source**
1937	San Fernando Road N	5410 Glendale Lumber Co 5426 Hollywood Water Heater Co	 California ends 5406 Oilpure Refiner Co 5410 Glendale Lumber Co 5426 Hollywood Water Heater Co 5458 Airport Service Sta 5500 Green Front Auto Wkg 5510 Sawyer Grain & Milling Co 5518 Superior Auto Parts Co 5526 Glendale Auto Wkge 5532 Patten-Blinn Lbr Co 5546 F D Windle (serv sta) Doran ends https://archive.org/details/cgl_000016/page/n65/mode/2up
1938	San Fernando Road N	5410 Glendale Lumber Co 5426 Hollywood Water Heater Co	 California ends 5406 Oilpure Refiner Co 5410 Glendale Lumber Co 5426 Hollywood Water Heater Co 5458 Airport Service Sta 5500 Green Front Auto Wkg 5510 Sawyer Grain & Milling Co 5518 Superior Auto Parts 5526 C R Scott (auto wkg) 5532 Patten-Blinn Lbr Co 5546 F D Windle (serv sta) Doran ends https://archive.org/details/cgl_000017/page/n67/mode/2up
1941	San Fernando Road N	5410 Glendale Lumber Co 5426 Hollywood Water Heater Co	 California ends 5406 Oilpure Refiner Co 5410 Glendale Lumber Co 5426 Hollywood Water Heater Co 5458 L W Peters (serv sta) 5500 A Wies (auto wkg) 5512 Sawyer Grain & Milling Co 5518-5526 E F Prising (auto wkg) rear Edw Gable 5532 Patten-Blinn Lbr Co Aviation drive begins https://archive.org/details/cgl_000018/page/n75/mode/2up
1942	San Fernando Road N	5410 Glendale Lumber Co 5426 Hollywood Water Heater Co	 California ends 5406 Oilpure Refiner Co 5410 Glendale Lumber Co 5426 Hollywood Water Heater Co 5458 Leonard Johnson (serv station) 5500 A Wies (auto wkg) 5512 Sawyer Grain & Milling Co 5518-5526 E F Prising (auto wkg) 5532 Patten-Blinn Lbr Co Aviation drive begins https://archive.org/details/cgl_000019/page/80/mode/2up

Glendale City Directory, Glendale Directory Company, P. O. Box 494, Glendale, Calif., 1935-1949 Glendale City Directory, R. L. Polk & Co., Los Angeles, Calif., 1958, 1971 Available online from the Glendale Historical Society			
Year	**Address**	**Occupants of Project Site**	**Source**
1943	San Fernando Road N	5410 Glendale Lumber Co 5426 Hollywood Water Heater Co	 https://archive.org/details/cgl_000020/page/82/mode/2up
1944	San Fernando Road N	5410 Vacant 5426 Hollywood Water Heater Co	 https://archive.org/details/cgl_000021/page/82/mode/2up
1945	San Fernando Road N	5410 W A Clements (oil burner equipt) 5426 Hollywood Water Heater Co	 https://archive.org/details/cgl_000022/page/84/mode/2up
1947	San Fernando Road N	5410 W A Clements (oil burner equipt) 5426 Hollywood Water Heater Co 5450 American Radiator Corp	 https://archive.org/details/cgl_000023/page/114/mode/2up
1948	San Fernando Road N	5410 Glendale Lumber Co 5426 Hollywood Water Heater Co 5454 American Radiator & Standard Sanitary Corp	 https://archive.org/details/cgl_000024/page/88/mode/2up

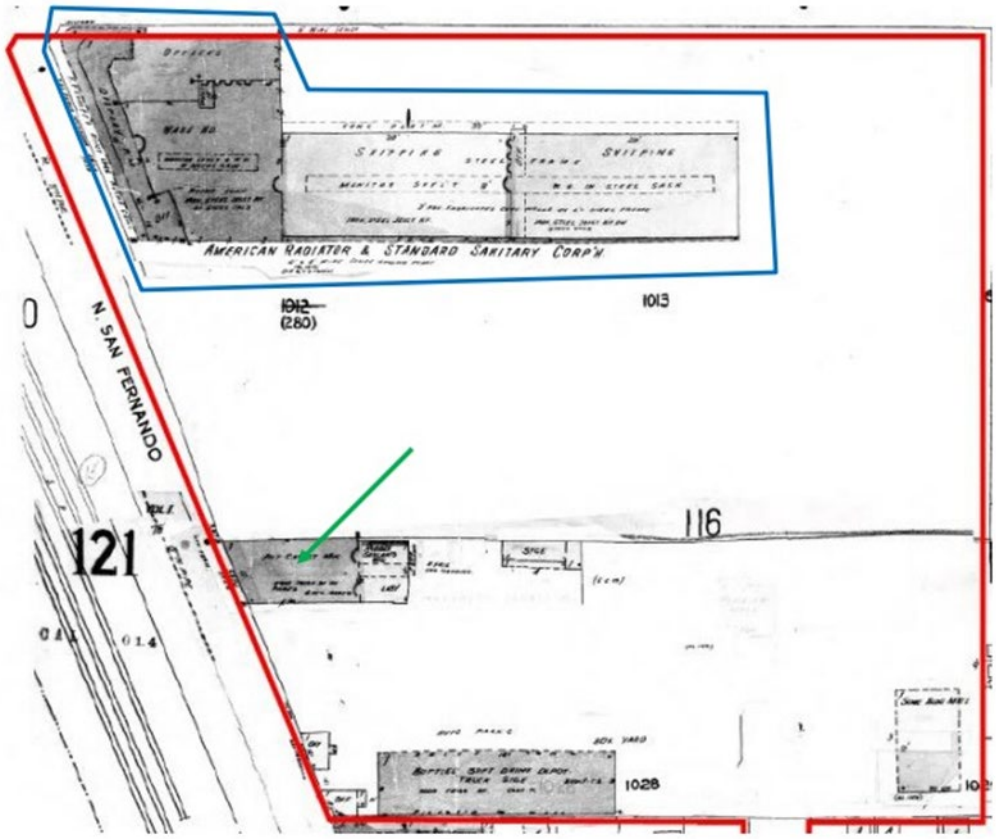
Glendale City Directory, Glendale Directory Company, P. O. Box 494, Glendale, Calif., 1935-1949 Glendale City Directory, R. L. Polk & Co., Los Angeles, Calif., 1958, 1971 Available online from the Glendale Historical Society			
Year	**Address**	**Occupants of Project Site**	**Source**
1949	San Fernando Road N	5410 Glendale Lumber Co Inc 5426 Products Research Co 5454 American Radiator & Standard Sanitary Corp	 https://archive.org/details/cgl_000025/page/92/mode/2up
1958	San Fernando Road N	5410 Bireley's Bottling Co; Pepsi-Cola Bottling Co of Los Angeles 5426 Products Research Co gaskets 5454 Ames Harris Neville Co canvas mfg	 https://archive.org/details/cgl_000026/page/236/mode/2up
1971	San Fernando Road N	5426 Products Research & Chemical Corp rubber sealants 5454 Semco (Div Of Products Research & Chem Corp	 https://archive.org/details/cgl_000027/page/242/mode/2up



SOURCE: EDR

Figure 1

Project site identified with red outline in Sanborn Map, 1925. South to north: 314 Glendale Lumber Co., 320 Sash & Door Warehouse, 362 West Glendale Winery.



SOURCE: EDR

Figure 2

Project site identified with red outline in Sanborn Map, 1950. Green arrow points to 5426 San Fernando Road. Blue outline is drawn around the Subject Building. South to north: 5410 Bottled Soft Drink Depot (wood truss roof), 5426 Felt Gasket Manufacturing (wood truss roof on pilasters), 5454 American Radiator & Standard Sanitary Corporation (F.P. Construction Built 1946; reinforced concrete, iron, steel joist roof main warehouse; prefabricated steel frame shipping warehouse).

SOURCE: EDR

Figure 3

Project site identified with red outline in aerial photograph, 1952. Green arrow points to 5426 San Fernando Road. Blue outline is drawn around the Subject Building.

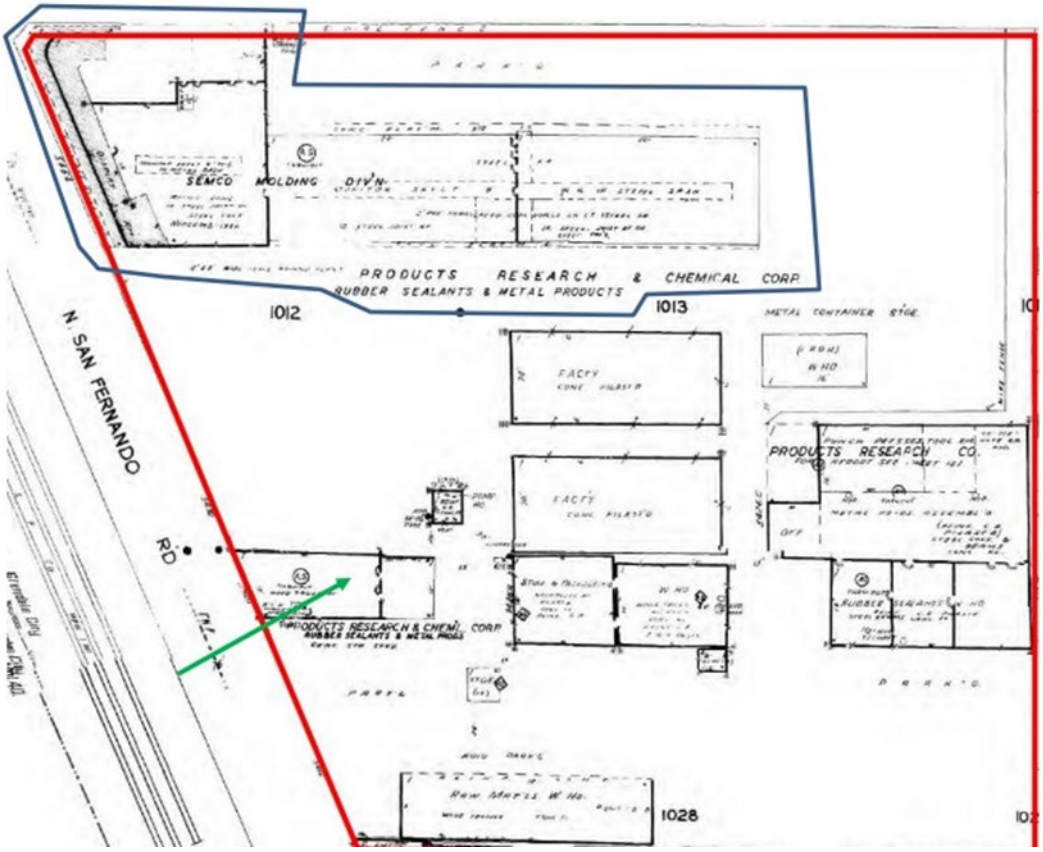
SOURCE: EDR

Figure 4
Project site identified with red outline in aerial photograph, 1964.

SOURCE: EDR

Figure 5

Project site identified with red outline in aerial photograph, 1970. Green arrow points to 5426 San Fernando Road. Blue outline is drawn around the Subject Building.



SOURCE: EDR

Figure 6

Project site identified with red outline in Sanborn map, 1970. Green arrow points to 5426 San Fernando Road. Blue outline is drawn around the Subject Building.

SOURCE: EDR

Figure 7

Project site identified with red outline in aerial photograph, 1981. Additions encompassing south and east elevations of warehouse of 5454 San Fernando Road, indicated by red arrow and blue dotted outline. Green arrow points to 5425 San Fernando Road.

SOURCE: EDR

Figure 8

Project site identified with red outline in aerial photograph, 1989.

Comment 1-5

As described above, the property each of the consultants re-evaluated, Hollywood Water Heater Company at 5426 San Fernando Road was completed before 1935 as demonstrated in the city directory research, not 1946 and 1947 as both incorrectly assert (see justification in Figure 2 on page 6, dated 1937). Because of that difference in dates, the Main and Shipping buildings were completed before, not after the second World War and are therefore Pre- not Post-World War II. That difference in dates is significant.

The South Glendale Historic Context (2018) established in the Theme: Industrial Development (1890-1955) that in the San Fernando Road corridor (and elsewhere), that “"resources from the pre-World War II era of development are rare”" The main building and the connected shipping building were completed in or before 1935. That survey identified the subject property as individually locally significant (5S3).

Figure 2: Black and white photo of Hollywood Water Heater Co. Shipping Building (foreground) and Main Building (right side) by photographer Dick Whittington. It is entitled “Buildings by railroad tracks, Southern California, 1937”. Description is “Photograph of buildings by railroad tracks, Southern California, 1937”" Detail described “Hollywood W[at]er Heater C[o.]…” The exact angle of the view is unknown but it may be northwest. Source: University of Southern California Digital Library at http://digitallibrary.usc.edu/digital/collection/ p15799coll170/id/71444

The South Glendale Historic Context established registration requirements in the category, “Industrial Development: Integrity Considerations.”

> In order to be eligible for listing at the federal or state levels, a property must retain sufficient integrity to convey its historic significance under the Industrial Development them©. Standard preservation practice requires that a property retain the ability to convey its significance in order to be eligible for designation. Due to tremendous development pressures throughout South Glendale’s history, properties from this period are relatively rare; therefore, a greater degree of alteration may be acceptable" (emphasis added).

The few alterations are minor and the addition of buildings on the property have no bearing on its historic significance. As an industrial property, additional buildings are often built in a complex as needed. The Shipping Building, which was also constructed before 1937 according to photographic evidence in Figure 2 above) abuts the Main Building. It was likely added onto and altered more than the Main Building (see Figure 3 on page 7).

The South Glendale Historic Context, in "Industrial Development: Integrity Considerations" further directed:

> A property important for illustrating a particular architectural style or construction technique must retain most of the physical features that constitute that style or technique. An industrial property significant under Criterion C/3/3 (Architecture) should retain integrity of design, workmanship, materials, and feeling, at a minimum, in order to be eligible for its architectural merit. A property that has lost some historic materials or details can be eligible if it retains the majority of the features that illustrate its style in terms of the massing, spatial relationships, proportion, pattern of windows and doors, texture of materials, and ornamentation. The property is not eligible, however, if it retains some basic features conveying massing but has lost the majority of the features that once characterized its style (emphasis added).

Figure 3: Annotated aerial photograph of Hollywood Water Heater Co. Main Building (outlined in red) and Shipping Building (original exterior demising walls approximately outlined in blue). View southeast. Source: Loop net at https://www.loopnet.com/Listing/5426-5430-San-Fernando-Rd-Glendale-CA/22904260/

> To be eligible under the Industrial Development theme, a property must: date from the period of significance [which in this case is 1935]; represent one of the early industries in Glencoe... [water heaters]; represent a rare or unique industrial property type; display most of the character-defining features of the property type or style [Streamline Moderne style, with limited,

primarily additive additions]; and retain the essential aspects of integrity for listing in the National or California Registers.

Response 1-5

As correctly noted in this comment, the Hollywood Water Heater Company at 5426 San Fernando Road was completed before 1935. However, this comment erroneously states that each of the consultants incorrectly asserted that the American Radiator & Standard Sanitary Corp at 5454 San Fernando (Subject Building adjacent to the north) was built in 1946 and 1947. The construction history of the American Radiator & Standard Sanitary Corp, which was newly completed by 1947, was fully documented in the historic resource evaluation studies in **Appendix A** of the Draft EIR and further documented in the data provided above in **Response 1-4**.

The existing Main and Shipping buildings at 5454 San Fernando, originally constructed as the American Radiator & Standard Sanitary Corp, do not appear on any Sanborn maps or aerial photographs prior to 1950 and, as documented in **Response 1-4** above, is first listed in the Glendale City Directory in 1947 and is a separate building from the Hollywood Water Heater Company building formerly situated at 5426 San Fernando (demolished 2009). This comment erroneously asserts that the Main Warehouse and Shipping buildings at 5454 San Fernando Road are rare resources from the pre-World War II era of development in Glendale. In fact, they were completed in 1946-1947 in the post-war era, as documented above and in historic resource evaluation studies appended to the Draft EIR. The Subject Building at 5454 San Fernando Road does not date from 1935 as stated by the commentor, it was completed in 1946-1947 and it is does not represent one of the early industries in Glendale [radiators]. The Hollywood Water Heater Company building at 5426 San Fernando (demolished 2009) was a separate building that is no longer extant on the project site.

Furthermore, the photograph depicted in Figure 2 in the comment letter is not the Subject Building at 5454 San Fernando. Figure 2 in the comment letter is a cropped and enlarged detail of a 1937 Panoramic Photo from USC's digital collection that is available online. The entire uncropped photo shows a different Streamline Moderne industrial/office building complex located outside of the Project site, further south and across the railroad line on the west side of San Fernando Road at 4536 W. Sperry Street and 4510, 4512, 4516-4522 W. Sperry Steet (5593-01-0015) (later remodeled and a second building was added in 1945) and 4506 W. Sperry St. and 4500-5249 N. San Fernando Road West (APN 5593-01-0016) in the City of Los Angeles,[2] which is a separate property with a different address and location than the Project site. These distinctive Streamline Moderne buildings match the commentor's photograph exactly, were constructed in 1937, and remain extant. Furthermore, the buildings in the uncropped entire 1937 Panoramic Photo, a detail of which is shown in Figure 2 in the comment letter, have been recorded in SurveyLA as 5245 N. San Fernando Road West (Primary) [currently occupied by the International Collage of Beauty Arts and Sciences], 4506 W Sperry St (Alternative), 4500 N. San Fernando Road West

[2] Los Angeles County Assessor; ZIMAS Parcel Profile Report, City of Los Angeles Department of City Planning.

(Alternative), 5249 N. San Fernando Road West (Alternative), 5241 N. San Fernando Road West (Alternative), 5225 N San Fernando Road West (Alternative), and 5221 N. San Fernando Road West (Alternative). According to SurveyLA, notable features of the building designed by Norstrom and Anderson include curved walls and building form, highly distinctive entrance decoration, and wide flat eaves. The tower has had some stucco removed. It is evaluated as an excellent intact example of Streamline Moderne architecture applied to an industrial/office building, with a period of significance of 1940, and was assigned a CHR Status Code of 3S, 3CS, and 5S3.[3]

The entirety of the 1937 Panoramic Photo, a detail of which was depicted in Figure 2 in the comment letter, is reproduced below in **Figure 9**. It shows a railroad spur along the south side of the 5221 W. San Fernando Road. The two-story building with the tower is currently the International College of Beauty Arts and Sciences at 5247, 5225 and 4500 W. San Fernando Road (**Figure 10**). All four Streamline Moderne buildings that appear in the photograph presently remain extant. One is two-stories and has a distinctive tower (**Figure 10**). The others are all one-story buildings; one of them is an industrial building with rectangular gable-roofed roof vents/skylights (not monitor or saw-tooth roofs) (**Figure 15**).

SOURCE: USC Libraries (digital)

Figure 9
Buildings by railroad tracks, 1937, by Dick Whittington Studio (Photographer), 5245 W San Fernando Road. Source: University of Southern California. Libraries (digital), Dick Whittington Photography Collection, DW-1937-08-89-01~01.TIF, (https://doi.org/10.25549/whit-m2896).

3 5245 N San Fernando Road West (http://historicplacesla.org/reports/9e4e9348-fb3b-4827-99af-f41d2faffe4b), accessed 5/26/2023.

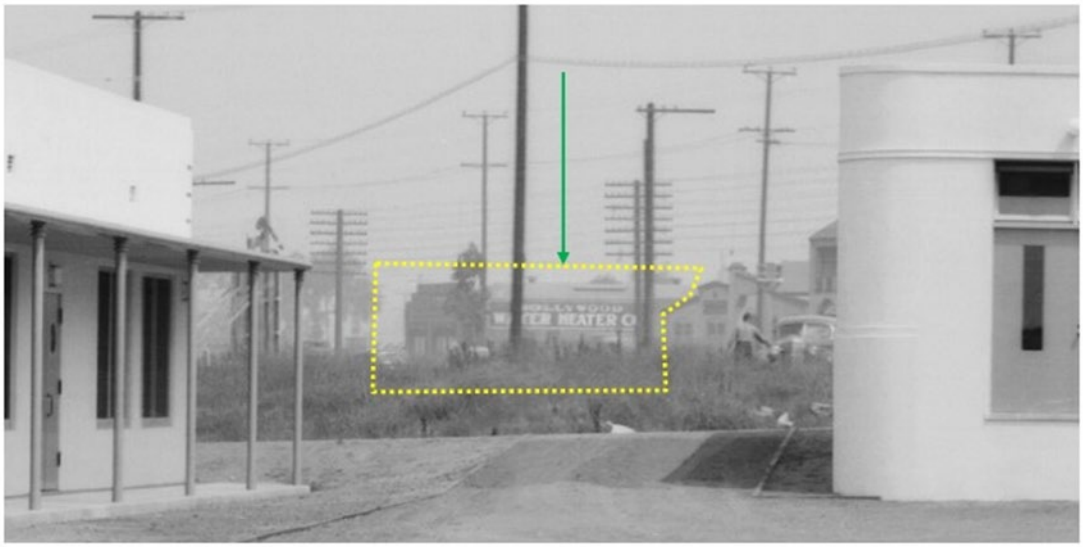
SOURCE: Google Maps,

Figure 10
5245 San Fernando Road West, Los Angeles, California (November 2020).

When observed in greater detail, the 1937 Panoramic Photo depicts the Hollywood Water Heater Company building *in the distant background*, which, as discussed above, was located at 5426 N. San Fernando Road, and is visible on the other side (east) of the railroad and San Fernando Road (**Figure 11**). Further south (right) down San Fernando Road in the distant background of the 1937 Panoramic Photo there is a brick 2-story commercial building with several businesses including a Motel, Keystone Express System (5238 San Fernando Road)[4], and Newhouse Chemical Company (**Figure 12**). Additionally, 5210 N. San Fernando Road, Pacific Coast Auto & Truck Wrecking Co.[5] is visible in the distant background of the photograph (far right) (**Figure 13**).

4 1937 Glendale City Directory, Keystone Express System, 5238 N San Fernando Rd. (https://archive.org/details/cgl_000016/page/n231/mode/2up)

5 1937 Glendale City Directory, Pacific Coast Auto & Truck Wrecking (Nate Morris), 5210 N San Fernando Road. (https://archive.org/details/cgl_000016/page/n293/mode/2up)



SOURCE: USC Libraries (digital)

Figure 11

Detail showing Hollywood Water Heater Co. Building in the background, *Buildings by railroad tracks,* 1937, by Dick Whittington Studio (Photographer), 5245 W. San Fernando Road. Source: University of Southern California. Libraries (digital), Dick Whittington Photography Collection, DW-1937-08-89-01~01.TIF, (https://doi.org/10.25549/whit-m2896). Green arrow points to the Hollywood Water Heater Co. Building.

SOURCE: USC Libraries (digital)

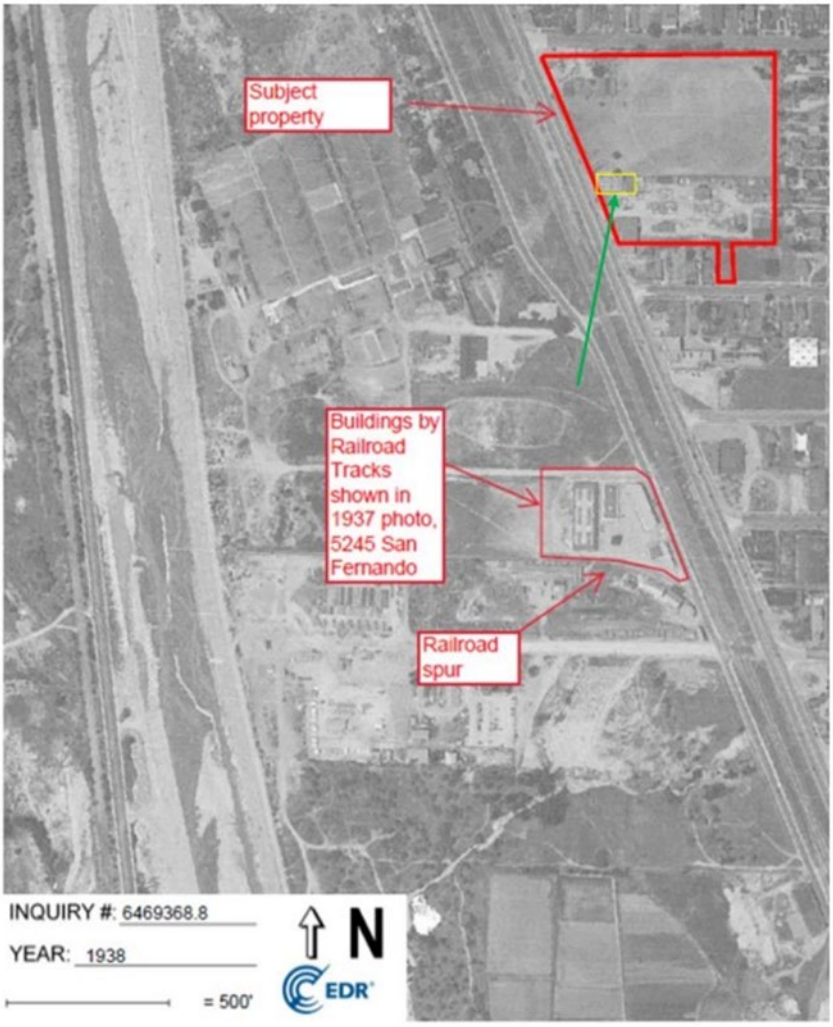
Figure 12

Detail showing 2-story commercial building in the background with several businesses including a Motel, Keystone Express System (5238 San Fernando Road), and Newhouse Chemical Company. *Buildings by railroad tracks,* 1937, by Dick Whittington Studio (Photographer), 5245 W. San Fernando Road. Source: University of Southern California. Libraries (digital), Dick Whittington Photography Collection, DW-1937-08-89-01~01.TIF, (https://doi.org/10.25549/whit-m2896).

SOURCE: USC Libraries (digital)

Figure 13
Detail showing Pacific Coast Auto & Truck Wrecking Co. at 5210 N. San Fernando Road in the background. *Buildings by railroad tracks,* 1937, by Dick Whittington Studio (Photographer), 5245 W. San Fernando Road. Source: University of Southern California. Libraries (digital), Dick Whittington Photography Collection, DW-1937-08-89-01~01.TIF, (https://doi.org/10.25549/whit-m2896).

A 1938 aerial photo (**Figure 14**) shows the Project Site at 5454 and 5426 N. San Fernando Road. The green arrow points to the Hollywood Water Heater Co. building at 5426 San Fernando Road (demolished 2009). Further south at 5245 W. San Fernando Road are the buildings by the railroad tracks, shown in the 1937 Panoramic Photo (**Figure 9**), that was erroneously identified as the subject property in the comment letter.



SOURCE: EDR,

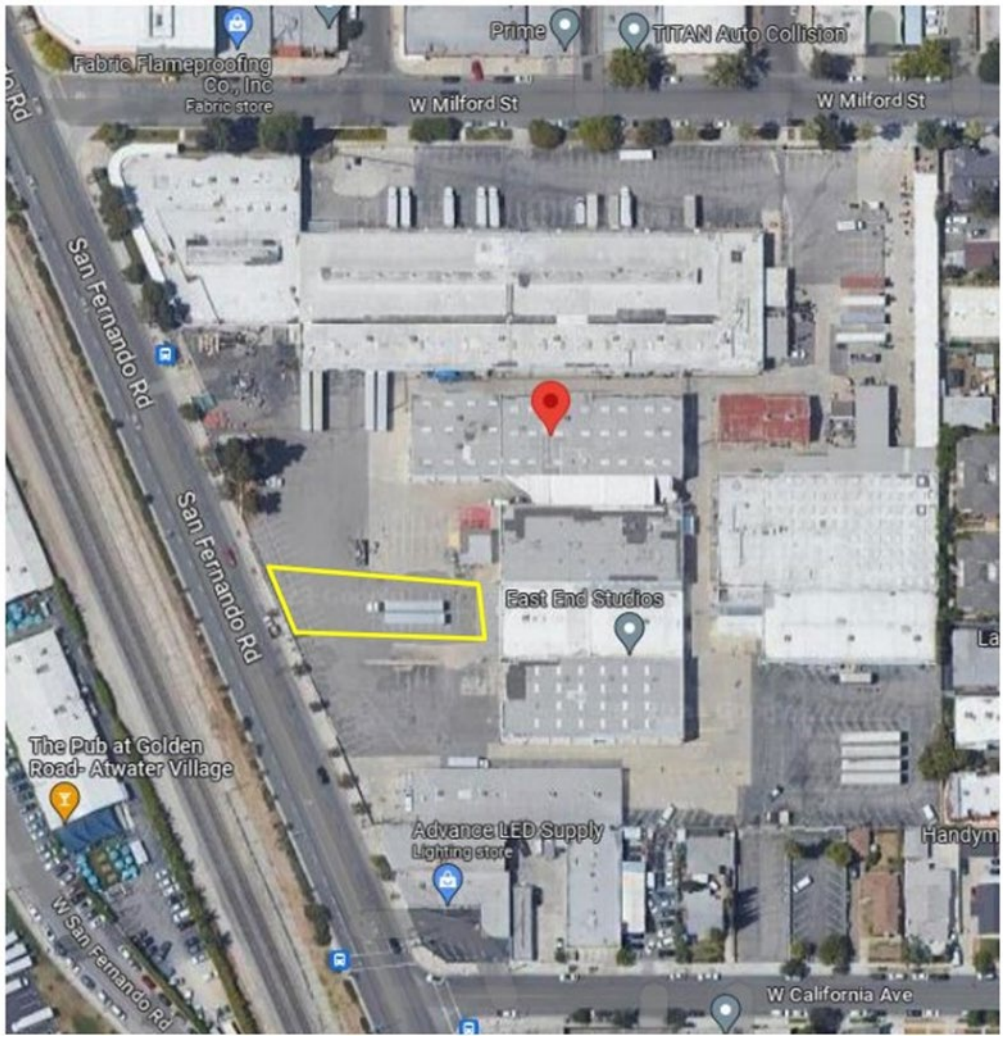
Figure 14
1938 Aerial. Green arrow points to the previously demolished Hollywood Water Heater Co. building (outlined in yellow).

A current 3D aerial view (**Figure 15**) shows the current location (red arrow) of the view shown in the historic photograph (**Figure 11**), which was taken from 5245 San Fernando northeast toward the site of the former Hollywood Water Heater Company building at 5426 San Fernando (demolished 2009).

SOURCE: GOOGLE,

Figure 15
2023 Aerial.

Another current overhead aerial view of the Project Site (**Figure 16**) shows the site of the former Hollywood Water Heater Company building at 5426 San Fernando (demolished 2009) outlined in yellow. Therefore, the property evaluated by the consultants was not completed prior to 1935 and the evidence presented in this comment is for a separate property located at a different address.



SOURCE: Google Maps,

Figure 16
2023 Aerial. Site of former Hollywood Water Heater Company building at 5426 San Fernando (demolished) shown outlined in yellow.

Comment 1-6

The main building is a rare extant example of the Streamline Moderne style in Glendale. Streamline Moderne architecture was popular between 1934 and 1945. The style is characterized by a lack of ornamentation. Decorative features are generally limited to stylized functional features, like flat canopies, rounded forms and linear elements, such as applied trim or grooves in smooth finish materials (See Figures 2 and Figures 4-6). The South Glendale Survey asserted in the "Sub-Theme: Streamline Moderne" that the constraints of the Great Depression cut short the development of Art Deco architecture

but replaced it with a more pure expression of modernity, the Streamline Moderne. Characterized by smooth surfaces, curved corners, and sweeping horizontal lines, Streamline Moderne is considered to be the first thoroughly Modern architectural style to achieve wide acceptance among the American public. Inspired by the industrial designs of the period, the style was popular throughout the United States in throughout the 1930s...

Figure 4: View southeast of Main Building of Hollywood Water Heater Co. from Milford Street, dated Sept 2022. Source: Google Maps at

https://www.google.com/maps/@34.1522409,-118.2741785,3a,75y,165.76h,84.89t/ data=!3m7!1e1!3m5!1s_KeT-2ZibLVRO0ISHXJ5Wwg!2e0!5s20220901T000000!7i16384!8i8192?hl=en-US

As demonstrated in Figures 2-6, the Main Building of Hollywood Water Heater Co. retains a majority of its Streamline Moderne features:

- original, distinctive parallelogram plan with a radiused character-defining corner;
- its single-story block-like massing, with punched openings;
- the distinctive corner-wrapping, cantilevered canopy;
- restrained ornamentation;
- banks of multi-light steel-sash (some reversibly overpainted) windows.

Figure 5: View east of main Hollywood Water Heater Building from San Fernando Road, dated Sept 2022. Source: Google Maps at https://www.google.com/maps/@34.1517383,-118.274298,3a,75y,78.73h,91.84t/data=!3m7!1e1!3m5!1sfhuS0ZRdOorW6WbmWxqtQw!2e0!5s20220901T000000!7i16384!8i8192?hl=en-US

The main entrance is a single slab door with full-height glass sidelights and a transom set at a 45-degree angle at the street corner (Figure 6). The entrance is on a raised podium which has stack bond brick planters which are notably curved on the north side, flanking the concrete stairs that are wide at the base and narrow at the top, creating a sense of compression. Large storefront display windows on the sides of the entrance have been enclosed but appear to remain extant.

Figure 6: Corner view of Main Building Hollywood Water Heater Co. entrance, September 2022. Note the curved form, the canopy and simple stripped classicism at cornice. Source: Google Maps at https://www.google.com/maps/@34.1522533,-118.274388,3a,75y,153.81h,89.53t/data=!3m6!1e1!3m4!1soenva0mkaUuHx62nhXYbpA!2e0!7i16384!8i8192?hl=en-US

Response 1-6

This comment asserts that the main building is a rare extant example of the Streamline Moderne style of an architect in Glendale that was popular between 1934 and 1945, and goes on to describe its stylistic characteristics which, as she states, were popular throughout the United States in the 1930s. However, the main building at 5454 San Fernando depicted in Figures 3, 4, 5, and 6 of the comment letter, which is mislabeled as the Hollywood Water Heater Co., is actually the American Radiator & Standard Sanitary Corp. building that was completed in 1947 during the Post World-War II Era and is currently existing on the Project site as a late example of the Streamline Moderne style in Glendale, as discussed in the historic resource evaluations appended to the Draft EIR. As discussed in the previous responses, the Hollywood Water Heater Co. building was demolished in 2009 and is no longer extant.

Comment 1-7

The project consultants each erred in identifying the Hollywood Water Company buildings' dates of construction by 11-12 years in the Cultural Appendix to the Draft EIR. The Sapphos memo describes 1947 as the date of construction on pages 1 and 2 (May 18, 2021). The ESA memo dated August 11, 2021 states the Hollywood Water Co. Main Building was constructed in 1947 with the Shipping Building built in 1946 on pages 1, 2, 11, 18, 26, 27, 28, 34, 40, 41 and 45. The photograph in Figure 2, as well as simple city directory research from the 1930s proves the two consulting firms *each* wrong in dating as well as evaluating the subject property for historic significance.

Response 1-7

As discussed in detail above in **Response 1-4** and further documented in **Response 1-5** and documented in the historic resource evaluations appended to the Draft EIR, the date of the subject property is actually 1946-1947, not 1935 as identified in this comment. Contrary to the assertion in this comment, the information in the historic resource evaluations appended to the Draft EIR supports the date identified for construction of these buildings. The comment inaccurately identifies that the 5426 San Fernando Road Hollywood Water Company building was the same building as the 5454 San Fernando Road American Radiator & Standard Sanitary Corp. building. These are not the same building and were each built at different times in separate locations.

