Attachment 2

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December 19, 2011

VIA HAND DELIVERY

Silvia Vonderlinden, City Clerk
City of Redwood City
1017 Middlefield Road
Redwood City, CA 94063

Re: Appeal of December 13, 2011 Planning Commission Certification of the Environmental Impact Report and Related Approvals for the 2580 El Camino Real Residential Project

Dear Ms. Vonderlinden:

On behalf of Redwood Citizens for Responsible Development, which includes Vic Torreano, a resident of Redwood City, the Building and Construction Trades Council of San Mateo, and the Council's members and families who reside, work and/or recreate in Redwood City, we are writing to appeal the Planning Commission's December 13, 2011 certification of the Environmental Impact Report ("EIR") and related approvals, including, but not limited to, the vesting tentative map and planned development permit, for the 2580 El Camino Real Residential Project ("Project"). Because this Project will significantly impact the environment and health of current and future residents in Redwood City, we respectfully request that the City Council determine that a public hearing on the appeal is necessary in the public interest.[1] We also request at least 10 days notice in advance of the public hearing on this appeal.

This appeal is based on the City's failure to comply with the requirements of the California Environmental Quality Act ("CEQA") to prepare a legally adequate EIR for the Project. On October 26, 2011, we submitted written comments on the Project's Draft EIR to the City Planning Department. On December 13, 2011, we

[1] Redwood City Zoning Ordinance, §48.6.

submitted written and supplemental written comments on the Project's Final EIR to the Planning Commission. These comments provide the basis for this appeal and demonstrate that the City failed to comply with the requirements of CEQA. Specifically, the City failed to include in the EIR an accurate description of the environmental setting, an analysis of all Project impacts and feasible mitigation measures required to reduce impacts to a less than significant level. In addition, the City failed to provide good faith, reasoned responses to our comments. We have attached our comments, which set forth the grounds for this appeal, as Attachments A, B and C.

This appeal is also based on the City's failure to ensure that the Project approvals provide good jobs and affordable housing in Redwood City.

We are including a $270.00 check for the appeal filing fee. Thank you for your attention to this important matter.

Sincerely,

Robyn C. Purchia

RCP:ljl

Enclosures: Check
Attachments A, B and C

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October 26, 2011

VIA EMAIL AND OVERNIGHT MAIL

Maureen Riordan
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City Planning Department
1017 Middlefield Road
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Re: Comments on Draft Environmental Impact Report for the 2580 El Camino Real Residential Project (SCH # 2011022067)

Dear Ms. Riordan:

We are writing on behalf of the Building and Construction Trades Council of San Mateo County to provide comments on the Draft Environmental Impact Report prepared pursuant to the California Environmental Quality Act ("CEQA")[1] for the 2580 El Camino Real Residential Project. The Project proposes demolishing a restaurant and bowling alley that has operated on the site since 1960 and constructing a four-story, 141-unit apartment complex and a parking structure.

Based on our review of the DEIR and supporting documents, we have concluded that the DEIR does not comply with the basic requirements of CEQA and must be revised and recirculated. Specifically, the DEIR does not provide an accurate description of the environmental setting so that the Project's impacts can be measured against the real conditions on the ground. In addition, the DEIR fails to disclose all of the Project's impacts and incorporate all feasible mitigation measures for significant impacts. Thus, the DEIR does not fulfill its function as an informational and decision-making document. These issues are discussed more fully below.

[1] Pub. Resources Code, § 21000 et seq.

We have prepared these comments with the assistance of technical experts Dr. James Clark and Tom Brohard, P.E. Their comments and curriculum vitae are attached as Attachment A and B respectively. Please note that the experts' comments are comments on the DEIR and supplement the issues addressed below. Therefore, Dr. Clark's and Mr. Brohard's comments ***must be responded to separately***.

I. STATEMENT OF INTEREST

The Council has a strong interest in enforcing environmental laws such as CEQA. The members of the unions affiliated with the Council reside, recreate and work in Redwood City. In fact, these members may work on the Project itself. Individual members who work on the Project would be first in line to be exposed to toxic air contaminants, inadequate parking and traffic congestion. Individual members who live, work and raise their families in Redwood City would be exposed to public health and safety hazards identified in these comments, and would be directly affected by increased traffic impacts in an area already congested. Members also live in and use areas that would suffer from the cumulative impacts of the proposed Project and other projects in Redwood City. For these reasons, Council members would be directly and disproportionately affected by the environmental impacts of the Project.

The Council supports environmentally sound land use and development in the City. Environmentally detrimental projects, on the other hand, can jeopardize future jobs by making it more difficult and more expensive for business and industry to expand in the region, and by making it less desirable for businesses to locate and people to live here. Indeed, continued degradation can, and has, caused construction moratoria and other restrictions on growth that, in turn, reduce future employment opportunities. Finally, members are concerned about projects that carry serious environmental risks and public service infrastructure demands without providing countervailing employment and economic benefits to local workers and communities. The Council, therefore, has a strong interest in enforcing environmental laws to protect their affiliates' members.

II. THE DEIR FAILS TO SATISFY CEQA'S PURPOSE AND GOALS

CEQA has two basic purposes, neither of which the DEIR satisfies. First, CEQA is designed to inform decision makers and the public about the potential,

significant environmental effects of a project.[2] CEQA requires that an agency analyze potentially significant environmental impacts in an EIR.[3] The EIR should not rely on scientifically outdated information to assess the significance of impacts. The EIR's evaluation of impacts should be based on "extensive research and information gathering," including consultation with State and federal agencies, local officials and the interested public.[4] To be adequate, the EIR should demonstrate the lead agency's good faith effort at full disclosure.[5] Its purpose is to inform the public and responsible officials of the environmental consequences of their decisions ***before*** they are made. For this reason, the EIR has been described as "an environmental 'alarm bell' whose purpose is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return."[6] "Thus, the EIR protects not only the environment, but also informed self-government."[7]

Second, CEQA directs public agencies to avoid or reduce environmental damage when possible by requiring alternatives or mitigation measures.[8] The EIR serves to provide public agencies, and the public in general, with information about the effect that a proposed project is likely to have on the environment and to "identify ways that environmental damage can be avoided or significantly reduced."[9] If a project has a significant effect on the environment, the agency may approve the project only upon a finding that it has "eliminated or substantially lessened all significant effects on the environment where feasible," and that any unavoidable significant effects on the environment are "acceptable due to overriding concerns" specified in CEQA Guidelines section 15093.[10]

The DEIR fails to satisfy these basic purposes of CEQA. Specifically, the DEIR does not reflect a good faith effort at public disclosure. The DEIR fails to

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[2] Cal. Code Regs., tit 14, § 15002, subd. (a)(1) (hereafter CEQA Guidelines).
[3] See Pub. Resources Code, § 21000; CEQA Guidelines, §§ 15002, subd. (f), 15126.2, subd. (a).
[4] *Schaeffer Land Trust v. San Jose City Council* (1989) 215 Cal.App.3d 612, 620 (citations omitted); see also *Berkeley Keep Jets Over the Bay Com. v. Bd. of Port Comrs. of the City of Oakland* (2001) 91 Cal.App.4th 1344, 1367 (hereafter *Berkeley Keep Jets Over the Bay*).
[5] CEQA Guidelines, § 15151; see also *Laurel Heights Improvement Assn. of San Francisco v. Regents of the U. of Cal.* (1988) 47 Cal.3d 376, 406-07 (hereafter *Laurel Heights Improvement Assn.*).
[6] *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810.
[7] *Citizens of Goleta Valley v. Bd. of Supervisors* (1990) 52 Cal.3d 553, 564 (citations omitted).
[8] CEQA Guidelines, § 15002, subd. (a)(2)-(3); *Berkeley Keep Jets Over the Bay Com., supra*, 91 Cal.App.4th at p. 1354.
[9] CEQA Guidelines, § 15002 subd. (a)(2).
[10] CEQA Guidelines, § 15092, subd. (b)(2)(A)-(B).

provide an adequate description of the environmental setting so that the Project's impacts can be measured against the real conditions on the ground, fails to identify the Project's potentially significant environmental impacts and fails to include an analysis of reasonably foreseeable Project impacts. As a result, the DEIR's conclusions with regard to the Project's environmental impacts are unsupported. The technical errors and significant informational gaps in the City's analysis preclude any meaningful evaluation of the Project's potentially significant impacts. Therefore, the DEIR fails to inform decision makers and the public of the Project's potentially significant environmental effects and to reduce damage to the environment ***before*** it occurs.

III. THE DEIR FAILS TO DESCRIBE THE EXISTING ENVIRONMENTAL SETTING AS REQUIRED BY CEQA

The DEIR's failure to describe the existing setting contravenes the fundamental purpose of the environmental review process, which is to determine whether there is a potentially substantial, adverse change compared to the existing setting. CEQA requires that a lead agency include a description of the physical environmental conditions in the vicinity of a project, as they exist at the time environmental review commences.[11] The description of the environmental setting constitutes the baseline physical conditions by which a lead agency may assess the significance of a project's impacts.[12]

A. The DEIR fails to describe the existing environmental setting against which to measure traffic impacts

1. The DEIR fails to describe traffic conditions at the time environmental review commenced

The DEIR fails to describe traffic conditions at the time environmental review commenced. Instead, the City bases its impact analysis on traffic counts from 2008. The City's approach violates CEQA for two reasons.

First, the City issued a Notice of Preparation of a DEIR for the Project in 2011.[13] Therefore, traffic conditions in 2008 are not "the physical environmental

[11] CEQA Guidelines, § 15125, subd. (a).
[12] *Ibid.*
[13] Redwood City, Notice of Preparation Notice of Public Scoping Session Meeting, Feb. 24, 2011.

conditions in the vicinity of the project, as they exist at the time the notice of preparation is published."[14] The DEIR must describe the traffic conditions as they were when the City released the Notice of Preparation in 2011.

Second, traffic conditions in 2008 are admittedly not representative of traffic conditions in 2011. As the DEIR itself recognizes, traffic on El Camino Real increases by about one percent every year.[15] Therefore, traffic increases over three years may have significantly changed the number of vehicle trips in the Project vicinity.[16]

The DEIR's flawed approach to establishing the physical environmental conditions in the vicinity of the Project violates the fundamental purpose of the environmental review process. As a result, the DEIR fails to inform decision makers and the public of the Project's environmental impacts, and precludes the incorporation of feasible mitigation measures necessary to reduce those impacts to less than significant. The City must revise the DEIR's description of existing traffic conditions to include traffic counts as of 2011. The City must then recirculate the DEIR for public review.

2. The DEIR fails to describe baseline traffic conditions at key intersections

The DEIR fails to describe traffic conditions at key intersections in the vicinity of the Project. Specifically, the DEIR relies on "unsubstantiated conclusions" and does not contain traffic counts or quantitative level of service ("LOS") calculations for the intersections of El Camino Real/Center Street and El Camino Real/Dumbarton Avenue (collectively "key intersections"). Traffic counts or quantitative LOS calculations are necessary to assess congestion impacts at key intersections "in the vicinity of" the project.[17] The City must revise the DEIR to include this information and to enable an adequate CEQA analysis of all of the Project's potentially significant traffic impacts.

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[14] *Ibid.*
[15] DEIR, p. 79.
[16] Letter from Tom Brohard, P.E., Principal, Tom Brohard and Associates, to Robyn C. Purchia, Attorney, Adams Broadwell Joseph & Cardozo, Sept. 23, 2011, p. 3 (hereafter Brohard comments) (Attachment A).
[17] CEQA Guidelines, § 15125, subd. (a).

"To facilitate CEQA's informational role, the EIR must contain facts and analysis, not just the agency's bare conclusions or opinions."[18] Substantial evidence is defined under CEQA as facts, reasonable assumptions predicated upon facts and expert opinion supported by facts.[19] Substantial evidence is not argument, speculation, unsubstantiated opinion or narrative.[20] CEQA "contemplates serious and not superficial or pro forma consideration of the potential environmental consequences of a project."[21]

Here, the City's finding that two key intersections are operating at LOS C is a bare conclusion not based on any facts or analysis. Specifically, the City relied on two memoranda by Fehr & Peers, which contain unsubstantiated conclusions to describe traffic conditions at the key intersections. The April 22 Memorandum cited "field observations" to conclude that the two key intersections were operating at LOS C.[22] According to Mr. Brohard, however, reliance on field observations for determining LOS is contrary to accepted traffic engineering and transportation planning practices.[23] In addition, the field observations focused on conditions at the crosswalk and bus stops, instead of traffic counts at the key intersections.[24] Similarly, the June 28 Memorandum provided the unsupported conclusion that the two intersections are operating at LOS C.[25] Neither the April 22 nor the June 28 Memorandum relied on traffic counts and computer calculations to establish current LOS for existing conditions at the key intersections.

The DEIR's description of traffic at the key intersections is based on unsubstantiated conclusions. Therefore, the DEIR lacks substantial evidence to support its conclusions regarding traffic impacts at the key intersections. The City must revise the description of traffic conditions at key intersections and include the revised description in a recirculated DEIR.

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[18] *Ibid.*
[19] CEQA Guidelines, § 15384, subd. (b).
[20] CEQA Guidelines, § 15384, subd. (a).
[21] *Leonoff v. Monterey County Bd. of Supervisors* (1990) 222 Cal.App.3d 1337, 1347-48.
[22] Brohard comments, p. 3.
[23] *Ibid.*
[24] *Id.* at p. 4.
[25] *Ibid.*

B. The DEIR fails to describe existing air quality conditions against which to measure the Project's significant air quality impacts

1. The DEIR fails to describe all air pollution sources in the Project area

The DEIR fails to describe all existing air pollution sources in the vicinity of the Project at the time the notice of preparation was published. Specifically, the DEIR does not identify existing permitted stationary sources located within 1,000 feet of the Project site or factor in emissions from the large shopping mall and railroad in the Project vicinity. The City must revise the DEIR to include a complete description of existing air pollution sources that may affect local air quality.

The Bay Area Air Quality Management District ("BAAQMD") recommends that lead agencies identify all toxic air contaminant ("TAC") and PM2.5 sources within 1,000 feet of a project site.[26] According to the DEIR, there are no permitted stationary sources with 1,000 feet of the Project site.[27] The DEIR is incorrect. The DEIR fails to identify four permitted stationary sources approximately 500 feet from the Project site.[28]

The DEIR also fails to include in the environmental setting existing emissions from the large shopping mall and railroad in the Project vicinity. Dr. Clark identifies the large shopping mall and large parking lot approximately 200 feet from the Project site, as well as the railroad approximately 1,023 feet from the site.[29]

These existing air pollution sources may currently impact local air quality and must be included in the existing setting to enable an adequate analysis of the Project's potential air impacts. According to Dr. Clark, an expert in air quality impacts, the concentration of permitted sources in proximity to the proposed Project

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[26] Bay Area Air Quality Management Dist., Cal. Environmental Quality Act Air Quality Guidelines, May 2011, p. 5-8.

[27] DEIR, p. 78; see also Illingworth & Rodkin, Inc., 2580 El Camino Real Housing Development Community Risk (TAC) Assessment Redwood City, California, Apr. 27, 2011, p. 1.

[28] See Google Earth Image, Permitted Stationary Sources Within 1,000 Feet of Project Site (Attachment C).

[29] James Clark, Ph.D., Clark and Associates, letter to Robyn C. Purchia, Attorney, Adams, Broadwell, Joseph & Cardozo, Oct. 18, 2011, pp. 10-11 (hereafter Clark comments) (Attachment B).

and the unknown nature of the sources warrant a more detailed analysis of their potentially significant cumulative impacts.[30] The DEIR not only misleads the public, but precludes a meaningful analysis of potential impacts from TACs and PM2.5 from the Project's proposal to site sensitive receptors nearby. In Dr. Clark's opinion, by including the additional air pollutant emissions from these sources in the baseline, the DEIR may conclude that the Project significantly impacts residential receptors on the Project site.

C. The DEIR contains conflicting descriptions of baseline conditions against which to measure impacts

The DEIR inconsistently describes whether the existing environmental setting includes a restaurant that is operating or not operating. The failure of the DEIR to describe restaurant operations consistently precludes a meaningful analysis of the Project's impacts including energy usage, public health, wastewater flows, traffic and greenhouse gas emissions. The City must revise the DEIR so that the public and decision makers are informed regarding whether the restaurant is currently operational or closed.

The DEIR describes the restaurant in the bowling alley as operational in the energy section and nonoperational in the hazardous materials and utilities sections. Specifically, the DEIR assesses the Project's impacts to energy usage against the natural gas used by ***both*** the bowling alley and the restaurant.[31] However, in the DEIR's description of existing chemical storage, the DEIR states that the restaurant in the bowling alley is nonoperational.[32] The DEIR also describes the current land use as only generating 803 gallons of wastewater per day because the restaurant is not operational.[33] If the restaurant is nonoperational, the City must revise the Project's description of the existing setting under the energy section. If the restaurant is operational, the DEIR must disclose potential chemical usage on site and reassess the Project's impacts to wastewater treatment capacity.

The City's failure to include a consistent description of baseline conditions confuses the DEIR's impact analysis for energy usage, public health, wastewater flows, traffic and greenhouse gas emissions. For example, the DEIR states that the

[30] See Clark comments, p. 11.
[31] DEIR, p. 66.
[32] *Id.* at p. 50.
[33] *Id.* at p. 94.

existing bowling alley releases approximately 775 metric tons of CO2e per year from transportation, electricity use, natural gas use, water use, wastewater generation and solid waste generation.[34] The DEIR does not specify, however, whether restaurant operation was factored into this assessment. Depending on whether the restaurant was operational or not when environmental review commenced, the DEIR's analysis may change.

