LOZEAU DRURY LLP

October 17, 2018

Via E-mail and Hand-Delivery

Mayor Sam Liccardo and
Members of the City Council
San José City Hall
200 East Santa Clara Street
San José, California 95113
mayoremail@sanjoseca.gov
District1@sanjoseca.gov
District2@sanjoseca.gov
District3@sanjoseca.gov
District4@sanjoseca.gov
District5@sanjoseca.gov
district6@sanjoseca.gov
District7@sanjoseca.gov
district8@sanjoseca.gov
District9@sanjoseca.gov
District10@sanjoseca.gov

Krinjal Mathur, Environmental Project Manager
Planning, Building and Code Enforcement
City of San José
200 E. Santa Clara Street, 3rd FL
San Jose, CA 95113
krinjal.mathur@sanjoseca.gov

Rosalynn Hughey, Director
Planning, Building and Code Enforcement
City of San José
200 E. Santa Clara Street, 3rd FL
San Jose, CA 95113
rosalynn.hughey@sanjoseca.gov

Re: 715 West Julian Mixed Use (File Nos. PDC17-058, PD17-029, PT17-063) - Addendum to the Diridon Station Area Plan Environmental Impact Report (Sch# 2011092022), The Envision San Jose 2040 General Plan Environmental Impact Report (Sch# 2009072096), Supplemental Environmental Impact Report, and Addenda Thereto

Dear Mayor Liccardo, City Council Members, and Mss. Hughey and Mathur:

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 addendum prepared for the 715 West Julian Mixed Use Project ("Project") (Project Files Nos. PDC17-058, PD17-029, PT17-063). In our previous comments submitted to the Planning Department staff and the Planning Commission, we raised significant concerns regarding the legality of proceeding with an addendum rather than a mitigated negative declaration ("MND") or environmental impact report ("EIR") for the project. (See LIUNA Comments dated September 26, 2018.) In addition, review of the addendum and underlying documents by Certified Industrial Hygienist, Francis "Bud" Offermann, PE, CIH regarding the Project's indoor air emissions and environmental consulting firm SWAPE of the air emissions and health hazard assessment prepared for the Project indicate that the Project may have significant environmental impacts. (See Offermann Comments dated Sept. 24, 2018; SWAPE Comments dated Sept. 25, 2018.)

Subsequently, Mr. Offermann has prepared additional analysis of the Project, which comments are attached hereto. His additional analysis discloses that, even if the project were constructed using materials that comply with the California Air Resources Board's formaldehyde requirements, the cancer risk for future residents of the Project will still be extremely elevated with a risk of cancer of 125 in a million. (Offermann Comments dated October 17, 2018.) This health risk needs to be carefully evaluated by the City in an appropriate CEQA document prior to approving the Project.

During the September 26, 2018 Planning Commission hearing on the Project, Planning Department staff responded to the indoor air pollution concerns raised by LIUNA. 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. Staff analogized LIUNA's concerns about cancer risk to the future residents to noise impacts on future residents from a pool built as part of a project. Staff reasoned that because lead agencies don't look at the noise impacts of pool use on future residents, an agency should not have to address the impacts to future residents of potential carcinogenic emissions from the Project. Staff's efforts to deflect the significance of Mr. Offerman's expert comments fails to address a potentially serious health impact to the 779 future residents which the City anticipates will live at the project.

Staff's responses are 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 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 air will be from the Project. Currently, there is presumably little if any formaldehyde emissions at the site. Rather than excusing the City from addressing the impacts of carcinogens emitted into the air from the Project's residential units, 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 779 future residents of the Project are human beings and the health and safety of those residents is as important to CEQA's safeguards as nearby residents currently living adjacent to the Project site.

As a result, the City's process for evaluating the 715 West Julian Way project is rife with errors. As LIUNA's previous comments point out, tiering does not authorize the use of an addendum for a different project from the specific plan. The proposed mixed use residential project is not the specific plan project. The handling of Mr. Offermann's expert comments regarding potential carcinogenic impacts from the Project's air emissions is an even more serious flaw, directly implicating the health and safety of almost 800 future San Jose residents. Those concerns are in addition to the evidence that the Project fails to identify feasible mitigation measures to address the health impacts its construction will have on existing nearby residents. Likewise, no effort is made in the addendum to address emissions from the Project's operation on existing nearby residents despite SWAPE's screening modeling that establishes that a significant health impact to existing nearby residents may result from operation of the Project. As a result, LIUNA urges the Council to deny approval of the Project and remand it back to the Planning Department to cure these serious procedural and substantive concerns.