As discussed above in **Response 1-4** and further illustrated in **Figures 2 through 8** above, the Hollywood Water Company building (demolished 2009) was located at 5426 San Fernando from 1935-1948, near the center of the Project Site fronting on San Fernando Road. The American Radiator & Standard Sanitary Corp. was built in 1946-1947 at 5454 San Fernando at the northwest corner of the Project Site, bounded on the north by Milford Street and oriented facing west toward San Fernando Road. Furthermore, as shown above, the site of the former Hollywood Water Company (demolished 2009) is currently vacant, and the building is no longer extant (**Figure 14** of this ESA memo).

Comment 1-8

The ESA memo further misstated on page 9 that "The City of Glendale Dies not have a context statement for the Streamline Moderne style" when the South Glendale Survey described a "SubTheme [of the] Streamline Moderne" style. It is quoted on page 7 of this letter. Instead, they relied on SurveyLA, which is not applicable to Glendale, particularly when there are established registration requirements in the South Glendale Survey and moreover missed the fact that the architectural trend had largely ended by 1946. Furthermore, Glendale has very few examples of the Streamline Moderne style, which makes this rare example all the more significant and allows more leeway regarding alterations. The ESA memo named only three other examples of the short lived style, citing "higher integrity" (page 43). Those properties are listed below and are either not applicable (properties 2 and 3) or do not possess any more complete integrity than the Hollywood Water Heater Co. (property 1):

1. Commercial Camera Company Building at 701 West Broadway was completed in 1941. It is described in the South Glendale Historic Resources Survey, Appendix B: Property Table - Individually Eligible Properties as Industrial vernacular "primary door replaced, entrance altered" (page 12).

2. 221 N. Brand Boulevard Building was built in 1951, long after Streamline Moderne style had waned in popularity. The entire pedestrian level has been replaced by contemporary storefront including the entrance (date unknown).

3. Glendale Presbyterian Church, Stewart Hall at 305 East Harvard Street was constructed in 1951 as well. That was long after Streamline Moderne was a popular architectural style. The South

> Glendale Historic Resources Survey, Appendix B: –roperty Table - Individually Eligible Properties described the property as "Late Moderne," in style and its entrance is notably also altered and reconfigured (page 34).

Thus, of the three examples cited as retaining better integrity, each of the three has altered entrances and only one is actually Streamline Moderne in style. That makes property 1 on page 9 the only comparable property to the subject property. Because these three examples were not actually any "better" examples of the Streamline Moderne style possessing supplementary integrity than the Hollywood Water Heater Co. property, that makes the Main and Shipping Buildings at 5426 San Fernando Road more clear representatives of an increasingly rare architectural style with adequate integrity to be recognizable to their original appearances.

Response 1-8

This comment correctly notes that the Glendale Historic Context[6] includes a brief one-page "Sub-Theme: Streamline Moderne" on page 230 that states that the style was popular in Southern California during the 1930s and few examples exist because there was so little construction activity during the Depression. However, the ESA memo correctly identified the date of construction as 1946-1947 during the Post World War II Era after the period of significance for the Streamline Moderne style. Additionally, the ESA memo described the subject building as an example of a Mid-Century Modern style with limited Streamline Moderne elements which is consistent with the time of its construction and architectural appearance. In other words, it is a late transitional example of the Streamline Moderne style as applied to a Mid-Century Modern industrial building.

Furthermore, as stated on page 42 of the ESA memo, the subject building was previously identified in the 2014 South Glendale Historic Resources Survey as having a "Mid-century Modern/Industrial" architectural style, with "No major alterations." However, as discussed in the ESA memo, the façade has been substantially altered by removal of the display windows, filling in of window openings with stucco, replacement of the front entrance, installment of tall, narrow, fixed tinted tempered-glass windows, and alteration of the exterior finish with stone veneer. Furthermore, in the 2014 South Glendale Historic Resources Survey, the subject building was not identified as significant, nor as an excellent or rare example of the "Mid-century Modern/Industrial" style, but rather was identified for its pattern of industrial development along the San Fernando Road corridor. Additionally, the survey did not identify the Streamline Moderne stylistic elements present at the subject property identified in the ESA memo, which include the curved overhanging canopy, flat roof, rounded corner, and unadorned wall surfaces.

In addition, it should be noted that the Construction History in the DPR 523 forms for the subject building, as recorded by the 2014 South Glendale Historic Resources Survey, included only a partial building permit

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6 South Glendale Historic Context, Draft 9 Jan 2018, https://www.gregcolley.com/wp-content/uploads/2019/07/South-Glendale-Historic-Context.pdf

history. The additional research conducted as part of the historic resource evaluations appended to the Draft EIR also includes building permits for the other seven structures located on the property and are not specific to the subject building at 5454 San Fernando Road. This additional research uncovered numerous additional building permits for the property that were not reviewed as part of the South Glendale Historic Resources Survey DPR 523 forms, which resulted in an incomplete depiction of the site development and all the modifications undertaken at the subject building.[7] While the subject building includes a few character-defining features, namely the curved overhang, smooth exterior concrete and stucco walls, and horizontally oriented windows, the subject building is not an outstanding or distinctive example of Mid-Century Modern architecture. It is an altered Mid-Century Modern 1947 addition to a utilitarian industrial warehouse built in 1946.

While the subject building was previously identified in the City survey, it does not retain integrity to convey its association or design intent. Additionally, while the building was overall Mid-Century Modern in style, it retains some elements of the Streamline Moderne style, including the curved overhanging canopy, flat roof, rounded corner, and unadorned wall surfaces. While the subject building was constructed just after the Streamline Modern style's period of significance and retains a few character-defining features, the building does not embody distinctive or exemplary characteristics of the architectural style.

Additionally, as shown in the ESA memo, the entire removal of the original display windows and display area depicted on the Sanborn maps and in the newspaper rendering, and conversion of the original display area to warehouse use has substantially altered and compromised the original design and style of the primary façade (street elevations and corner) of 5454 San Fernando Road building. All the original display windows have been removed and the walls filled in, and new incompatible windows installed that are completely out of proportion and the wrong design for the building. Furthermore, the original front entrance has been removed and replaced with an incompatible entrance and door that are not at all in keeping with the original style of the building. The impact of removal of the corner entrance and alteration of the display windows that were directly associated with the original function and design of the building has resulted in a substantial material change that has impaired its ability to convey its original function and historical associations, rendering the building ineligible.

Therefore, as stated in the ESA memo, this building is not a rare example of an industrial resource nor is it an excellent or rare example of a Mid-Century Modern or Streamline Moderne style building within the

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7 The Los Angeles County Assessor recorded that the foundation for Warehouse #6, 5454 N. San Fernando Road, was permitted May 6, 1946 (Glendale Permit No. 26323), amount $35,000. The attached Warehouse & Office for 5454 N San Fernando Road was permitted July 31, 1946 (Glendale Permit No. 25793), amount $190,000. Additional storage for the building was permitted June 12, 1974 (Glendale Permit No. 04240). General alterations for the building were completed October 28, 1954 (Glendale Permit No. 48166), amount $30,000. Sprinklers were installed in the building October 29, 1954 (Glendale Permit No. 48173), amount $21,500. An A.H. Voult was completed for the building April 9, 1969 (Glendale Permit No. 46185), amount $1,800. Improvements to the interior structure of the building were completed November 6, 1969 (Glendale Permit No. 53867), amount $40,000. A canopy was added to the building December 12, 1969 (Glendale Permit No. 54802), amount $1,687. The office was altered, December 23, 1969 (Glendale Permit No. 55065), amount $4,000.

City. In addition, the Modern design of the display windows was a distinctive feature associated with the American Radiator & Standard Sanitary Corporation and with automobile culture during the immediate post-World War II period. Their removal and the alterations to the façade substantially detract from the subject building's integrity of design, workmanship, materials, and association. There is no longer a strong distinction between the office portion and the warehouse portion as the interiors have been largely modified over time. Furthermore, as discussed in the ESA memo, the subject property is not a rare example of a pre-War industrial facility, it is not associated with a highly significant Post World War II industrial enterprise (e.g. aviation, etc.), but was constructed as a branch distributing center for the American Radiator & Standard Sanitary Corporation that made radiators, sinks, and refrigerators.

Comment 1-9

Because the consultants did not prove their ostensible points, misunderstood when the Hollywood Water Heater Co. Building was constructed, and used inappropriate comparisons to prove their points it is concluded that the Main and Shipping Buildings at 5426 San Fernando Road are indeed eligible for listing in the Glendale Register under Criteria 1 for associative significance as "resources from the pre-World War II era of development ["which] are rare" and Criteria 3 for design significance under the "Sub-Theme: Streamline Moderne" style architecture with a Period of Significance of 1935 when it was completed.

The subject property is, as the City of Glendale already established, locally significant for its associative and design importance and thus is a presumptive historical resource for the purposes of CEQA. The proposed project and an updated focused EIR must be reviewed by the Historic Preservation Commission in accordance with the requirements in the current municipal code.

Response 1-9

As discussed in detail in the responses to the previous comments, as well as in the historic resource evaluations appended to the Draft EIR, the subject property was not completed in 1935. The American Radiator & Standard Sanitary Corporation building located on the Project site was constructed in 1946-47. This comment erroneously asserts that the Hollywood Water Heater Co. constructed in 1935 near the center of the Project Site at 5426 San Fernando (demolished) is the same building as 5454 San Fernando when this is not correct; the American Radiator & Standard Sanitary Corporation building is a different building built at 5454 San Fernando at the northwest corner of the Project site and remains extant.

As noted in this comment, the subject property was previously identified in the 2014 South Glendale Historic Resources Survey; however, as discussed above and in the historic resource evaluations appended to the Draft EIR, the Subject Building was not identified in the Glendale survey as significant as an excellent or rare example of the "Mid-century Modern/Industrial" style or as an example of the Streamline Moderne style, but rather was identified for its pattern of industrial development along the San Fernando Road corridor as an "excellent example of industrial development from the immediate post World War II period, representing the continued growth of San Fernando Road as an important industrial corridor in South Glendale." The Glendale survey did not identify the Streamline Moderne stylistic

elements present at the subject property that were identified and evaluated for significance in the ESA memo. As discussed above in **Response 1-8**, the subject property does not meet the eligibility thresholds for listing, fails to convey significant historic associations, and is not a distinctive example of its style as applied to an industrial office and display room due to a substantial lack of integrity.

Comment 1-10

It does not mean that the proposed project cannot ever come to fruition, however it does mean that alternatives to the demolition of Hollywood Water Heater Co. Building at 5426 San Fernando Road must be studied in another focused environmental document to avoid or reduce related significant impacts on the environment. Alternatives should include at least one that retains the historical resource and would rehabilitate it in accordance with the Standards for Rehabilitation, consider a smaller project, if necessary, as well as a different location that need not be owned by the project proponents, as proven in previous CEQA cases.

Response 1-10

As discussed in the responses to the prior comments in this letter, the building at 5426 San Fernando Road is not a historic resource and has been demolished. Additionally, none of the buildings currently on the Project site qualify as historic resources and, for this reason, demolition of these buildings would not result in significant impacts to any historic resources. Accordingly, analysis of alternatives that would avoid impacts to historic resources is not required under the applicable standards for analysis of alternatives contained in CEQA Guidelines Section 15126.6.

As determined by CEQA Guidelines Section 15126.6(d), the lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason. The City of Glendale identified several alternatives for analysis in the Draft EIR to determine if these alternatives could avoid or substantially lessen the significant impacts of the Project and meet the basic Project objectives. Alternatives that would reduce the intensity or duration of construction activities would reduce temporary noise impacts during construction. In addition to the No Project Alternative, two additional alternatives were identified that would redevelop the Project site with different building configurations, which would reduce the intensity and duration of construction activities and temporary noise during construction while feasibly meeting most of the following objectives for the Project.

Comment 1-11

I appreciate the opportunity to comment on this important project. Please ensure that my comments are included in the Administrative Record for this project and are fully considered.

Response 1-11

The comments in this letter are included in the Final EIR, which will be included in the Administrative Record for this project. Each of the comments in this letter were fully considered as evidenced by the detailed responses provided above to each of these comments.

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May 1, 2023

Aileen Babakhani
Planner
City of Glendale Planning Division
633 East Broadway, Room 103
Glendale, California 91206-4386

VIA EMAIL TO:
ABabakhani@Glendaleca.gov

SUBJECT: Comments on San Fernando Soundstage Campus EIR (SCH NO. 2022090166)

Dear Ms. Babakhani,

Thank you for the opportunity to comment on the Environmental Impact Report (EIR) for the proposed San Fernando Soundstage Campus Project. Please accept and consider these comments on behalf of Golden State Environmental Justice Alliance (GSEJA). Also, Golden State Environmental Justice Alliance formally requests to be added to the public interest list regarding any subsequent environmental documents, public notices, public hearings, and notices of determination for this project. Send all communications to Golden State Environmental Justice Alliance P.O. Box 79222 Corona, CA 92877.

1.0 Summary

The project proposes to demolish all existing onsite structures and the existing surface parking for the construction of four new structures containing: (1) ten production sound stage studios (individually, a Stage and, collectively, the Stages), (2) three flex spaces (individually, a Flex Space), production office uses and commissary, (3) various support spaces (both Flex Space support, Mill spaces, and Stage support), (4) an above-grade parking garage with 419 parking spaces(Parking Garage), and (4) related surface parking lot with 114 spaces (Surface Parking). The Project's four structures will contain approximately 406,318 square feet of gross floor area. The first building (Building 1) fronts West San Fernando Road and West Milford Street and contains a total of approximately 214,885 square feet of gross floor area comprised of Production Office uses (including a ground floor entry lobby), 8, commissary, and 2 flex spaces on the ground floor and 1 mill space on the ground floor. Building 1 also contains the Parking Garage. The second building (Building 2) is located to the east of Building 1, fronts Milford Street, and contains approximately 97,905 square feet of gross floor area with 5 Stages and 1 Flex Space uses. The third building (Building 3) is located to the south of Building 2, separated by part of the fire lane,

and contains approximately 93,528 square feet of gross floor area with 5 Stages. The fourth building (Building 4) abuts Building 3 on the south with frontage on South Fernando Road and is adjacent to the southern legal non-conforming residential properties. The fourth building, the Parking Structure, fronts West San Fernando Road and West Milford Street and contains 419 parking spaces. The remaining 114 spaces will be provided on the Surface Parking.

4.2 Air Quality and 4.4 Greenhouse Gas Emissions

Please refer to attachments from SWAPE for a complete technical commentary and analysis. 2-1

The EIR does not include for analysis relevant environmental justice issues in reviewing potential impacts, including cumulative impacts from the proposed project. This is especially significant as the surrounding community is highly burdened by pollution. According to CalEnviroScreen 4.0[1], CalEPA's screening tool that ranks each census tract in the state for pollution and socioeconomic vulnerability, the proposed project s census tract (6037301702) ranks in the 100th percentile in overall pollution burden, meaning that it is among the most polluted areas in the state. The proposed project's census tract and surrounding community, including residences immediately adjacent to the east and south, bears the impact of multiple sources of pollution and is more polluted than average on several pollution indicators measured by CalEnviroScreen. For example, the project census tract ranks in the 72nd percentile for ozone burden, the 70th percentile for PM 2.5 burden, the 97th percentile for diesel particulate matter burden, and the 90th percentile for traffic impacts. All of these environmental factors are typically attributed to heavy truck activity in the area. Ozone can cause lung irritation, inflammation, and worsening of existing chronic health conditions, even at low levels of exposure[2]. The very small particles of diesel PM can reach deep into the lung, where they can contribute to a range of health problems. These include irritation to the eyes, throat and nose, heart and lung disease, and lung cancer[3]. 2-2

The census tract ranks in the 76th percentile for contaminated drinking water and 89th percentile for groundwater threats. Poor communities and people in rural areas are exposed to contaminants in their drinking water more often than people in other parts of the state[4]. People who live near contaminated groundwater may be exposed to chemicals moving from the soil into the air inside their homes[5].

[1] CalEnviroScreen 4.0 https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40
[2] OEHHA Ozone https://oehha.ca.gov/calenviroscreen/indicator/air-quality-ozone
[3] OEHHA Diesel Particulate Matter https://oehha.ca.gov/calenviroscreen/indicator/diesel-particulate-matter
[4] OEHHA Contaminated Drinking Water https://oehha.ca.gov/calenviroscreen/drinking-water
[5] OEHHA Groundwater Threats https://oehha.ca.gov/calenviroscreen/indicator/groundwater-threats

The census tract also ranks in the 95th percentile for solid waste facility impacts and 94th percentile for hazardous waste facility impacts. Solid waste facilities can expose people to hazardous chemicals, release toxic gases into the air (even after these facilites are closed), and chemicals can leach into soil around the facility and pose a health risk to nearby populations[6]. Hazardous waste generators and facilities contribute to the contamination of air, water and soil near waste generators and facilities can harm the environment as well as people[7].

The census tract also bears more impacts from cleanup sites than 97% of the state. Chemicals in the buildings, soil, or water at cleanup sites can move into nearby communities through the air or movement of water[8].

Further, the census tract is a diverse community including 15% Hispanic, 2% African-American and 14% Asian-American residents, whom are especially vulnerable to the impacts of pollution. The community has a high rate of low educational attainment, meaning 57% of the census tract over age 25 has not attained a high school diploma, which is an indication that they may lack health insurance or access to medical care. The community also has a high rate of poverty, meaning 63% of the households in the census tract have a total income before taxes that is less than the poverty level. Income can affect health when people cannot afford healthy living and working conditions, nutritious food and necessary medical care[9]. Poor communities are often located in areas with high levels of pollution[10]. Poverty can cause stress that weakens the immune system and causes people to become ill from pollution[11]. Living in poverty is also an indication that residents may lack health insurance or access to medical care. Medical care is vital for this census tract as it ranks in the 78th percentile for incidence of cardiovascular disease. The community also has a high rate of linguistic isolation, meaning 87% of the census tract speaks little to no English and faces further inequities as a result.

Additionally, the proposed project's census tract (6037301702) and the census tracts adjacent to the project site (6037301701 (north), 6037301801 (east), 6037301802 (east), 6037302301 (south) and 6037188100 (west)) are identified as SB 535 Disadvantaged Communities[12]. This indicates that cumulative impacts of development and environmental impacts in the City are

2-2 cont'd

[6] OEHHA Solid Waste Facilities https://oehha.ca.gov/calenviroscreen/indicator/solid-waste-sites-and-facilities
[7] OEHHA Hazardous Waste Generators and Facilities https://oehha.ca.gov/calenviroscreen/indicator/hazardous-waste-generators-and-facilities
[8] OEHHA Cleanup Sites https://oehha.ca.gov/calenviroscreen/indicator/cleanup-sites
[9] OEHHA Poverty https://oehha.ca.gov/calenviroscreen/indicator/poverty
[10] Ibid.
[11] Ibid.
[12] OEHHA SB 535 Census Tracts https://oehha.ca.gov/calenviroscreen/sb535

disproportionately impacting these communities. The EIR does not discuss that the project site and surrounding area are disadvantaged communities and does not utilize this information in its analysis. The EIR has not considered environmental impacts in relation to the SB 535 status of the project census tract and surrounding area. The negative environmental, health, and quality of life impacts of development in the City have become distinctly inequitable and impacts particularly on these Disadvantaged Communities must be included for analysis as part of a revised EIR.

2-2 cont'd

California s Building Energy Code Compliance Software (CBECC) is the State's only approved energy compliance modeling software for non-residential buildings in compliance with Title 24[13]. CalEEMod is not listed as an approved software. The CalEEMod-based modeling in the EIR and appendices does not comply with the 2022 Building Energy Efficiency Standards and under-reports the project s significant Energy impacts and fuel consumption to the public and decision makers. Since the EIR did not accurately or adequately model the energy impacts in compliance with Title 24, a finding of significance must be made. A revised EIR with modeling using the approved software (CBECC) must be circulated for public review in order to adequately analyze the project s significant environmental impacts. This is vital as the EIR utilizes CalEEMod as a source in its methodology and analysis, which is clearly not the approved software.

2-3

4.6 Land Use and Planning

The Project Description states the project requires the following Variances and Parking Exceptions for approval:

1. Variances pursuant to GMC Chapter 30.43 to allow deviation from:
    1. GMC Section 30.14.030 – Table 30.14-B to allow
        1. a maximum height for Building 1 of up to 89 feet and 3 inches to the top of the parapet (5% of Building 1's rooftop footprint will reach up to 100 feet 9 inches to accommodate rooftop equipment and required mechanical screening) in lieu of the 50-foot height limitation; and
        2. a maximum height for the Parking Garage of up to 65 feet 6 inches to the top of the roof and 69 feet to the top of the parapet 69 in lieu of the 50-foot height limitation; and
    b. GMC Section 30.14.030 – Applicant proposes to provide the required 10- foot corner cutoff. The code, however, requires an entrance to be located on the corner and Applicant requests deviation from this requirement. Applicant proposes various entrances for the Project. A corner entrance at the intersection of San Fernando Road and Milford Street is infeasible.

2-4

[13] California Energy Commission 2022 Energy Code Compliance Software https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency-1

2. Parking Exceptions pursuant to GMC Section 30.32.020 to allow exceptions to parking requirements and parking standards for projects located in the Redevelopment Area. Applicant requests exceptions from the following:
   a. GMC Section 30.32.160.B.1 – to allow the Project to provide less than the 5% interior landscaping for the Surface Parking as required by the GMC. Applicant requests to provide landscaping along the perimeter of the Property and on the rooftops; and
   b. GMC Section 30.32.160.B.2 – to allow the Project to plant the GMC required trees along the perimeter of the Property. The GMC requires 19 trees planted throughout the Surface Parking area. Applicant will instead plant 69 trees along the Property's perimeter, on Building 1, and throughout the Property.
   c. GMC Section 30.34.120.A.2 – to allow the Project to eliminate the minimum landscaped setback area on the Parking Structure's southern, eastern, and northern sides in lieu of the five-foot landscaped setback GMC requirement. Applicant requests to provide landscaping along the perimeter and throughout the Property.

2-4 cont'd

The EIR does not provide any analysis of the deviations and their compatibility with the General Plan or the SGCP. The EIR must be revised to include this analysis and a finding of significance due to the required deviations.

Additionally, the EIR is internally inconsistent. The Land Use and Planning analysis states the project is required to provide 533 parking spaces per the GMC and Appendix E: Traffic Analysis states the project is required to provide 551 parking spaces per the GMC. The EIR must be revised to be internally consistent in order to provide an adequate and accurate environmental analysis.

4.8 Transportation

The project trip generation estimate grossly underestimates the vehicle trips generated by the proposed project. CEQA Guidelines Section 15125 (a)(1) states that the lead agency shall describe the environmental setting based on existing conditions at the time the Notice of Preparation is published. The NOP for the proposed project was published on September 9, 2022[14]. However, analysis throughout the EIR including Table 3: Project Trip Generation Estimates within Appendix E: Transportation Analysis credits the proposed project with emissions and energy consumption credits for operation of the site at full capacity. The physical conditions that existed at the site on September 9, 2022 are not described or discussed with meaningful supporting evidence in the EIR with regard to vehicle trip generation. Appendix E: Transportation Analysis credits the proposed project based on existing trips at the site utilizing ITE default rates for the project site operating at full capacity. It is not appropriate to model the existing uses at full operational capacity and provide

2-5

[14] https://ceqanet.opr.ca.gov/Project/2022090166

trip generation reduction credits on these rates. Appendix C: Phase 1 ESA states that several of the onsite buildings are not actively utilized in ways that generate vehicle trips, such as video equipment storage (Buildings 2, 4A, 9 and 10), general storage (Buildings 7, 12, and 13), and Building 8 was vacant. The existing conditions of the site generate significantly lower VMT and significantly lower vehicle trips due to the site conditions on September 9, 2022.

Additionally, Table 3: Project Trip Generation Estimates within Appendix E credits the site with 200,000 square feet of operational warehousing vehicle trips. However, Appendix C: Phase 1 ESA provides the square footage of all buildings on the project site, which total to 175,800 square feet. The EIR overestimates the quantity of existing trips generated at the project site in order to artificially reduce the "net new" quantity of trips generated by the proposed project and skew impacts downwards.

The project VMT analysis and project trip generation must be revised to remove any credit given for the existing buildings in order to accurately and adequately analyze the project's significant VMT impacts in accordance with CEQA Section 15064.3 and the City's General Plan LOS requirements.

2-5 cont'd

Further, Table 4: Transportation Impact Analysis Screening- CEQA Analyses within Appendix E: Transportation Analysis concludes that the project is exempt from performing a project-specific VMT analysis due to compliance with the provided checklist. However, the project does not comply with Section 4: High-Quality Transit Area (HQTA) of the checklist. In order to comply with Section 4, all criteria within the section must be met. One of the criteria asks: Does the project contain transit-supportive uses? The checklist marks yes, but no portion of the EIR provides meaningful evidence to support this claim. The EIR must be revised to provide quantified evidence to support the claim that the project contains transit-supportive uses. Additionally, the checklist asks if the project is consistent with the General Plan and marks yes, but does not discuss the required Variances to be approved in order to accommodate the proposed project. The EIR must be revised to include this analysis.

5.0 Alternatives

The EIR is required to evaluate a reasonable range of alternatives to the proposed project which will avoid or substantially lessen any of the significant effects of the project (CEQA § 15126.6.) The alternatives chosen for analysis include the CEQA required "No Project" alternative and only two others - Commercial Use Alternative and Reduced Intensity Alternative. The EIR does not evaluate a reasonable range of alternatives as only two alternatives beyond the required No Project alternative is analyzed. The EIR must be revised to include analysis of a reasonable range of alternatives and foster informed decision making (CEQA § 15126.6). This includes alternatives

2-6

such as development of the site with a project that removes all of the proposed project's required variances and exceptions for approval, or a mixed-use project that provides affordable housing and local-serving commercial uses that reduces VMT, GHG emissions, and improves Air Quality.

2-6 cont'd

6.0 Effects Not Found to be Significant

6.10 Population and Housing

The EIR utilizes uncertain language and does not provide any meaningful analysis or supporting evidence to substantiate the conclusion that there will be no significant impact to population and housing. The EIR states that "Given the size of the existing construction workforce in Los Angeles County, it is expected that the majority of the temporary construction jobs created by the Project will be filled by *local* construction workers." The EIR relies upon the entire construction workforce of Los Angeles County to fill the project's construction jobs. The EIR provides no information regarding the local City construction workforce. Relying upon the construction workforce of the entire Los Angeles County area will increase VMT and emissions during all phases of construction and the EIR must be revised to account for longer worker trip distances. For example, Glendale is approximately 65 miles from Lancaster, 35 miles from Castaic, and 33 miles from Long Beach, while the CalEEMod ouptut sheets assumed only 18.5 miles per worker trip during all phases of construction. The EIR must be revised include a comprehensive construction worker employment analysis to adequately and accurately analyze all potentially significant environmental impacts.

2-7

SCAG adopted 2045 growth projections as part of the 2020 RTP/SCS (Connect SoCal) on September 3, 2020. SCAG's Connect SoCal Demographics and Growth Forecast[15] notes that Glendale will add 8,900 jobs between 2016 - 2045. Utilizing the EIR's calculation of 1,713 employees, the project represents 19.25% of the City's employment growth from 2016 - 2045. A single project accounting for this amount of the projected employment growth over 29 years represents a significant amount of growth. A revised EIR must be prepared to include this analysis, and also provide a cumulative analysis discussion of projects approved since 2016 and projects in the pipeline" to determine if the project will exceed SCAG s and/or the adopted General Plan employment growth forecast for the City. For example, other recently approved projects such as a 114-bed medical congregate living facility[16], 137 room hotel[17], 28 commercial condominiums[18]

[15] SCAG Connect SoCal Demographics and Growth Forecast adopted September 3, 2020 https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal_demographics-and-growth-forecast.pdf?1606001579
[16] https://www.glendaleca.gov/home/showpublisheddocument/67671/637940174017570000
[17] https://ceqanet.opr.ca.gov/2020060188/2
[18] https://www.glendaleca.gov/home/showpublisheddocument/61358/637497851157500000

and other projects approved since 2016 will cumulatively generate additional employees when they are added to the calculation. A revised EIR must be prepared to include a cumulative analysis on this topic in order to provide an adequate and accurate environmental analysis.

The EIR tiers a significant portion of its analysis from the South Glendale Community Plan PEIR[19]. Table 4.12-2: Proposed SGCP Growth Forecasts of SGCP PEIR concludes the SGCP area will result in a buildout of 11,236 employees by 2040, which exceeded the General Plan buildout of 8,140 employees by 2040 and resulted in significant and unavoidable impacts. The proposed project EIR has not demonstrated that the proposed project is within the buildout scenarios of either the SGCP PEIR or the General Plan. The EIR's calculation of 1,713 employees represents 15.2% of the SGCP area employment buildout and 21% of the General Plan employment buildout. A revised EIR must be prepared to demonstrate whether the project exceeds these totals cumulatively with all other projects approved since the time of General Plan adoption and SGCP adoption in order to provide an adequate and accurate environmental analysis.

2-7 cont'd

7.1 Growth Inducing Impacts

The EIR does not discuss or analyze the project's required Variances and Parking Exceptions anywhere in this section. This is misleading to the public and decision makers. The EIR must be revised to include the required Variances and Parking Exceptions for discussion and analysis. The EIR must also include discussion for the precedence setting action that approval of the Variances and Parking Exceptions set for future land use changes in the area.

The EIR must also include a cumulative analysis discussion here to demonstrate the impact of the proposed project in a cumulative setting. The proposed project alone accounts for 19.25% of the City's employment growth from 2016 - 2045 pursuant to SCAG growth forecasts, 15.2% of the SGCP area employment buildout and 21% of the General Plan employment buildout. These totals increase exponentially when other approved projects are added to the calculation, such as a 114-bed medical congregate living facility[20], 137 room hotel[21], 28 commercial condominiums[22].. A revised EIR must be prepared to demonstrate whether the project exceeds these totals cumulatively with all other projects approved since the time of General Plan adoption and SGCP adoption in order to provide an adequate and accurate environmental analysis.

2-8

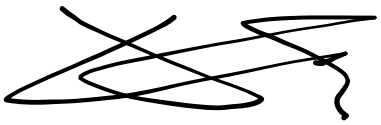
[19] https://www.glendaleca.gov/government/departments/community-development/planning/community-plans/sgcp-eir
[20] https://www.glendaleca.gov/home/showpublisheddocument/67671/637940174017570000
[21] https://ceqanet.opr.ca.gov/2020060188/2
[22] https://www.glendaleca.gov/home/showpublisheddocument/61358/637497851157500000

Conclusion

For the foregoing reasons, GSEJA believes the EIR is flawed and a revised EIR must be prepared for the proposed project and recirculated for public review. Golden State Environmental Justice Alliance requests to be added to the public interest list regarding any subsequent environmental documents, public notices, public hearings, and notices of determination for this project. Send all communications to Golden State Environmental Justice Alliance P.O. Box 79222 Corona, CA 92877.

2-9

Sincerely,



Gary Ho
Blum, Collins & Ho LLP

Attachments:
1. SWAPE Analysis

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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May 1, 2023

Gary Ho
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Subject: Comments on the San Fernando Soundstage Campus Project (SCH No. 2022090166)

Dear Mr. Ho,

We have reviewed the March 2023 Draft Environmental Impact Report ("DEIR") for the San Fernando Soundstage Campus ("Project") located in the City of Glendale ("City"). The Project proposes to demolish the 10 existing buildings and construct 406,318-square-feet ("SF") of building space, including 10 studio stages, and 533 parking spaces, on the 9.74-acre site.

Our review concludes that the DEIR fails to adequately evaluate the Project's air quality and health risk impacts. As a result, emissions and health risk impacts associated with construction and operation of the proposed Project are underestimated and inadequately addressed. A revised EIR should be prepared to adequately assess and mitigate the potential air quality and health risk impacts that the project may have on the environment.

Air Quality

Failure to Provide Complete CalEEMod Output Files

Land use development projects under the California Environmental Quality Act ("CEQA") typically evaluate air quality impacts and calculate potential criteria air pollutant emissions using the California Emissions Estimator Model ("CalEEMod"). [1] CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but CEQA requires that such changes be

2-10

[1] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide.

justified by substantial evidence. Once all of the values are inputted into the model, the Project's construction and operational emissions are calculated, and "output files" are generated. These output files disclose to the reader what parameters are utilized in calculating the Project's air pollutant emissions and make known which default values are changed as well as provide justification for the values selected. Regarding the evaluation of the criteria air pollutant emissions associated with Project construction and operation, the DEIR states:

> "CalEEMod version 2022.1 was used to quantify the Project's air quality pollutants" (p. 4.2-23).

As stated above, the DEIR relies on CalEEMod Version 2022.1 to estimate the Project's emissions. However, this poses a problem as the currently available version of CalEEMod 2022.1 is described as a "soft release" which fails to provide complete output files.[2] Specifically, the "User Changes to Default Data" table no longer provides the quantitative counterparts to the changes to the default values (see excerpt below) (Appendix A, pp. 110, 111):

Screen	Justification
Characteristics: Utility Information	Updated CO2 intensity factor per City's 2021 power content label.
Land Use	Provided project-specific square footages.
Construction: Construction Phases	Construction schedule per applicant.
Construction: Architectural Coatings	Consistent with SCAQMD Rule 1113 assumed VOC content of 50 grams per liter for architectural coatings.
Construction: Electricity	Updated CO2 intensity factor per City's 2021 power content label.
Operations: Vehicle Data	Source: Gibson Transportation Consulting, Inc., CEQA Transportation Analysis for 5426 San Fernando Studios, Glendale, California, August 10, 2021.
Operations: Architectural Coatings	Consistent with SCAQMD Rule 1113 assumed VOC content of 50 grams per liter for architectural coatings.
Operations: Energy Use	Assumed all-electric development.

2-10 cont'd

However, previous CalEEMod Versions, such as 2020.4.0, include the specific numeric changes to the model's default values (see example excerpt below):

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	230.00	167.00
tblConstructionPhase	PhaseEndDate	11/22/2023	8/25/2023
tblConstructionPhase	PhaseEndDate	9/27/2023	6/30/2023
tblConstructionPhase	PhaseEndDate	10/25/2023	7/28/2023
tblConstructionPhase	PhaseStartDate	10/26/2023	7/29/2023
tblConstructionPhase	PhaseStartDate	9/28/2023	7/1/2023
tblLandUse	LandUseSquareFeet	160,000.00	160,371.00
tblLandUse	LandUseSquareFeet	119,000.00	41,155.00
tblLandUse	LotAcreage	3.67	3.68
tblLandUse	LotAcreage	2.73	2.74

The output files associated with CalEEMod Version 2022.1 fail to present the exact parameters used to calculate Project emissions. To remedy this issue, the DEIR should have provided access to the model's

[2] "CalEEMod California Emissions Estimator Model Soft Release." California Air Pollution Control Officers Association (CAPCOA), 2022, *available at:* https://caleemod.com/.

