Pittsburg/Bay Point
BART Station Area
Specific Plan

ENVIRONMENTAL IMPACT REPORT

(RECIRCULATED)

CONTRA COSTA COUNTY
CITY OF PITTSBURG
IN CONJUNCTION WITH THE
SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT

SCH# 98022071

JULY 2001
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INTRODUCTION

This is a Draft Master Environmental Impact Report (“Master EIR”) for the Pittsburg/Bay Point BART Station Area Specific Plan, Public Review Draft, dated November 1997 (“the Specific Plan”). Contra Costa County, the City of Pittsburg, and the San Francisco Bay Area Rapid Transit District (BART) have prepared this Master EIR. Contra Costa County (the County) is the Lead Agency, and the City of Pittsburg and BART are responsible agencies as it pertains to this Master EIR. The report is intended to inform County, the City of Pittsburg, BART decision-makers, and the general public of the proposed project and the environmental consequences of its approval.

Recirculation of the Draft Master EIR

The alternatives contained in the Draft Master EIR were developed with the County Community Development Department after public scoping. Per the California Environmental Quality Act (CEQA) Guidelines, the alternatives in the Draft EIR represent “a range of reasonable alternatives to the project or project location that could feasibly attain most of the basic project objectives and would avoid or substantially lessen any of the significant impacts of the proposed project” [CEQA Guidelines Sec. 15126(d)].

At the time the Specific Plan was prepared and the Draft Master EIR was initiated, economic and market conditions did not appear favorable for an alternative containing intense development on the 25-acre (±) site adjacent to the BART station parking lot. Therefore, intense development was not included in the analysis by County staff during EIR public scoping, or during the preparation of the Draft Master EIR. Subsequently the property owner, West Coast Home Builders, prepared a proposal for a ‘transit village’ for this site.

A Draft Master EIR on the Specific Plan was distributed for public review and comment in August 1999. A letter dated September 27, 1999, from property owner Albert D. Seeno, Jr., President of West Coast Home Builders, was submitted to the County during the public comment period. This letter included a proposed new alternative for development of properties owned by Mr. Seeno (adjacent to the BART station), and a request that the new alternative be analyzed in the EIR.
CHAPTER 1: INTRODUCTION

The County (the Lead Agency), the City of Pittsburg and BART (as Responsible Agencies) evaluated the proposed new alternative and outlined the approach to the environmental analysis and the procedure for revising the EIR. Ultimately, the Seeno alternative was accepted for analysis and designated as Alternative 5: Very High Commercial/Office and Low Residential.

In addition, the three agencies developed a sixth alternative that incorporated some of the more intense development at the BART station while preserving most of the development concepts in the remainder of the Specific Plan area. This alternative is designated as Alternative 6: High Commercial/Office and High Residential.

It was decided that the proposed alternatives would be evaluated on the possibility that either alternative (or some of their components) could be incorporated into the Specific Plan. In order to proceed, the development assumptions of the alternatives were defined to a level of detail comparable to the project description of the Specific Plan. These alternatives are evaluated in this Recirculated DEIR and per Section 15088.5 of the CEQA Guidelines are being recirculated for public review.

Chapters Revised in this Recirculated Draft Master EIR
In addition to this Introduction, the following chapters revised in the Draft Master EIR include:

- Chapter 2. Summary
- Chapter 3. Project Description
- Chapter 4. Background and Master EIR Study Approach
- Chapter 5. Land Use
- Chapter 10. Transportation
- Chapter 17. Alternatives

Text and table revisions are denoted by a “revision line,” a vertical line in either the left or right margin, adjacent to the revised text. Figures that have been revised are so noted in their titles.

1.1 SPECIFIC PLAN OVERVIEW

The Specific Plan was prepared cooperatively by the City, County, and BART. It covers an area of approximately 295 acres immediately adjacent to and along major access routes to the Pittsburg/Bay Point BART Station. The plan area is roughly centered at the interchange of State Route 4 and Bailey Road. The Specific Plan includes the BART Station, properties located in the City of Pittsburg, and the community of Bay Point in unincorporated Contra Costa County. The Specific Plan is not part of the general plans of either the City of Pittsburg or Contra Costa County. It has been prepared to implement the general plans of each jurisdiction and BART’s plans for BART properties.
The Specific Plan encompasses multiple jurisdictional boundaries:

- Unincorporated portions of the Specific Plan area are under the jurisdiction of the *Contra Costa County General Plan*.

- The incorporated area is governed by the *City of Pittsburg General Plan*.

- Portions of the planning area are covered by the County’s West Pittsburg (Bay Point) Redevelopment Plan, and the City’s Los Medanos Community Development Plan.

- The Bay Point community is also located within the City of Pittsburg Sphere of Influence.

- BART is responsible for planning of future development of BART properties.

The Specific Plan represents a vision for the Pittsburg/Bay Point area. It contains detailed sections for land use, transportation, and urban design. Each section contains goals, objectives, policies, and standards. The plan is to guide both private and public sector investments. In the short term, the plan allows for possible expansion of existing BART surface parking by approximately 380 spaces. The evaluation for the BART surface parking is also intended to be a project-specific evaluation within the Master EIR. Planning statements developed by the County, City, BART, and the local community have been incorporated into the Specific Plan. Flexibility exists in the Specific Plan that will allow the private development sector to actively participate in plan implementation.

**Requirements of Specific Plans**

Under California Law (Government Code Section 65459 et. seq.), cities and counties may use specific plans to develop policies, programs, and regulations to implement the jurisdiction’s adopted General Plan. A specific plan serves as a bridge between a general plan and individual development master plans. Specific plans may provide additional and more detailed development concepts, policies, and design guidelines. The Pittsburg/Bay Point BART Station Area Specific Plan has been prepared to meet the requirements of State Planning and Zoning Law, Article 8, Specific Plans.

The requirements for what must be included in a specific plan are summarized in California Government Code Section 65451:

1) *The distribution, location and extent of the land uses, including open space, within the area covered by the plan.*
2) The proposed distribution, location, extent and intensity of major components of public and private transportation, sewage, water drainage, solid waste disposal, energy and other essential facilities proposed to be located within the area covered by the plan and needed to support the land uses described in the plan.

3) Standards and criteria by which development will proceed, and standards for the conservation, development and utilization of natural resources where applicable.

4) A program of implementation measures including regulations, programs, and public works projects and financing measures necessary to carry out the plan.

5) A statement of the relationship of the Specific Plan to the General Plan.

Development Concepts of the Specific Plan

Development concepts have been proposed for parcels located at, and adjacent to, the Pittsburg/Bay Point BART Station, and for individual parcels located primarily along Bailey Road and Willow Pass Road. A mixed-use transit-oriented development program at the BART Station is a major focal point. Transit-oriented development emphasizes high-density multi-family housing, office uses, and neighborhood commercial and retail uses in close proximity to public transit.

Development concepts for parcels within a one-quarter mile walking distance, adjacent to Bailey Road, emphasize land uses and urban design linkages to the BART station. The Specific Plan will establish a Neighborhood Commercial District along Bailey Road parallel to the north side of Willow Pass Road. Land use designs are proposed to be expanded to the west along the south side of Willow Pass Road. Ambrose Park is proposed to be expanded to the west along the east frontage of Bailey Road. Additionally, the Specific Plan will propose urban design improvements such as street trees, streetscape improvements, and architectural design guidelines to enhance the aesthetic character of the plan area. Other improvements are proposed in the form of bike lanes, pedestrian safety study, and improvement of the Delta De Anza regional trail.

The Specific Plan will require a number of years to implement. The analyses in this Master EIR assume buildout will occur by 2010. Since it is uncertain to what extent the development conceived in the plan will be fully built out by the year 2010, the assumption of full buildout in the analysis of impacts may be overstated. To maximize the use of BART, current residential rental rates will need time to reach levels adequate to justify the cost of expected investment. Funding sources will be needed for relocation of existing BART surface parking into a multi-level parking garage. Construction of a parking garage would make land available for development at the BART Station.

The Specific Plan also establishes a framework for agency responsibilities and implementation tasks. This framework focuses on the responsibilities and activities of the City of Pittsburg, Contra Costa County, and BART. Private land owners and investors will also play an active role in creating the development envisioned in the Specific Plan. Public agencies would coordinate development, leverage private investments and, where possible, assist in land assembly. The City and County will give consideration to using public funding and other mechanisms to encourage land uses when market rates may limit development proposed in the plan. BART will use the Specific Plan to guide future development on BART property at the Pittsburg/Bay Point Station.

Review and Approval of the Specific Plan

The approval process for the Specific Plan will involve decision-making bodies from the City of Pittsburg and Contra Costa County. Key elements of this process are described below:

1. The City of Pittsburg and Contra Costa County will amend their general plans to accommodate new land use designations, higher minimum residential densities, and other provisions and standards of the Specific Plan.

2. The City of Pittsburg and Contra Costa County will formally adopt the Specific Plan. This process will involve public review, public hearings, and adoption by the City Council and County Board of Supervisors, respectively.

Table 1-1 outlines the responsibilities for Specific Plan and Master EIR review and approval for the City, County, and BART. Additional description of the process for certification of the
Master EIR and the actions related to approval of the Specific Plan are presented in Section 1.3, Intended Uses of the Master EIR.

**Agency Coordination of Future Development**

The City of Pittsburg and Contra Costa County would each independently process applications for development proposals within their respective jurisdictions. Depending on project location, either the City or County could have land use and environmental review authority. Each jurisdiction would apply their normal processes for development review and approval. In doing so, each jurisdiction would:

- keep the other agency informed of project applications as they are filed;
- provide status reports on application processing; and
- coordinate with, and inform, the other agencies on project application approvals or rejections.
### CHAPTER 1: INTRODUCTION

#### TABLE 1-1

<table>
<thead>
<tr>
<th>Agency</th>
<th>Specific Plan</th>
<th>Master EIR</th>
<th>Development Agreements</th>
</tr>
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<tr>
<td></td>
<td>Review / Comment</td>
<td>Review / Recommend</td>
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<td>Zoning Administrator</td>
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<tr>
<td>Planning Commission</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Board of Supervisors</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>CITY OF PITTSBURG</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Planning Commission</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>City Council</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>BAY AREA RAPID TRANSIT DISTRICT</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Joint Development / Environmental Compliance</td>
<td>✓</td>
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<tr>
<td>Board of Directors</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

* Contra Costa County will amend its General Plan and adopt the Specific Plan.

* As Lead Agency, the County will use the Master EIR in making decisions about approval or implementation of the Specific Plan. The County will consider the Master EIR, make findings, adopt a Mitigation Monitoring Program, and file a Notice of Determination stating that the Master EIR complies with CEQA.

* The City of Pittsburg will also amend its General Plan and adopt the Specific Plan.

* Per Sections 15050(b) and 15096 of the CEQA Guidelines, the City of Pittsburg, as a Responsible Agency, will consider the Master EIR, make necessary findings, certify the Master EIR, adopt the Mitigation Monitoring Program, and file a Notice of Determination stating that it considered the Master EIR prepared by the County.

* BART will use the Specific Plan to guide planning of development at the BART station. BART will use the Master EIR in the event that funding becomes available to purchase land for additional parking at the station.

* The County Board of Supervisors and Pittsburg City Council, as governing boards of their respective agencies.

1.2 MASTER EIR OVERVIEW

Purpose of the Master EIR

The purpose of this Master Environmental Impact Report is to evaluate the environmental impacts associated with the project. This Master EIR provides an assessment of the impacts expected from buildout of the Pittsburg/Bay Point BART Station Area Specific Plan. The Master EIR also identifies significant impacts and mitigation measures that are to be applied to subsequent implementing actions. The City of Pittsburg and Contra Costa County will also use this Master EIR during subsequent environmental review when detailed project applications are filed.

This Master EIR is an informational document. It does not determine whether a project will be approved, but aids local planning and decision-making by disclosing the potential for significant adverse impacts. The CEQA Guidelines stipulate that an EIR is not meant to be a technical document. Rather, it is intended to serve as a public disclosure document that:

- identifies significant impacts associated with the proposed action;
- recommends mitigation measures that can minimize or eliminate significant adverse impacts; and
- evaluates alternatives to the proposed project.

The Master EIR process was enacted by the State of California (Public Resources Code Section 21157, January 1, 1994) to reduce the need for later, potentially redundant environmental review of subsequent discretionary activities or projects that follow a previously approved action. The Master EIR process is represented in Figure 1-1. A Master EIR may be prepared for any of the following actions:

- a general plan element, general plan amendment, or specific plan;
- a phased project;
- a rule or regulation that will be implemented by subsequent projects;
- projects pursuant to a development agreement;
- projects within and consistent with a redevelopment plan; or
- a highway or transit project that may be subject to multiple stages of review or approval.

The proposed project has characteristics that make a Master EIR appropriate: it is a specific plan and includes phased projects that would be consistent with development agreements. The individual components (described in more detail in Chapter 3: Project Description) include commercial and retail development, residential development, roadway improvements, and other infrastructure improvements necessary to accommodate full buildout of the Specific Plan area.
CHAPTER 1: INTRODUCTION

Master EIR

Initial Study: New Significant Impacts?

Finding of No New Impact

Focus EIR

Mitigated Negative Declaration

FIGURE 1-1

Master EIR Process

Required Contents of a Master EIR

Section 21157 of the Public Resources Code specifies the minimum contents of a Master EIR. In addition to the items required of all EIRs, a Master EIR must include the following additional information: 1) a description of each anticipated subsequent project that would be considered within the scope of the Master EIR, including information with regard to the kind, size, intensity and location of the subsequent projects; and 2) a description of the potential impacts of anticipated projects for which there is not sufficient information reasonably available to support a full assessment of potential impacts in the Master EIR.

Where applicable, the Master EIR indicates where additional studies will be required in subsequent anticipated actions (development plan, tentative map, etc.) since full information on these aspects of the Specific Plan is not available at this level of analysis. Additionally, some of the mitigation measures call for project-specific studies in subsequent approval actions. This feature of the Master EIR is reaffirmed in the mitigation monitoring program that must identify an implementation plan for each mitigation measure.

Scope of the Master EIR

Contra Costa County prepared an Initial Study and issued a public Notice of Preparation for an EIR on April 16, 1998 (see Appendix A). As required by Section 15126 of the CEQA Guidelines (1994), this Master EIR focuses on the issues related to significant environmental impacts of the Specific Plan, subsequent actions, or concerns raised by the public. The following topics have been identified as having potentially significant impacts due to the proposed project and are analyzed further in the Master EIR:

- land use
- urban design and visual quality
- parks and recreation
- community services and utilities
- population, employment, and housing
- traffic and circulation
- air quality
- noise
- hydrology and water quality
- geology, soils, and seismicity
- vegetation and wildlife
- cultural and historical resources

The CEQA Guidelines (Section 15145) state that the degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity or project described in the EIR. That is, a detailed project description necessitates more detailed analysis and evaluation of potential impacts. Details of the individual development projects comprising the Specific Plan are not available at this stage of the planning process. For example, the exact locations and designs of buildings are not known and the extent of localized infrastructure
CHAPTER 1: INTRODUCTION

improvements cannot be determined. The timing and sequence of implementation of future development are also unknown.

The Specific Plan includes design guidelines to help guide individual development projects as they evolve. These guidelines were utilized in the analysis of environmental impacts. As future project details become known (through the Final Development Plan), subsequent environmental review may be required as described previously. Moreover, the mitigation measures that are prescribed in this Master EIR reflect prevailing project review and approval requirements of the City and County, and their respective Growth Management Elements (see discussion in Chapter 5: Land Use).

The August 1999 Draft Master EIR was circulated to local, State and Federal agencies, and to interested organizations and individuals for review and comment on the report. A public hearing was held to accept written and oral comments on the adequacy of the Draft Master EIR. This revised Draft Master EIR is being circulated again to local, State and Federal agencies, and to interested organizations and individuals that may wish to review and comment on the report. Both written and oral comments may be made during the 45-day review period. At the close of the public review period, written responses will be prepared for all relevant oral and written comments during the public review period in 1999 as well as the public review period for the recirculated Draft Master EIR. The written responses and the Draft Master EIR will constitute the Final Master EIR for this project. The Contra Costa County Board of Supervisors will then consider certification of the Final Master EIR as adequate under CEQA. The certified Final Master EIR will serve as the environmental review document for the Specific Plan.

This Draft Master EIR is organized as follows. Chapter 2: Summary, describes the project and its potential significant impacts, mitigation measures, and alternatives. The Project Description, Chapter 3, presents the project in detail, including development assumptions, an overview of plan objectives, proposed land uses, and implementation responsibilities.

Chapters 4 through 18 present the assumptions, analyses, and evaluations of this Master EIR. Chapter 4: Background and Master EIR Study Approach summarizes technical features of the environmental analysis. Chapters 5 through 16 address individual impact subject categories. For each category, a description is provided for the local setting, standards of significance, potential impacts, and, if applicable, mitigation measures recommended to reduce impacts to a less-than-significant level. Alternatives to the project are addressed in Chapter 17. Discussion of other required analyses under CEQA is presented in Chapter 18. Abbreviations are provided in Chapter 19 and technical appendices are presented in Chapter 20.
1.3 INTENDED USES OF THE MASTER EIR

In accordance with Section 21080 of the California Environmental Quality Act, as amended, the County must consider the environmental implications of a project prior to determining whether to grant or deny projects proposed in the Specific Plan. Contra Costa County and the City of Pittsburg will use this Master EIR when considering the Pittsburg/Bay Point BART Station Area Specific Plan and development agreements, when requested. The City of Pittsburg will also use the Master EIR as part of their decision on whether to approve the proposed Specific Plan.

Contra Costa County is the Lead Agency for the EIR on the proposed Pittsburg/Bay Point BART Station Area Specific Plan. This Master EIR reviews the plan as described above. The purpose of this Master EIR is to identify, analyze, and evaluate the potential environmental impacts of the development proposals, actions, and policies contained in the Specific Plan. Since the plan was prepared under the direction of staff and elected officials of the City of Pittsburg, Contra Costa County and the Bay Area Rapid Transit District, this Master EIR assumes that future approval of the plan will be granted by these agencies, and that future development would occur in a manner and time frame consistent with the concepts in the Specific Plan.

Master EIR Certification

Upon review and consideration of the Final Master EIR, the Contra Costa County Board of Supervisors will determine whether to approve, reject, or modify the proposed project. The certification process will involve the following steps:

- The County Zoning Administrator will hold a public hearing on the Master EIR to make a recommendation to the Board of Supervisors regarding certification of the EIR.

- Per Sections 15050(b) and 15096 of the CEQA Guidelines, the City of Pittsburg, as a Responsible Agency, will consider the Master EIR, make the necessary CEQA findings, certify the Master EIR, and adopt the mitigation monitoring program.

- The City of Pittsburg Planning Commission will review the Master EIR and make a recommendation to the City Council.

Approval of the project, as proposed or modified, will be accompanied by written findings for each significant effect of the project. The findings must be accompanied by a brief explanation of the rationale for each finding and must indicate that:

- mitigation measures to reduce adverse impacts to less-than-significant levels have been adopted;

- mitigation measures to reduce adverse impacts to insignificant levels are within the jurisdiction of another public agency and either have been or should be adopted by that public agency; or
• specific impacts are unavoidable or unmitigable, but are considered acceptable because overriding considerations indicate the benefits of the project outweigh adverse effects.

Additionally, the County must adopt a mitigation monitoring program for those mitigation measures incorporated into the approved project that would reduce or avoid significant impacts (Public Resources Code 21081.6). The monitoring program will be prepared upon certification of the Master EIR and will be on file with the Community Development Department. The County would be responsible for monitoring the implementation of mitigation measures.

Use of the Master EIR with Other Proposed Actions
This Master EIR will be used in conjunction with the following proposed actions:
• The County will amend its General Plan and adopt the Specific Plan to accommodate the goals, objectives, land use and density designations, development concepts, development zones, development subareas, design guidelines, and implementation tasks of the Specific Plan consistent with the project analyzed in this Master EIR.

• The City of Pittsburg will amend its General Plan and adopt the Specific Plan and incorporate its goals, objectives, land use and density designations, development concepts, development zones, development subareas, design guidelines, and implementation tasks into its General Plan consistent with the project analyzed in this Master EIR.

• Amendment of the City of Pittsburg General Plan designations and zoning for parcels contiguous to the BART Station from Medium Density Residential (5.1 to 14 dwelling units per gross acre) to BART Station Area Mixed Use, with a higher minimum residential density of 65 dwelling units per gross acre.

• Amendment of the County General Plan to include a Residential Mixed Use designation for parcels located east of Bailey Road near West Leland Road, with a minimum residential density of 40 dwelling units per gross acre.

• New Disposition and Development Agreements or Owner Participation Agreements between the City or County Redevelopment Agency and property owners/developers, consistent with the project analyzed in this Master EIR.

• Land use entitlements for undeveloped parcels including, but not limited to, rezoning to Planned Development Districts; final development plans; land use permits (LUPs) for fast food restaurants, temporary parking, light industrial uses, and certain other uses; minor subdivisions and lot line adjustments, and subdivisions consistent with the project analyzed in this Master EIR.
Subsequent Environmental Review

It is anticipated that buildout will occur by the year 2010. During this period, individual projects will be subject to subsequent environmental review by the County or the City of Pittsburg. These subsequent environmental reviews will be required prior to approval of a Final Development Plan. As projects proposed in the Specific Plan are further defined and proceed into the detailed planning stages, the City, County, and BART would coordinate their planning efforts.

The location of future individual projects will determine whether the City or County would have land use, environmental review, and design review authority. BART would participate in environmental review of future development proposed on property owned by BART. The City and County would be expected to follow the steps for subsequent environmental review as outlined in this Master EIR. After subsequent environmental review, the agency with jurisdiction could adopt one of the findings below:

- The project is “within the scope” of this Master EIR, and no further review is required.
- The project is “not within the scope” of this Master EIR, but the identified potentially significant effects can be mitigated; and a Mitigated Negative Declaration is to be adopted.
- The project is “not within the scope” of this Master EIR, and has significant environmental effects (that cannot be mitigated), but the cumulative impacts, growth-inducing impacts, and irreversible effects are sufficiently analyzed in the Master EIR; and a Focused EIR is to be prepared.
- The project is not analyzed within this Master EIR pursuant to cumulative impacts, growth-inducing impacts and irreversible effects; and a project-specific EIR is to be prepared.

Master EIR Adequacy After Five Years

CEQA requires that the Lead Agency, in this case Contra Costa County, reassess the adequacy of this Master EIR after five years. The Lead Agency may continue to use this Master EIR after five years under either of the following conditions:

- the Lead Agency certifies a related subsequent or supplemental EIR; or
- the Lead Agency finds that no substantial changes have occurred with respect to the circumstances under which the Master EIR was certified, and that no new information has become available.
CHAPTER 1: INTRODUCTION

Future Project Level Review

BART Station Area Development

BART will use the Master EIR to evaluate proposed development on BART property within the Project Area. The station and parking lots are located within the City of Pittsburg, while the station platform is located in the right-of-way of State Route 4. The development concept includes properties owned by BART and properties that are privately owned. BART would coordinate with the City of Pittsburg and Contra Costa County as appropriate. The City would have land use, environmental review, and design review authority. When detailed development applications are filed, the City would use this Master EIR to determine if potential impacts have been addressed in the Master EIR.

Review of Other Projects

Implementation of the Specific Plan would eventually require approval of final development plans for projects proposed on parcels within the Specific Plan area. Depending on project locations, either the City of Pittsburg or the County would have land use and environmental review authority. Approvals may be required for:

- rezoning of various parcels;
- subsequent environmental review;
- redevelopment plans, land use permits, lot line adjustments, minor parcel maps, and financing districts;
- architectural and site plan review; and
- grading permits, building permits, and infrastructure improvement plans.

Other Environmental Permits and Agreements

Implementation of projects contained in the Specific Plan may require additional permits and agreements from the following agencies:

- California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB) – projects may require approval of stormwater pollution prevention permits.
- Bay Area Air Quality Management District (BAAQMD) – source permits from the BAAQMD may be required from some projects assumed in the Specific Plan.
- California State Department of Transportation (Caltrans) – projects involving work or traffic control conducted within the State right-of-way will require an encroachment permit from Caltrans.
• California State Department of Fish and Game – projects could require Streambed Alteration Agreements and associated permits, and agreements from the State Department of Fish and Game for project activities that occur within streambeds that could alter natural flow of the stream, significantly change its bed or bank, or utilize material from the stream bank.

• U.S. Army Corps of Engineers – projects could require a Section 404 permit from the Army Corps of Engineers to fill jurisdictional waters of the United States under the federal Clean Water Act, plus any associated permits or agreements.

• U.S. Fish and Wildlife Service – projects could require an incidental take permit under the Federal Endangered Species Act, and associated permits and agreements.
This chapter contains a summary description of the proposed *Pittsburg/Bay Point BART Station Area Specific Plan*, a list of the areas of environmental issues to be addressed, a summary of identified significant impacts and associated mitigation measures, and a summary of identified project alternatives. For a complete description of the proposed Specific Plan, please refer to Chapter 3. For a discussion of individual environmental topics, please refer to Chapters 5 through 16. Alternatives are described and evaluated in Chapter 17.

### 2.1 PROPOSED PROJECT

The sponsors of the proposed project are Contra Costa County, the City of Pittsburg, and the Bay Area Rapid Transit District (BART). The *Pittsburg/Bay Point BART Station Area Specific Plan, Public Review Draft*, November 1997 ("the Specific Plan") is the proposed project ("the project") reviewed in this Master EIR. Contra Costa County, the City of Pittsburg, and BART in concert with the local community prepared the Specific Plan to provide for future development around the BART station, stimulate revitalization of the area, and promote orderly growth in the Bay Point community.

The Specific Plan contains three main sections: Land Use, Urban Design, and Circulation. Each plan section comprises goals, objectives, policies, and actions for development and redevelopment of parcels totaling 295 acres. These parcels are located within the City of Pittsburg and the unincorporated community of Bay Point in Contra Costa County. The Specific Plan area includes the Pittsburg/Bay Point BART Station north of West Leland Road; parcels including and adjacent to Ambrose Park; and vacant and developed parcels along Bailey Road, Willow Pass Road, and Canal Road. State Route 4 roughly divides the project area into north and south halves.

The Specific Plan contains policies and standards to guide Contra Costa County, the City of Pittsburg, BART, and the private sector in developing and improving the area through the year 2010. In the near term, the Specific Plan provides for the possible development of 380 additional parking spaces for BART patrons, in a 3.45-acre vacant parcel adjacent to the existing BART parking lot. In the longer term, the Specific Plan provides for approximately 2,195 dwelling units, of which 1,790 units would be located on parcels adjacent to the BART station; about 75,000 square feet of office space at the BART station; and about 239,000 square feet of commercial space to be developed in parcels at the BART station, along Bailey Road, Willow Pass Road, Canal Road, and adjacent to Ambrose Park. Willow Pass Road would be designated as a Neighborhood Commercial District from Alves Lane to a point just...
CHAPTER 2: SUMMARY

east of Bailey Road.

Future development would be subject to architectural design guidelines; streetscape improvements would be installed for portions of West Leland Road, Bailey Road, and Willow Pass Road; pedestrian and bicycle improvements would be constructed; and utilities and infrastructure in the Specific Plan area are expected to be improved as projects are developed. A complete and detailed description of the Specific Plan is provided in the Public Review Draft dated November 1997.

Description of the Draft November 1997 Specific Plan

The Pittsburg/Bay Point BART Station Area Specific Plan was developed over a one-year period with input from a Policy Advisory Committee composed of representatives from community advisory groups, property owners and tenants, planning and transportation agencies, parks district, and school districts. In addition, a review of the Policy Advisory Committee recommendations for major plan components was provided by a Fiscal Policy Committee composed of one elected representative each from the City of Pittsburg City Council, the Contra Costa County Board of Supervisors, and the BART Board of Directors.

Development assumptions of the Specific Plan are as follows:

- Office – 75,000 square feet;
- Commercial Retail – 239,000 square feet;
- Residential – 2,195 multi-family dwelling units; and
- Parking – in the short term, development of 380 parking spaces in a 3.45-acre vacant parcel adjacent to the existing BART parking lot.

Government Jurisdictions

The Specific Plan area is divided between the Bay Point community in unincorporated Contra Costa County and the City of Pittsburg. The planning area is generally divided by State Route 4. Between the two jurisdictions, adopted redevelopment plans cover nearly the entire Specific Plan area. Proposed development in the Specific Plan is mostly concentrated within the City of Pittsburg on parcels at the BART station and adjacent vacant parcels. Other development is proposed in parcels along Bailey Road and Willow Pass Road in the jurisdiction of Contra Costa County.

Required Jurisdiction Approvals

After certification of this Master EIR, and any subsequent amendments to the Specific Plan, the County and City of Pittsburg would review and adopt the Pittsburg/Bay Point BART Station Area Specific Plan as a policy document to guide planning and development of parcels within the plan boundaries. The City of Pittsburg and Contra Costa County would also undertake a program of rezoning their respective areas, included in the Specific Plan as Planned Development Districts. In addition, each agency would utilize the concepts, goals, plans, policies
Implementation of projects contained in the Specific Plan may require additional permits and agreements from the following agencies: the California Regional Water Quality Control Board, San Francisco Bay Region; Bay Area Air Quality Management District; California State Department of Transportation; State Department of Fish and Game; U.S. Army Corps of Engineers; and U.S. Fish and Wildlife Service.

2.2 ENVIRONMENTAL ISSUES

The scope of this Master EIR is limited to those areas of controversy or issues known to Contra Costa County (the Lead Agency), including issues or concerns identified as potentially significant during preparation of the Initial Study; by agencies and individuals who responded to the County’s Notice of Preparation (see Appendix A); and during preparation of this Draft Master EIR. The areas of environmental concern include:

- land use
- urban design and visual quality
- parks and recreation
- community services and utilities
- population, employment, and housing
- traffic and circulation
- air quality
- noise
- hydrology and water quality
- geology, soils, and seismicity
- vegetation and wildlife
- cultural and historical resources

2.3 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Table 2-1 provides a summary of Specific Plan impacts and mitigation measures that are identified in this Draft Master EIR. Table 2-1 is organized to correspond to more detailed discussions of impacts and mitigation measures presented in Chapters 5 through 16. The summary table consists of four columns of information:

- Impact
- Potential Significance Without Mitigation
- Mitigation Measure
- Potential Significance with Mitigation
## CHAPTER 2: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

### TABLE 2-1
Summary Table

<table>
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<tr>
<th>Impact</th>
<th>Potential Significance Without Mitigation</th>
<th>Mitigation Measure</th>
<th>Potential Significance With Mitigation</th>
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</thead>
<tbody>
<tr>
<td><strong>LAND USE</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>5-1. The Specific Plan would require amendments of the City of Pittsburg General Plan and Contra Costa County General Plan, and a program of rezoning of some areas as Planned Development Districts.</td>
<td>Less Than Significant</td>
<td>None required.</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>5-2. The Specific Plan proposes to increase the intensity of commercial retail uses, office space, and residential uses especially at the BART Station Area.</td>
<td>Beneficial</td>
<td>None required.</td>
<td>Beneficial</td>
</tr>
<tr>
<td>5-3. The Specific Plan contains comprehensive land use, circulation, and urban design policies and standards for the BART Station Area and Bay Point community.</td>
<td>Beneficial</td>
<td>None required.</td>
<td>Beneficial</td>
</tr>
<tr>
<td>5-4. The Specific Plan would result in a population increase in the plan area and could increase the potential for unauthorized entry to the Contra Costa Canal right-of-way, particularly by children.</td>
<td>Less Than Significant</td>
<td>None required.</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>5-5. Proposed land uses in the Specific Plan would involve displacement of existing housing, some of which is in a deteriorating state, consistent with City and County redevelopment policies.</td>
<td>Less Than Significant</td>
<td>None required.</td>
<td>Less Than Significant</td>
</tr>
</tbody>
</table>
CHAPTER 2: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

<table>
<thead>
<tr>
<th>Impact</th>
<th>Potential Significance Without Mitigation</th>
<th>Mitigation Measure</th>
<th>Potential Significance With Mitigation</th>
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<tbody>
<tr>
<td>URBAN DESIGN AND VISUAL QUALITY</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>6-1. The Specific Plan urban design goals, policies, and development concepts are designed to conform with and implement established plans and policies of the City of Pittsburg and Contra Costa County. Proposed improvements would enhance the visual and aesthetic quality of the area.</td>
<td>Beneficial</td>
<td>None required.</td>
<td>Beneficial</td>
</tr>
<tr>
<td>6-2. The large massing and strong visual identity of new mixed use development near the BART Station Area would change the existing visual environment and may result in impacts at specific site locations and on the surrounding environment.</td>
<td>Potentially Significant</td>
<td>The City of Pittsburg, as the agency with land use authority for the BART Station joint development, would coordinate with BART and the County to ensure that new development conforms with the urban design goals, policies, and development concepts established in the Specific Plan.</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>6-3. Specific Plan development would result in the removal of the majority of existing surface parking lots and replace them with structured parking, new street-oriented commercial retail, residential uses, and streetscape improvements.</td>
<td>Beneficial</td>
<td>None required.</td>
<td>Beneficial</td>
</tr>
<tr>
<td>6-4. Implementation of the Specific Plan would result in the improvement of Ambrose Park, and create new, future open space.</td>
<td>Beneficial</td>
<td>None required.</td>
<td>Beneficial</td>
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</table>
### CHAPTER 2: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

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<tbody>
<tr>
<td>6-5. The demolition of existing structures within the Specific Plan area, and the interim use (i.e., construction activities) of development sites, may impact the visual quality of the area over an extended period of time.</td>
<td>Potentially Significant</td>
<td>The agency with land use and project design review authority would require that construction documents for specific projects contain conditions specifying the installation of security fencing and creation of construction &quot;points of interest&quot; with information panels depicting the project, and openings in construction fencing to allow views into the site where possible. Conditions of approval would also specify the control of litter and debris and the confinement of equipment to areas that do not impact the visual quality or use of adjacent property. In addition, the location and establishment of any off-site construction staging areas would be carefully selected to minimize negative visual impacts.</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>6-6. Demolition within the Specific Plan area could remove blighted structures and buildings from the plan area.</td>
<td>Beneficial</td>
<td>None required.</td>
<td>Beneficial</td>
</tr>
<tr>
<td>6-7. Future development under the Specific Plan could impact local views and vistas.</td>
<td>Less Than Significant</td>
<td>None required.</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>6-8. Construction of office buildings and the parking garage could result in impacts of light and glare.</td>
<td>Potentially Significant</td>
<td>Future development would be subject to design requirements of the Specific Plan that require the avoidance of glare impacts by careful design. The agency with land use and project design review authority would require that design and construction documents for specific projects incorporate design features and materials to avoid harsh light and glare.</td>
<td>Less Than Significant</td>
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Pittsburg/Bay Point BART Station Area Specific Plan DEIR

July 2001
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<tbody>
<tr>
<td>6-9. Development in the Specific Plan area, together with reasonably foreseeable development in areas immediately adjacent to the plan area, may have a cumulative impact on visual quality.</td>
<td>Potentially Significant</td>
<td>Interagency cooperation would be used to review development proposals at an early stage in the planning process to ensure architectural and visual compatibility. The agency with land use and design review authority would cooperate with other agencies to ensure design guidelines are consistently followed in future development.</td>
<td>Less Than Significant</td>
</tr>
</tbody>
</table>

#### PARKS AND RECREATION

| 7-1. The Specific Plan's development assumptions may result in up to approximately 4,500 new residents with a demand for additional recreation and park facilities of about 15 acres. | Potentially Significant | The City and County would coordinate on the expansion of future park space required by their respective park acreage standards. Fees would be levied as new development proposed in the Specific Plan is implemented. The City and County would ensure compliance with adopted park standards contained in each jurisdiction's Growth Management Element. | Less Than Significant |
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<tr>
<td><strong>COMMUNITY SERVICES AND UTILITIES</strong></td>
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<tr>
<td>8-1. The proposed development in the Specific Plan will result in additional demand of 680 acre-feet annually (AFA) for water service.</td>
<td>Less Than Significant</td>
<td>Since the timing of CCWD system improvements is uncertain, either the City or County, depending which jurisdiction a project is proposed to be developed, would apply the facility or service standards in its adopted Growth Management Element. The demonstration of water availability would be required as a condition of approval during project design review of Specific Plan projects.</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>8-2. The proposed development in the Specific Plan would result in wastewater flow of 0.53 million gallons per day (mgd) into the local treatment system.</td>
<td>Less Than Significant</td>
<td>Since the timing of DDSD wastewater system improvements is uncertain, either the City or County, depending which jurisdiction a project is proposed to be developed, would apply the facility or service standards in its adopted Growth Management Element. The demonstration of sewer system or treatment plant capacity would be required as a condition of approval during project design review of Specific Plan projects.</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>8-3. Proposed land uses in the Specific Plan would result in generation of 769 new students to be enrolled in the Mount Diablo Unified School District.</td>
<td>Potentially Significant</td>
<td>(a) Since the timing of local school system expansion and improvements is uncertain, either the City or County, depending on the location, would apply its school impact standards in its adopted Growth Management Element. The demonstration of compliance with established school facility and staffing standards would be required as a condition of approval during project design review of Specific Plan projects.</td>
<td>Less Than Significant</td>
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<tr>
<td>(b)</td>
<td>All applicants of Specific Plan projects would be required to comply either with County or City of Pittsburg school impact fee requirements, depending on the location of the housing development. As a requirement of BART's development agreement for constructing up to 1,790 housing units at the BART station, a project school financing and cost distribution plan should be prepared that demonstrates to County and City satisfaction that sufficient funding will be available as and when needed to construct school facilities to comply with applicable County and/or City policies and standards.</td>
<td></td>
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<tr>
<td>8-4. Specific Plan development could impact solid waste collection services, and landfill capacity.</td>
<td>Less Than Significant</td>
<td>None required.</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>8-5. Development in the Specific Plan area could generate demand for additional fire protection services.</td>
<td>Less Than Significant</td>
<td>Either the City or County, depending in which jurisdiction a project is proposed to be developed, would apply its fire protection facility and service standards in its adopted Growth Management Element. The demonstration of compliance with these standards would be required as a condition of approval during project design review of Specific Plan projects.</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>8-6. Development in the Specific Plan area could generate demand for additional County police services.</td>
<td>Potentially Significant</td>
<td>County review and approval of future projects shall require new development to meet the County Growth Management Element standards for police service as a condition of project approval. Implementation of the County's standards would ensure this impact would be less than significant.</td>
<td>Less Than Significant</td>
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<tr>
<td>9-7. Proposed mixed use development in Specific Plan Zone I, the BART Station area, would generate substantial new demand for additional BART and Pittsburg police services.</td>
<td>Potentially Significant</td>
<td>The City, County, and BART police departments would coordinate their efforts to ensure adequate law enforcement and security service are provided to the BART station and joint development. The jurisdictions would apply the police standards adopted in their respective Growth Management Elements; BART would apply its standards for law enforcement and security that are applied in other stations with parking garages and mixed use joint development. These standards would be included as conditions of the development agreement to be established for the BART station. Consideration will be given to the provision of a storefront police facility at the site, similar to the facility at the Castro Valley Station.</td>
<td>Less Than Significant</td>
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### POPULATION, EMPLOYMENT, AND HOUSING

