

5 ALTERNATIVES

The following discussion is intended to inform the public and decision makers of feasible alternatives to the proposed Plan. Section 15126.6 of the CEQA guidelines states that:

An EIR shall describe a range of reasonable alternatives to the project, or the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation.

A No Project Alternative is required as one of the “reasonable range of alternatives” that could feasibly attain most or all of the project’s objectives. Each alternative is analyzed against the significance thresholds considered in Chapter 4. The alternatives to the Plan are:

1. **No Project Alternative.** Under this alternative, the Specific Plan would not be adopted, and future development in the Plan Area would be subject to existing policies, regulations, and land use designations as per the existing General Plan.
2. **Reduced Density Alternative.** Development under this alternative would occur as under the policies of the Specific Plan, but with less intensive development of office and mixed uses, achieved through height restrictions, setbacks and reduced floor-area ratios.
3. **Housing on 391 Demeter Street Alternative.** Development under this alternative would occur as under the policies of the Plan, but the developable area of the property at 391 Demeter Street is assumed to be developed with residential land uses (at approximately 20 dwelling units per acre) rather than office/industrial flex uses.
4. **Wetlands Setback Alternative.** Development under this alternative would occur as under the policies of the Specific Plan. However, with this alternative, a 300-foot buffer zone would be drawn around the existing wetland edge, and new development would be prohibited in this

zone. The buffer zone would be restored as upland plant and wildlife habitat that would also serve to absorb flood waters. The same level of development would be accommodated on land set back from the wetlands edge, but at higher densities than the project. An optional item would be to build a new levee system on the landward side of the buffer and remove the existing levee to connect the newly restored area to the tidal wetlands in the Ravenswood Open Space area. An additional option would build a bridge over the wetlands area to Cooley Landing Park and restore the wetlands under the bridge, creating a continuous corridor for wildlife habitat from Menlo Park to Palo Alto.

A comparison of the buildout figures for the proposed Plan and each alternative is provided in Table 5-1, below. A comparison of potential impacts of each alternative to those of the Plan is provided in Table 5-2, below. Figures 5-1 to 5-4 show the land uses for the No Project Alternative, Reduced Density Alternative, Housing on 391 Demeter Street Alternative, and Wetlands Set-back Alternative, respectively.

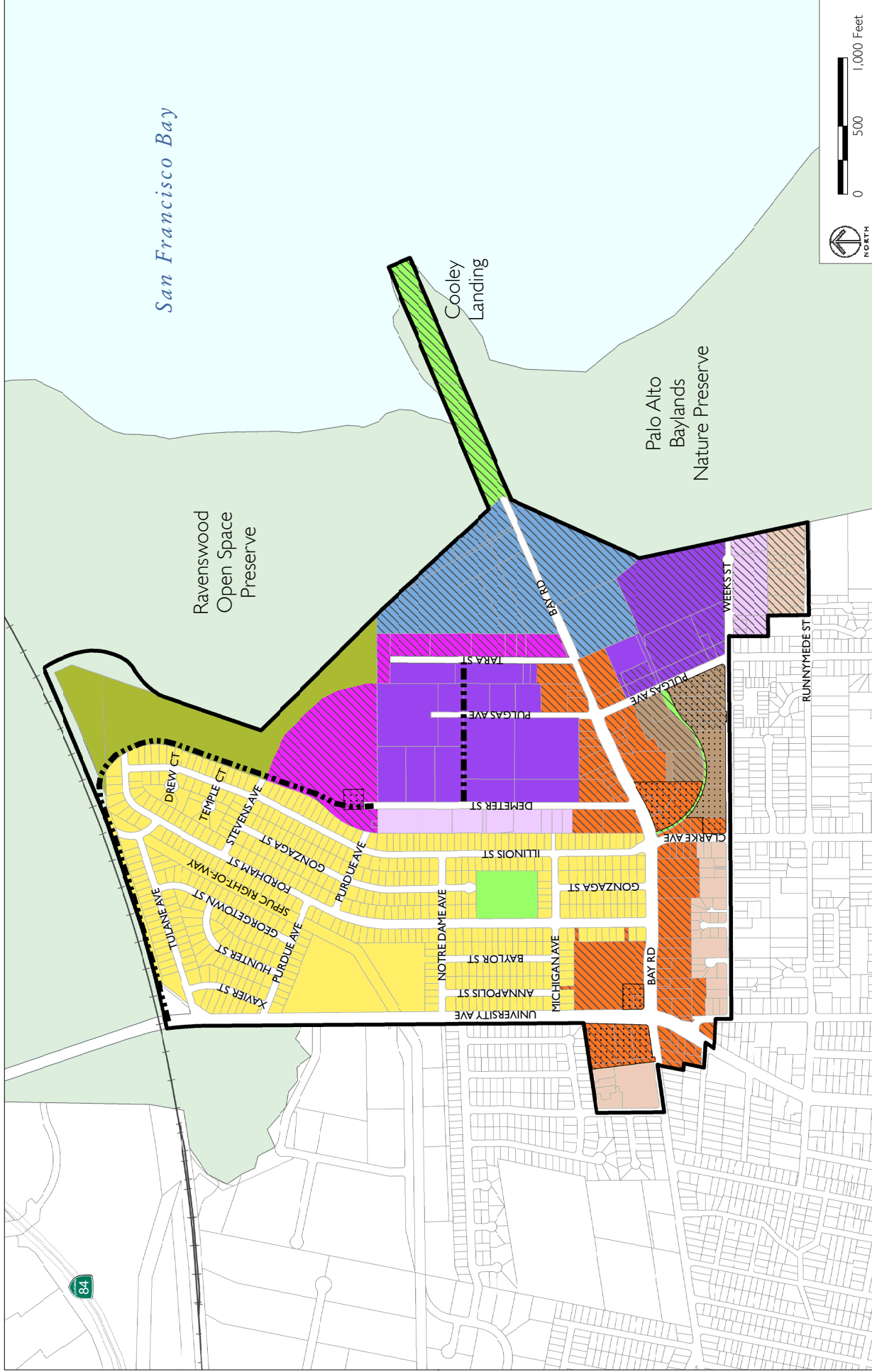
Under each alternative there is a discussion of how each measures up to the Specific Plan objectives presented in Chapter 3, Project Description. Table 5-3 summarizes how each alternative meets, or fails to meet, each project objective.

A. No Project Alternative

1. Principal Characteristics

Under the No Project Alternative, the proposed Specific Plan would not be adopted, and future development would occur under the existing General Plan land use designations and policy direction.

The General Plan density requirements in the Plan Area are shown in Figure 5-1. Height requirements under this alternative would be based on current Zoning Ordinance requirements. It is estimated that buildout of the No Project Alternative would result in approximately 474 new housing units in the



Source: City of East Palo Alto, 2009.

