

# **1510 S. DE ANZA HOTEL**

**File No.: H19-017**

**Initial Study/Mitigated Negative Declaration**

---

## **RESPONSES TO PUBLIC COMMENTS AND TEXT CHANGES**

November 2020

*CEQA Lead Agency:*



**City of San José**  
**Department of Planning, Building and Code Enforcement**  
**200 East Santa Clara Street**  
**San Jose, California 95113 Phone: (408) 535-3555**

**In Consultation with:**



**Starbird Consulting**  
**115 S. 14<sup>th</sup> Street**  
**San Jose, CA 95112**

# Table of Contents

---

SECTION 1.0 SUMMARY OF COMMENTS .....	3
SECTION 2.0 AGENCIES AND PERSONS COMMENTING ON THE IS/MND .....	4
SECTION 3.0 RESPONSES TO COMMENTS.....	5
A. RESPONSE TO KATHERINE PEREZ.....	5
B. RESPONSE TO ED KETCHUM .....	5
C. RESPONSE TO IRENNE ZWIERLEIN.....	5
D. RESPONSE TO SHELLY GILES.....	6
E. RESPONSES TO VTA.....	7
F. RESPONSES TO LOZEAU DRURY LLP.....	10
SECTION 4.0 REVISIONS TO THE TEXT OF THE IS/MND.....	27
SECTION 5.0 COPIES OF LETTERS AND EMAILS RECEIVED.....	28

## **SECTION 1**

## **SUMMARY OF COMMENTS**

---

The South De Anza Hotel Project (1510 S. De Anza Boulevard) Initial Study /Mitigation Negative Declaration (IS/MND) was officially circulated for public review for a 20-day review period, from September 8-28, 2020. During the circulation period, the City of San José received six comment letters from Katherine Perez, Ed Ketchum, Irenne Zwierlein, Shelly Giles, Santa Clara Valley Transportation Authority (VTA), and Lozeau Drury LLP on behalf of Laborers International Union of North America, Local Union 270.

In summary, the comments received on the draft IS/MND did not raise any new issues about the project’s environmental impacts, or provide information indicating the project would result in new environmental impacts or impacts substantially greater in severity than disclosed in the IS/MND. CEQA does not require formal responses to comments on an IS/MND, only that the lead agency consider the comments received [CEQA Guidelines §15074(b)].

Nevertheless, responses to the comments are included in this document to provide a complete environmental record.

The following pages contain a list of the agencies and persons that submitted comments on the IS/MND and the City’s responses to comments received on the IS/MND. The specific comments have been excerpted from the letters and are presented as “Comment” with each response directly following (“Response”). Copies of the actual letters and emails submitted to the City of San Jose are included in Section 5.

**SECTION 2****AGENCIES AND PERSONS COMMENTING ON  
THE IS/MND**

---

<b>Comment Received From</b>	<b>Date of Letter</b>	<b>Response on Page</b>
1. Katherine Perez	September 9, 2020	5
2. Ed Ketchum	September 10, 2020	5
3. Irenne Zwierlein	September 15, 2020	5
4. Shelly Giles	September 22, 2020	6
5. Santa Clara Valley Transportation Authority (VTA)	September 29, 2020	7
6. Lozeau Drury LLP on behalf of Laborers International Union of North America, Local Union 270	September 28, 2020	10

## SECTION 3

## RESPONSES TO COMMENTS

---

This memo responds to comments on the IS/MND as they relate to the potential environmental impacts of the project under CEQA. Numbered responses correspond to comments in each comment letter. Copies of the comment letters are attached.

**COMMENT 1:** from Katherine Perez, North Valley Yokuts, dated September 9, 2020

**Comment 1A:** We are unaware of cultural sensitivity in the area of the proposed project.

**Response 1A:** The comment is consistent with the findings in the Initial Study/Mitigated Negative Declaration (IS/MND). This comment does not result in new CEQA analysis, new significant impacts, or additional mitigation measures than those analyzed and disclosed in the IS/MND and associated appendices. Therefore, no additional response is required.

**COMMENT 2:** from Ed Ketchum, Amah Mutsun Tribal Band, dated September 10, 2020

**Comment 2A:** The subject property is within the lands of the Tamien people taken primarily to Mission Santa Clara. Per agreement this land is represented by the Muwekma Tribal Band. I suggest you contact their government.

**Response 2A:** As stated in the IS/MND, in 2017, the City sent a letter to tribal representatives in the area to welcome participation in consultation process for all ongoing, proposed, or future projects within the City's Sphere of Influence or specific areas of the City. No tribes have requested notice of projects within the geographic area of the project site from the City of San José except for in Coyote Valley (approximately five miles southeast of the site). Due to the distance of the project site from Coyote Valley, the project would not have an impact on tribal cultural resources. To date, the tribe has not initiated formal consultation for this project. Further, the City contacted the Muwekma Tribal Band as part of the City's public distribution of the IS/MND. No Response was received. See Comment and Response 3A. No additional response is required.

**COMMENT 3:** from Irenne Zwierlein, Amah Mutsun Tribe, dated September 15, 2020

**Comment 3A:** Our recommendations are as follows:

Cultural Sensitivity Training for all crews involved in earth movement.

California Trained Archaeological monitoring.

Qualified Native American monitoring.

**Response 3A:** As described in Section 4.5 and Appendix C of the IS/MND for the project, an archaeological records search was completed for all areas within ¼-mile of the project site. It was determined that while cultural resources have not been discovered in five nearby sites, because the site is located within 500 feet of

Calabazas Creek, there is a moderate potential for Native American resources to be found during construction.

For this reason, consistent with the City's General Plan, standard permit conditions are included in the project, as identified on pages 63 and 64 of the IS/MND to reduce or avoid impacts to subsurface cultural and tribal resources to a less than significant level. These measures have been determined by the City to be sufficient for projects with a moderate potential for discovery of resources, and include notification of the Native American Heritage Commission should human remains be discovered. No further mitigation measures are required to avoid or reduce potential impacts. This comment does not necessitate new CEQA analysis, nor identify new significant impacts or additional mitigation measures than those analyzed and disclosed in the IS/MND and associated appendices. No further mitigation is required.

**COMMENT 4:** from Shelly Giles, dated September 22, 2020

**Comment 4A:** On page 115, there is a statement that shadows would be to the south along De Anza Blvd. Shadows usually go to the north.

**Response 4A:** Page 115 of the IS/MND states that "Shadows would be cast primarily to the south over commercial development and S. De Anza Blvd. to the east." In the Northern Hemisphere, shadows move from west to east, and will point north at noon. Land uses to the north are also commercial, so while the IS/MND is incorrect for the direction at noon, no additional impacts would occur. The IS/MND is correct that in the afternoons, shadows would be cast to the east on S. De Anza Boulevard. Neither different nor greater impacts related to shade and shadow would occur and no mitigation is required.

**Comment 4B:** On page 144, De Anza Blvd. is described as a Grand Blvd in Envision 2040. I have only found an early draft copy of Envision 2040, which does not describe De Anza as a Grand Blvd. Where can I find a copy of Envision 2040?

**Response 4B:** The Envision San Jose 2040 General Plan is available on the City's website at <https://www.sanjoseca.gov/your-government/departments/planning-building-code-enforcement/planning-division/citywide-planning/envision-san-jos-2040-general-plan>. South De Anza Boulevard is currently classified as a Main Street in the 2040 General Plan but is classified as a Grand Boulevard in the IS/MND and Local Transportation Analysis (LTA) at the recommendation of the City's Department of Transportation in order to align with future planning objectives for the street. This comment does not identify new CEQA analysis, new significant impacts, or additional mitigation measures than those analyzed and disclosed in the IS/MND and associated appendices. No further mitigation is required.

**Comment 4C:** On page 158, the parking requirement of 1 space for each room and employee less 20% is different and less than the requirement used for a hotel at 1090 S. De

Anza hotel (a 90 room project) approved last year. Has the requirement changed in the last year?

**Response 4C:** As stated in Appendix G, Local Transportation Analysis, “According to section 20.90.220.G.1 (Reduction in Required Off-Street Parking Spaces for “Other Uses”) of the Zoning Code, up to a 20% reduction in the required off-street parking for Hotels/Motels may be approved with a development permit or a development exception if no development permit is required, provided that such approval is based upon the findings that the project is either within two thousand feet of an existing or proposed bus or rail transit stop, or the use is clustered with other uses that share all parking spaces on a site. An existing bus stop is situated adjacent to the project site on S. De Anza Boulevard. Thus, the project qualifies for a 20 percent reduction in the City’s parking requirement. This comment does not identify the need for new CEQA analysis, new significant impacts, or additional mitigation measures than those analyzed and disclosed in the IS/MND and associated appendices. No further analysis or mitigation is required.

**Comment 4D:** I noticed that there have not been any signs posted on the site that describe the project. If memory serves me, a 6 ft. by 4 ft. was required to be posted on each street within 10 days of filing the permit to notify area residents. Has the sign requirement for posting signs been revised, and if so, what are the current requirements?

The signs are needed, since the District 1 Development web pages do not include this project and other projects in this area.

**Response 4D:** All City of San Jose planning permits require on-site noticing with the exception of permit adjustments, lot line adjustments, sidewalk café permits or other administrative permits. The City prefers on-site notices to be placed on site within ten working days of filing a development application, but placement of signage outside of the first ten working days is allowed. Signs were posted on the site by the applicant on September 29, 2020 and proof of posting was provided to the Project Manager on October 2, 2020. The comment does not raise issues with the adequacy of the CEQA IS/MND and therefore, no additional analysis is required.

**COMMENT 5: Santa Clara Valley Transportation Authority (VTA), Dated September 29, 2020**

**Comment 5A: Bus Stops**

VTA has an existing bus stop along the project frontage of the proposed South De Anza Hotel Project on northbound De Anza Boulevard south of Sharon Drive. The development will be served by local Route 51 that connects West Valley College, Cupertino, De Anza College, Downtown Mountain View, and Ames Research Park. The location of the street trees for the proposed project conflict with the existing bus stop. VTA recommends relocating the existing bus stop closer to Sharon Drive, which is an ideal location and the bus will not conflict with the street trees. See Attached.

**Response 5A:** The comment is correct that there is an existing VTA bus stop located adjacent to the site on S. De Anza Blvd., south of Sharon Drive. It has not yet been determined if the existing bus stop will remain in its current location or whether the project proponent will request that the bus stop be relocated. The City will continue to consult with VTA. This comment does not identify the need for new CEQA analysis, new significant impacts, or additional mitigation measures than those analyzed and disclosed in the IS/MND and associated appendices.

**Comment 5B:**

VTA would like the opportunity to review updated site plans to ensure the placement of driveways, landscaping, and any other features do not conflict with bus operations. VTA's Transit Passenger Environmental Plan provides design guidelines for bus stops. This document can be downloaded at <https://www.vta.org/projects/transit-passenger-environment-plan>. VTA has a Bus Stop Placement, Closures and Relocations Policy (<https://www.vta.org/sites/default/files/document/busstoppolicy.pdf>). Prior to any construction or bus stop impact, please contact bus [stop@vta.org](mailto:stop@vta.org).

**Response 5B:** The most updated site plans to date were shared with VTA on October 6, 2020. The City will continue to consult with VTA. This comment does not identify the need for new CEQA analysis, new significant impacts, or additional mitigation measures than those analyzed and disclosed in the IS/MND and associated appendices.

**Comment 5C: Pedestrian Circulation**

VTA appreciates the new curb ramp at the southeast corner of the intersection of De Anza Boulevard and Sharon Drive noted in Appendix G. VTA recommends this curb ramp be placed directionally (not at an angle) so pedestrians can have a more direct and intuitive route to cross Sharon Drive and do not need to veer into De Anza Boulevard in order to cross Sharon Drive.

**Response 5C:** VTA's recommendations on the location of the curb ramp will be taken into account during preparation of final plans during the final design process in coordination with the City's Public Works Division and Department of Transportation. This comment does not identify new CEQA analysis, new significant impacts, or additional mitigation measures than those analyzed and disclosed in the IS/MND and associated appendices.

**Comment 5D: Bicycle Parking**

VTA applauds the inclusion of a bicycle parking room in the project. VTA recommends only having access to the room from the back of house space and to remove the access to the room from the outside. This provides a higher level of security for those using the room and helps prevent theft. VTA also recommends the access point into the bike room use ADA-compliant kick plates on both sides to allow riders to easily open the door and maneuver their bikes into and out of the room.



VTA notes that Appendix G states that the bicycle parking room would hold eight bicycles by Figure 4: Site Plan states the room would store 16 bikes. If the bicycle parking room would store 16 bicycles using stacking racks, removing the second access point to the outside would allow for extra floor space for recumbent bikes, bikes with trailers, or other non-standard bicycles that might not fit on stacking racks.

**Response 5D:** The comment is correct that that the bicycle room will include storage for 16 bicycles and up to four additional spaces will be located off the lobby near the west side of the proposed structure. The City acknowledges VTA's recommendations for bicycle parking room improvements. Bicycle parking will be built to Municipal Code and ADA requirements. This comment does not identify new CEQA analysis, new significant impacts, or additional mitigation measures than those analyzed and disclosed in the IS/MND and associated appendices.

**Comment 5E:**

The transportation analysis in the MND does not address any potential impacts that increased motor vehicle traffic and congestion associated with the project may have on transit travel times on the De Anza Boulevard corridor. While VTA is supportive of increasing development densities along this corridor, increased congestion could degrade the schedule reliability of transit and increase travel times, making transit a less attractive option for travelers in the corridor. VTA requests a meeting to discuss the City of San Jose's comprehensive approach to address transit delay if it will be studied and included in transportation analyses for projects.

**Response 5E:** The peak hour intersection level of service calculations contained in the Transportation Analysis demonstrate that, due to the relatively low project trip generation (fewer than 100 peak hour vehicle trips), the project would have little effect on vehicle delay along S. De Anza Boulevard, including delay for local bus route 51. The four signalized intersections along S. De Anza Boulevard that were analyzed currently operate at LOS C or better, with 3 of the 4 operating at LOS B, and would continue to do so with the addition of project generated traffic. LOS B and C operation illustrates low vehicle delay and good signal progression. Thus, based on the results of the signalized intersection level of service analysis using TRAFFIX software<sup>1</sup>, it can be concluded that the project would not have a noticeable effect on transit travel times along S. De Anza Boulevard. This comment does not identify new CEQA analysis, new significant impacts, or additional mitigation measures than those analyzed and disclosed in the IS/MND and associated appendices.

---

<sup>1</sup> As stated on page 10 of Appendix G of the IS/MND (Local Transportation Analysis), the Cities of Cupertino and Saratoga level of service methodology for signalized intersection is the 2000 Highway Capacity Manual (HCM) method. This method is applied using the TRAFFIX software. The 2000 HCM operations method evaluates signalized intersection operations on the basis of average control delay time for all vehicles at the intersection.

**Comment 6: Lozeau Drury LLP on behalf of Laborers International Union of North America, Local Union 270 and its members living in and around the City of San Jose (“LIUNA”), Dated September 28, 2020.**

**Comment 6A:** After reviewing the IS/MND, and with the assistance of expert review by environmental consulting firms Indoor Environmental Engineering (Exhibit A), and Wilson Ihrig (Exhibit B), and, the evidence indicates that there is a “fair argument” that the Project may have significant unmitigated adverse environmental impacts or, alternatively, the IS/MND is not supported by substantial evidence. The expert comments as well as the comments below identify substantial evidence of a fair argument that the Project may have significant environmental impacts. Accordingly, an environmental impact report (“EIR”) is required to analyze these impacts and to propose all feasible mitigation measures to reduce those impacts. We urge the Planning Director to decline to approve the IS/MND, and to instruct staff to prepare an EIR for the Project prior to any Project approvals.

**I. PROJECT BACKGROUND**

The proposed Project includes the demolition of an existing Kelly-Moore Paint store, and construction of a 4-story, 147,134 square foot hotel with 132 guest rooms, rooftop deck and underground parking and associated grading on a 0.86 acre site (“Project”) located at the southeast corner of South DeAnza Blvd. and Sharon Drive (APN 372-21-002) (“Project Site”). The Project Site is only 75 feet from a nearby preschool and 120 feet from residences. (IS/MND 33).

**II. LEGAL STANDARD**

As the California Supreme Court held, “[i]f no EIR has been prepared for a nonexempt project, but substantial evidence in the record supports a fair argument that the project may result in significant adverse impacts, the proper remedy is to order preparation of an EIR.” *Communities for a Better Env’t v. South Coast Air Quality Management Dist.* (2010) 48 Cal.4th 310, 319-320 [“CBE v. SCAQMD”], citing, *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 75, 88; *Brentwood Assn. for No Drilling, Inc. v. City of Los Angeles* (1982) 134 Cal.App.3d 491, 504–505. “Significant environmental effect” is defined very broadly as “a substantial or potentially substantial adverse change in the environment.” Pub. Res. Code [“PRC”] § 21068; see also 14 CCR § 15382. An effect on the environment need not be “momentous” to meet the CEQA test for significance; it is enough that the impacts are “not trivial.” *No Oil, Inc.*, supra, 13 Cal.3d at 83. “The ‘foremost principle’ in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language.” *Communities for a Better Env’t v. Cal. Resources Agency* (2002) 103 Cal.App.4th 98, 109 [“CBE v. CRA”].

The EIR is the very heart of CEQA. *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1214; *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 927. The EIR is an “environmental ‘alarm bell’ whose purpose is to alert the public and its responsible officials to environmental changes before they have reached the ecological points of no return.” *Bakersfield Citizens*, 124 Cal.App.4th at 1220. The EIR also functions as a “document of accountability,” intended to “demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action.” *Laurel Heights Improvements Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 392. The EIR process “protects not only the environment but also informed self-government.” *Pocket Protectors*, 124 Cal.App.4th at 927.

An EIR is required if “there is substantial evidence, in light of the whole record before the lead agency, that the project may have a significant effect on the environment.” PRC § 21080(d); see also *Pocket Protectors*, 124 Cal.App.4th at 927. In 1510 South De Anza Hotel Project (File No. H19-017) very limited circumstances, an agency may avoid preparing an EIR by issuing a negative declaration, a written statement briefly indicating that a project will have no significant impact thus requiring no EIR (14 Cal. Code Regs. § 15371), only if there is not even a “fair argument” that the project will have a significant environmental effect. PRC, §§ 21100, 21064. Since “[t]he adoption of a negative declaration . . . has a terminal effect on the environmental review process,” by allowing the agency “to dispense with the duty [to prepare an EIR],” negative declarations are allowed only in cases where “the proposed project will not affect the environment at all.” *Citizens of Lake Murray v. San Diego* (1989) 129 Cal.App.3d 436, 440. A mitigated negative declaration is proper only if the project revisions would avoid or mitigate the potentially significant effects identified in the initial study “to a point where clearly no significant effect on the environment would occur, and...there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment.” PRC §§ 21064.5 and 21080(c)(2); *Mejia v. City of Los Angeles* (2005) 130 Cal.App.4th 322, 331. In that context, “may” means a reasonable possibility of a significant effect on the environment. PRC §§ 21082.2(a), 21100, 21151(a); *Pocket Protectors, supra*, 124 Cal.App.4th at 927; *League for Protection of Oakland's etc. Historic Resources v. City of Oakland* (1997) 52 Cal.App.4th 896, 904–905.

Under the “fair argument” standard, an EIR is required if any substantial evidence in the record indicates that a project may have an adverse environmental effect—even if contrary evidence exists to support the agency’s decision. 14 CCR § 15064(f)(1); *Pocket Protectors*, 124 Cal.App.4th at 931; *Stanislaus Audubon Society v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150-15; *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1602. The “fair argument” standard creates a “low threshold” favoring environmental review

through an EIR rather than through issuance of negative declarations or notices of exemption from CEQA. *Pocket Protectors*, 124 Cal.App.4th at 928.

The “fair argument” standard is virtually the opposite of the typical deferential standard accorded to agencies. As a leading CEQA treatise explains:

This ‘fair argument’ standard is very different from the standard normally followed by public agencies in making administrative determinations. Ordinarily, public agencies weigh the evidence in the record before them and reach a decision based on a preponderance of the evidence. [Citations]. The fair argument standard, by contrast, prevents the lead agency from weighing competing evidence to determine who has a better argument concerning the likelihood or extent of a potential environmental impact. The lead agency’s decision is thus largely legal rather than factual; it does not resolve conflicts in the evidence but determines only whether substantial evidence exists in the record to support the prescribed fair argument.

Kostka & Zishcke, *Practice Under CEQA*, §6.29, pp. 273-274. The Courts have explained that “it is a question of law, not fact, whether a fair argument exists, and the courts owe no deference to the lead agency’s determination. Review is de novo, with a preference for resolving doubts in favor of environmental review.” *Pocket Protectors*, 124 Cal.App.4th at 928.

In addition, a negative declaration must accurately describe the proposed project and its environmental setting. *Christward Ministry v. Superior Court* (1986) 184 Cal.App.3d 180; CEQA Guidelines §15071(a). The initial study must “provide documentation of the factual basis for the finding in a Negative Declaration that a project will not have a significant effect on the environment.” CEQA Guidelines §15063(c)(5).

**Response 6A:** The comments above include the project description and multiple recitals of the sections of the CEQA guidelines and the results of CEQA court cases. The recitals in this comment do not appear to be directly related to the proposed project. This comment does not identify any inadequacy with the CEQA analysis, new significant impacts, or additional mitigation measures than those analyzed and disclosed in the IS/MND and associated appendices. Therefore, no additional response is required.

**Comment 6B: III. There is a Fair Argument that the Project May Have Unmitigated Adverse Environmental Impacts.**

**A. The Project May Have Adverse Indoor Air Quality Impacts.**

Certified Industrial Hygienist, Francis “Bud” Offermann, PE, CIH, has conducted a review of the Project, the IS/MND and relevant appendices regarding the Project’s indoor air emissions. (Indoor Environmental Engineering Comments (Exhibit A)). Mr. Offermann concludes that it is likely that the Project will expose future workers employed at the hotel to significant impacts related to indoor air quality, and in particular, emissions of the

cancer-causing chemical formaldehyde. Mr. Offermann is one of the world's leading experts on indoor air quality and has published extensively on the topic.

Mr. Offermann explains that many composite wood products typically used in hotel construction contain formaldehyde-based glues which off-gas formaldehyde over a very long time period. The IS/MND states that the Project will use composite wood products. (IS/MND 10). Offermann states, "The primary source of formaldehyde indoors is composite wood products manufactured with urea-formaldehyde resins, such as plywood, medium density fiberboard, and particle board. These materials are commonly used in residential and hotel building construction for flooring, cabinetry, baseboards, window shades, interior doors, and window and door trims."

Formaldehyde is a known human carcinogen. Mr. Offermann states that there is a fair argument that full-time workers at the Project will be exposed to a cancer risk from formaldehyde of approximately 16.4 per million. (Exhibit A, p. 4). This is well above the Bay Area Air Quality Management District (BAAQMD) CEQA significance threshold for airborne cancer risk of 10 per million.

**Response 6B:** The comment letter and supporting memorandum from Bud Offerman on indoor air quality assert that a fair argument exists for the project to have indoor air quality impacts to future occupants of the project because the project may include interior fixtures, such as composite wood products, that could contain formaldehyde, a known carcinogen. This assertion of a fair argument is incorrect for the following reasons:

- a) Sources of formaldehyde that are mentioned in this comment cannot be linked to this project and it is speculative to state those results are directly applicable to new hotel construction. It should be noted that the project is not a unique source of formaldehyde emissions, which are regulated by state and federal agencies. Substantial sources of formaldehyde emissions from the project have not been identified and the commenter is speculating in the assertion that composite wood materials would be used in the interior of the building. Indoor building materials will not be known until the building permit stage;
- b) The project will be required to comply with the 2019 California Green Building Standards Code (CALGreen), which specifies that composite wood products (such as hardwood plywood and particleboard) meet the requirements for formaldehyde as specified in the California Air Resources Board's Airborne Toxic Control Measures, which do not allow added formaldehyde-based resins or ultra-low emitting formaldehyde resins; and
- c) The project will be required to comply with the City's Green Building Ordinance in Chapter 17.84 of the Municipal Code, which includes U.S. Building Council LEED certification for the proposed project which will require measures to improve indoor air quality.

