7. Public Health

The Public Health chapter of the Existing Conditions Report reviews a subset of community-level indicators from the Healthy Development Measurement Tool (HDMT; www.TheHDMT.org) that are known to influence individual and population-level health. Over thirty indicators in six overarching domains (environmental stewardship, sustainable and safe transportation, access to goods and services, adequate and healthy housing, health economy and social cohesion) are reviewed in that analysis.

The following tables provide a qualitative assessment of the performance of the three Plan Alternatives in relation to the HDMT indicators included in the Existing Conditions Report. Many of the indicators (or parallel indicators) are assessed elsewhere in the Alternatives analysis. They are summarized here in an effort to provide a composite picture of the health-related social and environmental impacts within the Plan Area. Overall, the vast majority of impacts are dependent on the extent to which mitigations are implemented. Suggestions for mitigations are provided below.

Table 7.1: Summary of Health-related Impacts of Each Alternative

Health-related Element	Alternative 1	Alternative 2	Alternative 3
Environment	- Commingling of industrial and residential uses will lead to additional conflicts (e.g., noise, trucks, air quality). - Significant number of new mobile and stationary sources of air pollution and noise exposures throughout the Area. - Good-to-excellent shoreline and open space access.	- Reduced land use conflicts between new/existing residents and industrial uses due to more distinct separation of uses. - Fewer new environmental exposures because of more limited increase in residential uses. - Good shoreline and open space access.	- Phasing out of industrial uses and existing residential/industrial conflicts. Over time, fewer exposures for existing and new residents. - Lowest per-capita project VMT of the alternatives, but potential VMT increases regionally because businesses have further to go to meet their needs. - Good-to-excellent shoreline and open space access.
Sustainable and Safe Transportation	- New residents will generate additional automobile traffic. - Majority of Plan Area requires extensive ped/bike and transit improvements to accommodate new population. - Increased intensity of uses with co-mingling of industrial/residential will increase collision frequencies unless countermeasures are instituted. - Unlikely that density increase will bring transit improvements.	- New residents will generate additional automobile traffic. - More limited ped/bike and transit improvements necessary as new housing is focused primarily where it already exists. - Reduced risk of injuries with more clear separation of land uses. - Unlikely that density increase will bring transit improvements.	- New residential/retail uses and substantial increase in densities necessitate significant improvements in transportation and street infrastructure. - With greatest increase in density, will see significant increase in automobile traffic, though greatest reduction in truck traffic. - Density and intensity of use will increase collision frequencies unless countermeasures are instituted. -

Health-related Element	Alternative 1	Alternative 2	Alternative 3
Sustainable and Safe Transportation (continued)	-	-	- Improvements and phasing out of industrial uses will do the most to improve ped/bike and transit conditions, decrease the overall proportion of auto trips (assuming transit improvements) and reduce the risk for injuries. - Increased density and demand more likely to bring increase in transit service provision.
Access to Goods and Services	- Uneven access across the Plan Area. - Locating housing in Central West takes advantage of existing services. East subarea has fewest retail/public services for new residents (where greatest increase is expected). - New regional-serving retail in the East may help fill gaps.	- Locating new housing in the Central West subarea takes advantage of existing conditions and supports businesses in the subarea that will serve new residents. - Some new retail in West may support new residents in that subarea.	- Alternative may do the most to improve baseline access for residents. - Increase in densities will necessitate improvements in transportation and street infrastructure that enhance access to goods and services both within the Plan Area and to areas north of the Plan Area. - With density increases, more likely that new neighborhood-serving businesses will locate in the area.
Adequate and Healthy Housing	- Significant increases in residential densities, especially in Central East and East. - New development is likely to induce some increases in the value of adjacent housing units, much of which is renter-occupied, potentially resulting in a moderate potential for displacement of existing residents. - Unclear whether housing contribution will contribute to below market needs of wider Oakland community.	- Very moderate increases in residential densities in West and Central West. - New development is likely to induce moderate increases in the value of adjacent housing units, much of which is renter-occupied. - Smaller potential for displacement. - Unclear whether housing contribution will contribute to below market needs of wider Oakland community.	- Most significant increases in densities. - New development is likely to induce strongest increases in the value of adjacent housing units, a vast majority of which is renter-occupied in both the West and Central West subareas. - Highest risk for displacement of existing residents. - Greater opportunities for affordable housing though unclear whether housing contribution will contribute to below market needs of wider Oakland community.