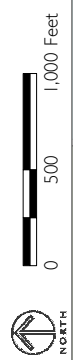
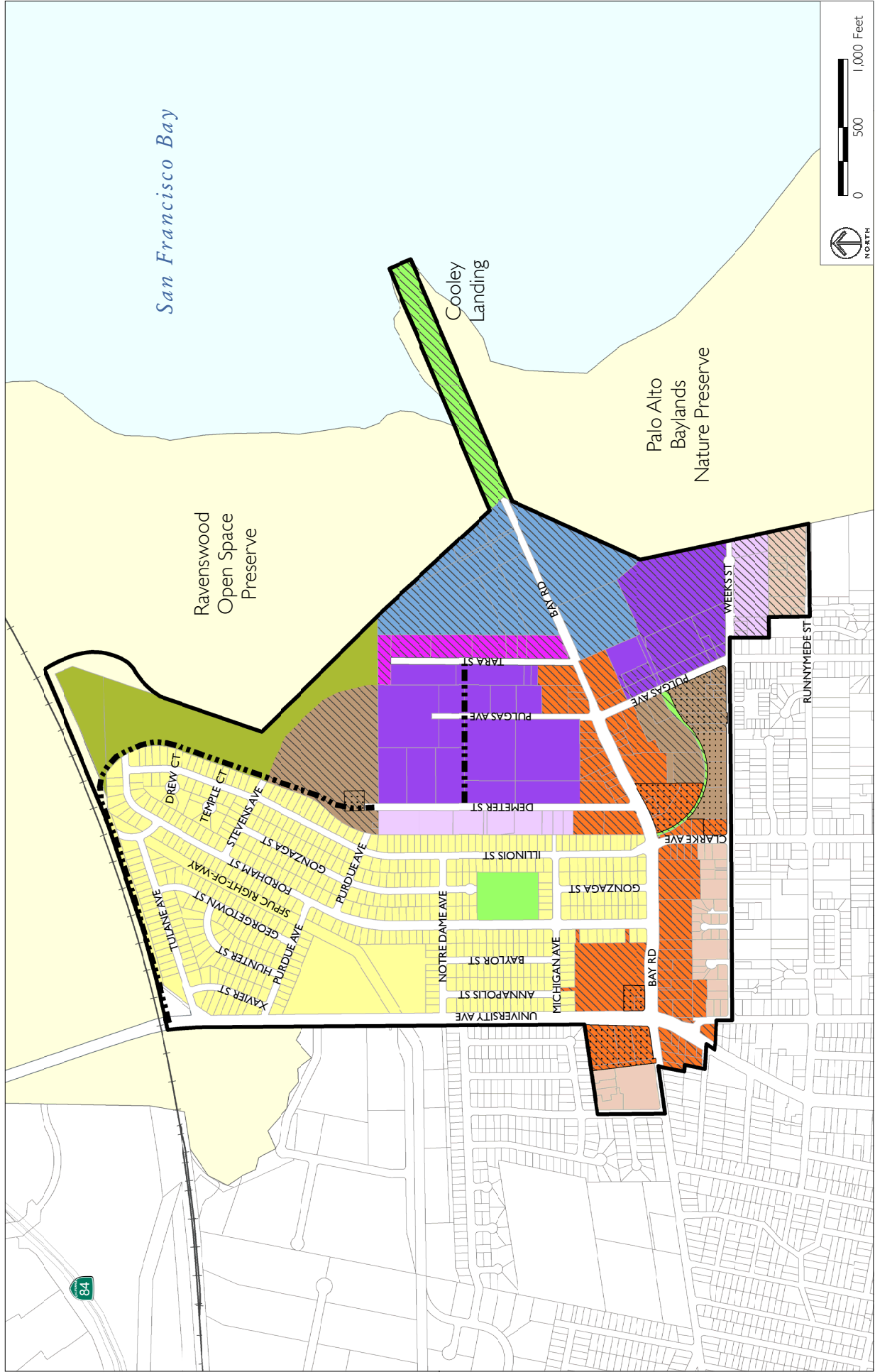


FIGURE 5-2

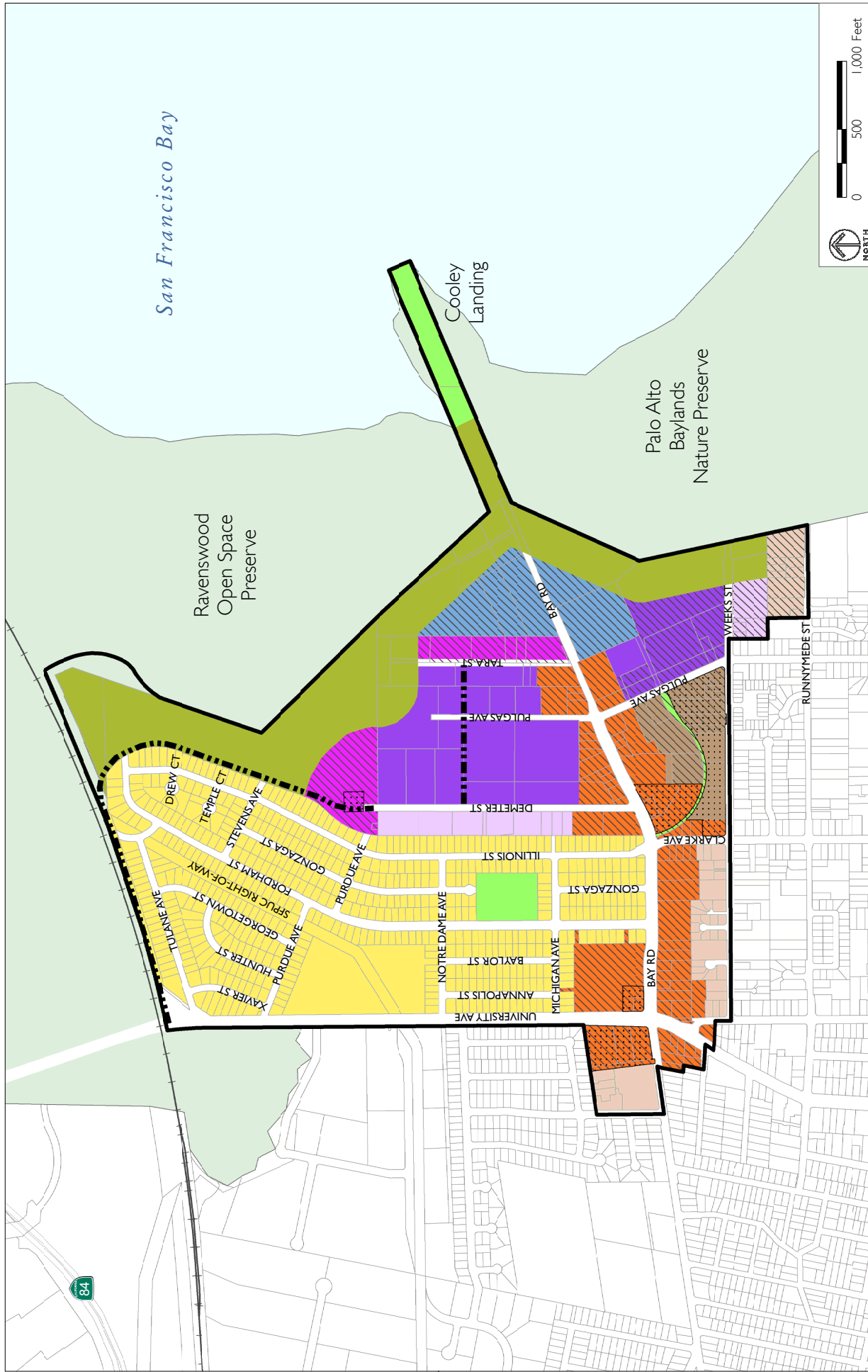
REDUCED DENSITY ALTERNATIVE



Source: City of East Palo Alto, 2009.