Furthermore, the BAAQMD thresholds mentioned apply to sensitive receptors such as residential areas, daycare centers, senior housing, and hospitals. As mentioned above, the exposure levels (workplace) and contaminant intake levels presented in the comment are speculative and do not take into account stringent requirements in the City's Municipal Code, CalGreen Code, and LEED certification.

Cal/Occupational Safety and Health Administration ("OSHA") is also a regulator for indoor formaldehyde, guaranteeing protection for the health and safety of workers in California.

Further, the US Environmental Protection Agency (US EPA) has set limits on how much formaldehyde can be released from composite wood products and established a program in which independent certifying organizations will verify that composite wood panel producers comply with the limits on formaldehyde releases.<sup>2</sup>

For the reasons described above, there is not a fair argument that the project would result in indoor air quality impacts to future workers at the proposed hotel and the preparation of an EIR is not required.

**Comment 6C:** Mr. Offermann concludes that this significant environmental impact should be analyzed in an EIR and mitigation measures should be imposed to reduce the risk of formaldehyde exposure. *Id.*, pp. 12-13. Mr. Offermann suggests several feasible mitigation measures, such as requiring the use of no-added-formaldehyde composite wood products, which are readily available. Offermann Comments, pp. 12-13. Mr. Offermann also suggests requiring air ventilation systems which would reduce formaldehyde levels. *Id.* Since the MND does not analyze this impact at all, none of these or other mitigation measures are considered.

When a Project exceeds a duly adopted CEQA significance threshold, as here, this alone establishes a fair argument that the project will have a significant adverse environmental impact and an EIR is required. Indeed, in many instances, such air quality thresholds are the only criteria reviewed and treated as dispositive in evaluating the significance of a project's air quality impacts. See, e.g. *Schenck v. County of Sonoma* (2011) 198 Cal.App.4th 949, 960 (County applies BAAQMD's "published CEQA quantitative criteria" and "threshold level of cumulative significance"). See also *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 110-111 ("A 'threshold of significance' for a given environmental effect is simply that level at which the lead agency finds the effects of the project to be significant"). The California Supreme Court made clear the substantial importance that an air district significance threshold plays in providing substantial evidence of a significant adverse impact. *Communities for a Better Environment v. South Coast Air Quality Management Dist.* (2010) 48 Cal.4th 310, 327 ("As the [South Coast Air Quality Management] District's established significance threshold for NOx is 55 pounds per day, these estimates [of NOx emissions of 201 to 456 pounds per day]

---

<sup>2</sup> <https://www.epa.gov/formaldehyde/facts-about-formaldehyde#EPAformaldehydeaction>, Accessed October 7, 2020.

constitute substantial evidence supporting a fair argument for a significant adverse impact”). Since expert evidence demonstrates that the Project will exceed the BAAQMD’s CEQA significance threshold, there is a fair argument that the Project will have significant adverse impacts and an EIR is required.

Mr. Offermann also notes that the high cancer risk that may be posed by the Project’s indoor air emissions likely will be exacerbated by the additional cancer risk that exists from vehicle emissions from the nearby South DeAnza Blvd, and Sharon Drive.

**Response 6C:** Please refer to Response 6B. The exposure levels (workplace) and contaminant intake levels presented in the comment are speculative and do not take into account stringent requirements in the City’s Municipal Code, CalGreen Code, and LEED certification, as well as Cal/OSHA and US EPA restrictions and programs regarding formaldehyde levels. Ventilation systems must also be in compliance with the above regulations. There is no BAAQMD threshold for indoor formaldehyde exposure.

The commenter argues that the project may have significant operational air pollution and health risk impacts because the air quality analysis underestimated the future residents and vehicle trips generated by the project. However, based on BAAQMD’s screening operational air quality screening levels in their 2017 CEQA Guidelines, which are based on best available science, a hotel project would have to have 489 units or more to have an operational air quality impact. The project proposes only 132 rooms, far below the screening thresholds. Therefore, the project would not have a significant operational air quality impact.

However, an operational air quality assessment was still performed (Table 4.3-3 of Section 4.3 of the IS/MND) which found operations to be well below BAAQMD significance thresholds, as shown below.

<b>Table 4.3-3: Operational Emissions</b>				
<b>Scenario</b>	<b>ROG</b>	<b>NOx</b>	<b>PM10</b>	<b>PM2.5</b>
Annual Emissions				
2023 Project Operational Emissions (tons/year)	0.7 tons	1.2 tons	1.0 tons	0.3 tons
<i>BAAQMD Thresholds (tons/year)</i>	10 tons	10 tons	15 tons	10 tons
<b><i>Exceed Threshold?</i></b>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>
2023 Project Operational Emissions (lbs/day)	3.8 lbs.	6.7 lbs.	5.5 lbs.	1.6 lbs.
<i>BAAQMD Thresholds (pounds/day)</i>	54 lbs.	54 lbs.	82 lbs.	54 lbs.
<b><i>Exceed Threshold?</i></b>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>
Note: Assumes 365-day operation.				

Traffic-related air quality emissions and impacts to nearby sensitive receptors were analyzed as part of the air quality analysis for the project and included in the CalEEMOD evaluation, as required by CEQA. Operational emissions, including traffic generation and the emergency generator were determined to not exceed BAAQMD thresholds and are therefore, less than significant. No further mitigation, other than standard permit conditions and compliance with applicable City, State, and Federal regulations, as previously discussed, is required.

**Comment 6D:** In similar circumstances, City staff claimed that a California Supreme Court decision – *California Building Industry Ass’n v. Bay Area Air Quality Mgmt. Dist.* (2015) 62 Cal.4th 369, 386 (“CBIA”) – ruled that this type of air quality impact need not be addressed under CEQA because future residents of a mixed use project are part of the project and CEQA does not require evaluation of health or other impacts of a project on itself. To the extent staff again takes the position that future workers are not worthy of considering health protections under CEQA because they are part of the Project, staff’s responses would be incorrect as a matter of law. Indeed, rather than support staff’s response, the California Supreme Court in CBIA expressly holds that potential adverse impacts to future users and residents from pollution generated by a proposed project **must be addressed** under CEQA.

At issue in CBIA was whether the Air District could enact CEQA guidelines that advised lead agencies that they must analyze the impacts of adjacent environmental conditions on a project. The Supreme Court held that CEQA does not generally require lead agencies to consider the environment’s effects on a project. (CBIA, 62 Cal.4th at 800-801.) However, to the extent a project may exacerbate existing adverse environmental conditions at or near a project site, those would still have to be considered pursuant to CEQA. (*Id.* at 801) (“CEQA calls upon an agency to evaluate existing conditions in order to assess whether a project could exacerbate hazards that are already present”). In so holding, the Court expressly held that CEQA’s statutory language required lead agencies to disclose and analyze “impacts on a **project’s users or residents** that arise from the **project’s effects** on the environment.” (*Id.* at 800 (emphasis added).)

The carcinogenic formaldehyde emissions identified by Mr. Offermann are not an existing environmental condition. Those emissions to the air will be from the Project. Employees will be users of the hotel. Currently, there is presumably little if any formaldehyde emissions at the site. Once the Project, emissions will begin at levels that pose significant health risks. Rather than excusing the City from addressing the impacts of carcinogens emitted into the indoor air from the Project, the Supreme Court in CBIA expressly finds that this type of effect by the project on the environment and a project’s users and residents” must be addressed in the CEQA process.

The Supreme Court’s reasoning is well-grounded in CEQA’s statutory language. CEQA expressly includes a project’s effects on human beings as an effect on the environment that must be addressed in an environmental review. “Section 21083(b)(3)’s express language,



for example, requires a finding of a ‘significant effect on the environment’ (§ 21083(b)) whenever the ‘environmental effects of a project will cause substantial adverse effects *on human beings*, either directly or indirectly.’” (CBIA, 62 Cal.4th at 800 (emphasis in original.) Likewise, “the Legislature has made clear—in declarations accompanying CEQA’s enactment—that public health and safety are of great importance in the statutory scheme.” (*Id.*, citing e.g., §§ 21000, subds. (b), (c), (d), (g), 21001, subds. (b), (d).) It goes without saying that the hundreds of future employees at the Project are human beings and the health and safety of those workers is as important to CEQA’s safeguards as nearby residents currently living adjacent to the Project site.

**Response 6D:** Please refer to Response 6C. The project would not result in significant operational emissions and is required to be in compliance with City, State, and Federal requirements related to the use of interior building materials. As a result, the project will not expose future hotel workers or patrons to air quality impacts, as defined by CEQA and the BAAQMD. This comment does not identify new CEQA analysis, new significant impacts, or additional mitigation measures than those analyzed and disclosed in the IS/MND and associated appendices.

**Comment 6E: B. The Project May Have Adverse Noise Impacts.**

Derek Watry of Acoustical engineer (sic) firm, Wilson Ihrig, has reviewed the IS/MND and concludes that the Project will have significant unmitigated noise impacts (Exhibit B). An EIR is required to analyze and mitigate these impacts.

The Noise Assessment and IS/MND both recognize that unchecked construction noise would cause a significant impact. (Noise Assessment at p. 20; IS/MND 127). To reduce this impact to less than significant, the IS/MND includes Mitigation Measure NOI-1.2 which contains 14 actions or potential actions that would serve to either reduce noise levels or, at a minimum, be “good neighbor” actions that would foster a better relationship with the noise-sensitive receptors in the vicinity.

Mr. Watry concludes that the mitigation measures proposed are inadequate to reduce the Project’s significant noise impacts to less than significant either because they are ineffective, or unenforceable. Mr. Watry states that the following measures will not substantively reduce noise levels (Exhibit B, p. 3):

- Limiting the hours of construction to 7:00 AM to 7:00 PM on Mondays through Fridays.
- Ensuring that all equipment with internal combustion engines are fitted with mufflers.
- Strictly prohibiting unnecessary idling of internal combustion engines.
- Ensuring that radios are not audible at nearby residences.
- Notifying all adjacent businesses, residences, and other noise-sensitive neighbors of noise construction activities in writing.
- Designating a “disturbance coordinator” and both posting and distributing a telephone number for people to call.

To facilitate CEQA's informational role, the EIR must contain facts and analysis, not just the agency's bare conclusions or opinions. Here, the IS/MND included no facts or analysis to support the inference that the mitigation measures will have a quantifiable "substantial" impact on reducing the adverse effects. (*Sierra Club v. Cty. of Fresno*, 6 Cal. 5th 502, 522 (2018)). Since the IS/MND does not calculate how much the above measures will reduce noise impacts, if at all, the City cannot rely on those measures to reduce impacts to less than significant.

**Response 6E:** The construction noise analysis (Table 7 of Appendix F) and page 125 of Section 4.13 of the IS/MND discloses that existing ambient levels would be exceeded by five (5) dBA Leq<sup>3</sup> during construction for a period of more than one year. This is the City's threshold for construction noise. This impact would be significant and mitigation for the impact is required to reduce the construction noise levels to less than significant. The analysis included all industry standard analyses and facts required by CEQA. The mitigation required is consistent with the City's Envision San Jose 2040 General Plan which requires that reasonable noise reduction measures be incorporated into the construction plans to reduce construction noise levels as low as practical.

The finding related to construction noise impacts in the General Plan (Policy EC-1.7) was that, "The potential short-term construction noise impacts from development and redevelopment allowed by the Envision San José 2040 General Plan would be mitigated through the implementation of proposed General Plan policies and existing regulations that require reasonable noise reduction measures be incorporated into the construction plans and implemented during all phases of construction activity to minimize the exposure of neighboring properties."

The proposed project is consistent with the land use designations of the General Plan. Implementation of Envision Policy EC-1.7 requires a noise logistics plan which would include, but not be limited to, the following best management practices to reduce construction noise levels as low as practical:

- Construction activities shall be limited to the hours between 7:00 AM and 7:00 PM, Monday through Friday, unless permission is granted with a development permit or other planning approval. No construction activities are permitted on the weekends at sites within 500 feet of a residence (San José Municipal Code Section 20.100.450).
- Construct temporary noise barriers, where feasible, around the perimeter of the construction site. The temporary noise barrier fences provide noise reduction if the noise barrier interrupts the line-of-sight between the noise source and

---

<sup>3</sup> Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events. This *energy-equivalent sound/noise descriptor* is called Leq. The most common averaging period is hourly, but Leq can describe any series of noise events of arbitrary duration.

receiver and if the barrier is constructed in a manner that eliminates any cracks or gaps.

- Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- Unnecessary idling of internal combustion engines shall be strictly prohibited.
- Locate stationary noise-generating equipment such as air compressors or portable power generators as far as possible from sensitive receptors. Construct temporary noise barriers to screen stationary noise-generating equipment when located near adjoining sensitive land uses.
- Utilize "quiet" air compressors and other stationary noise sources where technology exists.
- Construction staging areas shall be established at locations that would create the greatest distance between the construction-related noise source and noise-sensitive receptors nearest the project site during all project construction.
- A temporary noise control blanket barrier shall be erected, if necessary, along building facades facing construction sites. This mitigation would only be necessary if conflicts occurred which were irresolvable by proper scheduling.
- If impact pile driving is proposed, foundation pile holes shall be pre-drilled to minimize the number of impacts required to seat the pile. Pre-drilling foundation pile holes is a standard construction noise control technique. Pre-drilling reduces the number of blows required to seat the pile. (not applicable)
- Locate material stockpiles, as well as maintenance/equipment staging and parking areas, as far as feasible from residential receptors.
- Control noise from construction workers' radios to a point where they are not audible at existing residences bordering the project site.
- The project applicant shall prepare a detailed construction schedule for major noise-generating construction activities. The construction plan shall identify a procedure for coordination with adjacent residential land uses so that construction activities can be scheduled to minimize noise disturbance.
- Notify all adjacent business, residences, and other noise-sensitive land uses of the construction schedule, in writing, and provide a written schedule of "noisy" construction activities to the adjacent land uses and nearby residences.
- Designate a "disturbance coordinator" who shall be responsible for responding to any complaints about construction noise. The disturbance coordinator shall determine the cause of the noise complaint (e.g., bad muffler, etc.) and require that reasonable measures be implemented to correct the problem.  
Conspicuously post a telephone number for the disturbance coordinator at the construction site and include it in the notice sent to neighbors regarding the construction schedule.

With the implementation of GP Policy EC-1.7, Municipal Code requirements, and the above measures, the temporary construction noise impact would be reduced to a less than significant level.

Another consideration is that the construction period for this relatively small project is only 15 months in duration. Substantial noise generating activities (such as building demolition, grading, excavation, pile driving, use of impact equipment, or building framing) would not continue for more than 12 months (the City's threshold) once construction moves from the exterior to the interior of the structure. The analysis conservatively found that construction noise levels would exceed the 12-month threshold when including non-workdays.

As stated in Section 4.13 of the IS/MND, the General Plan and Municipal Code require that reasonable noise reduction measures be incorporated into the construction plans to reduce construction noise levels as low as practical. For this reason, additional "good-neighbor" type mitigation measures would be included in the project to further reduce the potential for annoyance due to construction noise. Because final design and construction plans have not yet been prepared, quantifying the noise reduction is not possible or desirable. This will be determined at the final design stage once construction equipment is determined, as part of the Noise Logistics Plan (MM NOI-1.1). No further mitigation is required and the impact is less than significant with mitigation incorporated into the project, as allowed by CEQA. No further response is required.

**Comment 6F:** Mr. Watry concludes that the following mitigation measures are either impractical or unenforceable (Mr. Watry's comments are underlined):

- Utilizing the best available noise suppression devices and techniques – This is a vague standard that is essentially unenforceable.
- Locating stationary noise-generating equipment as far as possible from sensitive receptors – The qualifier "as possible" renders this action meaningless as a practical matter. While the contractor very well may be able to do this in some circumstances, who is to determine if it is possible in circumstances where the equipment is placed, for example, near the eastern property line? How would this be enforced?
- Utilizing "quiet" air compressors and other stationary equipment where technology exists – Similar to the previous action, who is to make this determination and when? How would this be enforced?
- Locating construction staging areas to create the greatest distance from noise-sensitive receptors during all project construction – The contractor will be constrained as to where the staging areas on the project site can be, and this will change as construction proceeds. I believe this is impractical and unenforceable.
- Locating stockpiles as far from residential receptors as feasible – The qualifier "as feasible" renders this measure vague and unenforceable.
- Preparing a detailed construction schedule for major noise-generating activities and coordinating with the residential neighbors so that construction activities can be

schedule to minimize noise disturbance – While preparing a detailed schedule and discussing that with residential neighbors is a good idea, it is impractical to assert that all construction activities will be scheduled to minimize disturbance. It may be possible in some instances.

A public agency may not rely on mitigation measures of uncertain efficacy or feasibility. (*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 727 (finding groundwater purchase agreement inadequate mitigation measure because no record evidence existed that replacement water was available).) “Feasible” means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors. (14 CCR § 15364.) Mitigation measures must be fully enforceable through permit conditions, agreements or other legally binding instruments. (14 CCR §15126.4(a)(2); See *Woodward Park Homeowners Assn., Inc. v. City of Fresno* (2007) 150 Cal. App. 4th 683, 730 (project proponent’s agreement to a mitigation by itself is insufficient; mitigation measure must be an enforceable requirement)). Since the above measures are not enforceable, they are not adequate to reduce the Project’s significant noise impacts to less than significant.

Mr. Watry concludes that the final three noise mitigation measures are not enforceable:

- Construct temporary noise barriers, where feasible, around the perimeter of the site.
- Construct temporary noise barriers to screen stationary noise-generating equipment when located near sensitive receptors.
- Hang temporary noise control blankets along the façade of 7246 Sharon Drive, if necessary, if conflicts occur.

Mr. Watry notes that “In all of these, the bolded phrases may be construed such that none of these are actually implemented.” As discussed above, mitigation measures must be binding and enforceable. As Mr. Watry concludes, the proposed measures meet neither requirement.

Mr. Watry proposes binding measures that would be effective, such as imposing binding performance standards, of placing a noise barrier wall at specific locations near sensitive receptors. These measures must be analyzed in an EIR. (Exhibit B, p. 3).

Finally, Mr. Watry concludes that proposed mitigation measures are not adequate to reduce the Project’ admittedly significant vibration impacts to less than significant. (Exhibit B, p. 5). Mr. Watry notes that many of the vibration mitigation measures include the term “where possible,” rendering them unenforceable. (Id. Citing IS/MND 132-133).

**Response 6F:** Please refer to Response 6E. Neither the IS/MND nor the Noise Report (Appendix F) mention the use of a noise blanket at 7246 Sharon Drive and the comment above is misleading and incorrect. These documents identify the following noise mitigation measure (MM NOI-1.2, IS/MND page 128):

- A temporary noise control blanket barrier shall be erected, if necessary, along building facades facing construction sites. This mitigation would only be necessary if conflicts occurred which were irresolvable by proper scheduling.

The Noise Logistics Plan (MM NOI-1.1 and 1.2) that is required to be prepared (and is included in the project) will determine whether such blankets are required based upon final determination of the types construction equipment that will be used. Such information is provided by the construction contractor at the project development stage and cannot be known at this time. This is true of all construction projects at the time environmental review is completed and the mitigation measures included in the IS/MND are the same as would be included in an EIR to reduce the impact to a less than significant level.

The noise analysis completed for the IS/MND determined that construction of the proposed project could generate vibration levels in excess of 0.2 in/sec. PPV, which is above the City's threshold and could result in cosmetic damage to surrounding commercial structures. This is a significant impact related to vibration levels and potential damage to nearby structures (p. 132, IMPACT NOI-2). Mitigation measure MM NOI-2.1 includes an extensive list of mitigation measures for vibration impacts including preparation of a Construction Vibration Monitoring, Treatment, and Reporting Plan prior to issuance of grading or demolition permits.

If it is determined during the final construction stage that it is not possible to keep heavy vibration-generating construction equipment 20 feet from the adjacent commercial structures (no homes or other sensitive receptors are located adjacent to the site), the City may determine that additional measures or "contingency plans" are required as stated in the mitigation measures (MM NOI-2.1) on page 132 of the IS/MND. With the implementation of the mitigation measures, which are included in the project, vibration impacts would be less than significant.

The commenter makes the argument that the mitigation measures use language such as "as possible; as feasible" that is too vague to be enforceable. This language serves to allow the applicant and contractor flexibility until grading and construction begins, as final construction details are often not known until after the entitlement period. As stated in MM NOI-2.1, all tasks will be undertaken by a licensed Professional Structural Engineer in the State of California and be in accordance with industry-accepted standard methods.

As stated in MM NOI-2.1, vibration limits shall be set by the engineer of record and applied to vibration-sensitive structures located within 30 feet of all construction activities identified as sources of high vibration levels. Clear performance standards will be determined prior to commencement of construction depending on the conditions of the existing off-site structures. Completion of a photo survey, elevation survey, and crack monitoring survey for each structure of normal

construction within 30 feet of all construction activities identified as sources of high vibration levels. Surveys shall be performed prior to any construction activity, in regular intervals during construction, and after project completion, and shall include internal and external crack monitoring in structures, settlement, and distress, and shall document the condition of foundations, walls and other structural elements in the interior and exterior of said structures.

The referenced mitigation measures for temporary construction noise will be required to be printed on final grading and building plans and will require sign off by the Director of Planning, Building, and Code Enforcement, or Director's designee, prior to issuance of said permits. The implementation of these measures is then binding and enforceable as relevant grading and building permits will be able to be withheld if the measures are not satisfied.

The mitigation measures presented in the IS/MND are the same as what would be included in an EIR. Their inclusion in the IS/MND, as required by CEQA, does not mean that an EIR is required. The City has determined that a Mitigated Negative Declaration was the correct environmental document for the proposed project and that the mitigation measures included are satisfactory to reduce temporary construction noise levels to less than significant.

**Comment 6G: C. The IS/MND Fails to Adequately Mitigate the Project's Significant Air Quality Impacts.**

The IS/MND admits that "maximum cancer risks and PM2.5 concentration from the project construction would exceed the BAAQMD single-source thresholds and expose sensitive receptors to significant pollutant concentrations." (IS/MND 1).

The IS/MND proposes MM AQ-1 to address this impact, however, this measure (sic) constituted deferred mitigation. The measure states:

"Prior to issuance of any demolition or grading permits, the project applicant shall submit to the Director of Planning, Building and Code Enforcement or Director's designee, a construction operations plan that includes specifications for the equipment to be used during construction."

CEQA prohibits development of mitigation measures after project approval, subject to review only by City staff. Mitigation measures must be set forth in the CEQA document so that the public can review the measures and comment on their adequacy. Feasible mitigation measures for significant environmental effects must be set forth in a CEQA document for consideration by the lead agency's decision makers and the public before certification of the EIR and approval of a project. The formulation of mitigation measures generally cannot be deferred until after certification of the CEQA document and approval of a project. Guidelines, section 15126.4(a)(1)(B) states: "Formulation of mitigation measures should not be deferred until some future time. However, measures may specify

performance standards which would mitigate the significant effect of the project and which may be accomplished in more than one specified way."

"A study conducted after approval of a project will inevitably have a diminished influence on decisionmaking. Even if the study is subject to administrative approval, it is analogous to the sort of post hoc rationalization of agency actions that has been repeatedly condemned in decisions construing CEQA." (*Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 307.) "[R]eliance on tentative plans for future mitigation after completion of the CEQA process significantly undermines CEQA's goals of full disclosure and informed decisionmaking; and [,] consequently, these mitigation plans have been overturned on judicial review as constituting improper deferral of environmental assessment." (*Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 92.)

An EIR is required to propose specific binding mitigation measures to reduce the Project's air quality impacts to the extent feasible.

**Response 6G:** Please refer to Responses 6B-6D. The comment correctly states what the IS/MND identified a potentially significant environmental impact related to exposure of sensitive receptors in the project area to cancer risks and PM2.5 concentrations during construction (Impact AQ-1 page 45). The project includes Standard Permit Conditions and Conditions of Approval to reduce air quality emissions during construction, in conformance with General Plan Policies MS-10.1 and MS-13.1.