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<th>Potential Significance</th>
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<tbody>
<tr>
<td>9-1. The Specific Plan would result in a population of about 4,500 at the time of buildout in the year 2010.</td>
<td>Less Than Significant</td>
<td>None required.</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>9-2. The Specific Plan would generate approximately 800 jobs at buildout in the year 2010.</td>
<td>Beneficial</td>
<td>None required.</td>
<td>Beneficial</td>
</tr>
<tr>
<td>9-3. The Specific Plan assumes the construction of 2,195 dwelling units at buildout in year 2010. About 1,790 units would be constructed at the BART station.</td>
<td>Less Than Significant</td>
<td>None required.</td>
<td>Less Than Significant</td>
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<tr>
<td><strong>TRANSPORTATION</strong></td>
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</table>
| 10-1. Specific Plan development would decrease the level of service at two intersections under the scenario of Year 2005 With Specific Plan Development. This impact is considered potentially significant should project development occur at a rapidly accelerated pace compared to what is currently anticipated. | Potentially Significant | The following measures would provide acceptable operation at the two intersections experiencing significant impacts due to the addition of project traffic: Bailey Road / Concord Boulevard  
- Provide exclusive left-turn lanes on the northbound and southbound Bailey Road intersection approaches along with protected left-turn phasing for the north- and southbound intersection approaches.  
  Resultant PM peak hour operation: LOS D — V/C = .88  
Bailey Road / Myrtle Drive  
- Provide signalization and an exclusive left-turn lane on the southbound Bailey Road intersection approach.  
  Resultant AM peak hour operation: LOS B — V/C = .69  
  Resultant PM peak hour operation: LOS C — V/C = .74 | Less Than Significant |
| 10-2. Specific Plan development would add traffic to sections of the State Route 4 freeway that currently experience LOS F commute period operation. | Less Than Significant | None required. | Less Than Significant |
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<tr>
<td>10-4. Specific Plan development would add traffic to sections of the State Route 4 freeway that are projected to experience LOS F commute period operation by 2010 (peak direction travel over the Willow Pass Grade).</td>
<td>Less Than Significant</td>
<td>None required.</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>10-5. Specific Plan development would generate approximately 5,100 to 5,350 daily transit trips.</td>
<td>Beneficial</td>
<td>None required.</td>
<td>Beneficial</td>
</tr>
<tr>
<td>10-6. The Specific Plan proposes off-street parking standards developed through coordination by the City, County, and local community.</td>
<td>Less Than Significant</td>
<td>None required.</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>10-7. The Specific Plan assumes expansion of the BART parking lot in the short term by development of approximately 380 spaces in an adjacent 3.45-acre parcel. This impact is considered less than significant.</td>
<td>Less Than Significant</td>
<td>None required.</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>10-8. The Specific Plan contains policies, standards, and proposed streetscape improvements to improve pedestrian and bicycle circulation and safety.</td>
<td>Beneficial</td>
<td>None required.</td>
<td>Beneficial</td>
</tr>
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<tr>
<td><strong>AIR QUALITY</strong></td>
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<tr>
<td>11-1. The Specific Plan would be consistent with two out of three of the test criteria of the BAAQMD's Bay Area '97 Clean Air Plan.</td>
<td>Less Than Significant</td>
<td>None required.</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>11-2. Development of the Specific Plan could result in an increase of mobile source emissions.</td>
<td>Less Than Significant</td>
<td>None required.</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>11-3. Development of the Specific Plan could result in an increase in air emissions from stationary sources.</td>
<td>Less Than Significant</td>
<td>None required.</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>11-4. Construction activities of development assumed in the Specific Plan could result in short-term emissions of criteria pollutants and fugitive dust.</td>
<td>Less Than Significant</td>
<td>Depending on the location of a Specific Plan project (i.e., within the City limit or in the unincorporated County area), the City or County would require basic or enhanced Best Management Practices (BMPs) and other dust-control measures as set forth in Table 11-7, as part of agency's project review and approval.</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>11-5. Vehicular traffic associated with Specific Plan development could increase carbon monoxide concentrations at nearby intersections. No violations of the carbon monoxide standards are expected.</td>
<td>Less Than Significant</td>
<td>None required.</td>
<td>Less Than Significant</td>
</tr>
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<tbody>
<tr>
<td>11-6.  Proposed land uses development under the Specific Plan could emit toxic air contaminants.</td>
<td>Potentially Significant</td>
<td>(a) Amend the Specific Plan to require any proposed land use with the potential for air or water contamination to be subject to a land use permit.</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(b) Any proposed land uses that could emit toxic air contaminants (TACs) should be subject to land use compatibility review, and be required to obtain source permits from the BAAQMD.</td>
<td></td>
</tr>
<tr>
<td>11-7.  Potential sources of TACs located in areas with Commercial or Residential Mixed Use land use designations and near sensitive receptors could pose a health risk.</td>
<td>Potentially Significant</td>
<td>(a) Preclude gas stations and conditionally allow dry cleaning operations from the Residential Mixed Use land use classification; allow dry cleaners in the Commercial land use designation only if not adjacent to sensitive receptors. Dry cleaning retail outlets where no actual dry cleaning is performed would be allowed.</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(b) To widen buffers between light industrial uses and potential sensitive receptors to the west and south, provide parking lots between Alves Lane and industrial uses, consider allowing parking lots located between industrial uses and Willow Pass Road.</td>
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<tr>
<td></td>
<td></td>
<td>(c) Consider creation of a buffer zone to create separation between residential uses and day care centers and State Route 4.</td>
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<tr>
<td></td>
<td></td>
<td>(d) Amend the Specific Plan to require any proposed land use with the potential for air or water contamination to be subject to a land use permit.</td>
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<tr>
<td><strong>NOISE</strong></td>
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</tr>
<tr>
<td>12-1. Construction of projects proposed under the specific plan would create short-term noise impacts on surrounding land uses.</td>
<td>Less Than Significant</td>
<td>Construction equipment and operations must comply with local noise ordinances. Unless nighttime or weekend work is specified in project contracts, or special provisions are approved in writing by the Zoning Administrator, construction operations should be prohibited in residential areas between 7:00 p.m. and 7:00 a.m. Monday through Friday, on weekends, and on holidays.</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>12-2. Development proposed under the specific plan would increase the number of people exposed to noise levels above those considered &quot;normally acceptable.&quot;</td>
<td>Potentially Significant</td>
<td>(a) All applicants for proposed projects shall submit a noise study verifying compliance with interior/exterior noise standards. Based on the results of the study, noise exposures greater than normally acceptable shall be mitigated by incorporating site design and acoustic Insulation techniques, such as sound-rated windows, to achieve acceptable interior noise levels.</td>
<td>Less Than Significant</td>
</tr>
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</table>

(b) Require construction of sound walls for new development where noise mitigation to acceptable levels by other means (i.e., site design, setbacks, etc.) is not practical. Require that the effects of the construction of sound walls on noise levels at other areas be considered, and taken into account in the design and location of sound walls.
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| Hydrology and Water Quality | Potentially Significant | (a) Individual projects would be required to consider the effects of additional runoff on existing storm sewer facilities. The developer will be required to demonstrate the adequacy of the system to convey flows as required by the drainage plan. Where existing facilities are inadequate to convey additional runoff, the developer will be required to construct necessary storm sewer system improvements and/or participate in an established Drainage Area program. Improvements needed within individual project boundaries and off-site to satisfy project collection and conveyance requirements would be included as conditions of approval.  
(b) To the extent feasible and where appropriate, projects should include design techniques to reduce off-site stormwater conveyance requirements. Such elements may include limiting impermeable outdoor surfaces, the use of permeable hard surfaces, and on-site detention basins or drainage to vegetated swales. | Less Than Significant |
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<tr>
<td>13-2. During construction, developments associated with the Specific Plan would cause increased pollutant loads in stormwater runoff from project sites including suspended sediment and hydrocarbons.</td>
<td>Potentially Significant</td>
<td>Developments associated with the Specific Plan shall include a site-specific erosion control plan. In addition, projects greater than 5 acres in area must include a Stormwater Pollution Prevention Plan (SWPPP) and implement control measures (or Best Management Practices) to control discharges of pollutants from the project sites. Implementation of project SWPPPs should be monitored by a designated monitor.</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>13-3. Specific Plan development would lead to long-term increases in contamination of stormwater runoff from pollutants such as hydrocarbons, metals and nutrients associated with residential and commercial land uses.</td>
<td>Potentially Significant</td>
<td>(a) Pollution control measures contained in the SWPPP shall be implemented until the project site has stabilized following construction.</td>
<td>Less Than Significant</td>
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<td>(b) Developments should implement, whenever feasible, a stormwater protection program including but not limited to long-term measures to: control discharge of pollutants to storm drains, such as labeling storm drains; minimizing the use of fertilizers and pesticides on landscaping; street and/or parking area sweeping programs and/or filtering runoff from such areas to prevent hydrocarbons from entering runoff; increasing the use of pervious surfaces; and education/training programs for residents and employees.</td>
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## Geology, Soils, and Seismicity

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<tbody>
<tr>
<td>14-1. Development associated with the Specific Plan would increase population and employment in the planning area and expose people to hazards associated with strong ground shaking likely to occur in the area within the lifetime of the project.</td>
<td>Less Than Significant</td>
<td>None required.</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>14-2. Construction associated with the Specific Plan would increase the potential for erosion within the planning area.</td>
<td>Less Than Significant</td>
<td>Developments associated with the Specific Plan shall include a site-specific erosion control plan. In addition, projects greater than 5 acres in area must include a Stormwater Pollution Prevention Plan (SWPPP) and implement control measures (or Best Management Practices) to control discharges of pollutants from the project sites. Implementation of project SWPPPs should be monitored by a designated monitor.</td>
<td>Less Than Significant</td>
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<td><strong>VEGETATION AND WILDLIFE</strong></td>
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<tr>
<td>15-1. Activities associated with the Specific Plan could adversely affect rare, threatened, or endangered species.</td>
<td>Potentially Significant</td>
<td>If construction of projects proposed in the Specific Plan would affect Lewlor Creek, the appropriate State and Federal agencies would be consulted by the agency (City or County) with land use and environmental review authority for that project. These agencies may require surveys, which would be done according to current protocols. If California red-legged frogs are found, regulatory agencies will likely ask that the area be avoided. If the species or its habitat will be affected, the U.S. Fish and Wildlife Service may require preparation of a HCP under Section 10 of the Endangered Species Act. The Service has prepared a manual for preparing a HCP. The Service and that manual should be consulted prior to preparing a HCP. If these measures are followed, impacts to California red-legged frogs (or other special status species) would be reduced to a less-than-significant level.</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>15-2. Activities associated with the Specific Plan could adversely affect nesting raptors.</td>
<td>Potentially Significant</td>
<td>The agency (City or County) with land use and environmental review authority would assess the potential for tree removal as part of project planning and environmental review. Before large trees are removed, or where heavy construction would take place near large trees, surveys for nesting raptors would be done by a qualified biologist. If nesting raptors are located, the Department of Fish and Game would be consulted. This consultation would likely result in some restriction on tree removal or construction, and would reduce the impact to raptors.</td>
<td>Less Than Significant</td>
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<td>15-3.</td>
<td>Less Than Significant</td>
<td>None required.</td>
<td>Less Than Significant</td>
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<tr>
<td>15-4.</td>
<td>Potentially Significant</td>
<td>Wetland areas A and B (see Figure 15-1) are located within the jurisdiction of Contra Costa County. As the agency with land use and environmental review authority, the County would require a precise assessment of wetlands as part of project planning. A wetland delineation would be done on any wetland areas before approving any project that could potentially affect those areas. The delineation would be submitted to the U.S. Army Corps of Engineers for verification. The County would use the approved wetland delineation to establish an appropriate buffer zone around a subject wetland, to preclude disturbance or project construction. If the waters are isolated or above the headwaters, they may be eligible for a Nationwide Permit and may require measures to offset wetland loss. A Section 401 Clean Water Certification will be needed from California Regional Water Quality Control Board San Francisco Bay Region. Currently, the Board asks for measures to offset wetland loss regardless of the amount of wetland fill. The Board would be consulted before any activity that would potential fill wetlands.</td>
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<tr>
<td>15-5. Development associated with the Specific Plan could remove substantial numbers of mature, scenic trees.</td>
<td>Potentially Significant</td>
<td>Depending on project location, the agency with land use authority (the City or County) would determine if this tree protection ordinance applies. If it is determined that heritage trees exist, the review agency would ensure compliance with the tree protection ordinance.</td>
<td>Less Than Significant</td>
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</table>

### CULTURAL RESOURCES

16-1. Development of projects proposed in the Specific Plan have the potential to disturb previously unknown cultural resources. | Potentially Significant | In the event human remains are discovered during construction, such a find would be reported to the Contra Costa County Coroner’s Office; in the event that the remains are determined to be prehistoric, the Native American Heritage Commission should be notified immediately to permit the designation of a Native American representative, in accordance with State regulations. Consultation between the archaeological consultants in charge of monitoring, the sponsoring agency or agencies, and the Native American representative would determine the course of action to be taken with the cultural resources in question. A report of findings and analyses of all archaeological data recovered during testing/excavation, monitoring, and any mitigation procedures undertaken would be prepared by a qualified archaeologist. | Less Than Significant |

16-2. Development of the Specific Plan would require removal of existing structures with no historical value or architectural merit. | Less Than Significant | None required. | Less Than Significant |
The summary table should not be relied upon exclusively for an understanding of issues surrounding an individual topic. More detailed discussions are provided in subsequent chapters following this summary.

### 2.4 SUMMARY OF POSSIBLE EXPANSION OF BART PARKING IN THE SHORT TERM

In the short term, BART has considered purchasing a 3.45-acre vacant parcel located adjacent to the existing BART parking lot to expand the parking supply at the Pittsburg/Bay Point Station. Approximately 380 parking spaces would be developed for all-day parking for BART patrons. The additional 380 spaces would result in a total station parking supply of about 2,400 spaces.

Analyses were conducted to determine the potential impacts of the parking lot with regard to land use, traffic, air quality, geology and soils, hydrology, and vegetation. No significant impacts were identified. In addition, alternative locations for development of a comparable number of parking spaces (350 to 400 spaces) were considered but rejected. The parcels considered were located one-quarter to one-half mile distant from the station, and would likely require a shuttle system to transport BART patrons directly to and from the BART station, resulting in greater traffic, noise, and air quality impacts compared to development of the 3.45-acre parcel that is directly adjacent to the BART station.

### 2.5 SUMMARY OF ALTERNATIVES

Six alternatives to the Specific Plan are evaluated in this Master EIR, and are summarized below. For a detailed discussion of alternatives, see Chapter 17.

**Alternative 1 – No Project/Expected Growth** is based on expected growth under the existing general plan designations for parcels or assembled parcels proposed for development in the Specific Plan area. As a result, the No Project Alternative does not mean that no development would occur; expected growth would not necessarily occur as assumed in the Specific Plan. Land use designations for the City of Pittsburg and the Contra Costa County general plans were used to project the commercial floor space and housing units. The No Project Alternative assumes approximately 262,580 square feet of commercial uses and about 5,600 dwelling units that would be developed on parcels of land within the Specific Plan area and surrounding vicinity. About 3,100 units would be developed on parcels of land within the Specific Plan area, with the remainder of 2,500 units built in the surrounding vicinity.

**Alternative 2 – Mixed Use Development** was obtained from the analysis of alternatives performed during the development of the Specific Plan (originally titled Alternative A in the
Alternatives Report). This alternative contains a mixed-use transit village at the BART station, and a Neighborhood Commercial District on Willow Pass Road. Medium-density residential would be encouraged to take advantage of BART and to support neighborhood commercial uses. This alternative is the most development-intensive of the alternatives reviewed in this Master EIR. Its implementation would require a significant period of time (15 to 20 years) to achieve through natural market forces, or substantial public sector assistance to encourage development over a more accelerated 10- to 15-year time period. This alternative assumes 294,000 square feet of commercial uses, 100,000 square feet of office uses, and 1,754 dwelling units.

**Alternative 3 – Low Commercial/Office and High Residential** reflects a scenario of a slower commercial/office market and strong residential market, and contains less overall development than the Specific Plan. This alternative assumes 162,000 square feet of commercial uses, 56,000 square feet of office uses, and 2,248 dwelling units.

**Alternative 4 – Low Commercial/Office and Low Residential** reflects a further “reduced” project alternative, similar to Alternative 3. This alternative also includes reductions in total development and residential uses. Under this alternative, the concepts of the transit village at the BART station and Neighborhood Commercial District along Willow Pass Road are retained, but with less development. A reduction in development is also assumed along Bailey Road. Finally, a reduction in residential uses is also assumed. This alternative assumes 124,000 square feet of commercial uses, 40,000 square feet of office uses, and 1,130 dwelling units.

**Alternative 5 – Very High Commercial/Office and Low Residential**

Under this alternative, office and commercial uses would substantially increase at the BART station and adjacent vacant parcels and reduce the total number of residential units. Development assumed in Orbisonia Heights, the Bailey Road Corridor, and Willow Pass Road Commercial District is the same as contained in the Specific Plan. This alternative was proposed by West Coast Home Builders (a.k.a. Seeno Construction), the owner of the two vacant undeveloped parcels adjacent to the BART station. This alternative assumes 359,000 square feet of commercial uses, 1,489,000 square feet of office uses, and 1,099 dwelling units.

**Alternative 6 – High Commercial/Office and High Residential**

This alternative was developed by the City of Pittsburg, Contra Costa County and BART to reflect a higher intensity development concept for properties adjacent to the BART station. It contains comparable commercial development to Alternative 5 but assumes substantially less office development. This alternative also retains the high residential development concept of the Specific Plan. This alternative assumes 422,750 square feet of commercial uses, 465,000 square feet of office uses, and 1,882 dwelling units.
The table below (from Chapter 17) presents the development assumptions of the Specific Plan compared to each alternative.

### Summary Table

Comparison of Development Assumptions of Specific Plan to Alternatives

<table>
<thead>
<tr>
<th></th>
<th>Commercial (GSF)</th>
<th>Office (GSF)</th>
<th>Total (GSF)</th>
<th>Residential (Dwelling Units)</th>
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<tr>
<td>Alternative 5 –</td>
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<tr>
<td>Alternative 6 –</td>
<td>422,750</td>
<td>465,000</td>
<td>887,750</td>
<td>1,882</td>
</tr>
</tbody>
</table>

GSF = Gross square feet

There are no parcels proposed for development in the Specific Plan that are currently designated Office or Office Commercial in either the Pittsburg General Plan or County General Plan. All parcels are designated as either Residential or Commercial.

### Note: Summary

3

PROJECT DESCRIPTION

3.1 OVERVIEW OF PROJECT

The sponsors of the proposed project are the Contra Costa County, City of Pittsburg, and the Bay Area Rapid Transit District (BART). The *Pittsburg/Bay Point BART Station Area Specific Plan, Public Review Draft*, November 1997 (“the Specific Plan”) is the proposed project reviewed in this Master EIR. Contra Costa County, the City of Pittsburg, and BART in concert with the local community prepared the Specific Plan to provide for future transit oriented development at the BART station and surrounding area, stimulate revitalization of the area, and promote orderly growth in the Bay Point community. Transportation oriented development is intended to reduce traffic congestion, air pollution, and other undesirable effects of urban sprawl.

The Specific Plan contains three main sections: Land Use, Urban Design, and Circulation. Each plan section comprises goals, objectives, policies, and actions for development and redevelopment of parcels totaling 295 acres located within the City of Pittsburg and the unincorporated community of Bay Point in Contra Costa County. The Specific Plan area includes the Pittsburg/Bay Point BART Station and adjacent properties north of West Leland Road; parcels including and adjacent to Ambrose Park; and vacant and developed parcels along Bailey Road, Willow Pass Road, and Canal Road. State Route 4 roughly divides the project area into north and south halves.

The Specific Plan is designed to encourage peak patronage in the eastbound (reverse commute) direction to take advantage of unused capacity on BART. The plan contains policies and standards to guide Contra Costa County, the City of Pittsburg, and BART in developing and improving the area through the year 2010. The Specific Plan emphasizes land uses that produce jobs. It provides for approximately 2,195 dwelling units, of which 1,790 units would be located at the BART station and adjacent properties; about 75,000 square feet of office space at the BART station and adjacent properties; and about 239,000 square feet of commercial space to be developed in parcels at the BART station and adjacent properties; along Bailey Road, Willow Pass Road, Canal Road, and adjacent to Ambrose Park. Willow Pass Road would be designated as a Neighborhood Commercial District from Alves Lane to a point just east of Bailey Road. In the near term, BART may develop 380 parking spaces in a 3.45-acre vacant parcel adjacent to the existing BART parking lot.

Future development would be subject to architectural design guidelines; streetscape improvements would be installed for portions of West Leland Road, Bailey Road, and Willow Pass Road; pedestrian and bicycle improvements would be constructed, and utilities and infrastructure in the Specific Plan area are expected to be improved as projects are developed.

**Description of the Draft November 1997 Specific Plan**

The Pittsburg/Bay Point BART Station Area Specific Plan was developed over a one-year period with input from a Policy Advisory Committee composed of representatives from community advisory groups, property owners and tenants, planning and transportation agencies, parks district, and school districts. In addition, a review of the Policy Advisory Committee’s recommendations for the Specific Plan components was provided by a Fiscal Policy Committee. This committee consisted of one elected representative each from the City of Pittsburg City Council, the Contra Costa County Board of Supervisors, and the BART Board of Directors.

Preliminary evaluations and market studies were followed by a detailed evaluation and comparison of three alternative plan scenarios. The detailed review and discussion of the alternative scenarios by the Policy Advisory and Fiscal Policy Committees formed the basis for the policies, standards, and implementation tasks contained in the Specific Plan.

### 3.2 PROJECT DESCRIPTION

**Regional Setting**

The Specific Plan area is located in eastern Contra Costa County west of central Pittsburg (Figure 3-1). The plan area is 35 miles northeast of San Francisco and 28 miles northeast of Oakland. Regional access is available along State Route 4, which bisects the plan area. State Route 4 is a major east-west freeway that links the plan area to the rest of the San Francisco Bay Area. It provides connections to Route 24, Interstate 680, and Interstate 80. State Route 4 also links the plan area to the cities of Pittsburg, Antioch, and Brentwood to the east, and to the City of Martinez to the west. Interstate 680, which is approximately 6 miles west of the plan area, provides a connection to the cities along the I-680 corridor including Concord, Walnut Creek, Danville, San Ramon, Dublin, and Pleasanton to the south, and Benicia to the north.

**Local Setting**

The Pittsburg/Bay Point BART Station Area Specific Plan covers a finite area of approximately 295 acres immediately adjacent to and along major access routes to the BART station (Figure 3-2).

Figure 3-3 shows the local setting. The area north of State Route 4 is occupied by single- and multi-family housing, light industrial, and retail commercial uses. The area east of
FIGURE 3-2
Specific Plan Area

Source: Pittsburg/Bay Point BART Station Area Specific Plan Public Review Draft, November 1997
the plan area is largely composed of single and multi-family housing. South of the plan area are rolling, undeveloped hills with active agricultural uses and the Keller Canyon Landfill. The area west of the plan area and south of State Route 4 is open, undeveloped land that will include the San Marco subdivision of approximately 3,000 homes. The area west of the plan area and north of State Route 4 is predominately single-family residential housing. The Concord Naval Weapons Station is approximately two miles west of the plan area, and Suisun Bay is approximately 1.2 miles due north. Downtown Pittsburg is three miles east of the plan area.

Government Jurisdictions
The Specific Plan area is divided between unincorporated Contra Costa County and the City of Pittsburg (see Figure 3-4). Between the two jurisdictions, adopted redevelopment plans cover nearly the entire Specific Plan area.

Statutory Authority
Under California Law (Government Code Section 65459 et. seq.), cities and counties may use specific plans to develop policies, programs, and regulations to implement the jurisdiction’s adopted General Plan. The Specific Plan serves as a bridge between the General Plan and individual development master plans by providing additional policy and plan guidelines. The Pittsburg/Bay Point BART Station Area Specific Plan has been prepared to meet the requirements of State Planning and Zoning Law, Article 8, Specific Plans.

Relationship to Other Plans and Regulations
The following City, County, and BART plans and policy documents apply to the plan area:

- City of Pittsburg General Plan
- City of Pittsburg Zoning Ordinance
- Pittsburg Redevelopment Agency Plans
- Third Amendment to the Los Medanos Community Development Plan
- BART Capital Improvement Plan
- BART Strategic Plan
- BART Short Range Transit Plan
- BART Joint Development Implementation Policies
- BART Station Area Development Implementation Guidelines
- Contra Costa County General Plan
- Contra Costa County Zoning Ordinance
- Contra Costa County Congestion Management Plan
- Contra Costa County West Pittsburg (Bay Point) Redevelopment Project Area Plan
- 2000 Update to the Contra Costa Countywide Comprehensive Transportation Plan, Final Action Plan Update, East County.
Figure 3-4: County and City Boundary Lines

Source: Pittsburg/Bay Point BART Station Area Specific Plan Public Review Draft, November 1997
CHAPTER 3: PROJECT DESCRIPTION

Land Use Concepts
The major concepts used in establishing land use plans and policies for the Specific Plan are as follows:

1) The creation of a high-density, mixed use area within easy walking distance of the BART station which emphasizes street-level commercial establishments and a “village environment.”

2) The provision of mixed land uses in the immediate vicinity of the BART station to serve the everyday needs of both area residents and BART commuters.

3) The increase of park and recreation amenities in the area to enhance the livability and character of the BART Station Area.

4) The establishment of a Neighborhood Commercial District along Willow Pass Road to provide a focus for the Bay Point community, and reduce the need for residents to leave the area for routine shopping needs.

5) The enhancement of pedestrian and bicycle routes to encourage non-automotive access to the BART station and the Delta De Anza regional trail.

6) The establishment of urban design elements for future developments that provide physical and visual linkages between land uses and establish a sense of place and identity.

Development Zones and Subareas
The Specific Plan area has been divided into four development zones as shown on Figure 3-5. These zones reflect City and County boundaries as well as the presence of State Route 4. Zone I, which includes the BART station, is located within the incorporated limits of the City of Pittsburg. Zones III and IV are located within unincorporated area of Contra Costa County. Except for the small panhandle of land at the far eastern end of Zone II which is located in the City of Pittsburg, Zone II is also located within the County. The Specific Plan area is also divided into fourteen development subareas based on property ownership and/or similarity of land use in the Specific Plan (Figure 3-6).

Development Assumptions
The potential for new development in the Specific Plan area was studied to evaluate land uses, development densities, and potential impacts. The Specific Plan allows for a range of permitted and conditional uses. Development assumptions are shown on Figure 3-7 and in Table 3-1. The development assumptions establish the intent and magnitude of the land use permitted and encouraged by the Specific Plan.
FIGURE 3-5
Development Zones

Source: Pittsburg/Bay Point BART Station Area Specific Plan Public Review Draft, November 1997
Development Areas

Source: Pittsburg/Bay Point BART Station Area Specific Plan Public Review Draft, November 1997
Development Assumptions
TABLE 3-1
Development Assumptions

<table>
<thead>
<tr>
<th>Development Zone (See Figure 3-5)</th>
<th>LAND USE</th>
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<tbody>
<tr>
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<td>Commercial</td>
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<tr>
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<tr>
<td>Totals</td>
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</table>


Proposed Land Uses

Proposed land use designations corresponding to the plan’s development assumptions are shown on Figure 3-8. Additional information regarding proposed new land use goals and objectives is presented in Chapter 5: Land Use.

BART Station Area Mixed Use

The goal of the Specific Plan is to produce cohesive neighborhoods rather than a collection of self-contained developments. The BART Station Area Mixed Use designation in particular is intended to create a commercial and residential environment with land uses that reinforce the use of BART and other transit. An emphasis is placed upon street level commercial uses serving the needs of both commuters and area residents. A unified residential neighborhood would blend with existing residential and commercial developments.

New development is encouraged on vacant properties east and west of the BART station. Future development at the BART station site itself will be guided by future joint development agreements. The existing Oak Hills Shopping Center would remain, and may experience some future redevelopment adjacent to the West Leland Road frontage to provide a stronger linkage to the BART station. BART has considered purchasing the vacant 3.45-acre parcel located between the BART parking lot and the Oak Hills Shopping Center for development of 380 parking spaces for all-day parking by BART patrons. (See Chapter 10: Transportation.)
CHAPTER 3: PROJECT DESCRIPTION

FIGURE 3-6
Specific Plan
Land Use Designations

Source: Pittsburg/Bay Point BART Station Area Specific Plan Public Review Draft, November 1997
Residential Mixed Use
The intent of the Residential Mixed Use designation is to encourage a moderately high density, unified residential development to take advantage of the area’s close proximity to both the BART station and Ambrose Park. Commercial uses are planned to be secondary to residential development. Commercial uses would be oriented toward providing goods and services for neighborhood residents and visitors to Ambrose Park.

Commercial District Mixed Use
The intent of the Commercial District Mixed Use designation is to create a Neighborhood Commercial District along Willow Pass Road to serve as a focal point of the Bay Point community. Proposed land uses for the area would serve residents who live nearby or other shoppers who pass through the area. The goal is to promote multiple transactions per visit in a pedestrian-oriented district. Adequate off-street parking would be provided to create a shopping orientation of Willow Pass Road.

Commercial
The Commercial Use designation provides for concentrations of goods and services to meet the needs of local residents and BART patrons. This concentration is intended to reinforce, rather than disrupt, pedestrian movement between the BART station and nearby residential neighborhoods.

Multi-Family Residential Medium or Low Use
The Multi-Family Residential Medium or Low density designation provides for residential infill development at a density that would support usage of BART and local bus transit.

Light Industry / Business Park
The intent of the Light Industry/Business Park designation is to allow light industrial, office, and other uses on the north side of Willow Pass Road that will be compatible with the Neighborhood Commercial District proposed for the south side of Willow Pass Road. This light industry/business park land use designation is applicable only to the first 600 feet of lot depth from the edge of Willow Pass Road and does not affect current General Plan or Zoning classifications for the remainder of properties north of this 600-foot strip. No industrial uses are proposed in the Specific Plan, but they would be encouraged in the future.

Parks and Recreation
The intent of the Parks and Recreation designation is to preserve and enhance Ambrose Park as a local recreational amenity.
Public Spaces
The intent of the Public Spaces designation is to ensure that potential conversion of the Bel Air School site is subject to appropriate public review.

Urban Design
This section sets forth the urban design concepts, outlines urban design policies, describes anticipated public improvements, and establishes design guidelines applicable to general and site specific conditions.

Urban Design Concepts
The Specific Plan proposes to establish a cluster of mixed use neighborhoods centered around the Pittsburg/Bay Point BART Station, and to link the neighborhoods together with landscaping and other design elements to create a unique identity and sense of place. Figure 3-9 is a conceptual plan illustrating the primary urban design concepts. Concepts shown on individual private parcels demonstrate scale and character of development possible under the land uses and standards established by the Specific Plan. They also illustrate desired relationships among various areas contained within the Specific Plan. The design of actual development may vary, but would be consistent with the concepts illustrated in the plan. The major urban design concepts are as follows:

1) A Transit Plaza surrounded by a wide mix of uses and activities around the transit transfer area at the BART station would provide an activity and visual focus for the Specific Plan area.

   Rapid transit, bus service, and commuter trips converge in the BART station, and offer opportunity to create a strong functional focal point for the Pittsburg/Bay Point community. The transit plaza is intended to provide such a focus, and would be surrounded by residential units and a mix of uses to meet the shopping needs of both commuters and local residents. The presence of permanent residents would provide a sense of increased security for commuters, while the presence of commuters would support a greater range of goods and service in the neighborhood than might otherwise be possible.

   A multi-level, 2,000-space parking garage is proposed to provide replacement parking for spaces to be lost to station area development. Five hundred spaces will be provided in reconfigured surface parking lots. As noted earlier, BART has considered purchasing the adjacent 3.45-acre vacant parcel for development of approximately 380 parking spaces for all-day parking for BART patrons.

2) A Linear Park along West Leland Road would link the BART station with neighborhoods to the west and encourage pedestrian and bicycle travel to the Transit Plaza.


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FIGURE 3-9
Conceptual Urban Design Plan

Source: Pittsburg/Bay Point BART Station Area Specific Plan Public Review Draft, November 1997
To encourage pedestrian and bicycle travel to and from the BART station, a wide linear park space and pedestrian way is proposed along the north side of West Leland Road from the BART station through the Specific Plan area. The open space area would be continued west to the Willow Pass Road interchange in the future. Extensive landscaping and a combined pedestrian and bicycle path would form a strong physical and psychological linkage between the neighborhoods to the west and the BART station. The proposed landscaping would also provide a visual buffer between the higher density residential development adjacent to the BART station and existing single-family neighborhoods to the south.

Other proposed open spaces for adjacent development are intended to expand the linear park along the street frontage. Proposed resident-serving commercial uses and residential unit entries would add interest and provide pedestrian security.

3) **The Neighborhood Commercial District would be emphasized as a community shopping area with social focus by use of special landscaping and other urban design treatments.**

Street trees are proposed to be installed along both sides of Willow Pass Road and within a landscaped median. The trees are intended to mark the importance of the area, improve its physical appearance, and provide shade for pedestrians. Special pedestrian-scale lighting is also proposed to emphasize the elements, reduce the apparent street width in the area, and provide a stronger sense of a pedestrian district. Building setbacks are proposed from the front property line in some locations to provide space for outdoor vendors and seating.

4) **Ambrose Park would be improved and expanded if possible to provide a focus of park and recreation usage for the Specific Plan area.**

The Specific Plan encourages a creative combination of park and recreation uses, along with multifamily residential development. The intent is to increase the visibility and use of the park, while adding additional land area and facilities to it. Future encouraged land uses include a child day care center, and environmental interpretation features around the existing wetlands area east of the park. The Specific Plan allows possible expansion of the park lands to the west and/or to the east, and use of land trades to bring parklands up to the Bailey Road frontage. This concept would also allow residential development within the current Ambrose Park boundaries. A conceptual plan for the expanded park is shown on Figure 3-10.

5) **Street trees in the median of Bailey Road would be replaced and new street trees added at its edges.**
FIGURE 3-10
Ambrose Park Expansion Concept

Source: Pittsburg/Bay Point BART Station Area Specific Plan Public Review Draft, November 1997
The Specific Plan proposes to install stronger identity trees from Willow Pass Road to West Leland Road to visually tie the Specific Plan area together, and to mitigate the visual barrier created by State Route 4. In addition, new street trees are proposed along the curb line to provide better separation between vehicular and pedestrian traffic. Sidewalks are proposed to be widened as described in the Circulation section.

6) **Trails within the Specific Plan boundaries, including along the East Bay Municipal Utility District (EBMUD) easement, would be improved to encourage their usage for pedestrian and bicycle access to the BART station.**

The Specific Plan proposes to install shallow-rooted landscaping to improve the appearance of pedestrian and bicycle pathways, and pedestrian lighting to improve early evening security. These improvements are intended to encourage non-automotive travel to the area. The Specific Plan also proposes to apply for grant funds to close a “trail gap” along the Delta DeAnza Trail near Bailey Road.

7) **Crosswalk improvements along Bailey Road would encourage pedestrian movement and safety along Bailey Road to and from the BART station.**

The Specific Plan proposes to improve pedestrian movement and safety along Bailey Road. Pedestrians now avoid the existing tunnel under the State Route 4 westbound off-ramp at Bailey Road, and cross the ramp at-grade in hazardous conditions. Decorative paving and pedestrian-activated walk lights will improve safety at this grade-level crossing. Implementation of these improvements is contingent upon a future feasibility study as outlined in the Circulation section of this chapter.

8) **Emphasis is placed upon design of new buildings that are compatible with the existing residential scale of the area to blend new development with surrounding neighborhoods.**

The Specific Plan proposes new development in the area of the BART station that would be more dense than that which currently exists in the area. Design guidelines are proposed to ensure attention to the scale of buildings along street frontages, combined with guidelines which reduce the bulk of structures. The proposed guidelines would provide for a similarity in architectural character that would promote compatibility while encouraging architectural diversity.

**Height and Bulk**

Figure 3-11 shows the proposed building height zones for the Specific Plan area. Height zones establish the maximum building height, excluding mechanical penthouses for building utilities and exhaust stacks. The proposed height zones are intended to provide flexibility in the location of buildings within each development zone.
Figure 3-11

Building Height Limits (in feet)
In Zone I, the building heights for BART station mixed use development provide for four stories over parking: six stories maximum up to a height of 65 feet. Sloped roofs and elements such as chimneys may extend above the 65-foot limit so long as no element exceeds 80 feet in height.