- Project Area
- Office
- R&D/Industrial
- Light Industrial
- Industrial/Office Flex
- High Density Residential
- Medium/High Density Residential
- Low/Medium Density Residential
- Community Open Space Conservation
- Resource Management
- Change in Designation
- Proposed Vehicle Connection
- Mixed-Use

FIGURE 5-3
 HOUSING ON 391 DEMETER STREET ALTERNATIVE



Source: City of East Palo Alto, 2009 and The Planning Center | DC&E, 2011.

- Proposed Vehicle Connection
- Civic Use Envisioned
- Project Area
- Change in Designation
- Mixed-Use
- Office
- R&D/Industrial
- Light Industrial
- Industrial/Office Flex
- High Density Residential
- Medium/High Density Residential
- Low/Medium Density Residential
- Community Open Space Conservation
- Resource Management

FIGURE 5-4

WETLANDS SETBACK ALTERNATIVE

CITY OF EAST PALO ALTO
 RAVENSWOOD/4 CORNERS TOD SPECIFIC PLAN DRAFT EIR
 ALTERNATIVES

TABLE 5-1 COMPARISON OF BUILDOUT FIGURES

| | Proposed Plan | No Project Alternative ^a | Reduced Density Alternative ^b | Housing on 391 Demeter Street Alternative ^c | Wetlands Setback Alternative ^d |
|-------------------------------------|---------------|-------------------------------------|--|--|---|
| Single-Family Residential (units) | 19 | 42 | 17 | 269 | 19 |
| Multi-Family Residential (units) | 816 | 432 | 734 | 816 | 816 |
| Residents | 2,766 | 1,591 | 2,489 | 3,741 | 2,766 |
| Office (square feet) | 1,268,500 | - | 1,141,650 | 1,056,145 | 1,268,500 |
| Retail (square feet) | 112,400 | 227,383 | 101,160 | 112,400 | 112,400 |
| Industrial/Commercial (square feet) | 351,820 | 754,400 | 316,638 | 297,370 | 351,820 |
| Employees | 4,851 | 1,537 | 4,366 | 4,079 | 4,851 |

^a By definition, land uses would occupy the same land area, and there would be fewer residents and employees. Buildout figures for the No Project Alternative assume expected dwelling units per acre and average floor area ratios identified in Table LU-2 in the East Palo Alto General Plan and that all new development expected to occur on parcels designated as General Commercial in the East Palo Alto General Plan would be developed with retail uses and that office uses would not be developed.

^b By definition, land uses would occupy 10 percent less area and have 10 percent fewer residents and employees.

^c By definition, land uses would occupy the same land area, except that high-density residential uses would replace Industrial/Office uses at the property on 391 Demeter Street. Consequently, there would be more residents and fewer employees.

^d By definition, land uses would occupy the same land area, and there would be the same number of residents and employees.

CITY OF EAST PALO ALTO
RAVENSWOOD/4 CORNERS TOD SPECIFIC PLAN
DRAFT EIR
ALTERNATIVES

TABLE 5-2 COMPARISON OF IMPACTS FROM PROJECT ALTERNATIVES

| Topic | No Project Alternative | Reduced Density Alternative | Housing on 391 Demeter Street Alternative | Wetlands Setback Alternative |
|---------------------------------------|---|-----------------------------|---|------------------------------|
| Aesthetics | = | + | + | = |
| Agriculture and Forestry Resources | = | = | = | = |
| Air Quality | + | + | - | = |
| Biological Resources | + | = | + | ++ |
| Cultural Resources | = | = | = | = |
| Geology, Soils, and Mineral Resources | + | + | + | = |
| Greenhouse Gas Emissions | = | + | - | = |
| Hazards and Hazardous Materials | + | + | - | = |
| Hydrology and Water Quality | + | + | - | ++ |
| Land Use and Planning | = | = | = | = |
| Noise | + | + | = | = |
| Population and Housing | = | + | = | = |
| Public Services and Recreation | + | + | - | = |
| Transportation/Traffic | ++ | + | - | = |
| Utilities and Service Systems | + | + | - | = |
| ++ | Substantial improvement compared to the proposed project. | | | |
| + | Slight improvement compared to the proposed project. | | | |
| = | Similar to the proposed project. | | | |
| - | Slight deterioration compared to the proposed project. | | | |

TABLE 5-3 COMPARISON OF PROJECT ALTERNATIVES TO OBJECTIVES

| # | Objective | No Project Alt. | Reduced Density Alt. | Housing on 391 Demeter St. Alt. | Wetlands Setback Alt. | Specific Plan |
|---|---|--------------------|---------------------------------------|--------------------------------------|----------------------------------|---------------|
| 1 | Enhance 4 Corners and Bay Road with new development and streetscape improvements that will enliven the street, create a “downtown” feeling for pedestrians, and improve safety by providing “eyes on the street.” | No | Yes | Yes | Yes | Yes |
| 2 | Transform Ravenswood into a thriving employment center that provides a variety of new jobs. | No | ~ Yes, although fewer jobs | ~ Yes, although fewer jobs | Yes | Yes |
| 3 | Encourage new development in Ravenswood by promoting new R&D uses as part of a broader mix of uses. | No | ~ Yes, although fewer jobs | ~ Yes, although fewer jobs | Yes | Yes |
| 4 | Capitalize on the commercial potential of offices with Bay views by encouraging the development of tall office buildings close to the Bay. | No | ~ Yes, but not as tall | ~ Yes, although fewer tall buildings | ~ Yes, although slightly farther | Yes |
| 5 | Provide strong regional connectivity to the Ravenswood employment centers through an improved road system. | Adequate for now? | Yes | Yes | Yes | Yes |
| 6 | Create better public spaces in Ravenswood through streetscape improvements and by providing new plazas and parks. | No | Yes | Yes | Yes | Yes |
| 7 | Facilitate non-auto linkages through a network of off-street pedestrian and bicycle facilities, an improved sidewalk network, and connections to existing and planned public transportation. | No | Yes | Yes | Yes | Yes |
| 8 | Strengthen and enhance the University Village neighborhood by providing public improvements, promoting homeowner investment, and establishing the SFPUC right-of-way as a public park. | No current finance | ~ Yes, but less revenue to pay for it | Yes | Yes | Yes |