The City must revise the DEIR to include a description of real conditions on the ground so that the Project's actual impacts to energy usage, wastewater, public health, traffic and greenhouse gas emissions can be assessed. This revised description and impact analysis must be recirculated for public review.

IV. THE DEIR FAILS TO DISCLOSE ALL POTENTIALLY SIGNIFICANT PROJECT IMPACTS AND INCORPORATE ALL FEASIBLE MITIGATION MEASURES NECESSARY TO REDUCE IMPACTS TO A LEVEL OF INSIGNIFICANCE

A. The DEIR fails to disclose all potentially significant traffic impacts and incorporate all feasible mitigation measures

Tom Brohard, P.E., a licensed professional civil engineer, reviewed the DEIR's analysis of impacts to traffic. Mr. Brohard determined that the City failed to disclose and analyze all of the Project's impacts and propose all feasible mitigation measures. Therefore, the City must revise its analysis of the Project's impacts to traffic.

1. The DEIR fails to analyze impacts to traffic and parking during Project construction

The DEIR completely fails to analyze traffic impacts associated with Project construction. The City must disclose potentially significant impacts associated with construction traffic and incorporate specific mitigation measures.

According to the DEIR, construction would be completed over a period of 19 months.[35] During those 19 months, site development would include demolition of

[34] *Id.* at p. 85.
[35] *Id.* at p. 78.

existing buildings, site grading, paving and building construction, which would involve daily deliveries of construction materials.[36] Trucks would be needed to haul soil, sand, gravel and other loose materials (including demolition debris).[37] In addition, water trucks would be needed to control dust emissions.[38]

According to Mr. Brohard, construction traffic impacts may be significant.[39] The DEIR must analyze and evaluate impacts associated with material hauling and worker traffic.[40] All mitigation measures incorporated into a revised DEIR must ensure that construction traffic in all areas does not degrade below the City's threshold of LOS D.[41] Feasible mitigation includes those similar to the measures incorporated in the City of Redwood City's environmental review document for the Sequoia Hospital Campus Project. The DEIR prepared for that project limited deliveries and off haul to specified times, designated truck routes and provided for onsite and offsite parking.[42]

Since the DEIR fails to include an analysis of traffic impacts and mitigation associated with Project construction, the DEIR must be revised and recirculated for public review.

2. The DEIR fails to analyze impacts to traffic queuing at key intersections

As discussed above, the City fails to describe traffic conditions at key intersections around the Project site. The City's failure to provide a proper description of the existing environmental setting affects the City's ability to disclose the Project's impacts on congestion at key intersections. The City must revise the DEIR so that all impacts to traffic queuing at key intersections are disclosed and mitigated.

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[36] *Id.* at p. 80; Illingworth & Rodkin, 2580 El Camino Real Housing Development Community Risk (TAC) Assessment, Redwood City, California, May 17, 2011, p. 5.
[37] DEIR, p. 80.
[38] *Ibid.*
[39] Brohard comments, p. 5.
[40] *Ibid.*
[41] Redwood City General Plan, Oct. 2010, p. BE-148; Brohard comments, p. 5.
[42] City of Redwood City, Sequoia Hospital Campus/Precise Plan Draft EIR, Mar. 2007, pp. 62-63.

Under CEQA a lead agency must analyze whether a project would cause an increase in congestion at intersections.[43] The DEIR states that a detailed analysis is not required because both key intersections have sufficient capacity to accommodate Project traffic. As discussed above, the DEIR lacks substantial evidence to support its description of the existing setting. In addition, according to Mr. Brohard, a detailed analysis is required because the Project may significantly impact the intersections, particularly queuing. Specifically, the proposed Project may cause queuing in the left turn bays of the two intersections to extend into adjacent lanes.[44]

This potentially significant impact must be properly assessed once the City provides an accurate description of existing traffic conditions at the two key intersections. Until then, the DEIR fails as an informational document.

3. The DEIR fails to analyze impacts to bicycle corridors

The DEIR fails to analyze the Project's impacts to proposed bicycle paths. According to the CEQA Guidelines, a project may result in a significant impact if the project conflicts with an applicable land use plan adopted for the purpose of mitigating an environmental impact.[45] In Redwood City, the EIR prepared for the City's General Plan mitigates impacts to vehicle trip generation within the City by developing bicycle paths along the Hetch Hetchy easement.[46] The General Plan incorporated the measure as Policy BE-58.[47]

However, the Project does not incorporate this measure into its description of development within the Hetch Hetchy easement. Instead, the Project proposes that the Hetch Hetchy easement will be an "outdoor street frontage plaza" with landscaping, decorative pedestrian walkways and outdoor seating. And, importantly, the DEIR fails to identify the inconsistency and the resulting significant impact.[48]

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[43] CEQA Guidelines, Appendix G, subd. XV(a).
[44] Brohard comments, p. 5.
[45] CEQA Guidelines, Appendix G, X(b).
[46] Redwood City, General Plan Draft Environmental Impact Report, p. 4.14-49.
[47] Redwood City, General Plan, BE-151.
[48] DEIR, pp. 1, 4, 8, 14, 16, 106.

The proposed Project's inconsistency with the General Plan and EIR is a significant and as-yet-unidentified impact. This inconsistency must be disclosed and the Project's impacts to traffic and bicycle corridors assessed and mitigated.

B. The DEIR fails to disclose all potentially significant air quality impacts and incorporate all feasible mitigation measures

Dr. James Clark, a principal toxicologist, reviewed the DEIR's analysis of impacts to air quality. Dr. Clark determined that the City failed to disclose and analyze all of the Project's impacts and propose all feasible mitigation measures necessary to reduce impacts to less than significant. Therefore, the City must revise its analysis of the Project's impacts to air quality.

1. The DEIR fails to disclose that residential receptors on the Project site may be exposed to TACs that exceed BAAQMD thresholds

The City fails to disclose that residential receptors on the Project site will be exposed to carcinogenic pollutants that exceed BAAQMD thresholds. According to flawed modeling conducted by the City, the maximum total risk to residential receptors was calculated as 9.4 per 1,000,000, which is just below the BAAQMD threshold of 10 in 1,000,000.[49] However, the City relied on a risk analysis that is not supported by substantial evidence. Furthermore, residential receptors will be exposed to TACs exceeding threshold levels, according to modeling conducted by the BAAQMD and by Dr. Clark. In Dr. Clark's opinion, the DEIR must be revised so that significant impacts are disclosed and mitigation measures proposed.

The BAAQMD provides tables on its Web site that are designed to inform agencies about the potential health risks around project sites.[50] According to these tables, the exposure risk 75 feet from El Camino Real is 10.146 per 1,000,000.[51] Here, residential units may be 40 to 80 feet from the roadway.[52] According to

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[49] DEIR, p. 79.
[50] BAAQMD, CEQA Guidelines Risk and Hazard Screening Analysis Process Flow Chart <http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CEQA/Screening%20Analysis%20Flow%20Chart_May%202011.ashx>
[51] See Clark comments, Figure 2.
[52] See DEIR, p. 6, Figure 3; Clark comments, p. 4.

BAAQMD modeling, residential units would, therefore, be exposed to TAC levels that exceed the recommended BAAQMD threshold.

According to Dr. Clark's modeling, TACs levels would significantly exceed BAAQMD thresholds. Dr. Clark's comments identify specific flaws in the City's modeling that distort the Project's true TACs impacts to residential receptors.[53] Modeling conducted without these flaws results in a risk to residential receptors on the Project site of 12.7 in 1,000,000, which exceeds BAAQMD recommended thresholds.[54]

As explained by Dr. Clark, the DEIR lacks substantial evidence to support its conclusion that the Project will not result in significant public health impacts. The City must disclose that residential receptors on the Project site will be exposed to carcinogenic pollutants that exceed recommended thresholds. The DEIR must recognize this significant public health impact. The City must then incorporate specific mitigation measures in the DEIR so that impacts are reduced.

2. The DEIR fails to disclose that residential receptors around the Project site may be exposed to TACs that exceed BAAQMD thresholds during Project construction

The City must disclose that residential receptors located within 1,000 feet of the Project site may be exposed to carcinogenic pollutants that exceed BAAQMD thresholds during Project construction.[55] The City lacks substantial evidence to conclude otherwise. The City's analysis in the *Community Risk Assessment* was improperly limited to an analysis of just diesel particulate matter ("DPM"). If all foreseeable TACs are considered, residential receptors around the Project site may be exposed to levels exceeding the BAAQMD threshold. In Dr. Clark's opinion, the DEIR must be revised so that these potentially significant impacts are disclosed and mitigation measures proposed.

The City's analysis of risk from construction activities only considered DPM. However, construction activities also emit organic compounds, or total organic

[53] Clark comments, p. 5.
[54] *Id.* at p. 8.
[55] Bay Area Air Quality Management Dist., Cal. Environmental Quality Act Air Quality Guidelines, May 2011, p. 8-7.

compounds ("TOG").[56] Organic compounds that have been identified as TACs associated with emissions from vehicles include acetaldehyde, benzene, 1,3-butadiene, ethyl benzene, formaldehyde, hexane, naphthalene, toluene, and xylenes.[57] These TACs are emitted from vehicle exhaust and from evaporative emissions that emanate from hoses, fittings or canisters while the vehicle is being operated.[58] These TACs may cause significant health impacts to sensitive receptors.

According to Dr. Clark, the City must analyze both DPM and TOG TAC emissions during Project construction. If emissions from these two sources exceed the BAAQMD threshold, the City must incorporate specific mitigation measures so that significant impacts to residential receptors around the Project site are reduced or avoided. Mitigation measures must take into account BAAQMD guidance which states that residential developments of this size require a minimum offset of at least 7 to 100 meters.[59]

3. The DEIR fails to address non-carcinogenic health risks resulting from locating sensitive receptors in proximity to El Camino Real

The DEIR's analysis of air quality impacts is inadequate because it restricts its discussion of potential adverse health effects to carcinogenic health risks. By its own admission, the *Community Risk Assessment* relied on in the DEIR does not address non-carcinogenic health risks resulting from locating residential land uses adjacent to a major roadway.[60] Instead, the *Community Risk Assessment* simply ***assumes*** that non-cancer risks are less than significant.[61] The City must analyze non-carcinogenic health risks and rely on substantial evidence to reach its conclusion regarding potential non-carcinogenic health risks. The City must also

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[56] City of Palo Alto, Edgewood Plaza Project Initial Study, Air Quality Community Risk Assessment and Air Quality Emissions Calculations, Sept. 28, 2010, p. 3.
[57] *Ibid.*
[58] *Ibid.*
[59] BAAQMD, Screening Tables for Air Toxics Evaluation During Construction, May 2010, Table 2, p. 9; Clark comments, p. 13.
[60] Illingworth & Rodkin, 2580 El Camino Real Housing Development Community Risk (TAC) Assessment, Redwood City, California, May 17, 2011, p. 2.
[61] Illingworth & Rodkin, 2580 El Camino Real Housing Development Community Risk (TAC) Assessment, Redwood City, California, May 17, 2011, p. 2.

incorporate feasible mitigation measures for any significant impacts and circulate the information in a revised DEIR.

Numerous studies have reported associations between residential proximity to high traffic roadways and health impacts. These studies show:

- Reduced lung function in children was associated with traffic density, especially trucks, within 1,000 feet and the association was strongest within 300 feet;
- Increased asthma hospitalizations were associated with living within 650 feet of heavy traffic and heavy truck volume;
- Asthma symptoms increased with proximity to roadways and the risk was greatest within 300 feet;
- Asthma and bronchitis symptoms in children were associated with proximity to high traffic in a San Francisco Bay Area community with good overall regional air quality; and
- Increased medical visits in children living within 550 feet of heavy traffic.[62]

Because the proposed Project is located 12 to 14 feet from El Camino Real,[63] a major thoroughfare with heavy car and truck traffic, the City's bare assumption that the Project's non-carcinogenic health risks are less than significant is unsupported.[64] The DEIR must be revised to properly evaluate and disclose non-carcinogenic health risks resulting from locating residential land uses adjacent to El Camino Real.

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[62] Cal. Air Resources Bd., Air Quality and Land Use Handbook: A Community Health Perspective (April 2005), p. 8.
[63] DEIR, p. 5.
[64] Illingworth & Rodkin, 2580 El Camino Real Housing Development Community Risk (TAC) Assessment, Redwood City, California, May 17, 2011, p. 2.

4. The DEIR's reliance on ISCST3 air dispersion modeling does not comply with U.S. EPA guidance and may underestimate the Project's impacts

The DEIR relies on ISCST3 modeling to calculate ground level concentration of air contaminants at the site and in the community.[65] According to Dr. Clark, reliance on ISCST3 modeling is "a less robust and less accurate model" and "is counterproductive to the analysis of impacts for the Project."[66] In fact, the U.S. Environmental Protection Agency and the BAAQMD have stated that AERMOD is the "next generation model" that that was developed to replace the ISCST3.[67] In Dr. Clark's expert opinion, the City's reliance on ISCST3 modeling does not provide an accurate picture of the Project's impacts.[68]

C. The DEIR fails to disclose all potentially significant impacts to utilities and propose all feasible mitigation measures

1. The DEIR fails to address wet weather flow impacts to the South Bayside System Authority treatment plant

The DEIR fails to analyze impacts to wastewater treatment capacity during wet weather conditions and incorporate feasible mitigation measures. CEQA requires agencies to assess whether Project development would exceed wastewater treatment capacity and require the construction of new wastewater treatment facilities or expansion of existing facilities.[69] Without this analysis for foreseeable wet weather conditions, the DEIR is incomplete.

Wastewater treatment for Redwood City is provided by the South Bayside System Authority ("SBSA") treatment plant, located at the northeastern end of the Redwood Shores peninsula.[70] The SBSA treatment plant has an operating capacity of 29 million gallons per day ("mgd") for average dry weather flow ("ADWF"). The

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[65] DEIR, p. 80; Illingworth & Rodkin, 2580 El Camino Real Housing Development Community Risk (TAC) Assessment Redwood City, California, May 17, 2011, p. 5
[66] Clark comments, p. 12.
[67] 70 Fed.Reg. 68218 (Nov. 9, 2005); BAAQMD, Recommended Methods for Screening and Modeling Local Risks and Hazards, May 2011, p. 53.
[68] Clark comments, p. 13.
[69] CEQA Guidelines, Appendix G, subd. XVI(a),(b).
[70] City of Redwood City, Redwood City New General Plan Draft EIR, May 2010, Utilities, p. 4.15-10; DEIR, p. 94.

central portion of Redwood City's peak wet weather flow ("PWWF") allocation at the treatment plant is 25.9 mgd.[71] According to the City's General Plan EIR, Redwood City has exceeded its PWWF allocation over the years during significant rain events.[72]

Despite Redwood City's known high PWWF, the DEIR did not identify the Project's PWWF, did not analyze the Project's impacts to SBSA treatment plant capacity and did not incorporate feasible mitigation measures. Instead the DEIR dismissed an analysis of PWWF. Specifically, the DEIR recognized that there are "wet weather condition capacity" issues in Redwood City and then dismissed the issue by saying that "[w]hile Redwood City has wet weather condition problems, it is considered to be among the industry's standard."[73] The City's claim that a significant impact is "standard" is not a legal justification for ignoring the impact under CEQA. CEQA directs public agencies to avoid or reduce environmental damage when possible by requiring alternatives or mitigation measures,[74] not to sweep significant impacts under the rug.[75]

The City must identify whether the Project will exceed the City's wastewater treatment capacity during wet weather flows – an admitted problem in Redwood City. The DEIR and Appendix L note that operation of the proposed Project would result in an increase of 17,577 gpd of wastewater compared to the existing land use.[76] The DEIR does not indicate whether this is ADWF or PWWF. If it is ADWF, PWWF may be an even higher amount of wastewater generated by the proposed Project.

Once the City has identified the specific wet weather flows from the Project, the City must analyze the Project's impacts. Specifically, the City must evaluate whether the Project would exceed the capacity of the SBSA during peak wet weather flows. This is especially important because substantial evidence exists that the SBSA does not have sufficient capacity to treat PWWF. The Applicant's engineering consultant indicated that "the existing main does not currently have

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[71] City of Redwood City, Redwood City New General Plan Draft EIR, May 2010, Utilities, p. 4.15-12.
[72] *Ibid.*
[73] DEIR, p. 94.
[74] CEQA Guidelines, § 15002, subd. (a)(2)-(3); *Berkeley Keep Jets Over the Bay Com., supra*, 91 Cal.App.4th at p. 1354.
[75] *Concerned Citizens of Costa Mesa, Inc. v. 32nd Dist. Agricultural Assn.* (1986) Cal.3d 929, 935.
[76] Chuck Humpal, BFK Engineers, mem. to Elaine Breeze, Urban Housing Group, Feb. 10, 2011, p. 2; DEIR, p. 96.

sufficient capacity during peak wet weather flows, and the increase in project flow will make this condition worse."[77] The City's General Plan EIR also found that because PWWF at SBSA has been exceeded in recent years, the SBSA is currently evaluating PWWF capacity at the plant and the possible use of the flow equalization facility operated by the West Bay Sanitary District in Menlo Park.[78]

Because there is substantial evidence that the SBSA does not have capacity to treat PWWF, the City must incorporate specific, enforceable mitigation measures into a revised EIR. The DEIR simply assumes that the Project would not result in significant impacts because the Project is a part of the residential growth anticipated for Redwood City which will be served by the improvements identified in the City's Capital Improvement Program ("CIP").[79] There is no evidence, however, to support the City's conclusion. For example, it is unclear whether the improvements identified in the CIP will reduce or avoid impacts related to wet weather flows. The Applicant's Engineering Consultant recommended that the Project be required to mitigate the increase in PWWF by contributing to the reduction of Inflow and Infiltration within the surrounding area.[80] The Project would have to pay a fee for this mitigation.[81] After analyzing the significant impact, the City must analyze the feasibility, effectiveness and enforceability of this mitigation and its ability to reduce or avoid all significant impacts in a revised DEIR that is circulated for public review.