In addition, mitigation measures (MM AQ-1), including preparation of a Construction Operations Plan, are included in the project to reduce impacts to a less than significant level. These measures are incorporated into the project by ordinance and are specific and binding, consistent with CEQA.

Impacts and required mitigation measures are identified in the IS/MND which was circulated to the public and decision-makers consistent with CEQA. Specific construction equipment is not typically known at the time of entitlement, so therefore it would not be feasible to analyze the exact contents of the Construction Operations Plan during preparation and adoption of the CEQA IS/MND.

The Construction Operations Plan will be prepared once construction equipment is determined after entitlement and will be approved by the City prior to issuance of any building, grading, or demolition permits as is required by the mitigation measure. The plan shall be accompanied by a letter signed by an air quality specialist verifying that the project would achieve a fleet-wide average 89-percent reduction in DPM exhaust emissions or greater for construction equipment. Therefore, MM AQ-1 is not mitigation deferral and the preparation of an EIR is not required under CEQA.



**Comment 6H: D. The IS/MND Fails to Adequately Mitigate the Project's Significant Hazardous Material Impacts.**

The IS/MND admits that the Project will have significant hazardous material impacts, stating, “The proposed project could result in impacts to construction workers during construction due to potentially hazardous soil resulting from the previous agricultural uses on the site.” (IS/MND 3). SAFER is very interested in ensuring that construction workers are adequately protected from potentially hazardous soil conditions.

The IS/MND proposes to address this significant impact by developing a cleanup plan at a later time, if necessary. As discussed above, CEQA prohibits such deferred mitigation. The IS/MND states:

If contaminated soil is found in concentrations above regulatory environmental screening levels of construction worker safety, the project applicant shall enter into the Santa Clara County Department of Environmental Health (SCCDEH) Site Cleanup Program (SCP) and share results of the limited soil sampling. The SCCDEH will then decide upon appropriate further action including but not limited to more testing, and/or the development of a Site Management Plan (SMP), Removal Action Plan (RAP), or equivalent document. (IS/MND 3).

This is a classic example of deferred mitigation. The mitigation measures may or may not be developed at some time in the future. If they are developed, there will be no public review or comment. There is not even any assurance that it will be possible to reduce the impact to less than significant. An EIR is required to analyze this impact and to propose specific, binding mitigation measures.

**Response 6H:** The comment correctly states the clear findings of the IS/MND. As is customary, soil testing on the site will occur prior to acquisition of grading and demolition permits. MM HAZ-1.1 goes on to say the following:

“The Plan and evidence of regulatory correspondence shall be provided to the Director of the City of San Jose Planning, Building, and Code Enforcement, or the Director’s designee, and the Environmental Compliance Officer in the City of San Jose’s Environmental Services Department. **(Less than Significant Impact with Mitigation Incorporated)**”

Incorporation of MM HAZ-1.1 into the proposed project will be required and does not defer mitigation for the project hazardous materials impacts. The Phase I Environmental Site Assessment (Appendix E) was prepared according to American Society for Testing and Materials International (ASTM) requirements. It evaluated project impacts and identified measures that will mitigate impacts resulting from potential asbestos-containing materials, lead-based paint and residual pesticides to a less than significant level, consistent with the requirements of the City of San Jose and County of Santa Clara.

If a Site Management Plan (SMP) is required, its requirements will be dictated by the Santa Clara County Department of Environmental Health (SCCDEH). Therefore, exact specifics of that plan cannot be known until coordination occurs with SCCDEH prior to issuance of the grading permit. Details will be provided by SCCDEH on how the mitigation will be achieved with incorporation of the identified specific and binding measures as is customary at this stage of the project. This is not deferral of mitigation as this is standard procedure with the SCCDEH requirements. No further analysis or mitigation is required.

**Comment 6I: IV. CONCLUSION**

For the foregoing reasons, the IS/MND for the Project should be withdrawn, an EIR should be prepared, and the draft EIR should be circulated for public review and comment in accordance with CEQA. Thank you for considering these comments.

**Response 6I:** The comment letter submitted expressed concerns about the adequacy of the IS/MND to provide adequate CEQA clearance for the proposed project based on indoor air quality impacts to future workers, construction-related noise impacts, operational air quality impacts, and impacts associated with hazardous materials. As discussed above, none of these comments raise new issues or provide substantial evidence that the Initial Study is inadequate and an EIR should be prepared. As clearly disclosed in the Initial Study, mitigation measures are included in the project to reduce all potentially significant impacts to a less than significant level. Therefore, an EIR is not required for the project.

## SECTION 4: TEXT CHANGES TO THE IS/MND

---

The following changes are included in the IS/MND. Strikeouts show deletions and underlining shows additions.

Page 10, Project Description:

The following sentence is added to the last paragraph:

Upon final design, this bus stop may be relocated as part of the proposed project.

Page 115, Land Use (b):

The second paragraph is changed as follows:

The project is consistent with the height limit of 50 feet in the CP zoning district. Because San Jose is in the northern hemisphere, maximum shading would occur in the winter months during the morning and afternoon hours. Shadows would be cast primarily to the ~~south~~ north over future commercial development and S. De Anza Blvd. to the east. No residences, schools, parks, or open space areas would be subjected to shade from the proposed development. In addition, the proposed project, which is consistent with the zoning of the site and would not be visible from any residential uses, would not result in visual intrusion/privacy impacts. (Less than Significant Impact)

Page 156, Transportation (a):

The fourth paragraph is changed to as follows:

Local VTA bus route 51 runs along S. De Anza Blvd. and there is a bus stop adjacent to the project site. The existing bus stop consists of a standard blue bus stop sign attached to an existing street light pole, with no bench or shelter provided. Since the project site is served directly by a local bus route, it is reasonable to assume that some hotel employees and guests would utilize the bus service. The existing bus stop could be relocated as part of the proposed project.

**SECTION 5      COPIES OF LETTERS AND EMAILS RECEIVED**

---

# Comment Letter A

**From:** [Katherine Perez](#)  
**To:** [Hawkins, Kara](#)  
**Subject:** Re: Notice of CEQA Posting: 1510 S. De Anza Blvd Hotel Project MND (H19-017)  
**Date:** Wednesday, September 9, 2020 6:39:51 PM

---

[External Email]

Kara,

We are unaware of cultural sensitivity in the area of the proposed project.

Katherine Perez

-----Original Message-----

From: Hawkins, Kara <Kara.Hawkins@sanjoseca.gov>  
Sent: Tue, Sep 8, 2020 4:13 pm  
Subject: Notice of CEQA Posting: 1510 S. De Anza Blvd Hotel Project MND (H19-017)

**PUBLIC NOTICE**  
**INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION**  
**CITY OF SAN JOSE, CALIFORNIA**

**Project Name:** 1510 South De Anza Hotel Project

**File No.:** H19-017

**Description:** Site Development Permit to demolish an existing building and allow 147,134-square feet of new construction for a 4-story (132 guest room) hotel, rooftop deck and underground parking and associated grading on a 0.86 gross acre site.

**Location:** Southeast corner of S De Anza Blvd. and Sharon Drive, located at 1510 S De Anza Blvd.

**Assessor's Parcel No.:** 372-21-002 **Council District:** 1

**Applicant Contact Information:** North Star Development Group (Attn: Kelly Smith), 14664 Bougainvillea Court, Saratoga CA 95070, (408)314-4086

The City has performed an environmental review of the project. The environmental review examines the nature and extent of any adverse effects on the environment that could occur if the project is approved and implemented. Based on the review, the City has prepared a Draft Mitigated Negative Declaration (MND) for this project. An MND is a statement by the City that the project will not have a significant effect on the environment because the project will include mitigation measures that will reduce identified project impacts to a less than significant level. The project site is not included on a list of Hazardous Waste and Substance Sites, as compiled by the State Office of Planning and Research, pursuant to Section 65962.5 of the California Government Code.

The public is welcome to review and comment on the Draft MND. The public comment period for this Draft MND begins on **September 8<sup>th</sup>, 2020 and ends on September 28<sup>th</sup>, 2020** The Draft MND, Initial Study, and reference documents are available online at:

[www.sanjoseca.gov/negativedeclarations](http://www.sanjoseca.gov/negativedeclarations).

In response to the COVID-19 and Shelter-in-Place policy, hard copies are no longer available at the typical locations such as the City of San José Department of Planning, Building and Code Enforcement, located at City Hall, 200 East Santa Clara Street; and at the Dr. Martin Luther King, Jr. Main Library, located at 150 E. San Fernando Street.

Therefore, if requested, a hard copy will be mailed to you. Please allow time for printing and delivery. Please contact Kara Hawkins at (408)535-7852 or by email at [kara.hawkins@sanjoseca.gov](mailto:kara.hawkins@sanjoseca.gov).

This message is from outside the City email system. Do not open links or attachments from untrusted sources.



# Comment Letter B

**From:** [Aerieways](#)  
**To:** [Hawkins, Kara](#); [vjltestingcenter@aol.com](mailto:vjltestingcenter@aol.com)  
**Subject:** Re: Notice of CEQA Posting: 1510 S. De Anza Blvd Hotel Project MND (H19-017)  
**Date:** Thursday, September 10, 2020 2:25:46 PM

---

[External Email]

Kara,

The subject property is within the lands of the Tamien people taken primarily to Mission Santa Clara. Per agreement this land is represented by the Muwekma Tribal Band. I suggest you contact their government.

Ed Ketchum  
Amah Mutsun Tribal Band

-----Original Message-----

From: Hawkins, Kara <[Kara.Hawkins@sanjoseca.gov](mailto:Kara.Hawkins@sanjoseca.gov)>  
Sent: Tue, Sep 8, 2020 4:13 pm  
Subject: Notice of CEQA Posting: 1510 S. De Anza Blvd Hotel Project MND (H19-017)

**PUBLIC NOTICE**  
**INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION**  
**CITY OF SAN JOSE, CALIFORNIA**

**Project Name:** 1510 South De Anza Hotel Project

**File No.:** H19-017

**Description:** Site Development Permit to demolish an existing building and allow 147,134-square feet of new construction for a 4-story (132 guest room) hotel, rooftop deck and underground parking and associated grading on a 0.86 gross acre site.

**Location:** Southeast corner of S De Anza Blvd. and Sharon Drive, located at 1510 S De Anza Blvd.

**Assessor's Parcel No.:** 372-21-002 **Council District:** 1

**Applicant Contact Information:** North Star Development Group (Attn: Kelly Smith), 14664 Bougainvillea Court, Saratoga CA 95070, (408)314-4086

The City has performed an environmental review of the project. The environmental review examines the nature and extent of any adverse effects on the environment that could occur if the project is approved and implemented. Based on the review, the City has prepared a Draft Mitigated Negative Declaration (MND) for this project. An MND is a statement by the City that the project will not have a significant effect on the environment because the project will include mitigation measures that will reduce identified project impacts to a less than significant level. The project site is not included on a list of Hazardous Waste and Substance Sites, as compiled by the State Office of Planning and Research, pursuant to Section 65962.5 of the California Government Code.

The public is welcome to review and comment on the Draft MND. The public comment period for this Draft MND begins on **September 8<sup>th</sup>, 2020 and ends on September 28<sup>th</sup>, 2020** The Draft MND, Initial Study, and reference documents are available online at:

[www.sanjoseca.gov/negativedeclarations](http://www.sanjoseca.gov/negativedeclarations).

In response to the COVID-19 and Shelter-in-Place policy, hard copies are no longer available at the typical locations such as the City of San José Department of Planning, Building and Code Enforcement, located at City Hall, 200 East Santa Clara Street; and at the Dr. Martin Luther King, Jr. Main Library, located at 150 E. San Fernando Street.

Therefore, if requested, a hard copy will be mailed to you. Please allow time for printing and delivery. Please contact Kara Hawkins at (408)535-7852 or by email at [kara.hawkins@sanjoseca.gov](mailto:kara.hawkins@sanjoseca.gov).

This message is from outside the City email system. Do not open links or attachments from untrusted sources.



# Comment Letter C

**From:** [Amah Mutsun Tribal](#)  
**To:** [Hawkins, Kara](#)  
**Subject:** Re: Notice of CEQA Posting: 1510 S. De Anza Blvd Hotel Project MND (H19-017)  
**Date:** Tuesday, September 15, 2020 10:18:26 AM

---

[External Email]

Our recommendations are as follows:  
Cultural Sensitivity Training for all crews involved in earth movement.  
California Trained Archaeological monitoring.  
Qualified Native American monitoring

On Tue, Sep 8, 2020 at 4:13 PM Hawkins, Kara <[Kara.Hawkins@sanjoseca.gov](mailto:Kara.Hawkins@sanjoseca.gov)> wrote:

**PUBLIC NOTICE**  
**INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION**  
**CITY OF SAN JOSE, CALIFORNIA**

**Project Name:** 1510 South De Anza Hotel Project

**File No.:** H19-017

**Description:** Site Development Permit to demolish an existing building and allow 147,134-square feet of new construction for a 4-story (132 guest room) hotel, rooftop deck and underground parking and associated grading on a 0.86 gross acre site.

**Location:** Southeast corner of S De Anza Blvd. and Sharon Drive, located at 1510 S De Anza Blvd.

**Assessor's Parcel No.:** 372-21-002 **Council District:** 1

**Applicant Contact Information:** North Star Development Group (Attn: Kelly Smith), 14664 Bougainvillea Court, Saratoga CA 95070, (408)314-4086

The City has performed an environmental review of the project. The environmental review examines the nature and extent of any adverse effects on the environment that could occur if the project is approved and implemented. Based on the review, the City has prepared a Draft Mitigated Negative Declaration (MND) for this project. An MND is a statement by the City that the project will not have a significant effect on the environment because the project will include mitigation measures that will reduce identified project impacts to a less than significant level. The project site is not included on a list of Hazardous Waste and Substance Sites, as compiled by the State Office of Planning and Research, pursuant to Section 65962.5 of the California Government Code.

The public is welcome to review and comment on the Draft MND. The public comment period for this Draft MND begins on **September 8<sup>th</sup>, 2020 and ends on September 28<sup>th</sup>, 2020** The Draft MND, Initial Study, and reference documents are available online at:

[www.sanjoseca.gov/negativedeclarations](http://www.sanjoseca.gov/negativedeclarations).

In response to the COVID-19 and Shelter-in-Place policy, hard copies are no longer available at the typical locations such as the City of San José Department of Planning, Building and Code Enforcement, located at City Hall, 200 East Santa Clara Street; and at the Dr. Martin Luther King, Jr. Main Library, located at 150 E. San Fernando Street.

Therefore, if requested, a hard copy will be mailed to you. Please allow time for printing and delivery. Please contact Kara Hawkins at (408)535-7852 or by email at

[kara.hawkins@sanjoseca.gov](mailto:kara.hawkins@sanjoseca.gov).

--

*Michelle Zimmer*

***Enrollment and Communications Officer of the  
Amah Mutsun Tribal Band of Mission San Juan Bautista***

The contents of this message, together with any attachments, are intended only for the use of the individual or entity to which they are addressed and may contain information that is legally privileged, confidential and exempt from disclosure. If you are not the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this message, or any attachment, is strictly prohibited. If you have received this message in error, please notify the original sender.

This message is from outside the City email system. Do not open links or attachments from untrusted sources.

# Comment Letter D

**From:** [Shelley Giles](#)  
**To:** [Hawkins, Kara](#); [District1](#)  
**Subject:** Fw: Request for hard copies  
**Date:** Tuesday, September 22, 2020 12:36:10 AM

---

[External Email]

The documents for h19-017 arrived Monday and I have just started reading for about an hour. The following are comments are some of the things I noticed (in no particular order).

On page 115, there is a statement that shadows would be to the south along De Anza Blvd. Shadows usually go to the north.

On page 144, De Anza Blvd. is described as a Grand Blvd in Envision 2040. I have only found a early draft copy of Envision 2040, which does not describe De Anza as a Grand Blvd. Where can I find a copy of Envision 2040?

On page 158, the parking requirement of 1 space for each room and employee less 20% is different and less than the requirement used for a hotel at 1090 S. De Anza hotel (a 90 room project) approved last year. Has the requirement changed in the last year?

I noticed that there has not been any signs posted on the site that describe the project. If memory serves me, a 6 ft. by 4 ft. was required to be posted on each street within 10 days of filing the permit to notify area residents. Has the sign requirement for posting signs been revised, and if so, what are the current requirement?

The signs are needed, since the District 1 Development web pages do not include this project and other projects in this area.

I hope to have more time during the next week and will probably have additional comments/questions.

Thanks again for the hard copy., Shelley Giles 408-202-3242

----- Forwarded Message -----

**From:** Shelley Giles <[shelley.giles@yahoo.com](mailto:shelley.giles@yahoo.com)>  
**To:** Hawkins, Kara <[kara.hawkins@sanjoseca.gov](mailto:kara.hawkins@sanjoseca.gov)>  
**Sent:** Monday, September 14, 2020, 10:51:46 AM PDT  
**Subject:** Re: Request for hard copies

Thank you.

[Sent from Yahoo Mail on Android](#)

On Mon, Sep 14, 2020 at 9:00 AM, Hawkins, Kara  
<[Kara.Hawkins@sanjoseca.gov](mailto:Kara.Hawkins@sanjoseca.gov)> wrote:

Hi Shelley,

I will have that document sent to you within a few days.

Best,

Kara Hawkins, Planner I  
City of San Jose | Planning  
kara.hawkins@sanjoseca.gov

---

**From:** Shelley Giles <shelley.giles@yahoo.com>  
**Sent:** Saturday, September 12, 2020 11:45 AM  
**To:** Hawkins, Kara <Kara.Hawkins@sanjoseca.gov>  
**Subject:** Request for hard copies

[External Email]

This is a request for hard copies for:

Project Name: 1510 South De Anza Hotel  
Project File No.: HI9-017

Thanks.

Shelley Giles  
7132 Bark Lane  
San Jose, CA 95129

Cell: 408 202-3242

This message is from outside the City email system. Do not open links or attachments from untrusted sources.

This message is from outside the City email system. Do not open links or attachments from untrusted sources.

# Comment Letter E



September 25, 2020

City of San José Department of Transportation  
200 E. Santa Clara St., 8th Floor  
San José, CA 95113

Attn: Kara Hawkins  
By Email: [kara.hawkins@sanjoseca.gov](mailto:kara.hawkins@sanjoseca.gov)

Dear Kara,

VTA appreciates the opportunity to comment on the Mitigated Negative Declaration (MND) for the 1510 S De Anza Hotel Project. VTA has reviewed the document and has the following comments:

### Bus Stops

VTA has an existing bus stop along the project frontage of the proposed South De Anza Hotel Project on northbound De Anza Boulevard south of Sharon Drive. The development will be served by local Route 51 that connects West Valley College, Cupertino, De Anza College, Downtown Mountain View, and Ames Research Park. The location of the street trees for the proposed project conflict with the existing bus stop. VTA recommends relocating the existing bus stop closer to Sharon Drive, which is an ideal location and the bus will not conflict with the street trees. See attached.

VTA would like the opportunity to review updated site plans to ensure the placement of driveways, landscaping, and any other features do not conflict with bus operations. VTA's Transit Passenger Environment Plan provides design guidelines for bus stops. This document can be downloaded at <https://www.vta.org/projects/transit-passenger-environment-plan>. VTA has a Bus Stop Placement, Closures and Relocations Policy (<https://www.vta.org/sites/default/files/documents/busstoppolicy.pdf>). Prior to any construction or bus stop impact, please contact [bus.stop@vta.org](mailto:bus.stop@vta.org).

### Pedestrian Circulation

VTA appreciates the new curb ramp at the southeast corner of the intersection of De Anza Boulevard and Sharon Drive noted in Appendix G. VTA recommends this curb ramp be placed directionally (not at an angle) so pedestrians can have a more direct and intuitive route to cross Sharon Drive and not need to veer into De Anza Boulevard in order to cross Sharon Drive.

### Bicycle Parking

VTA applauds the inclusion of a bicycle parking room in the project. VTA recommends only having access to the room through the back of house space and to remove the access to the room from the outside. This provides a higher level of security for those using the room and helps prevent theft. VTA also recommends the access point into the bike room use ADA-compliant kick plates on both sides to allow riders to easily open the door and maneuver their bikes into and out of the room.

VTA notes that Appendix G states that the bicycle parking room would hold eight bicycles but Figure 4: Site Plan states the room would store 16 bikes. If the bicycle parking room would store 16 bicycles using stacking racks, removing the second access point to the outside would allow for extra floor space for recumbent bikes, bikes with trailers, or other non-standard bicycles that may not fit on stacking racks.

#### Congestion Impacts on Transit Travel Times

The transportation analysis in the MND does not address any potential impacts that increased motor vehicle traffic and congestion associated with the project may have on transit travel times on the De Anza Boulevard corridor. While VTA is supportive of increasing development densities along this corridor, increased congestion could degrade the schedule reliability of transit and increase travel times, making transit a less attractive option for travelers in the corridor. VTA requests a meeting to discuss the City of San José's comprehensive approach to address transit delay if it will not be studied and included in transportation analyses for projects.

Thank you again for the opportunity to review this project. If you have any questions, please do not hesitate to contact me at 408-321-5830.

Sincerely,



Lola Torrey  
Transportation Planner II

S. 9.7

# Comment Letter F



T 510.836.4200  
F 510.836.4205

410 12th Street, Suite 250  
Oakland, Ca 94607

www.lozeaudrury.com  
michael@lozeaudrury.com

Via Email and Overnight Mail

September 28, 2020

Rosalynn Hughey, Director  
Kara Hawkins, Planner I  
Maira Blanco, Planner  
City of San José, Planning Department  
200 E. Santa Clara Street, 3rd FL  
San Jose, CA 95113  
[rosalynn.hughey@sanjoseca.gov](mailto:rosalynn.hughey@sanjoseca.gov)  
[Maira.blanco@sanjoseca.gov](mailto:Maira.blanco@sanjoseca.gov)  
[Kara.Hawkins@sanjoseca.gov](mailto:Kara.Hawkins@sanjoseca.gov)

Re: 1510 South De Anza Hotel Project (File No. H19-017)  
Draft Initial Study/Mitigated Negative Declaration

Dear Director Hughey, Ms. Blanco and Ms. Hawkins:

I am writing on behalf of the Laborers International Union of North America, Local Union 270 and its members living in and around the City of San Jose (“LIUNA”) regarding the Initial Study and Mitigated Negative Declaration (“IS/MND”) prepared for the 1510 South DeAnza Hotel Project (File No. H19-017) (“Project”). After reviewing the IS/MND, and with the assistance of expert review by environmental consulting firms Indoor Environmental Engineering (Exhibit A), and Wilson Ihrig (Exhibit B), and, the evidence indicates that there is a “fair argument” that the Project may have significant unmitigated adverse environmental impacts or, alternatively, the IS/MND is not supported by substantial evidence. The expert comments as well as the comments below identify substantial evidence of a fair argument that the Project may have significant environmental impacts. Accordingly, an environmental impact report (“EIR”) is required to analyze these impacts and to propose all feasible mitigation measures to reduce those impacts. We urge the Planning Director to decline to approve the IS/MND, and to instruct staff to prepare an EIR for the Project prior to any Project approvals.

///  
///

## I. PROJECT BACKGROUND

The proposed Project includes the demolition of an existing Kelly-Moore Paint store, and construction of a 4-story, 147,134 square foot hotel with 132 guest rooms, rooftop deck and underground parking and associated grading on a 0.86 acre site (“Project”) located at the southeast corner of South DeAnza Blvd. and Sharon Drive (APN 372-21-002) (“Project Site”). The Project Site is only 75 feet from a nearby preschool and 120 feet from residences. (IS/MND 33).