TABLE 5-3 COMPARISON OF PROJECT ALTERNATIVES TO OBJECTIVES (CONTINUED)

| # | Objective | No Project Alt. | Reduced Density Alt. | Housing on 391 Demeter St. Alt. | Wetlands Setback Alt. | Specific Plan |
|----|--|--------------------|---------------------------------------|---------------------------------|-----------------------|---------------|
| 9 | Seek to provide new community facilities, including a community center where people can gather for special events; a new school; an expanded health clinic and public library; and a recreation center that would provide a safe and welcoming place for the city's youth. | No current finance | ~ Yes, but less revenue to pay for it | Yes | Yes | Yes |
| 10 | Facilitate the cleanup of contaminated sites by providing new development opportunities in those locations. | No | Yes | Yes | No | Yes |

Source: The Planning Center | DC&E, 2011.

Plan Area and 1,591 residents, 227,383 square feet of retail development, and 754,400 square feet of office development for a working population of 1,537 by 2035.

2. Impact Discussion

a. Aesthetics

Views and visual landscapes would remain as they are now. As the area is low-lying and buildings generally one or two stories, there are no prominent Bay views, although there are some hill views. However, although they are limited in extent, existing eastwards views of the baylands could also be intersected by tall industrial buildings of up to 7 stories in height under the No Project Alternative. Similarly, views from the Bay Trail looking west towards the hills could potentially be intersected by tall buildings. Visual landscapes would remain in their current state, with functional-looking industrial buildings and auto-oriented streets. However, this is not a CEQA impact. Overall, the impact would be *equivalent*.

b. Agriculture and Forestry Resources

The project area has no agricultural or forestry resource and no impacts from the Plan implementation. This alternative would be *equivalent* to the proposed project in that regard.

c. Air Quality

Development under the No Project Alternative would result in fewer residents, employees, and vehicle miles traveled, resulting in lower emissions of criteria pollutants. As development would not be catalyzed in the same way in the absence of the Specific Plan, there would probably be lower construction emissions; however, the ongoing transportation-related emissions would dominate. The impact would be *reduced* compared to the proposed project, and the No Project Alternative would be an improvement.

d. Biological Resources

Most of the Plan Area is already developed. Vacant sites are mainly highly disturbed and do not support much, if any, vegetation. This is also true for

the triangular area of fill on the 391 Demeter Street property. One notable exception is that under the Specific Plan, a loop road is proposed on this property, around the existing residential development across the fill area, connecting to Demeter Street. Development of this area is highly likely to involve filling of some wetland areas. In addition, under the Specific Plan, the 2008 Draft Engineering Plan (DEPLAN) for infrastructure improvements would be implemented, and several utilities would be undergrounded through wetlands. Buildout under the General Plan would not necessitate this encroachment into wetlands, resulting in *reduced* impacts compared to the proposed project. The No Project Alternative would therefore be an improvement.

e. Cultural Resources

Since development could occur anywhere within the Plan Area as regulated by the General Plan and zoning, the impact on cultural resources would be *equivalent* to the proposed project.

f. Geology and Soils

Although the No Project Alternative does not contain office uses or mixed uses including offices (except for a small portion west of University Avenue), General Industrial uses can be up to 75 feet tall. Therefore, in theory the new development under the existing General Plan would require the same foundation designs as under the Specific Plan. Under current code, buildings already have to be built above the flood plain. However, the No Project Alternative brings in fewer people to the Plan Area, which is an active seismic area, compared to the proposed project. There would therefore be a *reduced* impact from this alternative compared to the proposed project, and the No Project Alternative would be an improvement.

g. Greenhouse Gas Emissions

Buildout of the existing General Plan under the No Project Alternative would cause less intensive development and a lower square footage. This would reduce the energy use from building operation, and the number of people traveling and therefore vehicle miles traveled. Both of these effects would reduce

GHG emissions. However, the Specific Plan contains Transportation Demand Management (TDM) requirements and other policies to reduce GHG emissions. Overall, this alternative would have an *equivalent* impact compared to the proposed project.

h. Hazards & Hazardous Materials

This alternative does not promote redevelopment of developed areas that are already contaminated, and so does not disturb the existing soil/groundwater system, but it also does not promote remediation of those sites through their redevelopment. Vacant sites that may have contaminated fill, including the 391 Demeter Street property, could still be developed. However, this alternative brings fewer people living and working in the area and coming in close contact with heavy industry. There would therefore be no overall change in the impact, and it would be *reduced* to the proposed project and the No Project Alternative would be an improvement.

i. Hydrology and Water Quality

Buildout of the General Plan would utilize the same footprint as the Specific Plan. Existing regulations governing new development in flood plains would apply, and structures would also be placed on fill to raise them above the flood plain. There would be little difference in the impacts from this alternative with regards to placing people and structures in the 100-year flood hazard zone. However, since buildout under the General Plan would result in fewer dwelling units, fewer people would be subject to the flooding risk. There would therefore be a *reduced* impact from this alternative compared to the proposed project, and the No Project Alternative would be an improvement.

j. Land Use and Planning

By definition, the No Project Alternative would not cause a land use impact, as it represents development under existing approved plans. As the proposed project was found to be broadly consistent with existing plans and policies, this alternative would be *equivalent* to the proposed project.

k. Noise

Buildout under the General Plan would result in fewer residents, employees, and vehicle miles traveled compared to buildout of the Specific Plan. As vehicle noise along busy streets is the dominant noise source, noise would be slightly lower under the No Project Alternative. With fewer construction projects for new buildings and infrastructure, temporary construction noise would also be less. The impact would therefore be *reduced* compared to the proposed project, and the No Project Alternative would be an improvement.

l. Population and Housing

Development under the General Plan and Specific Plan would add new population to the area. However, existing population projections by ABAG in 2009 included development projections for the Plan Area with at least the number included in the Specific Plan. In addition, implementation of the Specific Plan would not displace people who live or work in the area and has no impact on population and housing. The No Project Alternative, which also has no impact, would be *equivalent* to the proposed project.

m. Public Services and Recreation

Buildout under the existing General Plan would result in fewer residents and employees than buildout under the Specific Plan. There would therefore be fewer service calls to fire and police and a reduced need for new schools and libraries. In addition, the Specific Plan contains a policy to ensure that fire service expansion would be paid for by proportional development fees. School and library service expansion are already covered by development fees mandated by State law. As the need for police service expansion is not measured using adopted service ratios, an increase in need would not necessarily trigger expansion of service. With less development in the Specific Plan Area, the need for expanded police services would be less and the impact would be *reduced* compared to the proposed project. The No Project Alternative would therefore be an improvement.

n. Transportation/Traffic

The Specific Plan buildout would produce eight significant and unavoidable impacts to traffic from unacceptable levels of service at study intersections. These impacts would be unavoidable because the intersections are not within the City of East Palo Alto's jurisdiction and mitigation could not necessarily be implemented by the City; because there is no funding mechanism in place to ensure that the mitigation is provided; or because no mitigation is available. Under cumulative conditions, there would be impacts at 13 intersections.