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[77] Chuck Humpal, Project Manager, BKF Engineers Consultants Planners, mem. to Paul Willis, City of Redwood, Feb. 9, 2011, p. 2.
[78] City of Redwood City, Redwood City New General Plan, Draft EIR, Utilities, p. 4.15-12.
[79] DEIR, p. 96.
[80] Chuck Humpal, Project Manager, BKF Engineers Consultants Planners, mem. to Paul Willis, City of Redwood, Feb. 9, 2011, p. 2; Chuck Humpal, BFK Engineers, mem. to Elaine Breeze, Urban Housing Group, Feb. 10, 2011, p. 2.
[81] Chuck Humpal, BFK Engineers, mem. to Elaine Breeze, Urban Housing Group, Feb. 10, 2011, p. 2.

V. THE CITY MUST PREPARE AND RECIRCULATE A REVISED DEIR

CEQA requires a lead agency to recirculate an EIR when significant, new information is added to the EIR following public review but before certification.[82] The CEQA Guidelines clarify that new information is significant if "the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project" including, for example, "a disclosure showing that ... [a] new significant environmental impact ... would result from the project."[83]

As discussed above, the proposed Project will have numerous significant impacts that are either unidentified, different, or more severe than those described in the DEIR, including impacts related to traffic, air quality and utilities. The EIR also lacks adequate mitigation for the significant impacts it identifies and for those impacts not yet addressed. Therefore, CEQA requires recirculating a DEIR for the proposed Project.

[82] Pub. Resources Code, § 21092.1.
[83] CEQA Guidelines, § 15088.5.

VI. CONCLUSION

The Council and the individual members of their affiliates thank the City of Redwood City for providing us the opportunity to comment on this matter. We urge the City to ensure that the Project's impacts are fully disclosed, evaluated and mitigated before the Project is allowed to proceed.

Sincerely,

Robyn C. Purchia

RCP:ljl
Attachments

ATTACHMENT A

Tom Brohard and Associates

September 23, 2011

Ms. Robyn C. Purchia, Attorney at Law
Adams Broadwell Joseph & Cardozo
520 Capitol Mall, Suite 350
Sacramento, CA 95814

SUBJECT: Draft Environmental Impact Report for the 2580 El Camino Real Residential Project in the City of Redwood City – Traffic Issues

Dear Ms. Purchia:

As requested, Tom Brohard, P.E., has reviewed various portions of the August 2011 Draft Environmental Impact Report (Draft EIR) for the 2580 El Camino Real Residential Project in the City of Redwood City. Specifically, I have reviewed Section 2.0 (Description of the Proposed Project), Section 4.9 (Transportation), and Appendix F which includes several memoranda from Fehr & Peers regarding their Focused Transportation Study. Other documents including Chapter 4.14 of the May 2010 Draft EIR for the City of Redwood General Plan and the Circulation Section of the City's current General Plan have also been reviewed.

The Proposed Project includes construction of 141 apartment units on the site of a former bowling alley and a closed restaurant at 2580 El Camino Real. From my review, the Draft EIR fails to rely upon an adequate and proper baseline to assess the project traffic impacts. The Draft EIR indicates that the adjacent signalized intersections currently operate at Level of Service (LOS) "C" and will continue to do so with project traffic added, but no traffic data or computer calculations are provided in support of this conclusion. Further study must be conducted to identify and mitigate potential queuing impacts of the Proposed Project on the nearby signalized intersections on El Camino Real. In addition, the potentially significant traffic impacts associated with truck and worker trips during demolition and construction must be analyzed and mitigated as necessary.

Until the various issues and concerns raised in this letter are addressed, I believe the 2580 El Camino Real Residential Project may have adverse environmental impacts that have not been properly disclosed, analyzed, and mitigated. The August 2011 Draft EIR must be revised to analyze the issues outlined in this letter and to propose feasible mitigation measures.

Education and Experience

Since receiving a Bachelor of Science in Engineering from Duke University in Durham, North Carolina in 1969, I have gained over 40 years of professional engineering experience. I am licensed as a Professional Civil Engineer both in California and Hawaii and as a Professional Traffic Engineer in California. I formed Tom Brohard and Associates in 2000 and now serve as the City Traffic

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Engineer for the City of Indio and as Consulting Transportation Engineer for the Cities of Big Bear Lake, Mission Viejo, and San Fernando. As shown on the enclosed resume, I have extensive experience in traffic engineering and transportation planning. During my career in both the public and private sectors, I have reviewed numerous environmental documents and traffic studies for various land development and infrastructure improvement projects.

Traffic Issues

Based on the information in the 2580 El Camino Real Residential Project Draft EIR and my review of the other documents, the Proposed Project may have significant traffic impacts as follows:

1) Proper Baseline for Traffic Analysis Is Current Conditions, Not Year 2008 – The Draft EIR relied on traffic counts from 2008 to assess Project impacts to traffic. In my opinion, 2008 traffic counts do not represent a proper baseline against which to analyze Project impacts.

   From Attachment A "Count Sheets" to the April 22, 2011 Memorandum from Fehr & Peers in Appendix F of the Draft EIR, directional machine counts were made on El Camino Real adjacent to the project site by Traffic Data Service on Tuesday April 22, 2008, on Wednesday April 23, 2008, and on Thursday April 24, 2008. Manual turning movement counts of traffic entering and exiting the driveway at Redwood Lanes (AMF Bowling) on El Camino Real were made on June 25, 2008 from 7 to 9 AM and from 4 to 6 PM. No traffic counts at other locations including the adjacent traffic signals on El Camino Real at Center Street and at Dumbarton Avenue are included in Attachment A.

   Attachment B "Intersection Level of Service Definitions and Calculations" includes LOS calculations for El Camino Real at the proposed project driveway in both AM and PM peak hours for "E+P" ("Existing plus Project"). As shown on these calculation sheets, traffic volumes were taken directly without any adjustments from the directional traffic counts made on El Camino Real on Wednesday April 23, 2008 as follows:

   - AM Peak Hour from 7:45 to 8:45 AM
     - Northbound El Camino Real through – 1,263 vehicles
     - Southbound El Camino Real through – 1,772 vehicles

   - PM Peak Hour from 5:00 to 6:00 PM
     - Northbound El Camino Real through – 1,977 vehicles
     - Southbound El Camino Real through – 1,473 vehicles

The calculations in Attachment B directly use the traffic volumes measured on El Camino Real at the project site on Wednesday April 23, 2008. Traffic volumes on El Camino Real at the site of the Proposed Project may have increased over the last three years. The Draft EIR does not present any evidence that the April 23, 2008 traffic volumes represent current traffic volumes on El Camino Real, and increases in population or jobs in the area would likely lead to additional traffic volumes on El Camino Real. In my opinion, the Draft EIR's reliance on 2008 data precludes a meaningful analysis of the Project's impacts on current Year 2011 traffic conditions.

2) Draft EIR Fails to Properly Analyze Traffic Impacts at Adjacent Intersections – It is my understanding that CEQA requires analysis of the potential traffic impacts of a proposed project on the physical environment including not only midblock roadway segments but also intersections in the vicinity. While Page 70 of the Draft EIR states that traffic conditions for existing and project conditions were evaluated at local intersections, there are no traffic counts or quantitative LOS calculations provided for either of the existing signalized intersections on El Camino Real at Center Street and at Dumbarton Avenue immediately adjacent to the project site. The Draft EIR must provide baseline information about the current traffic counts and analyze the Project's impacts to key intersections.

Page 1 of the April 22, 2011 Memorandum from Fehr & Peers acknowledges that "...the project is expected to add through traffic and some U-turning vehicles to the two adjacent signalized intersections:

- El Camino Real and Center Street
- El Camino Real and Dumbarton Avenue

According to Page 1 of the April 22, 2011 Memorandum from Fehr & Peers, the El Camino Real and Center Street intersection and the El Camino Real and Dumbarton Avenue intersection are operating at Level of Service (LOS) C during both peak periods based on field observations."

Establishing LOS only by field observations is contrary to accepted traffic engineering and transportation planning practice. In 2010, the Institute of Transportation Engineers (ITE) published guidelines for conducting traffic studies in Transportation Impact Analyses for Site Development, An ITE Recommended Practice. For the analysis of signalized intersections, Page 61 (enclosed) describes various factors to be considered (traffic volume, lane geometry, percentage of trucks, peak-hour factor, number of lanes, signal progression, ratio of green time to cycle time (G/C), roadway grades, parking conditions and pedestrian flows). Various computer programs for LOS calculations at signalized intersections are also listed on Page 61. At the end of the discussion regarding signalized intersections on Page 62 (enclosed),

ITE indicates "It is recommended that levels of service for existing conditions be confirmed through field observation whenever possible." The proper approach to determine LOS therefore includes conducting current traffic counts, entering the data into the computer program, and then (if possible) verifying the computer results against field observations.

In addition, it appears that the initial field observations in the project vicinity were not focused on key intersections. The April 22, 2011 Memo discusses other traffic issues in the area such as conditions at the crosswalk across El Camino Real at Northumberland Avenue and the bus stops at that intersection. There was no information on the traffic count data, computer analysis, or observations relating to the operation of the traffic signals at Center Street or at Dumbarton Avenue.

Unlike the April 22, 2011 Memo which provides no information regarding the operation of the two adjacent traffic signals, the June 28, 2011 Memo from Fehr & Peers does summarize what was observed at the traffic signals during the June 2011 field observation. Specifically, the June 28, 2011 Memo concludes "These two intersections are operating at LOS C during both peak periods based on field observations." However, without current turning movement counts and without LOS calculations, the conclusion that the two adjacent traffic signals operate at LOS C during both peak hours cannot be supported.

Current traffic counts together with computer calculations are required to establish LOS for existing conditions at the adjacent traffic signals on El Camino Real at Center Street and at Dumbarton Avenue. Calculations must also be made to establish LOS for future conditions with project traffic added at both of these intersections.

3) Project May Cause Significant Traffic Impacts at Adjacent Traffic Signals - According to Page 1 of the April 22, 2011 Memorandum from Fehr & Peers, both intersections have sufficient capacity to accommodate the net-added traffic generated by the project and maintain acceptable operations. Therefore, a detailed intersection operations analysis is not required. In my professional opinion, detailed intersection operations analyses are required as the Project may cause impacts at these intersections, particularly queuing.

In the area of the Proposed Project, El Camino Real includes a raised median that will restrict access to and from the project driveway to right turns only. As indicated in the June 28, 2011 Memo, the Proposed Project will add 13 U-turns in the PM peak hour to the northbound left turn movement at Center Street and 13 U-turns in the PM peak hour to the southbound left turn movement at Dumbarton Avenue. With these left turn pockets nearly fully occupied at times during the PM peak hour as indicated in the June 28, 2011

Memo, left turn queuing could extend out of the left turn bays and impact traffic in the adjacent through lanes, especially under the higher traffic volumes that will occur under a proper baseline that includes updated traffic counts and trips added from area projects that have been approved but are not yet occupied. If the LOS computer calculations indicate that queuing may exceed the available left turn storage and extend into the adjacent lanes at times, then the Proposed Project must be required to modify the raised medians to provide adequate storage for left turns and U-turns.

4) Traffic Impacts During Demolition and Construction Must Be Addressed – The Draft EIR fails to analyze potentially significant traffic impacts or to develop mitigation measures associated with truck and worker trips during demolition, clearing, and grading of the existing site as well as during construction of the Proposed Project. The Draft EIR must analyze and evaluate impacts associated with material hauling, worker traffic, and worker parking for each of these phases.

   Measures must be developed and incorporated into the Draft EIR to mitigate construction traffic impacts, including importing water during grading and dust control. The mitigation measures must maintain the City of Redwood City threshold to prevent construction traffic from degrading below the LOS D or better standard in the Draft EIR.

In summary, further study must be undertaken to properly identify the traffic impacts of the Proposed Project at 2580 El Camino Real. As discussed in this letter, this project may have adverse environmental impacts that have not been properly disclosed, analyzed, and mitigated. The August 2011 Draft EIR must be revised to address each of the issues identified in this letter. If you have questions regarding these comments, please call me at your convenience.

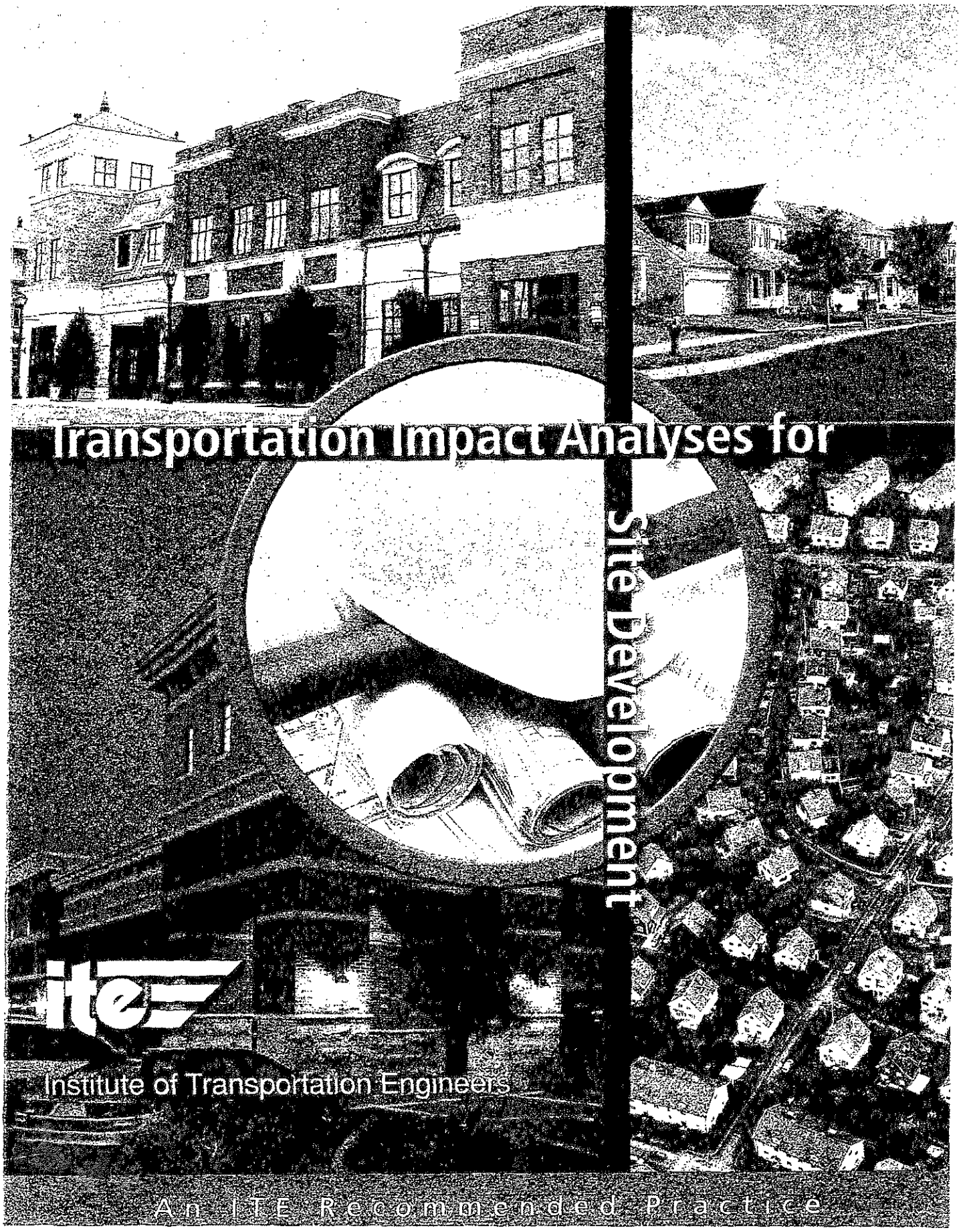
Respectfully submitted,

Tom Brohard and Associates

Tom Brohard

Tom Brohard, PE
Principal

Enclosures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Site Development
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Institute of Transportation Engineers
An ITE Recommended Practice

levels of vehicular delay. As jurisdictions set or revise automobile delay thresholds, they need to consider these other factors, as well as the possible need to incorporate emerging energy and climate change objectives and requirements.

Signalized Intersections

For signalized intersections, LOS is based on roadway system characteristics that include traffic volume, lane geometry, percentage of trucks, peak-hour factor, number of lanes, signal progression, ratio of signal green time to cycle time (G/C), roadway grades, parking conditions and pedestrian flows. Level of service categories have been established based on relative levels of driver acceptability of various delays and are summarized in Table 7–2.

The most commonly used LOS analysis procedure is detailed in the most recent edition of the *Highway Capacity Manual*. The definition of, and procedures for, calculating levels of service are different from those used in other methods. The application of these techniques requires the use of additional factors (such as peak-hour factor, saturation flow), which may vary from one location to another.

The *Highway Capacity Manual* no longer supports manual computations. A computer software package must be used. In the absence of any locally mandated methodologies, *Highway Capacity Software* (McTrans 2005) or an accepted alternative is strongly recommended for use in calculating capacity and levels of service at signalized intersections (and other locations). The following computer software packages are designed to undertake a wide variety of capacity analyses (not all of which implement the HCM methods), including signalized intersections: AIMSUN, aaSIDRA, CUBE DYNASIM, Paramics, PASSER II-02, PASSER V-03, PASSER III-98, SIGNAL 2000, SIG/Cinema, SimTraffic, Synchro, TEAPAC, TRAFFIX, TRANSYT-7F, TSIS (CORSIM) and VisSim. Assumptions should be verified, as should default values. Results should be examined for reasonableness before being used. (See Urban Transportation Monitor, 2002 and Urban Transportation Monitor, 2004 for the analyses supported by the various computer software packages; see also Chapter 16 of Transportation Research Board, 2000.)