## II. LEGAL STANDARD

As the California Supreme Court held, “[i]f no EIR has been prepared for a nonexempt project, but substantial evidence in the record supports a fair argument that the project may result in significant adverse impacts, the proper remedy is to order preparation of an EIR.” *Communities for a Better Env’t v. South Coast Air Quality Management Dist.* (2010) 48 Cal.4th 310, 319-320 [“CBE v. SCAQMD”], citing, *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 75, 88; *Brentwood Assn. for No Drilling, Inc. v. City of Los Angeles* (1982) 134 Cal.App.3d 491, 504–505. “Significant environmental effect” is defined very broadly as “a substantial or potentially substantial adverse change in the environment.” Pub. Res. Code [“PRC”] § 21068; see also 14 CCR § 15382. An effect on the environment need not be “momentous” to meet the CEQA test for significance; it is enough that the impacts are “not trivial.” *No Oil, Inc., supra*, 13 Cal.3d at 83. “The ‘foremost principle’ in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language.” *Communities for a Better Env’t v. Cal. Resources Agency* (2002) 103 Cal.App.4th 98, 109 [“CBE v. CRA”].

The EIR is the very heart of CEQA. *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1214; *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 927. The EIR is an “environmental ‘alarm bell’ whose purpose is to alert the public and its responsible officials to environmental changes before they have reached the ecological points of no return.” *Bakersfield Citizens*, 124 Cal.App.4th at 1220. The EIR also functions as a “document of accountability,” intended to “demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action.” *Laurel Heights Improvements Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 392. The EIR process “protects not only the environment but also informed self-government.” *Pocket Protectors*, 124 Cal.App.4th at 927.

An EIR is required if “there is substantial evidence, in light of the whole record before the lead agency, that the project may have a significant effect on the environment.” PRC § 21080(d); see also *Pocket Protectors*, 124 Cal.App.4th at 927. In



very limited circumstances, an agency may avoid preparing an EIR by issuing a negative declaration, a written statement briefly indicating that a project will have no significant impact thus requiring no EIR (14 Cal. Code Regs. § 15371), only if there is not even a “fair argument” that the project will have a significant environmental effect. PRC, §§ 21100, 21064. Since “[t]he adoption of a negative declaration . . . has a terminal effect on the environmental review process,” by allowing the agency “to dispense with the duty [to prepare an EIR],” negative declarations are allowed only in cases where “the proposed project will not affect the environment at all.” *Citizens of Lake Murray v. San Diego* (1989) 129 Cal.App.3d 436, 440. A mitigated negative declaration is proper only if the project revisions would avoid or mitigate the potentially significant effects identified in the initial study “to a point where clearly no significant effect on the environment would occur, and . . . there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment.” PRC §§ 21064.5 and 21080(c)(2); *Mejia v. City of Los Angeles* (2005) 130 Cal.App.4th 322, 331. In that context, “may” means a reasonable possibility of a significant effect on the environment. PRC §§ 21082.2(a), 21100, 21151(a); *Pocket Protectors, supra*, 124 Cal.App.4th at 927; *League for Protection of Oakland's etc. Historic Resources v. City of Oakland* (1997) 52 Cal.App.4th 896, 904–905.

Under the “fair argument” standard, an EIR is required if any substantial evidence in the record indicates that a project may have an adverse environmental effect—even if contrary evidence exists to support the agency’s decision. 14 CCR § 15064(f)(1); *Pocket Protectors*, 124 Cal.App.4th at 931; *Stanislaus Audubon Society v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150-15; *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1602. The “fair argument” standard creates a “low threshold” favoring environmental review through an EIR rather than through issuance of negative declarations or notices of exemption from CEQA. *Pocket Protectors*, 124 Cal.App.4th at 928.

The “fair argument” standard is virtually the opposite of the typical deferential standard accorded to agencies. As a leading CEQA treatise explains:

This ‘fair argument’ standard is very different from the standard normally followed by public agencies in making administrative determinations. Ordinarily, public agencies weigh the evidence in the record before them and reach a decision based on a preponderance of the evidence. [Citations]. The fair argument standard, by contrast, prevents the lead agency from weighing competing evidence to determine who has a better argument concerning the likelihood or extent of a potential environmental impact. The lead agency’s decision is thus largely legal rather than factual; it does not resolve conflicts in the evidence but determines only whether substantial evidence exists in the record to support the prescribed fair argument.

Kostka & Zishcke, *Practice Under CEQA*, §6.29, pp. 273-274. The Courts have explained that “it is a question of law, not fact, whether a fair argument exists, and the courts owe no deference to the lead agency’s determination. Review is de novo, with a preference for resolving doubts in favor of environmental review.” *Pocket Protectors*, 124 Cal.App.4th at 928.

In addition, a negative declaration must accurately describe the proposed project and its environmental setting. *Christward Ministry v. Superior Court* (1986) 184 Cal.App.3d 180; CEQA Guidelines §15071(a). The initial study must “provide documentation of the factual basis for the finding in a Negative Declaration that a project will not have a significant effect on the environment.” CEQA Guidelines § 15063(c)(5).

### **III. There is a Fair Argument that the Project May Have Unmitigated Adverse Environmental Impacts.**

#### **A. The Project May Have Adverse Indoor Air Quality Impacts.**

Certified Industrial Hygienist, Francis “Bud” Offermann, PE, CIH, has conducted a review of the Project, the IS/MND and relevant appendices regarding the Project’s indoor air emissions. (Indoor Environmental Engineering Comments (Exhibit A)). Mr. Offermann concludes that it is likely that the Project will expose future workers employed at the hotel to significant impacts related to indoor air quality, and in particular, emissions of the cancer-causing chemical formaldehyde. Mr. Offermann is one of the world’s leading experts on indoor air quality and has published extensively on the topic.

Mr. Offermann explains that many composite wood products typically used in hotel construction contain formaldehyde-based glues which off-gas formaldehyde over a very long time period. The IS/MND states that the Project will use composite wood products. (IS/MND 10). Offermann states, “The primary source of formaldehyde indoors is composite wood products manufactured with urea-formaldehyde resins, such as plywood, medium density fiberboard, and particle board. These materials are commonly used in residential and hotel building construction for flooring, cabinetry, baseboards, window shades, interior doors, and window and door trims.”

Formaldehyde is a known human carcinogen. Mr. Offermann states that there is a fair argument that full-time workers at the Project will be exposed to a cancer risk from formaldehyde of approximately 16.4 per million. (Exhibit A, p. 4). This is well above the Bay Area Air Quality Management District (BAAQMD) CEQA significance threshold for airborne cancer risk of 10 per million.

Mr. Offermann concludes that this significant environmental impact should be analyzed in an EIR and mitigation measures should be imposed to reduce the risk of formaldehyde exposure. *Id.*, pp. 12-13. Mr. Offermann suggests several feasible mitigation measures, such as requiring the use of no-added-formaldehyde composite wood products, which are readily available. Offermann Comments, pp. 12-13. Mr. Offermann also suggests requiring air ventilation systems which would reduce formaldehyde levels. *Id.* Since the MND does not analyze this impact at all, none of these or other mitigation measures are considered.

When a Project exceeds a duly adopted CEQA significance threshold, as here, this alone establishes a fair argument that the project will have a significant adverse environmental impact and an EIR is required. Indeed, in many instances, such air quality thresholds are the only criteria reviewed and treated as dispositive in evaluating the significance of a project's air quality impacts. See, e.g. *Schenck v. County of Sonoma* (2011) 198 Cal.App.4th 949, 960 (County applies BAAQMD's "published CEQA quantitative criteria" and "threshold level of cumulative significance"). See also *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 110-111 ("A 'threshold of significance' for a given environmental effect is simply that level at which the lead agency finds the effects of the project to be significant"). The California Supreme Court made clear the substantial importance that an air district significance threshold plays in providing substantial evidence of a significant adverse impact. *Communities for a Better Environment v. South Coast Air Quality Management Dist.* (2010) 48 Cal.4th 310, 327 ("As the [South Coast Air Quality Management] District's established significance threshold for NOx is 55 pounds per day, these estimates [of NOx emissions of 201 to 456 pounds per day] constitute substantial evidence supporting a fair argument for a significant adverse impact"). Since expert evidence demonstrates that the Project will exceed the BAAQMD's CEQA significance threshold, there is a fair argument that the Project will have significant adverse impacts and an EIR is required.

Mr. Offermann also notes that the high cancer risk that may be posed by the Project's indoor air emissions likely will be exacerbated by the additional cancer risk that exists from vehicle emissions from the nearby South DeAnza Blvd, and Sharon Drive.

In similar circumstances, City staff claimed that a California Supreme Court decision – *California Building Industry Ass'n v. Bay Area Air Quality Mgmt. Dist.* (2015) 62 Cal.4th 369, 386 ("*CBIA*") – ruled that this type of air quality impact need not be addressed under CEQA because future residents of a mixed use project are part of the project and CEQA does not require evaluation of health or other impacts of a project on itself. To the extent staff again takes the position that future workers are not worthy of considering health protections under CEQA because they are part of the Project, staff's responses would be incorrect as a matter of law. Indeed, rather than support staff's response, the California Supreme Court in *CBIA* expressly holds that potential adverse

impacts to future users and residents from pollution generated by a proposed project **must be addressed** under CEQA.

At issue in *CBIA* was whether the Air District could enact CEQA guidelines that advised lead agencies that they must analyze the impacts of adjacent environmental conditions on a project. The Supreme Court held that CEQA does not generally require lead agencies to consider the environment's effects on a project. (*CBIA*, 62 Cal.4th at 800-801.) However, to the extent a project may exacerbate existing adverse environmental conditions at or near a project site, those would still have to be considered pursuant to CEQA. (*Id.* at 801) ("CEQA calls upon an agency to evaluate existing conditions in order to assess whether a project could exacerbate hazards that are already present"). In so holding, the Court expressly held that CEQA's statutory language required lead agencies to disclose and analyze "impacts on **a project's users or residents** that arise **from the project's effects** on the environment." (*Id.* at 800 (emphasis added).)

The carcinogenic formaldehyde emissions identified by Mr. Offermann are not an existing environmental condition. Those emissions to the air will be from the Project. Employees will be users of the hotel. Currently, there is presumably little if any formaldehyde emissions at the site. Once the Project, emissions will begin at levels that pose significant health risks. Rather than excusing the City from addressing the impacts of carcinogens emitted into the indoor air from the Project, the Supreme Court in *CBIA* expressly finds that this type of effect by the project on the environment and a "project's users and residents" must be addressed in the CEQA process.

The Supreme Court's reasoning is well-grounded in CEQA's statutory language. CEQA expressly includes a project's effects on human beings as an effect on the environment that must be addressed in an environmental review. "Section 21083(b)(3)'s express language, for example, requires a finding of a 'significant effect on the environment' (§ 21083(b)) whenever the 'environmental effects of a project will cause substantial adverse effects *on human beings*, either directly or indirectly.'" (*CBIA*, 62 Cal.4th at 800 (emphasis in original.)) Likewise, "the Legislature has made clear—in declarations accompanying CEQA's enactment—that public health and safety are of great importance in the statutory scheme." (*Id.*, citing e.g., §§ 21000, subds. (b), (c), (d), (g), 21001, subds. (b), (d).) It goes without saying that the hundreds of future employees at the Project are human beings and the health and safety of those workers is as important to CEQA's safeguards as nearby residents currently living adjacent to the Project site.

## **B. The Project May Have Adverse Noise Impacts.**

Derek Watry of Acoustical engineer firm, Wilson Ihrig, has reviewed the IS/MND and concludes that the Project will have significant unmitigated noise impacts. (Exhibit B). An EIR is required to analyze and mitigate these impacts.

The Noise Assessment and IS/MND both recognize that unchecked construction noise would cause a significant impact. (Noise Assessment at p. 20; IS/MND 127). To reduce this impact to less than significant, the IS/MND includes Mitigation Measure NOI-1.2 which contains 14 actions or potential actions that would serve to either reduce noise levels or, at a minimum, be “good neighbor” actions that would foster a better relationship with the noise-sensitive receptors in the vicinity.

Mr. Watry concludes that the mitigation measures proposed are inadequate to reduce the Project’s significant noise impacts to less than significant either because they are ineffective, or unenforceable. Mr. Watry states that the following measures will not substantively reduce noise levels (Exhibit B, p. 3) :

- Limiting the hours of construction to 7:00 AM to 7:00 PM on Mondays through Fridays.
- Ensuring that all equipment with internal combustion engines are fitted with mufflers.
- Strictly prohibiting unnecessary idling of internal combustion engines.
- Ensuring that radios are not audible at nearby residences.
- Notifying all adjacent businesses, residences, and other noise-sensitive neighbors of noise construction activities in writing.
- Designating a “disturbance coordinator” and both posting and distributing a telephone number for people to call.

To facilitate CEQA's informational role, the EIR must contain facts and analysis, not just the agency's bare conclusions or opinions. Here, the IS/MND included no facts or analysis to support the inference that the mitigation measures will have a quantifiable “substantial” impact on reducing the adverse effects. (*Sierra Club v. Cty. of Fresno*, 6 Cal. 5th 502, 522 (2018)). Since the IS/MND does not calculate how much the above measures will reduce noise impacts, if at all, the City cannot rely on those measures to reduce impacts to less than significant.

Mr. Watry concludes that the following mitigation measures are either impractical or unenforceable (Mr. Watry's comments are underlined):

- Utilizing the best available noise suppression devices and techniques – This is a vague standard that is essentially unenforceable.
- Locating stationary noise-generating equipment as far as possible from sensitive receptors – The qualifier “as possible” renders this action meaningless as a practical matter. While the contractor very well may be able to do this in some circumstances, who is to determine if it is possible in circumstances where the equipment is placed, for example, near the eastern property line? How would this be enforced?
- Utilizing “quiet” air compressors and other stationary equipment where technology exists – Similar to the previous action, who is to make this determination and when? How would this be enforced?
- Locating construction staging areas to create the greatest distance from noise-sensitive receptors during all project construction – The contractor will be constrained as to where the staging areas on the project site can be, and this will change as construction proceeds. I believe this is impractical and unenforceable.
- Locating stockpiles as far from residential receptors as feasible – The qualifier “as feasible” renders this measure vague and unenforceable.
- Preparing a detailed construction schedule for major noise-generating activities and coordinating with the residential neighbors so that construction activities can be schedule to minimize noise disturbance – While preparing a detailed schedule and discussing that with residential neighbors is a good idea, it is impractical to assert that all construction activities will be scheduled to minimize disturbance. It may be possible in some instances.

A public agency may not rely on mitigation measures of uncertain efficacy or feasibility. (*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 727 (finding groundwater purchase agreement inadequate mitigation measure because no record evidence existed that replacement water was available).) “Feasible” means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors. (14 CCR § 15364.) Mitigation measures must be fully enforceable through permit conditions, agreements or other legally binding instruments. (14 CCR § 15126.4(a)(2); See *Woodward Park Homeowners Assn., Inc. v. City of Fresno* (2007) 150 Cal. App. 4th 683, 730 (project proponent’s agreement to a mitigation by itself is

insufficient; mitigation measure must be an enforceable requirement)). Since the above measures are not enforceable, they are not adequate to reduce the Project's significant noise impacts to less than significant.

Mr. Watry concludes that the final three noise mitigation measures are not enforceable:

- Construct temporary noise barriers, where feasible, around the perimeter of the site.
- Construct temporary noise barriers to screen stationary noise-generating equipment when located near sensitive receptors.
- Hang temporary noise control blankets along the façade of 7246 Sharon Drive, if necessary, if conflicts occur.

Mr. Watry notes that "In all of these, the bolded phrases may be construed such that none of these are actually implemented." As discussed above, mitigation measures must be binding and enforceable. As Mr. Watry concludes, the proposed measures meet neither requirement.

Mr. Watry proposes binding measures that would be effective, such as imposing binding performance standards, of placing a noise barrier wall at specific locations near sensitive receptors. These measures must be analyzed in an EIR. (Exhibit B, p. 3).

Finally, Mr. Watry concludes that proposed mitigation measures are not adequate to reduce the Project' admittedly significant vibration impacts to less than significant. (Exhibit B, p. 5). Mr. Watry notes that many of the vibration mitigation measures include the term "where possible," rendering them unenforceable. (Id. citing IS/MND 132-133).

### **C. The IS/MND Fails to Adequately Mitigate the Project's Significant Air Quality Impacts.**

The IS/MND admits that "maximum cancer risks and PM2.5 concentration from the project construction would exceed the BAAQMD single-source thresholds and expose sensitive receptors to significant pollutant concentrations." (IS/MND 1).

The IS/MND proposes MM AQ-1 to address this impact, however, this measures constituted deferred mitigation. The measure states:

"Prior to issuance of any demolition or grading permits, the project applicant shall submit to the Director of Planning, Building and Code Enforcement or Director's designee, a construction operations plan that includes specifications for the equipment to be used during construction."

CEQA prohibits development of mitigation measures after project approval, subject to review only by City staff. Mitigation measures must be set forth in the CEQA document so that the public can review the measures and comment on their adequacy. Feasible mitigation measures for significant environmental effects must be set forth in a CEQA document for consideration by the lead agency's decision makers and the public before certification of the EIR and approval of a project. The formulation of mitigation measures generally cannot be deferred until after certification of the CEQA document and approval of a project. Guidelines, section 15126.4(a)(1)(B) states: "Formulation of mitigation measures should not be deferred until some future time. However, measures may specify performance standards which would mitigate the significant effect of the project and which may be accomplished in more than one specified way."

"A study conducted after approval of a project will inevitably have a diminished influence on decisionmaking. Even if the study is subject to administrative approval, it is analogous to the sort of post hoc rationalization of agency actions that has been repeatedly condemned in decisions construing CEQA." (*Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 307.) "[R]eliance on tentative plans for future mitigation after completion of the CEQA process significantly undermines CEQA's goals of full disclosure and informed decisionmaking; and[,] consequently, these mitigation plans have been overturned on judicial review as constituting improper deferral of environmental assessment." (*Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 92.)

An EIR is required to propose specific binding mitigation measures to reduce the Project's air quality impacts to the extent feasible.

#### **D. The IS/MND Fails to Adequately Mitigate the Project's Significant Hazardous Material Impacts.**

The IS/MND admits that the Project will have significant hazardous material impacts, stating, "The proposed project could result in impacts to construction workers during construction due to potentially hazardous soil resulting from the previous agricultural uses on the site." (IS/MND 3). SAFER is very interested in ensuring that construction workers are adequately protected from potentially hazardous soil conditions.

The IS/MND proposes to address this significant impact by developing a clean-up plan at a later time, if necessary. As discussed above, CEQA prohibits such deferred mitigation. The IS/MND states:

If contaminated soil is found in concentrations above regulatory environmental screening levels of construction worker safety, the project applicant shall enter



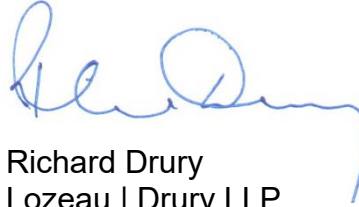
into the Santa Clara County Department of Environmental Health (SCCDEH) Site Cleanup Program (SCP) and share results of the limited soil sampling. The SCCDEH will then decide upon appropriate further action including but not limited to more testing, and/or the development of a Site Management Plan (SMP), Removal Action Plan (RAP), or equivalent document. (IS/MND 3).

This is a classic example of deferred mitigation. The mitigation measures may or may not be developed at some time in the future. If they are developed, there will be no public review or comment. There is not even any assurance that it will be possible to reduce the impact to less than significant. An EIR is required to analyze this impact and to propose specific, binding mitigation measures.

#### **IV. CONCLUSION**

For the foregoing reasons, the IS/MND for the Project should be withdrawn, an EIR should be prepared, and the draft EIR should be circulated for public review and comment in accordance with CEQA. Thank you for considering these comments.

Sincerely,



Richard Drury  
Lozeau | Drury LLP

# EXHIBIT A



# INDOOR ENVIRONMENTAL ENGINEERING



1448 Pine Street, Suite 103 San Francisco, California 94109

Telephone: (415) 567-7700

E-mail: [offermann@IEE-SF.com](mailto:offermann@IEE-SF.com)

<http://www.iee-sf.com>

---

Date: September 24, 2020

To: Michael Lozeau  
Lozeau | Drury LLP  
1939 Harrison Street, Suite 150  
Oakland, California 94612

From: Francis J. Offermann PE CIH

Subject: Indoor Air Quality: South De Anza Hotel, San Jose, CA.  
(IEE File Reference: P-4391)

Pages: 19

---

## **Indoor Air Quality Impacts**

Indoor air quality (IAQ) directly impacts the comfort and health of building occupants, and the achievement of acceptable IAQ in newly constructed and renovated buildings is a well-recognized design objective. For example, IAQ is addressed by major high-performance building rating systems and building codes (California Building Standards Commission, 2014; USGBC, 2014). Indoor air quality in homes is particularly important because occupants, on average, spend approximately ninety percent of their time indoors with the majority of this time spent at home (EPA, 2011). Some segments of the population that are most susceptible to the effects of poor IAQ, such as the very young and the elderly, occupy their homes almost continuously. Additionally, an increasing number of adults are working from home at least some of the time during the workweek. Indoor air quality also is a serious concern for workers in hotels, offices and other business establishments.

The concentrations of many air pollutants often are elevated in homes and other buildings relative to outdoor air because many of the materials and products used indoors contain

and release a variety of pollutants to air (Hodgson et al., 2002; Offermann and Hodgson, 2011). With respect to indoor air contaminants for which inhalation is the primary route of exposure, the critical design and construction parameters are the provision of adequate ventilation and the reduction of indoor sources of the contaminants.

Indoor Formaldehyde Concentrations Impact. In the California New Home Study (CNHS) of 108 new homes in California (Offermann, 2009), 25 air contaminants were measured, and formaldehyde was identified as the indoor air contaminant with the highest cancer risk as determined by the California Proposition 65 Safe Harbor Levels (OEHHA, 2017a), No Significant Risk Levels (NSRL) for carcinogens. The NSRL is the daily intake level calculated to result in one excess case of cancer in an exposed population of 100,000 (i.e., ten in one million cancer risk) and for formaldehyde is 40 µg/day. The NSRL concentration of formaldehyde that represents a daily dose of 40 µg is 2 µg/m<sup>3</sup>, assuming a continuous 24-hour exposure, a total daily inhaled air volume of 20 m<sup>3</sup>, and 100% absorption by the respiratory system. All of the CNHS homes exceeded this NSRL concentration of 2 µg/m<sup>3</sup>. The median indoor formaldehyde concentration was 36 µg/m<sup>3</sup>, and ranged from 4.8 to 136 µg/m<sup>3</sup>, which corresponds to a median exceedance of the 2 µg/m<sup>3</sup> NSRL concentration of 18 and a range of 2.3 to 68.

Therefore, the cancer risk of a resident living in a California home with the median indoor formaldehyde concentration of 36 µg/m<sup>3</sup>, is 180 per million as a result of formaldehyde alone. The CEQA significance threshold for airborne cancer risk is 10 per million, as established by the Bay Air Quality Management District (BAAQMD, 2017).

Besides being a human carcinogen, formaldehyde is also a potent eye and respiratory irritant. In the CNHS, many homes exceeded the non-cancer reference exposure levels (RELs) prescribed by California Office of Environmental Health Hazard Assessment (OEHHA, 2017b). The percentage of homes exceeding the RELs ranged from 98% for the Chronic REL of 9 µg/m<sup>3</sup> to 28% for the Acute REL of 55 µg/m<sup>3</sup>.

The primary source of formaldehyde indoors is composite wood products manufactured with urea-formaldehyde resins, such as plywood, medium density fiberboard, and

particleboard. These materials are commonly used in building construction for flooring, cabinetry, baseboards, window shades, interior doors, and window and door trims.

In January 2009, the California Air Resources Board (CARB) adopted an airborne toxics control measure (ATCM) to reduce formaldehyde emissions from composite wood products, including hardwood plywood, particleboard, medium density fiberboard, and also furniture and other finished products made with these wood products (California Air Resources Board 2009). While this formaldehyde ATCM has resulted in reduced emissions from composite wood products sold in California, they do not preclude that homes or other buildings built with composite wood products meeting the CARB ATCM will have indoor formaldehyde concentrations that are below cancer and non-cancer exposure guidelines.