Although buildout under the General Plan would also produce significant and unavoidable impacts due to increased traffic volumes resulting from regional growth, in addition to buildout of the existing General Plan, buildout under the General Plan would have lower vehicle miles traveled due to having fewer residents and employees in the Plan Area. The effect would therefore be less. Impacts would be *reduced*, and the No Project Alternative would be an improvement.

o. Utilities and Service Systems

With fewer people in the service area, less water would be consumed. There is already insufficient water to support the existing population, and the situation deteriorates with buildout under the General Plan. The Specific Plan contains a policy restricting development until new water rights have been obtained. Without this policy, buildout under the General Plan would proceed without the provision that new developers secure additional water rights. This would be an increased impact compared to the proposed project. Additional water treatment rights with the East Palo Alto Sanitary District (EPASD) would be needed for growth under the General Plan or Specific Plan. As the population increased, this situation would become more acute, and the General Plan would not have a policy in place to ensure these treatment rights are obtained prior to development. Implementation of the DEPLAN for infrastructure upgrades would provide adequate infrastructure for the new development and would improve the existing flooding situation over the southern part of the Plan Area. With the No Project Alternative, pre-

sumably the DEPLAN would not be implemented and the existing flooding situation would continue, which would be an increased impact compared to the proposed project. Overall, however, due to the water availability issue, there would be a *reduced* impact compared to the proposed project, and the No Project Alternative would be an improvement.

3. Feasibility and Comparison to Project Objectives

Table 5-3 summarizes the consistency between the No Project Alternative and the objectives outlined in Chapter 3, Project Description. The No Project Alternative would meet very few of the objectives. The 4 Corners and Bay Road arteries would continue to receive little foot traffic, fail to provide a “downtown” experience, and feel unsafe at night. There would not be a substantial increase in jobs. The bayside space would still be occupied by broad, low-rise industrial buildings, many now vacant due to contamination issues. There would be no increased likelihood that these former contaminated sites would be completely cleaned up due to new development on the sites.

With current City revenue, there would still be insufficient funding to pay for public improvements such as community facilities and parks that would improve the quality of life for local residents. The road system would remain in its current state. However, the industrial buffer zone to the east of the main industrial area, and the residential land use designations to the south of Bay Road, would continue to provide a degree of protection to existing housing from incompatible development.

B. Reduced Density Alternative

1. Principal Characteristics

Development under this alternative would occur as under the policies of the Specific Plan, but with less intensive development of office and mixed uses, which would be achieved through height restrictions, increased setbacks, and reduced floor-area ratios. The square footage proposed would be reduced by 10 percent for each land use to achieve a 10 percent decrease in resident popu-

lation and employees. This would reduce the traffic-generated impacts and water demands of the project.

2. Impact Discussion

a. Aesthetics

To achieve the reduction in land uses, building footprints and heights would be lower than under the Specific Plan. Eastwards views of the baylands, and westward views from the Bay Trail on the baylands, would potentially be less impeded by tall office buildings. There would therefore be a *reduced* impact compared to the proposed project, and the Reduced Density Alternative would be an improvement.

b. Agriculture and Forestry Resources

The project area has no agricultural or forestry resource and no impacts from the Plan implementation. This alternative would be *equivalent* to the proposed project in that regard.

c. Air Quality

Development under the Reduced Project Alternative would result in fewer residents, employees, and vehicle miles traveled, resulting in lower emissions of criteria pollutants. As development would be less intensive, there would probably be lower construction emissions; however, the ongoing transportation-related emissions would dominate. The impact would be *reduced* compared to the proposed project, and the No Project Alternative would be an improvement.

d. Biological Resources

The footprint of development would be essentially unchanged with this alternative, although some increased setbacks would result in increased landscaping around buildings. There would be no change to biological resource impacts through adoption of this alternative, and this would be *equivalent* to the proposed project.

e. Cultural Resources

With essentially the same development footprint, aside from increased landscaped area, there would be no change to the cultural resource impacts from this alternative, and this alternative would be *equivalent* to the proposed project.

f. Geology and Soils

Although the footprint of the development would be essentially the same, the height, and therefore the weight, of some development would be reduced. Foundations might have to be less deep, and less imported fill would be needed to raise the level of the buildings from the flood plain. The Reduced Density Alternative would bring fewer people into the project area, which is an active seismic zone. There would therefore be a slightly *reduced* impact from this alternative compared to the proposed project, and the Reduced Density Alternative would be an improvement.

g. Greenhouse Gas Emissions

Reduction of the developed square footage would reduce the energy use from building operation, and the number of people traveling and therefore vehicle miles traveled. Both of these effects would reduce GHG emissions. The alternative would have a *reduced* impact compared to the proposed project, and the Reduced Density Alternative would be an improvement.

h. Hazards and Hazardous Materials

With essentially the same development footprint, there would be no change to the hazards and hazardous materials impacts resulting from disturbing subsurface contamination and redeveloping contaminated sites. However, this alternative brings fewer people living and working in the area and coming in close contact with heavy industry. The impact would therefore be *reduced* compared to the proposed project.

i. Hydrology and Water Quality

With greater setback requirements, and therefore more space for landscaping, the footprint of the development would be less, leaving more space for

stormwater absorption. The reduced height, and therefore weight, of some of these buildings would mean that foundations might not have to be as deep, and less imported fill would be needed to raise the level of the buildings from the flood plain. There would therefore be a *reduced* impact from this alternative compared to the proposed project, and the Reduced Density Alternative would be an improvement.

j. Land Use and Planning

This alternative would have the same layout of land uses as the proposed project and would not significantly differ. It would therefore be *equivalent* to the proposed project.

k. Noise

The lower number of residents and employees, and therefore vehicle miles traveled, would produce less vehicle noise along busy streets. Construction noise would be approximately the same as under the Plan. Overall, the impact would be *reduced* compared to the proposed project, and the Reduced Density Alternative would be an improvement.

l. Population and Housing

The population of the Plan Area with buildout under the Specific Plan is within the estimates forecasted by ABAG in 2009 and causes no impact. There is also no significant displacement of people as a result of the Specific Plan development. There is therefore no difference in impact with the Reduced Density Alternative, and the impact would be *equivalent*.

m. Public Services and Recreation

A lower population in the Plan Area requiring police and fire services would reduce the need for service expansion. Although this could be paid for through development impact fees, police service needs are not currently covered by an adopted service ratio. With fewer people in the Plan Area needing services, the impact to services would therefore be *reduced*, and the Reduced Density Alternative would be an improvement.

n. Transportation/Traffic

With fewer residents and employees in the Plan area and a lower number of vehicle miles travelled, traffic congestion would be slightly less. Impacts would be *reduced*, and the Reduced Density Alternative would be an improvement.

o. Utilities and Service Systems

With fewer people in the service area, less water would be consumed. There is already insufficient water to support the existing population. The Specific Plan contains a policy restricting development until new water rights have been obtained. With a reduced population, the need for additional water rights would be less acute, and the impact would be reduced compared to the proposed project. Additional water treatment rights with EPASD would be needed for growth. The Specific Plan policy to ensure that these treatment rights are obtained prior to development would still be in place. However, with the reduced density alternative, the impact would be reduced. The DE-PLAN for infrastructure upgrades would still be implemented under this alternative, providing adequate infrastructure for the new development and improving the existing flooding situation over the southern part of the Plan Area. Overall, there would be a *reduced* impact compared to the proposed project, and the Reduced Density Alternative would be an improvement.