Sincerely,

Michael R. Lozeau
Lozeau | Drury LLP

ATTACHMENT

IEE INDOOR ENVIRONMENTAL ENGINEERING IEE
1448 Pine Street, Suite 103 San Francisco, California 94109
Telephone: (415) 567-7700
E-mail: offermann@IEE-SF.com
http://www.iee-sf.com

Date: October 17, 2018

To: Michael R. Lozeau
Lozeau | Drury LLP
410 12th Street, Suite 250
Oakland, California 94607

From: Bud Offermann PE CIH

Subject: Indoor Air Quality: 715 W. Julian Street, San Jose Development

Pages: 9

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.

The concentrations of many air pollutants often are elevated in homes 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, 2017), 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 $\mu g/m^3$, assuming a continuous 24-hour exposure, a total daily inhaled air volume of 20 m^3, and 100% absorption by the respiratory system. All of the CNHS homes exceeded this NSRL concentration of 2 $\mu g/m^3$. The median indoor formaldehyde concentration was 36 $\mu g/m^3$, and ranged from 4.8 to 136 $\mu g/m^3$, which corresponds to a median exceedance of the 2 $\mu g/m^3$ NSRL concentration of 18 and a range of 2.3 to 68.

Therefore, the cancer risk of a resident living in a median California home with the median indoor formaldehyde concentration of 36 $\mu g/m^3$, is 180 per million as a result of formaldehyde alone. Assuming this project will be built using typical materials and construction methods used in California, there is a fair argument that future residents will experience a cancer risk from formaldehyde of approximately 180 per million. The CEQA significance threshold for airborne cancer risk is 10 per million, as established by the Bay Area Air Quality Management District (BAAQMD, 2017). There is a fair argument that this project will expose future residents to a significant airborne cancer risk of 180 per million, which is 18 times above the CEQA significance threshold. 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.

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, 2017). The percentage of homes exceeding the RELs ranged from 98% for the Chronic REL of 9 $\mu g/m^3$ to 28% for the Acute REL of 55 $\mu g/m^3$.

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 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 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., 2018), and found that the median indoor formaldehyde in new homes built after the 2009 CARB formaldehyde ATCM had lower indoor formaldehyde concentrations, with a median indoor concentrations of 25 $\mu g/m^3$ as compared to a median of 36 $\mu g/m^3$ found in the 2007 CNHS.

Thus, while new homes built after the 2009 CARB formaldehyde ATCM have a 30% lower median indoor formaldehyde concentration and cancer risk, the median lifetime cancer risk is still 125 per million for homes built with CARB compliant composite wood products which is more than 12 times the NSRL 10 in a million cancer risk.

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 mixed-use development proposed at 715 W. Julian Street in San Jose is located close to roads with moderate to high traffic, and as a result has been determined to be a sound impacted site according to the Addendum to the Diridon Station Area Plan Environmental Impact Report- SCH# 2011092022 (City of San Jose, 2018), Chapter 3 - Section L, Noise, and future exterior noise levels of up to 71 dBA L_{dn} may occur at southern and eastern facades of the proposed building. The Standard Permit Conditions in Chapter 3 - Section L of this report state that the project applicant shall retain a qualified acoustical specialist to prepare a detailed analysis of interior residential noise levels resulting from all exterior sources during the final design phase of the project pursuant to requirements set forth in the State Building Code.

As a result of the high outdoor traffic related noise levels, the current project anticipates the need for mechanical supply of outdoor air ventilation air to allow for a habitable interior environment with closed windows and doors within each residential unit. Such a

ventilation system would allow windows and doors to be kept closed at the occupant's discretion to control exterior noise within residential interiors.