A follow up study to the California New Home Study (CNHS) was conducted in 2016-2018 (Chan et. al., 2019), and found that the median indoor formaldehyde in new homes built after 2009 with CARB Phase 2 Formaldehyde ATCM materials had lower indoor formaldehyde concentrations, with a median indoor concentrations of  $22.4 \mu\text{g}/\text{m}^3$  (18.2 ppb) as compared to a median of  $36 \mu\text{g}/\text{m}^3$  found in the 2007 CNHS.

Thus, while new homes built after the 2009 CARB formaldehyde ATCM have a 38% lower median indoor formaldehyde concentration and cancer risk, the median lifetime cancer risk is still 112 per million for homes built with CARB compliant composite wood products, which is more than 11 times the OEHHA 10 in a million cancer risk threshold (OEHHA, 2017a).

With respect to this project, the South De Anza Hotel located in San Jose, CA consists of a hotel.

The employees of the hotel are expected to experience significant indoor exposures (e.g., 40 hours per week, 50 weeks per year). These exposures for employees are anticipated to result in significant cancer risks resulting from exposures to formaldehyde released by the building materials and furnishing commonly found in offices, warehouses, residences and

hotels.

Because the hotel will be constructed with CARB Phase 2 Formaldehyde ATCM materials, and be ventilated with the minimum code required amount of outdoor air, the indoor formaldehyde concentrations are likely similar to those concentrations observed in residences built with CARB Phase 2 Formaldehyde ATCM materials, which is a median of  $22.4 \mu\text{g}/\text{m}^3$  (Chan et. al., 2019)

Assuming that the hotel employees work 8 hours per day and inhale  $20 \text{ m}^3$  of air per day, the formaldehyde dose per work-day at the offices is  $149 \mu\text{g}/\text{day}$ .

Assuming that these employees work 5 days per week and 50 weeks per year for 45 years (start at age 20 and retire at age 65) the average 70-year lifetime formaldehyde daily dose is  $65.8 \mu\text{g}/\text{day}$ .

This is 1.64 times the NSRL (OEHHA, 2017a) of  $40 \mu\text{g}/\text{day}$  and represents a cancer risk of 16.4 per million, which exceeds the CEQA cancer risk of 10 per million. This impact should be analyzed in an environmental impact report (“EIR”), and the agency should impose all feasible mitigation measures to reduce this impact. Several feasible mitigation measures are discussed below and these and other measures should be analyzed in an EIR.

Some developers and builders believe that complying with the California Green Building Standards Code (CALGreen) Sections 4.504.5 and 5.504.4.5, the California Air Resource Board (CARB) Airborne Toxic Control Measures Phase II, the Toxic Substances Control Act (TSCA) Title VI, and Cal/OSHA insure that acceptable indoor formaldehyde concentrations will be achieved.

The Cal/OSHA formaldehyde regulations regulate occupational exposures, and do not insure that formaldehyde exposures are below the CEQA cancer risk of 10 per million. The formaldehyde exposure for a worker exposed to the OSHA 8-hour Permissible Exposure Level (PEL) of  $0.75 \text{ ppm}$  ( $922.5 \mu\text{g}/\text{m}^3$ ) for 45 years (20 years to 60 years), 5

days/week, 50 weeks per year, is a 70 time lifetime average daily exposure of 406  $\mu\text{g}/\text{m}^3$ , which exceeds the CEQA average daily exposure of 40  $\mu\text{g}/\text{day}$  for a 10 in a million cancer risk by more than a factor of 10. Clearly the Cal/OSHA formaldehyde regulations do not insure a cancer risk below the CEQA cancer risk of 10 per million. The CalGreen, CARB, and TSCA codes all require the same emission rates of formaldehyde from composite wood products.

As described in the attached Appendix A, Indoor Formaldehyde Concentrations and the CARB Formaldehyde ATCM, “Clearly the CARB ATCM does not regulate the formaldehyde emissions from composite wood products such that the potentially large areas of these products, such as for flooring, baseboards, interior doors, window and door trims, and kitchen and bathroom cabinetry, could be used without causing indoor formaldehyde concentrations that result in CEQA cancer risks that substantially exceed 10 per million for occupants with continuous occupancy.”

Even composite wood products manufactured with CARB certified ultra low emitting formaldehyde (ULEF) resins do not insure that the indoor air will have concentrations of formaldehyde that meet the OEHHA cancer risks that substantially exceed 10 per million. The permissible emission rates for ULEF composite wood products are only 11-15% lower than the CARB Phase 2 emission rates. Only use of composite wood products made with no-added formaldehyde resins (NAF), such as resins made from soy, polyvinyl acetate, or methylene diisocyanate can insure that the OEHHA cancer risk of 10 per million is met.

While measurements of the indoor concentrations of formaldehyde in residences built with CARB Phase 2 Formaldehyde ATCM materials (Chan et. al., 2018), indicate that indoor formaldehyde concentrations in buildings built with similar materials (e.g. hotels, residences, offices, warehouses, schools) will pose cancer risks in excess of the CEQA cancer risk of 10 per million, a determination of the cancer risk that is specific to this project and the materials used to construct these buildings can and should be conducted prior to completion of the environmental review.

The following describes a method that should be used prior to construction in the environmental review under CEQA, for determining whether the indoor concentrations resulting from the formaldehyde emissions of the specific building materials/furnishings selected for the building exceed cancer and non-cancer guidelines. Such a design analyses can be used to identify those materials/furnishings prior to the completion of the City's CEQA review and project approval, that have formaldehyde emission rates that contribute to indoor concentrations that exceed cancer and non-cancer guidelines, so that alternative lower emitting materials/furnishings may be selected and/or higher minimum outdoor air ventilation rates can be increased to achieve acceptable indoor concentrations and incorporated as mitigation measures for this project.

#### Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment.

This formaldehyde emissions assessment should be used in the environmental review under CEQA to assess the indoor formaldehyde concentrations from the proposed loading of building materials/furnishings, the area-specific formaldehyde emission rate data for building materials/furnishings, and the design minimum outdoor air ventilation rates. This assessment allows the applicant (and the City) to determine before the conclusion of the environmental review process and the building materials/furnishings are specified, purchased, and installed if the total chemical emissions will exceed cancer and non-cancer guidelines, and if so, allow for changes in the selection of specific material/furnishings and/or the design minimum outdoor air ventilations rates such that cancer and non-cancer guidelines are not exceeded.

1.) Define Indoor Air Quality Zones. Divide the building into separate indoor air quality zones, (IAQ Zones). IAQ Zones are defined as areas of well-mixed air. Thus, each ventilation system with recirculating air is considered a single zone, and each room or group of rooms where air is not recirculated (e.g. 100% outdoor air) is considered a separate zone. For IAQ Zones with the same construction material/furnishings and design minimum outdoor air ventilation rates. (e.g. hotel rooms, apartments, condominiums, etc.) the formaldehyde emission rates need only be assessed for a single IAQ Zone of that type.



2.) Calculate Material/Furnishing Loading. For each IAQ Zone, determine the building material and furnishing loadings (e.g.,  $m^2$  of material/ $m^2$  floor area, units of furnishings/ $m^2$  floor area) from an inventory of all potential indoor formaldehyde sources, including flooring, ceiling tiles, furnishings, finishes, insulation, sealants, adhesives, and any products constructed with composite wood products containing urea-formaldehyde resins (e.g., plywood, medium density fiberboard, particleboard).

3.) Calculate the Formaldehyde Emission Rate. For each building material, calculate the formaldehyde emission rate ( $\mu\text{g}/\text{h}$ ) from the product of the area-specific formaldehyde emission rate ( $\mu\text{g}/\text{m}^2\text{-h}$ ) and the area ( $m^2$ ) of material in the IAQ Zone, and from each furnishing (e.g. chairs, desks, etc.) from the unit-specific formaldehyde emission rate ( $\mu\text{g}/\text{unit-h}$ ) and the number of units in the IAQ Zone.

NOTE: As a result of the high-performance building rating systems and building codes (California Building Standards Commission, 2014; USGBC, 2014), most manufacturers of building materials furnishings sold in the United States conduct chemical emission rate tests using the California Department of Health “Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers”, (CDPH, 2017), or other equivalent chemical emission rate testing methods. Most manufacturers of building furnishings sold in the United States conduct chemical emission rate tests using ANSI/BIFMA M7.1 Standard Test Method for Determining VOC Emissions (BIFMA, 2018), or other equivalent chemical emission rate testing methods.

CDPH, BIFMA, and other chemical emission rate testing programs, typically certify that a material or furnishing does not create indoor chemical concentrations in excess of the maximum concentrations permitted by their certification. For instance, the CDPH emission rate testing requires that the measured emission rates when input into an office, school, or residential model do not exceed one-half of the OEHHA Chronic Exposure Guidelines (OEHHA, 2017b) for the 35 specific VOCs, including formaldehyde, listed in Table 4-1 of the CDPH test method (CDPH, 2017). These certifications themselves do not provide the actual area-specific formaldehyde emission rate (i.e.,  $\mu\text{g}/\text{m}^2\text{-h}$ ) of the product, but rather provide data that the formaldehyde emission rates do not exceed the

maximum rate allowed for the certification. Thus for example, the data for a certification of a specific type of flooring may be used to calculate that the area-specific emission rate of formaldehyde is less than 31  $\mu\text{g}/\text{m}^2\text{-h}$ , but not the actual measured specific emission rate, which may be 3, 18, or 30  $\mu\text{g}/\text{m}^2\text{-h}$ . These area-specific emission rates determined from the product certifications of CDPH, BIFA, and other certification programs can be used as an initial estimate of the formaldehyde emission rate.

If the actual area-specific emission rates of a building material or furnishing is needed (i.e. the initial emission rates estimates from the product certifications are higher than desired), then that data can be acquired by requesting from the manufacturer the complete chemical emission rate test report. For instance if the complete CDPH emission test report is requested for a CDHP certified product, that report will provide the actual area-specific emission rates for not only the 35 specific VOCs, including formaldehyde, listed in Table 4-1 of the CDPH test method (CDPH, 2017), but also all of the cancer and reproductive/developmental chemicals listed in the California Proposition 65 Safe Harbor Levels (OEHHA, 2017a), all of the toxic air contaminants (TACs) in the California Air Resources Board Toxic Air Contamination List (CARB, 2011), and the 10 chemicals with the greatest emission rates.

Alternatively, a sample of the building material or furnishing can be submitted to a chemical emission rate testing laboratory, such as Berkeley Analytical Laboratory (<https://berkeleyanalytical.com>), to measure the formaldehyde emission rate.

4.) Calculate the Total Formaldehyde Emission Rate. For each IAQ Zone, calculate the total formaldehyde emission rate (i.e.  $\mu\text{g}/\text{h}$ ) from the individual formaldehyde emission rates from each of the building material/furnishings as determined in Step 3.

5.) Calculate the Indoor Formaldehyde Concentration. For each IAQ Zone, calculate the indoor formaldehyde concentration ( $\mu\text{g}/\text{m}^3$ ) from Equation 1 by dividing the total formaldehyde emission rates (i.e.  $\mu\text{g}/\text{h}$ ) as determined in Step 4, by the design minimum outdoor air ventilation rate ( $\text{m}^3/\text{h}$ ) for the IAQ Zone.

$$C_{in} = \frac{E_{total}}{Q_{oa}} \quad (\text{Equation 1})$$

where:

$C_{in}$  = indoor formaldehyde concentration ( $\mu\text{g}/\text{m}^3$ )

$E_{total}$  = total formaldehyde emission rate ( $\mu\text{g}/\text{h}$ ) into the IAQ Zone.

$Q_{oa}$  = design minimum outdoor air ventilation rate to the IAQ Zone ( $\text{m}^3/\text{h}$ )

The above Equation 1 is based upon mass balance theory, and is referenced in Section 3.10.2 “Calculation of Estimated Building Concentrations” of the California Department of Health “Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers”, (CDPH, 2017).

6.) Calculate the Indoor Exposure Cancer and Non-Cancer Health Risks. For each IAQ Zone, calculate the cancer and non-cancer health risks from the indoor formaldehyde concentrations determined in Step 5 and as described in the OEHHA Air Toxics Hot Spots Program Risk Assessment Guidelines; Guidance Manual for Preparation of Health Risk Assessments (OEHHA, 2015).

7.) Mitigate Indoor Formaldehyde Exposures of exceeding the CEQA Cancer and/or Non-Cancer Health Risks. In each IAQ Zone, provide mitigation for any formaldehyde exposure risk as determined in Step 6, that exceeds the CEQA cancer risk of 10 per million or the CEQA non-cancer Hazard Quotient of 1.0.

Provide the source and/or ventilation mitigation required in all IAQ Zones to reduce the health risks of the chemical exposures below the CEQA cancer and non-cancer health risks.

Source mitigation for formaldehyde may include:

- 1.) reducing the amount materials and/or furnishings that emit formaldehyde
- 2.) substituting a different material with a lower area-specific emission rate of formaldehyde

Ventilation mitigation for formaldehyde emitted from building materials and/or

furnishings may include:

- 1.) increasing the design minimum outdoor air ventilation rate to the IAQ Zone.

NOTE: Mitigating the formaldehyde emissions through use of less material/furnishings, or use of lower emitting materials/furnishings, is the preferred mitigation option, as mitigation with increased outdoor air ventilation increases initial and operating costs associated with the heating/cooling systems.

Further, we are not asking the builder to “speculate” on what and how much composite materials be used, but rather at the design stage to select composite wood materials based on the formaldehyde emission rates that manufacturers routinely conduct using the California Department of Health “Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers”, (CDPH, 2017), and use the procedure described earlier (i.e. Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment) to insure that the materials selected achieve acceptable cancer risks from material off gassing of formaldehyde.

Outdoor Air Ventilation Impact. Another important finding of the CNHS, was that the outdoor air ventilation rates in the homes were very low. Outdoor air ventilation is a very important factor influencing the indoor concentrations of air contaminants, as it is the primary removal mechanism of all indoor air generated air contaminants. Lower outdoor air exchange rates cause indoor generated air contaminants to accumulate to higher indoor air concentrations. Many homeowners rarely open their windows or doors for ventilation as a result of their concerns for security/safety, noise, dust, and odor concerns (Price, 2007). In the CNHS field study, 32% of the homes did not use their windows during the 24-hour Test Day, and 15% of the homes did not use their windows during the entire preceding week. Most of the homes with no window usage were homes in the winter field session. Thus, a substantial percentage of homeowners never open their windows, especially in the winter season. The median 24-hour measurement was 0.26 ach, with a range of 0.09 ach to 5.3 ach. A total of 67% of the homes had outdoor air exchange rates below the minimum California Building Code (2001) requirement of 0.35 ach. Thus, the relatively tight envelope construction, combined with the fact that many people never

open their windows for ventilation, results in homes with low outdoor air exchange rates and higher indoor air contaminant concentrations.

The South De Anza Hotel located in San Jose, CA is close to roads with moderate to high traffic (e.g. SR-85, South De Anza Boulevard, Sharon Drive, etc.). As a result of the outdoor vehicle traffic noise, the Project site is likely to be a sound impacted site. In Appendix F of the Draft Initial Study/Mitigated Negative Declaration for the South De Anza Hotel Project (City of San Jose, 2020), the DNL future noise levels range from 67 to 68 dBA.

As a result of the high outdoor noise levels, the current project will require the need for mechanical supply of outdoor air ventilation air to allow for a habitable interior environment with closed windows and doors. Such a ventilation system would allow windows and doors to be kept closed at the occupant's discretion to control exterior noise within building interiors.

PM<sub>2.5</sub> Outdoor Concentrations Impact. An additional impact of the nearby motor vehicle traffic associated with this project, are the outdoor concentrations of PM<sub>2.5</sub>. According to Appendix A of the Draft Initial Study/Mitigated Negative Declaration for the South De Anza Hotel Project (City of San Jose, 2020), the project is located in the San Francisco Bay Area Air Basin, which is a State and Federal non-attainment area for PM<sub>2.5</sub>.

An air quality analyses should to be conducted to determine the concentrations of PM<sub>2.5</sub> in the outdoor and indoor air that people inhale each day. This air quality analyses needs to consider the cumulative impacts of the project related emissions, existing and projected future emissions from local PM<sub>2.5</sub> sources (e.g. stationary sources, motor vehicles, and airport traffic) upon the outdoor air concentrations at the project site. If the outdoor concentrations are determined to exceed the California and National annual average PM<sub>2.5</sub> exceedence concentration of 12 µg/m<sup>3</sup>, or the National 24-hour average exceedence concentration of 35 µg/m<sup>3</sup>, then the buildings need to have a mechanical supply of outdoor air that has air filtration with sufficient PM<sub>2.5</sub> removal efficiency, such that the indoor

concentrations of outdoor PM<sub>2.5</sub> particles is less than the California and National PM<sub>2.5</sub> annual and 24-hour standards.

It is my experience that based on the projected high traffic noise levels, the annual average concentration of PM<sub>2.5</sub> will exceed the California and National PM<sub>2.5</sub> annual and 24-hour standards and warrant installation of high efficiency air filters (i.e. MERV 13 or higher) in all mechanically supplied outdoor air ventilation systems.

### **Indoor Air Quality Impact Mitigation Measures**

The following are recommended mitigation measures to minimize the impacts upon indoor quality:

- indoor formaldehyde concentrations
- outdoor air ventilation
- PM<sub>2.5</sub> outdoor air concentrations

Indoor Formaldehyde Concentrations Mitigation. Use only composite wood materials (e.g. hardwood plywood, medium density fiberboard, particleboard) for all interior finish systems that are made with CARB approved no-added formaldehyde (NAF) resins (CARB, 2009).

Alternatively, conduct the previously described Pre-Construction Building Material/Furnishing Chemical Emissions Assessment, to determine that the combination of formaldehyde emissions from building materials and furnishings do not create indoor formaldehyde concentrations that exceed the CEQA cancer and non-cancer health risks.

It is important to note that we are not asking that the builder to “speculate” on what and how much composite materials be used, but rather at the design stage to select composite wood materials based on the formaldehyde emission rates that manufacturers routinely conduct using the California Department of Health “Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using

Environmental Chambers”, (CDPH, 2017), and use the procedure described earlier (i.e. Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment) to insure that the materials selected achieve acceptable cancer risks from material off gassing of formaldehyde.

Outdoor Air Ventilation Mitigation. Provide each habitable room with a continuous mechanical supply of outdoor air that meets or exceeds the California 2016 Building Energy Efficiency Standards (California Energy Commission, 2015) requirements of the greater of 15 cfm/occupant or 0.15 cfm/ft<sup>2</sup> of floor area. Following installation of the system conduct testing and balancing to insure that required amount of outdoor air is entering each habitable room and provide a written report documenting the outdoor airflow rates. Do not use exhaust only mechanical outdoor air systems, use only balanced outdoor air supply and exhaust systems or outdoor air supply only systems. Provide a manual for the occupants or maintenance personnel, that describes the purpose of the mechanical outdoor air system and the operation and maintenance requirements of the system.

PM<sub>2.5</sub> Outdoor Air Concentration Mitigation. Install air filtration with sufficient PM<sub>2.5</sub> removal efficiency (e.g. MERV 13 or higher) to filter the outdoor air entering the mechanical outdoor air supply systems, such that the indoor concentrations of outdoor PM<sub>2.5</sub> particles are less than the California and National PM<sub>2.5</sub> annual and 24-hour standards. Install the air filters in the system such that they are accessible for replacement by the occupants or maintenance personnel. Include in the mechanical outdoor air ventilation system manual instructions on how to replace the air filters and the estimated frequency of replacement.

## **References**

Bay Area Air Quality Management District (BAAQMD). 2017. California Environmental Quality Act Air Quality Guidelines. Bay Area Air Quality Management District, San Francisco, CA.

[http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en)

BIFA. 2018. BIFMA Product Safety and Performance Standards and Guidelines.  
[www.bifma.org/page/standardsoverview](http://www.bifma.org/page/standardsoverview)

California Air Resources Board. 2009. Airborne Toxic Control Measure to Reduce Formaldehyde Emissions from Composite Wood Products. California Environmental Protection Agency, Sacramento, CA.  
<https://www.arb.ca.gov/regact/2007/compwood07/fro-final.pdf>

California Air Resources Board. 2011. Toxic Air Contaminant Identification List. California Environmental Protection Agency, Sacramento, CA.  
<https://www.arb.ca.gov/toxics/id/taclist.htm>

California Building Code. 2001. California Code of Regulations, Title 24, Part 2 Volume 1, Appendix Chapter 12, Interior Environment, Division 1, Ventilation, Section 1207: 2001 California Building Code, California Building Standards Commission. Sacramento, CA.

California Building Standards Commission. 2014. 2013 California Green Building Standards Code. California Code of Regulations, Title 24, Part 11. California Building Standards Commission, Sacramento, CA <http://www.bsc.ca.gov/Home/CALGreen.aspx>.

California Energy Commission, PIER Program. 2007. CEC-500-2007-033. Final Report, ARB Contract 03-326. Available at: [www.arb.ca.gov/research/apr/past/03-326.pdf](http://www.arb.ca.gov/research/apr/past/03-326.pdf).

California Energy Commission, 2015. 2016 Building Energy Efficiency Standards for Residential and Nonresidential Buildings, California Code of Regulations, Title 24, Part 6.  
<http://www.energy.ca.gov/2015publications/CEC-400-2015-037/CEC-400-2015-037-CMF.pdf>



CDPH. 2017. *Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers, Version 1.1*. California Department of Public Health, Richmond, CA. <https://www.cdph.ca.gov/Programs/CCDPPP/DEODC/EHLB/IAQ/Pages/VOC.aspx>.

Chan, W., Kim, Y., Singer, B., and Walker I. 2019. Ventilation and Indoor Air Quality in New California Homes with Gas Appliances and Mechanical Ventilation. Lawrence Berkeley National Laboratory, Energy Technologies Area, LBNL-2001200, DOI: 10.20357/B7QC7X.

City of San Jose. 2020. Draft Initial Study/Mitigated Negative Declaration for the South De Anza Hotel Project. File No. H19-017.

EPA. 2011. Exposure Factors Handbook: 2011 Edition, Chapter 16 – Activity Factors. Report EPA/600/R-09/052F, September 2011. U.S. Environmental Protection Agency, Washington, D.C.

Hodgson, A. T., D. Beal, J.E.R. McIlvaine. 2002. Sources of formaldehyde, other aldehydes and terpenes in a new manufactured house. *Indoor Air* 12: 235–242.

OEHHA (Office of Environmental Health Hazard Assessment). 2015. Air Toxics Hot Spots Program Risk Assessment Guidelines; Guidance Manual for Preparation of Health Risk Assessments.

OEHHA (Office of Environmental Health Hazard Assessment). 2017a. Proposition 65 Safe Harbor Levels. No Significant Risk Levels for Carcinogens and Maximum Allowable Dose Levels for Chemicals Causing Reproductive Toxicity. Available at: <http://www.oehha.ca.gov/prop65/pdf/safeharbor081513.pdf>

OEHHA - Office of Environmental Health Hazard Assessment. 2017b. All OEHHA Acute, 8-hour and Chronic Reference Exposure Levels. Available at: <http://oehha.ca.gov/air/allrels.html>

Offermann, F. J. 2009. Ventilation and Indoor Air Quality in New Homes. California Air Resources Board and California Energy Commission, PIER Energy-Related Environmental Research Program. Collaborative Report. CEC-500-2009-085. <https://www.arb.ca.gov/research/apr/past/04-310.pdf>

Offermann, F. J. and A. T. Hodgson. 2011. Emission Rates of Volatile Organic Compounds in New Homes. Proceedings Indoor Air 2011 (12<sup>th</sup> International Conference on Indoor Air Quality and Climate 2011), June 5-10, 2011, Austin, TX USA.

Price, Phillip P., Max Sherman, Robert H. Lee, and Thomas Piazza. 2007. Study of Ventilation Practices and Household Characteristics in New California Homes.