Table 7–1. Site Build-Out Levels of Service – *sample table*

Intersection	Control	Level of Service	
		A.M. Peak	P.M. Peak
1. US 1 & Ramps to/from Northbound I-95	Signal	B	D
2. US 1 & Ramps to/from Southbound I-95	Signal	B	D
3. US 1 & Parkway North	Signal	D	D
4. US 1 & Newton Blvd/Industrial Blvd	Signal	D	D
5. US 1 & Newton Pkwy	Signal	B	D
6. Grey Tr & Broad St/Buddy Rd	Signal	C	D
7. Buddy Rd & Newton Blvd West	Signal	C	D
8. Newton Blvd West & Newton Pkwy/Access 1	Signal	C	D
9. Newton Blvd West & Access 2	SB Lt	A	B
	Stop/WB Lt	D	D
10. Newton Blvd West & Access 3	Signal	B	C
11. Newton Blvd West & Access 4	Stop/EB Lt	D	D
	Stop/WB Lt	C	D

SOURCE: Street Smarts, Duluth, GA, USA.

Table 7–2. Level of Service Criteria for Signalized Intersections

Level of Service	Control Delay per Vehicle (sec)	Qualitative Description
A	≤10	Good progression, few stops and short cycle lengths.
B	> 10–20	Good progression and/or short cycle lengths; more vehicle stops.
C	> 20–35	Fair progression and/or longer cycle lengths; some cycle failures; significant portion of vehicles must stop.
D	> 35–55	Congestion becomes noticeable; high volume-to-capacity ratio; longer delays; noticeable cycle failures.
E	> 55–80	At or beyond limit of acceptable delay; poor progression; long cycles; high volumes; long queues.
F	> 80	Unacceptable to drivers. Arrival volumes greater than dis- charge capacity; long cycle lengths; unstable-unpredictable flows.

SOURCE: Transportation Research Board, 2000.

Where an agency requires use of a method other than the current *Highway Capacity Manual* procedures, that method should be used to promote consistency among studies performed in that jurisdiction. Local standards, where documented, should be applied.

The overall intersection LOS is deemed the most important for signalized intersections. For those signalized intersections that include turning movements with unacceptable LOS, the volume to capacity ratio (v/c) and/or delay per vehicle ratio should be calculated to further illustrate the relationship of these two evaluation parameters. Each agency usually sets its own minimum acceptable LOS standards for its intersections.

The intersection LOS is computed as a weighted average of the vehicle delay. An intersection may thus have an acceptable overall LOS and have individual movements with unacceptable LOS. As a result, all movements should be analyzed individually. When recommendations are formulated, they should include modifications to reduce delay and increase capacity on critical movements. The modifications may include adding lanes, reducing friction (such as removing curb parking), changing signal phasing or timing, or re-directing critical movements.

Two levels of analysis are available for computing level of service—operational analysis and planning analysis. Although the planning analysis is usually considered adequate for transportation impact and access studies for new developments, it does not estimate levels of service for signalized intersections. If a signalized intersection LOS analysis is needed as part of the transportation impact and access study, then operational analysis will be required. The operational analysis should also be used for analyzing existing conditions or future conditions in which traffic, geometric and control parameters can be established based on projections and design sketches. It is recommended that levels of service for existing conditions be confirmed through field observation whenever possible. This will help verify assumptions.

Unsignalized Intersections

Level of service analyses for both two-way-stop-controlled (TWSC) and all-way-stop-controlled (AWSC) intersections depend upon a clear description and understanding of the interaction of drivers on the controlled approaches with drivers on uncontrolled approaches (if any). Both gap acceptance and empirical models have been developed to describe this interaction. Additional information on gap analysis can be found in the *Manual of Transportation Engineering Studies* (Robertson, 2000).

Level of service for TWSC and AWSC intersections is determined by computing or measuring control delay. For TWSC intersections, it is computed and defined for each minor approach. Level of service is not defined for the intersection as a whole (as it is for signalized intersections). For AWSC intersections, it is independently computed and defined

Tom Brohard, PE

Licenses:	1975 / Professional Engineer / California – Civil, No. 24577 1977 / Professional Engineer / California – Traffic, No. 724 2006 / Professional Engineer / Hawaii – Civil, No. 12321
Education:	1969 / BSE / Civil Engineering / Duke University
Experience:	40+ Years
Memberships:	1977 / Institute of Transportation Engineers – Fellow, Life 1978 / Orange County Traffic Engineers Council - Chair 1982-1983 1981 / American Public Works Association - Member

Tom is a recognized expert in the field of traffic engineering and transportation planning. His background also includes responsibility for leading and managing the delivery of various contract services to numerous cities in Southern California.

Tom has extensive experience in providing transportation planning and traffic engineering services to public agencies. Since May 2005, he has served as Consulting City Traffic Engineer for the City of Indio. He also currently provides "on call" Traffic and Transportation Engineer services to the Cities of Big Bear Lake, Mission Viejo, and San Fernando. In addition to conducting traffic engineering investigations for Los Angeles County from 1972 to 1978, he has previously served as City Traffic Engineer in the following communities:

- Bellflower ..... 1997 - 1998
- Bell Gardens ..... 1982 - 1995
- Huntington Beach ..... 1998 - 2004
- Lawndale ..... 1973 - 1978
- Los Alamitos ..... 1981 - 1982
- Oceanside ..... 1981 - 1982
- Paramount ..... 1982 - 1988
- Rancho Palos Verdes ..... 1973 - 1978
- Rolling Hills ..... 1973 - 1978, 1985 - 1993
- Rolling Hills Estates ..... 1973 - 1978, 1984 - 1991
- San Marcos 1981
- Santa Ana ..... 1978 - 1981
- Westlake Village ..... 1983 - 1994

During these assignments, Tom has supervised City staff and directed other consultants including traffic engineers and transportation planners, traffic signal and street lighting personnel, and signing, striping, and marking crews. He has secured over $5 million in grant funding for various improvements. He has managed and directed many traffic and transportation studies and projects. While serving these communities, he has personally conducted investigations of hundreds of citizen requests for various traffic control devices. Tom has also successfully presented numerous engineering reports at City Council, Planning Commission, and Traffic Commission meetings in these and other municipalities.

In his service to the City of Indio since May 2005, Tom has accomplished the following:

- Oversaw preparation and adoption of the Circulation Element Update of the General Plan including development of Year 2035 buildout traffic volumes, revised and simplified arterial roadway cross sections, and reduction in acceptable Level of Service criteria under certain constraints. Reviewed Riverside County's updated traffic model for consistency with the adopted City of Indio Circulation Plan.

- Oversaw preparation of fact sheets/design exceptions to reduce shoulder widths on Jackson Street over I-10 as well as justifications for protected-permissive left turn phasing at I-10 on-ramps, the first such installation in Caltrans District 8 in Riverside County; reviewed plans and provided assistance during construction of a $1.5 million project to install traffic signals and widen three of four ramps at the I-10/Jackson Street Interchange under a Caltrans encroachment permit.

- Oversaw preparation of fact sheets/design exceptions to reduce shoulder widths on Monroe Street over I-10 as well as striping plans to install left turn lanes on Monroe Street at the I-10 Interchange under a Caltrans encroachment permit; reviewed plans to install traffic signals and widen three of four ramps at the I-10/Monroe Street Interchange.

- Reviewed traffic impact analyses for Project Study Reports evaluating different alternatives for buildout improvement of the I-10 Interchanges at Jefferson Street, Monroe Street, Jackson Street and Golf Center Parkway.

- Oversaw preparation of plans, specifications, and contract documents and provided construction assistance for over 40 traffic signal installations and modifications.

- Reviewed and approved over 600 work area traffic control plans as well as signing and striping plans for all City and developer funded roadway improvement projects.

- Oversaw preparation of a City wide traffic safety study of conditions at all schools.

- Prepared over 500 work orders directing City forces to install, modify, and/or remove traffic signs, pavement and curb markings, and roadway striping.

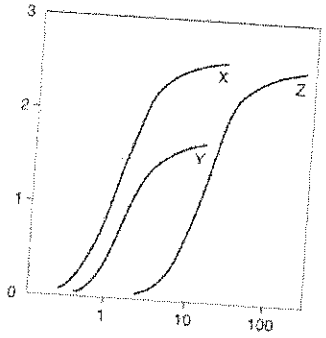
- Oversaw preparation of engineering and traffic surveys to establish enforceable speed limits on over 200 street segments.

- Reviewed and approved traffic impact studies for more than 25 major developments.

- Developed the Golf Cart Transportation Program and administrative procedures; implemented routes forming the initial baseline system.

Since forming Tom Brohard and Associates in 2000, Tom has reviewed many traffic impact reports and environmental documents for various development projects. He has provided expert witness services and also prepared traffic studies for public agencies and private sector clients.

ATTACHMENT B



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October 24, 2011

Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080-7037

Attn: Ms. Robyn Purchia

Subject: Comment Letter on Proposed 2580 El Camino Real Draft Environmental Impact Report

Dear Ms. Purchia:

At the request of Adams Broadwell Joseph and Cardozo (ABJC), Clark and Associates (Clark) has reviewed materials related to the above referenced project, including the Draft Environmental Impact Report (DEIR) prepared for the City of Redwood City. The applicant is proposing to redevelop the Mel's Bowl site, located at 2580 El Camino Real, Redwood City, CA, with a 141-unit apartment complex (56 DU/AC) residential development and a parking structure. The DEIR prepared for the project concludes that both construction of the project (construction phase) and residential living on the project site (operational phase) will have a less than significant impact on the environment and public health. These conclusions are premature and based upon a flawed analysis of the potential health risks at the site.

Documents reviewed by Clark for this analysis include:

1. City of Redwood City. 2011. Draft Environmental Impact Report, 2580 El Camino Real Project. August, 2011
2. Illingworth & Rodkin, Inc. 2011. 2580 El Camino Real Housing Development Community Risk (TAC) Assessment, Redwood City, California. Prepared for David J. Powers and Associates, Inc. Revised May 17, 2011.

3. BAAQMD. 2011. Recommended Methods for Screening and Modeling Local Risks and Hazards. Bay Area Air Quality Management District. May, 2011
4. BAAQMD. 2010. California Environmental Quality Act, Air Quality Guidelines. June, 2010.
5. BAAQMD. 2010. Screening Tables For Air Toxics Evaluation During Construction. May, 2010.

Clark's review of the materials in no way constitutes a validation of the conclusions or materials contained within the plan. If we do not comment on a specific item this does not constitute acceptance of the item.

Project Description

The 2.5-acre project site is located at 2580 El Camino Real (APN 059-16-009) in the City of Redwood City. The site is on the west side of El Camino Real between Center Street and Carlos Avenue.[1]

The proposed project would demolish an existing one-story commercial building (bowling alley and restaurant) totaling 42,200 square feet and construct a 141-unit apartment complex (56 DU/AC) and a parking structure. The project site would have a total of 232 parking spaces with 229 spaces in the parking structure and three surface parking spaces located adjacent to the leasing office.[2]

The parking structure would be located in the center of the site and would be four stories with five parking levels and a maximum height of 51 feet. The buildings would be set back 12 to 14 feet from El Camino Real,

[1] City of Redwood City. 2011. Draft Environmental Impact Report, 2580 El Camino Real Project. August, 2011

[2] City of Redwood City. 2011. Draft Environmental Impact Report, 2580 El Camino Real Project. August, 2011

35.5 feet on the southern boundary, 30 feet on the west boundary, and 30 to 41 feet on the north boundary. [3]

DEIR Analysis

The DEIR was issued prematurely without considering the serious flaws in the Proponent's analysis of the project, and these flaws are replicated in the DEIR. The flaws include:

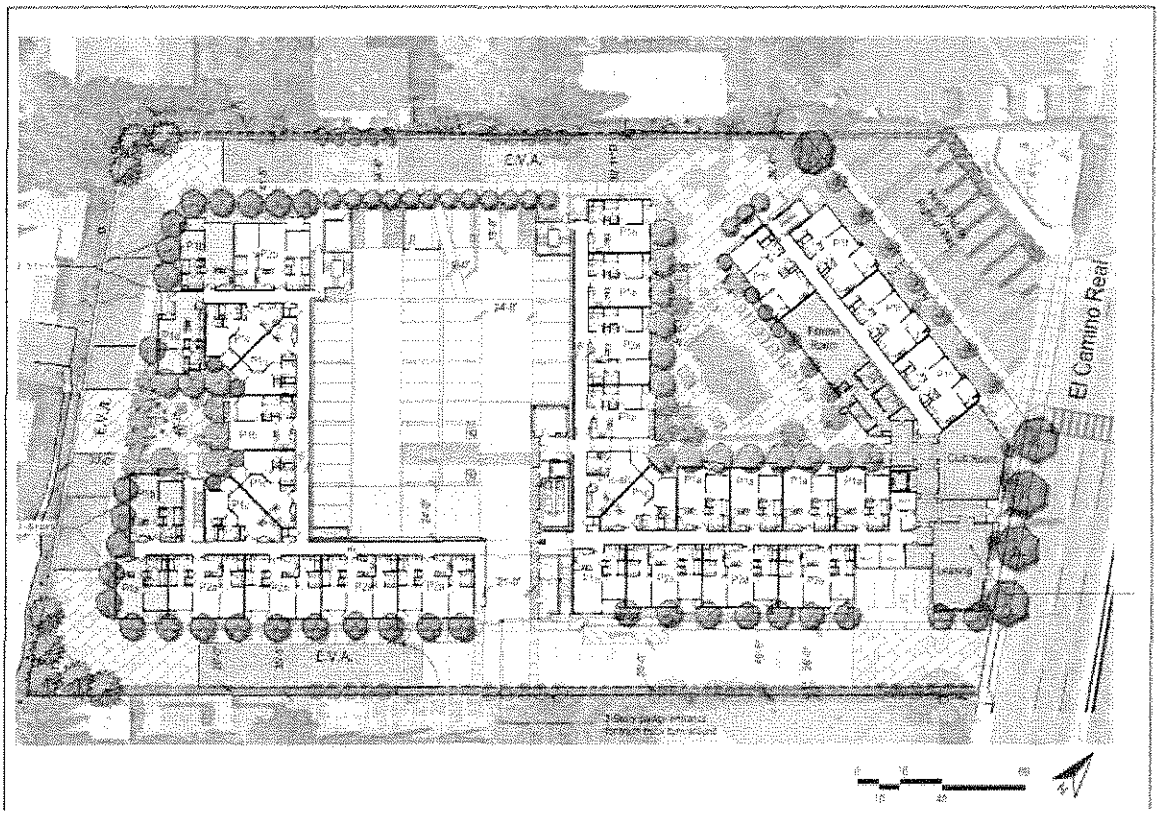
1. The DEIR's health risk assessment is flawed and fails to accurately determine the potential health risks to new residential receptors during project operation;
2. The DEIR's health risk assessment is flawed and fails to accurately determine the potential health risks during project construction;
3. The DEIR fails to describe all air pollution sources in the Project area;
4. The modeling data relied upon by the City does not conform with U.S. EPA guidance and fails to provide a complete description of air emission associated with the Project; and
5. The DEIR fails to disclose impacts to sensitive residential receptors near the Project site.

I. The DEIR's Roadway Community Risk Impacts Assessment Is Flawed and Fails to Accurately Determine the Potential Health Risks to New Residential Receptors During Project Operation

[3] City of Redwood City. 2011. Draft Environmental Impact Report, 2580 El Camino Real Project. August, 2011

Attachment 1 to the Community Risk impact Assessment does not contain an accurate assessment of the potential health risks to new residential receptors on the Project site. According to Clark's measurements, the project configuration places residential properties within 40 to 80 feet of the roadway. Based upon the BAAQMD's Risk and Hazard Screening Analysis (2011), and Clark calculations, the risk for residents will exceed 10 in 1,000,000. Because the modeling in Attachment 1 to the Community Risk Assessment is flawed, the City should not rely on it to determine the Project's impacts.

Figure 1: Project Site Plan



BAAQMD has compiled a set of $PM_{2.5}$, cancer risk, and hazard values based upon the highway's distance from a project. This evaluation includes estimates of the AADT for major roadways with at least 10,000

AADT. Immediately adjacent to the project is El Camino Real with an estimated AADT of 48,000. The figure below shows that risk for residents within approximately 80 feet of the roadway will be exposed to risks in excess of 10 in 1,000,000.