In Zone II, building heights for residential mixed use allow for three stories over parking: four stories maximum up to a height of 45 feet. Sloped roofs and elements such as chimneys may extend above the 45-foot limit as long as no element exceeds 60 feet in height.

Building heights for other proposed land uses are as follows:

- Commercial District Mixed Use – three stories up to a maximum height of 50 feet.

- Commercial:
  - Development Area 9 (Far Hills Mobile Home site north of State Route 4), three stories up to a maximum height of 50 feet.
  - Development Area 7 (Bailey Road frontage south of West Leland Road), two stories up to a maximum height of 30 feet.

- Multi-Family Residential Medium – maximum height of 30 feet. Structures shall not exceed 20 feet in height within 50 feet of abutting single-family residential districts.

- Multi-Family Residential Low – maximum height of 2-½ stories or 35 feet in height.

- Light Industry/Business Park – three stories up to a maximum of 50 feet.

Density
The Specific Plan proposes a total of 2,195 dwelling units. Densities for land use designations include:

- BART Station Area Mixed Use, Zone I – minimum residential density of 65 units per acre. A total of 1,790 units are proposed in Zone I.

- Residential Mixed Use, Zone II, east of Bailey Road, near West Leland Road – minimum residential density of 40 units per gross acre. Two hundred units are proposed in this area of Zone II.

- Multi-Family Residential Low, Zone II, east of Ambrose Park – minimum residential density of 7 units per acre; maximum residential density of 12 units per acre. Seventy units are proposed in this area of Zone II.

- Multi-Family Residential Medium, Zone III, east of Bailey Road – minimum residential density of 12.0 units per acre; maximum residential density of 20.9 units per acre; 100 units
are proposed at 15.0 units per acre for areas east and west of Bailey Road; 35 units are proposed at 10.0 units per acre for a parcel on Canal Road, west of Bailey Road.

Coverage
Lot coverage for parcels subject to development in the Specific Plan would vary by land use designation. For Residential Mixed Use, a minimum of 25 percent of the site would be devoted to landscaping. Multi-Family Residential Low would allow a maximum lot coverage of 25 percent; and Multi-Family Residential Medium would allow maximum lot coverage of 35 percent. Commercial District Mixed Use and Commercial designations provide for a maximum floor area ratio of 0.35, excluding any upper level residential use. Light Industry/Business Park would provide for a maximum floor area ratio of 0.67.

The BART Station Area Mixed Use designation allows commercial, office, and residential uses. Development would be subject to a Development Agreement between BART and project developers. A Development Agreement would only apply on BART property and not throughout the plan area. Lot coverages would be expected to vary from 100 percent at ground level (buildings flush with the edges of sidewalks and interior lot lines) to the ranges indicated above for commercial and residential uses. Usable open space would be provided in the form of a linear park along West Leland Road, and a small park and plaza adjacent to the proposed parking garage.

Setbacks
The Specific Plan includes setback requirements that vary depending on the development area and street. For Zone I, the BART station and adjacent properties site, a 60-foot minimum setback would be required for West Leland Road; a 25-foot minimum setback is required for State Route 4; and a 15-foot minimum setback is required for side property lines. Reduced setbacks may be allowed in cases where master plans have been prepared and approved to coordinate the development on adjacent parcels.

The Residential Mixed Use development in Zone II, east of Bailey Road near Ambrose Park and West Leland Road would involve the following: a 10 feet minimum setback on Bailey Road; 25 feet minimum setback on West Leland Road; and 20 feet minimum for side and rear property lines. Reduced side and rear setbacks may be allowed in cases where master plans have been prepared and approved to coordinate the development or park use on adjacent parcels.

Multi-Family Residential Low uses in Zone II near Ambrose Park would have required setbacks of 25 feet minimum at the front, and 20 feet minimum at the side and rear. Commercial uses in Zone II would be required to be setback a minimum of 15 feet on West Leland Road; and 10 feet from Bailey Road in development area 7, south of West Leland Road.
Required setbacks in Zone III for both Multi-Family Residential Medium and Low uses along Bailey Road and Canal Road, would be 25 feet minimum at the front, and 20 feet minimum for the side and rear. For commercial uses in Zone III, no setback would be required for development area 9 (Far Hills Mobile Home site); however, a minimum of 50 percent of the street frontage would be devoted to commercial uses with a setback no greater than 15 feet, with entries and display windows oriented to Bailey Road. A minimum setback of 5 feet would be required at the EBMUD right-of-way.

Setbacks for Zone IV Commercial District Mixed Use along Willow Pass Road would be a minimum of 0 feet to a maximum of 15 feet; 3 feet minimum along Bailey Road and Clearland Drive; and 5 feet minimum on Canal Road. Light Industry/Business Park uses would have required setbacks of 25 feet minimum at the front; 50 feet minimum at the side; and 50 feet minimum at the rear. No setback is required when adjacent to property under the same ownership and dedicated to compatible uses.

**Circulation**

The Circulation section of the Specific Plan is based upon analyses of existing and future transportation conditions in the Specific Plan Area, and the inputs from Contra Costa County, the City of Pittsburg, and BART. The Circulation section recognizes the opportunity represented by the Pittsburg/Bay Point BART Station. The Pittsburg/Bay Point BART Station is presently the last station of BART’s Concord Line. The next phase of a BART extension easterly is the subject of a regional study. The regional transportation plan assumes that an easterly BART extension will not occur within the next ten years.

The Pittsburg/Bay Point station serves to attract more traffic and transit activity than other stations along the line. The Pittsburg/Bay Point BART Station provides the Specific Plan area and most of eastern Contra Costa County with an increase in local and regional transit accessibility. To maximize this accessibility, the Circulation section includes plans and policies related to streets and roadways, transit, parking, pedestrian circulation, and bicycling (see Chapter 10: Transportation, in this Master EIR). Figure 3-12 shows major streets, highways, and the BART station in the Specific Plan area.

The Specific Plan emphasizes local needs for traffic circulation, transit access, and pedestrian/bicycle circulation while maintaining an appropriate balance between local and regional circulation needs.
**FIGURE 3-12**

Major Streets and Highways

*Source: Pittsburg/Bay Point BART Station Area Specific Plan Public Review Draft, November 1997*
BART
The Pittsburg/Bay Point BART Station will be a major regional transit node for the foreseeable future. Eastward extension of the BART line will not diminish the station as an important transit hub. The existing BART station design includes an intermodal terminal area for bus loading and unloading. This is an area where people transfer from buses to and from BART, and to other buses or transit vehicles. Rail service is provided between the hours of 4:00 a.m. and 1:30 a.m., Monday through Friday; 6:00 a.m. to 1:30 a.m. on Saturdays; and 8:00 a.m. to 1:30 a.m. on Sundays and major holidays. Future riders will find improved access to nearby commercial and residential land uses developed around the station area. The proposed mixed uses will be integrated within the community and eliminate the present “island” effect of the current BART station configuration.

Bus Transit
With the opening of the BART station, Eastern Contra Costa Transit Authority (Tri-Delta) reorganized its routes to bring all its local services into the transit center at the station. Three routes (Routes 380, 388 and 389) provide local service within the Specific Plan area. In addition, Tri-Delta has recently taken over the operation of the East County BART Express Bus service currently designated as Route 390. BART complies with the Americans with Disabilities Act (ADA) requirement to provide paratransit service which is comparable and complementary to the BART system. Federal ADA regulations define the ADA paratransit service area as a three-quarter-mile radius around a BART station. BART has arranged to provide funding to Tri-Delta to provide paratransit service on behalf of BART.

Proposed Roadway Improvements
The proposed roadway improvements are intended to maintain current levels of traffic capacity while improving pedestrian and bicycle access and safety. Figure 3-13 shows the planned traffic improvements. Figure 3-14 shows the existing and proposed cross-section for the major roadways in the plan area.

Bailey Road. The Specific Plan proposes to narrow some lanes on Bailey Road to increase the sidewalk area. Currently Bailey Road provides four traffic lanes between West Leland and Willow Pass Roads with additional lanes for turns at intersections. Sidewalk widths vary between 3.5 to 7.0 feet, and are narrow for the amount of pedestrian activity in the area. Existing bike lanes are provided between Willow Pass and Canal Road. Between Canal Road and Willow Pass Road the plan proposes to modify the cross-section to increase the width of the sidewalk areas by narrowing the median left-turn lane area from 16 to 11 feet, and narrowing the bike lanes to 6 feet from 7.5 feet (see Figure 3-14). The sidewalk area would be increased to 12 feet, allowing for a wider
CHAPTER 3: PROJECT DESCRIPTION

FIGURE 3-14

Existing and Proposed Major Roadway Cross Sections

Source: Adapted from Pittsburg/Bay Point BART Station Area Specific Plan Public Review Draft, November 1997; revised by the Contra Costa County Public Works Department, March 1999
sidewalk and landscaping. Landscaping, as proposed in the Urban Design Section of the Specific Plan, is intended to mitigate the visual effects of narrowing the road median. Since the remainder of Bailey Road from Canal Road to West Leland Road has a constrained right-of-way, the widening of sidewalks in this portion of the street is not proposed.

**Willow Pass Road.** Willow Pass Road is a four lane roadway west of Bailey Road and a two-lane roadway east of Bailey Road. West of the Specific Plan area, Willow Pass Road has been widened to 100-foot right-of-way at its widest and consists of four lanes plus a left-turn lane, curbside parking on the south side, and bike lanes. Six to ten-foot wide sidewalks are also provided. The portion of Willow Pass Road just west of Bailey Road is 76 feet wide. The portion of Willow Pass Road east of Bailey Road in the Specific Plan area is currently 64 feet wide in an 84-foot right-of-way.

Since the area on the south side of Willow Pass Road is proposed to become a Neighborhood Commercial District, there will be increased pedestrian traffic in the area. The plan proposes to control and reduce vehicular speeds to encourage pedestrian use and improve safety. Figure 3-14 shows the existing cross-section and the proposed future cross-section. The future cross-section would maintain the four traffic lanes at 11 feet wide with a 12-foot-wide, raised median area between Bailey Road and Clearland Drive. This modification is intended to emphasize the pedestrian character of the area and encourage drivers to reduce speed and be alert for pedestrians. In addition, the median would allow left-turn channelization at intersections. No on-street parking would be provided.

**West Leland Road.** The Specific Plan does not propose to modify West Leland Road width. The existing cross-section of West Leland Road consists of a 64-foot-wide paved area within an 84-foot right-of-way. This allows for four traffic lanes and a left-turn lane at intersections. The Linear Open Space (described in the Urban Design Section) proposes shared pedestrian and bicycle paths between the BART station and areas to the west and east of the Specific Plan area. No modification of this cross-section is proposed in the Specific Plan.

Figure 3-15 provides a summary of the roadway improvements proposed in the Specific Plan.

**Off-Street Parking Standards**

The Specific Plan establishes off-street parking standards for proposed land uses as presented in Table 3-2. Chapter 10: Transportation, contains additional discussion of parking impacts of the plan. With the adoption of the Specific Plan, the proposed parking
FIGURE 3-15
Specific Plan Streetscape Improvements

Source: Pittsburg/Bay Point BART Station Area Specific Plan Public Review Draft, November 1997
TABLE 3-2
Off-Street Parking Standards

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Parking Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>BART Station Area Mixed Use</td>
<td></td>
</tr>
<tr>
<td>Residential</td>
<td>1.3 to 1.5 spaces per dwelling unit</td>
</tr>
<tr>
<td>Commercial</td>
<td>Minimum of 2.0 spaces per 1,000 square feet of net rentable</td>
</tr>
<tr>
<td>Office</td>
<td>Maximum of 3.3 spaces per 1,000 square feet of net rentable area</td>
</tr>
<tr>
<td>Retail</td>
<td>Maximum of 4.5 spaces per 1,000 square feet of net rentable area</td>
</tr>
<tr>
<td>Residential Mixed Use — Within walking distance of BART</td>
<td></td>
</tr>
<tr>
<td>Residential</td>
<td>1.3 to 1.5 spaces per dwelling unit</td>
</tr>
<tr>
<td>Commercial</td>
<td>3.3 parking spaces per 1,000 square feet of net rentable area</td>
</tr>
<tr>
<td>Commercial</td>
<td>4.0 spaces per 1,000 square feet of gross building area</td>
</tr>
<tr>
<td>Residential</td>
<td>Minimum of 1.0 space per dwelling unit (Senior housing may be granted lower parking requirements)</td>
</tr>
<tr>
<td>Commercial District</td>
<td></td>
</tr>
<tr>
<td>Commercial</td>
<td>3.3 parking spaces per 1,000 square feet of gross building area</td>
</tr>
<tr>
<td>Residential</td>
<td>Minimum of 1.0 space per dwelling unit (Senior housing may be granted lower parking requirement)</td>
</tr>
<tr>
<td>Multi-Family Residential Low and Medium Density</td>
<td></td>
</tr>
<tr>
<td>Studio</td>
<td>1.0 space per unit</td>
</tr>
<tr>
<td>One bedroom</td>
<td>1 ½ spaces per unit</td>
</tr>
<tr>
<td>Two or more bedrooms</td>
<td>2.0 spaces per unit plus ¼ space per unit for guest parking</td>
</tr>
<tr>
<td>Light Industry / Business Park</td>
<td></td>
</tr>
<tr>
<td>Office</td>
<td>5.0 spaces per 1,000 square feet of gross building area</td>
</tr>
<tr>
<td>Laboratory</td>
<td>2.0 spaces per 1,000 square feet of gross building area</td>
</tr>
<tr>
<td>Commercial</td>
<td>4.0 spaces per 1,000 square feet of gross building area</td>
</tr>
<tr>
<td>Warehouse</td>
<td>1.0 space per 1,000 square feet of gross building area</td>
</tr>
</tbody>
</table>


standards would be applied to all new development within the plan area boundaries. The plan provides for a range of parking requirements depending on the development intensity and type of land use.

**BART Parking**

In the near term, BART has considered purchasing the vacant 3.45-acre parcel located between the existing BART surface parking lot and the existing Oak Hills Shopping Center (Figure 3-16). The parcel would be developed for approximately 380 spaces for all-day parking for BART patrons.
Figure 3-16  Potential BART Parking Site (3.45 Ac Parcel map)
In the long term, a total of approximately 2,380 parking spaces would be provided at the BART station. A four-level parking garage would be constructed next to State Route 4 with a capacity of about 2,000 spaces. Approximately 380 spaces would be provided in surface parking. The total of parking spaces to be developed would replace spaces lost to joint development at the BART station.

**Proposed Pedestrian/Bicycle Improvements**

The State Route 4 and Bailey Road interchange are obstacles to pedestrians and bicycle movement. An existing pedestrian underpass on the westbound on- and off-ramp is provided on the west side of Bailey Road; however, most pedestrians cross at the freeway ramps despite pedestrian barriers erected to prevent such movements. The crossing of Bailey Road under the State Route 4 bridge places pedestrians very close to fast-moving traffic on both sides of the road.

The plan proposes a future study to determine if slowing traffic on Bailey Road as it approaches the intersections of State Route 4 would enhance this area for pedestrians. The proposed study would include:

- A pedestrian safety study to examine the feasibility of closing the pedestrian tunnel beneath the Bailey Road southbound off-ramp and improving at-grade crossing of the ramp.
- Analysis of the operation of the traffic signals at this intersection to determine if pedestrian crossings could be allowed at one or more of the locations where they are currently prohibited.
- Analysis of the area under the freeway to determine the feasibility of widening existing sidewalks and adding a railing or barrier (e.g., bollards) to separate pedestrians from the curb traffic lane.
- Assessment of lighting conditions, the general appearance of these sidewalk areas, and the potential for improving the appearance of the undercrossing with murals or other art works.

### 3.3 IMPLEMENTATION

The Specific Plan will require a number of years to implement. The analyses in this Master EIR assume buildout will occur by 2010. To maximize the use of joint development at the BART station, current residential rental rates will need time to reach levels adequate to justify the cost of investment. Additional funding sources may also be needed for the relocation of the existing BART surface parking into a parking garage to make land available for joint development.

The Specific Plan establishes a general framework for implementation tasks and responsibilities. This framework focuses primarily on the responsibilities and activities of the City of Pittsburg, Contra Costa County, and BART; however, private land owners and investors will be largely responsible for creating the development envisioned in the plan. Public agencies would
coordinate development, leverage private investments and, where possible, assist in land assembly to achieve the goals of the plan. The City and County would give consideration to using public funding and other mechanisms to encourage land uses when market rates may limit development proposed in the plan.

In the event that the City of Pittsburg, Contra Costa County, or BART wishes to amend the Specific Plan, that agency would notify the others by a letter containing a draft Memorandum of Understanding formalizing the plan amendment process. Amendments would be carried out in accordance with State Law governing Specific Plans and would include public outreach to include residents of the community, local business, and affected public agencies.

**Implementation Responsibilities**

The following outlines general responsibilities for the implementation of the Specific Plan. The responsible agencies would regularly coordinate planning activities on future development and in exploring funding opportunities.

**Contra Costa County**
Contra Costa County will be responsible for the following:

- Urban design improvements within the unincorporated area
- Redevelopment planning and action in the Orbisonia Heights/Ambrose Park area
- Redevelopment planning and action in the Neighborhood Commercial District
- Renovation and facade improvements to existing commercial properties on Willow Pass Road
- Residential renovation and infill development in areas adjacent to the Specific Plan area

**City of Pittsburg**
The City of Pittsburg will be responsible for the following:

- Urban Design Improvements within the City
- Assistance in overall park and recreation improvements in the Specific Plan area
- Assistance to BART in seeking any additional parking garage funding
- Detailed master plan coordination of properties adjacent to the BART station
Bay Area Rapid Transit District (BART)
BART will be responsible for the following:

- Possible development in the near term of 380 parking spaces in the adjacent 3.45-acre parcel
- Parking garage funding
- Joint development of BART properties
- Coordination of improved transit linkages to the BART station
- Assistance in developing improved pedestrian and bicycle linkages to the BART station
- Feasibility investigation of development of its properties adjacent to the station for parking lot expansion and future joint development

Implementation Tasks
The Specific Plan outlines additional tasks that need to be completed to accomplish plan goals and objectives (see Section 5 of the Specific Plan). These tasks are summarized below.

Task 1: Redevelopment Planning
Two areas of potential redevelopment action within the Specific Plan area have been identified:

1) **Residential Mixed Use Area.** The area at the northeast corner of Bailey Road and West Leland Road would be designated as a high-density residential area with supporting commercial uses. This area, currently known as Orbisonia Heights, is comprised of a number of small single-family lots. To facilitate timely, orderly development at proposed residential densities, the area would be designated as a Redevelopment Target Area.

2) **Commercial District Mixed Use Area.** The Specific Plan proposes the establishment of a Neighborhood Commercial District on the south side of Willow Pass Road between Bailey Road and Clearland Drive. The area currently consists of a number of separately owned commercial and vacant parcels. In order to create a strong focal point for the Bay Point community and a pedestrian-oriented environment, the area would be designated as a Redevelopment Target Area.

Task 2: West Leland Road Master Plan
The Urban Design section of the plan sets forth a concept for a linear park/open space along the north side of West Leland Road from Bailey Road to the Specific Plan’s western boundary. This linear parkway would provide a strong pedestrian, bicycle and visual connection to the BART station, particularly as new development occurs west of the Specific Plan area.
Task 3: Ambrose Park Master Plan
Implementation of the Pittsburg/Bay Point BART Station Area Specific Plan would result in 4,000 to 5,000 new residents. Additional parks and recreation facilities would be needed to serve this population. The Urban Design section of the plan sets forth a concept of expanding Ambrose Park and of integrating the park development with adjacent residential development.

Task 4: BART Station Master Plan
The BART station is located between two vacant parcels of land. The 3.45-acre parcel to the east is limited to approximately 150 feet in frontage along West Leland Road. For the development of a mixed use transit plaza to be fully realized, the planning of that narrow parcel needs to be integrated into future plans for the BART station. For the near term, BART has considered purchasing the 3.45-acre parcel for development of approximately 380 parking spaces for all-day parking for BART patrons. BART will also participate with the City of Pittsburg and private property owners in future joint master planning for the area between West Leland Road and State Route 4, and between Bailey Road and the Specific Plan’s western boundary so development is coordinated to achieve the goals and objectives of the Specific Plan.

Task 5: Willow Pass Road Beautification Plan
Improvements along Willow Pass Road and at the Neighborhood Commercial District are described in the Urban Design section of the plan. Design and construction plans, along with a funding plan, will be developed for the installation of beautification improvements and measures to improve pedestrian safety along Willow Pass Road.

Task 6: Bailey Road Beautification Plan
Street trees, improved pedestrian crosswalks, special lighting and other urban design improvements are envisioned to improve the overall character of the area, encourage pedestrian traffic along Bailey Road, and to link the two sides of State Route 4. The improvements will fall within the jurisdiction of both the City and County, although most of them will occur within the County. Detailed design and construction plans and a funding plan will be developed. As a part of the detailed planning for these improvements, a study of the feasibility of improving pedestrian access across the State Route 4 on- and off-ramps will be conducted.
Task 7: BART Parking Garage

Full realization of the goals of the Specific Plan is dependent upon redevelopment of the current BART parking lot with uses that are compatible with the transit village concept of the Specific Plan. To achieve that goal, the existing surface parking must be relocated to a parking garage to make land available for other uses. The parking garage may serve only BART patrons or may include parking for other uses to be placed on the site. The current policy of the BART Board of Directors is that any developer seeking development rights on a BART parcel must replace all lost parking spaces at no cost to BART.

Redevelopment Plans for the Pittsburg/Bay Point Area

The Specific Plan provides greater detail and focus on land use development on specific sites. In doing so, the Specific Plan builds on, and expands, redevelopment planning that has been conducted by both the City and County. Prior to preparation of the Specific Plan, both jurisdictions previously identified portions of the Specific Plan area as redevelopment areas within adopted redevelopment plans.

The City of Pittsburg has previously identified the BART station (in Zone I of the Specific Plan) as a redevelopment area within the Los Medanos Community Development Plan, the City’s overall redevelopment plan. The plan seeks to revitalize areas suffering from stagnation and disuse.

The County has also adopted a redevelopment plan for the Bay Point community. It includes the remainder of the Specific Plan area in Zones II, III, and IV. Both redevelopment plans describe specific redevelopment agency activities such as identification of opportunity areas, property acquisition and management, provision of relocation assistance to eligible displaced occupants, construction of public improvements, and creation of low/moderate income housing. Financing mechanisms such as tax increment funds, bonds, loans from private financial institutions, and lease or sale of agency-owned properties are discussed.

Amendments to the County General Plan and City of Pittsburg General Plan

Adoption of the Specific Plan would require the City of Pittsburg and Contra Costa County to amend their general plans, and rezone portions of their respective areas as Planned Development Districts. The County would amend its General Plan to include a new Residential Mixed Use designation with a minimum residential density of 40 dwelling units per gross acre. This new designation would apply to parcels located east of Bailey Road near West Leland Road. The County General Plan Amendment would also accommodate the detailed design guidelines and development standards of the Specific Plan.

The City of Pittsburg would amend its General Plan to accommodate new land use designations and zoning for parcels contiguous to the BART station. The amendment would revise the land
use designation from Medium Density Residential (with 5.1 to 14 dwelling units per gross acre) to BART Station Area Mixed Use, with a higher minimum residential density of 65 dwelling units per gross acre.

**Development Review and Approval Process**

**Pre-Application Procedures**

A pre-development study session is required with the City or County (depending on which agency has land use and environmental review authority) prior to the formal submittal of a project application. The study session is intended to allow the applicant and staff to discuss the project in the context of the requirements of the Specific Plan. This procedure is intended to minimize unnecessary expenditures by the applicant on studies or submittals that would later require substantial revisions in order to comply with the provisions of the plan.

**Processing of Development Applications**

The City of Pittsburg and Contra Costa County would each independently process applications for development proposals within their respective jurisdictions. Depending on project location, either the City or County could have land use and environmental review authority for the projects described in the Specific Plan. Each jurisdiction would apply their normal processes for development review and approval. In doing so, each jurisdiction would keep the other agencies informed of project applications as they are filed; provide status reports on application processing; and coordinate with, and inform, the other agencies on project application approvals or rejections.

If a project application is received which differs in land use type, scale, distribution, or location, from the development set forth in the Specific Plan and evaluated in this Master EIR, a preliminary review would be required by a Planning Committee. This committee would be comprised of the:

- City of Pittsburg Planning Manager,
- County Deputy Community Development Director (Redevelopment), and
- BART Joint Development Manager.

In the event that any one member of the Planning Committee believes that the project is inconsistent with the Specific Plan, a meeting of the Fiscal Policy Committee comprised of one member each of the Pittsburg City Council, Contra Costa County Board of Supervisors, and the BART Board of Directors would be convened to determine whether the project is consistent with the Specific Plan.
Anticipated Subsequent Projects
Anticipated subsequent projects that generally would be within the scope of this Master EIR are described in Chapter 1: Introduction, and in more detail below. These subsequent projects may require future environmental review to ensure that all aspects of the proposed Specific Plan development are adequately considered under CEQA. A separate CEQA-required initial study may be conducted by a reviewing agency with land use and environmental review authority. In this case, a review agency could include:

- the County Redevelopment Agency or Community Development Department,
- the City of Pittsburg Redevelopment Department or Planning Department, or
- the BART Joint Development or Environmental Compliance divisions.

Creation of New Financing Districts
The Specific Plan identifies the creation of new financing districts as possible options for funding or maintaining public improvements. These service districts would include, but not necessarily be limited to, assessment districts, lighting and landscape districts, County service areas and others.

Final Development Plans
Final development plans will be required for all future development in the Specific Plan area. It is likely that multiple development plans will be provided for various future individual developments and land ownerships within the plan area.

Tentative Subdivision or Parcel Map
A tentative subdivision or parcel map will also be required for every subdivision of property within the plan areas proposed for development. Several subdivision maps may be prepared as projects are developed within the Specific Plan’s four development zones.

Lot Line Adjustments
Lot line adjustments may also be requested in the future to adjust property lines to facilitate or accommodate individual projects and subdivisions, and the development standards established in the Specific Plan.

Minor Subdivision Map
Prior to performing detailed planning studies, a property may be subdivided, requiring approval of a minor subdivision map for subdivisions of four or fewer parcels.

Land Use Permits
Land use permits may be required for the development of Light Industry/Business Park industrial or commercial uses.
Infrastructure Improvement Plans
Infrastructure improvement plans would be submitted to either the Contra Costa County Public Works Department or City of Pittsburg Department of Public Works, for review and approval prior to the issuance of a final subdivision or similar entitlement for each phase of development.

Other Actions
CEQA requires that environmental review be adequate for each discretionary project. Many other actions or permits which may be required for the project, such as final map approvals, grading permits, and building permits, are typically exempt from environmental review as non-discretionary projects. This Master EIR includes those and other similar actions within its scope.

Environmental Permits and Agreements
The possible additional regional, State, and Federal jurisdictional approval requirements (described previously in Chapter 1: Introduction, Section 1.3 Intended Uses of the Master EIR) are also within the scope of this Master EIR.

Other Jurisdictional Approvals
As the Lead Agency, Contra Costa County also intends for this Master EIR to serve as the CEQA-required documentation for environmental permits, agreements, and other approvals that may be required by other agencies, including but not limited to, local, regional, State, and Federal agencies and approvals listed in Section 1.2 of Chapter 1: Introduction.

Construction and Grading
The Specific Plan does not propose extensive land forming in the project area. An undetermined amount of excavation will occur at the BART station and adjacent properties during the construction of the parking garage, creation of open space, and to create the linear park along West Leland Road. Additional excavation may occur on other building sites in the project area. Generally, cut and fill at each construction site would be balanced. Where feasible, excavated soils and fill material from one location of the project area would be used to raise surface grades in another location of the project area. Building slabs are expected to be place at grade; however, in locations such as the BART Station joint development or Neighborhood Commercial District, a level of parking could be built below grade.
Proposed Demolition
Most of the existing land uses in the Specific Plan area would remain since the plan focuses primarily on vacant parcels or redevelopment of underutilized or deteriorating properties. Demolition would occur as the different phases of the project are implemented. Areas subject to major redevelopment include the east frontage of Bailey Road in Zone II, and parcels located both east and west of Bailey Road in Zone III. Demolition of some existing buildings would also be expected in the proposed Neighborhood Commercial District along Willow Pass Road, when new infill commercial uses are developed.

Phasing of Construction of Infrastructure and Improvements
For the purposes of this Master EIR, buildout of the project area is assumed to occur by the year 2010. The market studies conducted during the Specific Plan preparation indicated that full buildout by this time period is unlikely; however, this assumption allows for a conservative environmental analysis. Construction of the project will likely occur in phases. The precise locations and timing of future construction phasing have not been described in the Specific Plan. Implementation of the plan’s proposed development will depend on market conditions, active participation of property owners and the private development sector, availability of public funding sources, and whether the Pittsburg/Bay Point BART Station will remain as the terminus station for the BART Concord Line. All of these factors influence the location and timing of future development.
BACKGROUND AND MASTER EIR STUDY APPROACH

This chapter summarizes the background and study approach used to prepare this Master EIR. The background chapter provides an overview of the project and information database that were used in developing the Setting descriptions. The organization of the impact analysis is described later in the section.

4.1 BACKGROUND

The Specific Plan was issued as a Public Review Draft in November 1997. It was the culmination of a multi-year planning process involving the community of Bay Point, City of Pittsburg, Contra Costa County, and BART. The background data used in this Master EIR was obtained from many of the recent study products and other background documents available for the Specific Plan area. During the planning process, important background planning documents were prepared in support of the Specific Plan. These documents represent a substantial portion of the background database. These documents include:

• Pittsburg/Bay Point BART Station Area Specific Plan, Current Conditions Report, August 1, 1996.

• Pittsburg/Bay Point BART Station Area Specific Plan, Inventory of Development and Redevelopment Opportunity Areas, October 1996.

• Pittsburg/Bay Point BART Station Area Specific Plan, Alternatives Evaluation Report, November 1996.

In addition to the above reports, the City of Pittsburg is preparing a general plan update to replace the existing General Plan adopted in 1988. As part of this effort, a report was prepared titled Pittsburg General Plan Update: Existing Conditions and Planning Issues Report, June 1998 (“General Plan Update”). Since the data contained in this document are both recent and comprehensive, a substantial portion of the background data for this Master EIR were also obtained from this report. Also, the Draft EIR issued by Contra Costa County for the Cowell Ranch General Plan Amendment and Related Actions, Volumes I and II, October 1996, was the source of both background setting data and County policies.
Other Background Documents

The Specific Plan vicinity has been the subject of several environmental studies in the last ten years. These studies are separate from those conducted as part of the Specific Plan process and the City of Pittsburg’s General Plan Update. Most notably, these include:

- **The Draft and Final EIR on the State Route 4/Bailey Road Interchange Improvement Project**, by Contra Costa County, 1991.
- **Environmental Assessment for the Oak Hills South, Unit 5 Subdivision**, by the City of Pittsburg, 1997.

Preparation of this Master EIR involved a review of the information contained in these documents. Where appropriate, citations are provided to these documents as references.

### 4.2 MASTER EIR STUDY APPROACH

#### Specific Plan Zones and Areas

This Master EIR generally presents the setting descriptions in the broader context of the Specific Plan. That is, environmental characteristics are described for the Specific Plan area as a whole; however, where appropriate, the setting information or impact analysis also discusses the Specific Plan as it relates to the four major planning zones and fourteen areas. See Figures 3-5 and 3-6 in Chapter 3: Project Description. These Specific Plan zones and areas are strictly for use with the Specific Plan and this Master EIR. They have no other meaning with regard to County or City of Pittsburg plans, ongoing County redevelopment plans, development or construction phasing, or any other aspects of plan implementation.

#### Analysis Years

**Setting**

This Master EIR describes existing conditions for the Specific Plan area. Most of the data contained in the previously cited background studies were collected between 1991 and 2000. Most of the initial information has been updated for use in this Master EIR, and was current through 1998; the transportation data are current as of year 2000 conditions.
Future Context
The Specific Plan will require several years to implement. To realize development densities proposed in the plan, residential rental rates will need time to reach levels adequate to justify the cost of expected investment. Additional funding sources may be needed for the relocation of existing BART surface parking into a multi-level parking garage. Construction of a parking garage would make land available for joint development at the BART station.

Implementation of the Specific Plan will require consultation and cooperation between the City of Pittsburg and Contra Costa County, BART, and investment by the private sector. The year 2010 was chosen as the analysis year to provide a basis for studying potential impacts of plan implementation as well as possible cumulative impacts. The cumulative impact condition is defined as the Specific Plan in conjunction with other known projects and expected growth and development.

Cumulative impacts were evaluated using available regional population and employment projections for the year 2010 made by the Association of Bay Area Governments (ABAG). If appropriate, these projections were adjusted to reflect local projections obtained from the City of Pittsburg and Contra Costa County. Since it is uncertain to what extent the development conceived in the plan will be fully built out by the year 2010, the assumption of full buildout in the analysis of impacts may be overstated. Thus, the analysis represents a conservative, worst-case approach as it relates to CEQA. Other assumptions about future conditions are described in the individual environmental topics as appropriate. For example, Chapter 10: Transportation, describes the future traffic network for the short-term horizon of 2005 and long-term horizon of 2010. The East County Model developed by the Contra Costa Transportation Authority (CCTA) was used to conduct travel demand model runs of the No Project, Specific Plan, and two new alternatives.

General Organization of this Master EIR
The background information related to the Specific Plan is extensive and spans several years. This Master EIR provides sufficient text and analysis to convey an understanding of the potential impacts of the Specific Plan development. Where appropriate, figures and tables are used to clarify the discussion of impacts. Data sources are cited in the text with numerical endnotes. The complete citation of references is provided at the end of each chapter. Effort has been made to avoid repetition of text and statistics from past documents through the use of citations with the goal of providing key information about potential impacts and mitigation measures. The appendices to this Master EIR also contain supplementary information of possible interest to some readers. Supporting documentation for all analyses and appendices is available for public review at the Contra Costa County Redevelopment Agency, 651 Pine Street, 4th Floor – North Wing, Martinez, California 94553.
This chapter discusses the local and regional plans and policies applicable to the proposed Specific Plan. Permits and approvals that would be required are also described. The Specific Plan includes areas located within the jurisdictions of the City of Pittsburg, Contra Costa County, and BART station properties. The Specific Plan was prepared under the direction of staff and elected officials of the City of Pittsburg, Contra Costa County, and the Bay Area Rapid Transit District. Proposed development envisioned in the Specific Plan is intended to meet the various public goals of transportation-oriented development (TOD).

The Specific Plan provides a framework for the orderly development and redevelopment of the BART Station and surrounding area. The station opened for service in the fall of 1996. It has since encouraged new development in the planning area. The plan seeks to capitalize on the presence of BART’s heavy rail system and the Tri-Delta Transit bus service. The Specific Plan supports the public’s transit investment in the region, and is compatible with BART’s joint development policy adopted in 1984. The Specific Plan is designed to encourage peak BART patronage in the eastbound (reverse commute) direction to take advantage of unused capacity on BART. It emphasizes high quality residential development and land uses that create jobs in the form of commercial retail and office uses.

The City of Pittsburg and Contra Costa County would amend their general plans and undertake a program of rezoning their respective areas as Planned Development Districts BART is expected to enter into a Development Agreement for properties its leases or sells for joint development. Each agency will rely on the Specific Plan concepts, goals, policies and implementation steps to guide the review of future development.

Specific Plan Land Use Goals and Objectives

The Land Use section of the Specific Plan sets forth general land use concepts and establishes land uses and development standards for the Specific Plan area. Land use goals and objectives are described below.

**Goal 1: Promote the Optimum Use of Transit Serving the Area.**

**Objective 1.1** Concentrate new development near transit nodes.

**Objective 1.2** Encourage mixed use developments to enhance services available to transit riders.

**Objective 1.3** Encourage increased residential densities within one-quarter to one-half mile of the BART Station.
1.4 Enhance security at and around the BART Station.
1.5 Encourage a variety of housing types to serve a wide range of household incomes and lifestyles.

Goal 2: Develop a Full Range of Uses to Serve Residents and Commuters.

Objective 2.1 Create a Bay Point Neighborhood Commercial District.
2.2 Enhance the usability and visibility of Ambrose Park.
2.3 Minimize travel for work and shopping trips out of the neighborhood.

Goal 3: Improve Employment Opportunities For Local Residents.

Objective 3.1 Encourage new commercial and industrial development on appropriate sites.

5.1 SETTING

Planning and regulatory controls over the proposed Specific Plan are implemented by several governmental agencies. The Specific Plan covers a total of approximately 295 acres consisting of properties located in the City of Pittsburg and Contra Costa County. Land within the plan area is owned by private owners, the City of Pittsburg, Contra Costa County, BART, the East Bay Municipal Utility District (EBMUD), the East Bay Regional Park District (EBRPD), and the Contra Costa Water District (CCWD).

Existing Land Use

Figure 5-1 shows existing land use. County and City zoning are shown on Figure 5-2. The Specific Plan is comprised of four development zones that reflect City and County boundaries, and the presence of State Route 4 (see Figure 3-5 in Chapter 3: Project Description). These zones have been further divided into fourteen individual development areas as shown on Figure 3-6 (Chapter 3: Project Description).

- Zone I consists of Development Areas 1 through 3, and includes the BART Station Area, vacant parcels, and the Oak Hills Shopping Center. It is located totally within the incorporated limits of the City of Pittsburg.

- Zone II consists of Development Areas 4 through 7, and includes Orbisonia Heights, and the area between State Route 4 and West Leland Road. Zone II is located within unincorporated Contra Costa County, except for a small panhandle of land on the far eastern end of Area 6, which is located within the City of Pittsburg city limit.
CHAPTER 5: LAND USE

FIGURE 5-2

County and City Zoning Maps

Source: Pittsburg/Bay Point BART Station Area Specific Plan Public Review Draft, November 1997
Zone III consists of Development Areas 8 through 13, and includes properties between State Route 4 and Willow Pass Road, and adjacent to Bailey Road and Canal Road. Zone III is located within unincorporated Contra Costa County.