Health-related Element	Alternative 1	Alternative 2	Alternative 3
Jobs and Livelihood	- Significant elimination of jobs paying at/above self-sufficiency wages. - Replacement of existing jobs with lower-paying retail jobs. - Plan Area resident income levels to diversify though will skew more towards moderate-higher levels.	- Least elimination of existing jobs paying at/above self-sufficiency wages. - Distribution of housing creates the most income diversification.	- Greatest elimination of jobs paying wages at/above self-sufficiency. - Some provision of office uses that likely pay higher wages. - Plan Area resident income levels to diversify though will skew more towards moderate-higher levels.
Social Cohesion	- Ped/bike and streetscape improvements and increased densities will bring more "eyes on the street." - Commingling of uses throughout the Area and limited buffering of those uses may inhibit reductions in crime.	- Location of new housing alongside existing housing creates a more cohesive community. - More focused ped/bike and streetscape improvements and increased densities will bring more "eyes on the street." - Phasing out of industrial uses in the West subarea contribute to a greater buffering of uses that could help reduce crime.	- Alternative goes the farthest to reduce risk factors for crime, including by increasing densities significantly and likely bringing the types of streetscape improvements that bring more people onto the streets. - Phasing out and conversion of industrial uses in the West and East subareas helps eliminate some of the uses that are often associated with higher crime areas because streets are deserted at night.

Table 7.2: Impacts of Alternative 1 on Health-related Indicators

Health-Related Element	West	Central-West	Central-East	East
Environment	The commingling of land use uses throughout the subareas in this Alternative does little to mitigate the noise, air and truck-related conflicts that typically exist between residential and industrial uses.			
(Proximity to busy roadways, truck routes, stationary sources of air pollution, environmental contamination, noise, shoreline access and open space)	There is no provision for additional housing in this subarea. As such no new exposures in this subarea are identifiable. Impacts for existing residents remain. Open space and shoreline access will remain good in the subarea under this Alternative.	As some new housing will be located in this subarea, new residents will face environmental burdens particularly from traffic-related air pollution and noise stemming from the I-880 freeway, arterial streets, and freight traffic, as well as from proximity to stationary sources of air pollution and noise stemming from industrial uses in the Area. Any new housing located in this area will be within 1,000 feet or less of busy roadways, within 500 feet of truck routes, within close proximity to stationary sources of air pollution, and fully within a high noise environment. It is important to note that part of the Central Estuary area is upwind which helps mitigate air quality emissions. However, noise emissions remain. Placing an industrial business park between two residential areas increases potential land use conflicts between neighbors. Feasible environmental mitigation technologies exist to assess and mitigate each of these issues for new residents. These technologies should be used, to the extent feasible, to accommodate new residential growth in the Area. These include limiting or re-routing trucks away from residential uses (via restrictions or traffic calming), incorporating indoor air ventilation (with filtration) systems, incorporating sound barriers, and orienting housing away from the freeway. Assuming access to the shoreline remains public, shoreline and open space access will improve for existing and new residents and workers through a new park as well as development impact fees (DIFs) that may contribute to park and streetscape improvements.	This Alternative calls for a considerable expansion of housing in this area, thereby creating a more sizable impact than in the preceding subareas. In addition to the impacts described for the Central sub-areas, the East subarea is also known to have significant soil contamination. Until it is fully mitigated, such contamination will pose significant health risks for new residents. New residents and workers in this area will have excellent shoreline and open space access.