".JSON" output files, which allow third parties to review the model's revised input parameters.[3] Without access to the complete output files, including the specific numeric changes to the default values, we cannot verify that the DEIR's air modeling and subsequent analysis is an accurate reflection of the proposed Project. As a result, a revised EIR should be prepared to include an updated air quality analysis that correctly provides the complete output files for CalEEMod Version 2022.1, or includes an updated air model using an older release of CalEEMod.[4]

2-10 cont'd

Unsubstantiated Input Parameters Used to Estimate Project Emissions

As previously discussed, the DEIR relies on CalEEMod Version 2022.1 to estimate the Project's air quality emissions and fails to provide the complete output files required to adequately evaluate model's analysis (p. 4.2-23). Regardless, when reviewing the Project's CalEEMod output files, provided in the Air Quality and Greenhouse Gas Technical Study ("AQ & GHG Study") as Appendix A to the DEIR, respectively, we were able to identify several model inputs that are inconsistent with information disclosed in the DEIR. As such, the Project's construction and operation emissions are underestimated. A revised EIR should be prepared to include an updated air quality analysis that adequately evaluates the impacts that construction and operation of the Project will have on local and regional air quality.

Unsubstantiated Changes to Individual Construction Phase Lengths

Review of the CalEEMod output files demonstrates that the "San Fernando Studios – Project Custom Report" model includes the following construction schedule (see excerpt below) (Appendix A, pp. 103):

2-11

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase
Demolition	Demolition	10/1/2023	11/10/2023	5.00	30.0
Grading	Grading	11/11/2023	2/2/2024	5.00	60.0
Building Construction	Building Construction	2/3/2024	5/3/2025	5.00	325
Paving	Paving	3/3/2025	5/3/2025	5.00	45.0
Architectural Coating	Architectural Coating	2/3/2025	5/3/2025	5.00	65.0

According to the "User Changes to Default Data" table, the justification provided for this schedule is:

> "Construction schedule per applicant." (Appendix A, pp. 110)

Regarding the Project's anticipated construction duration, the DEIR states:

> "The Project would be constructed in one development phase lasting approximately 18 months, with full build-out expected to occur in Quarter 2 of 2025. The preliminary construction schedule assumes Quarter 4 of 2023 as the construction start and Quarter 2 2025 as the end of construction" (p. 3.0-36).

[3] "Video Tutorials for CalEEMod Version 2022.1." California Air Pollution Control Officers Association (CAPCOA), May 2022, *available at:* https://www.caleemod.com/tutorials.
[4] "CalEEMod Version 2020.4.0." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* http://www.aqmd.gov/caleemod/download-model.

Furthermore, the DEIR provides the following construction duration (see excerpt below) (p. 3.0-37, Table 3.0-3):

TABLE 3.0-3
CONSTRUCTION SCHEDULE

Activity	Start Date	End Date
Construction	October 2023	April 2025
Demolition	October 2023	November 2023
Grading	November 2023	January 2024
Building Construction	January 2024	April 2025
Site Improvements	January 2025	April 2025

However, the changes to the individual construction phase lengths remain unsubstantiated. While the DEIR states that the total length of Project construction would be 18 months, the DEIR fails to provide an adequate source for the individual construction phase lengths, as demonstrated in the table above. Until a proper source is provided, the model should have included proportionately altered individual phase lengths to match the proposed construction duration of 18 months.

The construction schedule included in the model presents an issue, as the construction emissions are improperly spread out over a longer period of time for some phases, but not for others. According to the CalEEMod User's Guide, each construction phase is associated with different emissions activities (see excerpt below).[5]

2-11 cont'd

> *Demolition* involves removing buildings or structures.
>
> *Site Preparation* involves clearing vegetation (grubbing and tree/stump removal) and removing stones and other unwanted material or debris prior to grading.
>
> *Grading* involves the cut and fill of land to ensure that the proper base and slope is created for the foundation.
>
> *Building Construction* involves the construction of the foundation, structures and buildings.
>
> *Architectural Coating* involves the application of coatings to both the interior and exterior of buildings or structures, the painting of parking lot or parking garage striping, associated signage and curbs, and the painting of the walls or other components such as stair railings inside parking structures.
>
> *Paving* involves the laying of concrete or asphalt such as in parking lots, roads, driveways, or sidewalks.

By disproportionately altering and extending some of the individual construction phase lengths without proper justification, the model assumes there are a greater number of days to complete the construction activities required by the prolonged phases. As a result, there will be less construction activities required per day and, consequently, less pollutants emitted per day. As shorter construction phases generate higher emissions, we must verify that the DEIR did not erroneously overestimate some construction phase lengths to intentionally reduce emissions. Until we are able to verify the revised

[5] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 32.

construction schedule, the model may underestimate the peak daily emissions associated with some phases of construction and should not be relied upon to determine Project significance.

Unsubstantiated Reductions to Architectural and Area Coating Emission Factors

Review of the CalEEMod output files demonstrates that the "San Fernando Studios – Project Custom Report" model includes changes to the default architectural and area coating emission factors (see excerpt below) (AQ & GHG Study, pp. 111).

Screen	Justification
Construction: Architectural Coatings	Consistent with SCAQMD Rule 1113 assumed VOC content of 50 grams per liter for architectural coatings.

As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[6] As demonstrated above, the justification provided for these changes is simply "Consistent with Rule 1113 assumed VOC content of 50 grams per liter for architectural coatings." Furthermore, regarding rules and regulations that would apply to the proposed project, the DEIR states:

> "The Project would be required to comply with the following regulations, as applicable:
>
> - SCAQMD Rule 1113, which limits the VOC content of architectural coatings" (p. 4.2-32).

2-11 cont'd

However, these reductions remain unsubstantiated as we cannot verify the accuracy of the revised architectural coating emission factors based on SCAQMD Rule 1113 alone. The SCAQMD Rule 1113 Table of Standards provides the required VOC limits (grams of VOC per liter of coating) for 57 different coating categories.[7] The VOC limits for each coating varies from a minimum value of 50 g/L to a maximum value of 730 g/L. As such, we cannot verify that SCAQMD Rule 1113 substantiates reductions to the default coating values without more information regarding what category of coating will be used. As the DEIR and associated documents fail to explicitly require the use of a specific type of coating which would adhere to a specific VOC limit, we are unable to verify the model's revised emission factors.

These unsubstantiated reductions present an issue, as CalEEMod uses the architectural coating emission factors to calculate the Project's reactive organic gas/volatile organic compound ("ROG"/"VOC") emissions.[8] By including unsubstantiated reductions to the default architectural coating emission factors, the model may underestimate the Project's construction-related ROG/VOC emissions and should not be relied upon to determine Project significance.

[6] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 1, 14.
[7] SCAQMD Rule 1113 Advisory Notice." SCAQMD, February 2016, *available at:* http://www.aqmd.gov/docs/default-source/rule-book/reg-xi/r1113.pdf?sfvrsn=24, p. 1113-14, Table of Standards 1.
[8] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 35, 40.

Unsubstantiated Changes to Energy Use Values

Review of the CalEEMod output files demonstrates that the "San Fernando Studios – Project Custom Report" model includes changes to the default natural gas energy use values (see excerpt below) (Appendix A, pp. 110).

Screen	Justification
Characteristics: Utility Information	Updated CO2 intensity factor per City's 2021 power content label.
Land Use	Provided project-specific square footages.
Construction: Construction Phases	Construction schedule per applicant.
Construction: Architectural Coatings	Consistent with SCAQMD Rule 1113 assumed VOC content of 50 grams per liter for architectural coatings.
Construction: Electricity	Updated CO2 intensity factor per City's 2021 power content label.
Operations: Vehicle Data	Source: Gibson Transportation Consulting, Inc., CEQA Transportation Analysis for 5426 San Fernando Studios, Glendale, California, August 10, 2021.
Operations: Architectural Coatings	Consistent with SCAQMD Rule 1113 assumed VOC content of 50 grams per liter for architectural coatings.
Operations: Energy Use	Assumed all-electric development.

As demonstrated in the table above, the justification provided for these changes is "Assumed all-electric development." Furthermore, the energy use table includes no natural gas whatsoever (see excerpt below):

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
General Office Building	4,490,060	489	0.0330	0.0040	0.00
General Heavy Industry	5,548,753	489	0.0330	0.0040	0.00
Enclosed Parking with Elevator	618,684	489	0.0330	0.0040	0.00
Parking Lot	39,151	489	0.0330	0.0040	0.00

However, these changes remain unsubstantiated as the DEIR and associated documents fail to discuss the use of natural gas or all-electric development whatsoever. Until further clarification is provided in an EIR, the assumption that the Project would not require the use of natural gas is unsupported.

These unsubstantiated reductions present an issue, as the energy use values are used by CalEEMod to calculate the Project's emissions associated with building electricity and natural gas usage. [9] By assuming that the Project would not rely on any natural gas utilities, the model may underestimate the Project's operational emissions and should not be relied upon to determine Project significance.

2-11 cont'd

Diesel Particulate Matter Emissions Inadequately Evaluated

The DEIR concludes that the Project would have a less-than-significant health risk impact without conducting a quantified construction or operational health risk analysis ("HRA") (p. 31 – 32). Regarding the health risk impacts associated with the Project construction, the DEIR states:

> "Project construction would result in short-term emissions of diesel particulate matter, which is a TAC. Off-road heavy-duty diesel equipment would emit diesel particulate matter over the course of the construction period. As mentioned previously, the Project is adjacent to residential uses. Localized diesel particulate emissions (strongly correlated with PM2.5 emissions) would be

2-12

[9] "CalEEMod User's Guide Version 2020.4.0." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 43.

minimal and would be substantially below localized thresholds, as shown in Table 4.2-11. Project compliance with the CARB anti-idling measure, which limits idling to no more than 5 minutes at any location for diesel-fueled commercial vehicles, would further minimize diesel particulate matter emissions in the Project area" (p. 4.2-35).

Regarding the health risk impacts associated with the Project operation, the DEIR states:

> "Project operations would generate only minor amounts of diesel emissions from delivery trucks and incidental maintenance activities. Trucks would comply with the applicable provisions of the CARB Truck and Bus regulation to minimize and reduce emission from existing diesel trucks. In addition, Project operations would only result in minimal emissions of air toxics from maintenance or other ongoing activities, such as from the use of architectural coatings or household cleaning products. As a result, toxic or carcinogenic air pollutants are not expected to occur in any meaningful amounts in conjunction with operation of the proposed uses within the Project site. Based on the uses expected on the Project site, potential long-term operational impacts associated with the release of TACs would be minimal and would not be expected to exceed the SCAQMD thresholds of significance" (p. 4.2-35).

However, the DEIR's evaluation of the Project's potential health risk impacts, as well as the subsequent less-than-significant impact conclusion, is unreliable for three reasons.

2-12 cont'd

First, by failing to prepare a quantified construction and operational HRA, the Project is inconsistent with CEQA's requirement to make "a reasonable effort to substantively connect a project's air quality impacts to likely health consequences." [10] This poses a problem, as according to the DIER, construction of the Project would produce DPM emissions through the exhaust stacks of construction equipment over a duration of over 18 months (p. 3.0-36). However, the DEIR fails to evaluate the TAC emissions associated with Project construction and operation or indicate the concentrations at which such pollutants would trigger adverse health effects. Without making a reasonable effort to connect the Project's TAC emissions to the potential health risks posed to nearby receptors, the DEIR is inconsistent with CEQA's requirement to correlate Project-generated emissions with potential adverse impacts on human health.

Second, the Office of Environmental Health Hazard Assessment ("OEHHA"), the organization responsible for providing guidance on conducting HRAs in California, released its most recent *Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments* in February 2015. This guidance document describes the types of projects that warrant the preparation of an HRA. Specifically, OEHHA recommends that all short-term projects lasting at least 2 months assess cancer risks.[11] Furthermore, according to OEHHA:

[10] "Sierra Club v. County of Fresno." Supreme Court of California, December 2018, a*vailable at:* https://ceqaportal.org/decisions/1907/Sierra%20Club%20v.%20County%20of%20Fresno.pdf.
[11] "Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf, p. 8-18.

> "Exposure from projects lasting more than 6 months should be evaluated for the duration of the project. In all cases, for assessing risk to residential receptors, the exposure should be assumed to start in the third trimester to allow for the use of the ASFs (OEHHA, 2009)."[12]

As the Project's anticipated construction duration exceeds the 2-month and 6-month requirements set forth by OEHHA, construction of the Project meets the threshold warranting a quantified HRA under OEHHA guidance and should be evaluated for the entire 18-month construction period. Furthermore, OEHHA recommends that an exposure duration of 30 years should be used to estimate the individual cancer risk at the maximally exposed individual resident ("MEIR").[13] While the DEIR fails to provide the expected lifetime of the proposed Project, we can reasonably assume that the Project would operate for at least 30 years, if not more. Therefore, operation of the Project also exceeds the 2-month and 6-month requirements set forth by OEHHA and should be evaluated for the entire 30-year residential exposure duration, as indicated by OEHHA guidance. These recommendations reflect the most recent state health risk policies, and as such, a revised EIR should be prepared to include an analysis of health risk impacts posed to nearby sensitive receptors from Project-generated DPM emissions. 2-12 cont'd

Third, by claiming a less-than-significant impact without conducting a quantified construction or operational HRA for nearby, existing sensitive receptors, the DEIR fails to compare the Project's excess cancer risk to the SCAQMD's specific numeric threshold of 10 in one million.[14] In accordance with the most relevant guidance, an assessment of the health risk posed to nearby, existing receptors as a result of Project construction and operation should be conducted.

Screening-Level Analysis Demonstrates Potentially Significant Health Risk Impact

In order to conduct our screening-level risk assessment we relied upon AERSCREEN, which is a screening level air quality dispersion model.[15] The model replaced SCREEN3, and AERSCREEN is included in the OEHHA and the California Air Pollution Control Officers Associated ("CAPCOA") guidance as the appropriate air dispersion model for Level 2 health risk screening assessments ("HRSAs").[16, 17] A Level 2 HRSA utilizes a limited amount of site-specific information to generate maximum reasonable downwind concentrations of air contaminants to which nearby sensitive receptors may be exposed. If an unacceptable air quality hazard is determined to be possible using AERSCREEN, a more refined modeling approach should be conducted prior to approval of the Project. 2-13

[12] "Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf, p. 8-18.
[13] "Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf, p. 2-4.
[14] "South Coast AQMD Air Quality Significance Thresholds." SCAQMD, April 2019, *available at:* http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf.
[15] "Air Quality Dispersion Modeling - Screening Models," U.S. EPA, *available at:* https://www.epa.gov/scram/air-quality-dispersion-modeling-screening-models.
[16] "Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.
[17] "Health Risk Assessments for Proposed Land Use Projects." CAPCOA, July 2009, *available at:* http://www.valleyair.org/transportation/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf.

We prepared a preliminary HRA of the Project's construction and operational health risk impact to residential sensitive receptors using the annual PM_{10} exhaust estimates from the IS/MND's CalEEMod output files. Consistent with recommendations set forth by OEHHA, we assumed residential exposure begins during the third trimester stage of life.[18] The IS/MND's CalEEMod model indicates that construction activities will generate approximately 181 pounds of DPM over the 580-day construction period.[19] The AERSCREEN model relies on a continuous average emission rate to simulate maximum downward concentrations from point, area, and volume emission sources. To account for the variability in equipment usage and truck trips over Project construction, we calculated an average DPM emission rate by the following equation:

$$Emission\ Rate\ \left(\frac{grams}{second}\right) = \frac{180.6\ lbs}{580\ days} \times \frac{453.6\ grams}{lbs} \times \frac{1\ day}{24\ hours} \times \frac{1\ hour}{3{,}600\ seconds} = \mathbf{0.00163\ g/s}$$

Using this equation, we estimated a construction emission rate of 0.00163 grams per second ("g/s"). Subtracting the 580-day construction period from the total residential duration of 30 years, we assumed that after Project construction, the sensitive receptor would be exposed to the Project's operational DPM for an additional 28.4 years. The IS/MND's operational CalEEMod emissions indicate that operational activities will generate approximately 20 pounds of DPM per year throughout operation. Applying the same equation used to estimate the construction DPM rate, we estimated the following emission rate for Project operation:

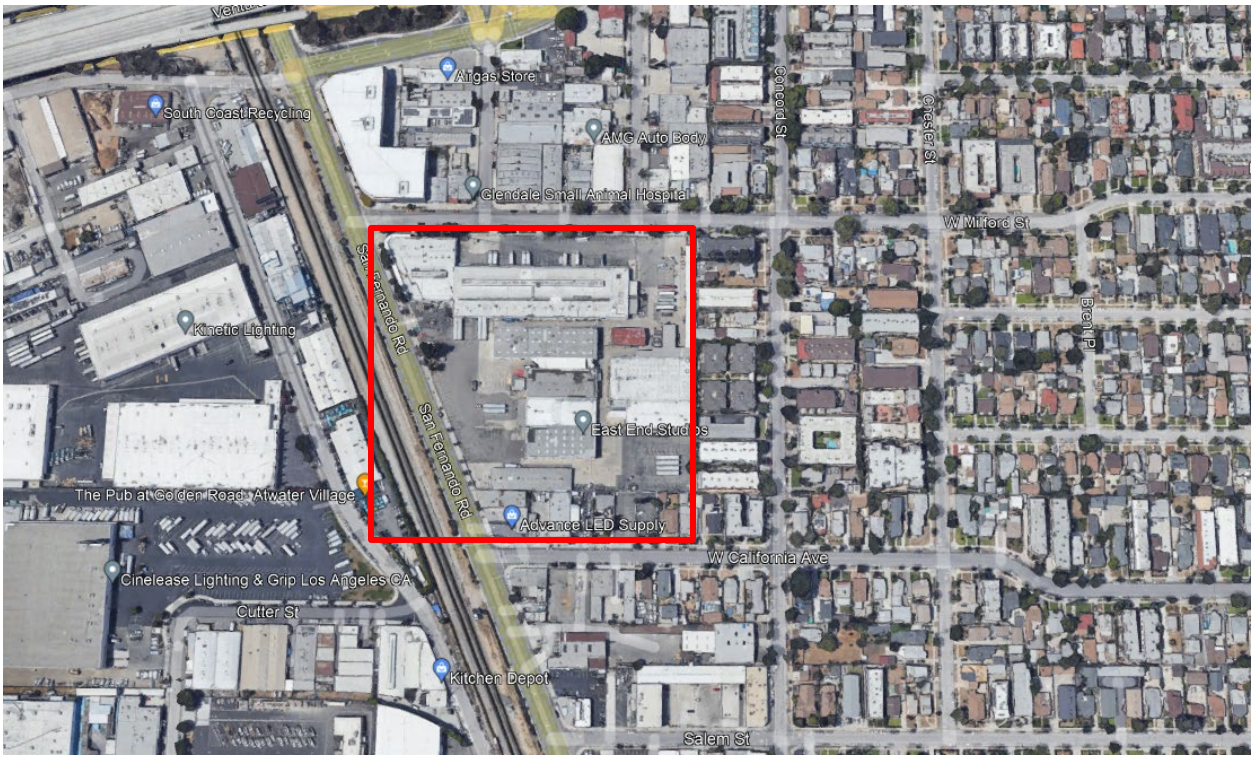
2-13 cont'd

$$Emission\ Rate\ \left(\frac{grams}{second}\right) = \frac{20.0\ lbs}{365\ days} \times \frac{453.6\ grams}{lbs} \times \frac{1\ day}{24\ hours} \times \frac{1\ hour}{3{,}600\ seconds} = \mathbf{0.000288\ g/s}$$

Using this equation, we estimated an operational emission rate of 0.000288 g/s. Construction and operation were simulated as a 28.4-acre rectangular area source in AERSCREEN, with approximate dimensions of 281- by 140-meters. A release height of three meters was selected to represent the height of stacks of operational equipment and other heavy-duty vehicles, and an initial vertical dimension of one and a half meters was used to simulate instantaneous plume dispersion upon release. An urban meteorological setting was selected with model-default inputs for wind speed and direction distribution. The population of Glendale was obtained from U.S. 2020 Census data.[20]

The AERSCREEN model generates maximum reasonable estimates of single-hour DPM concentrations from the Project Site. The United States Environmental Protection Agency ("U.S. EPA") suggests that the annualized average concentration of an air pollutant be estimated by multiplying the single-hour concentration by 10% in screening procedures.[21] According to Google Earth, the nearest sensitive receptors are residential uses located immediately adjacent to the Project site (see excerpt below).

[18] "Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf, p. 8-18.
[19] See Attachment C for health risk calculations.
[20] "Glendale." U.S. Census Bureau, 2020, *available at:* https://datacommons.org/place/geoId/0630000.
[21] "Screening Procedures for Estimating the Air Quality Impact of Stationary Sources Revised." U.S. EPA, October 1992, *available at:* https://www.epa.gov/sites/default/files/2020-09/documents/epa-454r-92-019_ocr.pdf.



2-13 cont'd

However, according to the AERSCREEN output files, the MEIR is located approximately 150 meters downwind of the Project site. Thus, the single-hour concentration estimated by AERSCREEN for Project construction is approximately 1.599 µg/m^3 DPM at approximately 150 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 0.1599 µg/m^3 for Project construction at the MEIR. For Project operation, the single-hour concentration estimated by AERSCREEN is 0.2813 µg/m^3 DPM at approximately 50 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 0.02813 µg/m^3 for Project operation at the MEIR.[22]

We calculated the excess cancer risk to the MEIR using applicable HRA methodologies prescribed by OEHHA, as recommended by SCAQMD.[23] Specifically, guidance from OEHHA and CARB recommends the use of a standard point estimate approach, including high-point estimate (i.e. 95th percentile) breathing rates and age sensitivity factors ("ASF") in order to account for the increased sensitivity to carcinogens during early-in-life exposure and accurately assess risk for susceptible subpopulations such as children. The residential exposure parameters utilized for the various age groups in our screening-level HRA are as follows:

[22] See Attachment D for AERSCREEN output files.
[23] "AB 2588 and Rule 1402 Supplemental Guidelines." SCAQMD, October 2020, *available at:* http://www.aqmd.gov/docs/default-source/planning/risk-assessment/ab-2588-supplemental-guidelines.pdf?sfvrsn=19, p. 2.

Exposure Assumptions for Residential Individual Cancer Risk

Age Group	Breathing Rate (L/kg-day)[24]	Age Sensitivity Factor[25]	Exposure Duration (years)	Fraction of Time at Home[26]	Exposure Frequency (days/year)[27]	Exposure Time (hours/day)
3rd Trimester	361	10	0.25	1	350	24
Infant (0 - 2)	1090	10	2	1	350	24
Child (2 - 16)	572	3	14	1	350	24
Adult (16 - 30)	261	1	14	0.73	350	24

For the inhalation pathway, the procedure requires the incorporation of several discrete variates to effectively quantify dose for each age group. Once determined, contaminant dose is multiplied by the cancer potency factor ("CPF") in units of inverse dose expressed in milligrams per kilogram per day (mg/kg/day^{-1}) to derive the cancer risk estimate. Therefore, to assess exposures, we utilized the following dose algorithm:

2-13 cont'd

$$Dose_{AIR,per\ age\ group} = C_{air} \times EF \times \left[\frac{BR}{BW}\right] \times A \times CF$$

where:

$Dose_{AIR}$ = dose by inhalation (mg/kg/day), per age group
C_{air} = concentration of contaminant in air (µg/m3)
EF = exposure frequency (number of days/365 days)
BR/BW = daily breathing rate normalized to body weight (L/kg/day)
A = inhalation absorption factor (default = 1)
CF = conversion factor (1x10-6, µg to mg, L to m3)

To calculate the overall cancer risk, we used the following equation for each appropriate age group:

$$Cancer\ Risk_{AIR} = Dose_{AIR} \times CPF \times ASF \times FAH \times \frac{ED}{AT}$$

[24] "Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics 'Hot Spots' Information and Assessment Act." SCAQMD, October 2020, available at: http://www.aqmd.gov/docs/default-source/planning/risk-assessment/ab-2588-supplemental-guidelines.pdf?sfvrsn=19, p. 19; see also "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.
[25] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf, p. 8-5 Table 8.3.
[26] "Risk Assessment Procedures." SCAQMD, August 2017, available at: http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1401/riskassessmentprocedures_2017_080717.pdf, p. 7.
[27] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf, p. 5-24.

where:

$Dose_{AIR}$ = dose by inhalation (mg/kg/day), per age group
CPF = cancer potency factor, chemical-specific $(mg/kg/day)^{-1}$
ASF = age sensitivity factor, per age group
FAH = fraction of time at home, per age group (for residential receptors only)
ED = exposure duration (years)
AT = averaging time period over which exposure duration is averaged (always 70 years)

Consistent with the 580-day construction schedule, the annualized average concentration for construction was used for the entire third trimester of pregnancy (0.25 years) and the first 1.34 years of the infantile stage of life (0 – 2 years). The annualized average concentration for operation was used for the remainder of the 30-year exposure period, which makes up the latter 0.66 years of the infantile stage of life, as well as the entire child stage of life (2 – 16 years) and the entire adult (16 – 30 years) stage of life. The results of our calculations are shown in the table below.

The Maximally Exposed Individual at an Existing Residential Receptor

Age Group	Emissions Source	**Duration** (years)	**Concentration** (ug/m3)	Cancer Risk
3rd Trimester	Construction	0.25	0.1599	2.17E-06
	Construction	*1.34*	*0.1599*	*3.52E-05*
	Operation	*0.66*	*0.2813*	*3.05E-05*
Infant (0 - 2)	Total	2		6.57E-05
Child (2 - 16)	Operation	14	0.2813	1.02E-04
Adult (16 - 30)	Operation	14	0.2813	1.13E-05
Lifetime		**30**		**1.81E-04**

2-13 cont'd

As demonstrated in the table above, the excess cancer risks for the 3rd trimester of pregnancy, infants, children, and adults at the MEIR located approximately 150 meters away, over the course of Project construction and operation, are approximately 2.17, 65.7, 102, and 11.3 in one million, respectively. The excess cancer risk over the course of a residential lifetime (30 years) is approximately 181 in one million, which exceeds the SCAQMD threshold of 10 in one million and thus results in a potentially significant impact not previously addressed or identified by the IS/MND.

Our analysis represents a screening-level HRA, which is known to be conservative and tends to err on the side of health protection. The purpose of the screening-level HRA is to demonstrate the potential link between Project-generated emissions and adverse health risk impacts. According to the U.S. EPA:

"EPA's Exposure Assessment Guidelines recommend completing exposure assessments iteratively using a tiered approach to 'strike a balance between the costs of adding detail and refinement to an assessment and the benefits associated with that additional refinement' (U.S. EPA, 1992).

In other words, an assessment using basic tools (e.g., simple exposure calculations, default values, rules of thumb, conservative assumptions) can be conducted as the first phase (or tier) of the overall assessment (i.e., a screening-level assessment).

The exposure assessor or risk manager can then determine whether the results of the screening-level assessment warrant further evaluation through refinements of the input data and exposure assumptions or by using more advanced models."

2-13 cont'd

As demonstrated above, screening-level analyses warrant further evaluation in a refined modeling approach. As our screening-level HRA demonstrates that construction and operation of the Project could result in a potentially significant health risk impact, a revised EIR should be prepared to include a refined health risk analysis which adequately and accurately evaluates health risk impacts associated with both Project construction and operation. If the refined analysis similarly concludes that the Project would result in a significant health risk impact, then mitigation measures should be incorporated, as described below in the "Feasible Mitigation Measures Available to Reduce Emissions" section.

Mitigation

Feasible Mitigation Measures Available to Reduce Emissions

Our analysis demonstrates that the Project would result in potentially significant health risk impacts that should be mitigated further. In an effort to reduce the Project's emissions, we identified several feasible mitigation measures from SCAG's 2020 *RTP/SCS* PEIR's Air Quality Project Level Mitigation Measures ("PMM-AQ-1") report.[28] To reduce the Project's emissions, consideration of the following measures should be made:

SCAG RTP/SCS 2020-2045
Air Quality Project Level Mitigation Measures – PMM-AQ-1: In accordance with provisions of sections 15091(a)(2) and 15126.4(a)(1)(B) of the *State CEQA Guidelines*, a Lead Agency for a project can and should consider mitigation measures to reduce substantial adverse effects related to violating air quality standards. Such measures may include the following or other comparable measures identified by the Lead Agency:
a) Minimize land disturbance.

2-14

[28] "4.0 Mitigation Measures." Connect SoCal Program Environmental Impact Report Addendum #1, September 2020, available at: https://scag.ca.gov/sites/main/files/file-attachments/fpeir_connectsocal_addendum_4_mitigationmeasures.pdf?1606004420, p. 4.0-2 – 4.0-10; 4.0-19 – 4.0-23; See also: "Certified Final Connect SoCal Program Environmental Impact Report." Southern California Association of Governments (SCAG), May 2020, *available at:* https://scag.ca.gov/peir.

b) Suspend grading and earth moving when wind gusts exceed 25 miles per hour unless the soil is wet enough to prevent dust plumes.
c) Cover trucks when hauling dirt.
d) Stabilize the surface of dirt piles if not removed immediately.
e) Limit vehicular paths on unpaved surfaces and stabilize any temporary roads.
f) Minimize unnecessary vehicular and machinery activities.
g) Sweep paved streets at least once per day where there is evidence of dirt that has been carried on to the roadway.
h) Revegetate disturbed land, including vehicular paths created during construction to avoid future off-road vehicular activities.
j) Require contractors to assemble a comprehensive inventory list (i.e., make, model, engine year, horsepower, emission rates) of all heavy-duty off-road (portable and mobile) equipment (50 horsepower and greater) that could be used an aggregate of 40 or more hours for the construction project. Prepare a plan for approval by the applicable air district demonstrating achievement of the applicable percent reduction for a CARB-approved fleet.
k) Ensure that all construction equipment is properly tuned and maintained.
l) Minimize idling time to 5 minutes—saves fuel and reduces emissions.
m) Provide an operational water truck on-site at all times. Use watering trucks to minimize dust; watering should be sufficient to confine dust plumes to the project work areas. Sweep paved streets at least once per day where there is evidence of dirt that has been carried on to the roadway.
n) Utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary power generators.
o) Develop a traffic plan to minimize traffic flow interference from construction activities. The plan may include advance public notice of routing, use of public transportation, and satellite parking areas with a shuttle service. Schedule operations affecting traffic for off-peak hours. Minimize obstruction of through-traffic lanes. Provide a flag person to guide traffic properly and ensure safety at construction sites.
p) As appropriate require that portable engines and portable engine-driven equipment units used at the project work site, with the exception of on-road and off-road motor vehicles, obtain CARB Portable Equipment Registration with the state or a local district permit. Arrange appropriate consultations with the CARB or the District to determine registration and permitting requirements prior to equipment operation at the site.
q) Require projects within 500 feet of residences, hospitals, or schools to use Tier 4 equipment for all engines above 50 horsepower (hp) unless the individual project can demonstrate that Tier 4 engines would not be required to mitigate emissions below significance thresholds.
r) Projects located within the South Coast Air Basin should consider applying for South Coast AQMD “SOON” funds which provides funds to applicable fleets for the purchase of commercially available low-emission heavy-duty engines to achieve near-term reduction of NOx emissions from in-use off-road diesel vehicles.
s) Projects located within AB 617 communities should review the applicable Community Emissions Reduction Plan (CERP) for additional mitigation that can be applied to individual projects.
t) Where applicable, projects should provide information about air quality related programs to schools, including the Environmental Justice Community Partnerships (EJCP), Clean Air Ranger Education (CARE), and Why Air Quality Matters programs.
u) Projects should work with local cities and counties to install adequate signage that prohibits truck idling in certain locations (e.g., near schools and sensitive receptors).
v) As applicable for airport projects, the following measures should be considered…
w) As applicable for port projects, the following measures should be considered: - Develop specific timelines for transitioning to zero emission cargo handling equipment (CHE) - Develop interim performance standards with a minimum amount of CHE replacement each year to ensure adequate progress.

2-14
cont'd

- Use short side electric power for ships, which may include tugboats and other ocean-going vessels or develop incentives to gradually ramp up the usage of shore power.
- Install the appropriate infrastructure to provide shore power to operate the ships. Electrical hookups should be appropriately sized.
- Maximize participation in the Port of Los Angeles' Vessel Speed Reduction Program or the Port of Long Beach's Green Flag Initiation Program in order to reduce the speed of vessel transiting within 40 nautical miles of Point Fermin.
- Encourage the participation in the Green Ship Incentives.
- Offer incentives to encourage the use of on-dock rail.

aa) Consult the SCAG Environmental Justice Toolbox for potential measures to address impacts to low-income and/or minority communities.

bb) The following criteria related to diesel emissions shall be implemented on by individual project sponsors as appropriate and feasible:

- Diesel nonroad vehicles on site for more than 10 total days shall have either (1) engines that meet EPA on road emissions standards or (2) emission control technology verified by EPA or CARB to reduce PM emissions by a minimum of 85%
- Diesel generators on site for more than 10 total days shall be equipped with emission control technology verified by EPA or CARB to reduce PM emissions by a minimum of 85%.
- Nonroad diesel engines on site shall be Tier 2 or higher.
- Diesel nonroad construction equipment on site for more than 10 total days shall have either (1) engines meeting EPA Tier 4 nonroad emissions standards or (2) emission control technology verified by EPA or CARB for use with nonroad engines to reduce PM emissions by a minimum of 85% for engines for 50 hp and greater and by a minimum of 20% for engines less than 50 hp.
- Emission control technology shall be operated, maintained, and serviced as recommended by the emission control technology manufacturer.
- Diesel vehicles, construction equipment, and generators on site shall be fueled with ultra-low sulfur diesel fuel (ULSD) or a biodiesel blend approved by the original engine manufacturer with sulfur content of 15 ppm or less.
- The construction contractor shall maintain a list of all diesel vehicles, construction equipment, and generators to be used on site. The list shall include the following:
    i. Contractor and subcontractor name and address, plus contact person responsible for the vehicles or equipment.
    ii. Equipment type, equipment manufacturer, equipment serial number, engine manufacturer, engine model year, engine certification (Tier rating), horsepower, engine serial number, and expected fuel usage and hours of operation.
    iii. For the emission control technology installed: technology type, serial number, make, model, manufacturer, EPA/CARB verification number/level, and installation date and hour-meter reading on installation date.
- The contractor shall establish generator sites and truck-staging zones for vehicles waiting to load or unload material on site. Such zones shall be located where diesel emissions have the least impact on abutters, the general public, and especially sensitive receptors such as hospitals, schools, daycare facilities, elderly housing, and convalescent facilities.
- The contractor shall maintain a monthly report that, for each on road diesel vehicle, nonroad construction equipment, or generator onsite, includes:
    i. Hour-meter readings on arrival on-site, the first and last day of every month, and on off-site date.
    ii. Any problems with the equipment or emission controls.
    iii. Certified copies of fuel deliveries for the time period that identify:
        1. Source of supply
        2. Quantity of fuel
        3. Quantity of fuel, including sulfur content (percent by weight)

2-14 cont'd

cc) Project should exceed Title-24 Building Envelope Energy Efficiency Standards (California Building Standards Code). The following measures can be used to increase energy efficiency:

- Provide pedestrian network improvements, such as interconnected street network, narrower roadways and shorter block lengths, sidewalks, accessibility to transit and transit shelters, traffic calming measures, parks and public spaces, minimize pedestrian barriers.
- Provide traffic calming measures, such as:
    i. Marked crosswalks
    ii. Count-down signal timers
    iii. Curb extensions iv. Speed tables
    iv. Raised crosswalks
    v. Raised intersections
    vi. Median islands
    vii. Tight corner radii
    viii. Roundabouts or mini-circles
    ix. On-street parking
    x. Chicanes/chokers
- Create urban non-motorized zones
- Provide bike parking in non-residential and multi-unit residential projects
- Dedicate land for bike trails
- Limit parking supply through:
    i. Elimination (or reduction) of minimum parking requirements
    ii. Creation of maximum parking requirements
    iii. Provision of shared parking
- Require residential area parking permit.
- Provide ride-sharing programs
    i. Designate a certain percentage of parking spacing for ride sharing vehicles
    ii. Designating adequate passenger loading and unloading and waiting areas for ride-sharing vehicles
    iii. Providing a web site or messaging board for coordinating rides
    iv. Permanent transportation management association membership and finding requirement.