- Zone IV consists of Development Area 14, and includes the existing light industrial area located on the north side of Willow Pass Road, between Bailey Road and Alves Road.

**Zone I**
The BART Station Area and the Oak Hills Shopping Center are the two major uses in this zone.

- Area 1 is located in the western portion of the zone and is a single, vacant parcel of 23.5 acres owned by West Coast Home Builders, Inc. (a.k.a. Albert D. Seeno Construction Company).

- Area 2 is made up of two vacant land parcels adjacent to the existing BART Station: the auto drop-off area and a surface parking lot (approximately 27.15 acres), and a narrow, 3.45-acre vacant parcel located between the shopping center and the BART parking lot. This parcel is owned by Sierra Pacific Properties, Inc. (a.k.a. Albert D. Seeno Construction Company). The Specific Plan proposes a short-term use of commuter parking for this parcel.

- Area 3 includes the existing Oak Hills Shopping Center.

**Zone II**
Zone II is located east of the Oak Hills Shopping Center and Bailey Road. The Contra Costa Canal roughly forms the southern boundary. The existing Ambrose Park is located in the western portion of this zone.

- Area 4 is the Orbisonia Heights area covering about 7.6 acres. It is comprised mostly of single-family homes on lots of approximately 5,000 square feet. Existing dwelling units are older, and in some cases, in a deteriorated condition. Pedestrian and vehicular access to Ambrose Park is provided through this area.

- Area 5 is the existing Ambrose Park, which consists of a swimming pool, tot lot, picnic facilities, and play fields.

- Area 6 is a single, undeveloped 16.0-acre parcel of land owned by Contra Costa County, and partially devoted to wetlands replacement related to the widening of State Route 4. The easternmost portion of Area 6 (the panhandle) is located within the City of Pittsburg.
• Area 7 includes single-family homes fronting onto Bailey Road and West Leland Road, at the southeast corner of the intersection.

Zone III
Zone III is the largest zone of the Specific Plan. It is comprised of parcels to the east and west of Bailey Road, and parcels along Canal Road and the south side of Willow Pass Road.

• Area 8 is located east of Bailey Road along Canal Road and includes the Bel Air Elementary School site.

• Area 9 is made up of two parcels of land: a 7.2-acre parcel with the existing Far Hills mobile home park, and land containing an existing Shell service station between State Route 4 and the westbound off-ramp.

• Area 10 includes several parcels containing commercial uses located between Bailey Road and Canal Road, and a small assemblage of vacant land owned by the Contra Costa County Redevelopment Agency.

• Area 11 includes four parcels located north of Canal Road and east of Alves Road. Area 11 is made up of three church sites, and a vacant parcel of 3.8 acres.

• Area 12 is a mix of older single-family homes, newer multi-family apartment complexes, and two churches. The EBMUD easement roughly bisects this portion of Zone III.

• Area 13 is located on the south side of Willow Pass Road and consists of a mix of small retail commercial and service sites, a church site, and vacant parcels. A relatively new retail commercial center with a Taco Bell restaurant occupies the southeast corner of Bailey Road at Willow Pass Road.

Zone IV
Zone IV fronts the north side of Willow Pass Road from Alves Road east beyond Bailey Road to North Broadway Avenue. Much of this zone was once part of a former Shell Oil facility. Zone IV includes only the first 600 feet of lot depth from Willow Pass Road. It does not affect current General Plan or zoning classifications for properties north of this 600-foot strip.

• Area 14 is currently occupied by a gas station, fire substation, light industrial uses, a parking lot, and undeveloped land. The parking lot and vacant land extend northward to the Union Pacific Railroad right-of-way.

The Willow Pass Road frontage between Bailey Road and North Broadway Avenue is characterized by deteriorated structures and vacant lots. Improvements to the North Broadway
area located just east of the Specific Plan boundary are being addressed by the Contra County
Redevelopment Agency in a separate study.

Relevant Plans and Policies
The following Pittsburg, County, and BART plans and policy documents apply to the plan area:

- City of Pittsburg General Plan
- City of Pittsburg Zoning Ordinance
- Third Amendment to the Los Medanos Community Development Plan, Pittsburg
  Redevelopment Agency
- Contra Costa County General Plan
- Contra Costa County Zoning Ordinance
- West Pittsburg (Bay Point) Redevelopment Project Area Plan, Contra Costa County
- BART 1999 Strategic Plan, February 1999;
- San Francisco Bay Area Rapid Transit District, Short-Range Transit Plan, adopted
  December 3, 1998; and
- San Francisco Bay Area Rapid Transit District, Capital Improvement Program, adopted

City of Pittsburg General Plan
The current General Plan for the City of Pittsburg was adopted in September 1988. The current
General Plan embodies policies for land use, circulation, community facilities, and environmental
resource management. It contains both guiding policies that state the City’s philosophy and
implementing policies that represent its commitment to action. The City is in the process of
updating their General Plan. The General Plan is expected to be adopted by August 2001. In
the City of Pittsburg General Plan Update: Existing Conditions and Planning Issues
Report, the Specific Plan encompasses both the Bay Point and Southwest Hills subareas.
Figure 5-3 shows the City General Plan land use designations.

The guiding policies of the current General Plan that relate to the Specific Plan include:

Community Image
Promote design that is not only attractive but which expresses a distinctive community
identity.
CHAPTER 5: LAND USE

FIGURE 5-3
City of Pittsburg General Plan

Source: Pittsburg/Bay Point BART Station Area Specific Plan Public Review Draft, November 1997
CHAPTER 5: LAND USE

Guiding Policies

- **Policy A.** Design aesthetically pleasing roadways, lined with trees or other appropriate landscaping, that connect Pittsburg neighborhoods and serve planned development.

- **Policy B.** Develop and implement programs to strengthen community identity by establishing standards for design and landscaping.

- **Policy F.** Provide public improvements that enhance neighborhood value and stability.

Special Management Areas and Specific Plans

- **Policy D.** Promote the creation of a balanced community and the provision of a high-quality environment offering a full range of urban activities by the planned and orderly development of land in the Pittsburg Sphere of Influence.

- **Policy E.** At full development, all residential neighborhoods will be in close proximity to and have reasonable access to local commercial, recreational, and educational facilities.

West Pittsburg (Bay Point) Subarea

- **Policy O.** Recognize that the West Pittsburg (Bay Point) area is physically part of Pittsburg, and that the form development takes in the area will affect the image of the City of Pittsburg as well.

Land Use

- Supports the concentration of multi-family development near the Bailey Road and West Leland Road intersection.

- Encourages the redevelopment of marginal strip-commercial uses along Willow Pass Road and upgrading the visual character of businesses remaining in the area.

- Supports the provision of special commercial uses around the BART station for the provision of transit-related services.

Industrial Development

- Supports the encouragement of light-industrial, and research and development facilities.

- Provides for setback, landscaping, and screening requirements for industrial development to protect adjacent non-industrial uses.
CHAPTER 5: LAND USE

- Creates open space for outdoor recreation
- Supports General Plan design concepts for the EBMUD right-of-way.
- Supports development of a high-quality public park system for Pittsburg residents.
- Reinforces the policy to minimize private recreational facilities in favor of public parks to ensure permanent availability for use by the entire community.
- Supports the policy of requiring residential developers, including apartment builders, to provide park and recreation facilities either by reserving sites or by paying a fee in-lieu of dedication.
- Encourages the siting of child care facilities in residential areas.

**Traffic and Circulation**
- Encourages Transportation System Management (TSM) programs to increase the use of transit and car pools by commuters.
- Supports expanded public transit provisions in the City of Pittsburg.
- Encourages increased use of bikes for commute, recreational, and other trips.
- Supports the provision of safe, pleasant, and convenient pedestrian paths, sidewalks, and trails.

**Housing**
- Fosters a range of housing types and densities to complement the City’s other residential areas and increase the range of choice for Pittsburg households.
- Supports the provision of affordable housing.
- Reinforces the policy to recognize the necessity of maintaining adequate stock of rental housing within the community.

**Contra Costa County General Plan**
The County General Plan designations are shown in Figure 5-4. The Specific Plan amplifies the County General Plan and expands upon its plans and policies. The Specific Plan implements the General Plan in the following ways:

**Land Use**
- Encourages aesthetically and functionally compatible development which reinforces the physical character and desired images of the County. (Policy 3-C)

- Provides for higher density development near transportation hubs such as the Pittsburg/Bay Point BART Station. (Policy 3-E)

- Expands on the uses and criteria for the Mixed Use - West Pittsburg (M5) land use designation for portions of the Willow Pass Road neighborhood commercial district within the Specific Plan area. (Policy 3-98)

- Provides detailed descriptions of acceptable land uses and development standards for residential areas near the BART station.

- Reinforces the upgrading of community appearance by encouraging redevelopment to replace inappropriate uses. (Policy 3-16)

- Provides for a well-defined commercial area oriented to community shopping. (Policy 3-33)

- Promotes the policy that requires industrial employment centers to be designed to be unobtrusive and harmonious with adjacent areas and development. (Policy 3-43)

- Supports the upgrading of community appearance by encouraging development of new uses to replace antiquated developments. (Policy 3-95a)

- Provides for well-designed projects and limited vehicular access to traffic arterials through assembly of small parcels of land along Willow Pass Road. (Policy 3-106)

**Transportation and Circulation**

- Encourages the use of public transit on BART and Tri-Delta Transit.
• Reinforces use of alternative transportation systems to reduce peak-period traffic congestion.

• Provides landscaped street medians in appropriate locations. (Policy 3-98e)

**Housing**

• Provides increased residential densities to expand housing types and densities in the County.

• Promotes the redevelopment of deteriorated residential areas.

**Public Facilities**

• Encourages the provision of child care facilities.

**Urban Limit Line**

The County General Plan-designated Urban Limit Line (ULL) establishes a boundary beyond which no large-scale urban development may be considered within the duration of the General Plan (i.e., until year 2005). The ULL was revised by the Board of Supervisors in August 2000, with the intent of promoting new development in urbanized areas near transit. The Specific Plan area is located within the ULL, is near transit and does not contain any development proposals outside of the ULL.

**Contra Costa County General Plan Land Preservation Standard**

The 65/35 Land Preservation Standard incorporated into the General Plan through voter passage of Measure C in 1990, requires that no more than 35 percent of the land in the County (including incorporated areas) contain urban development, and that the remaining 65 percent be preserved as agricultural land, open space, wetlands, parks, and/or other non-urban uses.

**Contra Costa County General Plan Growth Management Element**

In 1988, County voters approved the Contra Costa Transportation Improvement and Growth Management Program (Measure C). The County Growth Management Element of the General Plan establishes policies and standards for traffic levels of service and performance standards for fire, police, parks, sanitary facilities, and water and flood control. Compliance with the Growth Management Element is to ensure that public facilities are provided consistent with adopted standards. The element is part of the County’s long-range program to match the demand for public facilities to serve new development with plans, capital improvement programs, and development impact mitigation programs. The intent of the element is to ensure that growth takes place in a manner that will ensure protection of the health, safety, and welfare of both existing and future residents of the County.
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The Growth Management Element works closely in conjunction with the Land Use Element so that development proceeds in a manner that will not negatively affect facility and traffic service standards for existing land uses. The ULL and the 65/35 Land Preservation Standard also work together with the Growth Management Element to ensure that growth occurs in a responsible manner and strikes appropriate balances between many competing values and interests. To carry out the goals and objectives of the Land Use and Circulation Elements of the County General Plan, new development must demonstrate that the level of service standards of the Growth Management Element will be met.

Model Growth Management Element

A model Growth Management Element prepared by the Contra Costa Transportation Authority contained mandatory and optional sections of the Growth Management Element to be integrated with other General Plan elements. The mandatory sections must:

- Establish traffic Level of Service (LOS) standards for all signalized intersections on local streets (“basic routes”) consistent with the County’s adopted LOS standards.

- List Routes of Regional Significance and make a commitment to work on and implement Action Plans.

- Establish performance standards for public facilities providing police and fire services, parks, water, sanitation, and flood control. Each city, town, or the County selects its own standards for these services.

- Establish programs to achieve adopted standards. For example, through the collection of building fees to pay for infrastructure and through efforts such as Transportation Demand Management (TDM) programs.

City of Pittsburg Compliance with Measure C

Although a Growth Management Element is not required under State law, it is needed in order for Pittsburg to receive Measure C funding. In compliance with Measure C requirements and in accordance with the guidelines issued by the Contra Costa Transportation Authority in 1990, Pittsburg prepared and adopted a Growth Management Element in 1992.

Conditions for a 21st Century Community

Contra Costa County’s Conditions for a 21st Century Community is a set of growth management concepts and policies adopted by the Board of Supervisors. It contains the following principles and policies that relate to land use:

- Provide a community that will be developed in accordance with growth management, transportation, and other service and subregional standards (Principle 8).

- Provide within new communities, a mixture of land uses that afford convenient access to a variety of activities while reducing dependence on the automobile (Principle 10).
• Provide for a strong, affordable, single-family and multi-family housing program for a wide range of household income levels (Affordable Housing section, Policy 1).

**BART Plans and Policies**

Relevant BART plans include the:

• *BART 1999 Strategic Plan*, February 1999;

• San Francisco Bay Area Rapid Transit District, *Short-Range Transit Plan*, adopted December 3, 1998; and


The general BART policies applicable systemwide include:

• 1980 Board Resolution No. 2837 regarding Joint Development Policy; and

• 1984 Board Resolution regarding Station Area Development Implementation Policy.

The following information summarizes BART’s policies related to station area development that will be applied to development at the Pittsburg/Bay Point station.

**Station Area Development Implementation Policy**

BART is custodian of a large-scale public investment which includes important real property assets. To date, much of this property has not been used in ways which take advantage of its full revenue-generating potential. In many cases, these properties can sustain additional profitable uses supportive of the District’s main transit function. Through careful management, these assets can contribute significantly to the ongoing financial viability of the transit system. Development of these properties also promises to provide substantial benefits to local jurisdictions and to encourage private sector participation in the public development process. By promoting high quality, more intensive development on or near BART-owned properties, the District intends to generate new revenues for transit while also creating attractive investment opportunities for the private sector and facilitating local economic development goals. Such an approach to value capture assumes overlapping interests between the public and private sectors, and views cooperative real estate ventures as offering a positive means for the private sector to contribute to the support of transit.

The enabling legislation for the San Francisco Bay Area Rapid Transit District grants BART the powers to purchase, lease and sell real property necessary to construct and operate a regional rapid rail system. These powers include the right to enter into long-term leases (or sales) involving real property rights, both surface and air rights, and/or direct connections from privately owned developments to BART facilities. Specific District policy concerning the development of income from District-owned real property was originally outlined in Resolution No. 1369, dated July 3, 1969, and amended by Resolution No. 2544, dated March 24, 1977.
On December 18, 1980, the Board augmented this policy by adopting Resolution No. 2837 which commits the District to consideration of joint development projects in the development of sale or lease agreements involving District-owned property or air rights.

To carry out this charge, Station Area Development was established as a new program area within the District. The purpose of the present policy is to supplement Resolution No. 2837 by outlining specific goals and objectives for the Station Area Development Program; defining program functions; and establishing policies and procedures for carrying out the program.¹

**Implementation Strategy**

BART’s Station Area Development Program represents the District’s commitment to the general concept of “joint development.” In its broadest sense, this term suggests active cooperation between the public and private sectors in undertaking real estate ventures which either physically connect to or functionally support the transit facility. For the purposes of this policy, the term joint development is also meant to cover those value capture mechanisms aimed at ensuring that the public shares in the benefit which accrues to the private sector (property owner/developer) because of improved access to a regional transit facility. A variety of mechanisms, applied singly or in combination, should be considered in pursuing joint development/value capture projects including, but not limited to, the following:

1) Leasing or sale of land or air rights by the District.

2) Co-development of property with a private owner/developer.

3) Consideration of development opportunities in the acquisition of land, location of stations, and construction of facilities.

4) Sale and lease-back of District constructed facilities.

5) Negotiation of fees for special entrances between privately owned developments and District facilities.

6) Capital construction offsets.

7) Dedication of land and construction easements by developers.

8) Benefit assessments.

Certain of these mechanisms would pertain particularly to rail extension projects and should be fully evaluated in planning for new transit facilities.

**Goals and Objectives**

Each of the mechanisms cited above is aimed at generating new sources of revenue and/or capital offsets for the transit district which is the primary goal of the Station Area Development Program. The term joint development implies the more generalized intention of coordinating land use and transit planning in the interest of establishing development patterns which enhance transit use. Taking into account these overlapping concerns, the District has established specific goals
and objectives for the program which are consistent with the intentions of Resolution No. 2837 and which focus on potential benefits of the program for the District and the community at large. These are as follows:

The overall goal is to generate new sources of income (and/or capital offsets) and to increase transit ridership through cooperative public/private sector development projects on or near District-owned properties. Specific Objectives include:

1) To coordinate comprehensive planning and development around station sites.
2) To enhance local community economic development efforts through better utilization of transit and transit-owned properties.
3) To return real property to the tax rolls and to increase the community tax base.
4) To help create new investment opportunities for the private sector which are supportive of transit.
5) To reduce auto use and traffic congestion through the encouragement of transit-linked development.

**Approach**

In order to achieve the goals and objectives outlined above, the Station Area Development process focuses both on generation of new revenues from near-term disposition of properties and on longer range planning activities aimed at creating transit supporting land uses. Selection of sites for near-term disposition versus longer range planning activities will be based on a close analysis of prevailing market conditions in order to protect District financial interests and as a means of establishing program priorities. To ensure that disposition of these properties supports the District’s primary transit and revenue generation goals, BART has adopted an approach to development which is both active and cooperative in relation to potential public and private sector partners. This approach emphasizes the need:

1) To weigh development objectives at each site in relation to the District’s primary mission as a transit operator.
2) To coordinate closely with local land use authorities in identifying and implementing development opportunities on and around BART station properties.
3) To market and develop sites at a time and in a manner which maximizes their value.
4) To utilize the skills and experience of private developers in carrying out the development of District properties.

This approach is intended to create benefits which both enhance the public investment in transit and support community and private development goals.

**Policies**
The District’s joint development policy, Resolution No. 2837, provides the general direction and intent of the Station Area Development Program. The present set of policies supplements that resolution by providing specific guidelines for the District in conducting business with public and private sector entities involved in development projects on or near BART-owned properties.

A. Joint Development and Value Capture Projects. The following general policies will govern the District’s approach to joint development and value capture projects.

1. The District shall work cooperatively with local jurisdictions, redevelopment agencies, developers, and other public and private sector entities to promote land use policies which encourage intensive, high quality development on and surrounding station properties.

2. The District shall pursue an approach to land development and disposition which maximizes its ability to participate in the increase in value of its property assets over time.

3. The District shall adopt an approach to program management which ensures a predictable and timely decision-making process aimed at fostering a positive investment climate for the private sector.

4. The District shall promote joint development projects which enhance use of the transit system and shall actively encourage direct connections to stations from surrounding developments in order to promote pedestrian access.

5. The District shall actively seek to involve DBE’s, WBE’s, and MBE’s in joint development projects.

6. The District shall assume an active project packaging role in preparing its sites for development.

7. The District shall consider joint development opportunities in the acquisition of additional property, the location of new station sites, and the construction of station facilities.

B. Land Use Policies. The following policies will govern the way in which the District coordinates the use of BART-owned properties with local and use authorities and the manner in which the Station Area Development program takes into account existing as well as future transit related uses of District property.

1. The District will negotiate with local jurisdictions regarding mutually desirable land uses and intensity of development on BART properties before marketing these properties for commercial development. These negotiations will, to the
extent feasible, also address land uses on non-District owned properties surrounding the stations with the aim of encouraging land use patterns supportive of transit.

2. In the course of formulating development plans, Station Area Development staff will coordinate closely with other BART programs, departments and offices concerned with the long-term use of station properties in order to ensure protection and enhancement of transit objectives in the development of BART sites.

3. As a part of the Station Area Development planning process, a specific parking strategy for a given station will be established which is consistent with the parking expansion goals and financing approach outlined in the Access Implementation Program. This parking strategy will be based on the principle of establishing expansion parking goals on a line segment rather than strictly on a station by station basis in order to balance development and access objectives. Cost efficient parking design and management guidelines, approaches to maintaining future development options, and mechanisms for protecting spaces intended for BART patrons from nonpatron use will also be included.

C. Developer Selection/Disposition and Negotiation Policies. The following policies will govern the District’s approach to developers and its negotiating posture in the disposition of BART property for joint development purposes.

1. The disposition strategy and negotiation criteria for each joint development project will be established on a project by project basis which takes into account special circumstances particular to a given site as well as project history and specific project objectives.

2. The District will seek to achieve a financial return from joint development projects over and above replacement of existing patron parking required to accomplish a project.

3. The District will generally solicit proposals for joint development of District-owned property through a competitive selection process, except in cases where sole source negotiations would result in more favorable conditions for the District.

4. The District will consider DBE, WBE and MBE participation in evaluating specific development proposals.

5. The District will generally favor long-term leases rather than sale of property as the standard disposition strategy for joint development projects, except in cases where alternative approaches are required to achieve specific development objectives or where other strategies would generate more attractive financial returns to the District.
6. The District will generally seek to negotiate deal structures which provide for an increase in revenues to BART over time, such as participation leases.

7. Where appropriate and/or financially feasible, the District will seek to infuse public sector capital or “in lieu” contributions to leverage joint development projects.

8. The District will pursue an approach to deal negotiations that maximizes confidentiality during the course of negotiations.

**5.2 STANDARDS OF SIGNIFICANCE**

Based on the CEQA Guidelines, Appendix G, the Specific Plan would be considered to have a significant impact on land use if it would:

- conflict with applicable plans or policies adopted by the agencies with jurisdiction over the project;
- be incompatible with existing land use in the vicinity;
- have a substantial, demonstrable, negative aesthetic effect;
- disrupt or divide the physical arrangement of an established community;
- create a potential public health hazard or attract people to an area and expose them to hazards found there;
- conflict with established recreational, educational, religious, or scientific uses of the area;
- induce substantial growth or concentration of population either directly or indirectly; e.g., through projects in an undeveloped area or extension of major infrastructure;
- cumulatively exceed official regional or local population projections; or
- displace existing housing or affordable housing.

**5.3 IMPACTS AND MITIGATION MEASURES**

This section includes an assessment of potential impacts to land use. A brief description is provided of the beneficial land use impacts that will occur as a result of implementation of the Specific Plan. These impacts include:

- **Transportation-Oriented Development.** The proposed increased density and intensification of mixed uses at the BART station are consistent with adopted policies of the City of Pittsburg, BART, and the County to create transportation-oriented development (TOD) around regional transportation hubs.

- **Enhanced Urban Design.** Proposed land uses, policies, and design guidelines would enhance the aesthetic character of the Specific Plan area, and not contribute any demonstrable negative effects.
• **Infill Development of Vacant or Underutilized Properties.** The Specific Plan land uses would not disrupt or divide the physical arrangement of the Pittsburg/Bay Point community.

• **Land Use Compatibility:**
  – Proposed Specific Plan land uses (commercial, office, and residential) are compatible with existing or desired land uses in the vicinity of the plan area. Commercial uses exist along Bailey Road and Willow Pass Road. Single-family and multi-family residential uses exist throughout the plan area. Office uses, particularly near transportation hubs, is a desired use in the context of the proposed mixed use transit village.
  – Proposed land uses of the Specific Plan would not conflict with recreational, educational, religious, or scientific uses of the area.
  – Proposed land uses would be developed in an existing urban/suburban environment.

**Consistency with Growth Management Element of the County General Plan**

Specific Plan development proposed for the Bay Point community, an unincorporated County area, must meet the standards of the Growth Management Element of the General Plan. The Growth Management Element contains traffic levels of service standards keyed to types of land use, and performance standards for facilities such as fire, police, parks, sanitary facilities, and water and flood control. The Growth Management Element policies reflect a “pay as you grow” philosophy that is common to the Transportation Element and Land Use Element.

For development proposed in the City of Pittsburg, development would be reviewed for consistency with City performance standards contained in its 1992 Growth Management Element. In doing so, development proposed in the Specific Plan would be managed to ensure beneficial aspects of new growth, while avoiding potential negative effects. Compliance with Growth Management Element standards is discussed in appropriate chapters of this Master EIR: Chapter 7: Parks and Recreation; Chapter 8: Community Services and Utilities; Chapter 10: Transportation; and Chapter 13: Hydrology and Water Quality.

**Amendment of the Pittsburg and County General Plans**

**IMPACT 5-1.** The Specific Plan would require amendments of the City of Pittsburg General Plan and Contra Costa County General Plan, and a program of rezoning of some areas as Planned Development Districts. This impact is considered less than significant.

The City of Pittsburg would amend its General Plan to accommodate new land use designations and zoning for parcels contiguous to the BART Station. The amendment would revise the land
use designation from Medium Density Residential (with a 5.1 to 14 dwelling units per gross acre) to BART Station Area Mixed Use, with a higher minimum residential density of 65 dwelling units per gross acre.

Adoption of the Specific Plan would require the County to amend it General Plan and rezone portions of their respective areas as Planned Development Districts. The amendment would include a new Residential Mixed Use designation with a minimum residential density of 40 dwelling units per gross acre. This new designation would apply to parcels located east of Bailey Road near West Leland Road. The County General Plan Amendment would also accommodate the detailed design guidelines and development standards of the Specific Plan.

The proposed development of transportation oriented development is consistent with Pittsburg and County policies to increase density at transportation hubs such as the Pittsburg/Bay Point BART Station Area. This impact is considered less than significant.

**MITIGATION MEASURE 5-1.** None required.

**Land Use Compatibility**

**IMPACT 5-2.** The Specific Plan proposes to increase the intensity of commercial retail uses, office space, and residential uses especially at the BART Station Area. This impact is considered beneficial.

The Specific Plan proposes to develop vacant properties and to redevelop other properties that are considered to be either underutilized or in a state of deterioration. The Specific Plan specifies permitted and conditional land uses, along with design standards to ensure compatibility with existing and future land uses. The proposed development concepts in the Specific Plan are intended to meet the goals of the City, County, and BART to encourage transportation-oriented development. TOD would be expected to result in beneficial environmental impacts such as reduced traffic, air emissions, and noise.

In Zone I in the short term, the Specific Plan allows for possible expansion of existing BART surface lot parking by approximately 380 spaces. BART has considered the possible acquisition of an adjacent 3.45-acre vacant parcel (currently in private ownership) for development of all day parking for BART patrons. Development of additional on-site parking represents expansion of an existing compatible land use. That is, the new parking lot would be developed contiguous to the existing BART surface parking lot and would have minimal impact on existing parking lot operations. The parcel is located in close proximity to the BART station allowing for a high degree of pedestrian access.
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The possible parking lot expansion would be consistent with BART land use policy B.3 of the District’s joint development policy, Resolution No. 2837. Policy B.3 encourages a specific parking strategy for a given station (in this case Pittsburg/Bay Point) which is consistent with parking expansion goals outlined in the BART Access Implementation Program. Availability of adequate parking for BART patrons is an ongoing problem at the Pittsburg/Bay Point Station. The expansion of parking supply in the short term by 380 spaces would help to alleviate the current parking supply problem.

For the long term in Zone I, the development proposals at the BART station will create TOD land uses from vacant parcels and surface parking lots. The type, scale, and intensity of the proposed retail, residential, and office space are consistent with local and regional goals and policies to intensify land uses that are compatible with transportation hubs. The proposed linear park on West Leland Road would serve as an appropriate buffer to minimize the impacts of increased intensity on existing single-family homes located south of the BART Station Area. Street trees and other attractive landscaping would be installed. Pedestrian and vehicle access would be designed to ensure efficient and safe access within the BART station and to the existing Oak Hills Shopping Center.

In Zone II, commercial uses are proposed at the southeast corner of the intersection of Bailey Road and West Leland Road. These uses would be consistent with existing commercial uses at the Oak Hills Shopping Center. The westerly expansion of Ambrose Park is envisioned to include open space, and a community-serving facility such as a day care center. The expansion of the park would contribute to the creation of new park space in compliance with the County park standard. (For additional discussion on parks, see Chapter 7 of this Master EIR.) A day care center would likely serve residents of the BART Station Area and/or the high number of patrons who would commute on BART.

Proposed commercial uses in Zone III along Bailey Road would extend existing commercial development located near Canal Road. Commercial uses would replace the existing Far Hills mobile home park with local commercial retail. Multi-family housing would be developed on a vacant parcel on Canal Road west of Bailey Road and in the form of infill development on parcels owned by the County Redevelopment Agency. The Specific Plan contains specific design standards to ensure that all new development would be compatible with the existing commercial and residential uses. The plan proposes to install appropriate landscaping and street trees on Bailey Road.

In Zone III, a Neighborhood Commercial District is proposed along Willow Pass Road between Bailey Road and Alves Lane. This portion of Willow Pass Road contains commercial retail uses on the south side and light industrial uses on the north side. New commercial retail uses would be developed in existing vacant parcels and through redevelopment of underutilized or dilapidated parcels. Parking for all new development would be provided in off-street parking lots. Existing curbside parking would be removed and replaced with new streetscape.
landscaping and a bike lane. All new commercial development would be limited to the permitted and conditional uses specified in the Specific Plan.

Zone IV consists of parcels located on the north side of Willow Pass Road, between Alves Lane and just west of Bailey Road. Existing land uses include light industrial, a fire station, service station, vacant undeveloped parcels, and some residential units.

The Specific Plan does not propose any light industrial uses; however, they are encouraged only in Zone IV. The intent of the Light Industry/Business Park designation is to allow light industrial, office, and other uses which are compatible with the Commercial/Mixed Use area on the south side of Willow Pass Road. The Light Industry/Business Park designation is applicable to the first 600 feet of lot depth from Willow Pass Road and does not affect current general plan or zoning classifications for the remainder of the properties north of this 600-foot strip. All new development would be limited to the permitted and conditional uses specified in the Specific Plan.

MITIGATION MEASURE 5-2. None required.

Proposed Policies and Standards

IMPACT 5-3. The Specific Plan contains comprehensive land use, circulation, and urban design polices and standards for the BART Station Area and Bay Point community. This impact is considered beneficial.

The Specific Plan goals, objectives, policies, and development standards and assumptions are designed to enhance the quality of life for area residents. The Specific Plan’s recommended land uses and actions would enhance aesthetic character through improved physical design and operations, improved jobs/housing balance, and creation of community identity. This impact is considered beneficial.

MITIGATION MEASURE 5-3. None required.

Potential Safety Impact with Contra Costa Canal

IMPACT 5-4. The Specific Plan would result in a population increase in the plan area and could increase the potential for unauthorized entry to the Contra Costa Canal right-of-way, particularly by children. This impact is considered less than significant.
With the increase of population to the Specific Plan area, the potential exists for safety impacts due to unauthorized entry to the existing Contra Costa Canal right-of-way. The canal is currently fenced and signs discourage unauthorized entry. The Contra Costa Water District enforces the prohibition of access to the canal through regular patrols. In light of this fact, it is impossible to completely eliminate risk of unauthorized entry. While this impact is considered less than significant, it is recommended that the canal right-of-way be regularly evaluated to identify and correct any areas in which access could be breached, especially by children.

**MITIGATION MEASURE 5-4.** None required.

**Displacement of Existing Housing**

**IMPACT 5-5.** Proposed land uses in the Specific Plan would involve displacement of existing housing, some of which is in a deteriorating state, consistent with City and County redevelopment policies. This impact is considered less than significant.

This potential impact could affect some existing homes in Zone II, the Orbisonia Heights area, from development of new commercial uses along Bailey Road and proposed expansion of Ambrose Park; parcels located south of West Leland Road along Bailey Road (within the Pittsburg city limit) could also be affected.

Other housing displacement could occur on parcels owned by the County Redevelopment Agency in Zone III, west of, and along Bailey Road, north of Canal Road; and in a mobile home park, located east of, and along, Bailey Road, north of Canal Road. Displacement could occur as part of the redevelopment process, in cooperation with property owners. This impact is consistent with redevelopment policies of both the City and County. Property acquired by public agencies will be acquired in accordance with the State of California’s Relocation Assistance and Real Property Acquisition Act of 1971 (Government Code Section 7260 et seq.). This impact is considered less than significant.

**MITIGATION MEASURE 5-5.** None required.

**NOTE: Land Use**

1 For a more detailed discussion of key issues underlining these policies and procedures see “Station Area Development Implementation Guidelines,” staff and consultant findings and recommendations, prepared April 1984. Available from the BART Department of Planning & Analysis.
6.1 SETTING

The Specific Plan area encompasses a 295-acre area that includes the Pittsburg/Bay Point BART Station and its major access routes. The area is currently a mix of both new and older residential and commercial uses with the majority of retail development located in the Oak Hills Shopping Center east of the BART station, and in commercial uses along Bailey Road and Willow Pass Road.

The plan area slopes gently to the north providing views of Suisun Bay and the Sacramento–San Joaquin River delta to the north and west. Rolling hills to the south act as a backdrop to existing development. Within the plan area, the built environment consists of areas with different levels of suburban development and physical characteristics.

Specific Plan Urban Design Goals and Objectives

Three major goals and several design objectives planned for the area are identified in Chapter 4: Urban Design; “Urban Design Goals and Objectives Plan of the Specific Plan,” as noted below.¹

**Goal 1:** Establish the BART Station Area as a Regional Focal Point.

*Objective 1.1* Create a sense of arrival at the BART station.

*Objective 1.2* Link the mixed uses surrounding the BART station into a unified urban environment.

**Goal 2:** Establish a Cohesive Residential Mixed Use Neighborhood Around the BART Station.

*Objective 2.1* Create a strong visual linkage between the areas north and south of State Route 4.

*Objective 2.2* Minimize visual differences between areas within the City of Pittsburg and those within the adjacent unincorporated areas.

*Objective 2.3* Integrate new development into the existing neighborhoods.

*Objective 2.4* Establish an urban design framework which can be extended into other areas adjacent to the Specific Plan area.

*Objective 2.5* Emphasize residential-compatible scale and landscaping in all new development.
Goal 3: Improve the Character and Livability of the Bay Point Neighborhood North of State Route 4.

Objective 3.1 Establish a Neighborhood Commercial District focal point on Willow Pass Road.

3.2 Upgrade the appearance of existing commercial development.

Urban Design Concepts

The Pittsburg/Bay Point BART Station Area Specific Plan establishes a mix of neighborhoods centered around the BART station and adjacent properties and links adjacent neighborhoods with streetscape and landscaping elements. In doing so, the plan would create a unique sense of identity and strong sense of place. The urban design concepts contained in the Specific Plan are the development of:

- A mixed use development comprised of residential, commercial, office, and the BART station transit plaza and a multi-level parking garage. The new development would provide an activity and visual focus for the Specific Plan area.

- A linear park along West Leland Road to link the BART station and adjacent properties with neighborhoods to the east and west, and encourage pedestrian and bicycle travel to the BART station.

- A Neighborhood Commercial District along Willow Pass Road to emphasize a community shopping and social focus with special landscaping and other urban design treatments.

- An improved and expanded Ambrose Park to provide an element of park and recreation for the Specific Plan area.

- Creation of an orderly street environment. New street trees would be planted at the street edges along Bailey Road to replace existing trees in the roadway median. Lighting, landscaping, signage, and street furniture (benches, trash receptacles, kiosks, etc.) would be coordinate to create a design theme which unifies the plan area.

- Urban design and landscaping plans at the BART station and surrounding vicinity will be based on the concept of Crime Prevention Through Environmental Design (CPTED). Landscaping, lighting, sight lines, etc., will be carefully designed to prevent crime activity.

- The Delta De Anza Trail along the East Bay Municipal Utility District (EBMUD) easement would be improved to encourage use by pedestrians and bicyclists.

- Crosswalk improvements will encourage pedestrian movement, circulation, and safety along Bailey Road to and from the BART station.
• Requirement that the design of new buildings be compatible with the existing residential scale of the area and blend with surrounding neighborhoods.

Specific Plan Area
Community Character
The built environment of the plan area is a mix of residential, commercial, and light industrial uses. Downtown Pittsburg is approximately three miles to the east of the Specific Plan area. The area east of the plan area is mostly single- and multi-family housing.

The relatively new Oak Hills residential community is located immediately to the south of and adjacent to the plan area. This community contains single-family and multi-family housing. Areas further south of the Specific Plan area consist of undeveloped land and rolling hillsides with agricultural uses. The Keller Canyon Landfill site is to the south outside of the Specific Plan area. The 3,000-unit San Marco subdivision is proposed to be built to the south and west of State Route 4. The area west and north of State Route 4 is primarily single-family housing. The Concord Naval Weapons Station is approximately two miles further west of the plan area.

Built Environment
The Specific Plan area contains areas of both developed and undeveloped land, and is experiencing a process of change and development. The older built environment of the area generally consists of established residential areas within the unincorporated community of Bay Point in Contra Costa County north of State Route 4. The area north of State Route 4 also contains multi-family housing, industrial, and retail commercial uses. The majority of undeveloped space and areas of newer development are within the City of Pittsburg city limits to the south of State Route 4, and west of Bailey Road.

Roads and Highways
State Route 4, a major west-east freeway, provides regional access to the area and roughly bisects the plan area into north and south. Bailey Road runs north to south and traverses the center of the area. The Pittsburg/Bay Point BART Station is located at the junction of State Route 4 and Bailey Road, at the approximate geographic center of the Specific Plan area.

Willow Pass Road and West Leland Road are major local east-west arterials in the area. Willow Pass Road traverses the plan area east-to-west north of State Route 4. West Leland Road traverses the study area east-to-west south of State Route 4. Bailey Road is the only major north-south road in the Specific Plan area.
Architectural Resources
The Pittsburg/Bay Point BART Station is the most prominent architectural feature of the area. It is visible from State Route 4 and from various locations along West Leland Road and Bailey Road. The Oak Hills Shopping Center is east of and adjacent to the BART station and is the largest retail commercial development in the plan area. The BART station and adjacent properties (Zone I) consists of the BART station and station parking lot, and a total of approximately 27 acres of vacant undeveloped land in two privately owned parcels. The largest parcel is about 23.5 acres in size and located west of the BART parking lot. The other parcel is about 3.45 acres, and is located between the BART parking lot and the Oak Hills Shopping Center. The Oak Hills subdivision is located south of the BART station. It consists mostly of newer single-family homes. The remainder of the plan area contains low-to medium-density older housing and residential areas that, while not unappealing, do not have a significant architectural presence.