Health-Related Element	West	Central-West	Central-East	East
Sustainable and Safe Transportation (Vehicle ownership, commute mode share, proximity to transit, pedestrian and bicycle networks, traffic-related collisions)	Since no changes of use are anticipated in this subarea, few indicators of transportation are likely to change. Vehicle ownership levels, mode share, and proximity to transit are likely to remain the same, though new traffic generated in/by adjacent subareas may spillover into the West subarea.	Given that new development is expected in the Central West, Central East and East subareas, new households and commercial/office uses will generate additional automobile traffic as well as a greater number of ped, bike and transit trips in the area (though overall mode share may be unchanged). The extent to which the current mode split changes is dependent on the extent of ped, bike and transit improvements implemented. As the current ped/bike network and connectivity to surrounding areas is very poor, significant transportation improvements will be necessary to increase walking and biking. Overall, there is little detail on the level of ped/bike improvements that would result from development in the Estuary. Almost all housing built in the Central West and Central East subareas will be within ¼-mile proximity of AC transit (note that this does not reflect level or quality of service), and in the Central East, almost all housing will be within ½-mile of BART. The East subarea has the worst proximity to transit. Given the significant increase in residential and retail uses in the East subarea, the lack of transit service and ped/bike amenities will be most acutely felt by residents and workers. This area also requires the most extensive amount of ped/bike and transit improvements to support sustainable and safe transportation. With few households currently residing in the area, there is little existing infrastructure to support pedestrians and cyclists. With respect to ped/bike injuries, the commingling of residential and industrial uses in this Alternative creates greater risks for injuries than if residential and industrial uses were more clearly separated. Increased density will also increase collision frequency without countermeasures. Without strong improvements to the pedestrian and bike network, including traffic calming and Transportation Demand Management (TDM), or a streetscape improvement plan, ped/bike injuries could potentially increase throughout the Central West, Central East and East subareas, particularly in the Central-East and East given new office and retail uses adjacent to housing. Placing new housing close to existing housing (as in the Central West subarea) would help to focus ped/bike improvements in a way that supports existing as well as new residents. With District Improvement Financing (DIF), the greater the amount of development, the more money there is available to generate these improvements. Without significant increases in density over proposed density in this Alternative, it is unlikely that transit services will increase substantially enough to alter the mode share of commuters.		

Health-Related Element	West	Central-West	Central-East	East
Access to Goods and Services (Schools, child care, parks, libraries, grocery stores, banks/ credits unions)	The West subarea has the worst access to all forms of public/retail goods and services when compared to other subareas. As there are no provisions for additional housing in this subarea, there are no new impacts stemming from a lack of services. Poor access remains however for existing residents.	Central West subarea households have the best proximity-based access to all forms of retail/public goods and services. As this Alternative locates new housing in this subarea, proximity to these services will remain good for these new residents (though quality and density of services is to be determined). Locating new housing in this subarea both helps to take advantage of existing conditions and support businesses in the subarea that are serving new residents.	Proximity to retail/goods and services in the Central East and East subareas are currently comparable. Proximity to schools is limited in both areas (especially the East subarea), and grocery store access is more limited in the Central East. As far fewer residents currently live in these areas (especially the East Subarea), there is currently limited retail/public services capacity that can support future. With a significant increase in regional serving retail in the East subarea, access to retail goods and services will increase for new and existing residents. However, it is unknown what types of retail will locate in these spaces, and whether new retail will serve daily needs. Schools access will continue to be limited for residents of both areas.	
Adequate and Healthy Housing (Density, cost burden, overcrowding, tenure)	There is no provision for additional housing in this subarea. Housing cost burden, overcrowding and tenure breakdown are unlikely to shift.	The additional supply of housing in this subarea under this Alternative will increase current densities. However, new development (particularly if it is ownership housing) is likely to induce some increases in the value of adjacent housing units, much of which is renter-occupied. Notably, this subarea has the greatest number of existing residents throughout the Plan Area. The new housing stock will do little to alleviate existing overcrowding and may negatively impact housing cost burden in the subarea.	The additional supply of housing in this subarea under this Alternative will increase current densities. Given that the majority of housing in this subarea is owner-occupied, new development may not create significant risks for existing residents. However, growth in this subarea may create displacement risks for renter households in the adjacent Central West subarea. Notably, there is a high degree of overcrowding in this subarea (overcrowding is often strongly correlated with ownership-housing).	Under this Alternative, the East subarea would experience the greatest increase in residential units (and densities) when compared to other subareas. Given the few existing residents in the subarea, there would be a small impact on those subarea households. Increased housing in this subarea may compound development pressures associated with new housing development in the Central East and Central West. Collectively, these pressures may increase housing cost burden and displacement risk among existing households in those subareas.