3. Feasibility and Comparison to Project Objectives

As shown in Table 5-3, the Reduced Density Alternative would meet all of the project objectives, although some would be fulfilled less well. The lower building square footage and smaller buildings would provide fewer jobs and less revenue to the City to fund capital improvements and public amenities. With height restrictions, although offices would still have Bay views, they would be slightly less impressive than if the building were taller. With a change in uses, there could be more incentives to redevelop contaminated sites near the Bay.

C. *Housing on 391 Demeter Street Alternative*

1. Principal Characteristics

Development under this alternative would occur as under the policies of the Plan, but the developable area of the property at 391 Demeter Street is assumed to be developed with residential land uses (at approximately 20 dwelling units per acre) rather than office/industrial flex uses.

2. Impact Discussion

a. Aesthetics

As this alternative accommodates high density residential uses instead of office/industrial flex development on the 391 Demeter Street property, building footprints and heights would on average be lower than under the Specific Plan. In the northern parts above Purdue Avenue, eastward views of the baylands and westward views from the Bay Trail on the baylands would potentially be less impeded by tall office buildings. There would therefore be a *reduced* impact compared to the proposed project, and the Housing on 391 Demeter Street Alternative would be an improvement.

b. Agriculture and Forestry Resources

The project area has no agricultural or forestry resource and no impacts from the Plan implementation. This alternative would be *equivalent* to the proposed project in that regard.

c. Air Quality

Under this alternative, the population increase would be slightly higher than the proposed plan. As a result, there would be a slightly higher number of new traffic trips generated and more pollutant emissions associated with the additional residential development. All mitigation measures that are applicable to the proposed project would also be applied to this alternative. Overall, impact would be *increased* and this alternative would be a deterioration compared to the proposed project.

d. Biological Resources

With fewer tall office buildings close to the Bay, there would also be less opportunity for bird strikes. There would therefore be a slightly *reduced* impact from this alternative compared to the proposed project, and the Housing on 391 Demeter Street Alternative would be an improvement.

e. Cultural Resources

With the change in development type, there would be little change to the cultural resource impacts from this alternative, and this alternative would be *equivalent* to the proposed project.

f. Geology and Soils

As there would be fewer tall buildings on land close to the Bay, the weight of development would be reduced and less imported fill would be needed to raise the level of the buildings from the flood plain. There would therefore be a slightly *reduced* impact from this alternative compared to the proposed project, and the Housing on 391 Demeter Street Alternative would be an improvement.

g. Greenhouse Gas Emissions

This alternative would result in a relative increase in the number of residents, but reduction in the number of jobs in the Specific Plan area, compared to the proposed project, leading higher number of vehicle miles traveled. Although the reduction of the developed square footage overall would reduce the energy use from building operation, the ongoing transportation-related emissions would dominate. Therefore there would be an *increased* impact, and the Housing on 391 Demeter Street Alternative would be a deterioration.

h. Hazards and Hazardous Materials

With the smaller development footprint, there would be no change to the hazards and hazardous materials impacts resulting from disturbing subsurface contamination and redeveloping contaminated sites, except that sites would have to be cleaned up to the higher standards required for residential rather than commercial/industrial development. However, since the property

would be located immediately adjacent to the land designated for R&D/Industrial uses, this alternative would bring more people living in the area and coming in close contact with heavy industry. The impact would therefore be *increased*, and the Housing on 391 Demeter Street Alternative would be a deterioration.

i. Hydrology and Water Quality

This alternative would bring more residents in the 100-year flood hazard zone in the Plan Area. Therefore there would be an *increased* impact from construction of housing and structures in the flood plain under this alternative compared to the proposed project, and the Housing on 391 Demeter Street Alternative would be deterioration.

j. Land Use and Planning

As the proposed project was found to be broadly consistent with existing plans and policies, this alternative would not alter that situation, and the impacts would be *equivalent* to the proposed project.

k. Noise

The slightly higher number of residents and employees, and therefore vehicle miles traveled, would produce more vehicle noise along busy streets. However, because of the smaller footprints and lower building heights of single-family residential development, construction noise would be slightly less than under the Plan. Overall, this alternative would be *equivalent* to the proposed project.

l. Population and Housing

The population of the Plan Area with buildout under this alternative is within the estimates forecasted by ABAG in 2009 and causes no impacts. There is also no significant displacement of people as a result of this alternative development. There is therefore no difference in impacts with the Housing on 391 Demeter Street Alternative, and the impacts would be *equivalent*.

m. Public Services and Recreation

A higher population in the Plan Area requiring police and fire services would increase the need for service expansion. Although this could be paid for through development impact fees, police service needs are not currently covered by an adopted service ratio. With more people in the Plan Area needing services, the impact to services would therefore be *increased*, and the Housing on 391 Demeter Street Alternative would be a deterioration.

n. Transportation/Traffic

With more residents and less jobs in the Plan area and the higher number of vehicle miles traveled, traffic congestion would be slightly greater. Impacts would be *increased*, and the Housing on 391 Demeter Street Alternative would be a deterioration.

o. Utilities and Service Systems

With more people in the service area, more water would be consumed. There is already insufficient water to support the existing population. The Specific Plan contains a policy restricting development until new water rights have been obtained. With an increased population, the need for additional water rights would be more acute, and the impact would be increased compared to the proposed project. Overall, there would be an *increased* impact compared to the proposed project, and the Housing on 391 Demeter Street Alternative would be a deterioration.

3. Feasibility and Comparison to Project Objectives

As shown in Table 5-3, the Housing on 391 Demeter Street Alternative would meet all of the project objectives, although some would be fulfilled less well. The replacement of office/industrial flex with high density residential developments would provide fewer jobs and less revenue to the City to fund capital improvements and public amenities. This alternative is only feasible if contamination could be remediated to standards suitable for residential development.