Policies Related to Urban Design, Scenic Resources, and Visual Quality
The plan area is located within the jurisdiction of both the City of Pittsburg and Contra Costa County. Policies in the City of Pittsburg General Plan and the Contra Costa County General Plan apply to the visual analysis of the Specific Plan area.

Contra Costa County
The County General Plan contains a wide range of policies and implementation measures that apply to the Specific Plan area. They include:

Community Identity and Urban Design
3-15. The design of new buildings and the rehabilitation of existing buildings shall reflect and improve the existing character of the commercial districts in the County.
3-16. Community appearance shall be upgraded by encouraging redevelopment, where appropriate, to replace inappropriate uses.
3-17. Opportunities shall be provided for retaining, enhancing, and diversifying the cultural activities available to the County.
3-18. Flexibility in the design of projects shall be encouraged in order to enhance scenic qualities and provide for a varied development pattern.
3-19. Buffers shall be provided between new industrial development and residential areas by establishing setbacks, and park-like landscaping or other appropriate mechanisms.
3-20. Where new electrical transmission lines are proposed, they should be developed parallel to existing transmission lines to the extent feasible. Mitigation
of the environmental impact of building these facilities should be in close proximity to the area of impact.

Scenic Resources

Scenic Resources Goals

9-D. To preserve and protect areas of identified high scenic value, where practical, and in accordance with the Land Use Element map.

9-E. To protect major scenic ridges, to the extent practical, from structures, roadways, or other activities which would harm their scenic qualities.

9-F. To preserve the scenic qualities of the San Francisco Bay/Delta estuary system and the Sacramento-San Joaquin River/Delta shoreline.

Scenic Resources Policies

9-10. In areas designated for urban development, the principles outlined below shall be applied in the review of development proposals.

9-12. In order to conserve the scenic beauty of the County, developers shall generally be required to restore the natural contours and vegetation of the land after grading and other land disturbances. Public and private projects shall be designed to minimize damages to significant trees and other visual landmarks.

9-13. Providing public facilities for outdoor recreation should remain an important land use objective in the County, as a method of promoting high scenic quality, for air quality maintenance, and to enhance outdoor recreation opportunities of all residents.

9-14. Extreme topographic modification, such as filling in canyons or removing hilltops, shall be avoided. Clustering and planned unit development approaches to development shall be encouraged. All future development plans, whether large or small scale, shall be based on identifying safe and suitable sites for buildings, roads, and driveways. Exemptions to this policy are appropriate for mining, landfill, and public projects in open space areas.

9-17. New power lines shall be located parallel to existing lines in order to minimize their visual impact.

9-19. When development is permitted to occur on hillsides, structures shall be located in a manner which is sensitive to available natural resources and constraints.

9-21. Any new development shall be encouraged to generally conform with natural contours to avoid excessive grading.

9-23. The involvement of public interest groups shall be encouraged when identifying, acquiring, and maintaining those areas of unique visual quality in the County.
9-24. The appearance of the County shall be improved by eliminating negative features such as non-conforming signs and overhead utility lines, and by encouraging aesthetically designed facilities with adequate setbacks and landscaping.

9-27. Physical and public access to established scenic routes shall be protected.

**Scenic Resource Implementation Measures**

9-b. Carefully study and review any development projects which would have the potential to degrade the scenic qualities of major significant ridges in the County or the bay and delta shoreline.

9-e. Develop and enforce guidelines for development along scenic waterways to maintain the visual quality of these areas.

9-g. Prepare a visual analysis of proposed scenic routes to identify views of significant visual or cultural value.

9-h. Identify and designate “gateways” within the scenic routes which are located at unique transition points in topography or land use and serve as entrances to regions of the County.

**Scenic Routes**

State Route 4 from Hercules to the intersection with Railroad Avenue is proposed for State designation as a scenic route within the State Scenic Routes program. This segment of State Route 4 bisects the Specific Plan area.

**Scenic Routes Goal**

5-R. To identify, preserve, and enhance scenic routes in the County.

**Scenic Routes Policies**

5-34. Scenic corridors shall be maintained with the intent of protecting attractive natural qualities adjacent to various roads throughout the County.

5-35. The planning of scenic corridors shall be coordinated with and maximize access to public parks, recreation areas, bike trails, cultural attractions, and other related public developments.

5-36. Scenic views observable from scenic routes shall be conserved, enhanced, and protected to the extent possible.

5-37. The existing system of scenic routes shall be enhanced to increase the enjoyment and opportunities for scenic pleasure driving to major recreational and cultural centers throughout this and adjacent counties.

5-38. Multiple recreation use, including trails, observation points, and picnicking spots, where appropriate, shall be encouraged along scenic routes.
5-40. Design flexibility shall be encouraged as one of the governing elements for aesthetic purposes in the construction of roads within the scenic corridor.

5-41. For lands designated for urban use along scenic routes, planned unit developments shall be encouraged in conformance with land development projects.

5-42. Provide special protection for natural topographic features, aesthetic views, vistas, hills, and prominent ridgelines at “gateway” sections of scenic routes. Such “gateways” are located at unique transition points in topography or land use, and serve as entrances to regions of the County.

5-43. Aesthetic design flexibility of development projects within a scenic corridor shall be encouraged.

**Scenic Routes Implementation Measures**

5-ak. Develop and enforce guidelines for development along scenic routes to maintain the visual quality of these routes.

5-al. Develop a corridor improvement program including an interagency joint action and ordinance development program, to protect and enhance scenic qualities.

5-am. Consider the visual qualities and character of the corridor in reviewing plans for new roads, road improvements, or other public projects. This should include width, alignment, grade, slope and curvatures of traffic islands and side paths, drainage facilities, additional setbacks, and landscaping.

5-an. Attain development project design flexibility within the scenic corridor through application of the Planned Unit Development District Zoning.

**Conditions for a 21st Century Community**

Contra Costa County’s *Conditions for a 21st Century Community* contains the following policies and conditions of approval that relate to visual factors:

**Design Characteristics Policies**

1. Encourage aesthetically and functionally compatible development which reinforces the physical character and desired images of the community.

2. Flexibility in the design of projects shall be encouraged in order to enhance service qualities and provide for a varied development pattern.

3. Protect open hillsides, significant ridgelines, and wetlands.

4. Encourage a development pattern that promotes the individuality and unique character of each community.

5. Design the project to be attractive and function well into natural setting.
6. Ensure geologically sensitive development through engineering design regulation and review to avoid soil erosion, downstream flooding, slope failure, loss of vegetative cover, high maintenance costs, property damage, and reduced visual quality.

7. Continue development to those areas designated most appropriate for construction.

9. Design development to complement terrain and limit grading to the extent possible.

**Design Characteristics Condition of Approval**

4) The project proponents shall screen residential and commercial development and other built facilities with landscaping or other appropriate measures as approved by staff where these features will be visible from entrances into the planning area, recreation areas, and features.

**City of Pittsburg**

The *City of Pittsburg General Plan* includes the following policies related to urban design and visual quality:

**Guiding Policies**

A. Design aesthetically pleasing roadways, line with trees or other appropriate landscaping, that connect Pittsburg neighborhoods and serve planned development.

B. Develop and implement programs to strengthen community identity, including establishing standards for design and landscaping.

C. Develop standards for entry points to the City, including landscape design and a coherent signage design.

D. Preserve the predominant single-family residential character of Pittsburg.

E. Preserve the feel of a city surrounded by open space, and preserve view corridors to the hills and to the waterfront.

F. Provide public improvements that enhance neighborhood value and stability.

**Implementing Policies**

G. Remove wooden poles and overhead utility lines other than transmission lines in central areas, and ultimately throughout the city, and require undergrounding of utilities installed to serve all new developments.

*This policy applies only to utility lines serving users and not to transmission lines such as the PG&E transmission lines that run from the hills to the PG&E plant in the Northwest River Area.*
I. Adopt and implement a plan to establish standards and design for the City’s streets, entryways, and open spaces.

Making streets identifiable by their design, marking entrances to the City, finding alternatives to sound walls, and getting the strongest visual lift from existing open spaces are important ingredients of image.

J. Adopt resource protection regulations that establish standards for protection of major ridgelines, creek preservation, open-space management, and grading.

These regulations are already embodied in the Hillside Planned Development Ordinance and are statements of respect for the city’s site. They ensure consistent treatment of natural resources and equitable consideration of development applications. Any area which is the subject of a Specific Plan shall incorporate adequate provisions for the preservation of major ridgelines.

K. Endeavor to retain existing creekway patterns, hillsides over 30 percent slope, and major ridgelines; make open space more accessible to the public with a park and trail system that takes advantage of surrounding open space.

The Open Space and Parks and Recreation elements establish the policies for hillside and ridgeline preservation and for a first-quality park and trail system for the city. [General Plan] Figure 2 shows major ridges and creeks to be preserved, while [General Plan] Figure 7 shows trails designated by the plan. Parks are designated on the General Plan map.

L. Apply high design standards to all roadways.

The practice of designating some roadways as “scenic” implies that lesser design standards are acceptable on others. The plan calls for high-quality design throughout the planning area.

M. Develop a program for providing street trees in neighborhoods, for interesting landscaping, and for pleasing road design.

Many city neighborhoods were developed with minimal street landscaping. The plan calls for remedial planting to enhance neighborhood quality.

N. Create treatment for City entry points that will help residents, visitors, and travelers know they have arrived in Pittsburg.

Entry points from the east and west could be distinctively marked by landscaping, signs, or civic art.

O. Maintain and replace, as necessary, lighting and landscaping on the City’s streets.

A citywide landscape maintenance district could fund these improvements.

P. Develop a cultural resources program, including visual arts and performing arts.
Where urban character is accepted and civic pride is strongest, cities should enrich the visual and cultural environment. Performing arts centers, sculpture, fountains, and related works of art can contribute to the sense of place.

R. Rely on the Architectural Review Process, City Planning Commission, and City Council to ensure that both public and private design meet the high standards of the City of Pittsburg and are consistent with the overall General Plan.

S. Make preservation of view corridors to the hills and to the waterfront a consideration in project and design review.

6.2 STANDARDS OF SIGNIFICANCE

Approach to Analysis

The existing visual character of the plan area and the surrounding environment was evaluated in terms of visual aesthetics, views within the community, and consistency with plans and policies of both the City of Pittsburg and Contra Costa County.

The urban quality and visual character of an area is determined by attributes of the site and by patterns in the built environment that are a result of development of the natural and/or cultural character of an area.

Evaluation of potential impact on existing visual character of locations within the Specific Plan involved an analysis of project elements that would be introduced by the Specific Plan, and possible physical changes to the site area and design context introduced by off-site elements.

Impacts to visual character of the area would be considered significant if the Specific Plan introduces elements or changes with:

- substantial, demonstrable, negative aesthetic effects;
- substantial degradation or obstruction of scenic views from public areas;
- conflicts with the general plan of the agency with land use authority; or
- results in new substantial light or glare.
6.3 IMPACTS AND MITIGATION MEASURES

Potential impacts are determined with regard to places of public access (parks, plazas, open space, and major pedestrian streets) rather than private locations or buildings. Unless otherwise noted, all identified potentially significant adverse impacts have been reduced to a level of less than significant with the implementation of recommended mitigation measures. Although not required by CEQA, some less-than-significant impacts have been discussed and further mitigations recommended where issues are of general and/or local concern.

Development assumptions for specific locations within the plan include:

- the mixed use development at the BART station and adjacent properties;
- streetscape improvements on major access routes;
- Bailey Road commercial and infill development;
- Willow Pass Road Neighborhood Commercial District; and
- expansion of Ambrose Park west of Bailey Road.

In addition, design standards have been established for building height, setbacks, density, and lot coverage related to office, commercial, and residential areas for Zone I—the BART station and adjacent properties; Zone II—Orbisonia Heights; Zone III—Bailey Road; and Zone IV—Willow Pass Road. (Please see Chapter 3: Project Description.)

Computer Simulations of Selected Areas of Visual Impact

Method for Computer Simulation

As part of the urban design and visual quality impact evaluation of the project, visual simulations have been produced using computer modeling and rendering techniques. The visual simulations are based on planning and conceptual design drawings and other information contained in the Specific Plan. The simulation images represent “before” and “after” visual conditions in the project area. The simulations illustrate the conceptual appearance of proposed project features from five representative viewing locations:

1) The BART Station Platform Looking Southwest
2) West Leland Road Looking Northwest Toward BART Station
3) Willow Pass Road at Bailey Road Looking West
4) Bailey Road at Canal Road Looking North
5) Bailey Road Looking South Toward Expanded Ambrose Park

Simulation viewpoint locations are shown in Figure 6-1. For each of the five viewpoints, viewer location was digitized from topographic maps using 5 feet as the assumed eye level. Computer “wireframe” perspective plots of project features were overlaid on photographs to establish scale and viewpoint location. Digital visual simulation images were then produced based on computer renderings of the three-dimensional computer.
CHAPTER 6: URBAN DESIGN AND VISUAL QUALITY

FIGURE 6-1
Simulation Viewpoint Locations

Source: Pittsburg/Bay Point BART Station Area Specific Plan Public Review Draft, November 1997
models combined with digital versions of the five selected site photographs. The final “hardcopy” visual simulation images that appear in this Master EIR were produced from the digital image files.

At this time, the precise locations of buildings, their size, and architectural design are unknown. The simulations that follow depict basic building massing, heights, sizes, and street orientation based on proposed design standards and/or concepts illustrated in the Specific Plan. The simulations should not be viewed to represent an actual development proposal. Future project designers will have a range of optional building design concepts and configurations to work with as defined in the Specific Plan. The simulations depict representative building height and massing within each plan zone and show buildings at maximum proposed height limits. The simulations show limited landscaping, proposed new street trees and some new street lighting features; however, the simulations lack street furniture, decorative elements, and detailed architectural treatments that are provided for in the Specific Plan guidelines. These features would be designed as new developments are implemented.

Aesthetic Enhancements of Specific Plan Area

The Specific Plan contains development standards and assumptions for the entire plan area as well as a number of neighborhood areas. Plans will be prepared for the following areas:

- West Leland Road Master Plan
- Ambrose Park Master Plan
- BART Station Master Plan
- Willow Pass Road Beautification Plan
- Bailey Road Beautification Plan
- BART Parking Garage

**IMPACT 6-1.** The Specific Plan urban design goals, policies, and development concepts are designed to conform with and implement established plans and policies of the City of Pittsburg and Contra Costa County. Proposed improvements would enhance the visual and aesthetic quality of the area. This impact would be considered beneficial.

Development proposed in the parcels designated in the Specific Plan or within the plan area would be required to conform with urban design guidelines contained in the Specific Plan. These guidelines were designed to conform with, and further implement, established plans and policies of the City of Pittsburg and Contra Costa County. As market conditions and property acquisition opportunities arise, new development that conforms with the Specific Plan would remove some older structures. With the proposed design guidelines, new development would provide a more pleasing and aesthetically interesting environment.
Projects undertaken within the Specific Plan area would, by design, unless noted elsewhere in this document, improve the visual and aesthetic quality of the area. Local plans and policies that apply to the area are included in the Setting section of this chapter. Conformance of future development to the urban design goals, policies, and concepts in the Specific Plan would be considered a beneficial impact of the Specific Plan.

For all new development to be implemented under the Specific Plan, the agency with land use and design review authority (either the City or County depending in which jurisdiction a project is proposed) would coordinate with each other and BART. Interagency cooperation would ensure that new development conforms with the urban design goals, policies, and development concepts (including signage requirements) established in the Specific Plan. With implementation of this recommendation, potential impacts that could result would be beneficial.

**MITIGATION MEASURE 6-1.** None required.

**Joint Development of the BART Station and Adjacent Properties**

**IMPACT 6-2.** The large massing and strong visual identity of new mixed use development near the BART Station Area would change the existing visual environment and may result in impacts at specific site locations and on the surrounding environment. This impact is considered potentially significant.

A transit plaza planned for the BART station, and joint development of adjacent properties would contain a wide mix of uses and activities. Planned development includes a new multi-level parking garage, a bus/transit pedestrian plaza, and multi-story residential development with commercial frontage along West Leland Road to the south and west. This area of the plan would experience the greatest change in terms of changes to density and physical development. Up to 1,790 multi-family dwelling units would be built at a minimum residential density of 65 dwelling units per gross acre.

Plan-compatible projects would provide a visual focus and generate a creative and active area at the center of the community. However, the scale of proposed development would alter the existing visual character in the vicinity of the BART station, creating a more urban and dense environment. Views from the BART station platform, within the BART parking area and along West Leland Road in particular, would be changed. Visual simulations have been prepared for two viewpoints of this area, as described below.

**Viewpoint 1: The BART Station Platform Looking Southwest**
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Viewpoint 1, shown in Figure 6-2, is taken from the existing BART station platform looking towards the southwest. In the foreground of the upper image of existing conditions, the rails of the BART track are clearly visible with the road surface of State Route 4 immediately beyond. Vehicles on the highway are traveling in an eastbound direction. The low embankment beyond the freeway leads up to a fence surrounding an existing parking lot.

A clear change in the physical development of the site is shown in the simulated view illustrating new development. The illustration shows the new four-story BART parking garage, depicted with a corner stair tower. The long northern elevation of the garage parallels the freeway. The proposed transit plaza, although not visible in this view, would occupy the space to the left of the garage. Further west in the distance, a portion of the multi-story residential development is visible. Residential development at the western edge of the plan area is situated below the profile line of low hills further to the west.

In general, the overall visual environment of the area is improved as a result of strengthening the landscaped environment and the removal of a surface parking lot and fencing. The scale and size of development would fit within the topographical and physical character of the site. The parking garage would be consistent with the urban scale of freeway development. The garage’s close proximity to the freeway would serve as a prominent landmark signifying the arrival to the Pittsburg/Bay Point community. The articulation of the garage facade, shown here in conceptual form only, would require careful design to lessen the physical mass of this structure and to minimize its potential to dominate the pedestrian environment within the mixed use development, or to avoid the appearance of a drab structure when viewed from the freeway. The simulation depicts the planting of trees along the freeway edge to soften the appearance of the garage.

**Viewpoint 2: West Leland Road Looking Northwest Toward BART Station**

The change in physical character shown in Viewpoint 2 (Figure 6-3) is apparent. The existing view (upper image) shows the roadway entrance into the BART station site from West Leland Road. The surface parking area appears on both sides of the road with low guard rails and a number of street lamp standards spaced at intervals along the road. In the background, on the right-hand side of the photograph, a portion of the southern elevation of the existing BART station building is visible.

The simulated view of new development (lower image) depicts the scale and composition of development within a narrow view of the BART station and adjacent properties. A conceptual elevation of facade treatments is shown for multi-family residential units adjacent to West Leland Road. The height and setbacks of these buildings reflect the creation of an urban form and scale while allowing for the provision of street amenities and landscaping. A median, developed without landscaping elements to afford driver visibility, is shown with a textured surface.

Development of the type proposed in the Specific Plan would create a lively and attractive urban space. While the change in the visual environment shown in this view is substantial, the
overall improvement in urban amenities proposed by the plan would not create, from this viewpoint, a detrimental effect on the environment.

**MITIGATION MEASURE 6-2.** The City of Pittsburg, as the agency with land use authority for the BART Station joint development, would coordinate with BART and the County to ensure that new development conforms with the urban design goals, policies, and development concepts established in the Specific Plan. With implementation of this measure, this potential impact would be reduced to a less-than-significant level.

**Commercial Development and Streetscape Improvements**

Master Plans for streetscape improvements and the beautification of Bailey Road, Willow Pass Road, and West Leland Road are included in the Specific Plan. The existing BART surface parking lot would be transformed substantially through concentration of parking in a multi-level parking garage, with about 500 parking spaces provided in surface lots. New commercial development would be developed along Willow Pass Road and Bailey Road. The street frontage along West Leland Road, Bailey Road, and Willow Pass Road would be enhanced with street trees, street furniture, decorative paving and lighting, and extensive landscaping.

**IMPACT 6-3.** Specific Plan development would result in the removal of the majority of existing surface parking lots and replace them with structured parking, new street-oriented commercial retail, residential uses, and streetscape improvements. This impact would be considered beneficial.

The removal of existing surface parking lots and the provision streetscape improvements would be considered a beneficial impact of the plan. The Specific Plan outlines extensive and cohesive design concepts and guidelines intended to improve the aesthetic character of the major roadways with street furniture, signage, lighting, landscaping, and other design elements. Two visual simulations of this area have been prepared as described below.
FIGURE 6-2
View 1 - BART Station Platform Looking Southwest

Existing view

Simulation of proposed project
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(back of figure)
CHAPTER 6: URBAN DESIGN AND VISUAL QUALITY

FIGURE 6-3

Existing view

Simulation of proposed project

View 2- West Leland Road Looking Northwest Toward BART Station
(back of figure)
Viewpoint 3: Willow Pass Road at Bailey Road Looking West

Willow Pass Road is a major thoroughfare in Pittsburg. The existing view, shown in the upper image of Figure 6-4, is taken from a point just west of the intersection of Willow Pass Road and Bailey Road. The view shows the existing road surface proceeding to the west with traffic moving toward and away from the viewer. The road is wide enough at this point to accommodate a dedicated left-turn lane for traffic coming from the west. Existing development is low scale and of low intensity with wide stretches of vacant, undeveloped parcels between buildings. Development along this section of road, while suitable for current commercial uses, is not of high architectural quality.

The simulated view of new development (lower image) shows commercial structures on the south side of the highway, a landscaped center median strip (with a left-turn pocket) and new landscaping on the north side of the road. Light industrial development, encouraged but not proposed for the area, would occur beyond the line of trees on the north side of the highway. The blue car shown in the middle of the picture (and other vehicles) is retained in the simulated view to assist in orienting the viewer to the new conditions shown in the view illustrating new development.

The simulation shows how new development could frame and define the existing roadway. While the existing environment is somewhat nondescript and ill-defined, new development immediately provides context, scale, and a sense of place. These factors would help create a Neighborhood Commercial District. The heights and setbacks of storefronts strengthen the neighborhood quality of the space and shorten the long perspective views illustrated by the existing conditions. As a result, there is much more visual interest in the foreground of this view and the dominance of the spacious roadway area, shown clearly in the existing conditions view, is replaced by a more stimulating and inviting visual environment.

Viewpoint 4: Bailey Road at Canal Road Looking North

The upper image of Figure 6-5 shows the view on Bailey Road at the intersection of Canal Road looking north towards Willow Pass Road. As with other views in the area, long distance street perspectives tend to predominate. The generally flat and open character of the area can clearly be seen in the degree of low-scale development, the amount of clear sky in the top half of the picture, and the flat expanse of road surface evident in the foreground. On the right side of the photograph is the existing Far Hills mobile home park, and on the left side of the street are fast-food franchise restaurants. The degree of visual fragmentation at the intersection is illustrated by a profusion of small signs and is compounded by the line of utility power poles and lighting standards on both sides of the street. No formal pedestrian/bicycle crossing exists at this location.

In the simulated view, the arch of an existing metal traffic control light is retained to illustrate the simulated condition at this intersection. The arch serves to orient the view and provide a measure of the degree of change reflected in the two images. The most striking element in the
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Simulation of new development is the new commercial development fronting the east side of Bailey Road. The strengthening of the urban environment anticipated in the plan is evident in the simulation of a three-story building. The contrast with the low-scale fence structures in the existing condition view is very clear, as is the development of new landscaping and urban street amenities along the side of the street and the median.

The Bailey Road/Canal Road intersection of is one of the most important intersections in the area since Bailey Road connects to State Route 4 and is therefore used by a large number of drivers and BART commuters on a daily basis. As an expression of the level of change expected to occur as a result of the plan, the simulated view shown for this location clearly indicate a strong degree of urban intensification and strengthening of architectural values. As a result, Bailey Road, as shown in the simulated view, would become a strong link to renewed urban life and activity originating at the BART station.

Mitigation Measure 6-3. None required.

Open Space Improvements/Expansion of Ambrose Park

The parks and open space areas within the Specific Plan area include Ambrose Park, located south of State Route 4 and east of Bailey Road; the Ambrose Community Center, located on Willow Pass Road; and the Delta De Anza Trail, a public walking and bike trail located in the EBMUD easement, that traverses the Specific Plan area from east to west.

Impact 6-4. Implementation of the Specific Plan would result in the improvement of Ambrose Park, and create new, future open space. These impacts are considered beneficial.

Ambrose Park would be improved and expanded to provide park and recreation use for the Specific Plan area. Other new open space would be added by creation of the linear park along West Leland Road, and new public or open space created within the mixed use development at the BART station and adjacent properties. An expanded Ambrose Park would increase the visibility and usability of the park while adding additional land area and facilities to it. Future additional uses may include a child day care center, and environmental interpretation features around the existing wetlands area located east of the park. (See Wetland A in Figure 15-1 in Chapter 15: Vegetation and Wildlife.) Possibilities include expansion of the park lands (to the west and/or to the east) and the use of land trades to expand park lands west to the Bailey Road frontage.
Figure 6-4 – Viewpoint 3 (color)

Existing view

Simulation of proposed project

FIGURE 6-4

View 3- Willow Pass Road at Bailey Road Looking West
(back of figure)
FIGURE 6-5

View 4- Bailey Road at Canal Road Looking North
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(back of figure)
Sections of the Delta De Anza Trail along the EBMUD easement would be improved to encourage pedestrian usage and bicycle access within the Specific Plan area and to the BART station. Landscaping and lighting would be installed to improve the appearance and security of the trail. These improvements would be expected to encourage non-automobile travel to the area.

A visual simulation of the expansion of Ambrose Park west to Bailey Road is described below.

**Viewpoint 5: Bailey Road Looking South Toward Future Expanded Ambrose Park**

The view shown in the upper photograph of Figure 6-6 is taken from the intersection of the freeway entrance on Bailey Road looking southeast toward an existing vacant area. This area is planned as a westerly addition of Ambrose Park. A day care center is also planned for the area on land that now is currently vacant and/or containing older residences. On the left side of the image, there are several single-family homes and an area of vacant, undeveloped land. The right side of the photograph shows Bailey Road extending to the south toward open green space and hills in the background. The visual character of the intersection can best be described as nondescript and lacking in order or amenities.

The simulated view of new development shows new street trees and landscaping aligning the street edge along each side of Bailey Road. The development of a day care center is indicated beyond the line of new trees on the left center of the photograph. Commercial development can be seen in the background beyond the intersection of Bailey Road and West Leland Road. The street furniture, traffic lights, and freeway direction signs in the existing view are maintained in the new view. This level of development indicates that the degree of change in this area of the plan would not be as great as expected for areas shown in other simulated views included in this analysis.

**MITIGATION MEASURE 6-4.** None required.

**Construction and Development**

Implementation of Specific Plan projects would result in the development of both major and smaller sized projects over several years. Specific Plan development in the area would also result in the demolition or removal of existing buildings and the possible interim use of development sites.
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IMPACT 6-5. The demolition of existing structures within the Specific Plan area, and the interim use (i.e., construction activities) of development sites, may impact the visual quality of the area over an extended period of time. This impact is considered potentially significant.

If several projects were to be carried out within the same time period, there exists the possibility of visual confusion and the displacement or obstruction of visual access to certain commercial and possibly residential areas. The development of interim uses, which also may extend over a period of years, could also generate negative visual impacts in the form of visual pollution resulting from material clutter, disorganized site fencing, and the presence of construction equipment and material staging areas. Although construction impacts are generally regarded as temporary and of limited duration, development within the Specific Plan area could continue for months. Construction equipment and material should be screened to reduce visual impacts.

MITIGATION MEASURE 6-5. The agency with land use and project design review authority would require that construction documents for specific projects contain conditions specifying the installation of:
  • security fencing,
  • creation of construction “points of interest” with information panels depicting the project, and
  • openings in construction fencing to allow views into the site where possible.

Conditions of approval would also specify the control of litter and debris and the confinement of equipment to areas that do not impact the visual quality or use of adjacent property. The location and establishment of any off-site construction staging areas would be selected to minimize negative visual impacts. Implementation of this measure would reduce this impact to a less-than-significant level.

Demolition and Removal

IMPACT 6-6. Demolition within the Specific Plan area could remove blighted structures and buildings from the plan area. This impact would be considered beneficial.
View 5- Bailey Road Looking South Toward Expanded Ambrose Park
CHAPTER 6: URBAN DESIGN AND VISUAL QUALITY

(back of figure)
The Specific Plan provides for creation of new commercial space and an expanded Ambrose Park, in Zone II along Bailey Road. Other areas are subject to in-fill housing redevelopment west of Bailey Road, north of Canal Road. Achieving these development concepts will require the removal of existing structures, some of which are in a deteriorated condition.

**MITIGATION MEASURE 6-6.** None required.

**Impacts on Views**

**IMPACT 6-7.** Future development under the Specific Plan could impact local views and vistas. This impact is considered less than significant.

The Specific Plan does not address preservation or enhancement of views or particular view alignments. This analysis of views, view corridors, and viewsheds is defined by the axial arrangement of future buildings and structures or the position of landmarks. Street perspective and streetscapes are considered as elements that frame important views or viewsheds. A viewshed includes a wide range of visual elements usually set at a long distance.

**Street Views and Perspectives**

The development allowed by the Specific Plan would follow the alignment of existing streets and highways, and is not expected to result in view blockage along regional roadways. It is expected that the development of individual projects would need to consider sight lines at street corners and intersections. However, no monuments or community identity artifacts are expected to be compromised by development shown in the plan. The plan should conform with City of Pittsburg General Plan policies calling for aesthetically pleasing roadways; strengthening community identity; the development of standards for entry points in the area, and the removal of unwanted utility poles and overhead power lines.

**Viewsheds and Hillsides**

The Specific Plan proposes extensive development that is generally confined to the existing street pattern. Although only a limited number of visual simulations are included in this analysis, a review of those simulation shows that new development would intrude on long-range view perspectives or interrupt hillside profiles. While it might well be the case that expansive views from private land parcels or homes may be affected by proposed development, view blockage from significant public gathering spaces or plazas have not been identified in the analysis. It should be noted that the specific degree of view blockage from individual sites cannot be accurately described at the level of detail provided for in the plan.

The construction of a new multi-story office building and new BART parking garage could block some views of the Sacramento River looking north and west from sections of West Leland Road, south of the BART station. Views from the interior of the BART station site
would also be inevitably affected by new development. In addition, views across Ambrose Park from West Leland Road to the south of the site and to the south from the northern section of the park would be partially blocked by the development of either residential uses (adjacent to West Leland Road) or a day care center located in the northern portion of the site. However, views of the surrounding landscape and hill formations would be seen from street space, public plazas, and open space areas.

**MITIGATION MEASURE 6-7.** None required.

**Impacts of Light and Glare**

**IMPACT 6-8.** Construction of office buildings and the parking garage could result in impacts of light and glare. This impact is considered potentially significant.

Light and glare impacts are typically associated with the construction of highrise buildings that act as high-level reflectors of bright sunlight and interfere with local traffic and/or residences; and the generation of unacceptable bright or harsh light levels from light standards, or nighttime lighting from new structures.

It is not expected that there would be significant impacts on light and glare as a result of plan implementation. The buildings proposed for the plan area are not highrise structures and parking area lighting would be directed downward to shield glare from area business and residences. In addition, the Specific Plan includes regulations that relate to specific aspects of building development. For example, Guideline CD-14 of the Specific Plan states that a minimum of 60 percent of ground floor frontages facing streets should be non-reflective transparent glazing.

**MITIGATION MEASURE 6-8.** Future development would be subject to design requirements of the Specific Plan that require the avoidance of glare impacts by careful design. The agency with land use and project design review authority would require that design and construction documents for specific projects incorporate design features and materials to avoid harsh light and glare. Implementation of this measure would reduce this impact to a less-than-significant level.

**Cumulative Impacts**

A review of cumulative development would take into account not only development within the Specific Plan area but also in the areas immediately to the plan area.
IMPACT 6-9. Development in the Specific Plan area, together with reasonably foreseeable development in areas immediately adjacent to the plan area, may have a cumulative impact on visual quality. This impact is considered potentially significant.

Commercial and retail development in the plan area will be regulated by urban design concepts and guidelines, and project design review as noted in the Specific Plan. Development in the adjacent area is expected to be mostly single-family housing, with the possibility of some limited multi-family housing. Adjacent development will be generally suburban in nature and not expected to result in visual impacts on views or the general urban environment.

The visual effect of new development in the area surrounding the plan area will be most critical at the boundary edge between different development areas. In these transitional areas, development would be subject to a formal design review process that takes into account the building profile, massing, scale, height, and character of development both in the plan area and neighboring areas. In addition, site access, street scale, exterior landscaping, and street furniture (street lamps, benches and sidewalk paving, etc.) would need to be considered.

**MITIGATION MEASURE 6-9.** Interagency cooperation would be used to review development proposals at an early stage in the planning process to ensure architectural and visual compatibility. The agency with land use and design review authority would cooperate with other agencies to ensure design guidelines are consistently followed in future development. Implementation of this measure would reduce this impact to a less-than-significant level.

**NOTES: Urban Design and Visual Quality**

7

PARKS AND RECREATION

7.1 SETTING

The Ambrose Park and Recreation District has jurisdiction for all park land within the unincorporated Bay Point area. The City of Pittsburg Departments of Leisure Services and Public Services have jurisdiction for all park land within the City of Pittsburg. The Delta De Anza Trail is within the jurisdictional control of the East Bay Regional Park District (EBRPD). The Ambrose Park and Recreation District is funded by district residents. The EBRPD, through Measure AA, has been a partial source of funding for the development of several community and neighborhood parks in the Pittsburg area.

Local Parks

Bay Point Community

The unincorporated portion of the Specific Plan area is served by the Ambrose Park and Recreation District. The District maintains four facilities totaling 22 acres, with three of its facilities located within the planning area. Ambrose Community Center is located on Willow Pass Road west of Bailey Road. Anuta Park is also located on Willow Pass Road, east of Bailey Road. The largest of the park facilities, Ambrose Park, is located at 125 Memorial Way in the Orbisonia Heights area, and contains a swimming pool, tennis and basketball courts, picnic facilities, and playfields. Ambrose Park is the most heavily used of the local parks.

Outside of the planning area, the District plans to refurbish baseball fields and a football field at the Pacifica Park/Riverview Middle School, in a joint venture with the Mount Diablo Unified School District.¹

City of Pittsburg

There are no city-owned park facilities located in the Specific Plan area. Stoneman Park, the nearest city-owned park facility, is located off of West Leland Avenue, southeast and outside of the planning area. This park provides passive recreation opportunities, picnic areas, a soccer field, and a rifle range. Additional park land (5 acres) is proposed as part of the Oak Hills development. The San Marco development proposes a 36-acre community park. Two smaller community recreation areas that would provide ball fields and courts, as well as three village parks also would be included in the new development.²
The amount of park land acquired since 1988 has been far below the standard of 5 acres per 1,000, based on the population increase during the same time. The total acreage added to the parks system since 1988 is 22.75 acres. However, this translates to only 2.9 acres in additional park land per 1,000-person increase in population. This includes Central Park, which is leased from USS-POSCO. While overall park availability has increased, the amount of park land per person has decreased.

Regional Trail
The Delta De Anza Trail follows the EBMUD aqueduct easement through the western half of the Specific Plan area to Bailey Road as part of a 4.8-mile segment through Pittsburg. The EBRPD maintains the trail. The trail turns south along Bailey Road, crosses under State Route 4, and continues eastward for 12.3 miles of continuous paved multi-use hiking, bicycling, and equestrian trail. This portion of the trail is part of the planned 25-mile length of trail connecting the communities of Bay Point, Pittsburg, and Antioch to regional and local parks and community facilities. The EBRPD Trail Master Plan contains goals, objectives, policies, and action related to regional trails.

Regional Parks and Preserves
Contra Loma Regional Park in Antioch is within a 30-minute driving distance of Pittsburg and Bay Point residents. The 776-acre park offers fishing, swimming, boat rentals and boat launch facilities, picnic areas, paved biking/walking trails, hiking/riding trails, and disabled accessible facilities. It is under the jurisdiction of the EBRPD.

The primary purpose of regional preserves is conservation of natural resources. The Black Diamond Regional Preserve is located south of the City of Pittsburg in Contra Costa County. It covers approximately 3,906 acres and offers abandoned coal and sand mining tunnels to explore, miles of hiking trails, picnic areas, group camping, backpack camping, and a visitor center. Browns Island Regional Shoreline is a refuge for migrating shorebirds. It is accessible only by boat. Both preserves are under the jurisdiction of the EBRPD.

State Parks
State park facilities within a 45-minute drive of the Specific Plan area include Mt. Diablo State Park located about 10 miles southwest of the plan area, and the undeveloped John Marsh Home State Park southwest of the City of Brentwood. The Mt. Diablo State Park is approximately 20,000 acres surrounding the 3,849-foot summit. The park offers many miles of hiking trails, picnic areas, a visitor center, and campgrounds. The John Marsh Home State Park contains the historic Stonehouse, home of local pioneer John Marsh, and surrounding grounds. The house and grounds are in need of major restoration. The park is not currently open to the public.
Contra Costa County Policies Related to Parks and Recreation

Contra Costa Policies

The *Contra Costa County General Plan* sets forth a goal for parks of four acres (i.e., 2.5 acres of neighborhood park and 1.5 acres of community park) per 1,000 population, and states that neighborhood parks should be located “in the center of the neighborhood” and should serve a one-half mile radius. Other General Plan goals and policies that relate to parks and recreation serves are as follows:

- Preservation and conservation of open space (and) parks . . . should be encouraged as it is crucial to preserve the continued availability of unique habitats for wildlife and plants, to protect unique scenery and provide a wide range of recreational opportunities for County residents. (Land Use Element, Policy 3-12, page 3-41)

- Multiple recreation use, including trails, observation points, and picnicking spots, where appropriate, shall be encouraged along scenic routes. (Circulation Element, Policy 5-38, page 5-32)

- Recreational development shall be allowed only in a manner which complements the natural features of the area, including the topography, waterways, vegetation, and soil characteristics. (Open Space Element, Policy 9-39, page 9-36)

City of Pittsburg Policies Related to Parks and Recreation

The City currently maintains a neighborhood and community park standard of 5 acres per 1,000 residents, the maximum permitted under Quimby Act, which also forms the basis of the City’s dedication and park fee requirements. In addition, the current (1988) Pittsburg General Plan includes park size and service area standards.