2-14 cont'd

These measures offer a cost-effective, feasible way to incorporate lower-emitting design features into the proposed Project, which subsequently, reduce emissions released during Project construction and operation.

Furthermore, as it is policy of the State that eligible renewable energy resources and zero-carbon resources supply 100% of retail sales of electricity to California end-use customers by December 31, 2045, we emphasize the applicability of incorporating solar power system into the Project design. Until the feasibility of incorporating on-site renewable energy production is considered, the Project should not be approved.

A revised EIR should be prepared to include all feasible mitigation measures, as well as include an updated air quality and health risk analysis to ensure that the necessary mitigation measures are implemented to reduce emissions to below thresholds. The revised EIR should also demonstrate a commitment to the implementation of these measures prior to Project approval, to ensure that the Project's significant emissions are reduced to the maximum extent possible.

Disclaimer

SWAPE has received limited discovery regarding this project. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

Sincerely,

Matt Hagemann, P.G., C.Hg.

Paul E. Rosenfeld, Ph.D.

Attachment A: Health Risk Calculations
Attachment B: AERSCREEN Output Files
Attachment C: Matt Hagemann CV
Attachment D: Paul Rosenfeld CV

Attachment A

Construction	
2023	
Annual Emissions (tons/year)	0.04
Daily Emissions (lbs/day)	0.219178082
Construction Duration (days)	92
Total DPM (lbs)	20.16438356
Total DPM (g)	9146.564384
Start Date	10/1/2023
End Date	1/1/2024
Construction Days	92
2024	
Annual Emissions (tons/year)	0.07
Daily Emissions (lbs/day)	0.383561644
Construction Duration (days)	366
Total DPM (lbs)	140.3835616
Total DPM (g)	63677.98356
Start Date	1/1/2024
End Date	1/1/2025
Construction Days	366
2025	
Annual Emissions (tons/year)	0.03
Daily Emissions (lbs/day)	0.164383562
Construction Duration (days)	122
Total DPM (lbs)	20.05479452
Total DPM (g)	9096.854795
Start Date	1/1/2025
End Date	5/3/2025
Construction Days	122
Total	
Total DPM (lbs)	180.6027397
Total DPM (g)	81921.40274
Emission Rate (g/s)	0.001634766
Release Height (meters)	3
Total Acreage	9.74
Max Horizontal (meters)	280.77
Min Horizontal (meters)	140.39
Initial Vertical Dimension (meters)	1.5
Setting	Urban
Population	192,366
Start Date	10/1/2023
End Date	5/3/2025
Total Construction Days	580
Total Years of Construction	1.59
Total Years of Operation	28.41

Operation	
Emission Rate	
Annual Emissions (tons/year)	0.01
Daily Emissions (lbs/day)	0.054794521
Total DPM (lbs)	20
Emission Rate (g/s)	0.000287671
Release Height (meters)	3
Total Acreage	9.74
Max Horizontal (meters)	280.77
Min Horizontal (meters)	140.39
Initial Vertical Dimension (meters)	1.5
Setting	Urban
Population	192,366

Attachment B

```
AERSCREEN 21112 / AERMOD 21112                                        04/25/23
                                                                      10:56:52

TITLE: San Fernando, Construction


------------------------------------------------------------------------------
*****************************  AREA PARAMETERS  ****************************
------------------------------------------------------------------------------

SOURCE EMISSION RATE:         0.163E-02 g/s            0.130E-01 lb/hr

AREA EMISSION RATE:           0.415E-07 g/(s-m2)       0.329E-06 lb/(hr-m2)
AREA HEIGHT:                       3.00 meters             9.84 feet
AREA SOURCE LONG SIDE:           280.77 meters           921.16 feet
AREA SOURCE SHORT SIDE:          140.39 meters           460.60 feet
INITIAL VERTICAL DIMENSION:        1.50 meters             4.92 feet
RURAL OR URBAN:                   URBAN
POPULATION:                      192366

INITIAL PROBE DISTANCE =           5000. meters           16404. feet



------------------------------------------------------------------------------
***********************  BUILDING DOWNWASH PARAMETERS  ***********************
------------------------------------------------------------------------------

              BUILDING DOWNWASH NOT USED FOR NON-POINT SOURCES



------------------------------------------------------------------------------
**************************  FLOW SECTOR ANALYSIS  **************************
                 25 meter receptor spacing: 1. meters - 5000. meters
------------------------------------------------------------------------------


   MAXIMUM  IMPACT  RECEPTOR

   Zo        SURFACE   1-HR CONC  RADIAL  DIST   TEMPORAL
   SECTOR    ROUGHNESS  (ug/m3)    (deg)   (m)    PERIOD
  ---------------------------------------------------
      1*       1.000     1.599       20   150.0     WIN
* = worst case diagonal



------------------------------------------------------------------------------
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**********  MAKEMET METEOROLOGY PARAMETERS  **********
--------------------------------------------------------------------------------

MIN/MAX TEMPERATURE:    250.0 / 310.0 (K)

MINIMUM WIND SPEED:       0.5 m/s

ANEMOMETER HEIGHT:     10.000 meters

SURFACE CHARACTERISTICS INPUT: AERMET SEASONAL TABLES

DOMINANT SURFACE PROFILE: Urban
DOMINANT CLIMATE TYPE:    Average Moisture
DOMINANT SEASON:          Winter

ALBEDO:                   0.35
BOWEN RATIO:              1.50
ROUGHNESS LENGTH:       1.000 (meters)

SURFACE FRICTION VELOCITY (U*) NOT ADUSTED


       METEOROLOGY CONDITIONS USED TO PREDICT OVERALL MAXIMUM IMPACT
       ------------------------------------------------------------

 YR MO DY JDY HR
 -- -- -- --- --
 10 01 10  10 01

    H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 -1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50

    HT  REF TA     HT
- - - - - - - - - - -
  10.0   310.0    2.0



--------------------------------------------------------------------------------
********** AERSCREEN AUTOMATED DISTANCES **********
                  OVERALL MAXIMUM CONCENTRATIONS BY DISTANCE
--------------------------------------------------------------------------------


                    MAXIMUM                              MAXIMUM
          DIST     1-HR CONC                  DIST     1-HR CONC
           (m)      (ug/m3)                    (m)      (ug/m3)
        ---------------------               ---------------------
           1.00     1.236                  2525.00    0.3234E-01
```

25.00	1.321	2550.00	0.3191E-01
50.00	1.397	2575.00	0.3149E-01
75.00	1.463	2600.00	0.3138E-01
100.00	1.522	2625.00	0.3097E-01
125.00	1.575	2650.00	0.3057E-01
150.00	1.599	2675.00	0.3018E-01
175.00	1.160	2700.00	0.2980E-01
200.00	0.9187	2725.00	0.2943E-01
225.00	0.7798	2750.00	0.2906E-01
250.00	0.6851	2775.00	0.2871E-01
275.00	0.6088	2800.00	0.2835E-01
300.00	0.5459	2825.00	0.2801E-01
325.00	0.4935	2850.00	0.2768E-01
350.00	0.4489	2875.00	0.2735E-01
375.00	0.4108	2900.00	0.2702E-01
400.00	0.3782	2925.00	0.2671E-01
425.00	0.3497	2950.00	0.2640E-01
450.00	0.3246	2975.00	0.2610E-01
475.00	0.3025	3000.00	0.2580E-01
500.00	0.2831	3025.00	0.2551E-01
525.00	0.2655	3050.00	0.2522E-01
550.00	0.2497	3075.00	0.2494E-01
575.00	0.2356	3100.00	0.2467E-01
600.00	0.2227	3125.00	0.2440E-01
625.00	0.2110	3150.00	0.2413E-01
650.00	0.2005	3175.00	0.2387E-01
675.00	0.1907	3200.00	0.2362E-01
700.00	0.1817	3225.00	0.2337E-01
725.00	0.1734	3250.00	0.2312E-01
750.00	0.1657	3275.00	0.2288E-01
775.00	0.1587	3300.00	0.2264E-01
800.00	0.1522	3325.00	0.2241E-01
825.00	0.1461	3350.00	0.2218E-01
850.00	0.1404	3375.00	0.2196E-01
875.00	0.1351	3400.00	0.2174E-01
900.00	0.1301	3425.00	0.2152E-01
925.00	0.1254	3450.00	0.2131E-01
950.00	0.1210	3475.00	0.2110E-01
975.00	0.1168	3500.00	0.2089E-01
1000.00	0.1130	3525.00	0.2069E-01
1025.00	0.1093	3550.00	0.2049E-01
1050.00	0.1058	3575.00	0.2029E-01
1075.00	0.1025	3600.00	0.2010E-01
1100.00	0.9941E-01	3625.00	0.1991E-01
1125.00	0.9646E-01	3650.00	0.1973E-01
1150.00	0.9365E-01	3675.00	0.1954E-01
1175.00	0.9099E-01	3700.00	0.1936E-01
1200.00	0.8846E-01	3725.00	0.1918E-01
1225.00	0.8606E-01	3750.00	0.1901E-01
1250.00	0.8375E-01	3775.00	0.1884E-01

1275.00	0.8155E-01	3800.00	0.1867E-01
1300.00	0.7944E-01	3825.00	0.1850E-01
1325.00	0.7743E-01	3850.00	0.1834E-01
1350.00	0.7551E-01	3875.00	0.1818E-01
1375.00	0.7367E-01	3900.00	0.1802E-01
1400.00	0.7191E-01	3925.00	0.1786E-01
1425.00	0.7020E-01	3950.00	0.1771E-01
1450.00	0.6856E-01	3975.00	0.1755E-01
1475.00	0.6699E-01	4000.00	0.1740E-01
1500.00	0.6548E-01	4025.00	0.1726E-01
1525.00	0.6403E-01	4050.00	0.1711E-01
1550.00	0.6264E-01	4075.00	0.1697E-01
1575.00	0.6130E-01	4100.00	0.1683E-01
1600.00	0.6001E-01	4125.00	0.1669E-01
1625.00	0.5876E-01	4150.00	0.1655E-01
1650.00	0.5756E-01	4175.00	0.1641E-01
1675.00	0.5640E-01	4200.00	0.1628E-01
1700.00	0.5528E-01	4225.00	0.1615E-01
1725.00	0.5420E-01	4250.00	0.1602E-01
1750.00	0.5316E-01	4275.00	0.1589E-01
1775.00	0.5215E-01	4300.00	0.1576E-01
1800.00	0.5118E-01	4325.00	0.1564E-01
1825.00	0.5023E-01	4350.00	0.1552E-01
1850.00	0.4932E-01	4375.00	0.1540E-01
1875.00	0.4844E-01	4400.00	0.1528E-01
1900.00	0.4758E-01	4425.00	0.1516E-01
1925.00	0.4675E-01	4450.00	0.1504E-01
1950.00	0.4594E-01	4475.00	0.1493E-01
1975.00	0.4515E-01	4500.00	0.1481E-01
2000.00	0.4439E-01	4525.00	0.1470E-01
2025.00	0.4365E-01	4550.00	0.1459E-01
2050.00	0.4293E-01	4575.00	0.1448E-01
2075.00	0.4223E-01	4600.00	0.1437E-01
2100.00	0.4155E-01	4625.00	0.1427E-01
2125.00	0.4088E-01	4650.00	0.1416E-01
2150.00	0.4024E-01	4675.00	0.1406E-01
2175.00	0.3961E-01	4700.00	0.1396E-01
2200.00	0.3900E-01	4725.00	0.1386E-01
2225.00	0.3840E-01	4750.00	0.1376E-01
2250.00	0.3782E-01	4775.00	0.1366E-01
2275.00	0.3726E-01	4800.00	0.1356E-01
2300.00	0.3671E-01	4825.00	0.1347E-01
2325.00	0.3618E-01	4850.00	0.1337E-01
2350.00	0.3566E-01	4875.00	0.1328E-01
2375.00	0.3515E-01	4900.00	0.1318E-01
2400.00	0.3465E-01	4925.00	0.1309E-01
2425.00	0.3416E-01	4950.00	0.1300E-01
2450.00	0.3369E-01	4975.00	0.1291E-01
2475.00	0.3323E-01	5000.00	0.1283E-01
2500.00	0.3278E-01		

```
--------------------------------------------------------------------------------
**********  AERSCREEN MAXIMUM IMPACT SUMMARY  **********
--------------------------------------------------------------------------------

3-hour, 8-hour, and 24-hour scaled
concentrations are equal to the 1-hour concentration as referenced in
SCREENING PROCEDURES FOR ESTIMATING THE AIR QUALITY
IMPACT OF STATIONARY SOURCES, REVISED (Section 4.5.4)
Report number EPA-454/R-92-019
http://www.epa.gov/scram001/guidance_permit.htm
under Screening Guidance
```

CALCULATION PROCEDURE	MAXIMUM 1-HOUR CONC (ug/m3)	SCALED 3-HOUR CONC (ug/m3)	SCALED 8-HOUR CONC (ug/m3)	SCALED 24-HOUR CONC (ug/m3)	SCALED ANNUAL CONC (ug/m3)
FLAT TERRAIN	1.608	1.608	1.608	1.608	N/A
DISTANCE FROM SOURCE	149.00 meters				
IMPACT AT THE AMBIENT BOUNDARY	1.236	1.236	1.236	1.236	N/A
DISTANCE FROM SOURCE	1.00 meters				

AERSCREEN 21112 / AERMOD 21112 04/25/23
10:59:01

TITLE: San Fernando, Operations

********** AREA PARAMETERS **********

SOURCE EMISSION RATE:	0.288E-03	g/s	0.228E-02	lb/hr
AREA EMISSION RATE:	0.730E-08	g/(s-m2)	0.579E-07	lb/(hr-m2)
AREA HEIGHT:	3.00	meters	9.84	feet
AREA SOURCE LONG SIDE:	280.77	meters	921.16	feet
AREA SOURCE SHORT SIDE:	140.39	meters	460.60	feet
INITIAL VERTICAL DIMENSION:	1.50	meters	4.92	feet
RURAL OR URBAN:	URBAN			
POPULATION:	192366			
INITIAL PROBE DISTANCE =	5000.	meters	16404.	feet

********** BUILDING DOWNWASH PARAMETERS **********

BUILDING DOWNWASH NOT USED FOR NON-POINT SOURCES

********** FLOW SECTOR ANALYSIS **********
25 meter receptor spacing: 1. meters - 5000. meters

MAXIMUM IMPACT RECEPTOR

Zo SECTOR	SURFACE ROUGHNESS	1-HR CONC (ug/m3)	RADIAL (deg)	DIST (m)	TEMPORAL PERIOD
1*	1.000	0.2813	20	150.0	WIN

* = worst case diagonal

```
**********  MAKEMET METEOROLOGY PARAMETERS  **********
--------------------------------------------------------------------------------

MIN/MAX TEMPERATURE:    250.0 / 310.0 (K)

MINIMUM WIND SPEED:       0.5 m/s

ANEMOMETER HEIGHT:     10.000 meters

SURFACE CHARACTERISTICS INPUT: AERMET SEASONAL TABLES

DOMINANT SURFACE PROFILE: Urban
DOMINANT CLIMATE TYPE:    Average Moisture
DOMINANT SEASON:          Winter

ALBEDO:                   0.35
BOWEN RATIO:              1.50
ROUGHNESS LENGTH:       1.000 (meters)

SURFACE FRICTION VELOCITY (U*) NOT ADUSTED


       METEOROLOGY CONDITIONS USED TO PREDICT OVERALL MAXIMUM IMPACT
       ------------------------------------------------------------

 YR MO DY JDY HR
 -- -- -- --- --
 10 01 10  10 01

    H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 -1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50

    HT  REF TA     HT
- - - - - - - - - - -
  10.0   310.0    2.0



--------------------------------------------------------------------------------
********** AERSCREEN AUTOMATED DISTANCES **********
                  OVERALL MAXIMUM CONCENTRATIONS BY DISTANCE
--------------------------------------------------------------------------------


                    MAXIMUM                              MAXIMUM
           DIST     1-HR CONC                  DIST     1-HR CONC
            (m)      (ug/m3)                    (m)      (ug/m3)
         ---------------------               ---------------------
           1.00    0.2175                   2525.00    0.5691E-02
```

25.00	0.2325	2550.00	0.5616E-02
50.00	0.2458	2575.00	0.5542E-02
75.00	0.2575	2600.00	0.5523E-02
100.00	0.2678	2625.00	0.5451E-02
125.00	0.2772	2650.00	0.5381E-02
150.00	0.2813	2675.00	0.5312E-02
175.00	0.2041	2700.00	0.5245E-02
200.00	0.1617	2725.00	0.5179E-02
225.00	0.1372	2750.00	0.5115E-02
250.00	0.1206	2775.00	0.5052E-02
275.00	0.1071	2800.00	0.4990E-02
300.00	0.9607E-01	2825.00	0.4930E-02
325.00	0.8685E-01	2850.00	0.4871E-02
350.00	0.7901E-01	2875.00	0.4813E-02
375.00	0.7230E-01	2900.00	0.4756E-02
400.00	0.6656E-01	2925.00	0.4700E-02
425.00	0.6153E-01	2950.00	0.4646E-02
450.00	0.5712E-01	2975.00	0.4593E-02
475.00	0.5324E-01	3000.00	0.4540E-02
500.00	0.4982E-01	3025.00	0.4489E-02
525.00	0.4671E-01	3050.00	0.4439E-02
550.00	0.4395E-01	3075.00	0.4389E-02
575.00	0.4146E-01	3100.00	0.4341E-02
600.00	0.3919E-01	3125.00	0.4294E-02
625.00	0.3714E-01	3150.00	0.4247E-02
650.00	0.3528E-01	3175.00	0.4201E-02
675.00	0.3357E-01	3200.00	0.4156E-02
700.00	0.3197E-01	3225.00	0.4112E-02
725.00	0.3051E-01	3250.00	0.4069E-02
750.00	0.2917E-01	3275.00	0.4027E-02
775.00	0.2793E-01	3300.00	0.3985E-02
800.00	0.2678E-01	3325.00	0.3944E-02
825.00	0.2571E-01	3350.00	0.3904E-02
850.00	0.2471E-01	3375.00	0.3864E-02
875.00	0.2377E-01	3400.00	0.3825E-02
900.00	0.2289E-01	3425.00	0.3787E-02
925.00	0.2206E-01	3450.00	0.3750E-02
950.00	0.2129E-01	3475.00	0.3713E-02
975.00	0.2056E-01	3500.00	0.3677E-02
1000.00	0.1988E-01	3525.00	0.3641E-02
1025.00	0.1924E-01	3550.00	0.3606E-02
1050.00	0.1863E-01	3575.00	0.3572E-02
1075.00	0.1804E-01	3600.00	0.3538E-02
1100.00	0.1750E-01	3625.00	0.3504E-02
1125.00	0.1697E-01	3650.00	0.3472E-02
1150.00	0.1648E-01	3675.00	0.3439E-02
1175.00	0.1601E-01	3700.00	0.3407E-02
1200.00	0.1557E-01	3725.00	0.3376E-02
1225.00	0.1514E-01	3750.00	0.3345E-02
1250.00	0.1474E-01	3775.00	0.3315E-02

1275.00	0.1435E-01	3800.00	0.3285E-02
1300.00	0.1398E-01	3825.00	0.3256E-02
1325.00	0.1363E-01	3850.00	0.3227E-02
1350.00	0.1329E-01	3875.00	0.3199E-02
1375.00	0.1297E-01	3900.00	0.3171E-02
1400.00	0.1266E-01	3925.00	0.3143E-02
1425.00	0.1235E-01	3950.00	0.3116E-02
1450.00	0.1207E-01	3975.00	0.3089E-02
1475.00	0.1179E-01	4000.00	0.3063E-02
1500.00	0.1152E-01	4025.00	0.3037E-02
1525.00	0.1127E-01	4050.00	0.3011E-02
1550.00	0.1102E-01	4075.00	0.2986E-02
1575.00	0.1079E-01	4100.00	0.2961E-02
1600.00	0.1056E-01	4125.00	0.2936E-02
1625.00	0.1034E-01	4150.00	0.2912E-02
1650.00	0.1013E-01	4175.00	0.2888E-02
1675.00	0.9925E-02	4200.00	0.2865E-02
1700.00	0.9728E-02	4225.00	0.2842E-02
1725.00	0.9539E-02	4250.00	0.2819E-02
1750.00	0.9355E-02	4275.00	0.2796E-02
1775.00	0.9178E-02	4300.00	0.2774E-02
1800.00	0.9006E-02	4325.00	0.2752E-02
1825.00	0.8840E-02	4350.00	0.2731E-02
1850.00	0.8680E-02	4375.00	0.2709E-02
1875.00	0.8524E-02	4400.00	0.2688E-02
1900.00	0.8373E-02	4425.00	0.2668E-02
1925.00	0.8227E-02	4450.00	0.2647E-02
1950.00	0.8084E-02	4475.00	0.2627E-02
1975.00	0.7946E-02	4500.00	0.2607E-02
2000.00	0.7812E-02	4525.00	0.2587E-02
2025.00	0.7681E-02	4550.00	0.2568E-02
2050.00	0.7555E-02	4575.00	0.2549E-02
2075.00	0.7432E-02	4600.00	0.2530E-02
2100.00	0.7312E-02	4625.00	0.2511E-02
2125.00	0.7195E-02	4650.00	0.2493E-02
2150.00	0.7081E-02	4675.00	0.2474E-02
2175.00	0.6971E-02	4700.00	0.2456E-02
2200.00	0.6863E-02	4725.00	0.2439E-02
2225.00	0.6758E-02	4750.00	0.2421E-02
2250.00	0.6656E-02	4775.00	0.2404E-02
2275.00	0.6557E-02	4800.00	0.2387E-02
2300.00	0.6460E-02	4825.00	0.2370E-02
2325.00	0.6366E-02	4850.00	0.2353E-02
2350.00	0.6275E-02	4875.00	0.2337E-02
2375.00	0.6185E-02	4900.00	0.2320E-02
2400.00	0.6098E-02	4925.00	0.2304E-02
2425.00	0.6012E-02	4950.00	0.2288E-02
2450.00	0.5929E-02	4975.00	0.2273E-02
2475.00	0.5848E-02	5000.00	0.2257E-02
2500.00	0.5769E-02		

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**********  AERSCREEN MAXIMUM IMPACT SUMMARY  **********
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3-hour, 8-hour, and 24-hour scaled
concentrations are equal to the 1-hour concentration as referenced in
SCREENING PROCEDURES FOR ESTIMATING THE AIR QUALITY
IMPACT OF STATIONARY SOURCES, REVISED (Section 4.5.4)
Report number EPA-454/R-92-019
http://www.epa.gov/scram001/guidance_permit.htm
under Screening Guidance
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CALCULATION PROCEDURE	MAXIMUM 1-HOUR CONC (ug/m3)	SCALED 3-HOUR CONC (ug/m3)	SCALED 8-HOUR CONC (ug/m3)	SCALED 24-HOUR CONC (ug/m3)	SCALED ANNUAL CONC (ug/m3)
FLAT TERRAIN	0.2829	0.2829	0.2829	0.2829	N/A
DISTANCE FROM SOURCE	149.00 meters				
IMPACT AT THE AMBIENT BOUNDARY	0.2175	0.2175	0.2175	0.2175	N/A
DISTANCE FROM SOURCE	1.00 meters				

Attachment C

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

2656 29th Street, Suite 201
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Matt Hagemann, P.G, C.Hg.
(949) 887-9013
mhagemann@swape.com

Matthew F. Hagemann, P.G., C.Hg., QSD, QSP

Geologic and Hydrogeologic Characterization
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
Industrial Stormwater Compliance
CEQA Review

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 30 years of experience in environmental policy, contaminant assessment and remediation, stormwater compliance, and CEQA review. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) and directed efforts to improve hydrogeologic characterization and water quality monitoring. For the past 15 years, as a founding partner with SWAPE, Matt has developed extensive client relationships and has managed complex projects that include consultation as an expert witness and a regulatory specialist, and a manager of projects ranging from industrial stormwater compliance to CEQA review of impacts from hazardous waste, air quality and greenhouse gas emissions.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2104, 2017;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 300 environmental impact reports and negative declarations since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at more than 100 industrial facilities.
- Expert witness on numerous cases including, for example, perfluorooctanoic acid (PFOA) contamination of groundwater, MTBE litigation, air toxins at hazards at a school, CERCLA compliance in assessment and remediation, and industrial stormwater contamination.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.
- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted

public hearings, and responded to public comments from residents who were very concerned about the impact of designation.
- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:
- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:
- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9.

Activities included the following:
- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific

principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt is currently a part time geology instructor at Golden West College in Huntington Beach, California where he taught from 2010 to 2014 and in 2017.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F**. 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examinations, 2009-2011.

Attachment D

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

SOIL WATER AIR PROTECTION ENTERPRISE
2656 29th Street, Suite 201
Santa Monica, California 90405
Attn: Paul Rosenfeld, Ph.D.
Mobil: (310) 795-2335
Office: (310) 452-5555
Fax: (310) 452-5550
Email: prosenfeld@swape.com

Paul Rosenfeld, Ph.D.

Chemical Fate and Transport & Air Dispersion Modeling

Risk Assessment & Remediation Specialist

Principal Environmental Chemist

Education

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Focus on wastewater treatment.

Professional Experience

Dr. Rosenfeld has over 25 years of experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, industrial, military and agricultural sources, unconventional oil drilling operations, and locomotive and construction engines. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities. Dr. Rosenfeld has also successfully modeled exposure to contaminants distributed by water systems and via vapor intrusion.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, creosote, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at sites and has testified as an expert witness on numerous cases involving exposure to soil, water and air contaminants from industrial, railroad, agricultural, and military sources.

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H_2O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

Rosenfeld P. E., Spaeth K., Hallman R., Bressler R., Smith, G., (2022) Cancer Risk and Diesel Exhaust Exposure Among Railroad Workers. *Water Air Soil Pollution.* **233,** 171.

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health.* 18:48

Simons, R.A., Seo, Y. **Rosenfeld, P**., (2015) Modeling the Effect of Refinery Emission On Residential Property Value. Journal of Real Estate Research. 27(3):321-342

Chen, J. A, Zapata A. R., Sutherland A. J., Molmen, D.R., Chow, B. S., Wu, L. E., **Rosenfeld, P. E.,** Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermod and Empirical Data. *American Journal of Environmental Science*, 8(6), 622-632.

Rosenfeld, P.E. & Feng, L. (2011). *The Risks of Hazardous Waste.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2011). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry*, Amsterdam: Elsevier Publishing.

Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., **Rosenfeld, P.** (2010). PCBs and Dioxins/Furans in Attic Dust Collected Near Former PCB Production and Secondary Copper Facilities in Sauget, IL. *Procedia Environmental Sciences*. 113–125.

Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., **Rosenfeld, P.E.** (2010). Dioxin and Furan Blood Lipid and Attic Dust Concentrations in Populations Living Near Four Wood Treatment Facilities in the United States. *Journal of Environmental Health*. 73(6), 34-46.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2010). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Wood and Paper Industries.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2009). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Petroleum Industry*. Amsterdam: Elsevier Publishing.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. *WIT Transactions on Ecology and the Environment, Air Pollution,* 123 (17), 319-327.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, 70, 002252-002255.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. *Organohalogen Compounds*, 70, 000527-000530.

Hensley, A.R. A. Scott, J. J. J. Clark, **Rosenfeld, P.E.** (2007). Attic Dust and Human Blood Samples Collected near a Former Wood Treatment Facility. *Environmental Research*. 105, 194-197.

Rosenfeld, P.E., J. J. J. Clark, A. R. Hensley, M. Suffet. (2007). The Use of an Odor Wheel Classification for Evaluation of Human Health Risk Criteria for Compost Facilities. *Water Science & Technology* 55(5), 345-357.

Rosenfeld, P. E., M. Suffet. (2007). The Anatomy Of Odour Wheels For Odours Of Drinking Water, Wastewater, Compost And The Urban Environment. *Water Science & Technology* 55(5), 335-344.

Sullivan, P. J. Clark, J.J.J., Agardy, F. J., **Rosenfeld, P.E.** (2007). *Toxic Legacy, Synthetic Toxins in the Food, Water, and Air in American Cities.* Boston Massachusetts: Elsevier Publishing

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash. *Water Science and Technology*. 49(9),171-178.

Rosenfeld P. E., J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2004.* New Orleans, October 2-6, 2004.

Rosenfeld, P.E., and Suffet, I.H. (2004). Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids. *Water Science and Technology*. 49(9), 193-199.

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash, *Water Science and Technology*, 49(9), 171-178.

Rosenfeld, P. E., Grey, M. A., Sellew, P. (2004). Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research*. 76(4), 310-315.

Rosenfeld, P.E., Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office*, Publications Clearinghouse (MS–6), Sacramento, CA Publication #442-02-008.

Rosenfeld, P.E., and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution*. 127(1-4), 173-191.

Rosenfeld, P.E., and Henry C. L., (2000). Wood ash control of odor emissions from biosolids application. *Journal of Environmental Quality.* 29, 1662-1668.

Rosenfeld, P.E., C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research*. 73(4), 363-367.

Rosenfeld, P.E., and C.L. Henry. (2001). Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants. *Water Environment Research*, 73, 388-393.

Rosenfeld, P.E., and Henry C. L., (2001). High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research*. 131(1-4), 247-262.

Chollack, T. and **P. Rosenfeld. (**1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

Rosenfeld, P. E. (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

Rosenfeld, P. E. (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

Rosenfeld, P. E. (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

Rosenfeld, P. E. (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

Rosenfeld, P. E. (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

Presentations:

Rosenfeld, P.E., "The science for Perfluorinated Chemicals (PFAS): What makes remediation so hard?" Law Seminars International, (May 9-10, 2018) 800 Fifth Avenue, Suite 101 Seattle, WA.

Rosenfeld, P.E., Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society.* Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution.* Lecture conducted from Boston, MA.

Rosenfeld, P.E. (April 19-23, 2009). Perfluoroctanoic Acid (PFOA) and Perfluoroactane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

Rosenfeld, P.E. (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States" Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tuscon, AZ.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution*. Lecture conducted from Tallinn, Estonia.

Rosenfeld, P. E. (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23rd Annual International Conferences on Soils Sediment and Water.* Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23rd Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The *23rd Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld P. E. (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

Rosenfeld P. E. (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting.* Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition.* Lecture conducted from Boston Massachusetts.

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference.* Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

Paul Rosenfeld Ph.D. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

Paul Rosenfeld Ph.D. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference.* Lecture conducted from Hilton Hotel in Irvine, California.

Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference.* Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference.* Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants*.. Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conferenc*e. Lecture conducted from Indianapolis, Maryland.

Rosenfeld. P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation.* Lecture conducted from Anaheim California.

Rosenfeld. P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest.* Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell.* Lecture conducted from Seattle Washington.

Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest.* Lecture conducted from Lake Chelan, Washington.