D. Wetland Setback Alternative

1. Principal Characteristics

With this alternative, a 300-foot wide buffer zone would be drawn around the existing wetland edge, and new development and infrastructure would be prohibited in this zone. A 300-foot buffer around tidal wetlands is one of the goals of the *Baylands Ecosystem Habitat Goals*, prepared in 1999 by the U.S. Environmental Protection Agency and San Francisco Water Quality Control Board.¹

Structures on vacant properties could be demolished and the land restored and remediated to provide an upland area of habitat, with a refuge for wildlife in the event of a very high tide. At a later date, the existing levee system with the Bay Trail could be moved inland and the buffer zone habitat be connected to the wetland. The easternmost portion of Bay Road could be replaced with a road bridge to the end of Cooley Landing, and wetlands underneath the bridge restored, creating a continuous corridor for wildlife through the Palo Alto Baylands to the Ravenswood Open Space Preserve and Don Edwards National Wildlife Reserve. Public access to this zone would be restricted to a trail around the external levee and a boat launch point at Cooley Landing, accessed via a bridge with a marsh overlook.

The buffer zone would be important for flood protection to areas inland by accommodating changes to water levels during exceptionally high tides and storms and providing space for water to flood. The same degree of development would be accommodated on land set back from the wetlands edge. If the developed vacant properties in the buffer zone were restored as wildlife habitat rather than being developed, and the undeveloped land were not de-

¹ U.S. Environmental Protection Agency and San Francisco Water Quality Control Board, 1999. *Baylands Ecosystem Habitat Goals*. Part of the Series: Goals Project. A report of habitat recommendations prepared by the San Francisco Bay Area Wetlands Ecosystem Goals Project

veloped, as under the Plan, an estimated 20 acres would be made available for groundwater recharge.²

Several properties in the proposed buffer zone are contaminated by past industrial activities, most notably those at the eastern ends of Bay Road and Weeks Street. These include the former Romic Environmental Technologies hazardous waste management facility at 1990 Bay Road, which is a federal Superfund site. The subsurface remediation would have to be completed, and the 20-foot deep sub-surface barrier preventing offsite migration of contaminants would have to be removed for this alternative to function. The area of contaminated soil on the 391 Demeter Street property would also partially fall within the 300-foot setback from the wetland areas and would need to be remediated and restored. The Pacific Gas and Electric Company (PG&E) substation would also be moved for this alternative.

The existing residential development to the north and the small amount south of Weeks Street would remain. This alternative does not preclude construction of the loop road, and if it were placed on a levee, it could serve as a flood protection device. Provided it did not compromise flood protection, the levees around the Ravenswood Open Space Preserve area could then be removed.

2. Impact Discussion

a. Aesthetics

As, by definition, this alternative accommodates the same degree of development on a reduced amount of land, building heights would on average be taller, although height limits would not necessarily be greater. However, the tallest buildings would not be located as close to the tidal marsh edge. There would be little difference in views or visual landscapes from the Wetlands Setback Alternative, and the impact would be *equivalent* to the proposed project.

² Only the unsaturated portion of the upland area above the water table would be available for water storage.

b. Agriculture and Forestry Resources

The project area has no agricultural or forestry resource and no impacts from the Plan implementation. This alternative would be *equivalent* to the proposed project in that regard.

c. Air Quality

This alternative assumes the same number of residents, employees, and vehicle miles traveled. The impact would therefore be *equivalent* to the proposed project.

d. Biological Resources

This alternative would restore the existing wetland habitat and create some contiguous upland habitat. A small amount of wetland area would still be used for flood defense and the loop road. Although during restoration there could be temporary impacts to special-status species and sensitive natural communities, on project completion there would be substantial improvements to habitats that support special-status species. As a consequence of the project a small area of wetlands would still be filled; however a larger amount would be restored. There would be no conflict with the goals of the Baylands Ecosystem Habitat Goals project. In conclusion, the impact from this alternative would be *reduced* compared to the proposed project, and the Wetland Setback Alternative would be a substantial improvement.

e. Cultural Resources

Under this alternative, the easternmost 300 feet (as much as 500 feet in the triangular area of the 391 Demeter Street property) would be restored rather than developed or redeveloped. Much of this area has already been disturbed for construction of industrial facilities. Archaeological remains are found throughout the Plan Area, and paleontologic remains and human remains have the potential to be found throughout the Plan Area. The impacts from restoration and utility burial are likely to involve as much ground disturbance as would redevelopment. It is unlikely that any historic buildings would be

affected in this zone. In conclusion, the impact from this alternative would be *equivalent* to the proposed project.

f. Geology and Soils

As shown on Figure 4.6-1, the easternmost 300 to 500 feet of land is underlain directly by Bay Mud, artificial fill, or coarser basin deposits. Bay Mud is probably present beneath the fill and coarser deposits, and most of the building foundations would penetrate it. Groundwater is very shallow in this zone, between 0 and 8 feet below the ground surface, and the sediments below this level are saturated. This zone will experience amplified shaking in an earthquake relative to areas farther from the Bay. There could also be lateral spreading and differential settling from construction on Bay Mud as a result of earthquakes. The muddy substrate is also expansive. Although construction in these zones is difficult, there are engineering solutions to allow structures to be built that can withstand these effects and comply with all the provisions of the California Building Code. The impact from this alternative would therefore be *equivalent* to the proposed project.

g. Greenhouse Gas Emissions

This alternative contains the same amount of square footage of development as the proposed project, although that development would be distributed differently. Most of the greenhouse gas (GHG) emissions from the Plan implementation would be generated from energy used in building operations, industrial processes, and traffic. There could be a small benefit from increasing development density in the area away from the buffer zone, but overall, this alternative would be *equivalent* to the proposed project.

h. Hazards and Hazardous Materials

Development under the Wetlands Setback Alternative would result in no changes to the impacts from bringing residential development into relatively close proximity with industry. There would be a slightly reduced impact from the proximity of the Palo Alto Airport by locating fewer people in this area.

Under this alternative, new development in the easternmost zone would be restricted, and the developed and disturbed sites close to the Bay would be restored if and when those sites became vacant. This would still involve disturbing subsurface contamination and demolishing existing contaminated structures. This would then facilitate a complete remediation and restoration effort. Instead of building new structures to prevent human contact with remnant contamination, or restricting the degree of contact by preventing residential development, human access would be prevented. In conclusion, overall, this alternative would be *equivalent* to the proposed project.

i. Hydrology and Water Quality

If an area of approximately 20 acres closest to the Bay is either preserved in its natural state or converted to permeable upland areas for groundwater recharge, this would provide some storage capacity for flood waters. The area closest to the Bay would not be developed with tall, heavy office and/or apartment buildings requiring deep foundations, compacted engineering fill, and elevation out of the flood plain. There would be a *reduced* impact from construction of housing and structures in the flood plain under this alternative compared to the proposed project, and the Wetland Setback Alternative would be a substantial improvement.

j. Land Use and Planning

As the proposed project was found to be broadly consistent with existing plans and policies, this alternative would not alter that situation, and the impacts would be *equivalent* to the proposed project.

k. Noise

This alternative would include the same number of residents and employees in the Plan Area with the same amount of traffic and construction noise. The noise would be concentrated in the core of the Specific Plan area away from the tidal marsh edge. However, overall the impact would be *equivalent* to the proposed project.

l. Population and Housing

This alternative includes the same number of people with a slightly different distribution. The impact would be *equivalent* to the proposed project.

m. Public Services & Recreation

With the same population as under the Specific Plan, this impact would be *equivalent* to the proposed project.

n. Transportation/Traffic

With the same population as under the Specific Plan, this impact would be *equivalent* to the proposed project.

o. Utilities and Service Systems

With the same population as under the Specific Plan, the impacts from increased water supply demand and wastewater treatment needs would be *unchanged*. There would be a minor change to the location of new pipes and their sizing, but generally the impact would be *equivalent* to the proposed project.