The standards established in the current General Plan call for park facilities within one-quarter to three miles of all homes, depending on the type of park. Not including Stoneman or the larger regional parks, the average park size in Pittsburg is currently about 5.5 acres. Most residents are within one-half mile of a park, with the exception of a few neighborhoods west of Railroad Avenue. Pittsburg is also served by two regional parks that draw hikers, boaters, and other recreation-seekers from the East Bay.

While these standards provide a useful guide for determining needs, the City does not use these as absolutes in identifying sites for future parks. Factors such as the overall character of the open space network and the quality of open space are important considerations as well.
Contra Costa County General Plan Growth Management Element

In 1988, County voters approved the Contra Costa Transportation Improvement and Growth Management Program (Measure C). The County Growth Management Element of the General Plan establishes policies and standards for traffic levels of service and performance standards for fire, police, parks, sanitary facilities, and water and flood control. Compliance with the Growth Management Element is to ensure that public facilities are provided consistent with adopted standards. The element is part of the County’s long-range program to match the demand for public facilities to serve new development with plans, capital improvement programs, and development impact mitigation programs. The intent of the element is to ensure that growth takes place in a manner that will ensure protection of the health, safety, and welfare of both existing and future residents of the County.

The Growth Management Element works closely in conjunction with the Land Use Element so that development proceeds in a manner that will not negatively affect facility and traffic service standards for existing land uses. The ULL and the 65/35 Land Preservation Standard also work together with the Growth Management Element to ensure that growth occurs in a responsible manner and strikes appropriate balances between many competing values and interests. To carry out the goals and objectives of the Land Use and Circulation Elements of the County General Plan, new development must demonstrate that the level of service standards of the Growth Management Element will be met.

City of Pittsburg Compliance with Measure C

Although a Growth Management Element is not required under State law, it is needed in order for Pittsburg to receive Measure C funding. In compliance with Measure C requirements and in accordance with the guidelines issued by the Contra Costa Transportation Authority in 1990, Pittsburg prepared and adopted a Growth Management Element in 1992.

Conditions for a 21st Century Community

Contra Costa County’s Conditions for a 21st Century Community is a set of growth management concepts and policies adopted by the Board of Supervisors. It contains the following principles and policies that relate to parks and recreation services:

- Provide adequate parks, recreation facilities, and open space (Principle 3)

- Provide parks at the jurisdiction’s adopted growth management standards at no less than 3.0 acres per 1,000 population (Parks subsection Policy 1) This standard is advisory only; the County General Plan standard takes precedence.

- Provide substantial interrupted open space elements and trail linkages as part of an integrated system. (Open Space and Trails subsection, Policy 1)
• Provide staging areas for regional trail system and utilize key locations for trail access, parking, maintenance, and interpretive signage. Design staging areas to serve jointly as park and ride facilities (Open Space and Trails subsection, Policy 2)

• Provide grade separated trail crossing at major roads (Open Space and Trails subsection Policy 4)

7.2 STANDARDS OF SIGNIFICANCE

The Specific Plan is considered to have a significant impact on parks and recreation if it would:

• Conflict with applicable environmental plans adopted by the agencies (City, County, EBRPD, or EBMUD) with jurisdiction over parks and recreation, or policies in the Pittsburg/Bay Point community.

• Increase the demand for neighborhood or regional parks or other recreational facilities. The Specific Plan would be considered to create a significant additional local park demand if it would fail to meet the Contra Costa County General Plan park standard of four acres per 1,000 population (i.e., 2.5 acres of neighborhood park and 1.5 acres of community park), or the requirement that neighborhood parks be located “in the center of the neighborhood” and serve a one-half-mile radius.\(^5\)

• If portions of the plan area were to be annexed to the City of Pittsburg in the future, the Specific Plan would be considered to create a significant additional local park demand if it would fail to meet the City of Pittsburg’s adopted park standard of five acres per 1,000 population, the maximum permitted under the Quimby Act.\(^6\) The park standard for park facilities to be located within one-quarter to three miles of all homes, depending on the type of park.

• Adversely affect existing recreational facilities or opportunities.

7.3 IMPACTS AND MITIGATION MEASURES

Impact on Local Park Demand

IMPACT 7-1. The Specific Plan’s development assumptions may result in up to approximately 4,500 new residents with a demand for additional recreation and park facilities of about 15 acres. This impact is considered potentially significant.
The Specific Plan would result in approximately 4,500 new residents (see Chapter 9: Population, Employment and Housing of this Master EIR). About 3,600 people would live in Zone I, which includes the BART station and adjacent properties, within the City of Pittsburg, from development of approximately 1,790 multi-family dwelling units. About 900 people would be expected to live in housing developed in the Bay Point unincorporated community of Contra Costa County.

Using the park demand factors for each jurisdiction results in the estimate of park space generated by the Specific Plan population:

- Pittsburg: \(3,680 \text{ residents} \times 5 \text{ acres of park per 1,000 residents} = 18.0 \text{ acres}\)
- Bay Point: \(900 \text{ residents} \times 4 \text{ acres of park per 1,000 residents} = 3.6 \text{ acres}\)

Total = 21.6 acres

The existing Ambrose Park is approximately 15 acres in size.\(^7\) The Specific Plan proposes to add approximately 6.5 acres of park space to the existing Ambrose Park. In the Master Plan, existing Ambrose Park would be expanded west toward Bailey Road, and would include open space surrounding a proposed day care center.\(^8\)

Additional open space would be created in the form of the proposed linear park on the north side of West Leland Road, and in various locations in the BART station mixed use transit village; however, the precise amount of new open space from these elements and the extent of any new recreation and park facilities have yet to be defined. The Specific Plan also proposes some improvements to the Delta De Anza Trail, but no net additions to its length are proposed.

The estimated park space demand indicates a potential shortfall of about 15 acres could result at buildout in the year 2010, if park space is not developed concurrently with implementation of Specific Plan development. If unmitigated, this impact would be considered significant.

**MITIGATION MEASURE 7-1.** The City and County would coordinate on the expansion of future park space required by their respective park acreage standards. Fees would be levied as new development proposed in the Specific Plan is implemented. The City and County would ensure compliance with adopted park standards contained in each jurisdiction’s Growth Management Element. Implementation of this mitigation measure would reduce this impact to less than significant.

**NOTES: Parks and Recreation**

2 Ibid.
3 Contra Costa County General Plan, page 9-25.
4 Ibid.
6 City of Pittsburg General Plan, Guiding Policy C, page 32.
7 Patti Lambert, op. cit.
8 Pittsburg/Bay Point BART Station Area Specific Plan, page 4.23.
COMMUNITY SERVICES AND UTILITIES

This chapter presents an analysis of potential impacts of year 2010 buildout of the Specific Plan on community services and utilities.

8.1 SETTING

Water

The Contra Costa Water District (CCWD) serves approximately 400,000 people throughout north-central and east Contra Costa County. Its clients also include 10 major industries, 36 smaller industries and businesses, and 50 agricultural users. CCWD operates raw water distribution facilities, water treatment plants, and treated water distribution facilities. CCWD supplies raw and treated water to Antioch, Concord, Diablo Water District (serving Oakley), Pittsburg, Southern California Water Company (serving Bay Point), Martinez, and parts of Pleasant Hill and Walnut Creek.

The treated water service area for CCWD encompasses all or part of the cities of Concord, Clayton, Clyde, Pleasant Hill, Walnut Creek, Martinez, and Port Costa. Treated water for this service area is provided from the District’s Bollman Water Treatment Plant in Concord. The Bollman facility is a 75 million gallons per day (mgd) conventional plant which is currently being upgraded to include intermediate ozonation. CCWD also supplies treated water to the Diablo Water District (DWD), which serves customers in Oakley from a plant jointly owned by CCWD and DWD. The Randall-Bold Water Treatment Plant is a 40 mgd direct/deep-bed filtration plant which utilizes both pre- and post-ozonation to provide a high-quality drinking water to the customers in its service area.

CCWD is entirely dependent on the Delta for its water supply. The Contra Costa Canal and CCWD’s recently completed Los Vaqueros Project make up CCWD’s principal water supply and delivery system. CCWD diverts unregulated flows and regulated flows from storage releases from Shasta, Folsom, and Clair Engle reservoirs into the Sacramento River as a contractor of the U.S. Bureau of Reclamation’s Central Valley Project (CVP). Under Water Service Contract 175r-3401 (amended) with the Bureau, CCWD can divert and redivert up to 195,000 acre-feet annually (AFA) of water from Rock Slough and the new Old River intake. Currently, CCWD uses between 125,000 and 140,000 AFA. CCWD can also divert up to 26,780 AFA of water from Mallard Slough under its own water rights (Water Rights License No. 3167 and Permit No. 19856). The City of Antioch and Gaylor Container, both customers of the district, also have water rights permits to divert water from the Delta.
The actual amount of water supplied is subject to regulatory or temporary restrictions that may be imposed during drought conditions or other conditions. CCWD can divert up to 26,780 AFA of water from Mallard Slough when water quality is acceptable (i.e., generally under 100 mg/l chloride); however, when this supply is used it must be deducted from the CVP supply. CCWD has a current agreement with the East Contra Costa Irrigation District (ECCID) for the use of up to 21,000 AFA (i.e., full entitlement available by 2010) only within the ECCID service area portion that overlaps with CCWD boundaries. However, up to 7,000 AFA of this ECCID supply has been sold to the City of Brentwood, and a new contract with ECCID will reduce that total supply to approximately 8,000 AFA. These sources bring CCWD’s total water supply to approximately 203,000 AFA.

CCWD provides raw water to the City of Pittsburg, and sells wholesale raw and treated water to the California Cities Water Company (CCWC). The Contra Costa Canal traverses the middle of the Specific Plan area from east to west, and generally parallel to State Route 4. The canal conveys raw water from the San Joaquin Delta to CCWD’s Bollman Treatment Plant for treatment and distribution in central Contra Costa County, Bay Point, and to CCWD’s raw water customers.

The City of Pittsburg provides water to properties within the city limit, and operates its own water treatment plant and associated facilities. CCWC provides treated water service to Bay Point. Each entity must treat the raw water prior to distributing it within the Specific Plan area.

The Pittsburg water treatment plant operates at 16 to 18 mgd for City accounts, but has a maximum capacity of 32 mgd. Treated water is distributed throughout the City through a 122-mile pipeline system with associated pump stations, and five reservoirs with a combined capacity of 14.1 million gallons. The City supplements its CCWD water supply with two wells located at City Park and at Dover Road and Frontage Road. Each well yields approximately 2,240 AFA.

Water Supply and Demand
In 1996, CCWD completed a Future Water Supply Study to determine its existing and future ability to provide water to its customers. A range of alternatives was explored to meet future water demand. The East County Water Management Association completed a similar study which contains conflicting projections of growth for the region, demand estimates, and possible water shortages. Passage of the CVP Improvement Act of 1992 set new operating parameters for the CVP that may reduce the amount of water available to CCWD by as much as 15 percent. Increasing water demand and environmental regulations may also reduce water deliveries to the Delta in order to preserve habitat for federally-listed endangered species (e.g., the Delta smelt, Chinook salmon, and other species). These factors create the need for CCWD to develop alternative ways to meet future demand.
CCWD’s *Future Water Supply Study* concluded that water demand would likely be met through a combination of CCWD’s existing water supply, conservation programs, and additional supplies as such opportunities arise. CCWD identified a preferred alternative that calls for an expansion of CCWD’s current conservation efforts to encompass wholesale as well as retail customers. It would achieve an overall reduction of five percent by the year 2040. CCWD identified this alternative as the preferred option due to its higher level of reliability and implementability, and because it allows for exploring future opportunities to increase conservation and water reclamation projects.\(^5\)

**Historic and Projected Water Use in Pittsburg**

Population growth is the primary factor affecting water demand in the Specific Plan area. Annual water demand is determined by using an average figure representing the amount of water used per person (i.e., per capita) per day, multiplied by the population figure that corresponds to a given year. In 1995, per capita water use in the City of Pittsburg averaged 173 gallons per day, totaling 3,197 million gallons for the year. Table 8-1 shows historic and projected water demand between 1985–2010.

Historically, water use in Pittsburg varies depending on the rate of population increase and other factors such as drought conditions. Between 1985 and 1990, water demand increased by 29 percent, while population increased by only 17 percent. Between 1990 and 1995, population increased by about 9 percent, yet water demand rose by only 2 percent.\(^6\) The decrease in water demand was attributed to voluntary compliance with conservation measures adopted in 1991 as part of a continuing drought period. Per capita water demand is projected to increase to pre-drought levels between 1995 and 2000 to about 200 gallons per capita per day, and remain at this level through 2010. Population in the Pittsburg Sphere of Influence (SOI) in 2010 is projected to be approximately 84,500, including the Specific Plan area population. This population represents an average demand of 16.9 mgd, or estimated maximum demand per day of 33.80 mgd, and a demand per year of about 6,169 mg.

**Contra Costa County General Plan Policies Related to Water**

These policies would apply to development proposed in the Specific Plan area:

7-19. Urban development shall be encouraged within the existing water Spheres of Influence adopted by the Local Agency Formation Commission, expansion into new areas within the Urban Limit Line beyond the spheres should be restricted to those areas where urban development can meet all growth management standards included in this General Plan.
### Table 8-1

Pittsburg Historic and Projected Water Demand, 1985–2010

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Amount Used/Day (GPCD)</th>
<th>Estimated Maximum Demand/Day (mgd)</th>
<th>Demand/Year (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985</td>
<td>39,886</td>
<td>166</td>
<td>13.22</td>
<td>2,414</td>
</tr>
<tr>
<td>1990</td>
<td>46,505</td>
<td>184</td>
<td>17.10</td>
<td>3,120</td>
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<tr>
<td>1995</td>
<td>50,720</td>
<td>173</td>
<td>17.49</td>
<td>3,197</td>
</tr>
<tr>
<td>2000</td>
<td>54,910</td>
<td>200</td>
<td>21.96</td>
<td>4,008</td>
</tr>
<tr>
<td>2005</td>
<td>59,445</td>
<td>200</td>
<td>23.78</td>
<td>4,340</td>
</tr>
<tr>
<td>2010</td>
<td>64,356</td>
<td>200</td>
<td>25.74</td>
<td>4,698</td>
</tr>
</tbody>
</table>

*a* gallons per capita per day  
*b* million gallons per day  
*c* million gallons

**Sources:** Pittsburg General Plan Update Existing Conditions and Planning Issues Report, June 1998; and Pittsburg Public Services Department.

7-20. Development of rural residences or other uses that will be served by well water or an underground water supply will be discouraged if a high nitrate concentration is found following Health Services Department testing (see General Plan Figure 7-2).

7-21. At the project approval stage, the County shall require new development to demonstrate that adequate water quantity can be provided. The County shall determine whether (1) capacity exists within the water system if a development project is built within a set period of time, or (2) capacity will be provided by a funded program or other mechanism. This funding will be based on information furnished or made available to the County from consultations with the appropriate water agency, the applicant, or other sources.

7-22. Water service agencies shall be encouraged to meet all regulatory standards for water quality prior to approval of any new connections to that agency.

7-23. The County shall cooperate with other regulatory agencies to control point and non-point water pollution sources to protect adopted beneficial uses of water.
7-24. Opportunities shall be identified and developed in cooperation with water service agencies for use of non-potable water, including ground water, reclaimed water, and untreated surface water, for other than domestic use.

7-25. Land uses and activities that could result in contamination of groundwater supplies shall be identified, monitored, and regulated to minimize the risk of such contamination.

7-26. The need for water system improvements shall be reduced by encouraging new development to incorporate water conservation measures to decrease peak water use.

7-27. The reclamation of water shall be encouraged as a supplement to existing water supplies.

General Plan policies regarding growth management include the following pertaining to water supply:

*The County, pursuant to its police power and as the proper governmental entity responsible for directly regulating land use density or intensity, property development and the subdivision of property within the unincorporated areas of the county, shall require new development to demonstrate that adequate water quantity and quality can be provided. At the project approval stage, the County may consult with the appropriate water agency. The County, based on information furnished or available to it from consultations with the appropriate water agency, the applicant or other sources, should determined whether (1) capacity exists within the water system if a development project is built within a set period of time, or (2) capacity will be provided by a funded program or other mechanism. Project approvals conditioned on (1) or (2) above, will lapse according to their terms if not satisfied by verification that capacity exists to serve the specific project (“will serve letters”), actual hook-ups or comparable evidence of adequate water quantity and quality availability.*

**City of Pittsburg General Plan Policies Related to Water**

Pittsburg’s current General Plan addresses water supply and infrastructure issues through a number of policies. It calls for the development of a long-range strategic capital improvement plan, as well as adequate raw water storage facilities for use during emergencies. The General Plan also stresses conservation measures such as minimizing water use in yards and other landscaped areas.

Water demand reduction is addressed in the Zoning Ordinance through the requirement that landscaping plans include energy-efficient and drought-tolerant plant material.
Wastewater
Sanitary sewer service in the Specific Plan area is provided by the Delta Diablo Sanitation District (DDSD) and the City of Pittsburg. DDSD owns and operates the system that collects, conveys, and treats wastewater for the Bay Point area, and treats wastewater for the City of Pittsburg. The City maintains and owns its local sewage collection system, and is responsible for the collection and conveyance of wastewater to the DDSD’s treatment plant. Facilities in the Specific Plan area have recently been studied by both the DDSD and the City. These include DDSD’s September 1996 Conveyance System Master Plan and March 1997 Treatment Plant Master Plan; and the 1990 Pittsburg Collection System Master Plan.

The DDSD treatment plant, located north of the Pittsburg-Antioch Highway east of the city limit, has a treatment capacity of 16.5 million gallons of sewage per day. Currently, the plant treats an average flow of approximately 11.5 mgd. The DDSD Treatment Plant Master Plan includes a phased expansion of the treatment plant capacity to 24 mgd of average dry weather flow. This expansion would accommodate anticipated general plan buildout for the cities of Pittsburg and Antioch.

By the year 2005, wastewater flow through the City’s collection system to the DDSD treatment plant is projected to be approximately 28.4 mgd. This projection includes sewage flow, groundwater infiltration, and rainfall infiltration/inflow. This projection exceeds the 1990 design flow of approximately 20.3 mgd. It was estimated that 10 percent of the total collection system will not have sufficient capacity to convey projected flows.

To address project deficiencies in their system, the DDSD Collection System Master Plan includes a capital improvement program to accommodate future growth. During the preparation of the Specific Plan, DDSD was consulted concerning the plan’s proposed land uses and development assumptions. No wastewater treatment plant capacity constraints were identified; however, as development proposals are formulated, it was indicated that engineering studies would be required as projects are further defined to evaluate the need for collection system improvements.

Contra Costa County General Plan Policies Related to Wastewater

7-31. Urban development shall be encouraged within the sewer Spheres of Influence adopted by the Local Agency Formation Commission. Expansion into new areas within the Urban Limit Line but beyond the Spheres of Influence should be restricted to those areas where urban development can meet growth management standards included in this General Plan.

7-33. At the project approval stage, the County shall require new development to demonstrate that adequate wastewater treatment can be provided. The County shall determine whether (1) capacity exists within the wastewater treatment
system if a development project is built within a set period of time, or (2) capacity will be provided by a funded program or other mechanism. This funding will be based on information furnished or made available to the County from consultations with the appropriate sewer agency, the applicant, or other sources.

7-35. Opportunities for using reclaimed wastewater shall be identified and developed in cooperation with sewer service and water service agencies.

7-36. Beneficial uses of treated wastewater including marsh enhancement and agricultural irrigation shall be encouraged. Such wastewater reclamation concepts shall be incorporated into resource management programs and land use planning.

7-37. The need for sewer system improvements shall be reduced by requiring new development to incorporate water conservation measures which reduce flows into the sanitary sewer system.

The General Plan policies regarding growth management include the following regarding sanitary sewer:

_The County, pursuant to its police power and as the proper governmental entity responsible for directly regulating land use density or intensity, property development and the subdivision of property within the unincorporated areas of the county, shall require new development to demonstrate that adequate sanitary sewer quantity and quality can be provided. At the project approval stage, the County may consult with the appropriate sewer agency. The County, based on information furnished or available to it from consultations with the appropriate sewer agency, the applicant or other sources, should determined whether (1) capacity exists within the sewer system if a development project is built within a set period of time, or (2) capacity will be provided by a funded program or other mechanism. Project approvals conditioned on (1) or (2) above, will lapse according to their terms if not satisfied by verification that capacity exists to serve the specific project (“will serve letters”), actual hook-ups or comparable evidence of adequate sewage collection and wastewater treatment capacity availability._

**City of Pittsburg General Plan Polices Related to Wastewater**

General City policies related to wastewater include:

- Assess the adequacy of utilities in existing developed areas, and program any needed improvements to coordinate with providing facilities to serve developing portions of the plan area (Guiding Policy A).
• Develop a plan and standards for the provision of public services, including fire and police services (Guiding Policy B).

• Continue to update the five-year Capital Improvement Plan to provide the facilities determined to be needed in relation to the City’s financial resources and develop a long-range strategic capital development plan consistent with the General Plan (Implementing Policy D).

• Designate service corridor easements or routes when tentative maps or specific plans are approved (Implementing Policy I).

Schools
The plan area is served by two school districts—Mount Diablo Unified School District (MDUSD) and Pittsburg Unified School District (PUSD). MDUSD is the primary district with its easterly boundary located east of Bailey Road. PUSD serves the remainder of the Specific Plan area. MDUSD maintains two elementary schools within the area: Rio Vista and Bel Air. The Bel Air Elementary School is located adjacent to the mobile home park, at 663 Canal Road, and Rio Vista Elementary School is located at 611 Pacifica Avenue (outside the plan area boundary). Both schools are operating beyond capacity to the point that kindergarten children normally attending Bel Air Elementary School will be housed in portable classrooms at Riverview Intermediate School.

A new elementary school is to be constructed in the San Marcos development. Upon completion, it is likely school boundaries will be redrawn and many of the students currently attending Bel Air will be relocated to the new school. Kindergarten classrooms will be relocated to Bel Air. No other problems were identified by District representatives at this time. Bel Air will continue to operate as an elementary school.

High school students living in the Specific Plan area would attend Mount Diablo High School in Concord. Mount Diablo High School is currently operating under capacity. Students living in the Specific Plan area can use BART to the Concord BART Station, and transfer to a bus at the County Connection to reach the high school.

Contra Costa County General Plan Policies Related to Schools
The following General Plan policies pertain to schools:

7-141. During the development review process, the state classroom size standards set by each district for primary and secondary schools shall be used as the basis for determining the adequacy of area schools.
7-142. When considering general plan amendment requests which increase density, the capacity of area schools and the district shall be given close attention.

7-143. The hearing body in reviewing residential projects shall consider the availability of educational facility capacity.

7-144. The development of quality schools shall be supported by coordinating development review with local school districts including such activities as designating school sites, obtaining dedication of school sites, and supporting local fees, special taxes, and bond issues intended for school construction.

7-145. Adequate provision of schools and other public facilities and services shall be assured by coordinating review of new development with the cities and other service providers through the Growth Management Program (see [General Plan] Chapter IV), the environmental review process, and other means.

7-146. School site donation by developers shall be encouraged through the use of density transfer or other appropriate land use alternatives.

7-147. The development of school facilities shall be provided in conjunction with and adjacent to local parks and trailways

City of Pittsburg General Plan Policies Related to Schools
While the City cannot require school districts to comply with General Plan policies, cooperation is necessary to ensure proper timing between residential and school development. The current General Plan contains guiding and implementing policies that encourage collaboration with each of the school districts, including:

• preparing a joint City/School District Master Plan;
• reserving school sites in the General Plan area to accommodate current and projected enrollment;
• ensuring that sufficient classrooms are available before approving residential development projects; and
• evaluating school sites for future schools or potential sale for alternate use.

Solid Waste
Solid waste pickup and disposal for the City of Pittsburg and a small portion of Bay Point is provided by the Pittsburg Disposal Services. Browning Ferris Industries provides disposal services for areas of Bay Point that are not served by Pittsburg Disposal Services. Residential and commercial solid waste is disposed at Potrero Hills Landfill, located east of Suisun City. Non-recyclable industrial waste is transported to Keller Canyon Landfill, located southeast of
the Pittsburg city limits and south of the Specific Plan area. These landfills replace the now-
closed Contra Costa Sanitary Landfill.

Potrero Hills Landfill, a regional waste Class III landfill disposal facility, began operating in
1986. It has a projected lifespan of 17 to 20 years. The Potrero Hills Landfill Company owns
adjacent acreage that could be used for facility expansion if necessary. In 1996, 53 percent
(194,157 tons) of waste disposed at Potrero Hills Landfill originated from the Contra Costa
Recycling Center and Transfer Station located in Pittsburg. Approximately 62,010 tons (32
percent) of this amount originated from Pittsburg.

Keller Canyon Landfill opened on May 7, 1992, as a Class II facility with a minimum 40-year
lifespan. The facility accepts municipal solid waste, non-liquid industrial waste, contaminated
soil, ash, grit, and sludges that are at least 50 percent solids. Active landfill operations occur on
244 acres of the 2,600 acre Keller Canyon property. Its service area includes eastern and
central Contra Costa County. The landfill is permitted to receive up to 2,750 tons per day and
is open six days per week from 7:00 a.m. to 7:00 p.m. Pittsburg disposes approximately 3,000
tons of industrial solid waste annually at this site.

**Pittsburg Curbside Recycling**

A voluntary curbside recycling program is in place in Pittsburg, operated by Pittsburg Disposal
Services. Materials accepted for recycling include plastic, glass, aluminum, tin, and newspaper.
Recyclables are collected once a week with regular waste, then processed at a facility owned
by Pittsburg Disposal Services. In 1990, the curbside recycling program diverted 10.5 percent
(2,350 tons) of residential waste and 5 percent of waste generated by all uses. The City’s 1992
Source Reduction and Recycling Element includes both short- and medium-term objectives. In
the short term, the City seeks to divert 10.4 percent of total waste through recycling. Existing
programs are to be continued, and new programs are to be established. Medium-term
objectives seek to divert 26.6 percent of the total waste stream, and to expand current recycling
programs.

**Countywide Integrated Waste Management Plan and
Source Reduction and Recycling Element**

Contra Costa County has adopted a Countywide Integrated Waste Management Plan
(CoIWMP), and a Source Reduction and Recycling Element (SRRE) as required by the
California Integrated Waste Management Act. The CoIWMP establishes the County’s waste
management goals, objectives, and policies related to solid waste facility siting, and household
hazardous waste collection and disposal, and establishes programs designed for plan
implementation. The SRRE establishes policies and goals for source reduction, recycling,
composting, special waste, public information and education, and programs to help the County
achieve these goals.
County General Plan Policies Related to Solid Waste
The Public Facilities/Services Element of the **Contra Costa County General Plan 1990-2005** contains the following policy:

- Solid waste disposal capacity shall be considered in County and city land use planning and permitting activities, along with other utility requirements, such as water and sewer service. (Policy 7-88)

As required by the California Integrated Waste Management Act, Contra Costa County adopted a *Countywide Integrated Waste Management Plan* (CoIWMP) and *Source Reduction and Recycling Element* (SRRE). The CoIWMP establishes:

- waste management goals, objectives, and policies related to solid waste disposal;
- facilities siting;
- household hazardous waste collection and disposal; and
- implementing programs to achieve plan goals.

The SRRE establishes policies and goals related to source reduction, recycling, composting, special waste, and public information and education, and programs designed to achieve SRRE goals.

City of Pittsburg General Plan Policies Related to Solid Waste
The City of Pittsburg has ongoing programs to implement various policies established in the CoIWMP. The City adopted a SRRE in 1992 that includes short- and medium-term recycling objectives. The City operates a voluntary curbside recycling program operated by Pittsburg Disposal, and in July 1996 began operation of the East County Community Collection Center within the Delta Diablo Sanitation District.

Fire Protection Service
The Contra Costa County Fire Protection District provides fire protection and suppression services for the City of Pittsburg and surrounding Bay Point community. In addition, the District also provides primary fire protection service to the majority of the County, including Antioch, Oakley, Concord, Clyde, Pacheco, Martinez, Walnut Creek, Lafayette, areas of West County, and some unincorporated areas. It also provides fire prevention services to Orinda, Moraga, Brentwood, and Bethel Island. The District operates out of thirty fire stations located throughout its jurisdictional area.

The District maintains mutual aid agreements with the East Diablo Fire Protection District, East Bay Regional Park District, California Department of Forestry, and private industrial companies located within its jurisdiction. These agreements provide the District with emergency response assistance on an as-needed basis.
Facilities
Battalion 8 of the District provides fire protection services for Pittsburg, Antioch, Oakley, and surrounding unincorporated areas such as Bay Point. There are a total of nine stations in the battalion, including two reserve stations located in Oakley. Three fire stations—stations 84, 85, and 86—currently serve Pittsburg and Bay Point. The station located within the Specific Plan area is Fire Station 86, Bay Point, located at 3000 Willow Pass Road.

Response Standard and ISO Rating
The response time goal for the District is to provide service within five minutes of notification. Generally, service can be provided in this time frame to areas located within 1.5 miles of a fire station. The National Insurance Service Office (ISO) has developed a rating system to identify the level of service and risk of substantial fire loss for fire protection districts. The ratings are insurance classifications that range from one to ten, one being best and ten being worst. They are based on a number of factors, including personnel, facilities, response times, fire flow capacities, and the general character of development in the area. The District currently has a Class Three ISO rating.

Contra Costa County General Plan Policies Related to Fire Protection
The following Fire Protection Policies apply to development proposed in the Specific Plan area:

7-62. The County shall strive to reach a maximum running time of 3 minutes and/or 1.5 miles from the first-due station, and a minimum of 3 firefighters to be maintained in all central business district (CBD), urban and suburban areas.

7-63. The County shall strive to achieve a total response time (dispatch plus running and set-up time) of five minutes in CBD, urban and suburban areas for 90 percent of all emergency responses.

7-64. New development shall pay its fair share of costs for new fire protection facilities and services.

7-66. Sprinkler systems may be required in new residential structures, where necessary to protect health, safety and welfare.

The policies for growth management included in the County General Plan indicate the following for fire protection:

*Fire stations shall be located within one and one-half miles of developments in urban, suburban and central business district areas. Automatic fire sprinkler systems may be used to satisfy this standard.*
City of Pittsburg Policies Related to Fire Protection

The Growth Management Element of the Pittsburg General Plan addresses fire protection through service standards including:

- Provide service within a 5 minute response time for 90 percent of calls, to locations within 1.5 miles of a fire station.

Police Services

The Contra Costa County Sheriff's Department provides police services to the unincorporated area of Bay Point, and the City of Pittsburg Police Department provides police services to the City of Pittsburg. BART provides police services to the Pittsburg/Bay Point BART Station. Law enforcement officers from the County Sheriff are stationed at the main headquarters in Martinez. The Pittsburg police operate from one central station located at 55 Civic Avenue in Pittsburg.

County Sheriff’s Department

The County Sheriff’s Department has a total force of 146 sworn officers, which includes 116 patrol officers, 26 sergeants, and four lieutenants, as of August 1998. The Bay Point community represents one “beat” for the County Sheriff, and currently there are three patrolmen assigned to the beat. The average crime rate in the Specific Plan area is generally higher compared to other parts of the County. The current average countywide response time for priority 1 calls is eight minutes. The average overall response time for priority 1, 2, and 3 calls in the Specific Plan area is about 11 minutes.

The City of Pittsburg Police Department provides police service to the City area adjacent to the BART station, and the city as a whole. As of January 1999, the Police Department employed 73 officers and 12 civilians. The City is divided into eight police beats. Each beat is staffed with four officers who work 10-hour shifts. The closest beat to the BART station is Beat 4.

The Police Department assesses the potential impacts of new development on police protection services by taking into account the coverage areas and staffing needs for each beat. The type of crime and estimated amount anticipated in a particular beat are factor considered.

BART Police

BART police is responsible for security and law enforcement on all BART-owned properties. BART would not be responsible for policing development on property it leases or sells to a developer. Current BART police staffing at the Pittsburg/Bay Point Station involves the full-time deployment of a non-sworn officer Monday through Friday, 9:30 a.m. to 5:30 p.m., and rotating beat coverage of a sworn officer who patrols the Pittsburg/Bay Point station, Concord station, and north Concord area. The non-sworn officer’s duties include parking enforcement at the BART parking lot and general observation of security conditions at the station area. The non-sworn officer is essentially a community service assistant who provides a full-time security
presence, and routinely coordinates with the beat sworn officer as needed. The non-sworn officer defers to the sworn officer in law enforcement situations. The Pittsburg/Bay Point station has the highest incidence of auto theft, and third highest in auto burglary. The combination of these statistics places the Pittsburg/Bay Point Station in the #2 position among all stations in the BART system.\textsuperscript{16}

**Contra Costa County General Plan Policies**

The following Public Protection Policies apply to development proposed in the Specific Plan area:

7-57. A sheriff facility standard of 155 square feet of station area per 1,000 population shall be maintained within the unincorporated area of the County.

7-59. A maximum response time goal for priority 1 or 2 calls of five minutes for 90 percent of all emergency responses in central business district, urban and suburban areas, shall be strived for by the sheriff when making staffing and beat configuration decisions.

General Plan policies for growth inducement include the following regarding police protection:

\textit{A Sheriff facility standard of 155 square feet of station area per 1,000 population shall be maintained within the unincorporated area of the County.}

**City of Pittsburg General Plan Policies Related to Police Protection**

The Growth Management Element of the Pittsburg General Plan addresses police protection through service standards including:

- Level I—Emergency: 3 to 5 minutes for 100 percent of calls
- Level II—Priority, Non-emergency: 5 to 8 minutes for 100 percent of calls
- Level III—Non-emergency: 10 to 12 minutes

### 8.2 STANDARDS OF SIGNIFICANCE

According to the CEQA Guidelines, Appendices G and I, the Specific Plan would be considered to have a significant impact on community services and utilities if it:

- conflicts with applicable environmental plans adopted by agencies with jurisdiction over the plan project or policies of the community; or
- results in a need for new systems, or substantial alterations to services or utilities, including water, sewer, fire protection, police, schools, parks and recreational facilities, or other governmental services.
In addition, the facility and service standards adopted by the County and the City of Pittsburg in their respective Growth Management Elements of their general plans are also used to assess potential impacts.

8.3 IMPACTS AND MITIGATION MEASURES

The following discussion of impacts and mitigation measures is based on the standards of significance in Section 8.2, recent environmental documents and planning documents in and around the project area, and interviews with individuals knowledgeable about the Specific Plan area.

Water Service

IMPACT 8-1. The proposed development in the Specific Plan will result in demand of 680 AFA for water service. This impact is considered less than significant.

The proposed uses in the Specific Plan were evaluated for their potential water demand. Water use factors were obtained from the CCWD’s 1996 *Future Water Supply Study*. These factors take into account future water conservation measures.

It is projected that the Specific Plan would result in a total water demand of approximately 680 AFA. Table 8-2 provides a description of the water demand estimates by plan zone and land use. This volume is approximately equivalent to 222 mg per year, or about 0.61 mgd.

Prior to development of the Specific Plan, a broad estimate of expected growth (without the Specific Plan) was assumed under both the County and City of Pittsburg general plans. This assumption involves about 263,000 gsf of commercial uses and about 5,600 total dwelling units. The water demand from this assumption is approximately:

- Commercial Uses: \( \frac{263,000 \text{ sq.ft.} \times 0.2946 \text{ g/sq.ft./d} \times 365}{325,900} = 87 \text{ AFA} \)

- Residential (High Density): \( \frac{5,600 \text{ du} \times 240 \text{ gpd/du} \times 365}{325,900} = 1,505 \text{ AFA} \)

Total = 1,592 AFA or 1.34 mgd

The Specific Plan water demand of 0.61 mgd represents about 46 percent of the estimated demand of expected growth without the Specific Plan.
TABLE 8-2
Estimated Water Demand

<table>
<thead>
<tr>
<th>Zone</th>
<th>Land Use</th>
<th>Area</th>
<th>Demand Factor a</th>
<th>Demand in AFA b</th>
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<tbody>
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<td>I</td>
<td>Office</td>
<td>75,000 s.f.</td>
<td>.0725 g/sqft/d</td>
<td>6.09</td>
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<tr>
<td></td>
<td>Commercial</td>
<td>50,000 s.f.</td>
<td>.2946 g/sqft/d</td>
<td>16.51</td>
</tr>
<tr>
<td></td>
<td>Residential 1,790 units @ 65 units/acre</td>
<td>27.5 ac</td>
<td>240 gpd/du</td>
<td>481.25</td>
</tr>
<tr>
<td>II</td>
<td>Commercial</td>
<td>20,000 s.f.</td>
<td>.2946 g/sqft/d</td>
<td>6.60</td>
</tr>
<tr>
<td></td>
<td>Residential</td>
<td>200 units @ 40 units/acre</td>
<td>5.0 ac</td>
<td>240 gpd/sqft/du</td>
</tr>
<tr>
<td></td>
<td></td>
<td>70 units @ 12 units/acre</td>
<td>5.8 ac</td>
<td>4.0 af/ac/yr</td>
</tr>
<tr>
<td>III</td>
<td>Commercial</td>
<td>155,000 s.f.</td>
<td>.2946 g/sqft/d</td>
<td>51.15</td>
</tr>
<tr>
<td></td>
<td>Residential</td>
<td>100 units @ 15 units/acre</td>
<td>6.7 ac</td>
<td>4.0 af/ac/yr</td>
</tr>
<tr>
<td></td>
<td></td>
<td>35 units @ 10 units/acre</td>
<td>3.5 ac</td>
<td>3.0 af/ac/yr</td>
</tr>
<tr>
<td>IV</td>
<td>Commercial</td>
<td>14,000 s.f.</td>
<td>.2946 g/sqft/d</td>
<td>4.62</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>680.49</td>
</tr>
</tbody>
</table>

a Demand factors obtained from (1) CCWD Future Water Supply Study, 1996, Table 7 (for af/ac/yr); (2) "Water Quality," 1985 by George Tchobanouglous and Edward D. Schroeder, pages 8 and 9 (for g/sqft/d); and (3) CCWD May 13, 1992 Water Duty Study (for gpd/du); CCWD recommends demand factor of 240 gpd/du for high density residential uses of three or more stories.

b AFA is acre-feet annually; 1 acre-foot is equal to approximately 325,900 gallons; g/sqft/d is gallons per square foot per day; and gpd/du is gallons per day per dwelling unit.