Health-Related Element	West	Central-West	Central-East	East
Adequate and Healthy Housing (continued) (Density, cost burden, overcrowding, tenure)		Households in this subarea are currently the most cost-burdened when compared to other subareas. As a result, there is some potential for rent increases and displacement risk among existing residents. It is also unclear whether new housing will contribute to below market needs of the wider Oakland community. Requiring the development of affordable housing, especially with diverse unit-size mix may help alleviate both overcrowding and housing cost burden.		It is also unclear whether new housing will contribute to below market needs of the wider Oakland community.
Jobs and Livelihood (Income diversity, self-sufficiency)	Under this Alternative, jobs in the subarea will not be eliminated. Given that jobs in the area provide a high degree of income self-sufficiency for workers, the preservation of these jobs will help maintain higher paying jobs for Oakland. The income diversity of residents will likely be unaffected as no new housing is intended in the subarea.	The Alternative calls for the elimination of a limited number of employment-generating retail uses in the Park Street Triangle. Generally speaking, retail uses provide wages below self-sufficiency levels. New development in the area will help to diversify the income distribution of current residents in the Central West subarea.	Replacement of a large, low-density industrial uses in this subarea with a higher density industrial business park is likely to generate a net gain in medium-to-low skilled industrial jobs that typically provide jobs at or above self-sufficiency wages. New waterfront development is also likely to diversify income levels within the subarea, which is currently comprised of almost entirely low to moderate income households.	Under this Alternative, there will be a dramatic reduction of industrial uses and accompanying employment, and especially of low to moderately skilled jobs that typically provide wages at or above self-sufficiency levels. In contrast, the proposed retail uses and accompanying jobs will likely bring wages far below current levels. With very few households currently residing in the subarea, the introduction of new waterfront housing will not diversify income levels, but create a higher income area within the area overall.

Health-Related Element	West	Central-West	Central-East	East
Social Cohesion (Violent and property crime)	Currently, the Planning Area as a whole has high violent crime and property crime rates. The extent to which crime decreases relates to how development under this Alternative is structured, and the types of mitigations that will be applied throughout the Planning Area. Known risk factors for crime in the Planning Area include poor pedestrian and bicycle environments, freeway on- and off-ramps, high volume roadways and noise levels, and a relatively low population density. By applying ped/bike and streetscape improvements, and increasing population densities throughout the Plan area, there will be greater "eyes on the street", which helps create more cohesive communities and reduced crime. However, the current commingling of uses throughout the Plan Area and limited buffering of those uses may inhibit such reductions.			

Table 7.3: Impacts of Alternative 2 on Health-related Indicators

Health-Related Element	West	Central-West	Central-East	East
Environment (Proximity to busy roadways, truck routes, stationary sources of air pollution, environmental contamination, noise, shoreline access and open space)	A distinct separation of uses between industrial and residential uses in this Alternative helps to reduce existing land use conflicts, and to minimize the potential for future conflicts between neighbors.			
	Limited amounts of new housing will be located here. New residents will face environmental burdens particularly from traffic-related air pollution and noise stemming from the I-880 freeways, arterial streets, and freight traffic, as well as from proximity to stationary sources of air pollution and noise stemming from intense industrial uses in the Area. In contrast to the other subareas, a smaller portion of the West subarea is within close proximity to environmental hazards, making certain areas more suitable for housing.	Impacts in this subarea are comparable to Alternative 1. As some new housing will be located in this subarea, new residents will face environmental burdens particularly from traffic-related air pollution and noise stemming from the I-880 freeways, arterial streets, and freight traffic, as well as from proximity to stationary sources of air pollution and noise stemming from intense industrial uses in the Area.	There is no provision for additional housing in this subarea. As such no new residential exposures in this subarea are identifiable. Impacts for existing residents remain, particularly in the residential area north of the R&D incubator space on the south side of Elmwood Avenue. Mitigations alleviating the new impacts generated by the R&D incubator space are essential to protect a population that would become wedged between a highway and light industrial uses. Workers commuting into the area will have less exposure to hazards than residents would. However, mitigations can be applied to the R&D incubator space and the green industry cluster to improve air quality and noise conditions for workers, as well as to buffer from adjacent residential uses. Environmental mitigation technologies are described above in the analysis of Alternative 1. Unless focused improvements are made, open space and shoreline access will likely stay the same or be impeded by the build out of the R&D incubator space and the green industry cluster.