USGBC. 2014. LEED BD+C Homes v4. U.S. Green Building Council, Washington, D.C. <http://www.usgbc.org/credits/homes/v4>

## APPENDIX A

### INDOOR FORMALDEHYDE CONCENTRATIONS AND THE CARB FORMALDEHYDE ATCM

With respect to formaldehyde emissions from composite wood products, the CARB ATCM regulations of formaldehyde emissions from composite wood products, do not assure healthful indoor air quality. The following is the stated purpose of the CARB ATCM regulation - *The purpose of this airborne toxic control measure is to “reduce formaldehyde emissions from composite wood products, and finished goods that contain composite wood products, that are sold, offered for sale, supplied, used, or manufactured for sale in California”*. In other words, the CARB ATCM regulations do not “assure healthful indoor air quality”, but rather “reduce formaldehyde emissions from composite wood products”.

Just how much protection do the CARB ATCM regulations provide building occupants from the formaldehyde emissions generated by composite wood products ? Definitely some, but certainly the regulations do not “*assure healthful indoor air quality*” when CARB Phase 2 products are utilized. As shown in the Chan 2019 study of new California homes, the median indoor formaldehyde concentration was of 22.4  $\mu\text{g}/\text{m}^3$  (18.2 ppb), which corresponds to a cancer risk of 112 per million for occupants with continuous exposure, which is more than 11 times the Bay Area Air Quality Management District CEQA cancer risk of 10 per million.

Another way of looking at how much protection the CARB ATCM regulations provide building occupants from the formaldehyde emissions generated by composite wood products is to calculate the maximum number of square feet of composite wood product that can be in a residence without exceeding the CEQA cancer risk of 10 per million for occupants with continuous occupancy.

For this calculation I utilized the floor area (2,272  $\text{ft}^2$ ), the ceiling height (8.5 ft), and the number of bedrooms (4) as defined in Appendix B (New Single-Family Residence Scenario) of the Standard Method for the Testing and Evaluation of Volatile Organic Chemical

Emissions for Indoor Sources Using Environmental Chambers, Version 1.1, 2017, California Department of Public Health, Richmond, CA. <https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx>.

For the outdoor air ventilation rate I used the 2019 Title 24 code required mechanical ventilation rate (ASHRAE 62.2) of 106 cfm (180 m<sup>3</sup>/h) calculated for this model residence. For the composite wood formaldehyde emission rates I used the CARB ATCM Phase 2 rates.

The calculated maximum number of square feet of composite wood product that can be in a residence, without exceeding the CEQA cancer risk of 10 per million for occupants with continuous occupancy are as follows for the different types of regulated composite wood products.

Medium Density Fiberboard (MDF) – 15 ft<sup>2</sup> (0.7% of the floor area), or  
Particle Board – 30 ft<sup>2</sup> (1.3% of the floor area), or  
Hardwood Plywood – 119 ft<sup>2</sup> (5.3% of the floor area), or  
Thin MDF – 46 ft<sup>2</sup> (2.0 % of the floor area).

For offices and hotels the calculated maximum amount of composite wood product (% of floor area) that can be used without exceeding the CEQA cancer risk of 10 per million for occupants, assuming 8 hours/day occupancy, and the California Mechanical Code minimum outdoor air ventilation rates are as follows for the different types of regulated composite wood products.

Medium Density Fiberboard (MDF) – 3.6 % (offices) and 4.6% (hotel rooms), or  
Particle Board – 7.2 % (offices) and 9.4% (hotel rooms), or  
Hardwood Plywood – 29 % (offices) and 37% (hotel rooms), or  
Thin MDF – 11 % (offices) and 14 % (hotel rooms)

Clearly the CARB ATCM does not regulate the formaldehyde emissions from composite wood products such that the potentially large areas of these products, such as for flooring,

baseboards, interior doors, window and door trims, and kitchen and bathroom cabinetry, could be used without causing indoor formaldehyde concentrations that result in CEQA cancer risks that substantially exceed 10 per million for occupants with continuous occupancy.

If CARB Phase 2 compliant composite wood products are utilized in construction, then the resulting indoor formaldehyde concentrations should be determined in the design phase using the specific amounts of each type of composite wood product, the specific formaldehyde emission rates, and the volume and outdoor air ventilation rates of the indoor spaces, and all feasible mitigation measures employed to reduce this impact (e.g. use less formaldehyde containing composite wood products and/or incorporate mechanical systems capable of higher outdoor air ventilation rates). See the procedure described earlier (i.e. Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment) to insure that the materials selected achieve acceptable cancer risks from material off gassing of formaldehyde.

Alternatively, and perhaps a simpler approach, is to use only composite wood products (e.g. hardwood plywood, medium density fiberboard, particleboard) for all interior finish systems that are made with CARB approved no-added formaldehyde (NAF) resins.

# IEE Indoor Environmental Engineering

Your indoor air quality experts



[Home](#)

[Company Profile](#)

[Healthy Building Services](#)

[Diagnostic Services](#)

[Laboratory Services](#)

[Workshops & Seminars](#)

[Expert Witness Services](#)

[Resources](#)

[News & Events](#)

[Employment](#)

[Contact Us](#)

## Expert Witness Services

### Francis (Bud) J. Offermann PE CIH

President: Indoor Environmental Engineering,  
San Francisco, CA. December, 1981 - present.  
e-mail: [offermann@iee-sf.com](mailto:offermann@iee-sf.com)

### Education

- M.S. Mechanical Engineering Stanford University, Stanford, CA.
- Graduate Studies in Air Pollution Monitoring and Control University of California, Berkeley, CA.
- B.S. in Mechanical Engineering Rensselaer Polytechnic Institute, Troy, N.Y.

### Professional Affiliations

ACGIH, AIHA, ASHRAE, CSI, ASTM, ISIAQ, PARMA, and USGBC

### Work Experience

Mr. Offermann PE, CIH, has 36 years experience as an IAQ researcher, technical author, and workshop instructor. He is president of Indoor Environmental Engineering, a San Francisco based IAQ R&D consulting firm. As president of Indoor Environmental Engineering, Mr. Offermann directs an interdisciplinary team of environmental scientists, chemists, and mechanical engineers in indoor air quality building investigations. Under Mr. Offermann's supervision, IEE has developed both pro-active and reactive IAQ measurement methods and diagnostic protocols. He has supervised over 2,000 IAQ investigations in commercial, residential, and institutional buildings and conducted numerous forensic investigations related to IAQ.

### Litigation Experience

Mr. Offermann has been qualified numerous times in court as an expert in the field of indoor air quality and ventilation for both plaintiffs and defendants. He has been deposed over 150 times in cases involving indoor air quality/ventilation issues in commercial, residential, and institutional buildings involving construction defects, and/or operation and maintenance problems. Examples of indoor air quality cases he has worked on are alleged personal injury and/or property damages from mold and bacterial contamination/moisture intrusion, building renovation activities, insufficient outdoor air ventilation, off gassing of volatile organic compounds from building materials and coatings, malfunctioning gas heaters and carbon monoxide poisoning, and applications of pesticides. Mr. Offermann has testified with respect to the scientific admissibility of expert testimony regarding indoor air quality issues via Daubert and Kelly-Frye motions.



[View Curriculum Vitae \(PDF\)](#)

Copyright 2006 Indoor Environmental Engineering. Site design by [Terra Technology](#).

CLICKY ANALYTICS CLICKY ANALYTICS

# Francis (Bud) J. Offermann III PE, CIH

## Indoor Environmental Engineering

1448 Pine Street, Suite 103, San Francisco, CA 94109

Phone: 415-567-7700

Email: [Offermann@iee-sf.com](mailto:Offermann@iee-sf.com)

<http://www.iee-sf.com>

---

### **Education**

M.S. Mechanical Engineering (1985)  
Stanford University, Stanford, CA.

Graduate Studies in Air Pollution Monitoring and Control (1980)  
University of California, Berkeley, CA.

B.S. in Mechanical Engineering (1976)  
Rensselaer Polytechnic Institute, Troy, N.Y.

### **Professional Experience**

President: Indoor Environmental Engineering, San Francisco, CA. December, 1981 - present.

Direct team of environmental scientists, chemists, and mechanical engineers in conducting State and Federal research regarding indoor air quality instrumentation development, building air quality field studies, ventilation and air cleaning performance measurements, and chemical emission rate testing.

Provide design side input to architects regarding selection of building materials and ventilation system components to ensure a high quality indoor environment.

Direct Indoor Air Quality Consulting Team for the winning design proposal for the new State of Washington Ecology Department building.

Develop a full-scale ventilation test facility for measuring the performance of air diffusers; ASHRAE 129, Air Change Effectiveness, and ASHRAE 113, Air Diffusion Performance Index.

Develop a chemical emission rate testing laboratory for measuring the chemical emissions from building materials, furnishings, and equipment.

Principle Investigator of the California New Homes Study (2005-2007). Measured ventilation and indoor air quality in 108 new single family detached homes in northern and southern California.

Develop and teach IAQ professional development workshops to building owners, managers, hygienists, and engineers.

Air Pollution Engineer: Earth Metrics Inc., Burlingame, CA, October, 1985 to March, 1987.

Responsible for development of an air pollution laboratory including installation a forced choice olfactometer, tracer gas electron capture chromatograph, and associated calibration facilities. Field team leader for studies of fugitive odor emissions from sewage treatment plants, entrainment of fume hood exhausts into computer chip fabrication rooms, and indoor air quality investigations.

Staff Scientist: Building Ventilation and Indoor Air Quality Program, Energy and Environment Division, Lawrence Berkeley Laboratory, Berkeley, CA. January, 1980 to August, 1984.

Deputy project leader for the Control Techniques group; responsible for laboratory and field studies aimed at evaluating the performance of indoor air pollutant control strategies (i.e. ventilation, filtration, precipitation, absorption, adsorption, and source control).

Coordinated field and laboratory studies of air-to-air heat exchangers including evaluation of thermal performance, ventilation efficiency, cross-stream contaminant transfer, and the effects of freezing/defrosting.

Developed an *in situ* test protocol for evaluating the performance of air cleaning systems and introduced the concept of effective cleaning rate (ECR) also known as the Clean Air Delivery Rate (CADR).

Coordinated laboratory studies of portable and ducted air cleaning systems and their effect on indoor concentrations of respirable particles and radon progeny.

Co-designed an automated instrument system for measuring residential ventilation rates and radon concentrations.

Designed hardware and software for a multi-channel automated data acquisition system used to evaluate the performance of air-to-air heat transfer equipment.

Assistant Chief Engineer: Alta Bates Hospital, Berkeley, CA, October, 1979 to January, 1980.

Responsible for energy management projects involving installation of power factor correction capacitors on large inductive electrical devices and installation of steam meters on physical plant steam lines. Member of Local 39, International Union of Operating Engineers.

Manufacturing Engineer: American Precision Industries, Buffalo, NY, October, 1977 to October, 1979.



Responsible for reorganizing the manufacturing procedures regarding production of shell and tube heat exchangers. Designed customized automatic assembly, welding, and testing equipment. Designed a large paint spray booth. Prepared economic studies justifying new equipment purchases. Safety Director.

Project Engineer: Arcata Graphics, Buffalo, N.Y. June, 1976 to October, 1977.

Responsible for the design and installation of a bulk ink storage and distribution system and high speed automatic counting and marking equipment. Also coordinated material handling studies which led to the purchase and installation of new equipment.

### **PROFESSIONAL ORGANIZATION MEMBERSHIP**

American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE)

- Chairman of SPC-145P, Standards Project Committee - Test Method for Assessing the Performance of Gas Phase Air Cleaning Equipment (1991-1992)
- Member SPC-129P, Standards Project Committee - Test Method for Ventilation Effectiveness (1986-97)
  - Member of Drafting Committee
- Member Environmental Health Committee (1992-1994, 1997-2001, 2007-2010)
  - Chairman of EHC Research Subcommittee
  - Member of Man Made Mineral Fiber Position Paper Subcommittee
  - Member of the IAQ Position Paper Committee
  - Member of the Legionella Position Paper Committee
  - Member of the Limiting Indoor Mold and Dampness in Buildings Position Paper Committee
- Member SSPC-62, Standing Standards Project Committee - Ventilation for Acceptable Indoor Air Quality (1992 to 2000)
  - Chairman of Source Control and Air Cleaning Subcommittee
- Chairman of TC-4.10, Indoor Environmental Modeling (1988-92)
  - Member of Research Subcommittee
- Chairman of TC-2.3, Gaseous Air Contaminants and Control Equipment (1989-92)
  - Member of Research Subcommittee

American Society for Testing and Materials (ASTM)

- D-22 Sampling and Analysis of Atmospheres
  - Member of Indoor Air Quality Subcommittee
- E-06 Performance of Building Constructions

American Board of Industrial Hygiene (ABIH)

American Conference of Governmental Industrial Hygienists (ACGIH)

- Bioaerosols Committee (2007-2013)

American Industrial Hygiene Association (AIHA)

Cal-OSHA Indoor Air Quality Advisory Committee

International Society of Indoor Air Quality and Climate (ISIAQ)

- Co-Chairman of Task Force on HVAC Hygiene

U. S. Green Building Council (USGBC)

- Member of the IEQ Technical Advisory Group (2007-2009)
- Member of the IAQ Performance Testing Work Group (2010-2012)

Western Construction Consultants (WESTCON)

## **PROFESSIONAL CREDENTIALS**

Licensed Professional Engineer - Mechanical Engineering

Certified Industrial Hygienist - American Board of Industrial Hygienists

## **SCIENTIFIC MEETINGS AND SYMPOSIA**

Biological Contamination, Diagnosis, and Mitigation, Indoor Air'90, Toronto, Canada, August, 1990.

Models for Predicting Air Quality, Indoor Air'90, Toronto, Canada, August, 1990.

Microbes in Building Materials and Systems, Indoor Air '93, Helsinki, Finland, July, 1993.

Microorganisms in Indoor Air Assessment and Evaluation of Health Effects and Probable Causes, Walnut Creek, CA, February 27, 1997.

Controlling Microbial Moisture Problems in Buildings, Walnut Creek, CA, February 27, 1997.

Scientific Advisory Committee, Roomvent 98, 6<sup>th</sup> International Conference on Air Distribution in Rooms, KTH, Stockholm, Sweden, June 14-17, 1998.

Moisture and Mould, Indoor Air '99, Edinburgh, Scotland, August, 1999.

Ventilation Modeling and Simulation, Indoor Air '99, Edinburgh, Scotland, August, 1999.

Microbial Growth in Materials, Healthy Buildings 2000, Espoo, Finland, August, 2000.

Co-Chair, Bioaerosols X- Exposures in Residences, Indoor Air 2002, Monterey, CA, July 2002.

Healthy Indoor Environments, Anaheim, CA, April 2003.

Chair, Environmental Tobacco Smoke in Multi-Family Homes, Indoor Air 2008, Copenhagen, Denmark, July 2008.

Co-Chair, ISIAQ Task Force Workshop; HVAC Hygiene, Indoor Air 2002, Monterey, CA, July 2002.

Chair, ETS in Multi-Family Housing: Exposures, Controls, and Legalities Forum, Healthy Buildings 2009, Syracuse, CA, September 14, 2009.

Chair, Energy Conservation and IAQ in Residences Workshop, Indoor Air 2011, Austin, TX, June 6, 2011.

Chair, Electronic Cigarettes: Chemical Emissions and Exposures Colloquium, Indoor Air 2016, Ghent, Belgium, July 4, 2016.

### **SPECIAL CONSULTATION**

Provide consultation to the American Home Appliance Manufacturers on the development of a standard for testing portable air cleaners, AHAM Standard AC-1.

Served as an expert witness and special consultant for the U.S. Federal Trade Commission regarding the performance claims found in advertisements of portable air cleaners and residential furnace filters.

Conducted a forensic investigation for a San Mateo, CA pro se defendant, regarding an alleged homicide where the victim was kidnapped in a steamer trunk. Determined the air exchange rate in the steamer trunk and how long the person could survive.

Conducted *in situ* measurement of human exposure to toluene fumes released during nailpolish application for a plaintiffs attorney pursuing a California Proposition 65 product labeling case. June, 1993.

Conducted a forensic *in situ* investigation for the Butte County, CA Sheriff's Department of the emissions of a portable heater used in the bedroom of two twin one year old girls who suffered simultaneous crib death.

Consult with OSHA on the 1995 proposed new regulation regarding indoor air quality and environmental tobacco smoke.

Consult with EPA on the proposed Building Alliance program and with OSHA on the proposed new OSHA IAQ regulation.

Johnson Controls Audit/Certification Expert Review; Milwaukee, WI. May 28-29, 1997.

Winner of the nationally published 1999 Request for Proposals by the State of Washington to conduct a comprehensive indoor air quality investigation of the Washington State Department of Ecology building in Lacey, WA.

Selected by the State of California Attorney General's Office in August, 2000 to conduct a comprehensive indoor air quality investigation of the Tulare County Court House.

Lawrence Berkeley Laboratory IAQ Experts Workshop: "Cause and Prevention of Sick Building Problems in Offices: The Experience of Indoor Environmental Quality Investigators", Berkeley, California, May 26-27, 2004.

Provide consultation and chemical emission rate testing to the State of California Attorney General's Office in 2013-2015 regarding the chemical emissions from e-cigarettes.

#### **PEER-REVIEWED PUBLICATIONS :**

F.J.Offermann, C.D.Hollowell, and G.D.Roseme, "Low-Infiltration Housing in Rochester, New York: A Study of Air Exchange Rates and Indoor Air Quality," *Environment International*, 8, pp. 435-445, 1982.

W.W.Nazaroff, F.J.Offermann, and A.W.Robb, "Automated System for Measuring Air Exchange Rate and Radon Concentration in Houses," *Health Physics*, 45, pp. 525-537, 1983.

F.J.Offermann, W.J.Fisk, D.T.Grimrud, B.Pedersen, and K.L.Revzan, "Ventilation Efficiencies of Wall- or Window-Mounted Residential Air-to-Air Heat Exchangers," *ASHRAE Annual Transactions*, 89-2B, pp 507-527, 1983.

W.J.Fisk, K.M.Archer, R.E Chant, D. Hekmat, F.J.Offermann, and B.Pedersen, "Onset of Freezing in Residential Air-to-Air Heat Exchangers," *ASHRAE Annual Transactions*, 91-1B, 1984.

W.J.Fisk, K.M.Archer, R.E Chant, D. Hekmat, F.J.Offermann, and B.Pedersen, "Performance of Residential Air-to-Air Heat Exchangers During Operation with Freezing and Periodic Defrosts," *ASHRAE Annual Transactions*, 91-1B, 1984.

F.J.Offermann, R.G.Sextro, W.J.Fisk, D.T.Grimrud, W.W.Nazaroff, A.V.Nero, and K.L.Revzan, "Control of Respirable Particles with Portable Air Cleaners," *Atmospheric Environment*, Vol. 19, pp.1761-1771, 1985.

R.G.Sextro, F.J.Offermann, W.W.Nazaroff, A.V.Nero, K.L.Revzan, and J.Yater, "Evaluation of Indoor Control Devices and Their Effects on Radon Progeny Concentrations," *Atmospheric Environment*, *12*, pp. 429-438, 1986.

W.J. Fisk, R.K.Spencer, F.J.Offermann, R.K.Spencer, B.Pedersen, R.Sextro, "Indoor Air Quality Control Techniques," *Noyes Data Corporation*, Park Ridge, New Jersey, (1987).

F.J.Offermann, "Ventilation Effectiveness and ADPI Measurements of a Forced Air Heating System," *ASHRAE Transactions* , Volume 94, Part 1, pp 694-704, 1988.

F.J.Offermann and D. Int-Hout "Ventilation Effectiveness Measurements of Three Supply/Return Air Configurations," *Environment International* , Volume 15, pp 585-592 1989.

F.J. Offermann, S.A. Loiselle, M.C. Quinlan, and M.S. Rogers, "A Study of Diesel Fume Entrainment in an Office Building," *IAQ '89*, The Human Equation: Health and Comfort, pp 179-183, ASHRAE, Atlanta, GA, 1989.

R.G.Sextro and F.J.Offermann, "Reduction of Residential Indoor Particle and Radon Progeny Concentrations with Ducted Air Cleaning Systems," submitted to *Indoor Air*, 1990.

S.A.Loiselle, A.T.Hodgson, and F.J.Offermann, "Development of An Indoor Air Sampler for Polycyclic Aromatic Compounds", *Indoor Air* , Vol 2, pp 191-210, 1991.

F.J.Offermann, S.A.Loiselle, A.T.Hodgson, L.A. Gundel, and J.M. Daisey, "A Pilot Study to Measure Indoor Concentrations and Emission Rates of Polycyclic Aromatic Compounds", *Indoor Air* , Vol 4, pp 497-512, 1991.

F.J. Offermann, S. A. Loiselle, R.G. Sextro, "Performance Comparisons of Six Different Air Cleaners Installed in a Residential Forced Air Ventilation System," *IAQ'91*, Healthy Buildings, pp 342-350, ASHRAE, Atlanta, GA (1991).

F.J. Offermann, J. Daisey, A. Hodgson, L. Gundell, and S. Loiselle, "Indoor Concentrations and Emission Rates of Polycyclic Aromatic Compounds", *Indoor Air*, Vol 4, pp 497-512 (1992).

F.J. Offermann, S. A. Loiselle, R.G. Sextro, "Performance of Air Cleaners Installed in a Residential Forced Air System," *ASHRAE Journal*, pp 51-57, July, 1992.

F.J. Offermann and S. A. Loiselle, "Performance of an Air-Cleaning System in an Archival Book Storage Facility," *IAQ'92*, ASHRAE, Atlanta, GA, 1992.

S.B. Hayward, K.S. Liu, L.E. Alevantis, K. Shah, S. Loiselle, F.J. Offermann, Y.L. Chang, L. Webber, "Effectiveness of Ventilation and Other Controls in Reducing Exposure to ETS in Office Buildings," *Indoor Air '93*, Helsinki, Finland, July 4-8, 1993.

F.J. Offermann, S. A. Loiselle, G. Ander, H. Lau, "Indoor Contaminant Emission Rates Before and After a Building Bake-out," *IAQ'93*, Operating and Maintaining Buildings for Health, Comfort, and Productivity, pp 157-163, ASHRAE, Atlanta, GA, 1993.

L.E. Alevantis, Hayward, S.B., Shah, S.B., Loiselle, S., and Offermann, F.J. "Tracer Gas Techniques for Determination of the Effectiveness of Pollutant Removal From Local Sources," *IAQ '93*, Operating and Maintaining Buildings for Health, Comfort, and Productivity, pp 119-129, ASHRAE, Atlanta, GA, 1993.

L.E. Alevantis, Liu, L.E., Hayward, S.B., Offermann, F.J., Shah, S.B., Leiserson, K. Tsao, E., and Huang, Y., "Effectiveness of Ventilation in 23 Designated Smoking Areas in California Buildings," *IAQ '94*, Engineering Indoor Environments, pp 167-181, ASHRAE, Atlanta, GA, 1994.

L.E. Alevantis, Offermann, F.J., Loiselle, S., and Macher, J.M., "Pressure and Ventilation Requirements of Hospital Isolation Rooms for Tuberculosis (TB) Patients: Existing Guidelines in the United States and a Method for Measuring Room Leakage", Ventilation and Indoor air quality in Hospitals, M. Maroni, editor, Kluwer Academic publishers, Netherlands, 1996.

F.J. Offermann, M. A. Waz, A.T. Hodgson, and H.M. Ammann, "Chemical Emissions from a Hospital Operating Room Air Filter," *IAQ'96*, Paths to Better Building Environments, pp 95-99, ASHRAE, Atlanta, GA, 1996.

F.J. Offermann, "Professional Malpractice and the Sick Building Investigator," *IAQ'96*, Paths to Better Building Environments, pp 132-136, ASHRAE, Atlanta, GA, 1996.

F.J. Offermann, "Standard Method of Measuring Air Change Effectiveness," *Indoor Air*, Vol 1, pp.206-211, 1999.

F. J. Offermann, A. T. Hodgson, and J. P. Robertson, "Contaminant Emission Rates from PVC Backed Carpet Tiles on Damp Concrete", Healthy Buildings 2000, Espoo, Finland, August 2000.

K.S. Liu, L.E. Alevantis, and F.J. Offermann, "A Survey of Environmental Tobacco Smoke Controls in California Office Buildings", *Indoor Air*, Vol 11, pp. 26-34, 2001.