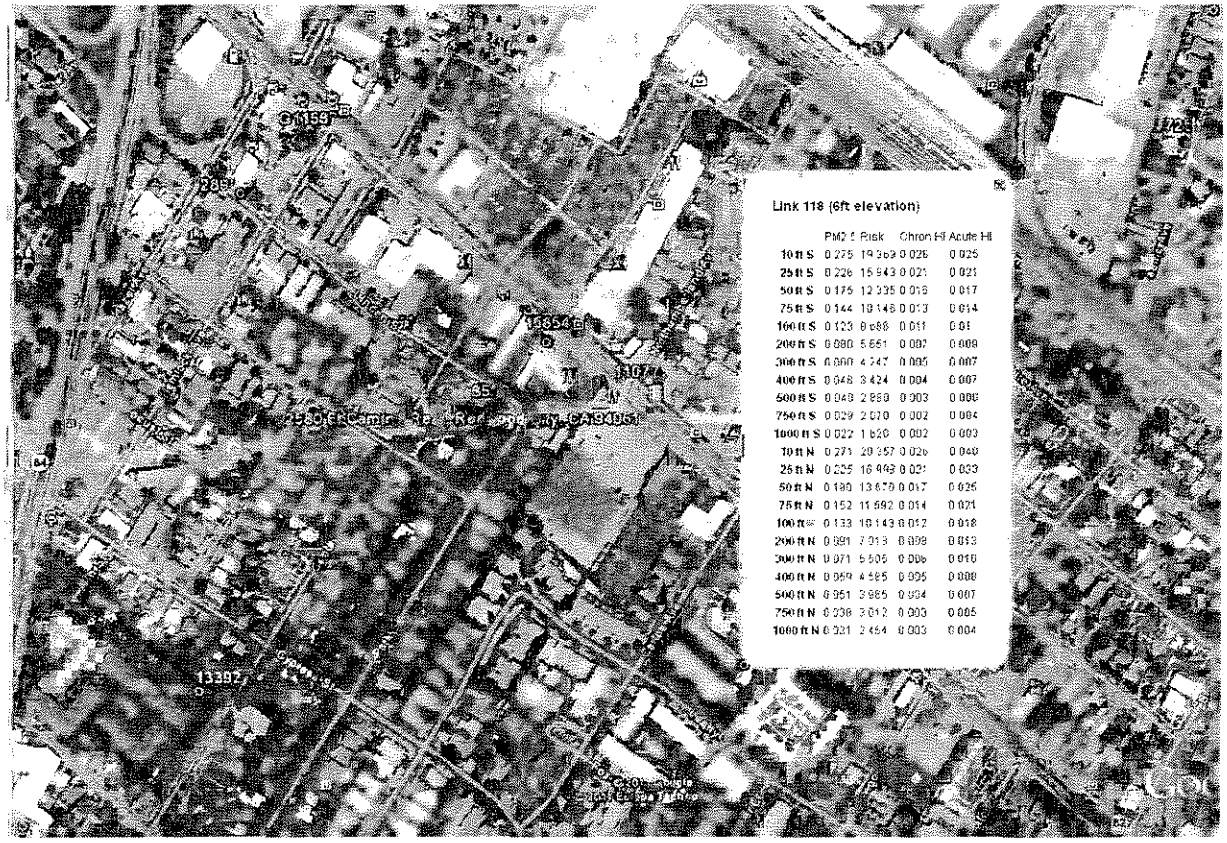


Figure 2: BAAQMD Estimate of Cancer Risk From Roadway Emissions Along El Camino Real, Redwood City, CA.

In addition, Clark calculated that the exposure risk to new receptors is almost 13 in 1,000,000. This is higher than the proponent's flawed calculation of 9.4 in 1,000,000. Flaws in the proponent's analysis that lead to the discrepancy include the use of a cancer risk adjustment factor (CRAF) of 1.0, a misapplication of the age sensitivity factor (ASF) as a "periodic adjustment factor" that reduce the potential risk, and a failure to incorporate age appropriate cancer weighting factors.

According to new BAAQMD guidance, calculations of cancer risk estimates should include (ASF.[4] OEHHA recommends weighting cancer risk by a factor of 10 for exposure that occur from the third trimester of pregnancy to 2 years of age, and by a factor of 3 for exposure that occur from 2 years through 15 years of age.[5] For estimating cancer risk for residential receptors, the incorporation of ASFs results in a CRAF of 1.7.

A reanalysis of the potential health risk by Clark using the cancer weighting factors (assuming that the dispersion modeling of the roadway emissions was accurate) shows a total risk of 12.7 in 1,000,000.

Year	Exposure Duration	DPM Concentration (ug/m^3)	Exposure Factor Adjustment	Risk (per million)
0	1	0.0224	10	1.961074
1	1	0.0186	10	1.628392
2	1	0.0186	10	1.628392
3	1	0.0186	3	0.488518
4	1	0.0186	3	0.488518
5	1	0.0186	3	0.488518
6	1	0.0127	3	0.333558
7	1	0.0127	3	0.333558
8	1	0.0127	3	0.333558
9	1	0.0127	3	0.333558
10	1	0.0127	3	0.333558
11	1	0.0108	3	0.283655
12	1	0.0108	3	0.283655
13	1	0.0108	3	0.283655
14	1	0.0108	3	0.283655
15	1	0.0108	3	0.283655
16	1	0.0108	3	0.283655
17	1	0.0108	1	0.049147

[4] BAAQMD. 2011. Recommended Methods for Screening and Modeling Local Risks and Hazards. Bay Area Air Quality Management District. May, 2011

[5] BAAQMD. 2011. Recommended Methods for Screening and Modeling Local Risks and Hazards. Bay Area Air Quality Management District. May, 2011

Year	Exposure Duration	DPM Concentration (ug/m^3)	Exposure Factor Adjustment	Risk (per million)
18	1	0.0108	1	0.049147
19	1	0.0108	1	0.049147
20	1	0.0108	1	0.049147
21	1	0.0108	1	0.049147
22	1	0.0108	1	0.049147
23	1	0.0108	1	0.049147
24	1	0.0108	1	0.049147
25	1	0.0108	1	0.049147
26	1	0.0108	1	0.049147
27	1	0.0108	1	0.049147
28	1	0.0108	1	0.049147
29	1	0.0108	1	0.049147
30	1	0.0108	1	0.049147
31	1	0.0108	1	0.049147
32	1	0.0108	1	0.049147
33	1	0.0108	1	0.049147
34	1	0.0108	1	0.049147
35	1	0.0108	1	0.049147
36	1	0.0108	1	0.049147
37	1	0.0108	1	0.049147
38	1	0.0108	1	0.049147
39	1	0.0108	1	0.049147
40	1	0.0108	1	0.049147
41	1	0.0108	1	0.049147
42	1	0.0108	1	0.049147
43	1	0.0108	1	0.049147
44	1	0.0108	1	0.049147
45	1	0.0108	1	0.049147
46	1	0.0108	1	0.049147
47	1	0.0108	1	0.049147
48	1	0.0108	1	0.049147
49	1	0.0108	1	0.049147
50	1	0.0108	1	0.049147
51	1	0.0108	1	0.049147
52	1	0.0108	1	0.049147
53	1	0.0108	1	0.049147
54	1	0.0108	1	0.049147
55	1	0.0108	1	0.049147
56	1	0.0108	1	0.049147
57	1	0.0108	1	0.049147
58	1	0.0108	1	0.049147
59	1	0.0108	1	0.049147
60	1	0.0108	1	0.049147

Year	Exposure Duration	DPM Concentration (ug/m^3)	Exposure Factor Adjustment	Risk (per million)
61	1	0.0108	1	0.049147
62	1	0.0108	1	0.049147
63	1	0.0108	1	0.049147
64	1	0.0108	1	0.049147
65	1	0.0108	1	0.049147
66	1	0.0108	1	0.049147
67	1	0.0108	1	0.049147
68	1	0.0108	1	0.049147
69	1	0.0108	1	0.049147
70	1	0.0108	1	0.049147
	Cumulative Risk			12.70709

The proponents should re-evaluate the risk from roadway emissions at the proposed site for diesel particulate matter (DPM) and toxic air contaminants (TACs) and re-submit the analysis in a revised EIR for the project.

II. The DEIR's Health Risk Assessment Is Flawed and Fails to Accurately Determine the Potential Health Risks During Project Construction

The DEIR is inadequate and fails to characterize the true emissions from the demolition and construction phases of the project adequately. In addition to criteria pollutants emitted from the site during each phase, significant amounts of TACs will be emitted during each phase. According to the proponent's assessment, nearly 3 tons of reactive organic gases (ROGs) and as well as tons of Criteria Pollutants including particulate matter, oxides of nitrogen (NOx), oxides of sulfur (SOx), and carbon monoxide (CO) will be emitted at the site[6] during the construction

[6] Illingworth & Rodkin, Inc. 2011. 2580 El Camino Real Housing Development Community Risk (TAC) Assessment, Redwood City, California. Prepared for David J. Powers and Associates, Inc. Revised May 17, 2011

phase. For purposes of analyzing health risks for the project, ROGs are assumed to be equivalent to TACs. In the proponent's analysis of risk from construction activities (Attachment 2 of the Risk (TAC) Assessment of the project[7]), only the DPM cancer risk is calculated. The proponents are obligated to quantify all of the risks associated with the construction phase including risks from TACs. The risk from all TACs should be quantified for the SEIR.

The importance of accurately detailing potential health risks from construction activities is evident when one considers the types of toxins released at construction site. Diesel exhaust contains nearly 40 toxic substances (which may include toxic metals, human carcinogens, and neurotoxins) and may pose a serious public health risk for residents in the vicinity of the proposed project. Tailpipe emissions and evaporative losses from internal combustion engine using gasoline also contain a number of volatile chemicals that are known to the State of California to have serious health impacts, including reproductive effects, chronic and acute health impacts, and may lead to the development of cancer. Toxic chemicals identified by BAAQMD [8] in tailpipe emissions and evaporative losses from internal combustion engines include acetaldehyde, acrolein, benzene, 1,3-butadiene, ethylbenzene, formaldehyde, hexane, methanol, methyl ethyl ketone, naphthalene, propylene, styrene, toluene, and xylenes. Exposure to each of these chemicals has been linked to a host of serious health problems including an increase in respiratory disease, lung damage, cancer, and premature death.

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[7] Illingworth & Rodkin, Inc. 2011. 2580 El Camino Real Housing Development Community Risk (TAC) Assessment, Redwood City, California. Prepared for David J. Powers and Associates, Inc. Revised May 17, 2011

[8] BAAQMD. 2011. Recommended Methods for Screening and Modeling Local Risks and Hazards. Bay Area Air Quality Management District. May, 2011

A recent analysis found that air pollution from construction equipment is already taking a heavy toll on the health and economic well-being of Californians. This study found that the San Francisco Bay Area air basin is second only to the Los Angeles area in health and economic damage from construction equipment emissions. For 2005, this includes estimates of more than 150 premature deaths, 100 hospitalizations for respiratory and cardio-vascular disease, more than 280 cases of acute bronchitis, 3,000 incidences of asthma attacks and other lower respiratory symptoms, 44,000 days of lost work and school absences, and well over 100,000 days of restricted activity. This loss of life and productivity cost the residents of the San Francisco Bay Area air basin an estimated $1.2 billion.[9]

The proponents have failed to clearly identify the all of the TACs that will be released at the site and have not adequately addressed their impacts on the surrounding community. The proponents should revise their analysis, detail what is being released from the site, and calculate the health impacts from the releases in a SEIR.

III. DEIR Fails To Describe All Air Pollution Sources In the Project Area

The proponents have failed to identify all significant air pollution sources in the area (See Figure 2). Immediately north of the site (approximately 200 feet) is a large shopping mall and large parking lot that covers approximately 1,000 feet x 1,000 feet. Immediately north and east of the site (approximately 1,023 feet), a major railroad spur exists.

[9] Union of Concerned Scientists, Digging up Trouble: Construction Pollution in the Bay Area; http://www.ucsusa.org/assets/documents/clean_vehicles/Bay-Area-Fact-Sheet.pdf, accessed March 27, 2008.

Stationary sources within 1,000 feet of the project site include a number automobile repair shops and commercial buildings with large parking lots. Several dry cleaning operations reside within 1,050 feet of the proposed project boundaries. The concentration of businesses in proximity to the proposed project warrants a more detailed analysis of their potential impacts on the proposed project. No analysis was performed by the proponent regarding the impacts of these projects on the air quality at the project site. In my opinion, these additional sources will add to the overall TACs concentration that new residents of the Project site and current residents of the surrounding homes will be exposed to on a continuous basis.

IV. The Modeling Data Relied Upon By the City Does Not Conform With USEPA Guidance and Fails to Provide a Complete Description Of Air Emission Associated With the Project

The proponents have failed to use the preferred air dispersion model (AERMOD) for determining the ground level concentration of contaminants at the site and in the community. On November 9, 2005, U. S. EPA noted in the Federal Register that beginning November 9, 2006, the new model—AERMOD— *should be* used for appropriate application as replacement for ISC3.[10] As a New Source, the project should be subject to the same modeling restrictions as others in the area, therefore the project should have been modeled using AERMOD. Guidance from BAAQMD notes that "overall, AERMOD was designed to be the next

[10] Federal Register. 2005. 40 CFR Part 51. Revision to the Guideline on Air Quality Models: Adoption of a Preferred General Purpose (Flat and Complex Terrain) Dispersion Model and Other Revisions: Final Rule. Wednesday, November 9, 2005.

generation model that builds on formats already established in the ISC models."[11]

Reliance on ISC3, a less robust and less accurate model, is counter productive to the analysis of impacts for the project. U.S. EPA specifically recommends the use of AERMOD because it is scientifically superior to ISC3. According to the U.S. EPA[12], AERMOD represents sound and significant advances over ISC3ST.[13] Findings of the peer review panel suggest that AERMOD's scientific basis is "state-of-the-science." Finally, U.S. EPA noted that the adequacy of AERMOD's complex terrain approach for regulatory applications is seen most directly in its performance. AERMOD's complex terrain component has been evaluated extensively by comparing model-estimated regulatory design values and concentration frequency distributions with observations. These comparisons have demonstrated AERMOD's superiority to ISC3ST and CTDMPLUS (Complex Terrain Dispersion Model PLUS unstable algorithms) in estimating those flat and complex terrain impacts of greatest regulatory importance.[14] Proponents should re-analyze the impacts of the project using the most robust model available. In my

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[11] BAAQMD. 2011. Recommended Methods for Screening and Modeling Local Risks and Hazards. Bay Area Air Quality Management District. May, 2011

[12] Federal Register. 2005. 40 CFR Part 51. Revision to the Guideline on Air Quality Models: Adoption of a Preferred General Purpose (Flat and Complex Terrain) Dispersion Model and Other Revisions: Final Rule. Wednesday, November 9, 2005.

[13] Federal Register. 2005. 40 CFR Part 51. Revision to the Guideline on Air Quality Models: Adoption of a Preferred General Purpose (Flat and Complex Terrain) Dispersion Model and Other Revisions: Final Rule. Wednesday, November 9, 2005.

[14] Federal Register. 2005. 40 CFR Part 51. Revision to the Guideline on Air Quality Models: Adoption of a Preferred General Purpose (Flat and Complex Terrain) Dispersion Model and Other Revisions: Final Rule. Wednesday, November 9, 2005.

opinion, the City's use of ISC3 does not provide an accurate picture of Project's impacts on the potential residents of the Project and the surrounding community.

VI. The DEIR Fails To Disclose Impacts to Sensitive Residential Receptors Near the Project Site

The Project may cause significant impacts to sensitive receptors near the Project site during Project construction and operation phases. First, according to BAAQMD guidance, residential developments of this proposed project size require a minimum offset distance from the project fence line to sensitive receptors of at least 7 to 100 meters (Table 2 of 2010 guidance).[15] The nearest sensitive receptor to the project (adjacent residential property) is less than 7 meters from the fenceline. Thus, the Project does not comply with BAAQMD guidance and will have significant impact on the nearby residences during the construction and operational phases which are not adequately documented in the DEIR.

In addition, the City's analysis of potential health impacts during the construction phase (Attachment 2) shows that over the 2 ¼ years that construction is expected to occur, the risk from DPM to nearby residents is expected to reach 9 in 1,000,000 from construction activities alone. The analysis fails to consider the existing burden on the residences from roadway emission which are between 5 in 1,000,000 and 8 in 1,000,000 for residences immediately adjacent to the project. The cumulative impact from construction activities and roadway emissions for residences adjacent to the proposed project would therefore exceed the 10 in 1,000,000 threshold cited in the City's analysis. The City should revise its analysis

[15] BAAQMD. 2010. Screening Tables For Air Toxics Evaluation During Construction. May, 2010

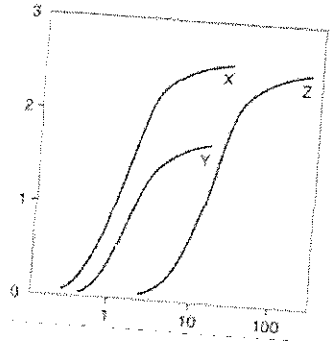
of the impacts the Project will have and propose effective mitigation measures to reduce the potential impacts in a SEIR.

Conclusion

The analysis performed by the proponents of the health risk analysis of DPM and TAC fails to accurately describe the potential impacts at the project site. In my opinion, project construction and operation may have significant impacts that were not analyzed or mitigated in the DEIR. The proponents must re-analyze the impacts in a SEIR that accurately estimates the impacts. This concludes my comments.

Sincerely,

James Clark, Ph.D.



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Risk Assessment/Analysis/Dispersion Modeling

Education:

Ph.D., Environmental Health Science, University of California, 1995

M.S., Environmental Health Science, University of California, 1993

B.S., Biophysical and Biochemical Sciences, University of Houston, 1987

Professional Experience:

Dr. Clark is a well recognized toxicologist, air modeler, and health scientist. He has 20 years of experience in researching the effects of environmental contaminants on human health including environmental fate and transport modeling (SCREEN3, AEROMOD, ISCST3, Johnson-Ettinger Vapor Intrusion Modeling); exposure assessment modeling (partitioning of contaminants in the environment as well as PBPK modeling); conducting and managing human health risk assessments for regulatory compliance and risk-based clean-up levels; and toxicological and medical literature research.