Health-Related Element	West	Central-West	Central-East	East
Environment (continued) (Proximity to busy roadways, truck routes, stationary sources of air pollution, environmental contamination, noise, shoreline access and open space)	It is important to note that part of the Central Estuary area is upwind which helps mitigate air quality emissions; however noise emissions remain. Assuming access to the shoreline remains public, shoreline and open space access will improve for existing and new residents through a new park as well as development impact fees that may contribute to park and streetscape improvements.	Any new housing located in this area will be within 1,000 feet or less of busy roadways, within 500 feet of truck routes, within close proximity to stationary sources of air pollution, and within a high noise environment. It is important to note that part of the Central Estuary area is upwind which helps mitigate air quality emissions; however noise emissions remain. Assuming access to the shoreline remains public, shoreline and open space access will improve for existing and new residents through a new park as well as development impact fees that may contribute to park and streetscape improvements.		
Sustainable and Safe Transportation (Vehicle ownership, mode share, proximity to transit, pedestrian and bicycle networks, traffic-related collisions)	With increases in housing in the West and Central West subareas, it is likely that there will be additional automobile-related traffic as well as a greater number of ped/bike and transit trips in the area (though overall mode share may be unchanged). The extent to which the current mode split changes is dependent on the extent of ped/bike and transit improvements implemented. As the current ped/bike network and connectivity to surrounding areas is very poor, significant transportation improvements will be necessary to increase walking and biking. Overall, there is little detail on the level of ped/bike improvements that would result from development in the Estuary. Few households in the West area are within close proximity to local or regional transit. The Central West area has good proximity to local transit and poor proximity to regional transit.		While no new housing is proposed for this area, with new light industrial and R&D businesses locating in these subareas, an increased number of employees will be commuting into the area. Without significant transit and ped/bike improvements, these commute trips may be made primarily by car. However, these new uses may help generate improvements in transportation infrastructure, or could implement TDM measures in an effort to mitigate impacts on existing and new residents. With respect to ped/bike injuries, the more distinct separation of residential and industrial uses in this Alternative helps to create safer conditions for walking and biking.	

Health-Related Element	West	Central-West	Central-East	East
Sustainable and Safe Transportation (continued)	Focusing new housing where it already exists or close to existing housing (as in the West and Central West subarea) would help to focus ped/bike improvements as well as transit service in a way that supports existing as well as new residents. Increased density will increase collision frequency without countermeasures. With DIFs, the greater the amount of development, the more money there is available to generate these improvements; but without significant increases in density, it is unlikely that transit services will increase substantially enough to alter the mode share of commuters.			
Access to Goods and Services (Schools, child care, parks, libraries, grocery stores, banks/ credits unions)	The West subarea currently has the worst access to all forms of goods and services when compared to other subareas. With addition of significant residential uses, access may continue to be limited for residents. However, expected increase in retail uses in the area could improve access to daily needs. Furthermore, the part of the West subarea where increases in residential uses are planned is adjacent to the Central West subarea, where retail/goods proximity is much better. The density of residents in the same area may help to bring retail uses into the area. Proximity to public schools in this subarea will remain limited for new residents. Depending on the demand, increased transit and ped/bike improvements may help enhance access to existing schools.	Central West subarea households currently have the best proximity-based access to all forms of retail/public goods and services. As this Alternative locates new housing in this subarea, proximity to these services will remain good for these new residents (though quality and density of services is unknown). Locating new housing in this subarea both helps to take advantage of existing conditions and support businesses in the subarea that will serve new residents. Proximity to local public schools access remains excellent in the subarea.	Proximity to retail/goods and services in the Central East and East subareas are currently comparable. Proximity to schools is limited in both areas (especially the East subarea), and grocery store access is more limited in the Central East. As there are no provisions for additional housing in this subarea, there are no new impacts stemming from a lack of services. Poor access remains however for existing residents.	