Mechanical outdoor air ventilation systems may be designed in three airflow configurations; exhaust only systems, balanced outdoor air supply and exhaust systems, and outdoor air supply only systems. Exhaust only systems are the least expensive system, and in multi-family residential buildings, such as those at this project, typically consist of continuously operated bathroom exhaust fans and an acoustically treated opening in the exterior wall, sometimes referred to as a Z-Duct. The Z-Duct exterior opening typically has soundliner installed on the inside surfaces of the opening to reduce the transmission of exterior noise to the indoors. The continuously operating bathroom fans create a negative air pressure in the unit that causes outdoor air to enter the indoor space through the Z-Duct. However, this negative air pressure allows for air to infiltrate the units from adjacent units, the hallways, and the exterior walls. This infiltrating air can cause staining on carpeting and on walls around electrical outlets, as well as transporting air between adjacent units, which causes complaints from cooking and smoking odors. Since tobacco smoke is a known carcinogen, the transport of the tobacco smoke to adjacent units, poses a health risk to those exposed in the adjacent units. In addition, the negative pressure created in units by exhaust only systems can cause sewer gas to enter the indoor air should plumbing drain traps become dry.

Also, the Z-Duct openings for exhaust only systems preclude the inclusion of efficient outdoor air filtration without adversely impacting the flow of outdoor air into the unit. Both balanced outdoor air supply and exhaust systems, and outdoor air supply only systems, can have efficient outdoor air filtration without adversely impacting the flow of outdoor air into the unit.

$PM_{2.5}$ Outdoor Concentrations Impact. An additional impact of the nearby motor vehicle and railroad traffic and stationary sources associated with this project, are the increased outdoor concentrations of $PM_{2.5}$. The modeled maximum annual $PM_{2.5}$ concentration was determined to be 0.25 $\mu g/m^3$ (City of San Jose, 2018, Table 6). The maximum increased cancer risk for residential receptors was calculated to be 7.1 per million. As a result, the

airborne cancer risk for the future residents of the project, including the cancer risk of 180 per million cited earlier for indoor formaldehyde exposures, may be 187 per million.

It should also be noted, that the Total Cancer Risk in Table 6 (see below) from the six sources is 11.77 per million not the 7.1 per million in Table 6.

Table 6
Community Risk to Proposed Residential Occupants

Source	Cancer Risk (per million)	Annual $PM_{2.5}$ ($\mu g/m^3$)	Acute or Chronic Hazard Index
SR-82 (The Alameda) at ~825 feet SR 82, Link 332 (6-foot elevation)	2.1	0.02	<0.01
Stockton Avenue at 50 feet	4.5	0.16	<0.01
West Julian Street at 50 feet	1.6	0.05	<0.01
Plant #G7202 at ~370 feet (Diesel Internal Combustion Engine distance multiplier)	0.04	0.0	0.0
Plant #3100 at ~370 feet (Diesel Internal Combustion Engine distance multiplier)	0.03	<0.01	<0.01
Railroad line at ~500 feet	3.5	0.01	<0.01
Total	7.1	<0.25	<0.07
BAAQMD Cumulative Source Threshold	*100*	*0.8*	*10.0*
Significant?	No	No	No
* The on-site MEI is at a greater distance from SR-82 than the nearest project site receptor. Hence, the risk at the on-site MEI would be lower.			

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
- $PM_{2.5}$ 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 or ultra-low emitting formaldehyde (ULEF) resins (CARB, 2009).

Outdoor Air Ventilation Mitigation. Provide each habitable room with a 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^2 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 air flow 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 that describes the purpose of the mechanical outdoor air system and the operation and maintenance requirements of the system.

$PM_{2.5}$ Outdoor Air Concentration Mitigation. Install air filtration with a minimum efficiency of MERV 13 to filter the outdoor air entering the mechanical outdoor air supply system. Install the air filters in the system such that that they are accessible for replacement by the occupants. 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

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 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, 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

Chan, W., Kim, Y., and Singer, B. 2018. Indoor Air Quality in New California Homes with Mechanical Ventilation, Proceedings of Indoor Air 2018, Philadelphia, PA.

City of San Jose, 2018, Addendum to the Diridon Station Area Plan Environmental Impact Report (SCH# 2011092022),

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). 2017. 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. 2017. 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 (12th 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. California Energy Commission, PIER Program. CEC-500-2007-033. Final Report, ARB Contract 03-326. Available at: www.arb.ca.gov/research/apr/past/03-326.pdf.

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