Rosenfeld, P.E, C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. $41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: $10,000 grant awarded to San Diego State University.
Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. $100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. $20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: $10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: $15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. $500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

Deposition and/or Trial Testimony:

In the Superior Court of the State of California, County of San Bernardino
Billy Wildrick, Plaintiff vs. BNSF Railway Company
Case No. CIVDS1711810
Rosenfeld Deposition 10-17-2022

In the State Court of Bibb County, State of Georgia
Richard Hutcherson, Plaintiff vs Norfolk Southern Railway Company
Case No. 10-SCCV-092007
Rosenfeld Deposition 10-6-2022

In the Civil District Court of the Parish of Orleans, State of Louisiana
Millard Clark, Plaintiff vs. Dixie Carriers, Inc. et al.
Case No. 2020-03891
Rosenfeld Deposition 9-15-2022

In The Circuit Court of Livingston County, State of Missouri, Circuit Civil Division
Shirley Ralls, Plaintiff vs. Canadian Pacific Railway and Soo Line Railroad
Case No. 18-LV-CC0020
Rosenfeld Deposition 9-7-2022

In The Circuit Court of the 13th Judicial Circuit Court, Hillsborough County, Florida Civil Division
Jonny C. Daniels, Plaintiff vs. CSX Transportation Inc.
Case No. 20-CA-5502
Rosenfeld Deposition 9-1-2022

In The Circuit Court of St. Louis County, State of Missouri
Kieth Luke et. al. Plaintiff vs. Monsanto Company et. al.
Case No. 19SL-CC03191
Rosenfeld Deposition 8-25-2022

In The Circuit Court of the 13th Judicial Circuit Court, Hillsborough County, Florida Civil Division
Jeffery S. Lamotte, Plaintiff vs. CSX Transportation Inc.
Case No. NO. 20-CA-0049
Rosenfeld Deposition 8-22-2022

In State of Minnesota District Court, County of St. Louis Sixth Judicial District
Greg Bean, Plaintiff vs. Soo Line Railroad Company
Case No. 69-DU-CV-21-760
Rosenfeld Deposition 8-17-2022

In United States District Court Western District of Washington at Tacoma, Washington
John D. Fitzgerald Plaintiff vs. BNSF
Case No. 3:21-cv-05288-RJB
Rosenfeld Deposition 8-11-2022

In Circuit Court of the Sixth Judicial Circuit, Macon Illinois
Rocky Bennyhoff Plaintiff vs. Norfolk Southern
Case No. 20-L-56
Rosenfeld Deposition 8-3-2022

In Court of Common Pleas, Hamilton County Ohio
Joe Briggins Plaintiff vs. CSX
Case No. A2004464
Rosenfeld Deposition 6-17-2022

In the Superior Court of the State of California, County of Kern
George LaFazia vs. BNSF Railway Company.
Case No. BCV-19-103087
Rosenfeld Deposition 5-17-2022

In the Circuit Court of Cook County Illinois
Bobby Earles vs. Penn Central et. al.
Case No. 2020-L-000550
Rosenfeld Deposition 4-16-2022

In United States District Court Easter District of Florida
Albert Hartman Plaintiff vs. Illinois Central
Case No. 2:20-cv-1633
Rosenfeld Deposition 4-4-2022

In the Circuit Court of the 4th Judicial Circuit, in and For Duval County, Florida
Barbara Steele vs. CSX Transportation
Case No.16-219-Ca-008796
Rosenfeld Deposition 3-15-2022

In United States District Court Easter District of New York
Romano et al. vs. Northrup Grumman Corporation
Case No. 16-cv-5760
Rosenfeld Deposition 3-10-2022

In the Circuit Court of Cook County Illinois
Linda Benjamin vs. Illinois Central
Case No. No. 2019 L 007599
Rosenfeld Deposition 1-26-2022

In the Circuit Court of Cook County Illinois
Donald Smith vs. Illinois Central
Case No. No. 2019 L 003426
Rosenfeld Deposition 1-24-2022

In the Circuit Court of Cook County Illinois
Jan Holeman vs. BNSF
Case No. 2019 L 000675
Rosenfeld Deposition 1-18-2022

In the State Court of Bibb County State of Georgia
Dwayne B. Garrett vs. Norfolk Southern
Case No. 20-SCCV-091232
Rosenfeld Deposition 11-10-2021

In the Circuit Court of Cook County Illinois
Joseph Ruepke vs. BNSF
Case No. 2019 L 007730
Rosenfeld Deposition 11-5-2021

In the United States District Court For the District of Nebraska
Steven Gillett vs. BNSF
Case No. 4:20-cv-03120
Rosenfeld Deposition 10-28-2021

In the Montana Thirteenth District Court of Yellowstone County
James Eadus vs. Soo Line Railroad and BNSF
Case No. DV 19-1056
Rosenfeld Deposition 10-21-2021

In the Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al.cvs. Cerro Flow Products, Inc.
Case No. 0i9-L-2295
Rosenfeld Deposition 5-14-2021
Trial October 8-4-2021

In the Circuit Court of Cook County Illinois
Joseph Rafferty vs. Consolidated Rail Corporation and National Railroad Passenger Corporation d/b/a AMTRAK,
Case No. 18-L-6845
Rosenfeld Deposition 6-28-2021

In the United States District Court For the Northern District of Illinois
Theresa Romcoe vs. Northeast Illinois Regional Commuter Railroad Corporation d/b/a METRA Rail
Case No. 17-cv-8517
Rosenfeld Deposition 5-25-2021

In the Superior Court of the State of Arizona In and For the Cunty of Maricopa
Mary Tryon et al. vs. The City of Pheonix v. Cox Cactus Farm, L.L.C., Utah Shelter Systems, Inc.
Case No. CV20127-094749
Rosenfeld Deposition 5-7-2021

In the United States District Court for the Eastern District of Texas Beaumont Division
Robinson, Jeremy et al vs. CNA Insurance Company et al.
Case No. 1:17-cv-000508
Rosenfeld Deposition 3-25-2021

In the Superior Court of the State of California, County of San Bernardino
Gary Garner, Personal Representative for the Estate of Melvin Garner vs. BNSF Railway Company.
Case No. 1720288
Rosenfeld Deposition 2-23-2021

In the Superior Court of the State of California, County of Los Angeles, Spring Street Courthouse
Benny M Rodriguez vs. Union Pacific Railroad, A Corporation, et al.
Case No. 18STCV01162
Rosenfeld Deposition 12-23-2020

In the Circuit Court of Jackson County, Missouri
Karen Cornwell, Plaintiff, vs. Marathon Petroleum, LP, Defendant.
Case No. 1716-CV10006
Rosenfeld Deposition 8-30-2019

In the United States District Court For The District of New Jersey
Duarte et al, Plaintiffs, vs. United States Metals Refining Company et. al. Defendant.
Case No. 2:17-cv-01624-ES-SCM
Rosenfeld Deposition 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS "Conti Perdido" Defendant.
Case No. 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No. BC615636
Rosenfeld Deposition 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No. BC646857
Rosenfeld Deposition 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado
Bells et al. Plaintiffs vs. The 3M Company et al., Defendants
Case No. 1:16-cv-02531-RBJ
Rosenfeld Deposition 3-15-2018 and 4-3-2018

In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosciences, LLC, et al., Defendants
Cause No. 1923
Rosenfeld Deposition 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., Plaintifs vs. Chevron Corporation, et al., Defendants
Cause No. C12-01481
Rosenfeld Deposition 11-20-2017

In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition 8-23-2017

In United States District Court For The Southern District of Mississippi
Guy Manuel vs. The BP Exploration et al., Defendants
Case No. 1:19-cv-00315-RHW
Rosenfeld Deposition 4-22-2020

In The Superior Court of the State of California, For The County of Los Angeles
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No. LC102019 (c/w BC582154)
Rosenfeld Deposition 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., Plaintiffs, vs. Meritor Inc., et al., Defendants
Case No. 4:16-cv-52-DMB-JVM
Rosenfeld Deposition July 2017

In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial March 2017

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No. RG14711115
Rosenfeld Deposition September 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No. LALA002187
Rosenfeld Deposition August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action No. 14-C-30000
Rosenfeld Deposition June 2015

In The Iowa District Court for Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No. 4980
Rosenfeld Deposition May 2015

In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.
Case No. CACE07030358 (26)
Rosenfeld Deposition December 2014

In the County Court of Dallas County Texas
Lisa Parr et al, Plaintiff, vs. Aruba et al, Defendant.
Case No. cc-11-01650-E
Rosenfeld Deposition: March and September 2013
Rosenfeld Trial April 2014

In the Court of Common Pleas of Tuscarawas County Ohio
John Michael Abicht, et al., Plaintiffs, vs. Republic Services, Inc., et al., Defendants
Case No. 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition October 2012

In the United States District Court for the Middle District of Alabama, Northern Division
James K. Benefield, et al., Plaintiffs, vs. International Paper Company, Defendant.
Civil Action No. 2:09-cv-232-WHA-TFM
Rosenfeld Deposition July 2010, June 2011

In the Circuit Court of Jefferson County Alabama
Jaeanette Moss Anthony, et al., Plaintiffs, vs. Drummond Company Inc., et al., Defendants
Civil Action No. CV 2008-2076
Rosenfeld Deposition September 2010

In the United States District Court, Western District Lafayette Division
Ackle et al., Plaintiffs, vs. Citgo Petroleum Corporation, et al., Defendants.
Case No. 2:07CV1052
Rosenfeld Deposition July 2009

COMMENT LETTER NO. 2:

Golden State Environmental Ju-tice Alliance - Blum, Collins & Ho LLP
Aon Center
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Suite 4880
Los Angeles, California 90017

Comment 2-1

Please refer to attachments from SWAPE for a complete technical commentary and analysis.

Response 2-1

Please see **Responses 2-10** through **2-14** below to the comments in the attachment from SWAPE.

Comment 2-2

The EIR does not include for analysis relevant environmental justice issues in reviewing potential impacts, including cumulative impacts from the proposed project. This is especially significant as the surrounding community is highly burdened by pollution. According to CalEnviroScreen 4.01, CalEPA's screening tool that ranks each census tract in the state for pollution and socioeconomic vulnerability, the proposed project s census tract (6037301702) r[an]ks in the 100th percentile in overall pollution burden, meaning that it is among the most polluted areas in the state. The proposed project's census tract and surrounding community, including residences immediately adjacent to the east and south, bears the impact of multiple sources of pollution and is more polluted than average on several pollution indicators measured by CalEnviroScreen. For example, the project census tract [ra]nks in the 72nd percentile for ozone [b]urden, the 70th percentile for PM 2.5 [b]urden, the 97th percentile for diesel particulate matter bur[de]n, and the 90th percentile for traffic impacts. All of these environmental factors are typically attributed to heavy truck activity in the area. Ozone can cause lung irritation, inflammation, and worsening of existing chronic health conditions, even at low levels of exposure2. The very small particles of diesel PM can reach deep into the lung, where they can contribute to a range of health problems. These include irritation to the eyes, throat and nose, heart and lung disease, and lung cancer.

The census tract [ra]nks in the 76th percentile for contaminated drinki[ng] water and 89th percentile for groundwater threats. Poor communities and people in rural areas are exposed to contaminants in their drinking water more often than people in other parts of the state4. People who live near contaminated groundwater may be exposed to chemicals moving from the soil into the air inside their homes5.

The census tract also [ra]nks in the 95th percentile for solid waste facility [i]mpacts and 94th percentile for hazardous waste facility impacts. Solid waste facilities can expose people to hazardous chemicals, release toxic gases into the air (even after these facilities are closed), and chemicals can leach into soil around the facility and pose a health risk to nearby populations. Hazardous waste generators and

facilities contribute to the contamination of air, water and soil near waste generators and facilities can harm the environment as well as people.

The census tract also bears more impacts from cleanup sites than 97% of the state. Chemicals in the buildings, soil, or water at cleanup sites can move into nearby communities through the air or movement of water.

Further, the census tract is a diverse community including 15% Hispanic, 2% African-American and 14% Asian-American residents, whom are especially vulnerable to the impacts of pollution. The community has a high rate of low educational attainment, meaning 57% of the census tract over age 25 has not attained a high school diploma, which is an indication that they may lack health insurance or access to medical care. The community also has a high rate of poverty, meaning 63% of the households in the census tract have a total income before taxes that is less than the poverty level. Income can affect health when people cannot afford healthy living and working conditions, nutritious food and necessary medical care. Poor communities are often located in areas with high levels of pollution. Poverty can cause stress that weakens the immune system and causes people to become ill from pollution. Living in poverty is also an indication that residents may lack health insurance or access to medical care. Medical care is vital for this census tract as it ranks in the 78th percentile for incidence of cardiovascular disease. The community also has a high rate of linguistic isolation, meaning 87% of the census tract speaks little to no English and faces further inequities as a result.

Additionally, the proposed project's census tract (6037301702) and the census tracts adjacent to the project site (6037301701 (north), 6037301801 (east), 6037301802 (east), 6037302301 (south) and 6037188100 (west)) are identified as SB 535 Disadvantaged Communities. This indicates that cumulative impacts of development and environmental impacts in the City are disproportionately impacting these communities. The EIR does not discuss that the project site and surrounding area are disadvantaged communities and does not utilize this information in its analysis. The EIR has not considered environmental impacts in relation to the SB 535 status of the project census tract and surrounding area. The negative environmental, health, and quality of life impacts of development in the City have become distinctly inequitable and impacts particularly on these Disadvantaged Communities must be included for analysis as part of a revised EIR.

Response 2-2

Government Code Section 65302 requires that environmental justice be addressed in general plans. The California Environmental Quality Act (CEQA) and the CEQA Guidelines do not address environmental justice as a factor to be considered in the evaluation of environmental impacts. With regard to General Plans, Section 65302(h)(1) of the Government Code requires that an environmental justice element, or related goals, policies, and objectives integrated in other elements of a general plan, identify disadvantaged communities within the area covered by the general plan of the city, county, or city and county, if the city, county, or city and county has a disadvantaged community. Pursuant to Section 39711 of the Health and Safety Code, a disadvantaged community is an area identified by the California

Environmental Protection Agency (CalEPA) based on geographic, socioeconomic, public health, and environmental hazard criteria, including, but not limited to, either of the following: (1) Areas disproportionately affected by environmental pollution and other hazards that can lead to negative public health effects, exposure, or environmental degradation. (2) Areas with concentrations of people that are of low income, high unemployment, low levels of homeownership, high rent burden, sensitive populations, or low levels of educational attainment. As required by Government Code Section 65302(h)(2), a city, county, or city and county subject to this subdivision is required to adopt or review the environmental justice element, or the environmental justice goals, policies, and objectives in other elements, upon the adoption or next revision of two or more elements concurrently on or after January 1, 2018. Since January 2018, the City of Glendale adopted the 2021-2029 Housing Element. No other elements of the City's General Plan have been adopted or revised since January 2018 and, for this reason, the City's General Plan does not currently address, and it not yet statutorily required to address, environmental justice considerations.

The Project Site is located within Census Tract 6037301702. CalEnviroScreen 4.0 provides indicators that are used to characterize the concentration of burdens within a tract as determined by CalEPA, pursuant to SB 535 and Section 39711 of the Health and Safety Code. These indicators are detailed in **Table 1: CalEnviroScreen 4.0 - Census Tract 6037301702**, below. The tract is in the 94th percentile for CalEnviroScreen 4.0's Statewide measurements and the 100th percentile for pollution burden. Based on these indicators, Census Tract 6037301702 would be considered a disadvantaged community pursuant to CalEPA's definition as it is an area disproportionately affected by environmental pollution.

Table 1: CalEn-iroScreen 4.0 - Census Tract 6037301702	
Overall Percentiles	
CalEnviroScreen 4.0 Percentile	94
Pollution Burden Percentile	100
Population Characteristics Percentile	67

Source: California Office of Environmental Health Hazard Assessment, CalEnviroScreen 4.0, accessed May 2023. https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40

SB 535 gave CalEPA the responsibility for identifying those communities, stating that CalEPA's designation of disadvantaged communities must be based on "geographic, socioeconomic, public health, and environmental hazard criteria," and established initial requirements for minimum funding levels to disadvantaged communities. However, SB 535 does not provide any specific requirements pursuant to CEQA to consider potential environmental impacts in relation to the SB 535 status of the project census tract and surrounding area.

CEQA and the CEQA Guidelines do not contain any specific requirements to address environmental justice. CEQA Section 21080.47(2) defines a "disadvantaged community" as a community with an annual median household income that is less than 80 percent of the Statewide annual median household income. This definition is only used in the definitions for a Small disadvantaged community water system and State small water systems in Section 21080.47(9) and (10) respectively, and the exemption from environmental

review for providing drinking water service to homes in, or improving the water systems in, small disadvantaged communities in Section 21080.47(6)(b)(1). The City of Glendale has an annual median household income of $74,448, which is approximately 88.5% of the Statewide annual median household income of $84,097.[8] The Project site, therefore, is not located in a disadvantaged community as defined by the CEQA Guidelines and as described above, this definition only applies to an exemption for water systems in small disadvantaged communities.

While the CEQA definition of a disadvantaged community is similar to the definition of a "low-income area" pursuant to Government Code Section 65302, the definition of a disadvantaged community differs between the Government Code provisions for general plans and the CEQA Guidelines. A disadvantaged community pursuant to the CEQA Guidelines is determined solely on annual median household income levels for purposes of an exemption for review for water systems in small disadvantaged communities.

CEQA Guidelines Section 15131, Economic and Social Effects, indicates how economic or social information may be included in an analysis of a project's effects on the environment. Per Section 15131(A), the economic or social effects of a project shall not be treated as significant effects on the environment. While an EIR may trace a chain of cause and effect from a proposed decision on a project through anticipated economic or social changes resulting from the project to physical changes caused in turn by the economic or social changes, the analysis must be on the physical changes. Per Section 15131(B), economic or social effects of a project may be used to determine the significance of physical changes caused by the project, and where an EIR uses economic or social effects to determine that a physical change is significant, the EIR shall explain the reason for determining that the effect is significant. Per Section 15131(C), economic, social, and particularly housing factors shall be considered by public agencies together with technological and environmental factors in deciding whether changes in a project are feasible to reduce or avoid the significant effects on the environment identified in the EIR. Any potential physical changes that would be caused by the Project were analyzed within the Draft EIR, pursuant to the requirements of the CEQA Guidelines.

As analyzed within the Draft EIR, the Project would result in less than significant impacts related to air quality and greenhouse gas emissions. Compliance with local, State, and federal plans, policies, and programs would ensure impacts related to air quality and greenhouse gas emissions would be less than significant. Given that the Project would not result in significant air quality or greenhouse gas emission impacts, the Project's contribution to cumulative impacts is not cumulatively considerable.

Further, the Project would result in less than significant hazards and hazardous materials impacts with implementation of the mitigation identified in the Draft EIR. The Project as proposed includes maintenance of the Geosynthetics Clay Cap installed on the site as part of the prior remediation activities completed to address soil and water contamination on the site. In addition, mitigation identified in the

8 United States Census Bureau, 2021 American Community Survey 5-year Estimates.

Draft EIR requires designing and installing a Vapor Intrusion Mitigation System (VIMS) under all structures built on the site that meets Los Angeles Regional Water Quality Control Board design criteria. Compliance with local, State, and federal plans, policies, and programs, as well as implementation of the VIMS mitigation measure, would ensure impacts related to hazards and hazardous materials would be less than significant. All future projects involving hazardous waste materials or contaminated sites in the area the Project is in would be required to conduct technical studies and implement remediation action plans and mitigation measures in order to minimize any adverse impacts to the public. Future projects would also be required to comply with all federal, State, and local requirements in handling hazardous waste materials, which would further reduce any potential adverse impacts to the public. As such, cumulative hazards and hazardous materials impacts would also be less than significant.

Comment 2-3

California's Building Energy Code Compliance Software (CBECC) is the State's only approved energy compliance modeling software for non-residential buildings in compliance with Title 24. CalEEMod is not listed as an approved software. The CalEEMod-based modeling in the EIR and appendices does not comply with the 2022 Building Energy Efficiency Standards and underreports the projects significant Energy impacts and fuel consumption to the public and decision makers. Since the EIR did not accurately or adequately model the energy impacts in compliance with Title 24, a finding of significance must be made. A revised EIR with modeling using the approved software (CBECC) must be circulated for public review in order to adequately analyze the project s significant environmental impacts. This is vital as the EIR utilizes CalEEMod as a source in its methodology and analysis, which is clearly not the approved software.

Response 2-3

Contrary to the assertion in this comment, the California Building Energy Code Compliance Software (CBECC) is not the State's only approved energy compliance modeling software for non-residential buildings to demonstrate compliance with Title 24. First, it is important to note that CBECC is software approved by the California Energy Commission for demonstrating compliance with the 2022 Building Energy Efficiency Standards (Energy Code) in accordance with the California Code of Regulations: Title 24, Part 1, Article 1, Section 10-109.[9] CBECC is, in fact, one of three compliance software programs approved for demonstrating compliance with the energy code for nonresidential and multifamily buildings.

The assertion in this comment that the Draft EIR must use the CBECC software to analyze the energy impacts of the Project is incorrect. The California Energy Commission (CEC) identifies software to be utilized for the demonstrating compliance with the 2022 Building Energy Standards using the performance approach (energy budget) method. The compliance modeling software referenced in this comment is used to confirm that a final building design complies with the Building Energy Standards as the time a

9 https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency-1

building permit is applied for. This software requires detailed information identified in construction drawings which is not defined in the conceptual drawings available at this time and included in the Draft EIR project description that is the basis of the analysis in the Draft EIR. Neither the California Energy Commission, CARB, or SCAQMD suggest using energy compliance software, such as CBECC, for estimating emissions for purposes of conducting environmental review pursuant to CEQA.

As stated in the CalEEMod User's Guide, CalEEMod was developed by the California Air Pollution Control Officers Association (CAPCOA) and is a Statewide land use emissions computer model that estimates construction and operational emissions from a variety of land use projects.[10] CalEEMod is the California Air Resources Board (CARB) approved computer program model recommended by South Coast Air Quality Management District (SCAQMD) for use in estimating air quality emissions. CalEEMod was developed under the auspices of SCAQMD, with input from other California air districts. CalEEMod utilizes widely accepted models for emissions estimates combined with appropriate data that can be used if project specific information is not available. CalEEMod incorporates USEPA-developed emission factors; CARB's on-road and off-road equipment emission models, such as EMFAC and OFFROAD;[11] and studies commissioned by other California agencies, such as the California Energy Commission (CEC) and California Department of Resources Recycling and Recovery (CalRecycle). CalEEMod is also widely accepted for energy and greenhouse gas emissions modeling. CalEEMod quantifies direct emissions from construction and operation activities (including vehicle use), as well as indirect emissions such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use.

In addition to air quality emissions modeling, CalEEMod is widely accepted for energy modeling. CalEEMod quantifies direct emissions from construction and operation activities (including vehicle use), as well as indirect emissions such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use.

CalEEMod estimates the energy use of a proposed project, for purposes of estimating air quality emissions, based on information derived by CEC, the U.S. Energy Information Administration's Commercial Building Energy Consumption Survey (2016), land use statistics from the South Coast Air Basin, and the energy conservation standards defined in Title 24. These sources of information result in the energy estimates produced by CalEEMod being reasonable estimates that do not underreport the energy use of the Project as asserted in this comment. CalEEMod is an appropriate model to use to estimate a Project's energy use. As discussed above, CalEEMod is software developed for estimating air emissions approved by CARB and not for purposes documenting compliance with Title 24 energy standards.

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10 California Air Pollution Control Officers Association (CAPCOA). California Emissions Estimator Model® User's Guide. May 2021. http://www.aqmd.gov/docs/default-source/caleemod/user-guide-2021/01_user-39-sguide2020-4-0.pdf?sfvrsn=6.

11 EMFAC is an emissions factor model used to calculate emissions rates from on-road vehicles (e.g., passenger vehicles). OFFROAD is an emissions factor model used to calculate emission rates from off-road mobile sources (e.g., construction equipment). CalEEMod version 2022.1 utilizes CARB's 2022 version of EMFAC.

As analyzed in **Section 6.0, Effects Found Not to be Significant,** of the Draft EIR, the City determined through the preliminary analysis in the Initial Study provided in **Appendix F** of the Draft EIR that the Project does not have the potential to result in significant impacts due to the wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation, nor conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

Demonstrating compliance with Title 24 is required when construction plans are submitted for plan check to obtain a building permit and not at the time environmental review of a proposed project is being conducted. A building permit cannot be obtained without demonstrating compliance with the California Energy Code and local ordinances.

Further, using CBECC or other approved compliance software to demonstrate compliance with the State energy code could not be completed at the time of preparation of the Draft EIR because the design of the proposed buildings had not advanced to the level of detail that would provide the information on the energy consumption characteristics of the buildings needed for energy compliance software modeling, as indicated in the correspondence on the following page from the project architect. Additionally, as noted in this letter, the California Energy Code allows for two compliance methods: “performance” or “prescriptive” paths. The prescriptive method does not require energy modeling. Two of the three buildings on the site will utilize the prescriptive method.

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Gensler

5/25/2023

Michael Gonzales
Gonzales Law Group APC
707 Wilshire Blvd, Suite 4350
Los Angeles, CA 90017

Subject: East End Studios – San Fernando Rd
Response to Comments
Project Number: 05.4384.000
File Code: 3PD

Dear Mr. Gonzales:

Title 24 Energy compliance will be demonstrated when the project is submitted for plan check. A permit cannot be obtained without demonstrating compliance with the California Energy Code and local ordinances. At the time of the EIR, the project had not been developed enough to begin energy modeling using California's Building Energy Code Compliance Software (CBECC) or the other approved energy compliance modeling software for non-residential buildings. Energy modeling, if required, typically occurs late in the design development phase after building systems are selected and designed.

The California Energy Code allows for two compliance methods: "performance" or "prescriptive" paths. The prescriptive method does not require energy modeling. Two of the three buildings on the site will utilize the prescriptive method.

Sincerely,

Kevin Conklin

Kevin Conklin, AIA
Senior Associate
Sustainability & Technical Director

Comment 2-4

The Project Description states the project requires the following Variances and Parking Exceptions for approval:

1. Variances pursuant to GMC Chapter 30.43 to allow deviation from:
   - **a.** GMC Section 30.14.030 – Table 30.14-B to allow:
     1. a maximum height for Building 1 of up to 89 feet and 3 inches to the top of the parapet (5% of Building 1's rooftop footprint will reach up to 100 feet 9 inches to accommodate rooftop equipment and required mechanical screening) in lieu of the 50-foot height limitation; and
     2. a maximum height for the Parking Garage of up to 65 feet 6 inches to the top of the roof and 69 feet to the top of the parapet 69 in lieu of the 50-foot height limitation; and
   - **b.** GMC Section 30.14.030 – Table 30.14-B, note #3 – Applicant proposes to provide the required 10-foot corner cutoff. The code, however, requires an entrance to be located on the corner and Applicant requests deviation from this requirement. Applicant proposes various entrances for the Project. A corner entrance at the intersection of San Fernando Road and Milford Street is infeasible.
2. Parking Exceptions pursuant to GMC Section 30.32.020 to allow exceptions to parking requirements and parking standards for projects located in the Redevelopment Area. Applicant requests exceptions from the following:
   - **a.** GMC Section 30.32.160.B.1 – to allow the Project to provide less than the 5% interior landscaping for the Surface Parking as required by the GMC. Applicant requests to provide landscaping along the perimeter of the Property and on the rooftops; and
   - b. GMC Section 30.32.160.B.2 – to allow the Project to plant the GMC required trees along the perimeter of the Property. The GMC requires 19 trees planted throughout the Surface Parking area. Applicant will instead plant 69 trees along the Property's perimeter, on Building 1, and throughout the Property.
   - c. GMC Section 30.34.120.A.2 – to allow the Project to eliminate the minimum landscaped setback area on the Parking Structure's southern, eastern, and northern sides in lieu of the five-foot landscaped setback GMC requirement. Applicant requests to provide landscaping along the perimeter and throughout the Property.

The EIR does not provide any analysis of the deviations and their compatibility with the General Plan or the SGCP. The EIR must be revised to include this analysis and a finding of significance due to the required deviations.

Additionally, the EIR is internally inconsistent. The Land Use and Planning analysis states the project is required to provide 533 parking spaces per the GMC and Appendix E: Traffic Analysis states the project is required to provide 551 parking spaces per the GMC. The EIR must be revised to be internally consistent in order to provide an adequate and accurate environmental analysis.

Response 2-4

The Glendale Zoning Ordinance City implements the City's General Plan. The General Plan designates the Project site as Mixed Use. The Project is zoned IMU (Industrial/Commercial Mixed Use). The purpose of the IMU zone is to allow for a mix of industrial and commercial activities, as well as provide for a full range of services to be located along industrial/commercial thoroughfares. The IMU zone allows for soundstage-production and supporting office uses by right and does not impose an FAR restriction.

Variances from the development standards in the City's zoning ordinance is an administrative relief procedure allowed by State law and the City's municipal code. A variance is a request for relief from the strict application of zoning regulations to alleviate an unusual hardship to a particular property. The approval of a variance does not mean a project is inconsistent with the General Plan or Community Plan.

The Project is requesting the approval of variances due to the Project site's location and condition. These deviations from the IMU zone, and thus the General Plan, are analyzed within the EIR in **Section 4.6, Land Use and Planning**, page 4.6-22. These include a height variance, corner entrance requirement variance, landscaping, tree dispersal and parking exceptions. All variances requested are on the basis that the application of these zoning regulations would result in an unusual hardship.

The South Glendale Community Plan (SGCP) as partially adopted by the City to implement the City's General Plan and provides the basis for establishing and setting priorities for detailed plans and implementing programs, such as the Zoning Ordinance, design overlays, historic districts, Glendale Register nominations, historic resource surveys, development standards, the Capital Improvement Program, facilities plans, and sustainability programs. The SGCP does not include regulatory standards for the Project site. The SGCP designates the Project site as having an Industrial/Creative land use and provides typical characteristics for the Industrial/Creative land use designation; however, it does not provide requirements or development regulations for implementation.

The EIR analysis includes discussion of the SGCP's typical characteristics for the Industrial/Creative land use designation and the Project relative to these characteristics in **Section 4.6, Land Use and Planning**, of the Draft EIR, page 4.6-20. Based on the discussion, there would be no deviation by the Project from the Industrial/Creative land use designation's typical characteristics. Any deviation from these typical characteristics would not result in outright incompatibility between the Project and SGCP.

The Governor's Office of Planning and Research, General Plan Guidelines states, "An action, program or project is consistent with the general plan if, considering all its aspects, it will further the objectives and policies of the general plan and not obstruct their attainment."[12] To be consistent, an action, program, or project must be "in agreement or harmony" with the general plan.[13] The Project would be

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12 Governor's Office of Planning and Research, General Plan Guidelines 164 (2003).

13 Friends of Lagoon Valley, 154 Cal. App. 4th at 817.

consistent with the South Glendale Community Plan as it would conform to the Industrial/Creative land use designation, which is consistent with the General Plan. The IMU zone, which is consistent with the General Plan and the South Glendale Community Plan, allows soundstage-production and supporting office uses by right. The proposed variances do not change the characteristics of the Project that make it consistent with the General Plan. As analyzed by the Draft EIR, the Project is consistent with applicable goals, policies, and related objectives in SCAG's 2020–2045 RTP/SCS, the City's General Plan, South Glendale Community Plan, and the Redevelopment Plan.

The amount of parking included in the project and compliance with the municipal code requirements for parking is a regulatory matter and does not relate to environmental review under CEQA. The Transportation analysis included in Appendix E: Traffic Analysis, dated August 10, 2021, discusses the amount of parking included in the proposed project for information purposes. The plans for the proposed Project have been refined since this study was completed in August 2021 and the project, as currently proposed and described and evaluated in the Draft EIR, includes 533 parking spaces (in both the Parking Garage and the Surface Parking) and 12 loading spaces, which would exceed the required eight loading spaces required by the Glendale Municipal Code (GMC). The Project is required to provide 533 parking spaces per the GMC.

Comment 2-5

The project trip generation estimate grossly underestimates the vehicle trips generated by the proposed project. CEQA Guidelines Section 15125 (a)(1) states that the lead agency shall describe the environmental setting based on existing conditions at the time the Notice of Preparation is published. The NOP for the proposed project was published on September 9, 2022. However, analysis throughout the EIR including Table 3: Project Trip Generation Estimates within Appendix E: Transportation Analysis credits the proposed project with emissions and energy consumption credits for operation of the site at full capacity. The physical conditions that existed at the site on September 9, 2022 are not described or discussed with meaningful supporting evidence in the EIR with regard to vehicle trip generation. Appendix E: Transportation Analysis credits the proposed project based on existing trips at the site utilizing ITE default rates for the project site operating at full capacity. It is not appropriate to model the existing uses at full operational capacity and provide trip generation reduction credits on these rates. Appendix C: Phase 1 ESA states that several of the onsite buildings are not actively utilized in ways that generate vehicle trips, such as video equipment storage (Buildings 2, 4A, 9 and 10), general storage (Buildings 7, 12, and 13), and Building 8 was vacant. The existing conditions of the site generate significantly lower VMT and significantly lower vehicle trips due to the site conditions on September 9, 2022.

Additionally, Table 3: Project Trip Generation Estimates within Appendix E credits the site with 200,000 square feet of operational warehousing vehicle trips. However, Appendix C: Phase 1 ESA provides the square footage of all buildings on the project site, which total to 175,800 square feet. The EIR overestimates the quantity of existing trips generated at the project site in order to artificially reduce the "net new" quantity of trips generated by the proposed project and skew impacts downwards.

The project VMT analysis and project trip generation must be revised to remove any credit given for the existing buildings in order to accurately and adequately analyze the project's significant VMT impacts in accordance with CEQA Section 15064.3 and the City's General Plan LOS requirements.

Further, Table 4: Transportation Impact Analysis Screening- CEQA Analyses within Appendix E: Transportation Analysis concludes that the project is exempt from performing a project-specific VMT analysis due to compliance with the provided checklist. However, the project does not comply with Section 4: High-Quality Transit Area (HQTA) of the checklist. In order to comply with Section 4, all criteria within the section must be met. One of the criteria asks: Does the project contain transit-supportive uses? The checklist marks yes, but no portion of the EIR provides meaningful evidence to support this claim. The EIR must be revised to provide quantified evidence to support the claim that the project contains transit-supportive uses. Additionally, the checklist asks if the project is consistent with the General Plan and marks yes, but does not discuss the required Variances to be approved in order to accommodate the proposed project. The EIR must be revised to include this analysis.

Response 2-5

The Transportation Analysis, dated August 10, 2021, provided in Appendix E of the Draft EIR, considered the existing uses on the Project site in 2021, at the time this analysis was prepared, based on a conservative estimate that the amount of existing building space on the site was 200,000 square feet. The use of the existing buildings on the site changed after August 2021 and the Draft EIR identifies and describes the existing uses on the Project site as of September 2022, the day of the NOP.

An updated trip generation table reflecting the current existing uses on the Project site is provided in **Appendix A** of this Final EIR. The amount of space in the existing buildings has also been verified as 177,712 square feet. The trip generation for the existing entertainment production studio and warehouse uses on the site is:

Existing Site		
Studio Production Office (General Office)		20.000 ksf
Transit/HQTA Reduction [c]	*5%*	
Stage		65.000 ksf
Transit/HQTA Reduction [c]	*5%*	
Studio Support Space		10.000 ksf
Transit/HQTA Reduction [c]	*5%*	
Warehousing [d]		82.712 ksf
Transit/HQTA Reduction [c]	*5%*	

The 200,000 square feet of warehouse use assumed in the August 2021 analysis generated 379 fewer total daily trips, including 6 fewer total trips in AM peak hour and 20 fewer total trips in the PM peak hour than the current 177,712 square feet mix of studio and warehouse uses on the site (see **Appendix A** of

the Final EIR). As such, the August 2021 analysis referenced in the Draft EIR is more conservative than the updated analysis in **Appendix A** of this Final EIR. Therefore, the Draft EIR does not overestimate the total daily trips generated.

This does not change the conclusions of the Draft EIR. The Project meets the VMT exemption screening criteria for a project located in an HQTA, which qualifies the Project for a VMT analysis exemption. Therefore, no further VMT analysis is required, and no significant transportation impact will result from the development of the Project. In accordance with OPR's Technical Advisory on Evaluating Transportation Impacts in CEQA and CEQA Guidelines Section 15064.3, subdivision (b)(1), the City's TIA Guidelines identify residential, office and/or retail uses as transit-supportive uses. The Project would include 164,876 sf of office uses. Further, the screening analysis located within Appendix E: Transportation Analysis, of the Draft EIR, Table 4, only identifies whether or not the Project meets the item on the checklist. The analysis of each checklist item identified within Table 4 is located within Appendix E: Transportation Analysis, on page 7 and within the Draft EIR, **Section 4.8, Transportation**, on page 4.8-25. Both the Appendix E: Transportation Analysis and Draft EIR state:

> The Project would contribute to and support the productivity and use of the nearby transit systems by providing employment near transit and retaining existing sidewalks adjacent to the Project site along San Fernando Road, Milford Street, and California Avenue. The Project also does not propose modifying, removing, or otherwise negatively affecting existing bicycle and pedestrian infrastructure. As described above, the Project would encourage walking, biking and transit usage by providing bicycle parking and pedestrian connections from the Project site to the existing sidewalks along San Fernando Road, Milford Street, and California Avenue. Pedestrian amenities such as street trees would be provided for a safer and more comfortable pedestrian environment. These measures would promote active transportation modes such as biking and walking.

Please refer to **Response 2-4** and **2-8**, for discussion of the proposed zoning variances.

Comment 2-6

The EIR is required to evaluate a reasonable range of alternatives to the proposed project which will avoid or substantially lessen any of the significant effects of the project (CEQA § 15126.6.) The alternatives chosen for analysis include the CEQA required "No Project" alternative and only two others - Commercial Use Alternative and Reduced Intensity Alternative. The EIR does not evaluate a reasonable range of alternatives as only two alternatives beyond the required No Project alternative is analyzed. The EIR must be revised to include analysis of a reasonable range of alternatives and foster informed decision making (CEQA § 15126.6). This includes alternatives such as development of the site with a project that removes all of the proposed project's required variances and exceptions for approval, or a mixed-use project that provides affordable housing and local-serving commercial uses that reduces VMT, GHG emissions, and improves Air Quality.

Response 2-6

CEQA Guidelines Section 15126.6(a) states:

> "*An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.*"

In accordance with CEQA Guidelines Section 15126.6(d), each alternative is evaluated in sufficient detail to determine whether the overall environmental impacts would be less, similar, or greater than the corresponding impacts of the proposed Project. As such, the focus of the evaluation is on those environmental resources for which the proposed Project may have potential impacts. According to the CEQA Guidelines, an EIR need only examine in detail those alternatives that could feasibly meet most of the basic objectives of the Project. The alternatives evaluated in the Draft EIR were selected to meet the requirements of the CEQA Guidelines. The only potentially significant impacts identified for the Project in the Draft EIR are the potential for significant noise effects during construction and the potential for vapor intrusion into the proposed buildings. Measures are identified in the Draft EIR to mitigate these potentially significant impacts to less than significant. After construction is complete, no significant impacts are identified for occupancy and use of the Project.

As determined by CEQA Guidelines Section 15126.6(d), the lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason. The City of Glendale identified several alternatives for analysis in the Draft EIR to determine if these alternatives could avoid or substantially lessen the significant impacts of the Project and meet the basic Project objectives. Alternatives that would reduce the intensity or duration of construction activities would reduce temporary noise impacts during construction. In addition to the No Project Alternative, two additional alternatives were identified that would redevelop the Project site with different building configurations, which would reduce the intensity and duration of construction activities and temporary noise during construction while feasibly meeting most of the following objectives for the Project.

CEQA Guidelines Section 15126.6(e)(2) requires an EIR to identify an environmentally superior alternative among those evaluated in an EIR. The alternatives analyzed in the Draft EIR and analysis of the identified environmentally superior alternative can be found in **Section 5.0, Alternatives,** on page 5.0-18. Of the

alternatives considered in this section, the No Project/No Development Alternative is environmentally superior to the other alternatives because this alternative would avoid the potential significant impacts identified for the Project.