Significant projects performed by Dr. Clark include the following:

LITIGATION SUPPORT

Case: Rose Roper V. Nissan North America, et al. Superior Court Of The State Of California For The County Of Los Angeles – Central Civil West. Civil Action . NC041739

Client: Rose, Klein, Marias, LLP, Long Beach, California

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to multiple chemicals, including benzene, who later developed a respiratory distress. A review of the individual's medical and occupational history was performed to prepare an exposure assessment. The exposure assessment was evaluated against the known

outcomes in published literature to exposure to respiratory irritants. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: O'Neil V. Sherwin Williams, et al. United States District Court Central District Of California

Client: Rose, Klein, Marias, LLP, Long Beach, California

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to petroleum distillates who later developed a bladder cancer. A review of the individual's medical and occupational history was performed to prepare a quantitative exposure assessment. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Summary judgement for defendants.

Case: Moore V., Shell Oil Company, et al. Superior Court Of The State Of California For The County Of Los Angeles

Client: Rose, Klein, Marias, LLP, Long Beach, California

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to chemicals while benzene who later developed a leukogenic disease. A review of the individual's medical and occupational history was performed to prepare a quantitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to refined petroleum hydrocarbons. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Raymond Saltonstall V. Fuller O'Brien, KILZ, and Zinsser, et al. United States District Court Central District Of California

Client: Rose, Klein, Marias, LLP, Long Beach, California

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to benzene who later developed a leukogenic disease. A review of the individual's medical and occupational history was performed to prepare a quantitative exposure

assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to refined petroleum hydrocarbons. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Richard Boyer and Elizabeth Boyer, husband and wife, V. DESCO Corporation, et al. Circuit Court of Brooke County, West Virginia. Civil Action Number 04-C-7G.

Client: Frankovitch, Anetakis, Colantonio & Simon, Morgantown, West Virginia.

Dr. Clark performed a toxicological assessment of a family exposed to chlorinated solvents released from the defendant's facility into local drinking water supplies. A review of the individual's medical and occupational history was performed to prepare a qualitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to chlorinated solvents. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: JoAnne R. Cook, V. DESCO Corporation, et al. Circuit Court of Brooke County, West Virginia. Civil Action Number 04-C-9R

Client: Frankovitch, Anetakis, Colantonio & Simon, Morgantown, West Virginia.

Dr. Clark performed a toxicological assessment of an individual exposed to chlorinated solvents released from the defendant's facility into local drinking water supplies. A review of the individual's medical and occupational history was performed to prepare a qualitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to chlorinated solvents. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Patrick Allen And Susan Allen, husband and wife, and Andrew Allen, a minor, V. DESCO Corporation, et al. Circuit Court of Brooke County, West Virginia. Civil Action Number 04-C-W

Client: Frankovitch, Anetakis, Colantonio & Simon, Morgantown, West Virginia.

Dr. Clark performed a toxicological assessment of a family exposed to chlorinated solvents released from the defendant's facility into local drinking water supplies. A review of the individual's medical and occupational history was performed to prepare a qualitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to chlorinated solvents. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Michael Fahey, Susan Fahey V. Atlantic Richfield Company, et al. United States District Court Central District Of California Civil Action Number CV-06 7109 JCL.

Client: Rose, Klein, Marias, LLP, Long Beach, California

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to refined petroleum hydrocarbons who later developed a leukogenic disease. A review of the individual's medical and occupational history was performed to prepare a qualitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to refined petroleum hydrocarbons. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Tanya Drummond V. E.I. Dupont De Nemours and Company, Meadowbrook Corporation, Mattheissen & Hegler Zinc Company Inc, Nuzum Trucking Company, T.L. Diamond & Company, Inc., and Joseph Paushel, Circuit Court of Harrison County, West Virginia. Civil Action Number 04-C-296-2.

Client: Cochran, Cherry, Givens, Smith, Lane & Taylor, P.C., Dothan, Alabama

Dr. Clark performed a comprehensive exposure assessment of a plaintiff exposed to toxic metals from a former zinc smelting facility. The site has undergone a CERCLA mandated removal action/remediation for the presence of the toxic metals. Intensive modeling results (from physical and numerical models) were used to determine a daily dose of metals in the plaintiff over a life time of exposure along with a causal analysis to determine the contribution of the toxic metals to the renal carcinomas the plaintiff died from.

Case Result: Settlement in favor of plaintiff.

Case: City of Stockton v. BNSF Railway Co., et al. Eastern District of California, Case No. 2:05-CV-02087

Dr. Clark offered opinions regarding the potential health risks from exposure to chemicals present in and emanating from the soil and into the air at a site formerly operated by the defendant using the regulatory guidance framework from USEPA and DTSC. The evaluation was designed to establish cleanup goals based upon the current and future land uses of the Site. A second objective was to evaluate whether current conditions at the Site put patrons and staff of the Children's Museum at an elevated potential health risk from exposure to chemicals present in and emanating from the soil and into the air at the Site.

Case Result: Judgement in favor of plaintiff.

Case: Constance Acevedo, et al., V. California Spray-Chemical Company, et al., Superior Court Of The State Of California, County Of Santa Cruz. Case No. CV 146344

Dr. Clark performed a comprehensive exposure assessment of community members exposed to toxic metals from a former lead arsenate manufacturing facility. The former manufacturing site had undergone a DTSC mandated removal action/remediation for the presence of the toxic metals at the site. Opinions were presented regarding the elevated levels of arsenic and lead (in attic dust and soils) found throughout the community and the potential for harm to the plaintiffs in question.

Case Result: Settlement in favor of defendant.

Case: Lori Lynn Moss and Rand Moss, et al. V. Venoco, Inc. et al. Superior Court of the State of California, County of Los Angeles, Central Civil West. Case Number BC 297083

Client: Baron & Budd, PC. Dallas, TX.

Dr. Clark performed a comprehensive exposure assessment of plaintiffs (former students at a school adjacent to the plant) to dioxin-like compounds from a large urban electrical utility generator and from multiple oil and gas production facilities adjacent to an active school. Modeling of emissions has confirmed that emissions from the facilities have impacted the school, resulting in significant exposure to carcinogens and neurotoxins. Intensive modeling results (from physical and numerical models) were used to determine a daily dose of contaminants from multiple sites over decades of exposure.

Case Result: Under Appeal.

Case: Michael Nawrocki V. The Coastal Corporation, Kurk Fuel Company, Pautler Oil Service, State of New York Supreme Court, County of Erie, Index Number I2001-11247

Client: Richard G. Berger Attorney At Law, Buffalo, New York

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to refined petroleum hydrocarbons who later developed a leukogenic disease. A review of the individual's medical and occupational history was performed to prepare a qualitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to refined petroleum hydrocarbons. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Judgement in favor of defendant.

Case: RFI et al., V. City of Santa Clarita, Superior Court of the State of California, County of Los Angeles

Client: City of Santa Clarita, Santa Clarita, California

Dr. Clark provided testimony regarding the characterization, remediation and development activities of a former 1,000 acre munitions manufacturing facility. The site is impacted with a number of contaminants including perchlorate, unexploded ordinance, and volatile organic compounds (VOCs). The site is currently under a number of regulatory consent orders, including an Immanent and Substantial Endangerment Order. Dr. Clark provided depositional testimony and trial testimony on the extent of contamination in the subsurface and groundwater, the migration of contaminants offsite, and cost estimates for remediating the contamination.

Case Result: Under Appeal.

Case: Costco Wholesale Corporation, etc, V. San Francisco Bay Area Rapid Transit District, etc., et. al., Superior Court of the State of California For the County of San Mateo

Dr. Clark evaluated analytical laboratory results to determine whether remediation efforts by the plaintiff were necessary based on the proposed site land use. Deposition testimony

was offered on the composition of petroleum hydrocarbons in the subsurface at the site, clean-up standards, and the necessity of remediation.

Case Result: Settlement in favor of defendant.

SELECTED AIR MODELING RESEARCH/PROJECTS

Client – Confidential

Dr. Clark performed a comprehensive evaluation of criteria pollutants, air toxins, and particulate matter emissions from a carbon black production facility to determine the impacts on the surrounding communities. The results of the dispersion model will be used to estimate acute and chronic exposure concentrations to multiple contaminants and will be incorporated into a comprehensive risk evaluation.

Client – Confidential

Dr. Clark performed a comprehensive evaluation of air toxins and particulate matter emissions from a railroad tie manufacturing facility to determine the impacts on the surrounding communities. The results of the dispersion model have been used to estimate acute and chronic exposure concentrations to multiple contaminants and have been incorporated into a comprehensive risk evaluation.

Client – Los Angeles Alliance for a New Economy (LAANE), Los Angeles, California

Dr. Clark is advising the LAANE on air quality issues related to current flight operations at the Los Angeles International Airport (LAX) operated by the Los Angeles World Airport (LAWA) Authority. He is working with the LAANE and LAX staff to develop a comprehensive strategy for meeting local community concerns over emissions from flight operations and to engage federal agencies on the issue of local impacts of community airports.

Client – City of Santa Monica, Santa Monica, California

Dr. Clark is advising the City of Santa Monica on air quality issues related to current flight operations at the facility. He is working with the City staff to develop a

comprehensive strategy for meeting local community concerns over emissions from flight operations and to engage federal agencies on the issue of local impacts of community airports.

Client: Omnitrans, San Bernardino, California

Dr. Clark managed a public health survey of three communities near transit fueling facilities in San Bernardino and Montclair California in compliance with California Senate Bill 1927. The survey included an epidemiological survey of the effected communities, emission surveys of local businesses, dispersion modeling to determine potential emission concentrations within the communities, and a comprehensive risk assessment of each community. The results of the study were presented to the Governor as mandated by Senate Bill 1927.

Client: Confidential, San Francisco, California

Summarized cancer types associated with exposure to metals and smoking. Researched the specific types of cancers associated with exposure to metals and smoking. Provided causation analysis of the association between cancer types and exposure for use by non-public health professionals.

Client: Confidential, Minneapolis, Minnesota

Prepared human health risk assessment of workers exposed to VOCs from neighboring petroleum storage/transport facility. Reviewed the systems in place for distribution of petroleum hydrocarbons to identify chemicals of concern (COCs), prepared comprehensive toxicological summaries of COCs, and quantified potential risks from carcinogens and non-carcinogens to receptors at or adjacent to site. This evaluation was used in the support of litigation.

Client – United Kingdom Environmental Agency

Dr. Clark is part of team that performed comprehensive evaluation of soil vapor intrusion of VOCs from former landfill adjacent residences for the United Kingdom's Environment Agency. The evaluation included collection of liquid and soil vapor samples at site, modeling of vapor migration using the Johnson Ettinger Vapor Intrusion model, and calculation of site-specific health based vapor thresholds for chlorinated solvents, aromatic hydrocarbons, and semi-volatile organic compounds. The evaluation also

included a detailed evaluation of the use, chemical characteristics, fate and transport, and toxicology of chemicals of concern (COC). The results of the evaluation have been used as a briefing tool for public health professionals.

EMERGING/PERSISTENT CONTAMINANT RESEARCH/PROJECTS

Client: Ameren Services, St. Louis, Missouri

Managed the preparation of a comprehensive human health risk assessment of workers and residents at or near an NPL site in Missouri. The former operations at the Property included the servicing and repair of electrical transformers, which resulted in soils and groundwater beneath the Property and adjacent land becoming impacted with PCB and chlorinated solvent compounds. The results were submitted to U.S. EPA for evaluation and will be used in the final ROD.

Client: City of Santa Clarita, Santa Clarita, California

Dr. Clark is managing the oversight of the characterization, remediation and development activities of a former 1,000 acre munitions manufacturing facility for the City of Santa Clarita. The site is impacted with a number of contaminants including perchlorate, unexploded ordinance, and volatile organic compounds (VOCs). The site is currently under a number of regulatory consent orders, including an Immanent and Substantial Endangerment Order. Dr. Clark is assisting the impacted municipality with the development of remediation strategies, interaction with the responsible parties and stakeholders, as well as interfacing with the regulatory agency responsible for oversight of the site cleanup.

Client: Confidential, Los Angeles, California

Prepared comprehensive evaluation of perchlorate in environment. Dr. Clark evaluated the production, use, chemical characteristics, fate and transport, toxicology, and remediation of perchlorate. Perchlorates form the basis of solid rocket fuels and have recently been detected in water supplies in the United States. The results of this research were presented to the USEPA, National GroundWater, and ultimately published in a recent book entitled *Perchlorate in the Environment.*

Client – Confidential, Los Angeles, California

Dr. Clark is performing a comprehensive review of the potential for pharmaceuticals and their by-products to impact groundwater and surface water supplies. This evaluation will include a review if available data on the history of pharmaceutical production in the United States; the chemical characteristics of various pharmaceuticals; environmental fate and transport; uptake by xenobiotics; the potential effects of pharmaceuticals on water treatment systems; and the potential threat to public health. The results of the evaluation may be used as a briefing tool for non-public health professionals.

PUBLIC HEALTH/TOXICOLOGY

Client: Brayton Purcell, Novato, California

Dr. Clark performed a toxicological assessment of residents exposed to methyl-tertiary butyl ether (MTBE) from leaking underground storage tanks (LUSTs) adjacent to the subject property. The symptomology of residents and guests of the subject property were evaluated against the known outcomes in published literature to exposure to MTBE. The study found that residents had been exposed to MTBE in their drinking water; that concentrations of MTBE detected at the site were above regulatory guidelines; and, that the symptoms and outcomes expressed by residents and guests were consistent with symptoms and outcomes documented in published literature.

Client: Confidential, San Francisco, California

Identified and analyzed fifty years of epidemiological literature on workplace exposures to heavy metals. This research resulted in a summary of the types of cancer and non-cancer diseases associated with occupational exposure to chromium as well as the mortality and morbidity rates.

Client: Confidential, San Francisco, California

Summarized major public health research in United States. Identified major public health research efforts within United States over last twenty years. Results were used as a briefing tool for non-public health professionals.

Client: Confidential, San Francisco, California

Quantified the potential multi-pathway dose received by humans from a pesticide applied indoors. Part of team that developed exposure model and evaluated exposure

concentrations in a comprehensive report on the plausible range of doses received by a specific person. This evaluation was used in the support of litigation.

Client: Covanta Energy, Westwood, California

Evaluated health risk from metals in biosolids applied as soil amendment on agricultural lands. The biosolids were created at a forest waste cogeneration facility using 96% whole tree wood chips and 4 percent green waste. Mass loading calculations were used to estimate Cr(VI) concentrations in agricultural soils based on a maximum loading rate of 40 tons of biomass per acre of agricultural soil. The results of the study were used by the Regulatory agency to determine that the application of biosolids did not constitute a health risk to workers applying the biosolids or to residences near the agricultural lands.

Client – United Kingdom Environmental Agency

Oversaw a comprehensive toxicological evaluation of methyl-*tertiary* butyl ether (M*t*BE) for the United Kingdom's Environment Agency. The evaluation included available data on the production, use, chemical characteristics, fate and transport, toxicology, and remediation of M*t*BE. The results of the evaluation have been used as a briefing tool for public health professionals.

Client – Confidential, Los Angeles, California

Prepared comprehensive evaluation of *tertiary* butyl alcohol (TBA) in municipal drinking water system. TBA is the primary breakdown product of M*t*BE, and is suspected to be the primary cause of M*t*BE toxicity. This evaluation will include available information on the production, use, chemical characteristics, fate and transport in the environment, absorption, distribution, routes of detoxification, metabolites, carcinogenic potential, and remediation of TBA. The results of the evaluation were used as a briefing tool for non-public health professionals.

Client – Confidential, Los Angeles, California

Prepared comprehensive evaluation of methyl *tertiary* butyl ether (MTBE) in municipal drinking water system. MTBE is a chemical added to gasoline to increase the octane rating and to meet Federally mandated emission criteria. The evaluation included available data on the production, use, chemical characteristics, fate and transport,

toxicology, and remediation of MTBE. The results of the evaluation have been were used as a briefing tool for non-public health professionals.

Client – Ministry of Environment, Lands & Parks, British Columbia

Dr. Clark assisted in the development of water quality guidelines for methyl tertiary-butyl ether (MTBE) to protect water uses in British Columbia (BC). The water uses to be considered includes freshwater and marine life, wildlife, industrial, and agricultural (e.g., irrigation and livestock watering) water uses. Guidelines from other jurisdictions for the protection of drinking water, recreation and aesthetics were to be identified.

Client: Confidential, Los Angeles, California

Prepared physiologically based pharmacokinetic (PBPK) assessment of lead risk of receptors at middle school built over former industrial facility. This evaluation is being used to determine cleanup goals and will be basis for regulatory closure of site.

Client: Kaiser Venture Incorporated, Fontana, California

Prepared PBPK assessment of lead risk of receptors at a 1,100-acre former steel mill. This evaluation was used as the basis for granting closure of the site by lead regulatory agency.

RISK ASSESSMENTS/REMEDIAL INVESTIGATIONS

Client: Confidential, Atlanta, Georgia

Researched potential exposure and health risks to community members potentially exposed to creosote, polycyclic aromatic hydrocarbons, pentachlorophenol, and dioxin compounds used at a former wood treatment facility. Prepared a comprehensive toxicological summary of the chemicals of concern, including the chemical characteristics, absorption, distribution, and carcinogenic potential. Prepared risk characterization of the carcinogenic and non-carcinogenic chemicals based on the exposure assessment to quantify the potential risk to members of the surrounding community. This evaluation was used to help settle class-action tort.

Client: Confidential, Escondido, California

Prepared comprehensive Preliminary Endangerment Assessment (PEA) of dense non-aqueous liquid phase hydrocarbon (chlorinated solvents) contamination at a former printed circuit board manufacturing facility. This evaluation was used for litigation support and may be used as the basis for reaching closure of the site with the lead regulatory agency.

Client: Confidential, San Francisco, California

Summarized epidemiological evidence for connective tissue and autoimmune diseases for product liability litigation. Identified epidemiological research efforts on the health effects of medical prostheses. This research was used in a meta-analysis of the health effects and as a briefing tool for non-public health professionals.