Health-Related Element	West	Central-West	Central-East	East
Adequate and Healthy Housing (Density, cost burden, overcrowding, tenure)	The additional supply of housing in these two subareas under this Alternative will increase current densities. However, new development (particularly if it is ownership housing) is likely to induce some increases in the value of adjacent housing units, a vast majority of which is renter-occupied. Notably, the Central West subarea has the greatest number of existing residents throughout the Plan Area. The new housing stock will do little to alleviate existing overcrowding and may negatively impact housing cost burden in these subareas. Households in these subareas are currently the most cost-burdened when compared to other subareas. As a result, there is some potential for rent increases and displacement risk among existing residents. It is also unclear whether new housing will contribute to below market needs of wider Oakland community. Requiring the development of affordable housing, especially with diverse unit-size mix may help alleviate both overcrowding and housing cost burden.		There is no provision for additional housing in these subareas. Housing cost burden, overcrowding and tenure breakdown are unlikely to shift under this Alternative.	
Jobs and Livelihood (Income diversity, self-sufficiency)	There will be a significant reduction of employment, and of the viability of a strong cluster of "green" food industries in this subarea. One approach to mitigating the loss of these businesses is to somehow incentivize their moving into the new green industry cluster in the East subarea. New development in the area will help to diversify the income distribution in the West subarea.	The Alternative calls for the elimination of a limited amount of employment-generating retail uses in the Park Street Triangle. Generally speaking, retail uses provide wages below self-sufficiency levels. New development in the area will help to diversify the income distribution in the Central West subarea.	This Alternative calls for the replacement of jobs paying wages at/above self-sufficiency with jobs that also pay wages at/above self-sufficiency (from industrial to R&D incubator). However, it is likely that blue-collar jobs will be replaced by a mix job types that may not serve a displaced worker population in the short-term. Income diversity of residents will be unaffected as no new residential development is planned.	This Alternative goes the farthest to support the retention of jobs paying at/above self-sufficiency wages. Income diversity of residents will be unaffected as no new residential development is planned.

Health-Related Element	West	Central-West	Central-East	East
Social Cohesion (Violent and property crime)	Currently, the Planning Area as a whole has high violent crime and property crime rates. The extent to which crime decreases relates to how development under this Alternative is structured, and the types of mitigations that will be applied throughout the Planning Area. Known risk factors for crime in the Planning Area include poor pedestrian and bicycle environments, freeway on and off-ramps, high volume roadways and noise levels, and a relatively low population density. Though there is significantly less residential development in the area in comparison to Alternatives 1 and 3, the location of new housing alongside existing housing may help create a stronger community. Similarly, ped/bike and streetscape improvements could be applied in a more focused way. Collectively, these changes may contribute to more "eyes on the street". Finally, the phasing out of industrial uses in the West subarea helps contribute to a greater buffering of uses that could promote a more cohesive community.			

Table 7.4: Impacts of Alternative 3 on Health-related Indicators

Health-Related Element	West	Central-West	Central-East	East
Environment (Proximity to busy roadways, truck routes, stationary sources of air pollution, environmental contamination, noise, shoreline access and open space)	As a significant amount of new housing will be located in this subarea via this Alternative, new residents will face environmental burdens particularly from traffic-related air pollution and noise stemming from the I-880 freeways, arterial streets, and freight traffic, as well as from proximity to stationary sources of air pollution and noise stemming from intense industrial uses in the Area. Almost all new housing located in this area (slightly less for West subarea) will be within 1,000 feet or less of busy roadways, within 500 feet of truck routes, within close proximity to stationary sources of air pollution, and within a high noise environment. With the phasing out of industrial uses in this Alternative, existing conflicts stemming from the truck traffic and noise generated from industrial activities may be eliminated over time. It is important to note that part of the Central Estuary area is upwind which helps mitigate air quality emissions; however noise emissions remain. Feasible environmental mitigation technologies also exist to assess and mitigate freeway-related hazards for new residents. These technologies should be used, to the extent feasible, to accommodate new residential growth in the Area. These include limiting or re-routing trucks away from residential uses (via restrictions or traffic calming), incorporating indoor air ventilation (with filtration) systems, incorporating sound barriers, and orienting housing away from the freeway. Assuming access to the shoreline remains public, shoreline and open space access will improve for existing and new residents and workers through a new park as well as development impact fees that may contribute to park and streetscape improvements.			This Alternative calls for a considerable expansion of housing in this area, thereby creating a more sizable impact than in the preceding subareas. In addition to the impacts described for the other subareas, the East Planning area is also known to have significant soil contamination. Until it is fully phased out and mitigated, such contamination will be pose significant health risks for new residents. New residents and workers in this area will have excellent shoreline and open space access.