F.J. Offermann, R. Colfer, P. Radzinski, and J. Robertson, "Exposure to Environmental Tobacco Smoke in an Automobile", *Indoor Air* 2002, Monterey, California, July 2002.

F. J. Offermann, J.P. Robertson, and T. Webster, "The Impact of Tracer Gas Mixing on Airflow Rate Measurements in Large Commercial Fan Systems", *Indoor Air* 2002, Monterey, California, July 2002.

M. J. Mendell, T. Brennan, L. Hathon, J.D. Odom, F.J. Offermann, B.H. Turk, K.M. Wallingford, R.C. Diamond, W.J. Fisk, "Causes and prevention of Symptom Complaints

in Office Buildings: Distilling the Experience of Indoor Environmental Investigators”, submitted to Indoor Air 2005, Beijing, China, September 4-9, 2005.

F.J. Offermann, “Ventilation and IAQ in New Homes With and Without Mechanical Outdoor Air Systems”, Healthy Buildings 2009, Syracuse, CA, September 14, 2009.

F.J. Offermann, “ASHRAE 62.2 Intermittent Residential Ventilation: What’s It Good For, Intermittently Poor IAQ”, IAQVEC 2010, Syracuse, CA, April 21, 2010.

F.J. Offermann and A.T. Hodgson, “Emission Rates of Volatile Organic Compounds in New Homes”, Indoor Air 2011, Austin, TX, June, 2011.

P. Jenkins, R. Johnson, T. Phillips, and F. Offermann, “Chemical Concentrations in New California Homes and Garages”, Indoor Air 2011, Austin, TX, June, 2011.

W. J. Mills, B. J. Grigg, F. J. Offermann, B. E. Gustin, and N. E. Spingarm, “Toluene and Methyl Ethyl Ketone Exposure from a Commercially Available Contact Adhesive”, Journal of Occupational and Environmental Hygiene, 9:D95-D102 May, 2012.

F. J. Offermann, R. Maddalena, J. C. Offermann, B. C. Singer, and H. Wilhelm, “The Impact of Ventilation on the Emission Rates of Volatile Organic Compounds in Residences”, HB 2012, Brisbane, AU, July, 2012.

F. J. Offermann, A. T. Hodgson, P. L. Jenkins, R. D. Johnson, and T. J. Phillips, “Attached Garages as a Source of Volatile Organic Compounds in New Homes”, HB 2012, Brisbane, CA, July, 2012.

R. Maddalena, N. Li, F. Offermann, and B. Singer, “Maximizing Information from Residential Measurements of Volatile Organic Compounds”, HB 2012, Brisbane, AU, July, 2012.

W. Chen, A. Persily, A. Hodgson, F. Offermann, D. Poppendieck, and K. Kumagai, “Area-Specific Airflow Rates for Evaluating the Impacts of VOC emissions in U.S. Single-Family Homes”, Building and Environment, Vol. 71, 204-211, February, 2014.

F. J. Offermann, A. Eagan A. C. Offermann, and L. J. Radonovich, “Infectious Disease Aerosol Exposures With and Without Surge Control Ventilation System Modifications”, Indoor Air 2014, Hong Kong, July, 2014.

F. J. Offermann, “Chemical Emissions from E-Cigarettes: Direct and Indirect Passive Exposures”, Building and Environment, Vol. 93, Part 1, 101-105, November, 2015.

F. J. Offermann, “Formaldehyde Emission Rates From Lumber Liquidators Laminate Flooring Manufactured in China”, Indoor Air 2016, Belgium, Ghent, July, 2016.

F. J. Offermann, “Formaldehyde and Acetaldehyde Emission Rates for E-Cigarettes”, Indoor Air 2016, Belgium, Ghent, July, 2016.

## **OTHER REPORTS:**

W.J.Fisk, P.G.Cleary, and F.J.Offermann, "Energy Saving Ventilation with Residential Heat Exchangers," a Lawrence Berkeley Laboratory brochure distributed by the Bonneville Power Administration, 1981.

F.J.Offermann, J.R.Girman, and C.D.Hollowell, "Midway House Tightening Project: A Study of Indoor Air Quality," Lawrence Berkeley Laboratory, Berkeley, CA, Report LBL-12777, 1981.

F.J.Offermann, J.B.Dickinson, W.J.Fisk, D.T.Grimrud, C.D.Hollowell, D.L.Krinkle, and G.D.Roseme, "Residential Air-Leakage and Indoor Air Quality in Rochester, New York," Lawrence Berkeley Laboratory, Berkeley, CA, Report LBL-13100, 1982.

F.J.Offermann, W.J.Fisk, B.Pedersen, and K.L.Revzan, Residential Air-to-Air Heat Exchangers: A Study of the Ventilation Efficiencies of Wall- or Window- Mounted Units," Lawrence Berkeley Laboratory, Berkeley, CA, Report LBL-14358, 1982.

F.J.Offermann, W.J.Fisk, W.W.Nazaroff, and R.G.Sextro, "A Review of Portable Air Cleaners for Controlling Indoor Concentrations of Particulates and Radon Progeny," An interim report for the Bonneville Power Administration, 1983.

W.J.Fisk, K.M.Archer, R.E.Chant, D.Hekmat, F.J.Offermann, and B.S. Pedersen, "Freezing in Residential Air-to-Air Heat Exchangers: An Experimental Study," Lawrence Berkeley Laboratory, Berkeley, CA, Report LBL-16783, 1983.

R.G.Sextro, W.W.Nazaroff, F.J.Offermann, and K.L.Revzan, "Measurements of Indoor Aerosol Properties and Their Effect on Radon Progeny," Proceedings of the American Association of Aerosol Research Annual Meeting, April, 1983.

F.J.Offermann, R.G.Sextro, W.J.Fisk, W.W. Nazaroff, A.V.Nero, K.L.Revzan, and J.Yater, "Control of Respirable Particles and Radon Progeny with Portable Air Cleaners," Lawrence Berkeley Laboratory, Berkeley, CA, Report LBL-16659, 1984.

W.J.Fisk, R.K.Spencer, D.T.Grimrud, F.J.Offermann, B.Pedersen, and R.G.Sextro, "Indoor Air Quality Control Techniques: A Critical Review," Lawrence Berkeley Laboratory, Berkeley, CA, Report LBL-16493, 1984.

F.J.Offermann, J.R.Girman, and R.G.Sextro, "Controlling Indoor Air Pollution from Tobacco Smoke: Models and Measurements," Indoor Air, Proceedings of the 3rd International Conference on Indoor Air Quality and Climate, Vol 1, pp 257-264, Swedish Council for Building Research, Stockholm (1984), Lawrence Berkeley Laboratory, Berkeley, CA, Report LBL-17603, 1984.



R.Otto, J.Girman, F.Offermann, and R.Sextro, "A New Method for the Collection and Comparison of Respirable Particles in the Indoor Environment," Lawrence Berkeley Laboratory, Berkeley, CA, Special Director Fund's Study, 1984.

A.T.Hodgson and F.J.Offermann, "Examination of a Sick Office Building," Lawrence Berkeley Laboratory, Berkeley, CA, an informal field study, 1984.

R.G.Sextro, F.J.Offermann, W.W.Nazaroff, and A.V.Nero, "Effects of Aerosol Concentrations on Radon Progeny," *Aerosols, Science, & Technology, and Industrial Applications of Airborne Particles*, editors B.Y.H.Liu, D.Y.H.Pui, and H.J.Fissan, p525, Elsevier, 1984.

K.Sexton, S.Hayward, F.Offermann, R.Sextro, and L.Weber, "Characterization of Particulate and Organic Emissions from Major Indoor Sources, Proceedings of the Third International Conference on Indoor Air Quality and Climate, Stockholm, Sweden, August 20-24, 1984.

F.J.Offermann, "Tracer Gas Measurements of Laboratory Fume Entrainment at a Semiconductor Manufacturing Plant," an Indoor Environmental Engineering R&D Report, 1986.

F.J.Offermann, "Tracer Gas Measurements of Ventilation Rates in a Large Office Building," an Indoor Environmental Engineering R&D Report, 1986.

F.J.Offermann, "Measurements of Volatile Organic Compounds in a New Large Office Building with Adhesive Fastened Carpeting," an Indoor Environmental Engineering R&D Report, 1986.

F.J.Offermann, "Designing and Operating Healthy Buildings", an Indoor Environmental Engineering R&D Report, 1986.

F.J.Offermann, "Measurements and Mitigation of Indoor Spray-Applied Pesticides", an Indoor Environmental Engineering R&D Report, 1988.

F.J.Offermann and S. Loiselle, "Measurements and Mitigation of Indoor Mold Contamination in a Residence", an Indoor Environmental Engineering R&D Report, 1989.

F.J.Offermann and S. Loiselle, "Performance Measurements of an Air Cleaning System in a Large Archival Library Storage Facility", an Indoor Environmental Engineering R&D Report, 1989.

F.J. Offermann, J.M. Daisey, L.A. Gundel, and A.T. Hodgson, S. A. Loiselle, "Sampling, Analysis, and Data Validation of Indoor Concentrations of Polycyclic Aromatic Hydrocarbons", Final Report, Contract No. A732-106, California Air Resources Board, March, 1990.

L.A. Gundel, J.M. Daisey, and F.J. Offermann, "A Sampling and Analytical Method for Gas Phase Polycyclic Aromatic Hydrocarbons", Proceedings of the 5th International Conference on Indoor Air Quality and Climate, Indoor Air '90, July 29-August 1990.

A.T. Hodgson, J.M. Daisey, and F.J. Offermann "Development of an Indoor Sampling and Analytical Method for Particulate Polycyclic Aromatic Hydrocarbons", Proceedings of the 5th International Conference on Indoor Air Quality and Climate, Indoor Air '90, July 29-August, 1990.

F.J. Offermann, J.O. Sateri, "Tracer Gas Measurements in Large Multi-Room Buildings", Indoor Air '93, Helsinki, Finland, July 4-8, 1993.

F.J. Offermann, M. T. O'Flaherty, and M. A. Waz "Validation of ASHRAE 129 - Standard Method of Measuring Air Change Effectiveness", Final Report of ASHRAE Research Project 891, December 8, 1997.

S.E. Guffey, F.J. Offermann et. al., "Proceedings of the Workshop on Ventilation Engineering Controls for Environmental Tobacco smoke in the Hospitality Industry", U.S. Department of Labor Occupational Safety and Health Administration and ACGIH, 1998.

F.J. Offermann, R.J. Fiskum, D. Kosar, and D. Mudaari, "A Practical Guide to Ventilation Practices & Systems for Existing Buildings", *Heating/Piping/Air Conditioning Engineering* supplement to April/May 1999 issue.

F.J. Offermann, P. Pasanen, "Workshop 18: Criteria for Cleaning of Air Handling Systems", Healthy Buildings 2000, Espoo, Finland, August 2000.

F.J. Offermann, Session Summaries: Building Investigations, and Design & Construction, Healthy Buildings 2000, Espoo, Finland, August 2000.

F.J. Offermann, "The IAQ Top 10", Engineered Systems, November, 2008.

L. Kincaid and F.J. Offermann, "Unintended Consequences: Formaldehyde Exposures in Green Homes, AIHA Synergist, February, 2010.

F.J. Offermann, "IAQ in Air Tight Homes", ASHRAE Journal, November, 2010.

F.J. Offermann, "The Hazards of E-Cigarettes", ASHRAE Journal, June, 2014.

### **PRESENTATIONS :**

"Low-Infiltration Housing in Rochester, New York: A Study of Air Exchange Rates and Indoor Air Quality," Presented at the International Symposium on Indoor Air Pollution, Health and Energy Conservation, Amherst, MA, October 13-16, 1981.

"Ventilation Efficiencies of Wall- or Window-Mounted Residential Air-to-Air Heat Exchangers," Presented at the American Society of Heating, Refrigeration, and Air Conditioning Engineers Summer Meeting, Washington, DC, June, 1983.

"Controlling Indoor Air Pollution from Tobacco Smoke: Models and Measurements," Presented at the Third International Conference on Indoor Air Quality and Climate, Stockholm, Sweden, August 20-24, 1984.

"Indoor Air Pollution: An Emerging Environmental Problem", Presented to the Association of Environmental Professionals, Bar Area/Coastal Region 1, Berkeley, CA, May 29, 1986.

"Ventilation Measurement Techniques," Presented at the Workshop on Sampling and Analytical Techniques, Georgia Institute of Technology, Atlanta, Georgia, September 26, 1986 and September 25, 1987.

"Buildings That Make You Sick: Indoor Air Pollution", Presented to the Sacramento Association of Professional Energy Managers, Sacramento, CA, November 18, 1986.

"Ventilation Effectiveness and Indoor Air Quality", Presented to the American Society of Heating, Refrigeration, and Air Conditioning Engineers Northern Nevada Chapter, Reno, NV, February 18, 1987, Golden Gate Chapter, San Francisco, CA, October 1, 1987, and the San Jose Chapter, San Jose, CA, June 9, 1987.

"Tracer Gas Techniques for Studying Ventilation," Presented at the Indoor Air Quality Symposium, Georgia Tech Research Institute, Atlanta, GA, September 22-24, 1987.

"Indoor Air Quality Control: What Works, What Doesn't," Presented to the Sacramento Association of Professional Energy Managers, Sacramento, CA, November 17, 1987.

"Ventilation Effectiveness and ADPI Measurements of a Forced Air Heating System," Presented at the American Society of Heating, Refrigeration, and Air Conditioning Engineers Winter Meeting, Dallas, Texas, January 31, 1988.

"Indoor Air Quality, Ventilation, and Energy in Commercial Buildings", Presented at the Building Owners & Managers Association of Sacramento, Sacramento, CA, July 21, 1988.

"Controlling Indoor Air Quality: The New ASHRAE Ventilation Standards and How to Evaluate Indoor Air Quality", Presented at a conference "Improving Energy Efficiency and Indoor Air Quality in Commercial Buildings," National Energy Management Institute, Reno, Nevada, November 4, 1988.

"A Study of Diesel Fume Entrainment Into an Office Building," Presented at Indoor Air '89: The Human Equation: Health and Comfort, American Society of Heating, Refrigeration, and Air Conditioning Engineers, San Diego, CA, April 17-20, 1989.

"Indoor Air Quality in Commercial Office Buildings," Presented at the Renewable Energy Technologies Symposium and International Exposition, Santa Clara, CA June 20, 1989.

"Building Ventilation and Indoor Air Quality", Presented to the San Joaquin Chapter of the American Society of Heating, Refrigeration, and Air Conditioning Engineers, September 7, 1989.

"How to Meet New Ventilation Standards: Indoor Air Quality and Energy Efficiency," a workshop presented by the Association of Energy Engineers; Chicago, IL, March 20-21, 1989; Atlanta, GA, May 25-26, 1989; San Francisco, CA, October 19-20, 1989; Orlando, FL, December 11-12, 1989; Houston, TX, January 29-30, 1990; Washington D.C., February 26-27, 1990; Anchorage, Alaska, March 23, 1990; Las Vegas, NV, April 23-24, 1990; Atlantic City, NJ, September 27-28, 1991; Anaheim, CA, November 19-20, 1991; Orlando, FL, February 28 - March 1, 1991; Washington, DC, March 20-21, 1991; Chicago, IL, May 16-17, 1991; Lake Tahoe, NV, August 15-16, 1991; Atlantic City, NJ, November 18-19, 1991; San Jose, CA, March 23-24, 1992.

"Indoor Air Quality," a seminar presented by the Anchorage, Alaska Chapter of the American Society of Heating, Refrigeration, and Air Conditioning Engineers, March 23, 1990.

"Ventilation and Indoor Air Quality", Presented at the 1990 HVAC & Building Systems Congress, Santa Clara, CA, March 29, 1990.

"Ventilation Standards for Office Buildings", Presented to the South Bay Property Managers Association, Santa Clara, May 9, 1990.

"Indoor Air Quality", Presented at the Responsive Energy Technologies Symposium & International Exposition (RETSIE), Santa Clara, CA, June 20, 1990.

"Indoor Air Quality - Management and Control Strategies", Presented at the Association of Energy Engineers, San Francisco Bay Area Chapter Meeting, Berkeley, CA, September 25, 1990.

"Diagnosing Indoor Air Contaminant and Odor Problems", Presented at the ASHRAE Annual Meeting, New York City, NY, January 23, 1991.

"Diagnosing and Treating the Sick Building Syndrome", Presented at the Energy 2001, Oklahoma, OK, March 19, 1991.

"Diagnosing and Mitigating Indoor Air Quality Problems" a workshop presented by the Association of Energy Engineers, Chicago, IL, October 29-30, 1990; New York, NY, January 24-25, 1991; Anaheim, April 25-26, 1991; Boston, MA, June 10-11, 1991; Atlanta, GA, October 24-25, 1991; Chicago, IL, October 3-4, 1991; Las Vegas, NV, December 16-17, 1991; Anaheim, CA, January 30-31, 1992; Atlanta, GA, March 5-6, 1992; Washington, DC, May 7-8, 1992; Chicago, IL, August 19-20, 1992; Las Vegas,

NV, October 1-2, 1992; New York City, NY, October 26-27, 1992, Las Vegas, NV, March 18-19, 1993; Lake Tahoe, CA, July 14-15, 1994; Las Vegas, NV, April 3-4, 1995; Lake Tahoe, CA, July 11-12, 1996; Miami, FL, December 9-10, 1996.

"Sick Building Syndrome and the Ventilation Engineer", Presented to the San Jose Engineers Club, May, 21, 1991.

"Duct Cleaning: Who Needs It ? How Is It Done ? What Are The Costs ?" What Are the Risks ?, Moderator of Forum at the ASHRAE Annual Meeting, Indianapolis ID, June 23, 1991.

"Operating Healthy Buildings", Association of Plant Engineers, Oakland, CA, November 14, 1991.

"Duct Cleaning Perspectives", Moderator of Seminar at the ASHRAE Semi-Annual Meeting, Indianapolis, IN, June 24, 1991.

"Duct Cleaning: The Role of the Environmental Hygienist," ASHRAE Annual Meeting, Anaheim, CA, January 29, 1992.

"Emerging IAQ Issues", Fifth National Conference on Indoor Air Pollution, University of Tulsa, Tulsa, OK, April 13-14, 1992.

"International Symposium on Room Air Convection and Ventilation Effectiveness", Member of Scientific Advisory Board, University of Tokyo, July 22-24, 1992.

"Guidelines for Contaminant Control During Construction and Renovation Projects in Office Buildings," Seminar paper at the ASHRAE Annual Meeting, Chicago, IL, January 26, 1993.

"Outside Air Economizers: IAQ Friend or Foe", Moderator of Forum at the ASHRAE Annual Meeting, Chicago, IL, January 26, 1993.

"Orientation to Indoor Air Quality," an EPA two and one half day comprehensive indoor air quality introductory workshop for public officials and building property managers; Sacramento, September 28-30, 1992; San Francisco, February 23-24, 1993; Los Angeles, March 16-18, 1993; Burbank, June 23, 1993; Hawaii, August 24-25, 1993; Las Vegas, August 30, 1993; San Diego, September 13-14, 1993; Phoenix, October 18-19, 1993; Reno, November 14-16, 1995; Fullerton, December 3-4, 1996; Fresno, May 13-14, 1997.

"Building Air Quality: A Guide for Building Owners and Facility Managers," an EPA one half day indoor air quality introductory workshop for building owners and facility managers. Presented throughout Region IX 1993-1995.

"Techniques for Airborne Disease Control", EPRI Healthcare Initiative Symposium; San Francisco, CA; June 7, 1994.

“Diagnosing and Mitigating Indoor Air Quality Problems”, CIHC Conference; San Francisco, September 29, 1994.

”Indoor Air Quality: Tools for Schools,” an EPA one day air quality management workshop for school officials, teachers, and maintenance personnel; San Francisco, October 18-20, 1994; Cerritos, December 5, 1996; Fresno, February 26, 1997; San Jose, March 27, 1997; Riverside, March 5, 1997; San Diego, March 6, 1997; Fullerton, November 13, 1997; Santa Rosa, February 1998; Cerritos, February 26, 1998; Santa Rosa, March 2, 1998.

ASHRAE 62 Standard “Ventilation for Acceptable IAQ”, ASCR Convention; San Francisco, CA, March 16, 1995.

“New Developments in Indoor Air Quality: Protocol for Diagnosing IAQ Problems”, AIHA-NC; March 25, 1995.

"Experimental Validation of ASHRAE SPC 129, Standard Method of Measuring Air Change Effectiveness", 16th AIVC Conference, Palm Springs, USA, September 19-22, 1995.

“Diagnostic Protocols for Building IAQ Assessment”, American Society of Safety Engineers Seminar: ‘Indoor Air Quality – The Next Door’; San Jose Chapter, September 27, 1995; Oakland Chapter, 9, 1997.

“Diagnostic Protocols for Building IAQ Assessment”, Local 39; Oakland, CA, October 3, 1995.

“Diagnostic Protocols for Solving IAQ Problems”, CSU-PPD Conference; October 24, 1995.

“Demonstrating Compliance with ASHRAE 62-1989 Ventilation Requirements”, AIHA; October 25, 1995.

“IAQ Diagnostics: Hands on Assessment of Building Ventilation and Pollutant Transport”, EPA Region IX; Phoenix, AZ, March 12, 1996; San Francisco, CA, April 9, 1996; Burbank, CA, April 12, 1996.

“Experimental Validation of ASHRAE 129P: Standard Method of Measuring Air Change Effectiveness”, Room Vent ‘96 / International Symposium on Room Air Convection and Ventilation Effectiveness”; Yokohama, Japan, July 16-19, 1996.

“IAQ Diagnostic Methodologies and RFP Development”, CCEHSA 1996 Annual Conference, Humboldt State University, Arcata, CA, August 2, 1996.

“The Practical Side of Indoor Air Quality Assessments”, California Industrial Hygiene Conference ‘96, San Diego, CA, September 2, 1996.

“ASHRAE Standard 62: Improving Indoor Environments”, Pacific Gas and Electric Energy Center, San Francisco, CA, October 29, 1996.

“Operating and Maintaining Healthy Buildings”, April 3-4, 1996, San Jose, CA; July 30, 1997, Monterey, CA.

“IAQ Primer”, Local 39, April 16, 1997; Amdahl Corporation, June 9, 1997; State Compensation Insurance Fund’s Safety & Health Services Department, November 21, 1996.

“Tracer Gas Techniques for Measuring Building Air Flow Rates”, ASHRAE, Philadelphia, PA, January 26, 1997.

“How to Diagnose and Mitigate Indoor Air Quality Problems”; Women in Waste; March 19, 1997.

“Environmental Engineer: What Is It?”, Monte Vista High School Career Day; April 10, 1997.

“Indoor Environment Controls: What’s Hot and What’s Not”, Shaklee Corporation; San Francisco, CA, July 15, 1997.

“Measurement of Ventilation System Performance Parameters in the US EPA BASE Study”, Healthy Buildings/IAQ’97, Washington, DC, September 29, 1997.

“Operations and Maintenance for Healthy and Comfortable Indoor Environments”, PASMA; October 7, 1997.

“Designing for Healthy and Comfortable Indoor Environments”, Construction Specification Institute, Santa Rosa, CA, November 6, 1997.

“Ventilation System Design for Good IAQ”, University of Tulsa 10<sup>th</sup> Annual Conference, San Francisco, CA, February 25, 1998.

“The Building Shell”, Tools For Building Green Conference and Trade Show, Alameda County Waste Management Authority and Recycling Board, Oakland, CA, February 28, 1998.

“Identifying Fungal Contamination Problems In Buildings”, The City of Oakland Municipal Employees, Oakland, CA, March 26, 1998.

“Managing Indoor Air Quality in Schools: Staying Out of Trouble”, CASBO, Sacramento, CA, April 20, 1998.

“Indoor Air Quality”, CSOOC Spring Conference, Visalia, CA, April 30, 1998.

“Particulate and Gas Phase Air Filtration”, ACGIH/OSHA, Ft. Mitchell, KY, June 1998.