Client: Confidential, Bogotá, Columbia

Prepared comprehensive evaluation of the potential health risks associated with the redevelopment of a 13.7 hectares plastic manufacturing facility in Bogotá, Colombia The risk assessment was used as the basis for the remedial goals and closure of the site.

Client: Confidential, Los Angeles, California

Prepared comprehensive human health risk assessment of students, staff, and residents potentially exposed to heavy metals (principally cadmium) and VOCs from soil and soil vapor at 12-acre former crude oilfield and municipal landfill. The site is currently used as a middle school housing approximately 3,000 children. The evaluation determined that the site was safe for the current and future uses and was used as the basis for regulatory closure of site.

Client: Confidential, Los Angeles, California

Managed remedial investigation (RI) of heavy metals and volatile organic chemicals (VOCs) for a 15-acre former manufacturing facility. The RI investigation of the site included over 800 different sampling locations and the collection of soil, soil gas, and groundwater samples. The site is currently used as a year round school housing approximately 3,000 children. The Remedial Investigation was performed in a manner that did not interrupt school activities and met the time restrictions placed on the project by the overseeing regulatory agency. The RI Report identified the off-site source of

metals that impacted groundwater beneath the site and the sources of VOCs in soil gas and groundwater. The RI included a numerical model of vapor intrusion into the buildings at the site from the vadose zone to determine exposure concentrations and an air dispersion model of VOCs from the proposed soil vapor treatment system. The Feasibility Study for the Site is currently being drafted and may be used as the basis for granting closure of the site by DTSC.

Client: Confidential, Los Angeles, California

Prepared comprehensive human health risk assessment of students, staff, and residents potentially exposed to heavy metals (principally lead), VOCs, SVOCs, and PCBs from soil, soil vapor, and groundwater at 15-acre former manufacturing facility. The site is currently used as a year round school housing approximately 3,000 children. The evaluation determined that the site was safe for the current and future uses and will be basis for regulatory closure of site.

Client: Confidential, Los Angeles, California

Prepared comprehensive evaluation of VOC vapor intrusion into classrooms of middle school that was former 15-acre industrial facility. Using the Johnson-Ettinger Vapor Intrusion model, the evaluation determined acceptable soil gas concentrations at the site that did not pose health threat to students, staff, and residents. This evaluation is being used to determine cleanup goals and will be basis for regulatory closure of site.

Client --Dominguez Energy, Carson, California

Prepared comprehensive evaluation of the potential health risks associated with the redevelopment of 6-acre portion of a 500-acre oil and natural gas production facility in Carson, California. The risk assessment was used as the basis for closure of the site.

Kaiser Ventures Incorporated, Fontana, California

Prepared health risk assessment of semi-volatile organic chemicals and metals for a fifty-year old wastewater treatment facility used at a 1,100-acre former steel mill. This evaluation was used as the basis for granting closure of the site by lead regulatory agency.

ANR Freight - Los Angeles, California

Prepared a comprehensive Preliminary Endangerment Assessment (PEA) of petroleum hydrocarbon and metal contamination of a former freight depot. This evaluation was as the basis for reaching closure of the site with lead regulatory agency.

Kaiser Ventures Incorporated, Fontana, California

Prepared comprehensive health risk assessment of semi-volatile organic chemicals and metals for 23-acre parcel of a 1,100-acre former steel mill. The health risk assessment was used to determine clean up goals and as the basis for granting closure of the site by lead regulatory agency. Air dispersion modeling using ISCST3 was performed to determine downwind exposure point concentrations at sensitive receptors within a 1 kilometer radius of the site. The results of the health risk assessment were presented at a public meeting sponsored by the Department of Toxic Substances Control (DTSC) in the community potentially affected by the site.

Unocal Corporation - Los Angeles, California

Prepared comprehensive assessment of petroleum hydrocarbons and metals for a former petroleum service station located next to sensitive population center (elementary school). The assessment used a probabilistic approach to estimate risks to the community and was used as the basis for granting closure of the site by lead regulatory agency.

Client: Confidential, Los Angeles, California

Managed oversight of remedial investigation most contaminated heavy metal site in California. Lead concentrations in soil excess of 68,000,000 parts per billion (ppb) have been measured at the site. This State Superfund Site was a former hard chrome plating operation that operated for approximately 40-years.

Client: Confidential, San Francisco, California

Coordinator of regional monitoring program to determine background concentrations of metals in air. Acted as liaison with SCAQMD and CARB to perform co-location sampling and comparison of accepted regulatory method with ASTM methodology.

Client: Confidential, San Francisco, California

Analyzed historical air monitoring data for South Coast Air Basin in Southern California and potential health risks related to ambient concentrations of carcinogenic metals and volatile organic compounds. Identified and reviewed the available literature and calculated risks from toxins in South Coast Air Basin.

IT Corporation, North Carolina

Prepared comprehensive evaluation of potential exposure of workers to air-borne VOCs at hazardous waste storage facility under SUPERFUND cleanup decree. Assessment used in developing health based clean-up levels.

Professional Associations

American Public Health Association (APHA)
Association for Environmental Health and Sciences (AEHS)
American Chemical Society (ACS)
California Redevelopment Association (CRA)
International Society of Environmental Forensics (ISEF)
Society of Environmental Toxicology and Chemistry (SETAC)

Publications and Presentations:

Books and Book Chapters

Sullivan, P., **J.J. J. Clark,** F.J. Agardy, and P.E. Rosenfeld. (2007). *Synthetic Toxins In The Food, Water and Air of American Cities*. Elsevier, Inc. Burlington, MA.

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Clark, J.J.J. 2000. "Toxicology of Perchlorate" in *Perchlorate in the Environment.* Edward Urbansky, Ed. Kluwer/Plenum: New York.

Clark, J.J.J. 1995. Probabilistic Forecasting of Volatile Organic Compound Concentrations At The Soil Surface From Contaminated Groundwater. UMI.

Baker, J.; **Clark, J.J.J.**; Stanford, J.T. 1994. Ex Situ Remediation of Diesel Contaminated Railroad Sand by Soil Washing. Principles and Practices for Diesel Contaminated Soils, Volume III. P.T. Kostecki, E.J. Calabrese, and C.P.L. Barkan, eds. Amherst Scientific Publishers, Amherst, MA. pp 89-96.

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

Rosenfeld, P.E., **Clark, J. J.** and Suffet, I.H. 2005. "The Value Of An Odor Quality Classification Scheme For Compost Facility Evaluations" The U.S. Composting Council's 13th Annual Conference January 23 - 26, 2005, Crowne Plaza Riverwalk, San Antonio, TX.

Rosenfeld, P.E., **Clark, J. J.** and Suffet, I.H. 2004. "The Value Of An Odor Quality Classification Scheme For Urban Odor" WEFTEC 2004. 77th Annual Technical Exhibition & Conference October 2 - 6, 2004, Ernest N. Morial Convention Center, New Orleans, Louisiana.

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Clark, J.J.J., Brown, A., Rodriguez, R. 1998. The Public Health Implications of MtBE and Perchlorate in Water: Risk Management Decisions for Water Purveyors. Proceedings of the National Ground Water Association, Anaheim, CA, June 3-4, 1998.

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ATTACHMENT C

Permitted Stationary Sources Within 1,000 Feet of Project Site

Source: Google Earth BAAQMD Stationary Source Screening Tool (Sept. 27, 2011)

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December 13, 2011

VIA EMAIL

Planning Commission Chair Janet Borgans and
Redwood City Commissioners
c/o Housing and Economic Development Department
1017 Middlefield Road
Redwood City, CA 94063
Email: pc@redwoodcity.org

Re: Comments on the Final Environmental Impact Report for the 2580 El Camino Real Residential Project

Dear Chair Borgans and Commissioners:

We are writing on behalf of the Building and Construction Trades Council of San Mateo County to provide comments on the Final Environmental Impact Report, including Staff's responses to our October 26, 2011 comments on the Draft EIR, for the 2580 El Camino Real Residential Project. As described in detail below, the Final EIR does not comply with the requirements of the California Environmental Quality Act ("CEQA").

The City failed to provide a good faith, reasoned response to comments, as required by CEQA. The City's failure to provide adequate responses to comments leaves potentially significant impacts unevaluated and unmitigated in the Final EIR.

The City may not approve the Project until the errors in the EIR are corrected and a revised Draft EIR is circulated for public review and comment.

We prepared our comments on the Final EIR with the assistance of air quality expert, Dr. James Clark. Dr. Clark's comments are attached to this letter as Attachment A.

I. THE FINAL EIR CONTINUES TO VIOLATE CEQA'S REQUIREMENT TO ANALYZE AND MITIGATE, IF NECESSARY, POTENTIALLY SIGNIFICANT IMPACTS; THE CITY FAILED TO RESPOND TO PUBLIC COMMENTS ADEQUATELY

The Final EIR continues to lack substantial evidence upon which to conclude that traffic, air quality and public health impacts are less than significant. The Final EIR also fails to respond to our October 26, 2011 comments adequately and those of our traffic expert, Tom Brohard, and air quality and public health expert, Dr. James Clark. Therefore, a revised Draft EIR must be prepared and circulated for public review.

An agency's responses to public comments ensure the integrity of the process by precluding stubborn problems or serious criticism from being swept under the rug.[1] Responses to comments play such an important role in the environmental evaluation that the CEQA Guidelines spell out an agency's duty to avoid pro forma responses:

> In particular, the major environmental issues raised when the lead agency's position is at variance with recommendations and objections raised in the comments must be addressed in detail giving reasons why specific comments and suggestions were not accepted. There must be good faith, reasoned analysis in response. Conclusory statements unsupported by factual information will not suffice.[2]

CEQA is much more than simply a presentation to the public of the lead agency's environmental analysis. Public comments and responses to comments are equally essential ingredients of a valid EIR.[3]

Here, the City's failure to provide adequate responses to public comments sweeps potentially significant environmental impacts under the rug. The City must adequately respond to public comments in a revised and recirculated EIR.

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[1] *People v. County of Kern* (1974) 39 Cal.App.3d 830, 841.
[2] CEQA Guidelines, § 15088, subd. (c).
[3] See *County of Inyo v. City of Los Angeles* (1984) 160 Cal.App.3d 1178, 1185.

A. The Final EIR's Evaluation of Construction Traffic Impacts Remains Inadequate

As discussed in our October 26, 2011 comments, the Draft EIR completely fails to analyze traffic impacts associated with Project construction. The City must disclose potentially significant impacts associated with construction traffic and incorporate specific mitigation measures.

As explained in our comments and those of Tom Brohard, a licensed Professional Civil Engineer and Professional Traffic Engineer, the Draft EIR failed to analyze the Project's potentially significant construction truck traffic impacts during the 19 months of construction.[4] Mr. Brohard provided expert opinion that the Project's construction truck traffic may result in significant impacts.[5] Specifically, during the 19 month construction period, site development would include demolition of existing buildings, site grading, paving and building construction, which would involve daily deliveries of construction materials.[6] Trucks would be needed to haul soil, sand, gravel and other loose materials (including demolition debris).[7] In addition, water trucks would be needed to control dust emissions.[8] According to Mr. Brohard, construction traffic impacts may be significant.[9]

The Final EIR continues to omit an analysis of potentially significant impacts associated with material hauling and worker traffic. As a result, the Final EIR fails to incorporate mitigation measures necessary to ensure that construction traffic does not degrade impacted areas below the City's threshold of Level of Service ("LOS") D. We explained that feasible mitigation may be similar to the measures incorporated in the City of Redwood City's environmental review document for the

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[4] Tom Brohard, PE, Tom Brohard and Associates, letter to Robyn C. Purchia, Attorney, Adams Broadwell Joseph & Cardozo, Sept. 23, 2011, p. 5 (on file with the City); Robyn C. Purchia, Attorney, Adams Broadwell Joseph & Cardozo, letter to Maureen Riordan, Planner, Redwood City, Oct. 26, 2011, p. 9 (on file with the City).

[5] CEQA Guidelines, § 15384, subd. (b) ("Substantial evidence shall include facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts.").

[6] DEIR, p. 80; Illingworth & Rodkin, 2580 El Camino Real Housing Development Community Risk (TAC) Assessment, Redwood City, California, May 17, 2011, p. 5.

[7] DEIR, p. 80.

[8] *Ibid.*

[9] Tom Brohard, PE, Tom Brohard and Associates, letter to Robyn C. Purchia, Attorney, Adams Broadwell Joseph & Cardozo, Sept. 23, 2011, p. 5 (on file with the City).

Sequoia Hospital Campus Project, including limiting deliveries and off haul to specified times and designating truck routes.[10]

The City's response to our October 26, 2011 comment on this issue also fails to comply with CEQA's requirement to provide a good faith reasoned response. A lead agency must provide a specific response when public comments raise a specific question about a significant environmental issue.[11] Depending on the nature of the comment, a reasoned analysis of the issue and references to supporting evidence may be required.[12] "A conclusory statement, unsupported by empirical or experimental data, scientific authorities, or explanatory information of any kind not only fails to crystallize issues but affords no basis for a comparison of the problems involved with the proposed project . . . ."[13]

Here, the City responded, without any substantial evidence, that traffic impacts would be less than significant. The City did not provide a response that addressed Mr. Bohard's and our detailed concerns. Instead, the City simply assumed, without any evidence, that traffic patterns on El Camino Real could accommodate an unquantified amount of slow moving trucks at an unspecified time of day.[14] The City's response violates CEQA because it is a conclusory statement that fails to address the issue of construction traffic impacts.

To comply with CEQA the City must ***at least*** provide a list of truck equipment, the time of day truck equipment will deliver or haul materials from the Project site and an explanation of how this additional truck traffic will not result in a significant impact on local roadways. This information is required to address Mr. Brohard's and the Council's specific question about environmental impacts associated with construction traffic.

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[10] City of Redwood City, Sequoia Hospital Campus/Precise Plan Draft EIR, Mar. 2007, pp. 62-63.
[11] CEQA Guidelines, § 15088, subd. (c); see generally *Cleary v. County of Stanislaus* (1981) 118 Cal.App.3d 348 (evaluating sufficiency of responses to comments).
[12] See *Cal. Oak Foundation v. City of Santa Clarita* (2005) 133 Cal.App.4th 1219, 1242.
[13] *Cleary v. County of Stanislaus, supra*, 118 Cal.App.3d at 358.
[14] FEIR, pp. 39, 56.

B. The Final EIR's Evaluation of Toxic Air Contaminant Impacts on Residential Receptors Remains Inadequate

As discussed in our October 26, 2011 comments, the Draft EIR failed to disclose that residential receptors on the Project site would be exposed to an excess cancer risk exceeding the Bay Area Air Quality Management District's ("BAAQMD") threshold of 10 in 1,000,000. Instead, the City claimed that the maximum total risk to residential receptors would be 9.4 per 1,000,000 -- just below the BAAQMD threshold.[15] As set forth in our comments and those of Dr. James Clark, however, the City relied on a risk analysis that is not supported by substantial evidence. Furthermore, Dr. James Clark provided testimony that the increased cancer risk was actually 12.7 in 1,000,000 and, thus, residential receptors will be exposed to roadway toxic air contaminants ("TACs") exceeding safe and accepted threshold levels in the Bay Area.[16]

The Final EIR's evaluation of public health impacts remains unchanged and inadequate. Furthermore, although Dr. Clark provided detailed comments on the Draft EIR questioning the City's "refined analysis," the City failed to justify or explain the specific flaws Dr. Clark identified. Instead, the Final EIR maintained the City's unsupported position that the Project would cause a less-than-significant impact on future residents because exposure levels would fall just 0.6 below the threshold of significance.[17]

While disagreements between experts do not automatically render a Final EIR inadequate, the City was required, but failed, to make a reasonably conscientious effort to collect additional data or to make further inquiries in response to the expert's concerns. The City's dismissal of Dr. Clark's comments is completely unsupported by substantial evidence and fails to ensure that all feasible measures are incorporated to mitigate impacts to people.

In *Berkeley Keep Jests Over the Bay Committee v. Board of Port Commissioners of the City of Oakland*, conflicting studies and data pertaining to toxic air contamination was submitted to the agency in comments on the Draft EIR.

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[15] DEIR, p. 79.
[16] James Clark, Ph.D., Clark and Associates, letter to Robyn C. Purchia, Attorney, Adams Broadwell Joseph & Cardozo, Oct. 18, 2011, p. 8 (on file with the City).
[17] FEIR, pp. 61, 64.

The court found that the agency's dismissal of this information was unwarranted. Specifically, the court stated:

> The dispute in this regard goes beyond a disagreement of qualified experts over the reasoned conclusions as to what the data reveals. The EIR failed to acknowledge the opinions of responsible agencies and experts who cast substantial doubt on the adequacy of the EIR's analysis of this subject. The conclusory and evasive nature of the response to comments is pervasive, with the EIR failing to support its many conclusory statements by scientific or objective data. These violations of CEQA constitute an abuse of discretion.[18]

Here, the City's response to Dr. Clark's comments simply dismissed his calculations, summarily claiming that he used an incorrect cancer risk adjustment factor, exposure duration for year 0 and breathing rate.[19] The City neither offered a justification or explanation for its analysis, nor presented substantial evidence that the Project would have a less-than-significant impact on residential receptors.

Dr. Clark reviewed the Final EIR and provided comments, which are included here as Attachment A. Dr. Clark conducted the BAAQMD-recommended analysis *with the City-recommended exposure duration for year 0 and breathing rate.*[20] Dr. Clark still concluded that impacts would exceed the 10 in 1 million significance threshold.