Health-Related Element	West	Central-West	Central-East	East
Sustainable and Safe Transportation (Vehicle ownership, mode share, proximity to transit, pedestrian and bicycle networks, traffic-related collisions)	The new residential and retail uses and the substantial increase in densities in the Planning Area under this Alternative are likely to necessitate significant improvements in transportation and street infrastructure. These improvements as well as the gradual phasing out of industrial uses under this Alternative are likely to do the most (in contrast to the other Alternatives) to improve ped/bike and transit conditions and to decrease the overall proportion of auto trips in the area. With this level of density, there will be the greatest number of new cars in the subarea; however, there is also the greatest amount of funding available via DIFs that can be used for transportation and streetscape improvements. There are varied levels of proximity to transit throughout the area, but in the West and East, where proximity is worst, the increased population density and demand may lead to a need to increase in service provision that compensates for poor proximity. Additionally, the phasing out of industrial uses in the area will remove many of the pedestrian and bike hazards that currently exist in the Planning Area. Some potential conflicts still remain, particularly around retail and incubator spaces in the Central East and East subareas, but these could be mitigated through traffic calming and TDM strategies. Increased density, however, even with no industrial uses, will increase collision frequency without countermeasures.			
Access to Goods and Services (Schools, child care, parks, libraries, grocery stores, banks/ credits unions)	Current proximity to goods and services is most limited in both the West subarea, and somewhat better in the Central East subarea, and best in the Central West subarea. While the Alternative indicates the placement of additional households in areas that currently have reasonable to limited access to goods and services, this Alternative may do the most to improve baseline access for existing and new residents. First, moderate increases in retail are anticipated in the East Subarea, which (depending on the types of service provided) will help support all residents of the Plan Area. More importantly, however, while provision of goods and services may not increase within the Plan Area substantially, the substantial increase in densities in the Plan Area under this Alternative are likely to necessitate significant improvements in transportation and street infrastructure that will enhance access to goods and services both within the Plan Area and to areas north of the Plan Area. These improvements as well as the gradual phasing out of industrial uses under this Alternative are likely to do the most (in contrast to the other Alternatives) to improve ped/bike and transit conditions that support safer access to daily needs. With this level of density, there is the greatest amount of funding available via DIFs that can be used for transportation and streetscape improvements. Finally, with such a large increase in population, it is likely that neighborhood serving retail may be more likely to locate into the area.			

Health-Related Element	West	Central-West	Central-East	East
Adequate and Healthy Housing (Density, cost burden, overcrowding, tenure)	The additional supply of housing in throughout the Plan Area under this Alternative will increase current densities significantly. However, new development (particularly if it is ownership housing) is likely to induce some increases in the value of adjacent housing units, a vast majority of which is renter-occupied in both the West and Central West subareas. Notably, the Central West subarea has the greatest number of existing residents throughout the Plan Area. The new housing stock will do little to alleviate existing overcrowding and may negatively impact housing cost burden in the West and Central West subareas. Households in these subareas are currently the most cost-burdened when compared to other subareas. As a result, there is some potential for rent increases and displacement risk among existing residents. It is also unclear whether new housing will contribute to below market needs of wider Oakland community. Importantly, available parcel sizes and the level of allowable density throughout the Plan Area may allow for a significant expansion including affordable housing, particularly in the Central East subarea. Requiring the development of affordable housing, especially with diverse unit-size mix may help alleviate both overcrowding and housing cost burden.			
Jobs and Livelihood (Income diversity, self-sufficiency)	This Alternative eliminates the greatest number of industrial jobs paying wages at or above self-sufficiency. Office uses in the East subarea will likely provide jobs that pay self-sufficiency wages; however, it is unknown whether these displaced industrial workers would be suited for these new jobs. Retail uses in the Central East subarea will provide some additional jobs, though retail jobs often provide wages below levels necessary for self-sufficiency. Given, the significant amount of new housing proposed throughout the Plan area, it is likely that resident income levels may diversify, though skew more towards moderate-higher levels.			
Social Cohesion (Violent and property crime)	Currently, the Planning Area as a whole has high violent crime and property crime rates. The extent to which crime decreases relates to how development under this Alternative is structured, and the types of mitigations that will be applied throughout the Planning Area. Known risk factors for crime in the Planning Area include poor pedestrian and bicycle environments, freeway on and off-ramps, high volume roadways and noise levels, and a relatively low population density. This Alternative goes the farthest to reduce risk factors for crime, including by increasing densities significantly and likely bringing the types of streetscape improvements that bring more people onto the streets. Finally, the phasing out of industrial uses in the West and East subareas (in comparison to Alternatives 1 and 2) helps eliminate some of the uses that are often associated with higher crime areas because streets are deserted at night.			