“Building Air Quality Facts and Myths”, The City of Oakland / Alameda County Safety Seminar, Oakland, CA, June 12, 1998.

“Building Engineering and Moisture”, Building Contamination Workshop, University of California Berkeley, Continuing Education in Engineering and Environmental Management, San Francisco, CA, October 21-22, 1999.

“Identifying and Mitigating Mold Contamination in Buildings”, Western Construction Consultants Association, Oakland, CA, March 15, 2000; AIG Construction Defect Seminar, Walnut Creek, CA, May 2, 2001; City of Oakland Public Works Agency, Oakland, CA, July 24, 2001; Executive Council of Homeowners, Alamo, CA, August 3, 2001.

“Using the EPA BASE Study for IAQ Investigation / Communication”, Joint Professional Symposium 2000, American Industrial Hygiene Association, Orange County & Southern California Sections, Long Beach, October 19, 2000.

“Ventilation,” Indoor Air Quality: Risk Reduction in the 21<sup>st</sup> Century Symposium, sponsored by the California Environmental Protection Agency/Air Resources Board, Sacramento, CA, May 3-4, 2000.

“Workshop 18: Criteria for Cleaning of Air Handling Systems”, Healthy Buildings 2000, Espoo, Finland, August 2000.

“Closing Session Summary: ‘Building Investigations’ and ‘Building Design & Construction’”, Healthy Buildings 2000, Espoo, Finland, August 2000.

“Managing Building Air Quality and Energy Efficiency, Meeting the Standard of Care”, BOMA, MidAtlantic Environmental Hygiene Resource Center, Seattle, WA, May 23<sup>rd</sup>, 2000; San Antonio, TX, September 26-27, 2000.

“Diagnostics & Mitigation in Sick Buildings: When Good Buildings Go Bad,” University of California Berkeley, September 18, 2001.

“Mold Contamination: Recognition and What To Do and Not Do”, Redwood Empire Remodelers Association; Santa Rosa, CA, April 16, 2002.

“Investigative Tools of the IAQ Trade”, Healthy Indoor Environments 2002; Austin, TX; April 22, 2002.

“Finding Hidden Mold: Case Studies in IAQ Investigations”, AIHA Northern California Professionals Symposium; Oakland, CA, May 8, 2002.

“Assessing and Mitigating Fungal Contamination in Buildings”, Cal/OSHA Training; Oakland, CA, February 14, 2003 and West Covina, CA, February 20-21, 2003.



“Use of External Containments During Fungal Mitigation”, Invited Speaker, ACGIH Mold Remediation Symposium, Orlando, FL, November 3-5, 2003.

Building Operator Certification (BOC), 106-IAQ Training Workshops, Northwest Energy Efficiency Council; Stockton, CA, December 3, 2003; San Francisco, CA, December 9, 2003; Irvine, CA, January 13, 2004; San Diego, January 14, 2004; Irwindale, CA, January 27, 2004; Downey, CA, January 28, 2004; Santa Monica, CA, March 16, 2004; Ontario, CA, March 17, 2004; Ontario, CA, November 9, 2004, San Diego, CA, November 10, 2004; San Francisco, CA, November 17, 2004; San Jose, CA, November 18, 2004; Sacramento, CA, March 15, 2005.

“Mold Remediation: The National QUEST for Uniformity Symposium”, Invited Speaker, Orlando, Florida, November 3-5, 2003.

“Mold and Moisture Control”, Indoor Air Quality workshop for The Collaborative for High Performance Schools (CHPS), San Francisco, December 11, 2003.

“Advanced Perspectives In Mold Prevention & Control Symposium”, Invited Speaker, Las Vegas, Nevada, November 7-9, 2004.

“Building Sciences: Understanding and Controlling Moisture in Buildings”, American Industrial Hygiene Association, San Francisco, CA, February 14-16, 2005.

“Indoor Air Quality Diagnostics and Healthy Building Design”, University of California Berkeley, Berkeley, CA, March 2, 2005.

“Improving IAQ = Reduced Tenant Complaints”, Northern California Facilities Exposition, Santa Clara, CA, September 27, 2007.

“Defining Safe Building Air”, Criteria for Safe Air and Water in Buildings, ASHRAE Winter Meeting, Chicago, IL, January 27, 2008.

“Update on USGBC LEED and Air Filtration”, Invited Speaker, NAFA 2008 Convention, San Francisco, CA, September 19, 2008.

“Ventilation and Indoor air Quality in New California Homes”, National Center of Healthy Housing, October 20, 2008.

“Indoor Air Quality in New Homes”, California Energy and Air Quality Conference, October 29, 2008.

“Mechanical Outdoor air Ventilation Systems and IAQ in New Homes”, ACI Home Performance Conference, Kansas City, MO, April 29, 2009.

“Ventilation and IAQ in New Homes with and without Mechanical Outdoor Air Systems”, Healthy Buildings 2009, Syracuse, CA, September 14, 2009.

“Ten Ways to Improve Your Air Quality”, Northern California Facilities Exposition, Santa Clara, CA, September 30, 2009.

“New Developments in Ventilation and Indoor Air Quality in Residential Buildings”, Westcon meeting, Alameda, CA, March 17, 2010.

“Intermittent Residential Mechanical Outdoor Air Ventilation Systems and IAQ”, ASHRAE SSPC 62.2 Meeting, Austin, TX, April 19, 2010.

“Measured IAQ in Homes”, ACI Home Performance Conference, Austin, TX, April 21, 2010.

“Respiration: IEQ and Ventilation”, AIHce 2010, How IH Can LEED in Green buildings, Denver, CO, May 23, 2010.

“IAQ Considerations for Net Zero Energy Buildings (NZEB)”, Northern California Facilities Exposition, Santa Clara, CA, September 22, 2010.

“Energy Conservation and Health in Buildings”, Berkeley High School Green Career Week, Berkeley, CA, April 12, 2011.

“What Pollutants are Really There ?”, ACI Home Performance Conference, San Francisco, CA, March 30, 2011.

“Energy Conservation and Health in Residences Workshop”, Indoor Air 2011, Austin, TX, June 6, 2011.

“Assessing IAQ and Improving Health in Residences”, US EPA Weatherization Plus Health, September 7, 2011.

“Ventilation: What a Long Strange Trip It’s Been”, Westcon, May 21, 2014.

“Chemical Emissions from E-Cigarettes: Direct and Indirect Passive Exposures”, Indoor Air 2014, Hong Kong, July, 2014.

“Infectious Disease Aerosol Exposures With and Without Surge Control Ventilation System Modifications”, Indoor Air 2014, Hong Kong, July, 2014.

“Chemical Emissions from E-Cigarettes”, IMF Health and Welfare Fair, Washington, DC, February 18, 2015.

“Chemical Emissions and Health Hazards Associated with E-Cigarettes”, Roswell Park Cancer Institute, Buffalo, NY, August 15, 2014.

“Formaldehyde Indoor Concentrations, Material Emission Rates, and the CARB ATCM”, Harris Martin’s Lumber Liquidators Flooring Litigation Conference, WQ Minneapolis Hotel, May 27, 2015.

“Chemical Emissions from E-Cigarettes: Direct and Indirect Passive Exposure”, FDA Public Workshop: Electronic Cigarettes and the Public Health, Hyattsville, MD June 2, 2015.

“Creating Healthy Homes, Schools, and Workplaces”, Chautauqua Institution, Athenaeum Hotel, August 24, 2015.

“Diagnosing IAQ Problems and Designing Healthy Buildings”, University of California Berkeley, Berkeley, CA, October 6, 2015.

“Diagnosing Ventilation and IAQ Problems in Commercial Buildings”, BEST Center Annual Institute, Lawrence Berkeley National Laboratory, January 6, 2016.

“A Review of Studies of Ventilation and Indoor Air Quality in New Homes and Impacts of Environmental Factors on Formaldehyde Emission Rates From Composite Wood Products”, AIHce2016, May, 21-26, 2016.

“Admissibility of Scientific Testimony”, Science in the Court, Proposition 65 Clearinghouse Annual Conference, Oakland, CA, September 15, 2016.

“Indoor Air Quality and Ventilation”, ASHRAE Redwood Empire, Napa, CA, December 1, 2016.

# EXHIBIT B



25 September 2020

Michael Lozeau, Esq.  
Lozeau Drury LLP  
1939 Harrison Street, Suite 150  
Oakland, CA 94612

Subject: *South De Anza Hotel Project, Draft Initial Study/Mitigated Negative Declaration,*  
File No. H19-017, September 2020  
Review of Noise Impact Analysis

Dear Mr. Lozeau:

As requested, I have reviewed the noise section of the *South De Anza Hotel Project, Draft Initial Study/Mitigated Negative Declaration* (“IS/MND”, September 2020) for the subject project proposed in San José, California. The Noise section of this document is based on *1510 South De Anza Boulevard Project Noise and Vibration Assessment* (“Noise Assessment”, I&R No. 20-013, 23 June 2020) which I have also reviewed.

Wilson, Ihrig & Associates, Acoustical Consultants, has practiced exclusively in the field of acoustics since 1966. During our 54 years of operation, we have prepared hundreds of noise studies for Environmental Impact Reports and Statements. We have one of the largest technical laboratories in the acoustical consulting industry. We also regularly utilize industry-standard acoustical programs such as Environmental Noise Model (ENM), Traffic Noise Model (TNM), SoundPLAN, and CADNA. In short, we are well qualified to prepare environmental noise studies and review studies prepared by others.

### Comments on Construction Noise Mitigation Measures

The Noise Assessment and IS/MND both recognize that unchecked construction noise would cause a significant impact. [Noise Assessment at p. 20; Ismnd at p. 127]. To reduce this impact to less than significant, the IS/MND includes Mitigation Measure NOI-1.2 which contains 14 actions or potential actions that would serve to either reduce noise levels or, at a minimum, be “good neighbor” actions that would foster a better relationship with the noise-sensitive receptors in the vicinity.

The actions that are indisputably a good idea and clearly enforceable follow, however, none of these will substantively reduce noise levels at neighboring properties:<sup>1</sup>

- Limiting the hours of construction to 7:00 AM to 7:00 PM on Mondays through Fridays.
- Ensuring that all equipment with internal combustion engines are fitted with mufflers.<sup>2</sup>
- Strictly prohibiting unnecessary idling of internal combustion engines.
- Ensuring that radios are not audible at nearby residences.
- Notifying all adjacent businesses, residences, and other noise-sensitive neighbors of noise construction activities in writing.
- Designating a “disturbance coordinator” and both posting and distributing a telephone number for people to call.

The following actions are problematic in that they are potentially impractical and/or unenforceable. The actions are described in regular typeface, and my comments are given in *italic* typeface:

- Utilizing the best available noise suppression devices and techniques – *This is a vague standard that is essentially unenforceable.*
- Locating stationary noise-generating equipment as far as possible from sensitive receptors – *The qualifier “as possible” renders this action meaningless as a practical matter. While the contractor very well may be able to do this in some circumstances, who is to determine if it is possible in circumstances where the equipment is placed, for example, near the eastern property line? How would this be enforced?*
- Utilizing “quiet” air compressors and other stationary equipment where technology exists – *Similar to the previous action, who is to make this determination and when? How would this be enforced?*
- Locating construction staging areas to create the greatest distance from noise-sensitive receptors during all project construction – *The contractor will be constrained as to where the staging areas on the project site can be, and this will change as construction proceeds. I believe this is impractical and unenforceable.*

---

<sup>1</sup> MM NOI-1.2 is on pages 127 and 128 of the IS/MND

<sup>2</sup> All contemporary construction equipment comes equipped from the factory with mufflers. While it is important to make sure they are functioning properly, it is not the case that appreciable noise reduction may be obtained by “adding” a muffler.

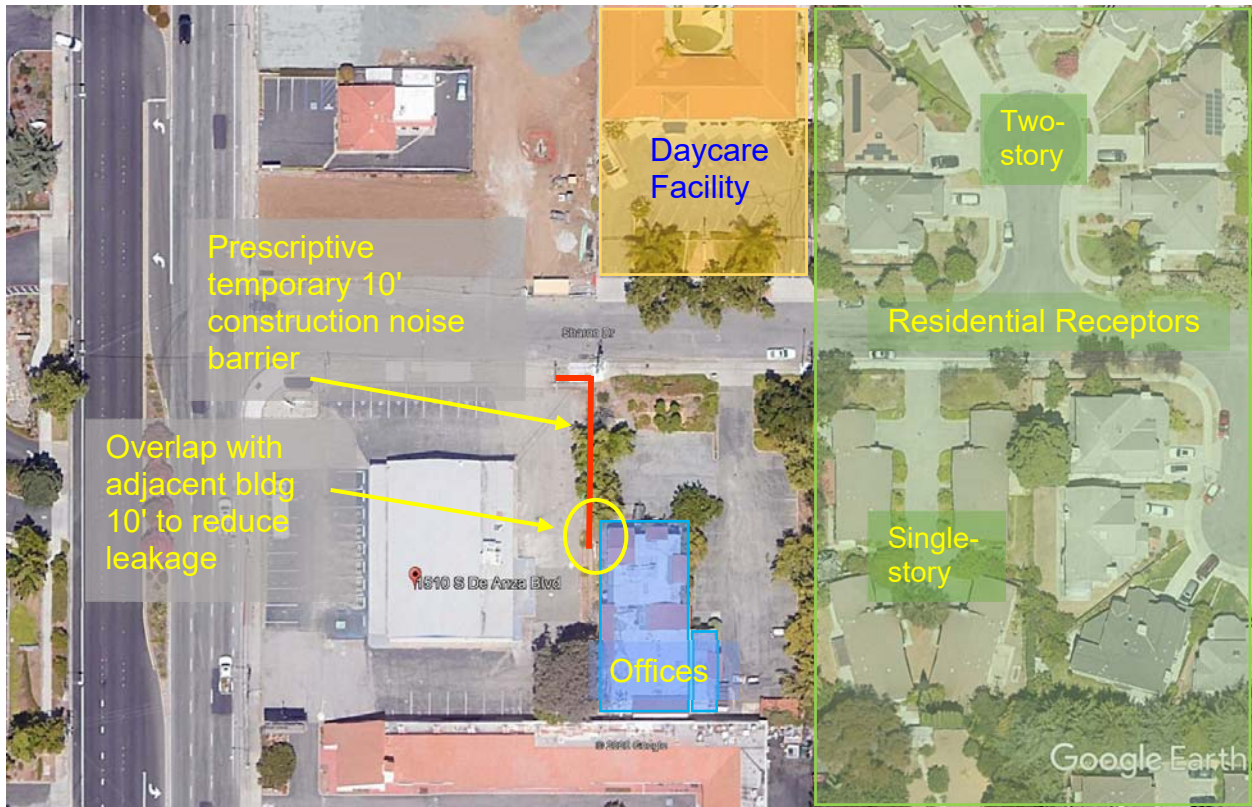
- Locating stockpiles as far from residential receptors as feasible – *The qualifier “as feasible” renders this measure vague and unenforceable.*
- Preparing a detailed construction schedule for major noise-generating activities and coordinating with the residential neighbors so that construction activities can be schedule to minimize noise disturbance – *While preparing a detailed schedule and discussing that with residential neighbors is a good idea, it is impractical to assert that all construction activities will be scheduled to minimize disturbance. It may be possible in some instances.*

The final three mitigation measures all include some form of noise barrier to block construction noise away from sensitive receivers. For these, I provide descriptions, then continue my comments on the noise mitigation measures:

- Construct temporary noise barriers, **where feasible**, around the perimeter of the site
- Construct temporary noise barriers to screen stationary noise-generating equipment **when located** near sensitive receptors
- Hang temporary noise control blankets along the façade of 7246 Sharon Drive, **if necessary, if conflicts occur**

In all of these, the bolded phrases may be construed such that none of these are actually implemented. Given that the IS/MND identifies construction noise as a significant impact, that the “good neighbor” measures won’t reduce noise levels, and that the other measures would be difficult or impossible to enforce, it seems clear that implementing construction noise barriers and/or unambiguously establishing the performance criteria that, if exceeded, would trigger the need for noise-reducing measures should be specified in the IS/MND mitigation measures.

For example, the aerial photo below shows where a temporary noise barrier wall should be built to block noise from the residences and the daycare facility. The primary noise source from diesel-powered construction equipment is the exhaust noise, and the top of the exhaust stack is typically 7 feet high (to reduce exhaust fume exposure of nearby construction workers). The nearest residences (7238 to 7244 Sharon Drive) are single-story homes 130 feet from the project property. The next nearest residence (1478 Sharon Manor Court) is a two-story home 166 feet from the project property. Given these relative heights and distances, a 10-foot temporary noise barrier where indicated would be an appropriate, required mitigation measure. If this is not feasible for some reason, this should be determined and declared now and the construction noise impact on the residences be identified as significant and unavoidable.



As for the proposed noise control blankets hung to shield the adjacent office building (7246 Sharon Drive), rather than the ambiguous “if necessary . . . if conflicts occurred which were irresolvable by proper scheduling” [IS/MND at p. 128], it would be more appropriate to establish baseline average and maximum noise levels in the offices, monitor noise inside the offices during construction, and install the blankets if the construction noise levels exceed prescribed performance standards.

Below are some noise level design criteria for various types of office spaces. I expect that most of the offices in the 7246 Sharon Drive could be characterized as “private offices”. Regarding construction noise, The Noise Assessment states, “. . . ambient levels at the surrounding residential and commercial uses would potentially be exceeded by 5 dBA Leq or more at various times throughout construction” [Noise Assessment at p. 21], establishing an increase of 5 dBA as a quantified threshold of significance. This is reasonable. Using that in conjunction with the office design criteria below for private offices, it would be reasonable to use a 1-hour average (Leq) noise level of 50 dBA as the performance standard for the offices. If the construction noise is found through noise monitoring to exceed that, then the noise control blankets would be required.



Space	Room Use Design Criteria
Conference Room	35 – 45 dBA
Executive Offices	35 – 40 dBA
Private Offices	40 – 45 dBA
Open-plan Offices	45 – 50 dBA

### Comments on Construction Vibration Mitigation Measures

The Noise Assessment and IS/MND both also identify construction vibration as a significant impact at the adjacent buildings (which are quite close to the property line). Although some of the actions in Mitigation Measure NOI-2.1 also include qualifiers such as “where possible”, there are several actions that are clearly required [IS/MND at p. 132-133]

- Documenting conditions prior to, during, and after vibration-generating activities
- Monitoring vibration during demolition and excavation activities
- Repairing any damage that occurs or otherwise compensating the damaged party

The one action that could be improved is:

- Develop a vibration monitoring and construction contingency plan to identify structures where monitoring would be conducted, set up a vibration monitoring schedule, define structure-specific vibration limits, and address the need to conduct photo, elevation, and crack surveys to document before and after construction conditions. Construction contingencies shall be identified for when vibration levels approached the limits. [IS/MND at p. 133].

There is no reason why the specific buildings that should be monitored are not named in the IS/MND. These are the office building at 7246 Sharon Drive and the business at 1512 to 1538 South De Anza Boulevard, both of which are built very near the site property line.

This action also potentially contradicts the one that states clearly, “The project applicant shall implement a construction vibration monitoring plan to document conditions prior to, during, and after vibration generating construction activities” [IS/MND at p. 321] in that it says that the plan would “address the need to conduct photo, elevation, and crack surveys.” There should be no question that these are needed, and they should unambiguously be required by the IS/MND.

\*

\*

\*

\*

\*

Please let me know if you have any questions about these comments on the *South De Anza Hotel Project, Draft Initial Study/Mitigated Negative Declaration* noise analysis.

Very truly yours,

WILSON IHRIG

Derek L. Watry  
Principal

## **DEREK WATRY**

*Principal*

Mr. Watry is experienced in all aspects of environmental noise issues, having conducted extensive field measurements, prepared EIR/EIS sections, helped resolve complex community noise issue, established acceptability criteria, and studied meteorological effects on sound transmission. He is well versed in the requirements of CEQA and NEPA. His experience includes responding to community noise complaints that can be miles from transit noise, construction noise, and low-frequency music noise. He has made numerous presentations at public meetings, conducted technical seminars on outdoor noise propagation, and served as the acoustical expert for several legal actions. These experiences have given him a thorough understanding of the technical, public relations, and political aspects of environmental noise and vibration compliance work.

### **Education**

- M.B.A., Saint Mary's College of California, Moraga, California
- M.S. Mechanical Engineering, University of California at Berkeley
- B.S. Mechanical Engineering, University of California at San Diego

### **Relevant Project Experience**

#### ***San Francisco Department of Public Works, Environmental Services On-Call***

Several task orders with prime consultant. Recent projects have been the Northshore Main Improvement Project, design noise mitigation for a recently constructed SOMA West Skate Park, and a variety of other construction noise and vibration monitoring tasks.

#### ***City of Fremont Environmental Services On Call (Since 2004)***

Providing oversight of and acoustical analysis for a variety of task orders. Work tasks primarily focus on noise insulation and vibration control design compliance for new residential projects and peer review other consultant's projects.

#### ***King City Silva Ranch Annexation EIR***

Conducted the noise portion of the EIR and assessed the suitability of the project areas for the intended development. Work included a reconnaissance of existing noise sources and receptors in and around the project areas, and long-term noise measurements at key locations.

#### ***Loch Lomond Marina EIR, San Rafael***

Examined traffic noise impacts on existing residences. Provided the project with acoustical analyses and reports to satisfy the requirements of Title 24.

#### ***Mare Island Dredge and Material Disposal, Vallejo***

EIR/EIS analysis of noise from planned dredged material off-loading operations.

#### ***San Francisco Clean Water Program – Richmond Transport Tunnel***

Environmental compliance monitoring of vibration during soft tunnel mining and boring, cut-and-cover trenching for sewer lines, hard rock tunnel blasting and site remediation. Work involved long-term monitoring of general construction activity, special investigations of groundborne vibration from pumps and bus generated ground vibration, and interaction with the public (homeowners). Construction methods monitored included tunneling, pile driving, heavy equipment operation, and rock blasting.

***San Francisco Department of Public Works, 525 Golden Gate Avenue Demolition***

Noise and vibration monitoring and consultation during demolition of a multi-story office building next to Federal, State, and Municipal Court buildings.

***San Francisco Department of Public Works, 9-1-1 Emergency Communications Center***

Technical assistance on issues relating to the demolition and construction work including vibration monitoring, developing specification and reviewing/recommending appropriate methods and equipment for demolition of Old Emergency Center.

***Patterson Ranch EIR, Fremont***

Conducted noise and vibration portion of the EIR.

***Tyco Electronics Annual Noise Compliance Study, Menlo Park***

Conducted annual noise compliance monitoring. Provided letter critiquing the regulatory requirements and recommending improvements.

***BART SFO Extension - Construction Vibration and Noise Monitoring***

Environmental compliance monitoring of noise and vibration during cut-and-cover construction of BART subway structure. Work included extensive monitoring of ground vibration at buildings and structures in close proximity to vibratory pile driving activity to ascertain compliance with construction specification limits.

***Golden Gate Park Concourse Underground Garage, San Francisco***

Noise and vibration testing during underground garage construction to monitor for residences and an old sandstone statue during pile driving.

***Fourth Street Bridge Rehabilitation, San Francisco***

Construction noise, vibration, and underwater monitoring and support. Work included underwater noise measurements during pile driving and subsequent lab analysis, and ground-to-water transfer mobility measurements and subsequent analysis to predict underwater acoustic pressure levels during concrete abutment demolition.

***Caltrain Centralized Equipment Maintenance and Operations Facility, San Jose***

Noise study of impacts for new maintenance and operations facility built next to existing residential neighborhood.

**Relevant Expert Consultant Experience**

Expert consultant review of the noise studies for the following projects:

***Star Concrete Batch Plant Project***

***Mountain Peak Winery Expansion Project***

***The Shops at Austin Creek Development***

***Monterey Downs and Monterey Horse Park Development***

***Atascadero Del Rio Road Commercial Area Development***

***WinCo Vallejo Development***

***Walmart Tehachapi Development***

***Riverwalk Marketplace, Phase II, Development***

***Walmart Rohnert Park Expansion***