According to the CEQA Guidelines, if the No Project/No Development Alternative is identified as the environmentally superior alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.

Of the other alternatives evaluated, the Commercial Use Alternative would include the development of four-story buildings on the site, as compared to the Project, which would include the development of a six-story building on the site. This change in the configuration of new buildings on the site would reduce the duration of construction and associated temporary noise during construction when compared to the Project, but not to a less than significant level. Temporary noise during construction and the potential for vapor intrusion into future structures are the only potentially significant impacts identified for the Project without mitigation. Measures identified to reduce temporary noise impacts during construction and the installation of a VIMS system would reduce these impacts to less than significant for both the Project and this alternative. Because this alternative would include a greater total amount of development and this development would be for commercial uses, other impacts, such as air quality, greenhouse gas and transportation impacts, would be greater with this alternative than with the Project.

The Reduced Intensity Alternative would incrementally reduce air quality, greenhouse gas and transportation impacts when compared to the proposed Project but would not include the production office space included in the proposed Project. This alternative would also involve less development on the site, which would reduce the duration of construction and associated temporary noise during construction when compared to the Project, but not to a less than significant level. Temporary noise during construction and the potential for vapor intrusion into future structures are the only potentially significant impacts identified for the Project without mitigation. Measures identified to reduce temporary noise impacts during construction and the installation of a VIMS system would reduce these impacts to less than significant for both the Project and this alternative. Because the Reduced Intensity Alternative would reduce some impacts, it is considered the environmentally superior alternative. The Reduced Intensity Alternative would not include the amount of soundstage and production space, or any of the production office space included in the proposed Project and for this reason, would not meet the project objectives to the same degree as the proposed Project. The Reduced Intensity Alternative would not optimize the development potential of a designated industrial mixed-use site and would not consolidate production office, soundstage and other production support uses on a single site. Consolidating these complementary studio uses on a single site will reduce traffic that would be generated if these studio uses are on separate sites.

Comment 2-7

The EIR utilizes uncertain language and does not provide any meaningful analysis or supporting evidence to substantiate the conclusion that there will be no significant impact to population and housing. The

EIR states that "Given the size of the existing construction workforce in Los Angeles County, it is expected that the majority of the temporary construction jobs created by the Project will be filled by local construction workers." The EIR relies upon the entire construction workforce of Los Angeles County to fill the project's construction jobs. The EIR provides no information regarding the local City construction workforce. Relying upon the construction workforce of the entire Los Angeles County area will increase VMT and emissions during all phases of construction and the EIR must be revised to account for longer worker trip distances. For example, Glendale is approximately 65 miles from Lancaster, 35 miles from Castaic, and 33 miles from Long Beach, while the CalEEMod output sheets assumed only 18.5 miles per worker trip during all phases of construction. The EIR must be revised to include a comprehensive construction worker employment analysis to adequately and accurately analyze all potentially significant environmental impacts.

SCAG adopted 2045 growth projections as part of the 2020 RTP/SCS (Connect SoCal) on September 3, 2020. SCAG's Connect SoCal Demographics and Growth Forecast15 notes that Glendale will add 8,900 jobs between 2016 - 2045. Utilizing the EIR's calculation of 1,713 employees, the project represents 19.25% of the City's employment growth from 2016 - 2045. A single project accounting for this amount of the projected employment growth over 29 years represents a significant amount of growth. A revised EIR must be prepared to include this analysis, and also provide a cumulative analysis discussion of projects approved since 2016 and projects in the pipeline" to determine if the project will exceed SCAG s and/or the adopted General Plan employment growth forecast for the City. For example, other recently approved projects such as a 114-bed medical congregate living facility, 137 room hotel, 28 commercial condominiums and other projects approved since 2016 will cumulatively generate additional employees when they are added to the calculation. A revised EIR must be prepared to include a cumulative analysis on this topic in order to provide an adequate and accurate environmental analysis.

The EIR tiers a significant portion of its analysis from the South Glendale Community Plan PEIR. Table 4.12-2: Proposed SGCP Growth Forecasts of SGCP PEIR concludes the SGCP area will result in a buildout of 11,236 employees by 2040, which exceeded the General Plan buildout of 8,140 employees by 2040 and resulted in significant and unavoidable impacts. The proposed project EIR has not demonstrated that the proposed project is within the buildout scenarios of either the SGCP PEIR or the General Plan. The EIR's calculation of 1,713 employees represents 15.2% of the SGCP area employment buildout and 21% of the General Plan employment buildout. A revised EIR must be prepared to demonstrate whether the project exceeds these totals cumulatively with all other projects approved since the time of General Plan adoption and SGCP adoption in order to provide an adequate and accurate environmental analysis.

Response 2-7

As discussed in **Section 6.0, Effects Found Not to be Significant**, of the Draft EIR, 6.10 Population and Housing, page 6.0-12, the proposed Project does not include any residential uses and would not be expected to result in new population growth in the City, as the number of housing units in the city does not change due to the Project. Further, there are approximately 152,083 construction workers within Los

Angeles County,[14] and the Project construction would occur over several phases with the Building Construction Phase having a peak number of 220 construction workers (see Appendix A of the Draft EIR). Given that construction jobs on the site will be temporary, it is reasonable to expect that given the size of the existing construction workforce in Los Angeles County, the majority of the temporary construction jobs created by the Project will be filled by local construction workers. The CalEEMod output sheets assumed 18.5 miles per worker trip during all phases of construction as an average distance for all construction workers on the Project. The 18.5-mile distance is a default assumption provided in CalEEMod, along with 10.2 miles per trip for Vendors and 20 miles for hauling. Based on the user guide, these estimates are based on the 2015 California Statewide Travel Demand Model (CSTDM) and regional travel demand models from local metropolitan planning organizations (MPO) or Regional Transportation Planning Agencies (RTPA), where available. It is speculative to assume that construction workers would only commute from the most outlying areas of the County.

Regarding Project employment, as discussed in **Section 6.0, Effects Found Not to be Significant**, of the Draft EIR, 6.10 Population and Housing, page 6.0-12, SCAG estimates the Arts, Entertainment, and Recreation industry will see a 36.4 percent increase in the number of jobs over the 2016 to 2045 period.[15] The entertainment industry was estimated to employ 367,293 people in Los Angeles County in 2021[16] and, based on the SCAG estimated growth rate, [17] is projected to employ 500,987 people in Los Angeles County in 2045, an increase of 133,694 jobs. During operation, the Project would be able to accommodate approximately 1,713 employees on a daily basis. The current uses on the Project Site support approximately 450 employees on a daily basis. The increase in employment that will result from the proposed Project would be approximately 1,263 net new employees.. The total number of net new employees is approximately 0.94 percent of the projected growth in employment in the entertainment industry in Los Angeles County by 2045.[18]

As proposed, the Project will meet the current demand for entertainment production space in the region and the associated growth in employment opportunities will be consistent with current projections for growth in employment in the entertainment industry in Los Angeles County by 2045. Given these factors

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14 Southern California Association of Governments (SCAG), Los Angeles County 2019 Local Profile, https://scag.ca.gov/datatools-local-profiles, accessed March 2023.

15 Southern California Association of Governments (SCAG). 2020 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). "Demographics and Growth Forecast Technical Report." Table 7. Available at: https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal_demographics-and-growthforecast.pdf?1606001579. Accessed September 2022

16 The Otis College of Art and Design. "2023 Otis College Report on the Creative Economy." Available at: https://www.otis.edu/creative-economy. Accessed March 2023.

17 Southern California Association of Governments (SCAG). 2020 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). "Demographics and Growth Forecast Technical Report." Table 7. Available at: https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal_demographics-and-growthforecast.pdf?1606001579. Accessed September 2022

18 Employee generation factors based on TVC 2050 Project Draft EIR, State Clearing House Number: 2021070014.

there would be no significant impacts to population and housing by the Project, and as such, cumulative impacts to population and housing would be less than significant.

Comment 2-8

The EIR does not discuss or analyze the project's required Variances and Parking Exceptions anywhere in this section. This is misleading to the public and decision makers. The EIR must be revised to include the required Variances and Parking Exceptions for discussion and analysis. The EIR must also include discussion for the precedence setting action that approval of the Variances and Parking Exceptions set for future land use changes in the area.

The EIR must also include a cumulative analysis discussion here to demonstrate the impact of the proposed project in a cumulative setting. The proposed project alone accounts for 19.25% of the City's employment growth from 2016 - 2045 pursuant to SCAG growth forecasts, 15.2% of the SGCP area employment buildout and 21% of the General Plan employment buildout. These totals increase exponentially when other approved projects are added to the calculation, such as a 114- bed medical congregate living facility, 137 room hotel, 28 commercial condominiums. A revised EIR must be prepared to demonstrate whether the project exceeds these totals cumulatively with all other projects approved since the time of General Plan adoption and SGCP adoption in order to provide an adequate and accurate environmental analysis.

Response 2-8

The Draft EIR analyzes the requested variances for the Project in **Section 4.6, Land Use and Planning**, and in **Section 7.1, Growth-Inducing Impacts**. These include a height variance, corner entrance requirement variance, landscaping, tree dispersal and parking exceptions. As discussed, all variances requested are based on a general regulation that would produce a unique hardship due to the location and condition of the Project site. None of the variances requested would create a growth inducing impact as the variances requested would not directly or indirectly foster economic growth, population growth, or the construction of additional housing in the surrounding environment that may result in impacts on the environment.

In general terms, a project may foster spatial, economic, or population growth in a geographic area if it results in the following:

- Remove an impediment to growth (e.g., the establishment of an essential public service or the provision of new access to an area).
- Create economic expansion or growth (e.g., construction of additional housing, changes in revenue base, employment expansion, etc.).
- Involve a precedent-setting action (e.g., an innovation, a change in zoning or general plan designation).
- Develop or encroach into an isolated, or adjacent, undeveloped or open space area.

As discussed in **Section 4.6, Land Use and Planning,** and **Section 7.1, Growth-Inducing Impacts**, in the Draft EIR, variances are permitted by the GMC when the strict application of the provisions of any such ordinance would result in practical difficulties or unnecessary hardship inconsistent with the general purposes and intent of the zoning ordinance. The Project includes a request to allow Building 1 to exceed the height limit in the IMU zone because of the need to maintain the Geosynthetic Clay Cap (GCL), located approximately 6 feet below the ground surface, installed on the site as part of previously completed remediation activities to address soil and water contamination on the site.

Given the condition of the Project site and the nature of studio buildings, there are restrictions as to where office uses can be located. The Project is precluded from excavation under Building 1 because such activity would necessarily penetrate the GCL cap, and as such a height variance is necessary to permit development because of this unique circumstance. Approval of exceptions from the requirement to provide a certain percentage of the required landscaping in surface parking areas, and approval of a variance to provide an entrance to the building at the corner of San Fernando Road and Milford Street, are also requested. The modification of landscaping dispersal requirements cannot induce growth. Approval of a parking exception would allow a small number of the required parking spaces to be compact spaces to accommodate a required fire lane on the site. These actions are not precedent setting, as the GMC allows for this type of relief from applicable development standards when the required findings justify these exceptions.

Further, the proposed Project is located in an established and developed industrial and commercial corridor supported by existing infrastructure located along San Fernando Road at the western edge of the City of Glendale. This corridor is designated for industrial and commercial development by the City's General Plan and Zoning. The proposed Project is an entertainment production studio, which is a use allowed by the existing General Plan and Zoning designations. This use is consistent with the zoning and general plan land use designation for this area. Development of the Project would not require any major improvement or expansion of infrastructure that would remove an impediment to growth in the area around the Project site.

SCAG estimates the Arts, Entertainment, and Recreation industry will see a 36.4 percent increase in the number of jobs over the 2016 to 2045 period.[19] The entertainment industry was estimated to employ 367,293 people in Los Angeles County in 2021.[20] Given the large number of existing employees in the entertainment industry in Los Angeles County, it is not expected the Project will directly or indirectly induce additional growth in entertainment industry employment in Los Angeles County beyond the amount already projected or indirectly result in a substantial increase the demand for housing in the City

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19 Southern California Association of Governments (SCAG). 2020 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). "Demographics and Growth Forecast Technical Report." Table 7. Available at: https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal_demographics-and-growthforecast.pdf?1606001579. Accessed September 2022

20 The Otis College of Art and Design. "2023 Otis College Report on the Creative Economy." Available at: https://www.otis.edu/creative-economy. Accessed March 2023.

of Glendale or surrounding communities. The 1,713 employment opportunities associated with the Project would be consistent with the growth in employment in Glendale as forecast by SCAG.

The project would involve the redevelopment of an existing developed site in an urbanized area. The Project site is surrounded by similar industrial and commercial development in an area planned and zoned for these uses by the City of Glendale. The Project would not involve development of undeveloped or open space areas.

The Project would not result in the removal of an impediment to growth, nor involve the approval of a precedent setting actions that could result in additional growth in the Project site's vicinity. The employment opportunities that would be associated with the Project would be consistent with the SCAG forecasts. In addition, the proposed Project would neither cause growth (i.e., new employment) nor accelerate development in an undeveloped area that exceeds projected/planned levels for the year of Project buildout, as the proposed Project would be consistent with the adopted employment, housing, and population policies of SCAG's 2020-2045 RTP/SCS and the City's General Plan. The potential for the Project to induce additional growth is considered low and the potential for additional environmental impacts to result from additional growth is considered less than significant. As such, cumulative impacts would also be less than significant.

Comment 2-9

For the foregoing reasons, GSEJA believes the EIR is flawed and a revised EIR must be prepared for the proposed project and recirculated for public review. Golden State Environmental Justice Alliance requests to be added to the public interest list regarding any subsequent environmental documents, public notices, public hearings, and notices of determination for this project. Send all communications to Golden State Environmental Justice Alliance P.O. Box 79222 Corona, CA 92877

Response 2-9

Please see the responses to the prior comments. No significant new information, as defined in Section 15088.5 of the CEQA Guidelines has been identified that requires the recirculation of the Draft EIR.

As requested, the Golden State Environmental Justice Alliance will be added to the public interest list regarding any subsequent environmental documents, public notices, public hearings, and notices of determination for the Project.

Comment 2-10

Failure to Provide Complete CalEEMod Output Files

Land use development projects under the California Environmental Quality Act ("CEQA") typically evaluate air quality impacts and calculate potential criteria air pollutant emissions using the California Emissions Estimator Model ("CalEEMod"). CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and

typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but CEQA requires that such changes be justified by substantial evidence. Once all of the values are inputted into the model, the Project's construction and operational emissions are calculated, and "output files" are generated. These output files disclose to the reader what parameters are utilized in calculating the Project's air pollutant emissions and make known which default values are changed as well as provide justification for the values selected. Regarding the evaluation of the criteria air pollutant emissions associated with Project construction and operation, the Draft EIR states:

> "CalEEMod version 2022.1 was used to quantify the Project's air quality pollutants" (p. 4.2-23).

As stated above, the Draft EIR relies on CalEEMod Version 2022.1 to estimate the Project's emissions. However, this poses a problem as the currently available version of CalEEMod 2022.1 is described as a "soft release" which fails to provide complete output files. Specifically, the "User Changes to Default Data" table no longer provides the quantitative counterparts to the changes to the default values (see excerpt below) (Appendix A, pp. 110, 111):

Screen	Justification
Characteristics: Utility Information	Updated CO2 intensity factor per City's 2021 power content label.
Land Use	Provided project-specific square footages.
Construction: Construction Phases	Construction schedule per applicant.
Construction: Architectural Coatings	Consistent with SCAQMD Rule 1113 assumed VOC content of 50 grams per liter for architectural coatings.
Construction: Electricity	Updated CO2 intensity factor per City's 2021 power content label.
Operations: Vehicle Data	Source: Gibson Transportation Consulting, Inc., CEQA Transportation Analysis for 5426 San Fernando Studios, Glendale, California, August 10, 2021.
Operations: Architectural Coatings	Consistent with SCAQMD Rule 1113 assumed VOC content of 50 grams per liter for architectural coatings.
Operations: Energy Use	Assumed all-electric development.

However, previous CalEEMod Versions, such as 2020.4.0, include the specific numeric changes to the model's default values (see example excerpt below):

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	230.00	167.00
tblConstructionPhase	PhaseEndDate	11/22/2023	8/25/2023
tblConstructionPhase	PhaseEndDate	9/27/2023	6/30/2023
tblConstructionPhase	PhaseEndDate	10/25/2023	7/28/2023
tblConstructionPhase	PhaseStartDate	10/26/2023	7/29/2023
tblConstructionPhase	PhaseStartDate	9/28/2023	7/1/2023
tblLandUse	LandUseSquareFeet	160,000.00	160,371.00
tblLandUse	LandUseSquareFeet	119,000.00	41,155.00
tblLandUse	LotAcreage	3.67	3.68
tblLandUse	LotAcreage	2.73	2.74

The output files associated with CalEEMod Version 2022.1 fail to present the exact parameters used to calculate Project emissions. To remedy this issue, the Draft EIR should have provided access to the

model's ".JSON" output files, which allow third parties to review the model's revised input parameters. Without access to the complete output files, including the specific numeric changes to the default values, we cannot verify that the Draft EIR's air modeling and subsequent analysis is an accurate reflection of the proposed Project. As a result, a revised EIR should be prepared to include an updated air quality analysis that correctly provides the complete output files for CalEEMod Version 2022.1 or includes an updated air model using an older release of CalEEMod.

Response 2-10

The comment falsely states the complete CalEEMod output files were not provided with the Draft EIR. As shown in Appendix A of the Draft EIR, both existing and proposed project emission outputs were provided. Experienced users of the model are able to replicate the model based on the inputs that are shown in Appendix A of the Draft EIR. Additionally, as explained below, these outputs are similar to the previous CalEEMod (Version 2020) where the parameters and changes to the default values used to calculate project emissions are detailed and provided.

This comment incorrectly states the currently available version of CalEEMod2022.1 is described as a "soft release" which fails to provide complete output files. Based on email correspondence sent by the Sacramento Metropolitan Air Quality Management District (refer to Attachment A of **Appendix B**, of the Final EIR), the "soft-release" of CalEEMod Version 2022.1 was released on May 2022. The California Air Pollution Control Officers Association (CAPCOA), California Air Districts, and ICF International continued to refine the model and fix bugs discovered by users. CalEEMod Version 2022.1.1.3 was fully released for general use on air quality, greenhouse gas, climate, and equity analyses on December 22, 2022. The CalEEMod output files provided in the Draft EIR are dated January 25, 2023, which shows the fully released model was utilized for the analysis. Additionally, similar to the previous CalEEMod version (Version 2020), Version 2022 does identify the quantitative counterparts to the changes of the default values. More specifically, the changes are shown in the following sections of the CalEEMod Output Files:

- Section 1.3: User-Selected Emission Reduction Measures by Emissions Sector
- Section 5.2: Off-Road Equipment
- Section 5.3: Construction Vehicles
- Section 5.4: Vehicles
- Section 5.5: Architectural Coatings
- Section 5.6: Dust Mitigation
- Section 5.9: Operational Mobile Sources
- Section 8: User Changes to Default Data

The comment incorrectly implies that Section 8 is the lone area from the output files that provides the quantitative counterparts to the changes in default values.

Comment 2-11

Unsubstantiated Input Parameters Used to Estimate Project Emissions

As previously discussed, the Draft EIR relies on CalEEMod Version 2022.1 to estimate the Project's air quality emissions and fails to provide the complete output files required to adequately evaluate model's analysis (p. 4.2-23). Regardless, when reviewing the Project's CalEEMod output files, provided in the Air Quality and Greenhouse Gas Technical Study ("AQ & GHG Study") as Appendix A to the Draft EIR, respectively, we were able to identify several model inputs that are inconsistent with information disclosed in the Draft EIR. As such, the Project's construction and operation emissions are underestimated. A revised EIR should be prepared to include an updated air quality analysis that adequately evaluates the impacts that construction and operation of the Project will have on local and regional air quality.

Unsubstantiated Changes to Individual Construction Phase Lengths

Review of the CalEEMod output files demonstrates that the "San Fernando Studios – Project Custom Report" model includes the following construction schedule (see excerpt below) (Appendix A, pp. 103):

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase
Demolition	Demolition	10/1/2023	11/10/2023	5.00	30.0
Grading	Grading	11/11/2023	2/2/2024	5.00	60.0
Building Construction	Building Construction	2/3/2024	5/3/2025	5.00	325
Paving	Paving	3/3/2025	5/3/2025	5.00	45.0
Architectural Coating	Architectural Coating	2/3/2025	5/3/2025	5.00	65.0

According to the "User Changes to Default Data" table, the justification provided for this schedule is:

> "Construction schedule per applicant." (Appendix A, pp. 110)

Regarding the Project's anticipated construction duration, the Draft EIR states:

> "The Project would be constructed in one development phase lasting approximately 18 months, with full build-out expected to occur in Quarter 2 of 2025. The preliminary construction schedule assumes Quarter 4 of 2023 as the construction start and Quarter 2 2025 as the end of construction" (p. 3.0-36).

Furthermore, the Draft EIR provides the following construction duration (see excerpt below) (p. 3.0-37, Table 3.0-3):

TABLE 3.0-3
CONSTRUCTION SCHEDULE

Activity	Start Date	End Date
Construction	October 2023	April 2025
Demolition	October 2023	November 2023

Grading	November 2023	January 2024
Building Construction	January 2024	April 2025
Site Improvements	January 2025	April 2025

However, the changes to the individual construction phase lengths remain unsubstantiated. While the Draft EIR states that the total length of Project construction would be 18 months, the Draft EIR fails to provide an adequate source for the individual construction phase lengths, as demonstrated in the table above. Until a proper source is provided, the model should have included proportionately altered individual phase lengths to match the proposed construction duration of 18 months.

The construction schedule included in the model presents an issue, as the construction emissions are improperly spread out over a longer period of time for some phases, but not for others. According to the CalEEMod User's Guide, each construction phase is associated with different emissions activities (see excerpt below).

> *Demolition* involves removing buildings or structures.
>
> *Site Preparation* involves clearing vegetation (grubbing and tree/stump removal) and removing stones and other unwanted material or debris prior to grading.
>
> *Grading* involves the cut and fill of land to ensure that the proper base and slope is created for the foundation.
>
> *Building Construction* involves the construction of the foundation, structures and buildings.
>
> *Architectural Coating* involves the application of coatings to both the interior and exterior of buildings or structures, the painting of parking lot or parking garage striping, associated signage and curbs, and the painting of the walls or other components such as stair railings inside parking structures.
>
> *Paving* involves the laying of concrete or asphalt such as in parking lots, roads, driveways, or sidewalks.

By disproportionately altering and extending some of the individual construction phase lengths without proper justification, the model assumes there are a greater number of days to complete the construction activities required by the prolonged phases. As a result, there will be less construction activities required per day and, consequently, less pollutants emitted per day. As shorter construction phases generate higher emissions, we must verify that the Draft EIR did not erroneously overestimate some construction phase lengths to intentionally reduce emissions. Until we are able to verify the revised construction schedule, the model may underestimate the peak daily emissions associated with some phases of construction and should not be relied upon to determine Project significance.

Unsubstantiated Reductions to Architectural and Area Coating Emission Factors

Review of the CalEEMod output files demonstrates that the "San Fernando Studios – Project Custom Report" model includes changes to the default architectural and area coating emission factors (see excerpt below) (AQ & GHG Study, pp. 111).

Screen	Justification
Construction: Architectural Coatings	Consistent with SCAQMD Rule 1113 assumed VOC content of 50 grams per liter for architectural coatings.

As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.6 As demonstrated above, the justification provided for these changes is simply "Consistent with Rule 1113 assumed VOC content of 50 grams per liter for architectural coatings." Furthermore, regarding rules and regulations that would apply to the proposed project, the Draft EIR states:

> "The Project would be required to comply with the following regulations, as applicable:
>
> - SCAQMD Rule 1113, which limits the VOC content of architectural coatings" (p. 4.2-32).

However, these reductions remain unsubstantiated as we cannot verify the accuracy of the revised architectural coating emission factors based on SCAQMD Rule 1113 alone. The SCAQMD Rule 1113 Table of Standards provides the required VOC limits (grams of VOC per liter of coating) for 57 different coating categories.7 The VOC limits for each coating vary from a minimum value of 50 g/L to a maximum value of 730 g/L. As such, we cannot verify that SCAQMD Rule 1113 substantiates reductions to the default coating values without more information regarding what category of coating will be used. As the Draft EIR and associated documents fail to explicitly require the use of a specific type of coating which would adhere to a specific VOC limit, we are unable to verify the model's revised emission factors.

These unsubstantiated reductions present an issue, as CalEEMod uses the architectural coating emission factors to calculate the Project's reactive organic gas/volatile organic compound ("ROG"/"VOC") emissions.8 By including unsubstantiated reductions to the default architectural coating emission factors, the model may underestimate the Project's construction-related ROG/VOC emissions and should not be relied upon to determine Project significance.

Unsubstantiated Changes to Energy Use Values

Review of the CalEEMod output files demonstrates that the "San Fernando Studios – Project Custom Report" model includes changes to the default natural gas energy use values (see excerpt below) (Appendix A, pp. 110).

Screen	Justification
Characteristics: Utility Information	Updated CO2 intensity factor per City's 2021 power content label.
Land Use	Provided project-specific square footages.
Construction: Construction Phases	Construction schedule per applicant.
Construction: Architectural Coatings	Consistent with SCAQMD Rule 1113 assumed VOC content of 50 grams per liter for architectural coatings.
Construction: Electricity	Updated CO2 intensity factor per City's 2021 power content label.
Operations: Vehicle Data	Source: Gibson Transportation Consulting, Inc., CEQA Transportation Analysis for 5425 San Fernando Studios, Glendale, California, August 10, 2021.
Operations: Architectural Coatings	Consistent with SCAQMD Rule 1113 assumed VOC content of 50 grams per liter for architectural coatings.
Operations: Energy Use	Assumed all-electric development.

As demonstrated in the table above, the justification provided for these changes is "Assumed all-electric development." Furthermore, the energy use table includes no natural gas whatsoever (see excerpt below):

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
General Office Building	4,490,060	489	0.0330	0.0040	0.00
General Heavy Industry	5,548,753	489	0.0330	0.0040	0.00
Enclosed Parking with Elevator	618,684	489	0.0330	0.0040	0.00
Parking Lot	39,151	489	0.0330	0.0040	0.00

However, these changes remain unsubstantiated as the Draft EIR and associated documents fail to discuss the use of natural gas or all-electric development whatsoever. Until further clarification is provided in an EIR, the assumption that the Project would not require the use of natural gas is unsupported.

These unsubstantiated reductions present an issue, as the energy use values are used by CalEEMod to calculate the Project's emissions associated with building electricity and natural gas usage. 9 By assuming that the Project would not rely on any natural gas utilities, the model may underestimate the Project's operational emissions and should not be relied upon to determine Project significance.

Response 2-11

This comment incorrectly implies that the changes to individual construction phase lengths remain unsubstantiated. As detailed in the Draft EIR and the CalEEMod output files, construction information was provided by the Applicant including a haul route map to Scholl Canyon Landfill, which is the nearest landfill to the Project site, earthwork summary based on the project plans and information on the construction schedule based on the characteristics of Project as planned. Therefore, the assumptions in the model were not disproportionately altered to intentionally reduce emissions but instead, were revised to reflect actual construction schedules by phase based on the specific information reflecting the characteristics of the Project as proposed.

The construction duration and schedule in the Draft EIR has been revised to reflect the correct CalEEMod output of May 2025, see **Section 2.0** of this Final EIR.

Other changes include assuming consistency with SCAQMD Rule 1113: Architectural Coating. The comment suggests the VOC limits for each coating varies from a minimum value of 50 g/L to a maximum value of

730 g/L and the analysis does not verify that SCAQMD Rule 1113 substantiates reductions. A revised CalEEMod run was conducted that does not include any changes to the default assumptions related to VOC content (refer to Attachment B of **Appendix B**, of this Final EIR). As shown below, even without any changes to VOC content of 50 g/L, emissions below the South Coast Air Quality Management District (SCAQMD) significance threshold of 75 pounds per day.

Year	ROG
Daily - Summer (Max)	—
2024	2.28
2025	61.8
Daily - Winter (Max)	—
2023	5.25
2024	2.26
2025	61.8

This comment also states the Draft EIR "assumed all-electric development" regarding changes in energy use values and changes to natural gas values was not substantiated and the assumption that the Project would not require the use of natural gas is unsupported. The City adopted Ordinance No. 5999, also referred to as the City's "Reach Codes," on November 15, 2022 to electrify newly constructed buildings, increase local solar generation, and increase electric vehicle (EV) charging.[21] These ordinances require that all new homes and businesses built in Glendale after January 1, 2023, be all-electric, with increased capacity to generate local solar power and increased availability of EV charging infrastructure. This Project will be required to be all electric and not use natural gas by these ordinances.

A revised CalEEMod run was completed that does not include any changes to the default assumptions related to energy and natural gas use (refer to Attachment B of **Appendix B**, of this Final EIR). As shown below, operational emissions related to ROG, NOX, CO, SO2, PM10 and PM2.5 would still result in levels below the significance threshold. Therefore, the table further disproves the assertion in this comment that the analysis in the Draft EIR underestimates the Project operational emissions as the default assumptions would still result in less than significant impacts related to operation.

21 City of Glendale, Ordinance No. 5999, November 15, 2022.

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Mobile	12.2	11.1	8.58	99.6	0.24	0.15	8.64	8.79	0.14	1.54	1.68
Area	4.44	13.8	0.21	25.0	< 0.005	0.03	—	0.03	0.04	—	0.04
Energy	0.24	0.12	2.21	1.86	0.01	0.17	—	0.17	0.17	—	0.17
Water	—	—	—	—	—	—	—	—	—	—	—
Waste	—	—	—	—	—	—	—	—	—	—	—
Refrig.	—	—	—	—	—	—	—	—	—	—	—
Total	16.9	25.0	11.0	126	0.25	0.35	8.64	8.99	0.35	1.54	1.89

Comment 2-12

Diesel Particulate Matter Emissions Inadequately Evaluated

The Draft EIR concludes that the Project would have a less-than-significant health risk impact without conducting a quantified construction or operational health risk analysis ("HRA") (p. 31 – 32). Regarding the health risk impacts associated with the Project construction, the Draft EIR states:

> "Project construction would result in short-term emissions of diesel particulate matter, which is a TAC. Off-road heavy-duty diesel equipment would emit diesel particulate matter over the course of the construction period. As mentioned previously, the Project is adjacent to residential uses. Localized diesel particulate emissions (strongly correlated with PM2.5 emissions) would be minimal and would be substantially below localized thresholds, as shown in Table 4.2-11. Project compliance with the CARB anti-idling measure, which limits idling to no more than 5 minutes at any location for diesel-fueled commercial vehicles, would further minimize diesel particulate matter emissions in the Project area" (p. 4.2-35).

Regarding the health risk impacts associated with the Project operation, the Draft EIR states:

> "Project operations would generate only minor amounts of diesel emissions from delivery trucks and incidental maintenance activities. Trucks would comply with the applicable provisions of the CARB Truck and Bus regulation to minimize and reduce emission from existing diesel trucks. In addition, Project operations would only result in minimal emissions of air toxics from maintenance or other ongoing activities, such as from the use of architectural coatings or household cleaning products. As a result, toxic or carcinogenic air pollutants are not expected to occur in any meaningful amounts in conjunction with operation of the proposed uses within the Project site. Based on the uses expected on the Project site, potential long-term operational

> impacts associated with the release of TACs would be minimal and would not be expected to exceed the SCAQMD thresholds of significance" (p. 4.2-35).

However, the Draft EIR's evaluation of the Project's potential health risk impacts, as well as the subsequent less-than-significant impact conclusion, is unreliable for three reasons.

First, by failing to prepare a quantified construction and operational HRA, the Project is inconsistent with CEQA's requirement to make "a reasonable effort to substantively connect a project's air quality impacts to likely health consequences." This poses a problem, as according to the DIER, construction of the Project would produce DPM emissions through the exhaust stacks of construction equipment over a duration of over 18 months (p. 3.0-36). However, the Draft EIR fails to evaluate the TAC emissions associated with Project construction and operation or indicate the concentrations at which such pollutants would trigger adverse health effects. Without making a reasonable effort to connect the Project's TAC emissions to the potential health risks posed to nearby receptors, the Draft EIR is inconsistent with CEQA's requirement to correlate Project-generated emissions with potential adverse impacts on human health.

Second, the Office of Environmental Health Hazard Assessment ("OEHHA"), the organization responsible for providing guidance on conducting HRAs in California, released its most recent *Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments* in February 2015. This guidance document describes the types of projects that warrant the preparation of an HRA. Specifically, OEHHA recommends that all short-term projects lasting at least 2 months assess cancer risks. Furthermore, according to OEHHA:

> "Exposure from projects lasting more than 6 months should be evaluated for the duration of the project. In all cases, for assessing risk to residential receptors, the exposure should be assumed to start in the third trimester to allow for the use of the ASFs (OEHHA, 2009)."

As the Project's anticipated construction duration exceeds the 2-month and 6-month requirements set forth by OEHHA, construction of the Project meets the threshold warranting a quantified HRA under OEHHA guidance and should be evaluated for the entire 18-month construction period. Furthermore, OEHHA recommends that an exposure duration of 30 years should be used to estimate the individual cancer risk at the maximally exposed individual resident ("MEIR"). While the Draft EIR fails to provide the expected lifetime of the proposed Project, we can reasonably assume that the Project would operate for at least 30 years, if not more. Therefore, operation of the Project also exceeds the 2-month and 6-month requirements set forth by OEHHA and should be evaluated for the entire 30-year residential exposure duration, as indicated by OEHHA guidance. These recommendations reflect the most recent state health risk policies, and as such, a revised EIR should be prepared to include an analysis of health risk impacts posed to nearby sensitive receptors from Project-generated DPM emissions.

Third, by claiming a less-than-significant impact without conducting a quantified construction or operational HRA for nearby, existing sensitive receptors, the Draft EIR fails to compare the Project's

excess cancer risk to the SCAQMD's specific numeric threshold of 10 in one million. In accordance with the most relevant guidance, an assessment of the health risk posed to nearby, existing receptors as a result of Project construction and operation should be conducted.

Response 2-12

This comment incorrectly assumes that the Draft EIR should have included a quantified construction and operational Health Risk Assessment (HRA) to identify and disclose potential health risks. The City of Glendale relies on guidance from the SCAQMD for preparation of CEQA air quality analyses. SCAQMD shares responsibility with the California Air Resources Board (CARB) for ensuring that all state and federal ambient air quality standards are achieved and maintained throughout all of Los Angeles County. Although SCAQMD is responsible for regional air quality planning efforts, it does not have the authority to directly regulate air quality issues associated with new development projects within the Air Basin, such as the Project. Instead, SCAQMD published the CEQA *Air Quality Handbook* in November 1993 to assist lead agencies, as well as consultants, project proponents, and other interested parties, in evaluating potential air quality impacts of projects proposed in the Air Basin. The CEQA *Air Quality Handbook* provides standards, methodologies, and procedures for conducting air quality analyses in EIRs and was used extensively in the preparation of the air quality analysis in the Draft EIR. The SCAQMD CEQA Handbook does not recommend analysis of toxic air contaminants (TACs) generated by short-term construction activities. The rational for not requiring a health risk assessment for construction activities is the limited duration of exposure to any short-term emissions generated during construction. According to SCAQMD methodology, health effects from carcinogenic air toxics are identified and considered in terms of individual cancer risk. Specifically, "Individual Cancer Risk" is the likelihood that a person continuously exposed to concentrations of toxic air contaminants (TACs) over a 70-year lifetime will contract cancer based on the use of standard risk assessment methodology. Given that the greatest potential for diesel particulate emissions would only occur during demolition (1 month) and excavation/grading activities (2 months) and other construction activities (15 months) during the overall construction schedule would result in reduced use of heavy-duty diesel construction equipment in comparison to demolition and excavation/grading activities, the Project would not result in a long-term (i.e., 70 year) source of TAC emissions. No residual TAC emissions and corresponding individual cancer risk are anticipated after construction. Because there is such a short-term exposure period (18 out of 840 months of a 70-year lifetime), further evaluation of construction TAC emissions within the Draft EIR is not warranted. Additionally, consistent with SCAQMD LST Methodology guidance, a construction HRA analysis is not required if project-related emissions do not exceed the LSTs. As shown in the Draft EIR, localized construction emissions would not exceed the screening thresholds. As such, the Draft EIR correctly concluded the potential for TAC impacts during construction is less than significant and a construction HRA is not required.