Source: Balloffet & Associates, Inc.

As noted in the Setting section, average water demand for the Pittsburg SOI by 2010 is projected to be 16.9 mgd. The 0.61 mgd estimated water demand associated with Specific Plan development represents 3.5 percent of this demand. This impact is considered less than significant.

MITIGATION MEASURE 8-1. Since the timing of CCWD system improvements is uncertain, either the City or County, depending which jurisdiction a project is proposed to be developed, would apply the facility or service standards in its adopted Growth Management Element. The demonstration of water availability would be required as a condition of approval during project design review of Specific Plan projects. This measure would mitigate the impact to a less-than-significant level.
Wastewater

**IMPACT 8-2.** The proposed development in the Specific Plan would result in wastewater flow of 0.53 mgd into the local treatment system. This impact is considered less than significant.

Proposed development will generate wastewater flows that require treatment at the local treatment plant prior to discharge. Wastewater flow unit factors were obtained from the Pittsburg Collection System Master Plan. These factors were then applied to the various land uses proposed in the Specific Plan to produce estimates of wastewater flow in gallons per day. Table 8-3 provides a description of the wastewater flow estimates.

**Table 8-3**

<table>
<thead>
<tr>
<th>Zone</th>
<th>Land Use</th>
<th>Area</th>
<th>Rate a</th>
<th>Demand in GPD b</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Office</td>
<td>75,000 s.f.</td>
<td>100 gpd/1,000 s.f.</td>
<td>7,500</td>
</tr>
<tr>
<td></td>
<td>Commercial</td>
<td>50,000 s.f.</td>
<td>100 gpd/1,000 s.f.</td>
<td>5,000</td>
</tr>
<tr>
<td></td>
<td>Residential</td>
<td>1,790 units @ 65 units/acre</td>
<td>225 gpd/unit</td>
<td>402,750</td>
</tr>
<tr>
<td>II</td>
<td>Commercial</td>
<td>20,000 s.f.</td>
<td>100 gpd/1,000 s.f.</td>
<td>2,000</td>
</tr>
<tr>
<td></td>
<td>Residential</td>
<td>200 units @ 40 units/acre</td>
<td>225 gpd/unit</td>
<td>45,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>70 units @ 12 units/acre</td>
<td>225 gpd/unit</td>
<td>15,750</td>
</tr>
<tr>
<td>III</td>
<td>Commercial</td>
<td>155,000 s.f.</td>
<td>100 gpd/1,000 s.f.</td>
<td>15,500</td>
</tr>
<tr>
<td></td>
<td>Residential</td>
<td>100 units @ 15 units/acre</td>
<td>225 gpd/unit</td>
<td>22,500</td>
</tr>
<tr>
<td></td>
<td></td>
<td>35 units @ 10 units/acre</td>
<td>225 gpd/unit</td>
<td>7,875</td>
</tr>
<tr>
<td>IV</td>
<td>Commercial</td>
<td>14,000 s.f.</td>
<td>100 gpd/1,000 s.f.</td>
<td>1,400</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td></td>
<td>525,275</td>
</tr>
</tbody>
</table>

---

a Rates obtained from Draft EIR for the Amendments to the Pleasant Hill BART Station Area Specific Plan, August 1997. Table VIII-6: Wastewater by Land Use & Alternatives, Page VIII-28.

b GPD is gallons per day.

Source: Balloffet & Associates, Inc.
It is estimated that Specific Plan development will generate approximately 525,275 gallons per day (gpd) (0.53 mgd) of average dry-weather flow at buildout in the year 2010. This volume represents approximately 1.9 percent of the projected capacity of the DDSD treatment plant in the year 2005. For the purposes of this analysis, it is presumed that the recommended collection and capacity improvements that are described in the Collection System Master Plan will be implemented. In addition, as projects proposed under the Specific Plan by DDSD are implemented, detailed engineering evaluations would be conducted as part of the project design review. Potential collection deficiencies would be corrected at that time. Discussions with DDSD support this presumption, and no capacity constraints are projected for the year 2010.19

MITIGATION MEASURE 8-2. Since the timing of DDSD wastewater system improvements is uncertain, either the City or County, depending which jurisdiction a project is proposed to be developed, would apply the facility or service standards in its adopted Growth Management Element. The demonstration of sewer system or treatment plant capacity would be required as a condition of approval during project design review of Specific Plan projects. This measure would mitigate the impact to a less-than-significant level.

Schools

IMPACT 8-3. Proposed land uses in the Specific Plan would result in generation of 769 new students to be enrolled in the Mount Diablo Unified School District. This impact is considered less than significant.

The MDUSD is in the process of establishing a district-wide “student generation rate” that could be applied to plans such as the Specific Plan.20 As a result, no official MDUSD student generation rates can be applied to the land uses proposed in the Specific Plan. For the purposes of this Master EIR, student generation rates were obtained from other EIRs prepared in the County.21 For multi-family housing as proposed in the Specific Plan, student generation rates were applied as follows:

- 2,195 multi-family units x 0.18 elementary students per unit = 395 students
- 2,195 multi-family units x 0.08 middle school students per unit = 176 students
- 2,195 multi-family units x 0.09 high school students per unit = 198 students
  Total = 769 students

Applying these generation rate results in an estimate of approximately 769 students, with the distribution among grades as shown above.
As noted in the Setting section, both MDUSD local elementary schools, Bel Air and Rio Vista, are over capacity. A new elementary school is being developed as part of the Oak Hills subdivision located south of the Specific Plan area, off Southwood Drive. Some of the students generated by the Specific Plan may have to attend schools outside of the Specific Plan area, as part of MDUSD’s effort to balance enrollment with school resources. As a result, if school construction is not adequately timed and funded to ensure sufficient school facilities are available as project housing units become occupied, the Specific Plan would have a potentially significant impact.

**MITIGATION MEASURE 8-3**

(a) Since the timing of local school system expansion and improvements is uncertain, either the City or County, depending on the location, would apply its school impact standards in its adopted Growth Management Element. The demonstration of compliance with established school facility and staffing standards would be required as a condition of approval during project design review of Specific Plan projects. This measure would mitigate the impact to a less-than-significant level.

(b) All applicants of Specific Plan projects would be required to comply either with County or City of Pittsburg school impact fee requirements, depending on the location of the housing development. As a requirement of BART’s development agreement for constructing up to 1,790 housing units at the BART station, a project school financing and cost distribution plan should be prepared that demonstrates to County and City satisfaction that sufficient funding will be available as and when needed to construct school facilities to comply with applicable County and/or City policies and standards. These measures would mitigate the impact to a less-than-significant level.

**Solid Waste**

**IMPACT 8-4.** Specific Plan development could impact solid waste collection services and landfill capacity. This impact is considered less than significant.

The Specific Plan area could be adequately served by existing solid waste disposal services. Service is being provided by Pittsburg Disposal Services and Browning Ferris Industries. In addition, landfill capacities at both the Potrero Hills and Keller Canyon landfills are sufficient to accommodate projected solid waste generated by the Specific Plan. The projected population generated by the Specific Plan at buildout is approximately 4,493. Using an annual per capita disposal rate of 0.72 tons per capita per year (from CoIWMP), results in 3,235 tons of solid waste generated per year. This amount represents 5 percent of the waste disposed of by the
City in 1996. Assuming the same disposal rate to the respective landfills observed in 1996, of the total 3,235 tons of waste, about 95 percent, or 3,073 tons, could be disposed at the Potrero Hills Landfill, and about 5 percent, or 162 tons, could be disposed at the Keller Canyon Landfill. Since both landfills are presently well within their respective lifespans, this impact is considered less than significant.

**MITIGATION MEASURE 8-4.** None required.

**Fire Protection Services**

**IMPACT 8-5.** Specific Plan development could generate demand for additional fire protection services. This impact is considered less than significant.

As described in the Setting section, Fire Station 86 is located within the Specific Plan area at 3000 Willow Pass Road. All areas of the Specific Plan are accessible from Fire Station 86 within five minutes of notification. The Specific Plan area is approximately 0.5 mile in diameter, such that all properties within the plan area are within 1.5 miles of the station. Since these emergency response criteria would be met, it is unlikely that development from the Specific Plan would adversely affect the District’s National ISO rating. This impact is considered less than significant.

**MITIGATION MEASURE 8-5.** Since the design, orientation, and infrastructure of new commercial and residential development have only been conceptually defined, the full impact on the local fire protection service cannot be estimated. Either the City or County, depending in which jurisdiction a project is proposed to be developed, would apply its fire protection facility and service standards in its adopted Growth Management Element. The demonstration of compliance with these standards would be required as a condition of approval during project design review of Specific Plan projects. This measure would mitigate the impact to a less-than-significant level.

**Police Services**

The Specific Plan area is currently well served by police services from three jurisdictions: the Contra Costa County Sheriff, City of Pittsburg, and BART; however buildout of the Specific Plan is expected to require an expansion of police services within both the BART and Pittsburg police departments. The proposed increase in population (up to 3,580) and the proposal of office space, commercial uses, and a multi-level parking garage present the need for additional police services. Discussion of the potential impacts on each service is provided below.
IMPACT 8-6: Development in the Specific Plan could generate demand for additional County police services. This impact is considered potentially significant.

The County Sheriff currently is providing three times the normal level of patrols for the Bay Point area, in response to a comparatively higher crime rate, compared to other County locations. Because the development proposed for the unincorporated area involves in-fill development, or redevelopement, the Sheriff’s Department does not believe that the proposed Specific Plan development would increase emergency response time, and therefore degrade Sheriff service standards. The roadway and access improvements, in combination with urban design improvements to lighting, pedestrian access, etc., might actually serve to reduce the crime rate in the area. In addition, the approximately 913 new residents added to the to the unincorporated area may require adjustment of, or minor additions to, beat coverage provided by the County Sheriff service.

MITIGATION MEASURE 8-6. County review and approval of future projects shall require all new development to meet the County Growth Management Element standards for police service as a condition of project approval. Implementation of the County’s standards would ensure this impact would be less than significant.

IMPACT 8-7: Proposed mixed use development in Specific Plan Zone I, the BART Station area, would generate substantial new demand for additional BART and Pittsburg police services. This impact is considered potentially significant.

Impacts to BART Police

BART police would be responsible for law enforcement and security of all future development proposed on BART properties. BART would not be responsible for policing development on property it leases or sells to a developer. The Pittsburg Police Department would be responsible for law enforcement at adjacent off-site properties or on other properties leased or purchased from BART. The new population of about 3,580 resulting from 1,790 units of high-density, multi-family housing, and new retail and office uses, would create additional demand for police services, and require formal coordination between police departments. It is possible that a formal Memorandum of Understanding will be needed between the two departments similar to what BART has implemented in other jurisdictions.

The increase in population has the potential to increase the crime rate for home burglary, and auto theft and burglary. The proposed multi-level parking garage would require BART security
CHAPTER 8: COMMUNITY SERVICES AND UTILITIES

staffing resembling other BART garages, two non-sworn community services assistants (CSAs) in two shifts spanning the period of 6:00 a.m. to 11:00 p.m., five days a week. The presence and access controls of the garage may help reduce the rate of crimes to unattended autos, which currently occur at the Pittsburg/Bay Point station.

The proposed new office and retail uses have the potential to increase the rate of crimes such as shoplifting, robbery, and fraudulent check writing. Under current guidelines for BART police, if these crimes occur on BART properties, BART police would be responsible for response and/or investigation. At present, it is not possible to precisely quantify the impact of new development on BART police staffing and services. BART police have expressed a desire to study the issues further with the County and City law enforcement agencies, to identify the best means to utilize available resources.

Impacts to City of Pittsburg Police
The impacts of increased crime described above also pertain to the areas proposed for development within the City of Pittsburg. The increase in population may require the realignment of police beats and/or the addition of a new beat. The Pittsburg Police Department would expect to coordinate with the other law enforcement agencies to ensure adequate police service coverage to off-station areas. Pittsburg police would take into account their established standards for response time to calls, and the possible need for enforcing off-site problems such as BART commuter parking spill-over into adjacent streets, neighborhoods, and shopping areas.

MITIGATION MEASURE 8-7. The City, County, and BART police departments would coordinate their efforts to ensure adequate law enforcement and security service are provided to the BART station and joint development. The jurisdictions would apply the police standards adopted in their respective Growth Management Elements; BART would apply its standards for law enforcement and security that are applied in other stations with parking garages and mixed use joint development. These standards would be included as conditions of the development agreement to be established for the BART station. Consideration will be given to the provision of a storefront police facility at the site, similar to the facility at the Castro Valley Station. Implementation of these measures would reduce this impact to less-than-significant levels.
CHAPTER 8: COMMUNITY SERVICES AND UTILITIES

NOTES: Community Services and Utilities

2 Ibid., page 208.
3 Contra Costa Water District, Future Water Supply Study, August 1996.
4 City of Pittsburg General Plan Update, op. cit., page 207.
5 Contra Costa Water District, Future Water Supply Study, Executive Summary, August 1996.
6 Pittsburg General Plan, op. cit., page 209.
7 Pittsburg General Plan, op. cit., page 214.
8 Final EIR, Proposed Southeast Area Sphere of Influence Amendment and Annexation, September 1997.
11 Pittsburg/Bay Point BART Station Area Specific Plan, November 1997.
12 Data for this Solid Waste section was largely obtained from the Pittsburg General Plan Update: Existing Conditions Report, June 1998, pages 217 and 218.
13 John Snell, Senior Crime Analyst, Contra Costa County Sheriff’s Department, personal communication, August 1998.
14 Commander Chuck White, City of Pittsburg Police Department, personal communication, January 1999.
15 Commander Clark Lynch, BART Police Department, personal communication, January 1999.
16 BART Planning Department, written communication, March 1, 1999.
17 Future Water Supply Study, op. cit.
18 Pittsburg Collection System Master Plan, September 1990.
22 John Snell, op. cit.
23 Ibid.
24 Commander Clark Lynch, op. cit.
25 Ibid.
26 Ibid.
27 Commander Chuck White, Pittsburg Police Department, op. cit.
POPULATION, EMPLOYMENT, AND HOUSING

9.1 SETTING
This chapter describes existing and projected conditions with respect to local population, employment, and housing in the Specific Plan area.

Population
As of January 1, 1998, the City of Pittsburg had an estimated population of 52,169, making it the fifty most populous city in Contra Costa County. The population of the Pittsburg’s Sphere of Influence (SOI) was approximately 72,100 in 1995. Table 9-1 compares population growth in the City, the SOI, and the County between 1990 and 1995. Growth in the Pittsburg SOI (which includes the Specific Plan area) exceeded the growth rate in the City and County, although growth in unincorporated areas has slowed down in recent years. Virtually the entire unincorporated population of the Bay Point community is located in the SOI. The Bay Point population was approximately 19,100 in 1996.

Table 9-1

| Population Growth 1980-1995; Pittsburg, SOI, and Contra Costa County |
|---------------------------|-----------------|-----------------|-----------------|-----------------|
|                           | 1980 | 1990 | Annual Growth Rate | 1995 | Annual Growth Rate |
| Pittsburg a               | 33,465 | 47,564 | 3.6% | 50,391 | 1.2% |
| Pittsburg Sphere of Influence (SOI) b | 43,843 | 65,230 | 4.1% | 68,000 | 0.8% |
| East Contra Costa County c | 80,038 | 117,322 | 3.9% | 135,163 | 2.9% |
| Contra Costa County d     | 656,380 | 803,732 | 2.0% | 865,300 d | 1.5% |

a City of Pittsburg population data from US Census, except for 1995 data, which is from California Department of Finance (DOF).
b SOI and County population data from ABAG Draft Projections '98.
c East Contra Costa County population data for 1980 from DOF; 1990 data from US Census; 1995 data from DOF; East Contra Costa County includes the cities of Pittsburg, Antioch, and Brentwood.
d According to the DOF, Contra Costa County’s population in 1995 was 863,335.


Population Projections
The Association of Bay Area Governments (ABAG) projects that population in the City’s SOI will reach 97,000 in the year 2020, which represents a 43 percent increase over the ABAG population of 68,000. This project represents a faster growth rate for the Pittsburg SOI than
the County as a whole, which is projected to increase by 32 percent between 1995 and 2020. The East County area, however, is projected to grow more than twice the rate of the entire County, with a projected increase of 71 percent, or 110,000 people, over the same period.\(^6\) Population projections have not been developed for the portion of the City SOI containing the boundaries of the Specific Plan. Changes in local policies could affect the rate and distribution of new population associated with regional growth.

**Households**

According to the U.S. Census, Pittsburg had 15,643 households in 1990, with an average household size of 3.02, compared to the County’s average household size of 2.64. Pittsburg’s average household size reached 3.11 by January 1998, the third largest in the County behind Brentwood and Hercules.\(^7\) Pittsburg’s larger household size is a reflection of family households comprising a greater proportion of the total. Approximately 77 percent of households in the City consist of family households, compared to about 71 percent in the County. Many families are attracted to Pittsburg because of its affordable housing prices.

The average household size in the Pittsburg SOI is expected to increase from 2.88 in 1980 to 3.00 in 2020. In comparison, Contra Costa County’s household size is expected to remain at about 2.7 through 2020. The number of households in the City grew rapidly between 1980 and 1990 for a net increase of 43 percent. Household growth is expected to remain steady at about 15 percent in the coming decades. The historic and projected household growth in the Pittsburg SOI is shown in Table 9-2.

**Table 9-2**

<table>
<thead>
<tr>
<th>Year</th>
<th>Household Population</th>
<th>Number of Households</th>
<th>Percent Increase</th>
<th>Persons per Household</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>43,756</td>
<td>15,207</td>
<td></td>
<td>2.88</td>
</tr>
<tr>
<td>1990</td>
<td>64,714</td>
<td>21,670</td>
<td>43%</td>
<td>2.99</td>
</tr>
<tr>
<td>2000</td>
<td>70,900</td>
<td>23,210</td>
<td>7%</td>
<td>3.05</td>
</tr>
<tr>
<td>2010</td>
<td>84,500</td>
<td>27,720</td>
<td>19%</td>
<td>3.05</td>
</tr>
<tr>
<td>2020</td>
<td>96,500</td>
<td>32,170</td>
<td>16%</td>
<td>3.00</td>
</tr>
</tbody>
</table>

Sources: ABAG Projections ’96; Draft Projections ’98; Pittsburg General Plan Update.

**Employment**

**City of Pittsburg**

The employment characteristics of Pittsburg and Bay Point residents can be separated by industry and occupation. In 1990, the proportion of employment by industry was similar between the City and the County, with the largest proportion of workers engaged in trade, manufacturing, services, and finance, insurance, and real estate.\(^8\) The occupational structure of
City residents differs substantially from those of County residents, as a higher proportion of City residents work in support, agricultural, and industrial occupations, and comparatively fewer work in managerial, professional, and sales positions.

Job growth in the Pittsburg SOI between 1980 and 1995 exceeded the rate of growth for the Bay Area and Contra Costa County. Services is the dominant sector of employment. ABAG projections indicate that the City’s employment growth will continue to exceed the County’s job growth rate. The growth in retail jobs is projected to be strong at about 115 percent or 2,780 jobs. The largest number of jobs, 4,150, will be created in the services sector. Total job growth in Pittsburg is expected to increase by 73 percent between 1996 and 2015, as shown in Table 9-3.

**TABLE 9-3**

<table>
<thead>
<tr>
<th>Pittsburg Sphere of Influence Employment Base</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>-------------------------</td>
</tr>
<tr>
<td>Agriculture &amp; Mining</td>
</tr>
<tr>
<td>Manufacturing &amp; Wholesale</td>
</tr>
<tr>
<td>Retail Trade</td>
</tr>
<tr>
<td>Services</td>
</tr>
<tr>
<td>Other Jobs</td>
</tr>
<tr>
<td>Total Jobs</td>
</tr>
</tbody>
</table>

Source: ABAG Projections '96.

**Contra Costa County**

Jobs in Contra Costa County grew more than twice as fast compared to the rest of the Bay Area between 1980 and 1995. Of the approximately 97,200 jobs created in the County during this period, about 50 percent, or 46,600 jobs, were in the services sector. Retail trade and finance, insurance, and real estate (“FIRE”) were also strong sectors of job growth. Job growth in the County over the next twenty years is expected to remain strong, and outpace projected Bay Area job growth by 33 percent. The County is expected to add 148,000 jobs over the next twenty years, with services and retail trade expected to constitute 75 percent of the job growth.

**Housing**

Table 9-4 presents a comparison of housing growth in the City of Pittsburg with Contra Costa County between 1990 and 1998. The distribution of housing types in the City corresponds closely with the County, except in the City’s percentage of mobile homes. The City has five percent of the County’s overall housing stock, yet contains about nine percent of the County’s
mobile homes. The Specific Plan area includes the Far Hills mobile home park located east of Bailey Road at Canal Road.

**TABLE 9-4**

Housing Units by Type, 1990-1998

<table>
<thead>
<tr>
<th></th>
<th>1990 % of Total</th>
<th>1998 % of Total</th>
<th>% Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pittsburg</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single-family detached</td>
<td>10,485</td>
<td>11,462</td>
<td>9.32%</td>
</tr>
<tr>
<td>Townhouse/attached</td>
<td>913</td>
<td>1,046</td>
<td>14.57%</td>
</tr>
<tr>
<td>Multiple family</td>
<td>4,684</td>
<td>4,625</td>
<td>-1.26%</td>
</tr>
<tr>
<td>Mobile Home</td>
<td>639</td>
<td>639</td>
<td>0.00%</td>
</tr>
<tr>
<td>Total</td>
<td>16,721</td>
<td>17,772</td>
<td>6.29%</td>
</tr>
<tr>
<td><strong>Contra Costa County</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single-family detached</td>
<td>202,523</td>
<td>225,011</td>
<td>11.10%</td>
</tr>
<tr>
<td>Townhouse/attached</td>
<td>26,269</td>
<td>28,353</td>
<td>7.93%</td>
</tr>
<tr>
<td>Multiple family</td>
<td>79,966</td>
<td>85,809</td>
<td>7.31%</td>
</tr>
<tr>
<td>Mobile Home</td>
<td>7,412</td>
<td>7,522</td>
<td>1.48%</td>
</tr>
<tr>
<td>Total</td>
<td>316,170</td>
<td>346,695</td>
<td>9.65%</td>
</tr>
</tbody>
</table>

Sources: California Department of Finance, 1998; Dyett & Bhatia; Pittsburg General Plan Update.

The City experienced a 6.3 percent increase in total number of housing units between 1990 and 1998, compared to an increase of 9.6 percent in the County. The City experienced a substantial increase in the number of townhouse and attached units relative to the County. Over the same period, the number of multi-family housing units declined by three percent, most likely due to removal of dilapidated units. Detached homes constitute approximately 64 percent of total housing units in the City, while the remaining are either multi-family units or mobile homes.

**Jobs/Housing Balance**

With 28,900 employed residents and 16,130 jobs, the Pittsburg SOI in 1995 had a jobs per employed resident’s ratio of 0.56, with a deficit of 12,800 jobs. This deficit is common to other East Contra Costa County cities which tend to serve as bedroom communities to employment centers in West County and the Bay Area in general. The County also has a net deficit of jobs, with a job per employed residents ratio of 0.71. ABAG expects the County to achieve a jobs per employed residents ratio of 0.79 by 2015. Significant gains in employment are projected in the East County.
9.2 STANDARDS OF SIGNIFICANCE

The County and City of Pittsburg have no adopted standards of significance for evaluating potential impacts related to population, employment, and housing. A plan that induces population growth, such as the Specific Plan, is not generally viewed as having a significant effect on the environment; however, the effects of this growth are examined under other environmental considerations such as transportation, air quality, community services, and noise.

9.3 IMPACTS AND MITIGATION MEASURES

The analysis of population growth associated with development proposed in the Specific Plan takes into account the projected growth patterns and household size trends for the City of Pittsburg that are described in Section 9.1, Setting. This information was compared to data collected by the County, and assumptions used in other studies concerning development associated with BART stations.

**IMPACT 9-1.** The Specific Plan would result in a population of about 4,500 at the time of buildout in the year 2010. This impact is considered less than significant.

The Specific Plan proposes the development of 2,195 residential units at buildout in 2010. County staff confirmed that Bay Point household size projections for multi-family dwellings and single-family detached housing will range from 2.0 to 3.14, respectively.\(^\text{15}\) Household size for apartments would range from 1.5 to 2.25. The *Pleasant Hill BART Station Specific Plan Amendments DEIR* used an average household size of 1.87 for all housing types to estimate population associated with plan alternatives.\(^\text{16}\) For purposes of this Master EIR, an average household size of 2.00 is assumed for Multi-Family Residential High (apartments); and household size of 2.50 is considered acceptable for Multi-Family Residential Medium.\(^\text{17}\) Although these assumptions are slightly higher than the ranges projected, their use helps produce a conservative estimate of population associated with Specific Plan development.

The housing density provisions of the Specific Plan were used as a measure of housing type. The Specific Plan proposes a total of 1,990 units at densities of 40 to 65 units per acre (Multi-Family Residential High) and a total of 205 units at the lower densities of 10 to 15 units per acre (Multi-Family Residential Medium).

Using the average household sizes described previously:

- 1,900 units \times 2.00 = 3,980 people
- 205 units \times 2.50 = 513 people

Total = 4,493 – or about 4,500 people
The estimated population in 2010 would be approximately 4,500. Of this population, approximately 3,600 people would be expected to live in housing developed in Zone I west of the BART station; about 600 people would live in housing in Zone II in the Orbisonia Heights area, east of the intersection of Bailey Road and West Leland Road; and approximately 300 people would live in Zone III in various parcels developed along, and west of, Bailey Road.

The estimates of population associated with development assumed in the Specific Plan are consistent with local and regional projections. Furthermore, the estimated population is consistent with the goals of the Specific Plan, which call for high-density housing in the BART station and selected multi-family housing development on parcels targeted for new development or redevelopment.

The projected population for the entire City of Pittsburg SOI at 2010 is estimated to reach 84,500 (see Table 9-2). The population associated with the Specific Plan represents about 5.5 percent of this population. The impact of population growth associated with construction of housing proposed in the Specific Plan would be less than significant.

**MITIGATION MEASURE 9-1.** None required.

**IMPACT 9-2.** The Specific Plan would generate approximately 800 jobs at buildout in the year 2010. This impact is considered beneficial.

Employment is estimated using the following factors:

- Retail Commercial: one employee per 500 square feet
- Office: one employee per 250 square feet

The Specific Plan assumes approximately 239,000 square feet of retail commercial space and 75,000 square feet of office space, respectively. These land uses would generate approximately 478 retail commercial jobs and about 300 office jobs, for a total of 778 jobs. Employment for the City of Pittsburg SOI is projected to reach 27,780 by the year 2015. Employment generated by the Specific Plan would represent about three percent of this total employment. The Specific Plan’s generation of employment with corresponding new housing (see Impact 9-3) would improve the jobs/housing balance for the City and Bay Point. In addition, the types of jobs created (retail and office) are consistent with policies and projections for the Specific Plan area. This impact is considered less than significant.

**MITIGATION MEASURE 9-2.** None required.
Chapter 9: Population, Employment, and Housing

Impact 9-3. The Specific Plan assumes the construction of 2,195 dwelling units at buildout in year 2010. About 1,790 units would be constructed at the BART station. This impact is considered less than significant.

The proposed number of households and associated density are shown in Table 9-5. The number of households in the City of Pittsburg SOI is projected to reach 27,720 by 2010. The number of households created by full implementation of the housing proposed in the Specific Plan represents about eight percent of these total households. The Specific Plan’s creation of new housing with corresponding jobs in retail, office, and services, would improve the jobs/housing balance for the City and Bay Point. This impact is considered less than significant.

Mitigation Measure 9-3. None required.

Table 9-5

<table>
<thead>
<tr>
<th>Zone</th>
<th>Housing Type</th>
<th>Density</th>
<th>Units Proposed</th>
<th>Average Household Size (a)</th>
<th>Household Population (b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>MH</td>
<td>65 units/acre</td>
<td>1,790</td>
<td>2.00</td>
<td>3,580</td>
</tr>
<tr>
<td>II</td>
<td>MM</td>
<td>12 units/acre</td>
<td>70</td>
<td>2.50</td>
<td>175</td>
</tr>
<tr>
<td></td>
<td>MH</td>
<td>40 units/acre</td>
<td>200</td>
<td>2.00</td>
<td>400</td>
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<tr>
<td>III</td>
<td>MM</td>
<td>10 units/acre</td>
<td>35</td>
<td>2.50</td>
<td>88</td>
</tr>
<tr>
<td></td>
<td>MM</td>
<td>15 units/acre</td>
<td>100</td>
<td>2.50</td>
<td>250</td>
</tr>
<tr>
<td>IV</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Buildout Total</td>
<td></td>
<td></td>
<td>2,195</td>
<td></td>
<td>4,500</td>
</tr>
</tbody>
</table>

MH = Multi-Family Residential High
MM = Multi-Family Residential Medium

\(a\) The number of occupants per household.

\(b\) Final calculation of total projected population reflects rounding.
CHAPTER 9: POPULATION, EMPLOYMENT, AND HOUSING

NOTES: Population, Employment, and Housing

3 Pittsburg General Plan Update, op. cit., page 15.
5 Pittsburg General Plan Update, op. cit., page 16.
6 Ibid.
9 Pittsburg General Plan Update, op. cit., page 120.
10 Ibid.
11 Ibid.
12 Pittsburg General Plan Update, op. cit., page 38.
13 Ibid.
14 Pittsburg General Plan Update, op. cit., page 122.
15 Linda Moulton, Ph.D., Demographer, Contra Costa County Community Development Department, personal communication, July 1998.
16 Pleasant Hill BART Station Area Specific Plan Amendments DEIR, August 1997.
17 Linda Moulton, Ph.D., op. cit.
This chapter addresses the transportation, traffic operations, and capacity and control requirements associated with the proposed circulation in the Specific Plan area.

**Contra Costa County Transportation Improvement and Growth Management Program (Measure C)**

In 1988, County voters approved the Contra Costa Transportation Improvement and Growth Management Program (Measure C). The County Growth Management Element of the General Plan establishes policies and standards for traffic levels of service and performance standards for fire, police, parks, sanitary facilities, and water and flood control. Compliance with the Growth Management Element is to ensure that public facilities are provided consistent with adopted standards. The element is part of the County’s long-range program to match the demand for public facilities to serve new development with plans, capital improvement programs, and development impact mitigation programs. The intent of the element is to ensure that growth takes place in a manner that will ensure protection of the health, safety, and welfare of both existing and future residents of the County.

The Growth Management Element works closely in conjunction with the Land Use Element so that development proceeds in a manner that will not negatively affect facility and traffic service standards for existing land uses. The ULL and the 65/35 Land Preservation Standard also work together with the Growth Management Element to ensure that growth occurs in a responsible manner and strikes appropriate balances between many competing values and interests. To carry out the goals and objectives of the Land Use and Circulation Elements of the County General Plan, new development must demonstrate that the level of service standards of the Growth Management Element will be met.

**Specific Plan Circulation Goals and Objectives**

<table>
<thead>
<tr>
<th>Goal 1: Maximize the public transit potential of the BART station.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective</strong></td>
</tr>
<tr>
<td>1.1 Maximize the BART station utilization as a multi-modal transit hub by enhancing access to the station by other transit modes, pedestrians, and bicycles.</td>
</tr>
<tr>
<td>1.2 Coordinate BART and Tri-Delta Transit activities to increase transit service to the station, especially from East County.</td>
</tr>
<tr>
<td>1.3 Improve the transportation infrastructure in ways which would support the transit village and transit-oriented land use development goals.</td>
</tr>
</tbody>
</table>
1.4 Build upon the existing multi-modal transportation features of the area such as the BART station, the Tri-Delta express bus and local transit services, and the Delta De Anza Trail to create a more supportive multi-modal transportation environment.

Goal 2: Reduce automobile trips to the BART station and within the neighborhood.

Objective 2.1 Improve pedestrian and bicycle access to the BART station.

2.2 Improve the Delta De Anza Trail linkage to BART and through the Specific Plan area.

2.3 Improve pedestrian movement safety.

2.4 Reduce traffic speeds on Willow Pass Road.

Goal 3: Balance Regional and Local Circulation Needs.

Objective 3.1 Maintain a reasonable level of traffic service to the area without removing opportunities for enhancing the pedestrian, bicycle, and pedestrian network.

State Congestion Management Statute

Passage of Proposition 111 on the June 1990 California ballot put into effect a legislative package that included a statewide increase in the gasoline tax and a number of changes in transportation financing and planning. The legislation included a new requirement for each of California’s urban counties to prepare a Congestion Management Program (CMP) that includes all jurisdictions within the County. In the fall of 1990, the Contra Costa Transportation Authority (CCTA) was designated by the County and Contra Costa cities as the Congestion Management Agency (CMA) for all jurisdictions within the County. The CCTA, acting as the CMA, is responsible for adopting and maintaining the State-mandated County CMP.

Current Contra Costa County Congestion Management Program

The CCTA adopted the current County CMP, the 1995 Contra Costa Congestion Management Program Update, updated in 1999. The CMP contains several State-mandated components, including a program to analyze the impacts of land use decisions made by local jurisdictions on regional transportation systems. The land use program in eastern Contra Costa County is the growth management portion of the East County Action Plan (see below).
East County Action Plan
Contra Costa County’s Measure C – 1988 Growth Management Program requires all Contra Costa County jurisdictions to participate in the preparation of Action Plans for Routes of Regional Significance (Action Plans) to determine appropriate measures and programs for mitigation of regional traffic impacts. The Growth Management Implementation Documents adopted by the CCTA in December 1990 further require that each regional transportation planning committee develop and adopt an Action Plan for Routes of Regional Significance.

TRANSPLAN, the regional transportation committee for eastern Contra Costa County, adopted the East County Action Plan in December 1999. The CCTA formally adopted the latest East County Action Plan in 2000 by adopting the Countywide Comprehensive Transportation Plan.

The adopted East County Action Plan includes Traffic Service Objectives (TSO) and identified actions for various Routes of Regional Significance. TRANSPLAN developed the TSOs, with companion actions, pursuant to transportation policies, goals, and objectives within eastern Contra Costa County. These TSOs include: 1) Peak Hour Vehicle Occupancy Rates, 2) Delay Indexes, and 3) Levels of Service (LOS) requirements for signalized and unsignalized intersections.

Contra Costa County and City of Pittsburg General Plans
The Circulation and Growth Management Elements of the Contra Costa County and City of Pittsburg General Plans contain numerous policies and actions related to transportation. Of particular relevant to this Master EIR are the Growth Management element roadway level of service standards which are detailed in Section 10.2, “Standards of Significance” below.

Conditions for a 21st Century Community
Contra Costa County’s Conditions for a 21st Century Community, a set of growth management concepts and policies adopted by the Board of Supervisors, contains the following policies that relate to transportation, and particularly to the use of alternative, non-automobile commute modes such as transit:

- Demonstrate use of alternative forms of transportation, especially transit, in order to provide necessary services to transit-dependent persons and to help minimize automobile congestion and air pollution. (Integrated Transportation System, Policy 1)
- Provide park-and-ride areas at locations along the arterial street network to serve transit stops and to serve as meeting points for ride sharing. (Integrated Transportation System, Policy 2)
- Extend public transit to provide alternative means of access within the subregion and to major off-site destinations. (Integrated Transportation System, Policy 3)
- Maximize connections between Class I bicycle trail system and transit hub park-and-ride lots, transit stops, and future rail transit stations. The pedestrian path and sidewalk system
should provide short and convenient routing to schools, commercial areas, park-and-ride lots, transit stops, and the future rail transit stations. (Integrated Transportation System, Policy 4)

- Develop systems of safe and convenient bicycle routes, hiking and riding trails throughout the subregion. (Integrated Transportation System, Policy 5)

- Incorporate pedestrian and bicycle paths throughout the project. (Integrated Transportation System, Policy 7)

- Maximize the potential for telecommuting by wiring every home for telecommunication and reserving land for telecommuting centers. (Integrated Transportation System, Policy 8)

- Provide for an overall project design that will accommodate efficient and convenient transit routing and maximize transit ridership. (Integrated Transportation System, Policy 14)

- Encourage and maximize the use of alternative travel needs by providing connectivity between the various transportation facilities (pedestrian, bicycle, auto, transit, fixed guideway) and by providing a public education system advising residents of commute alternatives and transit opportunities. (Integrated Transportation System, Policy 15)

- Develop a circulation network of neighborhood streets that minimizes heavy through traffic, while at the same time providing a network of streets conducive to transit routing. (Internal Road System, Policy 1)

**Regional Policies**

The most recent regional policy document prepared by the Association of Bay Area Governments (ABAG), entitled *A Proposed Land Use Policy Framework for the San Francisco Bay Area* and adopted by the ABAG Executive Board in July 1990, contains policies to “direct growth where regional infrastructure capacity, such as freeway (and) transit . . . is available or committed . . .” and to “allow for the development of new communities along transit corridors where interurban transit service and capacity are available or committed when they would be consistent with regional or subregional goals and objectives, and (will) not negatively affect existing communities.”