3. Feasibility and Comparison to Project Objectives

As shown in Table 5-3, the Wetlands Setback Alternative would meet all the project objectives, with the exception of the last which is to facilitate the cleanup of contaminated sites by providing new development opportunities in those locations. It is possible that the commercial potential of the bayside offices would be slightly reduced if they were set back slightly farther from the Bay with intervening upland areas. If this alternative were taken further, its feasibility would have to be closely examined. It requires density to be slightly increased away from the Bay in order to provide for the same square footage of mixed-use, office, and industrial uses. If development in the areas closest to the Bay were not allowed, there would be no stimulus provided by new development to complete the cleanup of contaminated sites. Developments in this area that have already received entitlements, such as 151 Tara Road, would presumably still go forward. Most notably, restoration of this

area would be dependent upon large funding sources that have not been identified.

E. Environmentally Superior Alternative

The No Project Alternative would represent an improvement over the proposed project in 9 out of 15 subject areas. Although is unlikely to prevent all significant and unavoidable impacts due to traffic congestion that would result from the proposed project, it would be a substantial improvement in that regard. It is therefore the most environmentally superior.

When the No Project Alternative is the environmentally superior alternative, CEQA requires selection of the next most environmentally superior. The Reduced Density Alternative and Wetlands Setback Alternative are approximately equivalent as the next most environmentally superior alternative. The Reduced Density Alternative would produce improvements for 11 out of 15 issues, although none would be a substantial improvement. The Wetlands Setback Alternative would reduce the impacts in 3 out of 15 issues. However, improvements in two of subject areas would be substantial. There would be a major improvement in lowering risks to people and structures from flooding, especially with sea level rise. There would be a considerable benefit to biological resources from reduction of construction in wetland areas, encroachment on them, and possible wetland deterioration due to hydrological changes from filling of bayside land.

The Housing on 391 Demeter Street Alternative would be the least environmentally superior, resulting in a slight deterioration for 7 environmental issues compared to the proposed project and a slight improvement in relation to 3 of 15 issues examined in Table 5-2.

F. Recommended Alternative

The Wetland Setback Alternative would meet all of the objectives except the last, as it would require a funding source for the restoration of the bayside zone. It is environmentally superior to the proposed project, as it reduces the impacts to people and structures from flooding, including sea level rise, and to biological resources from construction in wetland areas.

G. Alternatives Considered But Rejected

An *Alternatives Analysis* for the Specific Plan was completed in October, 2010.³ This included the following alternative scenarios also described in Table 5-4.

- ◆ **Alternative 1: Bay Road Focus.** This alternative extends the area of industrial uses east to the Bay with an area of office uses to the south but is otherwise similar to the Proposed Project. No loop road is included in this alternative.
- ◆ **Alternative 2: Mixed Use Village.** In this alternative, office uses are placed by the Bay, and mixed-use development is concentrated around the Bay Road/Pulgas Avenue intersection. The light industrial buffer between industrial and existing residential uses is replaced with additional residential uses, and the 391 Demeter Street property to the north is also designated as residential. No loop road is included in this alternative.
- ◆ **Alternative 3: Offices by the Bay.** This alternative is similar to the Proposed Project in its office uses placed north of Bay Road in the eastern part of the Plan Area, although it differs in that industrial is placed to the south, and office south of that. Mixed use replaces the light-industrial buffer as a transition from industrial to existing residential in the western part of the development area. The loop road would run around the existing residential area to connect to the north of Demeter Street, as in the proposed project.

³ DC&E, 2010. *Ravenswood/4 Corners Transit Oriented Development Specific Plan. Alternatives Analysis.*

TABLE 5-4 **NET DEVELOPMENT PROJECTIONS FOR ALTERNATIVES FROM ALTERNATIVES ANALYSIS**

| Land Use | AA Alternative 1: Bay Road Focus | AA Alternative 2: Mixed-Use Village | AA Alternative 3: Offices by the Bay |
|---------------------------|-------------------------------------|---|--|
| Single-Family Residential | 15 units | 16 units | 18 units |
| Multi-Family Residential | 1,060 units | 1,400 units | 880 units |
| R&D/Industrial | 552,000 square feet ^a | 174,500 square feet ^b | 240,200 square feet ^c |
| Retail | 126,000 square feet | 115,000 square feet | 112,400 square feet |
| Office | 356,700 square feet | 1,258,000 square feet | 1,703,800 square feet |
| Civic | 91,000 square feet ^d | 36,000 square feet ^e | 1,000 square feet ^f |
| Parks and Trails | 18 acres | 18 acres | 24 acres |

^a Includes +718,500 square feet new R&D/industrial and -166,500 square feet existing industrial.
^b Includes +348,500 square feet new R&D/industrial and -174,000 square feet existing industrial.
^c Includes +406,200 square feet new R&D/industrial and -166,000 square feet existing industrial.
^d Includes +25,000 square feet performing arts center; +80,000 square feet school (500 students); +30,000 square feet health services; -44,000 square feet existing uses on opportunity sites.
^e Includes +30,000 square feet community center; +50,000 square feet school (320 students); -44,000 square feet existing uses on opportunity sites.
^f Includes +30,000 square feet library expansion; +15,000 square feet health services; -44,000 square feet existing uses on opportunity sites.
Source: The Planning Center | DC&E, 2010.

The Specific Plan as presented in this Draft EIR is the preferred alternative based on the comparison of alternatives presented in the Alternatives Analysis. It was judged and selected using these criteria:

- ◆ Built environment – land use compatibility and community character
- ◆ Transportation – vehicle traffic, public transit, pedestrians and bicyclists
- ◆ Economics – local job creation, overall job creation, revenue potential, economic feasibility

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ALTERNATIVES

Alternatives evaluated in the EIR are those that would reduce the impacts created by the Specific Plan, as presented in Chapter 3, Project Description of this EIR. The Alternatives Analysis options were not tailored for the purpose of reducing the impacts, as the impacts had not been determined at that stage, and are therefore not the alternatives selected for analysis in the EIR.