SCAQMD has not developed any recommendations on use of the OEHHA Guidance Manual for CEQA analyses of potential construction impacts nor has the City adopted the OEHHA Guidance Manual or incorporated it into the City's CEQA thresholds or methodologies. The OEHHA guidance refers to emissions

associated with facilities such as truck stops and distribution centers that feature long-term presence of diesel emission sources. The Project would not consist of this or any other land use type that would emit substantial diesel particulate matter over long periods of time. As such, no cancer risk assessment is required for the Project under the SCAQMD guidance. In addition, as discussed above, consistent with SCAQMD LST Methodology guidance, a construction HRA analysis is not required if project-related emissions do not exceed the LSTs. As shown in the Draft EIR, localized construction emissions would not exceed the screening thresholds and, for this reason, a construction HRA is not required.

From an operational standpoint, the Draft EIR correctly identified that the primary sources of potential air toxics associated with Project operations including diesel particulate matter from delivery trucks (e.g., truck traffic on local streets and idling on adjacent streets). However, these activities and the land uses associated with the Project would not generate substantial TAC emissions based on review of the air toxic sources listed in applicable SCAQMD and CARB guidelines. The commenter is referred to SCAQMD guidance below that provides clarification as to when an HRA may be warranted.

SCAQMD published and adopted the *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning* on May 6, 2005, which provides recommendations regarding the siting of new sensitive land uses near potential sources of air toxic emissions (e.g., freeways, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and gasoline dispensing facilities).[22] SCAQMD recommends that HRAs be conducted for substantial sources of DPM (e.g., truck stops and warehouse distribution facilities that generate more than 100 trucks per day or more than 40 trucks with operating transport refrigeration units).

The Project proposes to construct studio, production office, sound stages and studio support space and would not include a truck stop or warehouse distribution facilities. Based on SCAQMD guidance, there is no quantitative analysis required for the potential effect on future cancer risks within the Project area as the Project is consistent with the recommendations regarding the siting of new sensitive land uses near potential sources of TAC emissions provided in the SCAQMD *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*. Specifically, the Project is not considered to be a substantial source of diesel particulate matter warranting a refined HRA since the Project would not include truck stops and warehouse distribution facilities and would not include a residential development creating new sensitive uses. Based on this information, the Draft EIR correctly concluded that an operational HRA was not warranted.

Comment 2-13

Screening-Level Analysis Demonstrates Potentially Significant Health Risk Impact.

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22 SCAQMD, *Guidance Document for Addressing Air Quality Issues in General Plan and Local Planning,* May 6, 2005.

In order to conduct our screening-level risk assessment we relied upon AERSCREEN, which is a screening level air quality dispersion model.15 The model replaced SCREEN3, and AERSCREEN is included in the OEHHA and the California Air Pollution Control Officers Associated ("CAPCOA") guidance as the appropriate air dispersion model for Level 2 health risk screening assessments ("HRSAs"). 16, 17 A Level 2 HRSA utilizes a limited amount of site-specific information to generate maximum reasonable downwind concentrations of air contaminants to which nearby sensitive receptors may be exposed. If an unacceptable air quality hazard is determined to be possible using AERSCREEN, a more refined modeling approach should be conducted prior to approval of the Project.

We prepared a preliminary HRA of the Project's construction and operational health risk impact to residential sensitive receptors using the annual PM10 exhaust estimates from the IS/MND's CalEEMod output files. Consistent with recommendations set forth by OEHHA, we assumed residential exposure begins during the third trimester stage of life.18 The IS/MND's CalEEMod model indicates that construction activities will generate approximately 181 pounds of DPM over the 580-day construction period.19 The AERSCREEN model relies on a continuous average emission rate to simulate maximum downward concentrations from point, area, and volume emission sources. To account for the variability in equipment usage and truck trips over Project construction, we calculated an average DPM emission rate by the following equation:

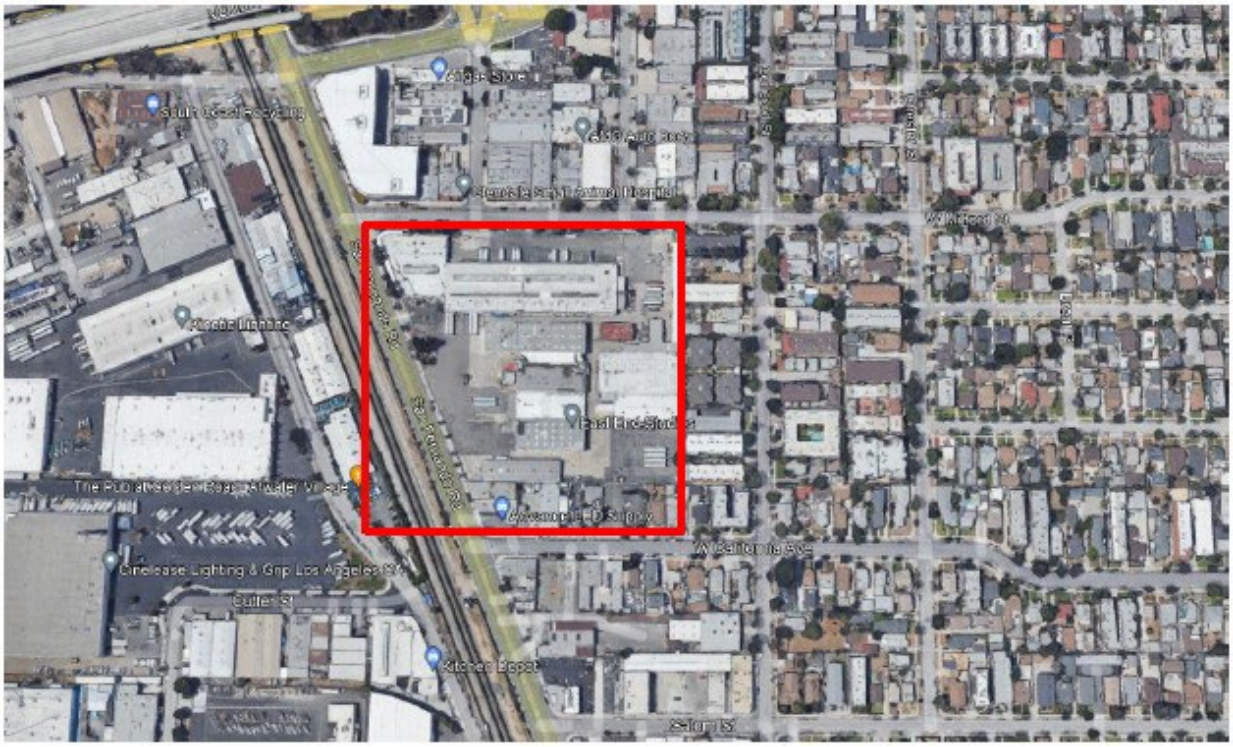
$$Emission\ Rate\ \left(\frac{grams}{second}\right) = \frac{180.6\ lbs}{580\ days} \times \frac{453.6\ grams}{lbs} \times \frac{1\ day}{24\ hours} \times \frac{1\ hour}{3{,}600\ seconds} = \mathbf{0.00163\ g/s}$$

Using this equation, we estimated a construction emission rate of 0.00163 grams per second ("g/s"). Subtracting the 580-day construction period from the total residential duration of 30 years, we assumed that after Project construction, the sensitive receptor would be exposed to the Project's operational DPM for an additional 28.4 years. The IS/MND's operational CalEEMod emissions indicate that operational activities will generate approximately 20 pounds of DPM per year throughout operation. Applying the same equation used to estimate the construction DPM rate, we estimated the following emission rate for Project operation:

$$Emission\ Rate\ \left(\frac{grams}{second}\right) = \frac{20.0\ lbs}{365\ days} \times \frac{453.6\ grams}{lbs} \times \frac{1\ day}{24\ hours} \times \frac{1\ hour}{3{,}600\ seconds} = \mathbf{0.000288\ g/s}$$

Using this equation, we estimated an operational emission rate of 0.000288 g/s. Construction and operation were simulated as a 28.4-acre rectangular area source in AERSCREEN, with approximate dimensions of 281- by 140-meters. A release height of three meters was selected to represent the height of stacks of operational equipment and other heavy-duty vehicles, and an initial vertical dimension of one and a half meters was used to simulate instantaneous plume dispersion upon release. An urban meteorological setting was selected with model-default inputs for wind speed and direction distribution. The population of Glendale was obtained from U.S. 2020 Census data.

The AERSCREEN model generates maximum reasonable estimates of single-hour DPM concentrations from the Project Site. The United States Environmental Protection Agency ("U.S. EPA") suggests that the annualized average concentration of an air pollutant be estimated by multiplying the single-hour concentration by 10% in screening procedures.21 According to Google Earth, the nearest sensitive receptors are residential uses located immediately adjacent to the Project site (see excerpt below).



However, according to the AERSCREEN output files, the MEIR is located approximately 150 meters downwind of the Project site. Thus, the single-hour concentration estimated by AERSCREEN for Project construction is approximately 1.599 µg/m3 DPM at approximately 150 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 0.1599 µg/m3 for Project construction at the MEIR. For Project operation, the single-hour concentration estimated by AERSCREEN is 0.2813 µg/m3 DPM at approximately 50 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 0.02813 µg/m3 for Project operation at the MEIR.

We calculated the excess cancer risk to the MEIR using applicable HRA methodologies prescribed by OEHHA, as recommended by SCAQMD.23 Specifically, guidance from OEHHA and CARB recommends the use of a standard point estimate approach, including high-point estimate (i.e. 95th percentile) breathing rates and age sensitivity factors ("ASF") in order to account for the increased sensitivity to carcinogens during early-in-life exposure and accurately assess risk for susceptible subpopulations such as children. The residential exposure parameters utilized for the various age groups in our screening-level HRA are as follows:

Exposure Assumptions for Residential Individual Cancer Risk

Age Group	Breathing Rate (L/kg-day)[24]	Age Sensitivity Factor[25]	Exposure Duration (years)	Fraction of Time at Home[26]	Exposure Frequency (days/year)[27]	Exposure Time (hours/day)
3rd Trimester	361	10	0.25	1	350	24
Infant (0 - 2)	1090	10	2	1	350	24
Child (2 - 16)	572	3	14	1	350	24
Adult (16 - 30)	261	1	14	0.73	350	24

For the inhalation pathway, the procedure requires the incorporation of several discrete variates to effectively quantify dose for each age group. Once determined, contaminant dose is multiplied by the cancer potency factor ("CPF") in units of inverse dose expressed in milligrams per kilogram per day (mg/kg/day-1) to derive the cancer risk estimate. Therefore, to assess exposures, we utilized the following dose algorithm:

$$Dose_{AIR,per\ age\ group} = C_{air} \times EF \times \left[\frac{BR}{BW}\right] \times A \times CF$$

where:

$Dose_{AIR}$ = dose by inhalation (mg/kg/day), per age group
C_{air} = concentration of contaminant in air (µg/m3)
EF = exposure frequency (number of days/365 days) BR/BW = daily breathing rate normalized to body weight (L/kg/day)
A = inhalation absorption factor (default = 1)
CF = conversion factor (1x10-6, µg to mg, L to m3)

To calculate the overall cancer risk, we used the following equation for each appropriate age group:

$$Cancer\ Risk_{AIR} = Dose_{AIR} \times CPF \times ASF \times FAH \times \frac{ED}{AT}$$

where:

$Dose_{AIR}$ = dose by inhalation (mg/kg/day), per age group
CPF = cancer potency factor, chemical-specific (mg/kg/day)-1

ASF = age sensitivity factor, per age group
FAH = fraction of time at home, per age group (for residential receptors only)
ED = exposure duration (years)
AT = averaging time period over which exposure duration is averaged (always 70 years)

Consistent with the 580-day construction schedule, the annualized average concentration for construction was used for the entire third trimester of pregnancy (0.25 years) and the first 1.34 years of the infantile stage of life (0 – 2 years). The annualized average concentration for operation was used for the remainder of the 30-year exposure period, which makes up the latter 0.66 years of the infantile stage of life, as well as the entire child stage of life (2 – 16 years) and the entire adult (16 – 30 years) stage of life. The results of our calculations are shown in the table below.

The Maximally Exposed Individual at an Existing Residential Receptor

Age Group	Emissions Source	Duration (years)	Concentration (ug/m3)	Cancer Risk
3rd Trimester	Construction	0.25	0.1599	2.17E-06
	Construction	*1.34*	*0.1599*	*3.52E-05*
	Operation	*0.66*	*0.2813*	*3.05E-05*
Infant (0 - 2)	Total	2		6.57E-05
Child (2 - 16)	Operation	14	0.2813	1.02E-04
Adult (16 - 30)	Operation	14	0.2813	1.13E-05
Lifetime		**30**		**1.81E-04**

As demonstrated in the table above, the excess cancer risks for the 3rd trimester of pregnancy, infants, children, and adults at the MEIR located approximately 150 meters away, over the course of Project construction and operation, are approximately 2.17, 65.7, 102, and 11.3 in one million, respectively. The excess cancer risk over the course of a residential lifetime (30 years) is approximately 181 in one million, which exceeds the SCAQMD threshold of 10 in one million and thus results in a potentially significant impact not previously addressed or identified by the IS/MND.

Our analysis represents a screening-level HRA, which is known to be conservative and tends to err on the side of health protection. The purpose of the screening-level HRA is to demonstrate the potential link between Project-generated emissions and adverse health risk impacts. According to the U.S. EPA:

> "EPA's Exposure Assessment Guidelines recommend completing exposure assessments iteratively using a tiered approach to 'strike a balance between the costs of adding detail and refinement to an assessment and the benefits associated with that additional refinement' (U.S. EPA, 1992).
>
> In other words, an assessment using basic tools (e.g., simple exposure calculations, default values, rules of thumb, conservative assumptions) can be conducted as the first phase (or tier) of the overall assessment (i.e., a screening-level assessment).
>
> The exposure assessor or risk manager can then determine whether the results of the screening level assessment warrant further evaluation through refinements of the input data and exposure assumptions or by using more advanced models."

As demonstrated above, screening-level analyses warrant further evaluation in a refined modeling approach. As our screening-level HRA demonstrates that construction and operation of the Project could result in a potentially significant health risk impact, a revised EIR should be prepared to include a refined health risk analysis which adequately and accurately evaluates health risk impacts associated with both Project construction and operation. If the refined analysis similarly concludes that the Project would result in a significant health risk impact, then mitigation measures should be incorporated, as described below in the "Feasible Mitigation Measures Available to Reduce Emissions" section.

Response 2-13

Please see **Response to Comment 2-12** for information on why preparation of a construction and operational HRA was not warranted for the Draft EIR.

The HRA provided with this comment used a screening model, AERSCREEN, to evaluate health risks impacts from diesel emissions during construction of the proposed project. As a screening model, AERSCREEN overestimates impacts with the general understanding that if AERSCREEN does not show impacts, then impacts would also not occur if a more detailed analysis were conducted using a more refined model. Additionally, the screening level analysis provided in the comment was not completed in accordance with requirements included in SCAQMD's LST methodology and OEHHA guidance; it did not account for: (1) site-specific conditions; (2) use of a refined dispersion model; and (3) use of SCAQMD mandated meteorological data from the closest/most representative meteorological data from the closest most representative monitoring site within the Project area. If the screening analysis provided with this comment accounted for this guidance and data, the results would be substantially less than what is reported.

Furthermore, the City follows South Coast Air Quality Management District (SCAQMD) guidance for air quality analysis and relies on SCAQMD thresholds. The SCAQMD CEQA guidelines for evaluating construction impacts do not require the preparation of an HRA to evaluate construction impacts. For construction, SCAQMD provides daily mass emissions thresholds and localized significance thresholds. As detailed in the Draft EIR, a localized significance threshold (LST) analysis was conducted based on the

SCAQMD Final Localized Significance Threshold Methodology (LST Methodology)[23] guidance document for short-duration construction activities and long-term operational activities. Lead agencies may use the LST mass rate look-up tables as a screening analysis. If the project exceeds any applicable LST when the mass rate look-up tables are used as a screening analysis, then project specific air quality modeling may be performed. As shown in Table 4.2-11 of the Draft EIR, emissions would not exceed the SCAQMD localized significance construction and operational thresholds. Therefore, the initial screening analysis would not warrant additional specific air quality modeling or preparation of an HRA. The City determined the Project would have a less than significant impact based on conducting LST analysis as recommended by SCAQMD.

Comment 2-14

Feasible Mitigation Measures Available to Reduce Emissions

Our analysis demonstrates that the Project would result in potentially significant health risk impacts that should be mitigated further. In an effort to reduce the Project's emissions, we identified several feasible mitigation measures from SCAG's 2020 RTP/SCS PEIR's Air Quality Project Level Mitigation Measures ("PMM-AQ-1") report. To reduce the Project's emissions, consideration of the following measures should be made:

SCAG RTP/SCS 2020-2045
Air Quality Project Level Mitigation Measures – PMM-AQ-1: In accordance with provisions of sections 15091(a)(2) and 15126.4(a)(1)(B) of the *State CEQA Guidelines*, a Lead Agency for a project can and should consider mitigation measures to reduce substantial adverse effects related to violating air quality standards. Such measures may include the following or other comparable measures identified by the Lead Agency:
a) Minimize land disturbance.

23 SCAQMD, "Final Localized Significance Threshold (LST) Methodology," http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/localized-significance-thresholds. Accessed May 2023.

b) Suspend grading and earth moving when wind gusts exceed 25 miles per hour unless the soil is wet enough to prevent dust plumes.
c) Cover trucks when hauling dirt.
d) Stabilize the surface of dirt piles if not removed immediately.
e) Limit vehicular paths on unpaved surfaces and stabilize any temporary roads.
f) Minimize unnecessary vehicular and machinery activities.
g) Sweep paved streets at least once per day where there is evidence of dirt that has been carried on to the roadway.
h) Revegetate disturbed land, including vehicular paths created during construction to avoid future off-road vehicular activities.
j) Require contractors to assemble a comprehensive inventory list (i.e., make, model, engine year, horsepower, emission rates) of all heavy-duty off-road (portable and mobile) equipment (50 horsepower and greater) that could be used an aggregate of 40 or more hours for the construction project. Prepare a plan for approval by the applicable air district demonstrating achievement of the applicable percent reduction for a CARB-approved fleet.
k) Ensure that all construction equipment is properly tuned and maintained.
l) Minimize idling time to 5 minutes—saves fuel and reduces emissions.
m) Provide an operational water truck on-site at all times. Use watering trucks to minimize dust; watering should be sufficient to confine dust plumes to the project work areas. Sweep paved streets at least once per day where there is evidence of dirt that has been carried on to the roadway.
n) Utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary power generators.
o) Develop a traffic plan to minimize traffic flow interference from construction activities. The plan may include advance public notice of routing, use of public transportation, and satellite parking areas with a shuttle service. Schedule operations affecting traffic for off-peak hours. Minimize obstruction of through-traffic lanes. Provide a flag person to guide traffic properly and ensure safety at construction sites.
p) As appropriate require that portable engines and portable engine-driven equipment units used at the project work site, with the exception of on-road and off-road motor vehicles, obtain CARB Portable Equipment Registration with the state or a local district permit. Arrange appropriate consultations with the CARB or the District to determine registration and permitting requirements prior to equipment operation at the site.
q) Require projects within 500 feet of residences, hospitals, or schools to use Tier 4 equipment for all engines above 50 horsepower (hp) unless the individual project can demonstrate that Tier 4 engines would not be required to mitigate emissions below significance thresholds.
r) Projects located within the South Coast Air Basin should consider applying for South Coast AQMD "SOON" funds which provides funds to applicable fleets for the purchase of commercially available low-emission heavy-duty engines to achieve near-term reduction of NOx emissions from in-use off-road diesel vehicles.
s) Projects located within AB 617 communities should review the applicable Community Emissions Reduction Plan (CERP) for additional mitigation that can be applied to individual projects.
t) Where applicable, projects should provide information about air quality related programs to schools, including the Environmental Justice Community Partnerships (EJCP), Clean Air Ranger Education (CARE), and Why Air Quality Matters programs.
u) Projects should work with local cities and counties to install adequate signage that prohibits truck idling in certain locations (e.g., near schools and sensitive receptors).
v) As applicable for airport projects, the following measures should be considered...
w) As applicable for port projects, the following measures should be considered: - Develop specific timelines for transitioning to zero emission cargo handling equipment (CHE) - Develop interim performance standards with a minimum amount of CHE replacement each year to ensure adequate progress.

- Use short side electric power for ships, which may include tugboats and other ocean-going vessels or develop incentives to gradually ramp up the usage of shore power.
- Install the appropriate infrastructure to provide shore power to operate the ships. Electrical hookups should be appropriately sized.
- Maximize participation in the Port of Los Angeles' Vessel Speed Reduction Program or the Port of Long Beach's Green Flag Initiation Program in order to reduce the speed of vessel transiting within 40 nautical miles of Point Fermin.
- Encourage the participation in the Green Ship Incentives.
- Offer incentives to encourage the use of on-dock rail.

aa) Consult the SCAG Environmental Justice Toolbox for potential measures to address impacts to low-income and/or minority communities.

bb) The following criteria related to diesel emissions shall be implemented on by individual project sponsors as appropriate and feasible:

- Diesel nonroad vehicles on site for more than 10 total days shall have either (1) engines that meet EPA on road emissions standards or (2) emission control technology verified by EPA or CARB to reduce PM emissions by a minimum of 85%
- Diesel generators on site for more than 10 total days shall be equipped with emission control technology verified by EPA or CARB to reduce PM emissions by a minimum of 85%.
- Nonroad diesel engines on site shall be Tier 2 or higher.
- Diesel nonroad construction equipment on site for more than 10 total days shall have either (1) engines meeting EPA Tier 4 nonroad emissions standards or (2) emission control technology verified by EPA or CARB for use with nonroad engines to reduce PM emissions by a minimum of 85% for engines for 50 hp and greater and by a minimum of 20% for engines less than 50 hp.
- Emission control technology shall be operated, maintained, and serviced as recommended by the emission control technology manufacturer.
- Diesel vehicles, construction equipment, and generators on site shall be fueled with ultra-low sulfur diesel fuel (ULSD) or a biodiesel blend approved by the original engine manufacturer with sulfur content of 15 ppm or less.
- The construction contractor shall maintain a list of all diesel vehicles, construction equipment, and generators to be used on site. The list shall include the following:
    i. Contractor and subcontractor name and address, plus contact person responsible for the vehicles or equipment.
    ii. Equipment type, equipment manufacturer, equipment serial number, engine manufacturer, engine model year, engine certification (Tier rating), horsepower, engine serial number, and expected fuel usage and hours of operation.
    iii. For the emission control technology installed: technology type, serial number, make, model, manufacturer, EPA/CARB verification number/level, and installation date and hour-meter reading on installation date.
- The contractor shall establish generator sites and truck-staging zones for vehicles waiting to load or unload material on site. Such zones shall be located where diesel emissions have the least impact on abutters, the general public, and especially sensitive receptors such as hospitals, schools, daycare facilities, elderly housing, and convalescent facilities.
- The contractor shall maintain a monthly report that, for each on road diesel vehicle, nonroad construction equipment, or generator onsite, includes:
    i. Hour-meter readings on arrival on-site, the first and last day of every month, and on off-site date.
    ii. Any problems with the equipment or emission controls.
    iii. Certified copies of fuel deliveries for the time period that identify:
        1. Source of supply
        2. Quantity of fuel
        3. Quantity of fuel, including sulfur content (percent by weight)

cc) Project should exceed Title-24 Building Envelope Energy Efficiency Standards (California Building Standards Code). The following measures can be used to increase energy efficiency:

- Provide pedestrian network improvements, such as interconnected street network, narrower roadways and shorter block lengths, sidewalks, accessibility to transit and transit shelters, traffic calming measures, parks and public spaces, minimize pedestrian barriers.
- Provide traffic calming measures, such as:
    i. Marked crosswalks
    ii. Count-down signal timers
    iii. Curb extensions iv. Speed tables
    iv. Raised crosswalks
    v. Raised intersections
    vi. Median islands
    vii. Tight corner radii
    viii. Roundabouts or mini-circles
    ix. On-street parking
    x. Chicanes/chokers
- Create urban non-motorized zones
- Provide bike parking in non-residential and multi-unit residential projects
- Dedicate land for bike trails
- Limit parking supply through:
    i. Elimination (or reduction) of minimum parking requirements
    ii. Creation of maximum parking requirements
    iii. Provision of shared parking
- Require residential area parking permit.
- Provide ride-sharing programs
    i. Designate a certain percentage of parking spacing for ride sharing vehicles
    ii. Designating adequate passenger loading and unloading and waiting areas for ride-sharing vehicles
    iii. Providing a web site or messaging board for coordinating rides
    iv. Permanent transportation management association membership and finding requirement.

These measures offer a cost-effective, feasible way to incorporate lower-emitting design features into the proposed Project, which subsequently, reduce emissions released during Project construction and operation.

Furthermore, as it is policy of the State that eligible renewable energy resources and zero-carbon resources supply 100% of retail sales of electricity to California end-use customers by December 31, 2045, we emphasize the applicability of incorporating solar power system into the Project design. Until the feasibility of incorporating on-site renewable energy production is considered, the Project should not be approved.

A revised EIR should be prepared to include all feasible mitigation measures, as well as include an updated air quality and health risk analysis to ensure that the necessary mitigation measures are implemented to reduce emissions to below thresholds. The revised EIR should also demonstrate a commitment to the implementation of these measures prior to Project approval, to ensure that the Project's significant emissions are reduced to the maximum extent possible.

Response 2-14

As analyzed in **Section 4.2, Air Quality**, and **Section 4.4, Greenhouse Gas Emissions**, with compliance with applicable regulatory requirements, impacts to both air quality and greenhouse gas emissions would be less than significant and mitigation measures are not required. Compliance with local, State, and federal plans, policies, and programs would further ensure impacts would be less than significant. Therefore, no air quality or greenhouse gas emissions mitigation measures are required.

3.0 CORRECTIONS, CLARIFICATIONS, AND ADDITIONS TO THE DRAFT EIR

A. INTRODUCTION

This section of the Final EIR provides changes to the Draft EIR that have been made to clarify, correct, or add to the environmental impact analysis for the San Fernando Soundstage Campus Project (Project). Such changes are a result of public and agency comments received in response to the Draft EIR and/or new information that has become available since publication of the Draft EIR. The changes described in this section do not result in any new or increased significant environmental impacts that would result from implementation of the Project. The changes to the Draft EIR are indicated below under the appropriate Draft EIR section heading. Deletions are shown with strikethrough and additions are shown with underline.

B. TEXT CHANGES TO THE DRAFT EIR

Provided below are corrections and additions to the Draft EIR including, where appropriate, the associated technical appendices. Changes are identified below by the corresponding Draft EIR section and subsection, if applicable, and the page number. Additions are double-underlined and deletions are shown in ~~strikethrough~~ format.

3.0 Project Description

The following revision has been made to Page 3.0-36, Paragraph 4, of the Draft EIR.

Table 3.0-3: Construction Schedule shows the construction schedule for the Project. The Project would be constructed in one development phase lasting approximately ~~18~~ 19 months, with full build-out expected to occur in Quarter 2 of 2025. The preliminary construction schedule assumes Quarter 4 of 2023 as the construction start and Quarter 2 2025 as the end of construction.

The following revision has been made to Page 3.0-37, Table 3.0-3, of the Draft EIR.

TABLE 3.0-3
CONSTRUCTION SCHEDULE

Activity	Start Date	End Date
Construction	October 2023	~~April~~ May 2025
Demolition	October 2023	November 2023
Grading	November 2023	January 2024
Building Construction	January 2024	~~April~~ May 2025
Site Improvements	January 2025	~~April~~ May 2025

4.0 MITIGATION MONITORING AND REPORTING PROGRAM

A. INTRODUCTION

California Public Resources Code section 21081.6 and Section 15097 of the California Environmental Quality Act (CEQA) Guidelines require public agencies to establish monitoring and reporting programs for projects approved by a public agency whenever approval involves the adoption of either a mitigated negative declaration or specified environmental findings related to environmental impact reports.

This is the Mitigation Monitoring and Reporting Program (MMRP) for the San Fernando Soundstage Campus Project (Project). The intent of the MMRP is to ensure the successful implementation of the mitigation measures identified in the Final Environmental Impact Report (Final EIR) for the Project.

Table 4.0-1
Mitigation Monitoring and Reporting Program

Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
4.5 Hazards and Hazardous Materials				
MM HAZ-1: Vapor Intrusion Mitigation System (VIMS). A Vapor Intrusion Mitigation System (VIMS) will be designed and installed under all Project structures that meets LARWQCB design criteria. • The VIMS will include an engineered membrane installed beneath all structural slabs that will incorporate a perforated pipe system installed in a bed of stone beneath the membrane to allow for the capture and venting of any residual VOCs present in soil vapor beneath the future buildings. • The VIMS will provide for a preferential pathway to exhaust such vapors above the roof and away from any receptors such as windows, doors, or HVAC equipment serving to mitigate/prevent any risk of residual VOC vapor intrusion into indoor air within the buildings. • Indoor air sampling will be conducted prior to building occupancy to demonstrate VIMS effectiveness. • A Land Use Covenant will also be recorded at a future date that will restrict the use of the property to commercial/industrial uses and require the installation, operation, and maintenance of the VIMS.	A. Design and install VIMS.	A. Design VIMS prior to Project construction and plan approval. B. Install VIMS during Project construction.	Applicant/ Construction Manager	City of Glendale – Building and Safety Division
4.7 Noise and Vibration				
MM NOI-1: The project applicant shall require that the following construction best management practices (BMPs) be implemented by contractors to reduce construction noise levels below the established thresholds: • Construction equipment shall be equipped with exhaust muffler systems consistent with FHWA guidance.	A. Implement construction best management practices.	A. Prior to issuance of grading permits. B. During construction	Applicant/ Construction Manager	City of Glendale – Building and Safety Division

Table 4.0-1
Mitigation Monitoring and Reporting Program

Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
• All equipment shall be properly maintained in accordance with manufacturers' specifications to assure that no additional noise due to worn or improperly maintained parts is generated consistent with FHWA guidance. • Construction equipment shall have features that dampen metal surfaces and minimize metal-to-metal contact consistent with FHWA guidance. • When construction operations occur adjacent to off-site occupied residential areas, construction equipment staging areas and stationary noise sources shall be located as far from those nearby receptors as possible, prohibit idling equipment, notify adjacent residences in advance of construction work, and install temporary acoustic barriers or noise blankets achieving a minimum reduction of 5 dBA around stationary construction noise sources. These barriers shall be made featuring weather-protected, sound-absorptive material on the construction-activity side of the noise barrier and must be installed in a location that completely blocks line-of-sight between the construction noise source and adjacent sensitive receptors. • Stationary construction equipment, such as pumps, generators, or compressors, must be placed as far from noise sensitive uses whenever physically possible during all phases of project construction. • Use electric air compressors and similar power tools rather than diesel equipment shall be used, whenever such equipment is available. • Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, must be turned off when not in use for more than 30 minutes. • Construction hours, allowable workdays, and the				

Table 4.0-1
Mitigation Monitoring and Reporting Program

Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
phone number of the job superintendent must be clearly posted at all construction entrances to allow for surrounding owners and residents to contact the job superintendent. If the City or the job superintendent receives a complaint, the superintendent must investigate, take appropriate corrective action, and report the action taken to the reporting party. Contract specifications must be included in the proposed Project construction documents, which must be reviewed by the City prior to issuance of grading permits.				

APPENDIX A

Supplemental Trip Generation Table

TABLE 1
PROJECT TRIP GENERATION ESTIMATES

TRIP GENERATION RATES [a]								
Land Use	**Rate**	**Daily**	**A.M. Peak Hour**			**P.M. Peak Hour**		
			In	**Out**	**Total**	**In**	**Out**	**Total**
Studio Production Office (General Office) [a]	per ksf	9.74	86%	14%	1.16	16%	84%	1.15
Stage [b]	per ksf	5.91	63%	37%	0.20	40%	60%	0.43
Studio Support Space [b]	per ksf	4.14	65%	35%	0.61	45%	55%	0.57
Warehousing	per ksf	1.71	77%	23%	0.17	27%	73%	0.18

TRIP GENERATION ESTIMATES								
Land Use	**Size**	**Daily**	**A.M. Peak Hour**			**P.M. Peak Hour**		
			In	**Out**	**Total**	**In**	**Out**	**Total**
Proposed Project								
Studio Production Office (General Office)	166.535 ksf	1,622	166	27	193	31	161	192
Transit/HQTA Reduction [c] 5%		*(81)*	*(8)*	*(2)*	*(10)*	*(2)*	*(8)*	*(10)*
Stage	177.648 ksf	1,050	23	13	36	30	46	76
Transit/HQTA Reduction [c] 5%		*(53)*	*(1)*	*(1)*	*(2)*	*(2)*	*(2)*	*(4)*
Studio Support Space	62.135 ksf	257	25	13	38	16	19	35
Transit/HQTA Reduction [c] 5%		*(13)*	*(1)*	*(1)*	*(2)*	*(1)*	*(1)*	*(2)*
TOTAL - PROPOSED PROJECT		**2,782**	**204**	**49**	**253**	**72**	**215**	**287**
Existing Site								
Studio Production Office (General Office)	20.000 ksf	(195)	(20)	(3)	(23)	(4)	(19)	(23)
Transit/HQTA Reduction [c] 5%		*10*	*1*	*0*	*1*	*0*	*1*	*1*
Stage	65.000 ksf	(384)	(8)	(5)	(13)	0	(28)	(28)
Transit/HQTA Reduction [c] 5%		*19*	*0*	*1*	*1*	*0*	*1*	*1*
Studio Support Space	10.000 ksf	(41)	(4)	(2)	(6)	(3)	(3)	(6)
Transit/HQTA Reduction [c] 5%		*2*	*0*	*0*	*0*	*0*	*0*	*0*
Warehousing [d]	82.712 ksf	(141)	(11)	(3)	(14)	(4)	(11)	(15)
Transit/HQTA Reduction [c] 5%		*7*	*1*	*0*	*1*	*0*	*1*	*1*
TOTAL - EXISTING SITE CREDITS		**(723)**	**(41)**	**(12)**	**(53)**	**(11)**	**(58)**	**(69)**
NET NEW TRIPS		**2,059**	**163**	**37**	**200**	**61**	**157**	**218**

Notes:

ksf = 1,000 square feet

[a] Studio Production Office rate based on General Office Building (Land Use 710) rate from *Trip Generation, 10th Edition*, Institute of Transportation Engineers, 2017.

