



Oak to Ninth Avenue Development: Priority Recommendations for Health Promotion and Illness and Injury Prevention

The UC Berkeley Health Impact Group has analyzed the Oak to Ninth Avenue Development proposal in response to significant public debate on health-related land use and design issues. We are recommending that the Oakland City Council take the following eight actions to promote and protect the health of Oakland residents.

Recommendation I: The project should model ethnic and economic integration by providing housing affordable so that: (1) the distribution of housing costs reflects the current household income distribution of Oakland, (2) at least 25% of housing is affordable to low-income and very low-income households, and (3) an additional 25% of housing is affordable to households earning the area's median income.

Human Health Rationale Policies such as zoning and redevelopment can either facilitate or prevent segregation. Residents of low-income economically segregated communities in Oakland and elsewhere now live about six fewer years and experience a much greater burden of chronic disease than those in non-poverty neighborhoods. Research has demonstrated that reductions in life expectancy are caused by many place-based factors including air pollution, violence, traffic hazards, poor schools, the absence of parks, and limited economic opportunity and mobility. In contrast, mixed-income neighborhoods are assured the health benefits of access to healthier foods, better schools, better public transit, safer neighborhoods, park access and cleaner environments. In addition, based on MTC data and the Air Resources Board URBEMIS, higher levels of affordability will significantly reduce traffic congestion and reduce vehicle air pollution emissions.

Recommendation II: The project should maximize accessibility to waterfront natural areas and recreation for Oakland residents by: (1) modifying the project's footprint and bulk to create some unobstructed views of the water and open spaces from the Embarcadero OR by re-aligning the Embarcadero between residential uses and the shoreline park, (2) requiring high quality bicycle and pedestrian trails between the waterfront, neighborhoods and transit stations east of I-880, (3) providing infrastructure and facilities necessary for diverse recreational uses identified through outreach with residents of surrounding neighborhoods, (4) requiring safe, frequent public transportation to the site, and (5) creating an oversight body with citywide membership for Oak to Ninth's waterfront parks.

Human Health Rationale Contact with and views of natural landscapes reduce stress and depression, reduce violent and anti-social behaviors, and improve the ability to focus attention, work, and learn. Access to open space facilitates physical activity which reduces population levels of obesity, diabetes and hypertension.

Recommendation III: The project should mitigate increases in the pedestrian injury rate caused by the project in the project area itself and in surrounding neighborhoods through: (1) crosswalk improvements (e.g. median islands), (2) sidewalk improvements (e.g. bulb-outs), and (3) grade separated bicycle and pedestrian trails and paths between the project, surrounding neighborhoods, and transit stations.

Human Health Rationale Oakland currently has ~85 pedestrian injuries per year per 100,000 people, about 4 times the federal goal for pedestrian injuries. Our pedestrian injury impact analysis illustrates that the project would contribute to 5 additional injuries per year in the surrounding neighborhoods, and when combined cumulatively with other projects, to an additional 20 injuries per year, generating medical and lost productivity costs of roughly \$3 to 13 million dollars annually.

Recommendation IV: The project should mitigate adverse air quality impacts by: (1) building HVAC systems with air intakes oriented away from particulate sources, (2) requiring all feasible and effective transportation demand management measures, and (3) advising future residents that living in proximity to a freeway can worsen those with asthma or other chronic respiratory conditions. The city should

require the developer to conduct long-term monitoring for particulate matter hot spots both at Oak to Ninth site and at neighborhoods to the east.

Human Health Rationale According to the California Air Resources Board (ARB) the project is likely to result in increased frequency of respiratory symptoms and asthma exacerbations among project residents because of its location adjacent to I-880. Winds blowing from the North and Northwest in the wintertime have the potential of concentrating freeway particulate matter emissions directly over the project area.

Recommendation V: **The project should protect residents from outdoor environmental noise by: (1) orienting buildings to buffer roadway noise in courtyards and open spaces, and (2) considering a multi-level parking area as an additional acoustical buffer.**

Human Health Rationale Exposure of 1400 residents to exterior noise levels up to 85 dBA in parcels A, F, G, K, and M will potentially result in mental stress, hypertension, speech disturbance, and annoyance.

Recommendation VI: **The project should include an on-site public elementary school.**

Human Health Rationale Neighborhood schools reduce traffic and air pollution, facilitate physical activity, promote parent involvement in schools and in their children's educational success.

Recommendation VII: **The design and placement of housing units should support person-to-person contact, social relationships and social capital by: (1) creating crossing points and common paths of access, and (2) providing common courtyards with benches, plants and fountains.**

Human Health Rationale Social capital and community ties can promote an individual's sense of security and satisfaction, reduce stress and blood pressure levels, provide material and emotional support, and facilitate recovery from illness.

Recommendations VIII: **The City of Oakland should specifically document whether and how the project has been responsive to public concerns and to constructive design change recommendations raised in the numerous public meetings and hearings.**

Human Health Rationale Countries with active democracies have better health outcomes than those without, illustrating that governmental responsiveness and accountability to public needs is a critical determinant of population health. Meaningful participation means creating the opportunities for all affected people to understand what is at stake, to speak to their needs and concerns, and to have their needs addressed by people making the decision. A review of transcripts and public meeting summaries reveals that several concerns have been made repeatedly by diverse stakeholders at various stages of this process. Some of the most common statements relate to the lack of attention to the existing Estuary Policy Plan, insufficient consideration of the impact upon traffic congestion and access to public transportation, the need for affordable housing for lower-income individuals and families, preservation of open space and the Ninth Avenue Terminal, and lack of meaningful and responsive public engagement.

About The UC Berkeley Health Impact Group The UC Berkeley Health Impact Group (UCBHIG), which includes graduate students and faculty from the UC Berkeley School of Public Health, has been analyzing the Oak to 9th project as a class project during the winter and spring of 2006. Our aim has been to understand how the project might best contribute to community health assets, whether the project might lead to adverse health impacts, and how the project can be improved in a way that best protects and promotes health. These recommendations take as a given the need for a residential neighborhood at Oak to Ninth Avenue. We also recognize that development of well-designed higher density housing in surrounding neighborhoods such as the San Antonio and Chinatown districts, with existing transit, civic, educational, and urban infrastructure may also be a feasible and potentially superior alternative to meeting regional housing needs. We anticipate that a draft report of our findings will be available for review by the City Council in late April. UCBHIG members are: Rajiv Bhatia, MD, MPH, Megan Gaydos, Heather Kuiper, MPH, Ray Minjares, Alberto Ortega, Tom Rivard, MS, Miriam Rotkin-Ellman, and Edmund Seto PhD. Please email comments and questions about UCBHIG to ucbhig@gmail.com.