Dr. Clark's comments also show that the City's analysis of TAC impacts remains unsupported, incomplete and, thus, does not qualify as substantial evidence of a less than significant impact. BAAQMD issued guidance for estimating operational impacts from TACs.[21] BAAQMD guidance states that a proper analysis

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[18] *Berkeley Keep Jets Over the Bay Committee v. Board of Port Commrs. of the City of Oakland* (2001) 91 Cal.App.4th 1344, 1371.
[19] FEIR, pp. 60, 64.
[20] James Clark, Ph.D., Clark & Associates, letter to Robyn C. Purchia, Attorney, Adams Broadwell Joseph & Cardozo, Dec. 12, 2011, pp. 6-7 (Attachment A) (hereafter "Clark FEIR Comments").
[21] See Bay Area Air Quality Management Dist., *Recommended Methods for Screening and Modeling Local Risks and Hazards* (May 2011).

would include "multiplying each SWF by the corresponding emissions (grams/vehicle mile) for that year."[22]

Dr. Clark explains that the City incorrectly applied the Sensitivity Weighting Factor ("SWF") to the cancer risk, instead of the emission rate for each year residents would be exposed to emissions on El Camino Real.[23] According to Dr. Clark, the City's "misapplication of the SWF to the cancer risk instead of the emission rate underestimates the potential health risk from roadway emissions."[24] Therefore, the Final EIR continues to lacks substantial evidence to support the City's conclusion.

The City's dismissal of Dr. Clark's comments does not constitute an adequate response under CEQA. The City must explain why it failed to follow the BAAQMD-recommended analysis and justify its analysis of TAC impacts. The Final EIR remains inadequate and substantial evidence shows that future residents of 2580 El Camino Real will be exposed to cancer-causing air emissions in excess of the Bay Area's recommended threshold.

II. CONCLUSION

The Final EIR fails to fulfill the City's responsibilities under CEQA. The comments presented above and in our previous comments identify significant impacts that remain undisclosed, erroneously evaluated or insufficiently mitigated. Therefore, the City must prepare a revised draft EIR to correct these deficiencies and recirculate the revised draft EIR to the public for review and comment. Otherwise, the Project's significant impacts would create more burdens on the community and the environment than opportunities.

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[22] Bay Area Air Quality Management Dist., *Recommended Methods for Screening and Modeling Local Risks and Hazards* (May 2011), p. 68; Clark FEIR Comments, pp. 4-5.
[23] Clark FEIR Comments, p. 3.
[24] *Id.* at pp. 3-4.

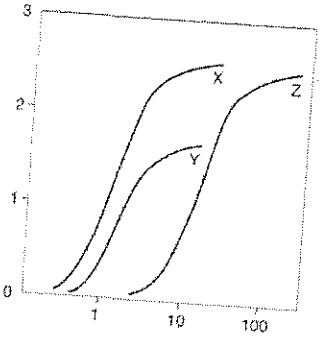
We urge the Planning Commission to direct Staff to prepare a revised draft EIR, which addresses significant construction traffic and public health impacts, and to circulate the revised Draft EIR for public review.

Sincerely,

Robyn C Purchia

RCP:vs
Attachment

ATTACHMENT A



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December 12, 2011

Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080-7037

Attn: Ms. Robyn Purchia

Subject: Comments on the Final EIR For Proposed 2580 El Camino Real

Dear Ms. Purchia:

At the request of Adams Broadwell Joseph and Cardozo (ABJC), Clark and Associates (Clark) has prepared the following comments on the Final Environmental Impact Report (Final EIR) for the 2580 El Camino Real Residential Project (Project). The City concluded that toxic air contaminants (TAC) would pose a less-than-significant impact on residential receptors at the Project site. As noted in Clark's comments on the Draft EIR, and restated here, this conclusion is based on a flawed analysis.

Clark's review of the materials in no way constitutes a validation of the conclusions or materials contained within the plan. If we do not comment on a specific item this does not constitute acceptance of the item.

Background

As noted in Clark's comments on the Draft EIR, both the BAAQMD and Clark concluded that residential receptors on the Project site would be exposed to significant levels of TAC emissions. As illustrated in Figure 1, below, the BAAQMD estimates that first-floor residential receptors approximately 75 feet from El Camino Real would be exposed to TAC

emissions of 10.146. According to Clark's initial calculations, residential receptors would be exposed to TAC emissions of 12.707. The threshold of significance adopted by the City is 10 in 1 million.[1] Therefore, by both BAAQMD and Clark's calculations, the Project would cause a significant impact to residential receptors.

The City relied on a refined analysis to conclude that the exposure risk for future residents during Project operation would be 9.4 in 1 million, just 0.6 below the threshold of significance. Clark's comments on the Draft EIR identified specific failures with the City's refined analysis, which led to an underestimation of the Project's impacts on future residential receptors. The City dismissed Clark's comments, however, by saying that Clark used an incorrect cancer risk adjustment factor, exposure duration for year 0 and breathing rate.

As discussed in these comments, the City's has not properly considered the specific flaws in the refined analysis. Its response to comments dismisses Clark's and the BAAQMD's findings, without explaining or justifying the faulty methodology used. It is Clark's opinion that the TAC emissions from El Camino Real will have a significant impact on the Project's residential receptors.

[1] DEIR, pp. 78, 79.

Link 118 (6ft elevatio

	PM2.5	Risk	C
10 ft S	0.275	19.369	0
25 ft S	0.226	15.943	0
50 ft S	0.175	12.335	0
75 ft S	0.144	10.146	0
100 ft S	0.123	8.686	0
200 ft S	0.080	5.651	0
300 ft S	0.060	4.247	0
400 ft S	0.048	3.424	0
500 ft S	0.040	2.880	0
750 ft S	0.029	2.070	0
1000 ft S	0.022	1.620	0
10 ft N	0.271	20.357	0
25 ft N	0.225	16.999	0
50 ft N	0.180	13.670	0
75 ft N	0.152	11.592	0
100 ft N	0.133	10.143	0
200 ft N	0.091	7.018	0
300 ft N	0.071	5.505	0
400 ft N	0.059	4.585	0
500 ft N	0.051	3.965	0
750 ft N	0.038	3.012	0

Figure 1: BAAQMD Estimate of Cancer Risk From Roadway Emissions Along El Camino Real, Redwood City, CA.

The air quality analysis utilizes contradictory methodology and underestimates TAC impacts

The City used two different methodologies to calculate TAC emissions during the construction phase and the operational phase of the Project. There was no explanation as to why the City adopted two differing methodologies. According to Clark, the methodology adopted by the City to analyze impacts during the operational phase is flawed and underestimates the Project impacts.

To analyze operational impacts, the City applied the Sensitivity Weighting Factor (SWF) to the *cancer risk* instead of the *emission rate* for each year.[2] The SWF is the age sensitivity factor multiplied by the length of exposure divided by the 70 year life span. The ***misapplication*** of the SWF

[2] 2580 El Camino Real Draft EIR, Toxic Air Contaminants Analysis, Appendix G, Attachment 1, Table 5.

to the cancer risk instead of the emission rate underestimates the potential health risk from roadway emissions.

The problem with applying the SWF to the cancer risk instead of the emission rate is that according to the BAAQMD the age sensitivity factors are designed to increase to the ***70 year average concentration*** of chemicals to be analyzed.[3] According to the BAAQMD guidance[4], in order to estimate the 70-year average emissions, the user would generally average the emissions extracted from the EMFAC model. BAAQMD recommends a three step process that requires a significant number of computations.[5]

> **Step 1.** The first step is to develop sensitivity weighting factors (SWF) that are the age sensitivity values multiplied by the duration of the exposure by the lifetime of the exposure.[6]
> This is expressed as:
>
> Sensitivity Weighing Factor = ASF x Length of Exposure (year) / 70 year lifespan

The City complied with this step as shown in Appendix G.

> **Step 2.** The user then estimates ***70-year average emission rates*** (emphasis added) by multiplying each SWF by the

[3] BAAQMD. 2011. Recommended Methods for Screening and Modeling Local Risks and Hazards. Bay Area Air Quality Management District. May, 2011 page 69.
[4] BAAQMD. 2011. Recommended Methods for Screening and Modeling Local Risks and Hazards. Bay Area Air Quality Management District. May, 2011 pages 67-68.
[5] BAAQMD. 2011. Recommended Methods for Screening and Modeling Local Risks and Hazards. Bay Area Air Quality Management District. May, 2011 page 68
[6] BAAQMD. 2011. Recommended Methods for Screening and Modeling Local Risks and Hazards. Bay Area Air Quality Management District. May, 2011 page 67

corresponding emissions (grams/vehicle mile) for that year.[7]

The City did not comply with this step. Instead they multiplied the SWF by the cancer risk. This caused the overall computation to be lower than if the City had applied the SWF to the emission rate.

> **Step 3.** To predict the 70-year average concentrations at downwind receptor locations, the user must scale the emissions used in the base year run using CAL3QHCR by the 70-year average emissions.[8]

The City has not complied with this step and does not detail it in its analysis. If the City had adopted the methodology used to calculate TAC impacts during the construction phase, the City would have had to include that impacts to residential receptors during Project operation would be significant.[9]

To calculate TAC emissions during construction, the City used the standard risk assessment methodology from Cal/EPA and U.S. EPA. With this methodology, the City found that the potential impacts from construction activities reach 9.03 in 1,000,000 in only 19 months.

Utilizing the methodology applied by proponents in Attachment 2 of Appendix G, it is demonstrable that the cumulative risk ***from DPM alone will exceed 10 in 1,000,000***. Clark has noted the comment from the City regarding the breathing rates. While, Clark doesn't agree that the

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[7] BAAQMD. 2011. Recommended Methods for Screening and Modeling Local Risks and Hazards. Bay Area Air Quality Management District. May, 2011 page 68
[8] BAAQMD. 2011. Recommended Methods for Screening and Modeling Local Risks and Hazards. Bay Area Air Quality Management District. May, 2011 page 68
[9] 2580 El Camino Real Draft EIR, Toxic Air Contaminants Analysis, Appendix G, Attachment 2, Table 1.

breathing rate identified by the City is actually identified, it is being used here just to eliminate dispute.

Year	Exposure Duration	DPM concentration	Exposure Factor Adjustment	Annual Risk (per million)	Cumulative Risk (per million)
In Uetero-0	0.25	0.0224	10	0.49	0.49
0-1	1	0.0186	10	1.63	2.12
1-2	1	0.0186	10	1.63	3.75
2-3	1	0.0186	3	0.49	4.24
3-4	1	0.0186	3	0.49	4.72
4-5	1	0.0186	3	0.49	5.21
5-6	1	0.0127	3	0.33	5.55
6-7	1	0.0127	3	0.33	5.88
7-8	1	0.0127	3	0.33	6.21
8-9	1	0.0127	3	0.33	6.55
9-10	1	0.0127	3	0.17	6.72
10-11	1	0.0108	3	0.15	6.87
11-12	1	0.0108	3	0.15	7.02
12-13	1	0.0108	3	0.15	7.16
13-14	1	0.0108	3	0.15	7.31
14-15	1	0.0108	3	0.15	7.46
15-16	1	0.0108	3	0.15	7.60
16-17	1	0.0108	1	0.05	7.65
17-18	1	0.0108	1	0.05	7.70
18-19	1	0.0108	1	0.05	7.75
19-20	1	0.0108	1	0.05	7.80
20-21	1	0.0108	1	0.05	7.85
21-22	1	0.0108	1	0.05	7.90
22-23	1	0.0108	1	0.05	7.95
23-24	1	0.0108	1	0.05	8.00
24-25	1	0.0108	1	0.05	8.05
25-26	1	0.0108	1	0.05	8.10
26-27	1	0.0108	1	0.05	8.15
27-28	1	0.0108	1	0.05	8.19
28-29	1	0.0108	1	0.05	8.24
29-30	1	0.0108	1	0.05	8.29
30-31	1	0.0108	1	0.05	8.34
31-32	1	0.0108	1	0.05	8.39
32-33	1	0.0108	1	0.05	8.44
33-34	1	0.0108	1	0.05	8.49
34-35	1	0.0108	1	0.05	8.54
35-36	1	0.0108	1	0.05	8.59
36-37	1	0.0108	1	0.05	8.64
37-38	1	0.0108	1	0.05	8.69
38-39	1	0.0108	1	0.05	8.74
39-40	1	0.0108	1	0.05	8.78
40-41	1	0.0108	1	0.05	8.83
41-42	1	0.0108	1	0.05	8.88

Year	Exposure Duration	DPM concentration	Exposure Factor Adjustment	Annual Risk (per million)	Cumulative Risk (per million)
42-43	1	0.0108	1	0.05	8.93
43-44	1	0.0108	1	0.05	8.98
44-45	1	0.0108	1	0.05	9.03
45-46	1	0.0108	1	0.05	9.08
46-47	1	0.0108	1	0.05	9.13
47-48	1	0.0108	1	0.05	9.18
48-49	1	0.0108	1	0.05	9.23
49-50	1	0.0108	1	0.05	9.28
50-51	1	0.0108	1	0.05	9.33
51-52	1	0.0108	1	0.05	9.37
52-53	1	0.0108	1	0.05	9.42
53-54	1	0.0108	1	0.05	9.47
54-55	1	0.0108	1	0.05	9.52
55-56	1	0.0108	1	0.05	9.57
56-57	1	0.0108	1	0.05	9.62
57-58	1	0.0108	1	0.05	9.67
58-59	1	0.0108	1	0.05	9.72
59-60	1	0.0108	1	0.05	9.77
60-61	1	0.0108	1	0.05	9.82
61-62	1	0.0108	1	0.05	9.87
62-63	1	0.0108	1	0.05	9.91
63-64	1	0.0108	1	0.05	9.96
64-65	1	0.0108	1	0.05	10.01
65-66	1	0.0108	1	0.05	10.06
66-67	1	0.0108	1	0.05	10.11
67-68	1	0.0108	1	0.05	10.16
68-69	1	0.0108	1	0.05	10.21
69-70	1	0.0108	1	0.05	10.26

In Clark's opinion, the City used an incorrect methodology to conclude that impacts to residential receptors would ***barely*** be less than significant. If the City had used the same methodology to calculate impacts during both the construction and operational phase, it would have concluded that impacts to residential receptors would be significant.

Conclusion

Proponents must accurate detail the potential health risks for the proposed project. The results of the analysis must be presented in a supplemental EIR. This concludes my comments.

Sincerely,

James Clark, Ph.D.

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December 13, 2011

VIA EMAIL

Planning Commission Chair Janet Borgans and
Redwood City Commissioners
c/o Housing and Economic Development Department
1017 Middlefield Road
Redwood City, CA 94063
Email: pc@redwoodcity.org

Re: Supplement to Comments on the Final Environmental Impact Report for the 2580 El Camino Real Residential Project

Dear Chair Borgans and Commissioners:

We provide these supplemental comments on behalf of the Building and Construction Trades Council of San Mateo to further support Dr. James Clark's expert opinion that the Final EIR fails to disclose significant impacts from toxic air contaminants ("TACs") on future Project residents. In an email dated December 13, 2011, the Bay Area Air Quality Management District stated that the results of the City's TAC analysis "seemed low."[1] According to the BAAQMD, District Staff did not submit comments on the EIR only because it "didn't have the staff resources to pursue this farther."[2] The BAAQMD's conclusion supports the conclusion of air quality expert, Dr. James Clark, and the comments we submitted on the Draft EIR and Final EIR.

We urge the Planning Commission to deny certification of the EIR until the City has conducted a proper analysis of significant operational TAC impacts. The potential health effects associated with TACs include cancer, birth defects, neurological damage, asthma, bronchitis and genetic damage.[3] If the Planning

[1] Alison Kirk, Bay Area Air Quality Management Dist., email to Robyn C. Purchia, Attorney, Adams Broadwell Joseph & Cardozo, Dec. 13, 2011 (Attachment A).
[2] *Id.*
[3] Bay Area Air Quality Management Dist., *Recommended Methods for Screening and Modeling Local Risks and Hazards* (May 2011), p. 4.

Commission approves this Project without requiring the proper studies, it will be putting the health of Redwood City residents in jeopardy.

Sincerely,

Robyn C. Purchia

RCP:vs
Attachment

ATTACHMENT A

Robyn C. Purchia

From: Alison Kirk [AKirk@baaqmd.gov]
Sent: Tuesday, December 13, 2011 2:33 PM
To: Robyn C. Purchia
Subject: RE: 2580 El Camino Real -- Redwood City

Hello,

We reviewed this project briefly. I spoke to the person who worked on this and she recalls that the results seemed low. However, we didn't have the staff resources to pursue this farther.

Alison Kirk
415-749-5169

From: Robyn C. Purchia [mailto:rpurchia@adamsbroadwell.com]
Sent: Tuesday, December 13, 2011 9:13 AM
To: Alison Kirk
Subject: RE: 2580 El Camino Real -- Redwood City

Ok, thanks for your help.

Robyn C. Purchia
Adams Broadwell Joseph & Cardozo
(650) 589-1660
rpurchia@adamsbroadwell.com

From: Alison Kirk [mailto:AKirk@baaqmd.gov]
Sent: Tuesday, December 13, 2011 8:28 AM
To: Robyn C. Purchia
Subject: RE: 2580 El Camino Real -- Redwood City

I need to check in with a coworker before I can respond. Thanks.

Alison Kirk
415-749-5169

From: Robyn C. Purchia [mailto:rpurchia@adamsbroadwell.com]
Sent: Monday, December 12, 2011 2:19 PM
To: Alison Kirk
Subject: RE: 2580 El Camino Real -- Redwood City

Thanks for letting me know.

On the phone, however, you mentioned that during the initial review the BAAQMD found that the City had underestimated TAC impacts. Did you determine if that was for this Project?

Robyn C. Purchia
Adams Broadwell Joseph & Cardozo
(650) 589-1660
rpurchia@adamsbroadwell.com