[b] Rate based on empirical rate from *Transportation Study for the NBC Universal Evolution Plan Environmental Impact Report,* Gibson Transportation Consulting, Inc. and Raju Associates, Inc., March 2010.

[c] Per the City of Glendale's *Transportation Impact Analysis Guidelines*, the Project Site is located within an existing High Quality Transit Area (HQTA); therefore, a 5% transit/HQTA reduction is applied to account for transit usafe and walking visitor arrivals from the surrounding neighborhoods and adjacent commercial developments.

[d] Trip generation rate based on the best-fit curve formula listed in the *Trip Generation Manual, 10th Edition* for the Warehousing land use.

Daily - T = 1.58 (X) + 45.54
A.M. Peak Hour - T = 0.12 (X) + 25.32
P.M. Peak Hour - T = 0.12 (X) + 27.82

T = Average Vehicle Trips X = Gross Leasable Area (ksf)

APPENDIX B

SWAPE Memorandum

860 Hampshire Road, Suite P
Westlake Village, CA 91361
(805) 367-5720

Date: May 23, 2023

To: City of Glendale
Planning Division
633 E. Broadway, Room 103
Glendale, CA 91206

From: Christ Kirikian
Principal | Director of Air Quality & Acoustics

Subject: Response to SWAPE letter dated May 1, 2023
RE: Comments on the San Fernando Soundstage Campus Project (SCH No. 2022090166)

This memorandum is being provided at the City's request to address the comments from the SWAPE letter (dated May 1, 2023) regarding the March 2023 Draft Environmental Impact Report (DEIR) for the San Fernando Soundstage Campus Project.

Comment 1: Failure to Provide Complete CalEEMod Output Files

Response to Comment 1

The commenter incorrectly states the currently available version of CalEEMod2022.1 is described as a "soft release" which fails to provide complete output files. Based on email correspondence sent by the Sacramento Metropolitan Air Quality Management District (refer to Attachment A), the "soft-release" of CalEEMod Version 2022.1 was released on May 2022. The California Air Pollution Control Officers Association (CAPCOA), California Air Districts, and ICF International continued to refine the model and fix bugs discovered by users. CalEEMod Version 2022.1.1.3 was fully released for general use on air quality, greenhouse gas, climate, and equity analyses on December 22, 2022. The CalEEMod output files provided in the DEIR are dated January 25, 2023, which shows the fully released model was utilized for the analysis. Additionally, similar to the previous CalEEMod version (Version 2020), Version 2022 does provide the quantitative counterparts to the changes of the default values. More specifically, the changes are shown in the following sections of the CalEEMod Output Files:

- Section 1.3: User-Selected Emission Reduction Measures by Emissions Sector
- Section 5.2: Off-Road Equipment
- Section 5.3: Construction Vehicles
- Section 5.4: Vehicles
- Section 5.5: Architectural Coatings
- Section 5.6: Dust Mitigation
- Section 5.9: Operational Mobile Sources

- Section 8: User Changes to Default Data

The commenter incorrectly implies that Section 8 is the lone area from the output files that provides the quantitative counterparts to the changes in default values.

Comment 2: Unsubstantiated Input Parameters Used to Estimate Project Emissions

Response to Comment 2

The commenter incorrectly implies that the changes to individual construction phase lengths remain unsubstantiated. As detailed in the DEIR and the CalEEMod output files, construction information was provided by the Applicant which included a haul route map to Scholl Canyon Landfill, earthwork summary and construction duration. Therefore, the assumptions in the model were not disproportionately altered to intentionally reduce emissions.

Other changes include consistency with SCAQMD Rule 1113: Architectural Coating. The commenter suggests the VOC limits for each coating varies from a minimum values of 50 g/L to a maximum value of 730 g/L and the analysis does not verify that SCAQMD Rule 1113 substantiates reductions. For purposes of this memorandum, a revised CalEEMod run was conducted that does not include any changes to the default assumptions related to VOC content (refer to Attachment B). As shown below, even without any changes to VOC content of 50 g/L, emissions would still result in daily emissions below the South Cost Air Quality Management District (SCAQMD) significance threshold of 75 pounds per day similar to the DEIR.

Year	ROG
Daily - Summer (Max)	—
2024	2.28
2025	61.8
Daily - Winter (Max)	—
2023	5.25
2024	2.26
2025	61.8

The commenter states the DEIR “assumed all-electric development” in regards to changes in energy use values. Additionally, the commenter states the DEIR provided unsubstantiated changes to natural gas values and the assumption that the Project would not require the use of natural gas is unsupported.

Consequently, for purposes of this memorandum, a revised CalEEMod run was conducted that does not include any changes to the default assumptions related to energy and natural gas use (refer to Attachment B). As shown below, operational emissions related to ROG, NOX, CO, SO2, PM10 and PM2.5 would still result in levels below the significance threshold. Therefore, the table further disproves the commenters statement that the DEIR analysis underestimates the Projects operational emissions as the default assumptions would still result in less than significant impacts related to operation.

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Mobile	12.2	11.1	8.58	99.6	0.24	0.15	8.64	8.79	0.14	1.54	1.68
Area	4.44	13.8	0.21	25.0	< 0.005	0.03	—	0.03	0.04	—	0.04
Energy	0.24	0.12	2.21	1.86	0.01	0.17	—	0.17	0.17	—	0.17
Water	—	—	—	—	—	—	—	—	—	—	—
Waste	—	—	—	—	—	—	—	—	—	—	—
Refrig.	—	—	—	—	—	—	—	—	—	—	—
Total	16.9	25.0	11.0	126	0.25	0.35	8.64	8.99	0.35	1.54	1.89

Comment 3: Diesel Particulate Emissions Inadequately Evaluated

Response to Comment 3

The commenter incorrectly makes the assumption that the DEIR should have included a quantified construction and operational Health Risk Assessment (HRA), thus inconsistent with CEQA's requirement to make a "reasonable effort to substantively connect a project's air quality impacts to likely health consequences." The City of Glendale relies on methodology established by SCAQMD for preparation of CEQA air quality analyses. SCAQMD shares responsibility with the California Air Resources Board (CARB) for ensuring that all state and federal ambient air quality standards are achieved and maintained throughout all of Los Angeles County. Although SCAQMD is responsible for regional air quality planning efforts, it does not have the authority to directly regulate air quality issues associated with new development projects within the Air Basin, such as the Project. Instead, SCAQMD published the CEQA *Air Quality Handbook* in November 1993 to assist lead agencies, as well as consultants, project proponents, and other interested parties, in evaluating potential air quality impacts of projects proposed in the Air Basin. The CEQA *Air Quality Handbook* provides standards, methodologies, and procedures for conducting air quality analyses in EIRs and was used extensively in the preparation of the air quality analysis in the Draft EIR.

The SCAQMD CEQA Handbook does not recommend analysis of TACs from short-term construction activities. The rational for not requiring a health risk assessment for construction activities is the limited duration of exposure. According to SCAQMD methodology, health effects from carcinogenic air toxics are usually described in terms of individual cancer risk. Specifically, "Individual Cancer Risk" is the likelihood that a person continuously exposed to concentrations of toxic air contaminants (TACs) over a 70-year lifetime will contract cancer based on the use of standard risk assessment methodology. Given that the greatest potential for diesel particulate emissions would only occur during demolition (1 month) and excavation/grading activities (2 months) and other construction activities (15 months) during the overall construction schedule would result in reduced use of heavy-duty diesel construction equipment in comparison to demolition and excavation/grading activities, the Project would not result in a long-term (i.e., 70 year) source of TAC emissions. No residual TAC emissions and corresponding individual cancer risk are anticipated after construction. Because there is such a short-term exposure period (18 out of 840 months of a 70-year lifetime), further evaluation of construction TAC emissions within the Draft EIR is not warranted. As such, the Draft EIR correctly concluded that Project-related TAC impacts during construction were less than significant.

From an operational standpoint, the Draft EIR correctly identified that the primary sources of potential air toxics associated with Project operations include diesel particulate matter from delivery trucks (e.g., truck traffic on local streets and idling on adjacent streets). However, these activities and the land uses associated with the Project, would not generate substantial TAC emissions based on review of the air toxic sources listed in SCAQMD and CARB's guidelines. The commenter is referred to SCAQMD guidance below that provides clarification as to when an HRA may be warranted.

SCAQMD published and adopted the *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*, which provides recommendations regarding the siting of new sensitive land uses near potential sources of air toxic emissions (e.g., freeways, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and gasoline dispensing facilities.[1] SCAQMD recommends that HRAs be conducted for substantial sources of DPM (e.g., truck stops and warehouse distribution facilities that generate more than 100 trucks per day or more than 40 trucks with operating transport refrigeration units).

The Project proposes to construct a studio production office, sound stage and studio support space and would not include a truck stop or warehouse distribution facilities. Based on SCAQMD guidance, there was no quantitative analysis required for future cancer risk within the Project area as the Project is consistent with the recommendations regarding the siting of new sensitive land uses near potential sources of TAC emissions provided in the SCAQMD *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*. Specifically, the Project is not considered to be a substantial source of diesel particulate matter warranting a refined HRA since the Project would not include truck stops and warehouse distribution facilities and would not include a residential development creating new

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1 SCAQMD, *Guidance Document for Addressing Air Quality Issues in General Plan and Local Planning*, May 6, 2005.

sensitive uses. Based on this information, the Draft EIR correctly concluded that an operational HRA was not warranted.

Comment 4: Screening-Level Analysis Demonstrates Potentially Significant Health Risk Impact

Response to Comment 4

Refer to Response to Comment 3 related to construction and operational HRA not warranted for the Draft EIR.

As detailed in the Draft EIR, a localized significance threshold (LST) analysis was conducted based on the SCAQMD's Final Localized Significance Threshold Methodology (LST Methodology)[2] guidance document for short-duration construction activities and long-term operational activities. Lead agencies may use the LST mass rate look-up tables as a screening analysis. If the project exceeds any applicable LST when the mass rate look-up tables are used as a screening analysis, then project specific air quality modeling may be performed. As shown in Table 4.2-11 of the Draft EIR, emissions would not exceed the SCAQMD localized significance construction and operational thresholds. Therefore, the initial screening analysis would not warrant additional specifical air quality modeling.

2 SCAQMD, "Final Localized Significance Threshold (LST) Methodology," http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/localized-significance-thresholds. Accessed May 2023.

San Fernando Studios Custom Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	San Fernando Studios
Construction Start Date	10/1/2023
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	20.2
Location	5426 San Fernando Rd, Glendale, CA 91203, USA
County	Los Angeles-South Coast
City	Glendale
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	3984
EDFZ	18
Electric Utility	Glendale Water & Power
Gas Utility	Southern California Gas
App Version	2022.1.1.13

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

General Office Building	215	1000sqft	1.00	214,885	0.00	—	—	—
General Heavy Industry	191	1000sqft	4.17	191,433	0.00	—	—	—
Enclosed Parking with Elevator	419	Space	0.63	167,600	0.00	—	—	—
Parking Lot	114	Space	1.03	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.00	61.8	23.4	45.2	0.06	0.85	4.44	5.29	0.76	1.08	1.84	—	10,877	10,877	0.45	0.58	22.3	11,085
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.89	61.8	62.6	50.8	0.13	2.28	11.7	13.9	2.11	2.76	4.87	—	18,108	18,108	0.95	1.85	0.71	18,685
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.96	11.1	12.0	20.7	0.03	0.41	2.55	2.95	0.38	0.65	1.03	—	5,877	5,877	0.25	0.39	5.96	6,005
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.36	2.02	2.19	3.77	0.01	0.07	0.46	0.54	0.07	0.12	0.19	—	973	973	0.04	0.06	0.99	994

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	2.77	2.28	15.8	31.4	0.04	0.54	3.67	4.21	0.50	0.90	1.40	—	8,532	8,532	0.35	0.54	20.5	8,723
2025	4.00	61.8	23.4	45.2	0.06	0.85	4.44	5.29	0.76	1.08	1.84	—	10,877	10,877	0.45	0.58	22.3	11,085
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	6.89	5.25	62.6	50.8	0.13	2.28	11.7	13.9	2.11	2.76	4.87	—	18,108	18,108	0.95	1.85	0.71	18,685
2024	2.76	2.26	22.1	28.9	0.05	0.88	3.67	4.21	0.81	1.15	1.96	—	8,372	8,372	0.35	0.55	0.53	8,544
2025	3.99	61.8	23.7	42.3	0.06	0.85	4.44	5.29	0.76	1.08	1.84	—	10,678	10,678	0.46	0.59	0.58	10,866
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.63	0.48	5.69	4.65	0.01	0.21	1.03	1.24	0.19	0.25	0.44	—	1,630	1,630	0.09	0.16	1.06	1,682
2024	1.96	1.60	12.0	20.7	0.03	0.41	2.55	2.95	0.38	0.65	1.03	—	5,877	5,877	0.25	0.39	5.96	6,005
2025	0.81	11.1	4.74	8.79	0.01	0.16	0.99	1.15	0.14	0.24	0.38	—	2,321	2,321	0.10	0.14	2.20	2,366
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.11	0.09	1.04	0.85	< 0.005	0.04	0.19	0.23	0.04	0.05	0.08	—	270	270	0.01	0.03	0.17	278
2024	0.36	0.29	2.19	3.77	0.01	0.07	0.46	0.54	0.07	0.12	0.19	—	973	973	0.04	0.06	0.99	994
2025	0.15	2.02	0.87	1.60	< 0.005	0.03	0.18	0.21	0.03	0.04	0.07	—	384	384	0.02	0.02	0.36	392

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	16.9	25.0	11.0	126	0.25	0.35	8.64	8.99	0.35	1.54	1.89	394	51,986	52,380	41.9	1.43	133	53,986
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	12.3	20.8	11.6	93.2	0.24	0.32	8.64	8.96	0.31	1.54	1.85	394	50,863	51,256	42.0	1.48	52.5	52,798
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	12.1	20.6	9.31	87.8	0.18	0.30	6.34	6.64	0.30	1.13	1.43	394	44,905	45,299	41.6	1.22	76.4	46,779
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.21	3.76	1.70	16.0	0.03	0.06	1.16	1.21	0.06	0.21	0.26	65.2	7,435	7,500	6.90	0.20	12.7	7,745

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	12.2	11.1	8.58	99.6	0.24	0.15	8.64	8.79	0.14	1.54	1.68	—	24,390	24,390	1.13	0.94	82.4	24,782
Area	4.44	13.8	0.21	25.0	< 0.005	0.03	—	0.03	0.04	—	0.04	—	103	103	< 0.005	< 0.005	—	103
Energy	0.24	0.12	2.21	1.86	0.01	0.17	—	0.17	0.17	—	0.17	—	25,916	25,916	0.98	0.10	—	25,969
Water	—	—	—	—	—	—	—	—	—	—	—	158	1,577	1,735	16.3	0.39	—	2,258
Waste	—	—	—	—	—	—	—	—	—	—	—	236	0.00	236	23.6	0.00	—	824
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	50.4	50.4
Total	16.9	25.0	11.0	126	0.25	0.35	8.64	8.99	0.35	1.54	1.89	394	51,986	52,380	41.9	1.43	133	53,986

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	12.1	10.9	9.39	91.3	0.23	0.15	8.64	8.79	0.14	1.54	1.68	—	23,370	23,370	1.18	0.99	2.14	23,696
Area	—	9.74	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.24	0.12	2.21	1.86	0.01	0.17	—	0.17	0.17	—	0.17	—	25,916	25,916	0.98	0.10	—	25,969
Water	—	—	—	—	—	—	—	—	—	—	—	158	1,577	1,735	16.3	0.39	—	2,258
Waste	—	—	—	—	—	—	—	—	—	—	—	236	0.00	236	23.6	0.00	—	824
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	50.4	50.4
Total	12.3	20.8	11.6	93.2	0.24	0.32	8.64	8.96	0.31	1.54	1.85	394	50,863	51,256	42.0	1.48	52.5	52,798
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	8.82	7.95	6.96	68.8	0.17	0.11	6.34	6.45	0.10	1.13	1.23	—	17,342	17,342	0.86	0.73	26.1	17,606
Area	3.04	12.5	0.14	17.1	< 0.005	0.02	—	0.02	0.03	—	0.03	—	70.3	70.3	< 0.005	< 0.005	—	70.6
Energy	0.24	0.12	2.21	1.86	0.01	0.17	—	0.17	0.17	—	0.17	—	25,916	25,916	0.98	0.10	—	25,969
Water	—	—	—	—	—	—	—	—	—	—	—	158	1,577	1,735	16.3	0.39	—	2,258
Waste	—	—	—	—	—	—	—	—	—	—	—	236	0.00	236	23.6	0.00	—	824
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	50.4	50.4
Total	12.1	20.6	9.31	87.8	0.18	0.30	6.34	6.64	0.30	1.13	1.43	394	44,905	45,299	41.6	1.22	76.4	46,779
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.61	1.45	1.27	12.6	0.03	0.02	1.16	1.18	0.02	0.21	0.22	—	2,871	2,871	0.14	0.12	4.32	2,915
Area	0.55	2.29	0.03	3.12	< 0.005	< 0.005	—	< 0.005	0.01	—	0.01	—	11.6	11.6	< 0.005	< 0.005	—	11.7
Energy	0.04	0.02	0.40	0.34	< 0.005	0.03	—	0.03	0.03	—	0.03	—	4,291	4,291	0.16	0.02	—	4,299
Water	—	—	—	—	—	—	—	—	—	—	—	26.2	261	287	2.69	0.06	—	374
Waste	—	—	—	—	—	—	—	—	—	—	—	39.0	0.00	39.0	3.90	0.00	—	136
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.34	8.34
Total	2.21	3.76	1.70	16.0	0.03	0.06	1.16	1.21	0.06	0.21	0.26	65.2	7,435	7,500	6.90	0.20	12.7	7,745

3. Construction Emissions Details

3.1. Demolition (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.39	2.84	27.3	23.5	0.03	1.20	—	1.20	1.10	—	1.10	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	6.43	6.43	—	0.97	0.97	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29	0.24	2.32	1.99	< 0.005	0.10	—	0.10	0.09	—	0.09	—	291	291	0.01	< 0.005	—	292
Demolition	—	—	—	—	—	—	0.55	0.55	—	0.08	0.08	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.42	0.36	< 0.005	0.02	—	0.02	0.02	—	0.02	—	48.2	48.2	< 0.005	< 0.005	—	48.3
Demolition	—	—	—	—	—	—	0.10	0.10	—	0.02	0.02	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.09	1.04	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	205	205	0.01	0.01	0.02	208
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.67	0.17	11.1	4.09	0.05	0.10	2.21	2.31	0.10	0.59	0.69	—	8,329	8,329	0.49	1.31	0.49	8,734
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.7	17.7	< 0.005	< 0.005	0.03	17.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.06	0.01	0.96	0.35	< 0.005	0.01	0.19	0.19	0.01	0.05	0.06	—	707	707	0.04	0.11	0.69	742
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.93	2.93	< 0.005	< 0.005	0.01	2.97
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.17	0.06	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	117	117	0.01	0.02	0.11	123

3.3. Grading (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.43	2.04	20.0	19.7	0.03	0.94	—	0.94	0.87	—	0.87	—	2,958	2,958	0.12	0.02	—	2,968
Dust From Material Movement	—	—	—	—	—	—	1.85	1.85	—	0.89	0.89	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	0.20	1.99	1.97	< 0.005	0.09	—	0.09	0.09	—	0.09	—	295	295	0.01	< 0.005	—	296
Dust From Material Movement	—	—	—	—	—	—	0.18	0.18	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.36	0.36	< 0.005	0.02	—	0.02	0.02	—	0.02	—	48.9	48.9	< 0.005	< 0.005	—	49.0
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.09	1.04	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	205	205	0.01	0.01	0.02	208
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.24	0.06	3.98	1.47	0.02	0.04	0.79	0.83	0.04	0.21	0.25	—	2,986	2,986	0.18	0.47	0.18	3,131
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	20.8	20.8	< 0.005	< 0.005	0.04	21.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	0.01	0.40	0.15	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.02	—	298	298	0.02	0.05	0.29	313
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.44	3.44	< 0.005	< 0.005	0.01	3.49
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	49.3	49.3	< 0.005	0.01	0.05	51.8

3.5. Grading (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.26	1.90	18.2	18.8	0.03	0.84	—	0.84	0.77	—	0.77	—	2,958	2,958	0.12	0.02	—	2,969

Dust From Material Movement	—	—	—	—	—	—	1.85	1.85	—	0.89	0.89	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	1.18	1.22	< 0.005	0.05	—	0.05	0.05	—	0.05	—	191	191	0.01	< 0.005	—	192
Dust From Material Movement	—	—	—	—	—	—	0.12	0.12	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.21	0.22	< 0.005	0.01	—	0.01	0.01	—	0.01	—	31.6	31.6	< 0.005	< 0.005	—	31.7
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.08	0.96	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	201	201	0.01	0.01	0.02	203
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.22	0.06	3.81	1.41	0.02	0.04	0.77	0.81	0.04	0.21	0.25	—	2,939	2,939	0.16	0.47	0.18	3,083

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.2	13.2	< 0.005	< 0.005	0.02	13.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.25	0.09	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	190	190	0.01	0.03	0.19	199
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.18	2.18	< 0.005	< 0.005	< 0.005	2.21
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	31.4	31.4	< 0.005	0.01	0.03	33.0

3.7. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.94	0.78	7.31	8.55	0.02	0.32	—	0.32	0.30	—	0.30	—	1,562	1,562	0.06	0.01	—	1,568
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	1.33	1.56	< 0.005	0.06	—	0.06	0.05	—	0.05	—	259	259	0.01	< 0.005	—	260
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.09	0.99	1.05	16.6	0.00	0.00	2.87	2.87	0.00	0.67	0.67	—	3,100	3,100	0.13	0.10	12.2	3,146
Vendor	0.24	0.09	3.57	1.75	0.02	0.04	0.80	0.85	0.04	0.22	0.26	—	3,035	3,035	0.12	0.42	8.23	3,171
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.08	0.97	1.24	14.0	0.00	0.00	2.87	2.87	0.00	0.67	0.67	—	2,938	2,938	0.13	0.11	0.32	2,974
Vendor	0.24	0.09	3.71	1.79	0.02	0.04	0.80	0.85	0.04	0.22	0.26	—	3,036	3,036	0.12	0.42	0.21	3,164
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.70	0.63	0.81	9.60	0.00	0.00	1.85	1.85	0.00	0.43	0.43	—	1,943	1,943	0.09	0.07	3.44	1,970
Vendor	0.16	0.06	2.45	1.16	0.01	0.03	0.52	0.55	0.03	0.14	0.17	—	1,978	1,978	0.08	0.27	2.31	2,064
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.11	0.15	1.75	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	322	322	0.01	0.01	0.57	326
Vendor	0.03	0.01	0.45	0.21	< 0.005	0.01	0.09	0.10	0.01	0.03	0.03	—	327	327	0.01	0.05	0.38	342
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32	0.27	2.49	3.11	0.01	0.10	—	0.10	0.09	—	0.09	—	572	572	0.02	< 0.005	—	574
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.46	0.57	< 0.005	0.02	—	0.02	0.02	—	0.02	—	94.8	94.8	< 0.005	< 0.005	—	95.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.05	0.94	0.95	15.3	0.00	0.00	2.87	2.87	0.00	0.67	0.67	—	3,036	3,036	0.13	0.10	11.1	3,081
Vendor	0.21	0.09	3.39	1.66	0.02	0.04	0.80	0.85	0.02	0.22	0.24	—	2,984	2,984	0.12	0.42	8.17	3,120
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.04	0.93	1.06	13.0	0.00	0.00	2.87	2.87	0.00	0.67	0.67	—	2,877	2,877	0.13	0.11	0.29	2,914
Vendor	0.21	0.09	3.54	1.68	0.02	0.04	0.80	0.85	0.02	0.22	0.24	—	2,986	2,986	0.12	0.42	0.21	3,114
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.25	0.22	0.27	3.25	0.00	0.00	0.68	0.68	0.00	0.16	0.16	—	697	697	0.03	0.02	1.15	707
Vendor	0.05	0.02	0.85	0.40	0.01	0.01	0.19	0.20	0.01	0.05	0.06	—	713	713	0.03	0.10	0.84	744
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.05	0.59	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	115	115	0.01	< 0.005	0.19	117
Vendor	0.01	< 0.005	0.16	0.07	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	118	118	< 0.005	0.02	0.14	123
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.95	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517
Paving	—	0.10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.95	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517
Paving	—	0.10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.92	1.23	< 0.005	0.04	—	0.04	0.04	—	0.04	—	186	186	0.01	< 0.005	—	187
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.17	0.22	< 0.005	0.01	—	0.01	0.01	—	0.01	—	30.9	30.9	< 0.005	< 0.005	—	31.0
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.06	1.04	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	207	207	0.01	0.01	0.76	210
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	197	197	0.01	0.01	0.02	199
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	24.6	24.6	< 0.005	< 0.005	0.04	24.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.07	4.07	< 0.005	< 0.005	0.01	4.13
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Architectural Coating (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	58.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	58.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.16	0.20	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	23.8	23.8	< 0.005	< 0.005	—	23.9
Architectural Coatings	—	10.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.94	3.94	< 0.005	< 0.005	—	3.95
Architectural Coatings	—	1.90	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21	0.19	0.19	3.06	0.00	0.00	0.57	0.57	0.00	0.13	0.13	—	607	607	0.03	0.02	2.22	616

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21	0.19	0.21	2.59	0.00	0.00	0.57	0.57	0.00	0.13	0.13	—	575	575	0.03	0.02	0.06	583
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.04	0.48	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	104	104	< 0.005	< 0.005	0.17	105
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.2	17.2	< 0.005	< 0.005	0.03	17.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Office Building	7.71	6.97	5.40	62.7	0.15	0.10	5.44	5.54	0.09	0.97	1.06	—	15,367	15,367	0.71	0.59	51.9	15,613
General Heavy Industry	4.53	4.09	3.17	36.8	0.09	0.06	3.20	3.25	0.05	0.57	0.62	—	9,023	9,023	0.42	0.35	30.5	9,168
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	12.2	11.1	8.58	99.6	0.24	0.15	8.64	8.79	0.14	1.54	1.68	—	24,390	24,390	1.13	0.94	82.4	24,782
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	7.63	6.88	5.92	57.5	0.14	0.10	5.44	5.54	0.09	0.97	1.06	—	14,724	14,724	0.74	0.62	1.35	14,929
General Heavy Industry	4.48	4.04	3.47	33.8	0.08	0.06	3.20	3.25	0.05	0.57	0.62	—	8,646	8,646	0.44	0.37	0.79	8,767
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	12.1	10.9	9.39	91.3	0.23	0.15	8.64	8.79	0.14	1.54	1.68	—	23,370	23,370	1.18	0.99	2.14	23,696
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	1.05	0.94	0.83	8.16	0.02	0.01	0.75	0.77	0.01	0.13	0.15	—	1,867	1,867	0.09	0.08	2.81	1,895
General Heavy Industry	0.56	0.51	0.44	4.39	0.01	0.01	0.40	0.41	0.01	0.07	0.08	—	1,004	1,004	0.05	0.04	1.51	1,019

Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.61	1.45	1.27	12.6	0.03	0.02	1.16	1.18	0.02	0.21	0.22	—	2,871	2,871	0.14	0.12	4.32	2,915

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	11,135	11,135	0.36	0.04	—	11,157
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	10,296	10,296	0.33	0.04	—	10,316
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	1,738	1,738	0.06	0.01	—	1,742
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	110	110	< 0.005	< 0.005	—	111
Total	—	—	—	—	—	—	—	—	—	—	—	—	23,280	23,280	0.75	0.09	—	23,326
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	11,135	11,135	0.36	0.04	—	11,157
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	10,296	10,296	0.33	0.04	—	10,316
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	1,738	1,738	0.06	0.01	—	1,742
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	110	110	< 0.005	< 0.005	—	111
Total	—	—	—	—	—	—	—	—	—	—	—	—	23,280	23,280	0.75	0.09	—	23,326
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	1,844	1,844	0.06	0.01	—	1,847
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	1,705	1,705	0.05	0.01	—	1,708
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	288	288	0.01	< 0.005	—	288
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	18.3	18.3	< 0.005	< 0.005	—	18.3
Total	—	—	—	—	—	—	—	—	—	—	—	—	3,854	3,854	0.12	0.02	—	3,862

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	0.05	0.03	0.48	0.41	< 0.005	0.04	—	0.04	0.04	—	0.04	—	576	576	0.05	< 0.005	—	578
General Heavy Industry	0.19	0.09	1.73	1.45	0.01	0.13	—	0.13	0.13	—	0.13	—	2,060	2,060	0.18	< 0.005	—	2,066
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.24	0.12	2.21	1.86	0.01	0.17	—	0.17	0.17	—	0.17	—	2,636	2,636	0.23	< 0.005	—	2,643
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	0.05	0.03	0.48	0.41	< 0.005	0.04	—	0.04	0.04	—	0.04	—	576	576	0.05	< 0.005	—	578
General Heavy Industry	0.19	0.09	1.73	1.45	0.01	0.13	—	0.13	0.13	—	0.13	—	2,060	2,060	0.18	< 0.005	—	2,066
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.24	0.12	2.21	1.86	0.01	0.17	—	0.17	0.17	—	0.17	—	2,636	2,636	0.23	< 0.005	—	2,643
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	0.01	< 0.005	0.09	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	95.4	95.4	0.01	< 0.005	—	95.6

General Heavy Industry	0.03	0.02	0.32	0.26	< 0.005	0.02	—	0.02	0.02	—	0.02	—	341	341	0.03	< 0.005	—	342
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.04	0.02	0.40	0.34	< 0.005	0.03	—	0.03	0.03	—	0.03	—	436	436	0.04	< 0.005	—	438

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	8.70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	1.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	4.44	4.10	0.21	25.0	< 0.005	0.03	—	0.03	0.04	—	0.04	—	103	103	< 0.005	< 0.005	—	103
Total	4.44	13.8	0.21	25.0	< 0.005	0.03	—	0.03	0.04	—	0.04	—	103	103	< 0.005	< 0.005	—	103
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consumer	—	8.70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	1.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	9.74	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.59	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.55	0.51	0.03	3.12	< 0.005	< 0.005	—	< 0.005	0.01	—	0.01	—	11.6	11.6	< 0.005	< 0.005	—	11.7
Total	0.55	2.29	0.03	3.12	< 0.005	< 0.005	—	< 0.005	0.01	—	0.01	—	11.6	11.6	< 0.005	< 0.005	—	11.7

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	73.2	730	804	7.53	0.18	—	1,046
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	84.8	847	931	8.73	0.21	—	1,212

Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	158	1,577	1,735	16.3	0.39	—	2,258
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	73.2	730	804	7.53	0.18	—	1,046
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	84.8	847	931	8.73	0.21	—	1,212
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	158	1,577	1,735	16.3	0.39	—	2,258
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	12.1	121	133	1.25	0.03	—	173
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	14.0	140	154	1.44	0.03	—	201
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	26.2	261	287	2.69	0.06	—	374

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	108	0.00	108	10.8	0.00	—	377
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	128	0.00	128	12.8	0.00	—	448
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	236	0.00	236	23.6	0.00	—	824
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	108	0.00	108	10.8	0.00	—	377
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	128	0.00	128	12.8	0.00	—	448

Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	236	0.00	236	23.6	0.00	—	824
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	17.8	0.00	17.8	1.78	0.00	—	62.4
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	39.0	0.00	39.0	3.90	0.00	—	136

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.52	0.52

General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	49.8	49.8
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	50.4	50.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.52	0.52
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	49.8	49.8
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	50.4	50.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.09	0.09
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.25	8.25
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.34	8.34

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipme Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	10/1/2023	11/13/2023	5.00	31.0	—
Grading	Grading	11/11/2023	2/2/2024	5.00	60.0	—

Building Construction	Building Construction	2/3/2024	5/2/2025	5.00	325	—
Paving	Paving	3/3/2025	5/2/2025	5.00	45.0	—
Architectural Coating	Architectural Coating	2/3/2025	5/2/2025	5.00	65.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	116	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	41.7	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	220	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	94.1	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	43.9	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT

Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%
Sweep paved roads once per month	9%	9%

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	610,712	203,296	4,339

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	313,300	—
Grading	—	20,000	20.0	0.00	—
Paving	0.00	0.00	0.00	0.00	1.66

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction

Water Exposed Area	3	74%	74%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
General Office Building	0.00	0%
General Heavy Industry	0.00	0%
Enclosed Parking with Elevator	0.63	100%
Parking Lot	1.03	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	0.00	1,025	0.03	< 0.005
2024	0.00	1,025	0.03	< 0.005
2025	0.00	1,025	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
General Office Building	2,093	475	150	578,275	19,549	4,436	1,405	5,401,133
General Heavy Industry	752	1,229	974	311,035	7,027	11,479	9,101	2,905,087
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	610,712	203,296	4,339

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
General Office Building	3,963,382	1,025	0.0330	0.0040	1,797,099
General Heavy Industry	3,664,772	1,025	0.0330	0.0040	6,428,408
Enclosed Parking with Elevator	618,684	1,025	0.0330	0.0040	0.00
Parking Lot	39,303	1,025	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
General Office Building	38,192,316	0.00
General Heavy Industry	44,268,881	0.00
Enclosed Parking with Elevator	0.00	0.00
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
General Office Building	200	—
General Heavy Industry	237	—
Enclosed Parking with Elevator	0.00	—
Parking Lot	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
General Heavy Industry	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

8. User Changes to Default Data

Screen	Justification
Land Use	Proposed Land Use
Construction: Construction Phases	Based on construction schedule provided by Applicant

Melanie Dow

From: Sacramento Metropolitan Air Quality Management District <khuss@airquality.org>
Sent: Thursday, December 22, 2022 2:00 PM
To: Christ Kirikian
Subject: The latest news for you

CalEEMod Version 2022.1.1.3 Released

December 22, 2022

After the "soft-release" of CalEEMod Version 2022.1 in May 2022, the California Air Pollution Control Officers Association (CAPCOA), California Air Districts, and ICF International have continued to refine the model and fix bugs discovered by users during the soft-release period. CalEEMod Version 2022.1.1.3 is now ready for full release and general use for air quality, greenhouse gas, climate, and equity analyses.

The model is available at **https://www.caleemod.com/**.

There are several resources available to assist with using CalEEMod:

- Frequently Asked Questions - **https://www.caleemod.com/faq**
- CalEEMod Users Guide - **https://www.caleemod.com/user-guide**
- Video Tutorials - **https://www.caleemod.com/tutorials**
- CAPCOA's *Handbook for Analyzing Greenhouse Gas Emissions Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity* - **https://www.caleemod.com/handbook/index.html**
- Search Measures feature - **https://www.caleemod.com/search-measures**

If these resources do not provide the information you need, please contact the air district in which your project is located. Each air district independently determines the timing and requirements for using CalEEMod Version 2022.1.1.3. The following air districts have provided specific contact information for CalEEMod user questions:

Air District	Contact	Email	Phone
Bay Area AQMD	CEQA Inquiries	**ceqa@baaqmd.gov**	
El Dorado County AQMD	Rania Serieh	**Rania.serieh@edcgov.us**	530-621-7509
Sacramento Metropolitan AQMD		**projectreview@airquality.org**	
San Luis Obispo County APCD		**caleemod@slocleanair.org**	
South Coast AQMD	Sam Wang	**swang1@aqmd.gov**	909-396-2649

Ventura County APCD	Nicole Collazo	**nicole@vcapcd.org**	805-303-3674

To report modeling errors or bugs please send an email and your project .json file to **CalEEMod@airquality.org**.

To receive future emails about CalEEMod, visit **https://www.caleemod.com/contact** to join the CalEEMod mailing list.