**Contra Costa County General Plan Policies**

The following relevant policies and implementation measures relate to the roads and transit system of Contra Costa County.
Circulation Phasing and Coordination

Policies

5-1. Cooperation between the cities and the County shall be strongly encouraged when defining level of service standards.

5-3. Transportation facilities serving new urban development shall be linked to and compatible with existing and planned roads of adjoining areas, and such facilities shall use presently available public and semi-public rights of way where feasible.

5-4. Development shall be allowed only when transportation performance criteria are met and necessary facilities and/or programs are in place or committed to be developed within a specified period of time.

5-5. Right of way shall be preserved to meet requirements of the Circulation Element and to serve future urban areas indicated in the Land Use Element.

Implementation Measures

5-a. Promote uniform roadway cross-sections and traffic signalization standards between the County and the cities.

5-b. The County shall participate on committees with neighboring jurisdictions to monitor traffic congestion on regional corridors and to coordinate the planning, design, funding, and construction of transportation improvements serving unincorporated areas.

5-d. The County shall establish and maintain an Area of Benefit program to collect fees on new development for roadway and related transportation improvements specified in the Circulation Element. Fees shall be based on the traffic generated by a use and the costs of transportation improvements necessary to maintain acceptable Levels of Service with the cumulative amount of development authorized by adopted plans.

5-e. Establishment of assessment districts shall be encouraged to supplement or replace fees on new development.

5-f. The County shall work with the cities to establish regional funding mechanisms to fund regional transportation improvements and to attract state and federal highway and transit revenues. Funding mechanisms may include sales taxes, gas taxes, or fees on new development.

5-g. The County shall coordinate its transportation planning efforts with the Contra Costa Transportation Authority.
CHAPTER 10: TRANSPORTATION

Circulation Safety, Convenience and Efficiency

Policies

5-7. Through-traffic along arterials shall be improved by minimizing the number of new intersecting streets and driveways; and, when feasible, by consolidating existing street and driveway intersections.

5-9. Existing circulation facilities shall be improved and maintained by eliminating structural and geometric design deficiencies.

5-11. The use of freeways for community circulation shall be minimized by providing sufficient arterials and expressways.

5-13. Physical conflicts between vehicular traffic, bicyclists, and pedestrians shall be minimized.

5-14. Adequate lighting shall be provided for vehicular, pedestrian and bicyclist safety, consistent with neighborhood desires.

5-15. Curbs and sidewalks shall be provided in appropriate areas.

5-16. Emergency response vehicles shall be accommodated in development project design.

5-17. The design and the scheduling of improvements to arterials and collectors shall give priority to safety over other factors including capacity.

5-18. Efforts shall be made to increase short-term parking for retail uses in areas where it is currently inadequate.

5-19. New development (including redevelopment and rehabilitation projects) shall provide adequate off-street parking, or contribute funds and/or institute programs to reduce parking demand.

5-20. New subdivisions should be designed to permit convenient pedestrian access to bus transit and efficient bus circulation patterns.

Implementation Measures

5-j. Design local streets so that the widths and curvatures fit the desired speed of travel.

5-m. Adopt design standards and right-of-way standards with typical sections showing relationships of pavement, median, sidewalks, lighting, and landscaping. Typical sections for roadways shall be based on the following minimum design standards: 1) 12 feet per travel lane; 2) 12 feet per turn lane; 3) 8 feet per shoulder; and 4) add 4 feet per shoulder if bike lanes are to be provided where parking is allowed.
CHAPTER 10: TRANSPORTATION

Alternative Transportation/Circulation Systems

Policies

5-21. All efforts to use alternative transportation systems to reduce peak period traffic congestion shall be encouraged.

5-22. Use of alternative forms of transportation, especially transit, shall be encouraged in order to provide necessary services to transit-dependent persons and to help minimize automobile congestion and air pollution.

5-23. Improvement of public transit shall be encouraged to provide for increased use of local, commuter, and intercity public transportation.

5-25. Planning and provision for a system of safe and convenient pedestrian ways, bikeways and regional hiking trails shall be continued as a means of connecting community facilities, residential areas, and business districts, as well as points of interest outside the communities utilizing existing public and semi-public right-of-way.

Implementation Measures

5-n. Enforce County TDM (Transportation Demand Management) Ordinances consistent with State law, and encourage neighboring jurisdictions to adopt similar ordinances.

5-o. Develop and implement a comprehensive program of park-and-ride lots, in cooperation with the cities, transit agencies and Caltrans, to serve the demand forecasted by this plan.

5-p. Coordinate efforts with BART to expand parking facilities at or near stations.

5-q. Encourage and coordinate efforts with BART to extend train service along State Route 4 to Brentwood and along I-80 to northwestern Contra Costa County.

5-t. Coordinate efforts with BART, bus operators, and other jurisdictions to reserve rights-of-way, station sites, and other support facilities for rail extensions within the Transit Corridors identified in the Transit Network Plan.

5-u. Coordinate efforts with all transit districts serving the county to provide for improved routing, bus frequencies, facilities, and improved design of land development plans.

5-w. Provide safe pedestrian ways in the vicinity of schools and other public facilities, and in commercial areas, and provide convenient access to bus routes.

5-x. Construct the bikeways shown in the future Bikeway Network Plan and incorporate the needs of bicyclists in major roadway construction projects and normal safety and operational improvements.

5-y. Develop a parking program to maximize traffic flow on new and existing arterials and collectors by reducing or eliminating on-street parking, by
providing off-street parking or parking bays to accommodate on-street parking, or enhancing transit or ridesharing services.

5-z. Encourage Caltrans to investigate the feasibility and effectiveness or ramp metering on freeways in the County, and if feasible and effective, support implementation.

5-ai. Design and allow for on-road bikeways on arterials and collectors as an alternative to car travel where this can be safely accommodated.

Environmental Considerations

5-28. New arterial roadways shall be routed around, rather than through neighborhoods, to minimize traffic impacts on residential areas.

5-29. Street systems shall be designed and/or modified to discourage additional through traffic in existing residential areas, but not at the expense of efficient bus transit.

5-31. Local road dimensions shall complement the scale and appearance of adjoining properties.

5-32. Landscaping and maintenance of street medians and curb areas shall be provided where appropriate.

5-33. Appropriate buffers, such as soundwalls, bermed embankments, depressed alignments, and open space areas along major transportation facilities, shall be provided adjacent to noise sensitive land uses.

5-34. Consolidation of utility/drainage/transportation corridors shall be considered, where appropriate.

City of Pittsburg General Plan Policies

Guiding Policies

A. Strive to maintain traffic LOS C or better as the standard at all intersections, with LOS D no more than three hours of the day (a.m., p.m., and noon peaks).

B. Accept LOS D during two-hour peak periods, with the possibility of intersections at or closely approximating the limits of LOS D, only on arterial routes bordered by nonresidential development where improvements to meet the City’s standard would be prohibitively costly or disruptive.

C. Establish and implement a uniform set of standards for the City’s roadway network.
Implementing Policies

D. Determine the cost of required transportation improvements, and develop a program to require payment of pro rata share of the cost of transportation improvements for all developments.

E. Design roadway improvements and evaluate development proposals based on LOS standards prescribed in Policy 6.1.A.

F. Implement to the extent feasible Circulation Element improvements prior to deterioration in levels of service below the stated standard.

*Development approvals should require reasonable demonstration that traffic improvements necessary to serve the development without violating the standard will be in place in time to accommodate trips generated by the project.*

G. Improve intersections as needed to maintain traffic levels of service and safety on major roadways.

*Specific improvements should be identified and implemented on the basis of detailed traffic studies. Improvements may include intersection approach lane expansion, related channelization improvements and traffic signal installations. Intersections and interchanges where improvements are projected are listed in [General Plan] Table 6.1. Other intersections not identified in the table also may need future improvements.*

H. Adopt design standards for each functional roadway classification, including private streets.

*Roadway standards are illustrated in the City’s Engineering Design Standards for typical midblock applications. Additional right-of-way may be needed for turn lanes at some intersection approaches. Different standards may govern in Downtown and other Specific Plan areas.*

Regulatory Agencies

The City of Pittsburg has jurisdiction over all City streets and City-operated traffic signals. The freeways, freeway ramps, and State routes (such as State Route 4—“Highway 4”) are under the jurisdiction of the State of California Department of Transportation (Caltrans). The transit service providers have jurisdiction over their services. These transit providers include BART, Tri-Delta Transit, and County Connection fixed-route bus service.

Several regional agencies oversee and coordinate funding for transportation improvement programs affecting Pittsburg, including the Contra Costa Transportation Authority (CCTA), TRANSPLAN Regional Transportation Planning Committee, and the Metropolitan Transportation Commission (MTC).
CCTA is also the Congestion Management Agency (CMA) that sets State and Federal funding priorities for improvements affecting the Contra Costa County Congestion Management Program (CMP) Roadway System. CMP roadway system components (or Routes of Regional Significance) in Pittsburg include State Route 4, Bailey Road, Willow Pass Road, Leland Road, Buchanan Road, Somersville Road, and Railroad Avenue. Improvements slated for State or Federal funding must be adopted by CCTA and included in the Capital Improvement Program (CIP) in the CMP document, which is updated biennially. While congestion management programs are no longer required by law, Contra Costa County, as all other counties in the Bay Area, has opted to continue with its CMP.

**TRANSPLAN**

Measure C requires all Contra Costa County jurisdictions to participate in the preparation of *Action Plans for Routes of Regional Significance* to determine the appropriate measures and programs for mitigation of regional traffic impacts. TRANSPLAN is the regional transportation planning committee for eastern Contra Costa County, comprised of the cities of Antioch, Brentwood, Oakley, Pittsburg, and parts of unincorporated Contra Costa County. One elected official from each of these jurisdictions serves on the TRANSPLAN Regional Transportation Planning Committee. This committee provides a forum for carrying out the requirements of Measure C and is responsible for developing and adopting an *Action Plan for Routes of Regional Significance*. The Action Plans from each Regional Committee are integrated with Action Plans from other regional transportation planning committees to form the CCTA Countywide Comprehensive Transportation Plan.

**Metropolitan Transportation Commission (MTC)**

The regional planning agency for the Bay Area is the Metropolitan Transportation Commission (MTC). MTC is the clearinghouse for both State and Federal funds for transportation improvements. Each county’s CMA, including CCTA, forwards their capital improvement project list to MTC. MTC reviews the lists submitted by all nine Bay Area counties and submits a regional priority list to the California Transportation Commission (CTC) and/or the Federal Highway Administration for selection of projects to receive funding.

**Caltrans**

The California Department of Transportation (Caltrans) has authority over the state highway system including mainline facilities and interchanges. Caltrans must be involved in and approve the planning and design of improvements for state highway facilities. State highway facilities in
Pittsburg include State Route 4 and the interchanges at Willow Pass Road, Bailey Road, Railroad Avenue, and Loveridge Road.

Central Contra Costa Transit Authority
The Central Contra Costa Transit Authority (CCCTA) is a joint powers agency established in 1980 to plan and operate transit service in the central County. It is comprised of eleven jurisdictions including Clayton, Concord, Lafayette, Martinez, Orinda, Pleasant Hill, San Ramon, Walnut Creek, Danville, Moraga, and unincorporated Central County. Transportation agencies include TRANSPLAN, TRANSPAC, TVTC, SWAT, WCCTAC, and LPMC. In addition to fixed route services, the CCCTA administers paratransit services within the CCCTA service area.

10.1 SETTING
Site Location and Study Area Boundaries
The plan is centered on the State Route 4 / Bailey Road interchange and the Pittsburg/Bay Point BART Station. Within the study area, there are four primary roadways that will accommodate traffic to and from the Specific Plan area: State Route 4, Bailey Road, Willow Pass Road, and West Leland Road. These roadways service a large volume of traffic, much of which is from outside the area. The Contra Costa Transportation Authority (CCTA) recognized the regional function that these roadways serve and has classified these roadways as “routes of regional significance.” A brief description of each of these roadways is provided in the following sections. The site location is shown in Figure 10-1.
Description of Specific Plan Area

The Pittsburg/Bay Point BART Station Area Specific Plan covers a finite area of approximately 295 acres immediately adjacent to and along major access routes to the BART station. The proposed project consists of four development zones. Zone I is located completely within the incorporated limits of the City of Pittsburg, and is south of State Route 4 and mostly west of Bailey Road. The proposed land uses for Zone I include approximately 50,000 square feet of commercial, 75,000 square feet of office, and 1,790 dwelling units. Zone II is located mostly within unincorporated Contra Costa County and is south of State Route 4 and east of Bailey Road. The proposed land uses for Zone II include approximately 20,000 square feet of commercial and 270 dwelling units. Zone III is located north of State Route 4, south of Willow Pass Road, and includes property east and west of Bailey Road. Proposed land uses include 155,000 square feet of commercial and 135 dwelling units. Of the total commercial uses, about 70,000 square feet would be new strip commercial uses along Willow Pass Road, while 85,000 square feet would be a new shopping area along Bailey Road near Canal Road. Zone IV is located north of Willow Pass Road and includes approximately 14,000 square feet of commercial. It is anticipated that buildout of the proposed uses in the Specific Plan will be completed by year 2010.

Existing BART System and Operations

The San Francisco Bay Area Rapid Transit District was created by the California State Legislature in 1957, in response to Bay Area growth and transportation needs. Voter approval, in 1962, of a $792 million general obligation bond issue in San Francisco, Alameda, and Contra Costa counties provided the initial funding base and authorization to begin construction of the 71-mile system. BART was the first new rail transit system to be built in the United States in more than 60 years and the first rail system to make large-scale use of computer technology. BART is a third rail, 1,000 volt DC, electrically powered railway. The rail right-of-way is fully protected and has no grade crossings.

The 1962 general obligation bond issue provided funding for BART's core system, which opened for service on September 11, 1972. On opening day, the core system included 71 miles of double-mainline track, three maintenance facilities and associated yards, 450 vehicles (11 of which have been retired from the fleet to date), 33 stations, and an administration and operations control center. Capital improvements made over the past 26 years have added 230 more cars, the Daly City Yard and Maintenance Facility, a third mainline track through downtown Oakland, a new central train control computer, and six additional stations. Embarcadero station opened for service in May 1976, North Concord/Martinez in December 1995, Colma in February 1996, Pittsburg/Bay Point in December 1996, and both Castro Valley and Dublin/Pleasanton in May 1997.
BART’s current 669-car fleet consists of three types of vehicles: 135 control-equipped A-cars, 304 non-control B-cars, and 230 C-cars (the latter type consist of 150 C1s and 80 C2s, of which 29 are currently control equipped). A- and B-cars are BART’s first generation vehicles, manufactured between 1971 and 1975. Trains are operated from the lead A- or C-car and train movements are automatically controlled by computers located along the right-of-way. System train supervision is provided by BART’s train control computer at the Operations Control Center, located in the Lake Merritt Administration Building in downtown Oakland. Train operators aboard each train can override the automatic system should the need arise.

Permissible train lengths range from three to ten cars. The three-car minimum train length is a California Public Utilities Commission requirement. The ten-car maximum length corresponds to station platform lengths. Resulting capacity is between 192 and 720 seated passengers for three and ten-car trains, respectively. Vehicle performance specifications include a maximum 80 mile per hour speed. Revenue service is based on a 70 mile per hour maximum speed. The systemwide average speed for revenue service, including station stops, is 36 miles per hour.

The system consists of 39 stations, 14 of which are in subway, 13 elevated, and 12 at grade. All stations have platform lengths of approximately 700 feet to accommodate BART’s maximum train length of ten cars. On average, stations are spaced between one-half to one mile apart within and adjacent to San Francisco, Oakland, and Berkeley downtown areas, and two to ten miles apart in suburban areas.

Stations are accessed by stairways, elevators, and escalators that link various levels to streets, connecting local transit, and parking areas. Automatic fare collection equipment is located in each station, to vend and process passenger tickets. Automated train destination signs on the platform level of each station provide visual displays of an arriving train’s destination and other information. All stations have special displays on the platform and concourse levels to provide additional information with regard to train schedules, local area destinations, connecting transit, and other information to assist BART riders. A public address system linked to BART’s Operations Control Center is used to provide additional passenger information. Station agents also use this system to makeannouncements in stations.

Depending upon location, station access facilities include dedicated bus lanes and berths, bus stop shelters, transit information centers, regional transit ticket outlets, transfer dispensers, bicycle racks and lockers, and parking. Parking is an important feature at suburban stations where a majority of BART riders arrive by auto. BART’s station parking inventory consists of 41,455 free spaces at 28 stations and 211 spaces at Lake Merritt Station at a daily charge of 25 cents.

Rail service is provided between the hours of 4:00 a.m. and 1:30 a.m., Monday through Friday; 6:00 a.m. to 1:30 a.m. on Saturdays; and 8:00 a.m. to 1:30 a.m. on Sundays and major holidays. Closing times for individual stations are coordinated with the schedule for the last train departure beginning approximately at midnight. Depending upon demand, holiday rail service is
either operated on a full or modified weekday schedule, or Saturday or Sunday schedule. BART service is also coordinated with major Bay Area events. Depending upon demand, additional rail service for special events is provided.

The Pittsburg/Bay Point BART Station began operation in December 1996. It serves as the terminus station for BART’s Concord Line. Current daily ridership is approximately 7,800. Parking for about 2,032 vehicles is provided in surface parking lots at the station. BART has considered purchasing the adjacent 3.45-acre vacant parcel to develop it into all-day parking for BART patrons (see Figure 3-16 in Chapter 3: Project Description). Local vehicle roadway access to and from the station is provided via Bailey Road and West Leland Road. Regional access is provided by the adjacent State Route 4 freeway.

**Existing and Committed Surface Transportation Network**

**Bailey Road** is a four-lane, north-south arterial roadway with turn-lanes at all signalized and most unsignalized intersections in the study area. However, the roadway narrows to two lanes between Pittsburg and Concord. Bike lanes are provided between Willow Pass Road and Canal Road. Bailey Road has been identified as a Route of Regional Significance within the City of Pittsburg in the June 2000 Draft East County Action Plan (between Willow Pass Road and the Pittsburg/Concord city limits). A Route of Regional Significance means there are certain regional performance standards that should be met.

**Willow Pass Road** is a four-lane arterial roadway west of Bailey Road and a two-lane roadway east of Bailey Road. The portion of Willow Pass Road west of Bailey Road in the Specific Plan area is currently 76 feet wide in an 84-foot right-of-way, and contains bike lanes and 11-foot travel lanes. Willow Pass Road provides a local alternative to the State Route 4 freeway and is used quite heavily during the peak commute periods.

**West Leland Road** is a four-lane, east-west arterial roadway with left-turn lanes at most intersections. The western terminus is currently about one-quarter mile west of the BART station exit. There are plans, however, to extend West Leland Road west to the future San Marco Boulevard and ultimately to Avila Road (and Willow Pass Road in Concord). When completed, it is likely that West Leland Road will serve as an alternate route to State Route 4 as well as an access route to the Bay Point interchange with State Route 4 (via San Marco Boulevard).
State Route 4 is a four- to ten-lane freeway running in an east-west direction through the City of Pittsburg. It continues westerly to the cities of Concord and Hercules to connections with the I-680 and I-80 freeways, and easterly to the cities of Antioch, Brentwood and Stockton. State Route 4 has been recently widened west of Bailey Road to an eight-lane facility (with ten lanes over the Willow Pass Grade), but narrows just east of the Bailey Road interchange to a four-lane facility. Currently, State Route 4 is being widened to eight lanes eastward to Railroad Avenue. The June 2000 Draft East County Action Plan has identified State Route 4 as a Route of Regional Significance.

Critical Intersections
Several intersections including some within the Specific Plan area and some outside of the Specific Plan area were analyzed in this study. They include the following:

Pittsburg Intersections
- Willow Pass Road / Bailey Road
- State Route 4 Westbound Ramps / Bailey Road / Canal Road
- State Route 4 Eastbound Ramps / BART Station Access / Bailey Road
- Maylard Street / Bailey Road
- West Leland Road / Bailey Road
- Willow Pass Road / State Route 4 Eastbound Off-ramp / Evora Road (2010 only)

Concord Intersections
- Bailey Road / Myrtle Drive
- Bailey Road / Concord Boulevard
- Concord Boulevard / Denkinger Road

Based upon evaluation in the August 1999 Pittsburg/Bay Point BART Station Area Specific Plan Draft EIR and review of current year 2010 East County Traffic Model projections, the following intersections were not evaluated in this current study as they would be expected to have good to acceptable (LOS A to B) peak hour operation:
- West Leland Road / BART Entrance
- West Leland Road / BART Exit
- Willow Pass Road / Alves Road
- San Marco Boulevard / West Leland Road
- San Marco Boulevard / State Route 4 Eastbound Off-ramp
Existing Traffic Volumes

Existing weekday AM and PM peak period traffic counts were available at all locations from two EIRs currently under preparation for the City. Counts (7:00-9:00 a.m. and 4:00-6:00 p.m.) conducted in March and June 2000 by Fehr & Peers Associates for the Alves Subdivision EIR and counts conducted in October and November 2000 by Crane Transportation Group for the Pittsburg/Bay Point BART Station Area Specific Plan Recirculated Draft EIR were reviewed. Count results indicate that the morning commute peak traffic hour at most intersections occurs from 7:15 to 8:15 a.m. while the evening commute peak traffic hour at most locations occurs from 5:00 to 6:00 p.m. Year 2000 AM and PM peak hour 2000 traffic volumes are shown in Figures 10-2 and 10-3.

Existing Intersection Operation

Intersection level of service analyses were conducted to determine existing traffic conditions within and near the Specific Plan area. Analyses results are summarized in Table 10-1. The intersections were analyzed using the Contra Costa Transportation Authority’s Volume-to-Capacity Contra Costa (VCCC) procedures. The VCCC method is based on the Transportation Research Board’s (TRB) Circular 212 Planning Procedures; however, the lane capacities have been adjusted to reflect actual conditions in Contra Costa County. The method gives a Level of Service (LOS) grade of A through F for the intersection as a whole, the grades being related to the volume-to-capacity (V/C) ratio for the sum of the intersection’s approaches.

City of Pittsburg Community Development Department staff have indicated that the following standards should be utilized to evaluate operation of all intersections within the Specific Plan area in Pittsburg. For Bailey Road evaluation, criteria detailed in the June 2000 Draft East County Action Plan that are being considered for inclusion in the City’s ongoing General Plan Update are as follows:

Signalized Intersection Minimum Acceptable Operation: LOS E V/C = .99

Intersections in Pittsburg along West Leland Road, Willow Pass Road, and the future San Marco Boulevard have been evaluated based upon the following criteria:

Signalized Intersection Minimum Acceptable Operation: LOS D V/C = .85

The City of Concord Transportation Manager has indicated that Bailey Road is not currently considered a Route of Regional Significance in Concord and that the following standards should be utilized to evaluate operation of all intersections along Bailey Road as well as Concord Boulevard within Concord:

Signalized Intersection Minimum Acceptable Operation: LOS D V/C = .89

Unsignalized Intersection Minimum Acceptable Operation for any Approach or Movement: LOS D
CHAPTER 10: TRANSPORTATION

FIGURE 10-2
2000 Traffic Volumes
Without Project
AM Peak Hour
### Table 10-1

Intersection Capacity Analysis Summary – Existing Conditions (Without Project)

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Level of Service (V/C Ratio)</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Willow Pass Road / Bailey Road</td>
<td>A / (.53)</td>
<td>C / (.72)</td>
<td></td>
</tr>
<tr>
<td>Bailey Road / Canal Road / State Route 4 WB On-Ramp</td>
<td>D / (.88)</td>
<td>B / (.66)</td>
<td></td>
</tr>
<tr>
<td>Bailey Road / State Route 4 EB Ramps</td>
<td>B / (.62)</td>
<td>D / (.81)</td>
<td></td>
</tr>
<tr>
<td>Bailey Road / Maylard Street</td>
<td>A / (.59)</td>
<td>A / (.49)</td>
<td></td>
</tr>
<tr>
<td>Bailey Road / West Leland Road</td>
<td>D / (.87)</td>
<td>C / (.77)</td>
<td></td>
</tr>
<tr>
<td>West Leland Road / BART Entrance</td>
<td>A / (.20)</td>
<td>A / (.14)</td>
<td></td>
</tr>
<tr>
<td>West Leland Road / BART Exit</td>
<td>A / (.13)</td>
<td>A / (.25)</td>
<td></td>
</tr>
<tr>
<td>Bailey Road / Concord Boulevard</td>
<td>B / (.68)</td>
<td>C / (.73)</td>
<td></td>
</tr>
<tr>
<td>Bailey Road / Myrtle Drive</td>
<td>D / (26.2 sec) a</td>
<td>C / (16.9 sec) a</td>
<td></td>
</tr>
<tr>
<td>Concord Boulevard / Denkinger Road</td>
<td>A / (.56)</td>
<td>B / (.61)</td>
<td></td>
</tr>
</tbody>
</table>

*Level of service a (vehicle delay in seconds) – Myrtle Drive stop sign controlled approach to Bailey Road.*

Source: Crane Transportation Group, March 2001.

Table 10-1 presents existing intersection levels of service for AM and PM peak hour conditions. As shown, all intersections both in Pittsburg and Concord are currently operating acceptably during both the AM and PM peak hours. Although theoretical evaluation indicates acceptable operation at individual intersections, there are currently three locations experiencing congestion. Backups now occur on the northbound Bailey Road approach to the westbound State Route 4 on-ramp intersection during the AM peak hour, which extend southerly through the State Route 4 eastbound ramps, Maylard Road and West Leland Road intersections. Likewise, during the evening commute peak hour there are currently backups from the left turn lanes on the southbound Bailey Road approach to West Leland Road that extend through the Maylard Road and State Route 4 eastbound ramps intersections. Backups during both time periods were observed to be caused by two factors:

- the lack of adequate signal progression between intersections in the peak flow direction, and
- the lack of extended storage in the second (shorter) left turn lanes on the northbound Bailey Road approach to the State Route 4 westbound on-ramp and on the southbound Bailey Road approach to West Leland Road. The single travel lanes leading into both dual left turn pockets are unable to deliver traffic quickly enough into both turn lanes in order for them to operate at maximum efficiency during peak traffic periods.

AM peak hour congestion also occurs along Concord Boulevard to the north of the Denkinger Road intersection (due to traffic accessing a nearby high school). Northbound Concord Boulevard traffic backs up through the Denkinger Road intersection.
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Existing Freeway Operation

Table 10-2 presents existing AM and PM peak hour operating conditions on the State Route 4 freeway to the east and west of the Bailey Road interchange. Currently, the freeway has two lanes in each direction to the east of Bailey Road and three lanes in each direction just west of the Bailey Road interchange. A fourth (auxiliary) lane is also provided in each direction over the Willow Pass Grade between the Bay Point and Willow Pass Road (Concord) interchanges. The Contra Costa Congestion Management Program (CMP) had originally established the level of service standard for State Route 4 in Pittsburg as LOS F. However, the recent Draft East County Action Plan has eliminated level of service and volume to capacity (V/C) ratio evaluation for freeways, although County staff still considers LOS and V/C determinations a useful analysis for informational purposes. Based upon the 1997 Highway Capacity Manual, the projected maximum acceptable capacities for freeway analysis are 2,350 passenger car equivalents (pce) per hour for regular travel lanes; 1,800 pce per hour for HOV lanes; and 1,000 pce per hour for auxiliary lanes between interchanges. In addition to level of service, Traffic Service Objective (TSO) analysis, as required by the Action Plan for Routes of Regional Significance for Eastern Contra Costa County, will be conducted for the Specific Plan before certification of this EIR as directed by CCTA. TSO criteria compare travel times during peak commute conditions versus those during free flow conditions. The TSO for State Route 4 in the project area is 2.5.

As shown in Table 10-2, the State Route 4 freeway is now operating at LOS F conditions to the east of the Bailey Road interchange in the westbound direction during the AM commute peak hour and in the eastbound direction during the PM commute peak hour. During the PM peak hour, eastbound queues extend from just east of the Bailey Road interchange (where the freeway merges from three to two lanes) past the Bay Point interchange and intermittently past the Willow Pass Road interchange in Concord. All other segments of the State Route 4 freeway near the Bailey Road interchange are operating well under capacity.

Forecast Future Traffic Conditions

Weekday AM and PM peak hour traffic projections have been developed for year 2005 and 2010 horizons. Year 2010 projections were developed using the East County Traffic Model. Year 2005 projections were developed manually using trip generation rates from
### TABLE 10-2
State Route 4 Freeway Operation — Existing Conditions

<table>
<thead>
<tr>
<th>Segment</th>
<th>AM PEAK HOUR</th>
<th>PM PEAK HOUR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Capacity</td>
<td>Volume</td>
</tr>
<tr>
<td><strong>WESTBOUND</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Railroad Avenue to Bailey Road</td>
<td>4,500  b</td>
<td>4,545</td>
</tr>
<tr>
<td>Bailey Road to Bay Point</td>
<td>7,050  c</td>
<td>4,915</td>
</tr>
<tr>
<td>1,800 HOV d</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td><strong>EASTBOUND</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bay Point to Bailey Road</td>
<td>9,400  *</td>
<td>2,415</td>
</tr>
<tr>
<td>1,800 HOV d</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td>Bailey Road to Railroad Avenue</td>
<td>4,500  b</td>
<td>2,700</td>
</tr>
</tbody>
</table>

* Volumes are in passenger car equivalents (PCE). All trucks and buses are assigned an equivalency factor converting them into a greater number of automobiles. Typically, 1 truck is equivalent to 2 autos on level freeways, and to 8 or more autos on lengthy, steep freeway grades. This conversion is required for capacity analyses.

b Capacity for two Non-High Occupancy Vehicle (HOV) travel lanes.
c Capacity for three non-HOV travel lanes.
d Capacity for HOV travel lane.
e Capacity for four non-HOV travel lanes.
f See Appendix C for Level of Service Definitions.

Source: Crane Transportation Group, July 2001.
the Institute of Transportation Engineers and distribution patterns reflective of output from the 2010 East County Traffic Model results. Year 2005 background conditions assumed development of a list of approved projects supplied by the City of Pittsburg. However, only one-third of the San Marco and Alves developments were assumed completed by this horizon. For the 2010 analysis horizon, approximately two-thirds of the San Marco and Alves residential units and all of the Alves office and retail development were assumed completed.

Roadway Assumptions for 2005 and 2010 Analysis

Year 2005

- The State Route 4 freeway was projected to be widened to 8 lanes (3 mix flow lanes and 1 HOV lane each direction) to just east of the Railroad Avenue interchange in Pittsburg. This construction is now in progress. HOV lanes will also be provided (one in each direction) to the west of the Bailey Road interchange over the Willow Pass Grade to the State Route 242 interchange.

- West Leland Road was assumed extended westerly to a connection with San Marco Boulevard, but not to Willow Pass Road in Concord.

- San Marco Boulevard was assumed extended south of the Bay Point interchange to a connection with West Leland Road, but not to Bailey Road.

Year 2010

- The State Route 4 freeway was projected to be widened to 8 lanes to the Delta Expressway interchange in Antioch (east of the Hillcrest interchange).

- West Leland Road was assumed extended westerly (as a 4-lane road) to Willow Pass Road in Concord.

- San Marco Boulevard was assumed extended southerly (as a 2-lane road) to Bailey Road near Concord.

- Bailey Road was not projected to be widened between Pittsburg and Concord.

Year 2010 East County traffic modeling assumed the following BART system improvements and characteristics in the project area.

BART Operation Assumptions for 2005 and 2010 Analysis

- No easterly extension of BART beyond the Pittsburg/Bay Point BART Station was assumed for either the 2005 or 2010 analysis. A 1998 study has projected almost a doubling in use of the Pittsburg/Bay Point BART Station by 2020 assuming an unconstrained parking supply. However, the Pittsburg/Bay Point BART Station is projected to have a maximum of about 2,400 total parking spaces (about 2,000 garage and 380 surface) by 2005 or 2010. Nearby neighborhood on-street parking restrictions have also been assumed that would preclude BART patron parking in these areas. Therefore, with the constrained parking supply assumed for this study, it is likely that the BART
parking facilities at the Pittsburg/Bay Point BART Station would be full before the local roadway system AM commute peak traffic hour (7:30–8:30). However, at the direction of BART staff, the same BART-related traffic volumes have been assumed on the local roadways near the BART station during the peak commute hours in 2005 and 2010 as have been found in recent traffic counts. While people now parking in the neighborhood have been projected to be using the new 380-space BART lot, additional people would also be expected to access the BART lot looking for space or to drop off a relative or friend. In addition, some BART parking spaces may have time limits, making them available only after a certain later hour during the morning commute.

A separate evaluation has also been provided at the end of this EIR section detailing the impacts of the 380-space lot on year 2005 circulation system operating conditions should all 380 spaces fill during the AM peak hour, all 380 spaces empty during the PM peak hour, and neighborhood parking remain available. This more conservative analysis has been conducted to show that there would be no additional significant impacts should, for instance, the parking in the 380-space lot be reserved for use starting after 7:30 a.m.

Year 2005 Base Case (without project) AM and PM peak hour volumes are presented in Figures 10-4 and 10-5, respectively, while year 2010 Base Case (without project) AM and PM peak hour volumes are presented in Figures 10-6 and 10-7, respectively.

Year 2005 and 2010 projected Base Case (without project) levels of service for all analyzed intersections in the study area are presented in Table 10-3. As shown, by 2005 all intersections would be operating at acceptable levels of service with the exception of Bailey Road at Concord Boulevard during the PM peak hour (LOS E operation) and Bailey Road at Myrtle Drive during the AM peak hour (LOS F operation on the stop sign controlled Myrtle Drive approach). By 2010, all intersections would be operating at acceptable levels of service with the exception of Bailey Road at both Concord Boulevard and Myrtle Drive. The Bailey Road / Concord Boulevard intersection would experience LOS D operation during the AM peak hour (V/C = .90) and LOS F operation during the PM peak hour, while the Bailey Road / Myrtle Drive intersection would experience LOS F operation on the stop sign controlled Myrtle Drive intersection approach during both the AM and PM peak traffic hours.

By 2005, AM peak hour volumes at the Bailey Road / Myrtle Drive intersection would meet at least one criteria for installing traffic signals, known as a peak hour signal warrant. By 2010, both AM and PM peak hour volumes at the Bailey Road / Myrtle Drive intersection would exceed peak hour signal warrant criteria levels.
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FIGURE 10-6
Year 2010
Base Case
AM Peak Hour
TABLE 10-3
Intersection Capacity Analysis Summary –
Comparison Between 2005 and 2010 Base Case (without Project) Conditions

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Level of Service / (V/C Ratio) Unless Noted</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Year 2005 Conditions</td>
</tr>
<tr>
<td></td>
<td>AM Peak Hour</td>
</tr>
<tr>
<td>Willow Pass Road / Bailey Road</td>
<td>A / (.52)</td>
</tr>
<tr>
<td>Bailey Road / Canal Road / State Route 4 WB On-Ramp</td>
<td>C / (.72)</td>
</tr>
<tr>
<td>Bailey Road / State Route 4 EB Ramps</td>
<td>A / (.55)</td>
</tr>
<tr>
<td>Bailey Road / Maylard Street</td>
<td>B / (.62)</td>
</tr>
<tr>
<td>Bailey Road / West Leland Road</td>
<td>D / (.81)</td>
</tr>
<tr>
<td>Bailey Road / Concord Boulevard</td>
<td>C / (.79)</td>
</tr>
<tr>
<td>Concord Blvd. / Denkinger Road</td>
<td>A-B / (.60)</td>
</tr>
<tr>
<td>Bailey Road / Myrtle Drive</td>
<td>F (52.3) a</td>
</tr>
</tbody>
</table>

Source: Crane Transportation Group, March 2001.

* Level of Service / (average vehicle delay in seconds) – Myrtle Drive stop sign controlled approach.

Recommended improvements for unacceptable 2005 Base Case intersection operating conditions would be as follows:

**Bailey Road / Concord Boulevard**
- Provide an exclusive left-turn lane on the southbound Bailey Road intersection approach.

  Resultant PM peak hour operation: LOS D — V/C = .88

**Bailey Road / Myrtle Drive**
- Signalize the intersection when warranted and provide a left-turn lane on the southbound Bailey Road intersection approach.

  Resultant operation as a signalized intersection:
  - AM Peak Hour: LOS B — V/C = .61
  - PM Peak Hour: LOS B — V/C = .66
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Recommended improvements for unacceptable 2010 Base Case intersection operating conditions would be as follows:

**Bailey Road / Concord Boulevard**
- Provide exclusive left-turn lanes on the northbound and southbound Bailey Road intersection approaches.
  
  *Resultant AM peak hour operation: LOS C — V/C = .74*  
  *Resultant PM peak hour operation: LOS D — V/C = .87*

**Bailey Road / Myrtle Drive**
- Signalize the intersection when warranted and provide a left-turn lane on the southbound Bailey Road intersection approach.
  
  *Resultant AM peak hour operation: LOS B — V/C = .69*  
  *Resultant PM peak hour operation: LOS C — V/C = .72*

**Freeway Operation**

By 2005, the State Route 4 freeway is projected to have three non-HOV lanes in each direction in the plan area plus one HOV lane in each direction from just east of the Railroad Avenue interchange in Pittsburg to the State Route 242 interchange in Concord. In addition, one auxiliary lane would be provided in each direction between the Bailey Road interchange in Pittsburg and the Willow Pass Road interchange in Concord. By 2010, the State Route 4 freeway widening east of the Hillcrest interchange to three non-HOV lanes plus one HOV lane in each direction would be extended to the proposed Delta Expressway interchange in Antioch.

Model output projections of freeway volumes have been adjusted to reflect the expected impact of heavy truck traffic on vehicle flow, particularly on the uphill approaches to the Willow Pass Grade between the Willow Pass and Bay Point interchanges. Existing heavy truck percentages have been assumed to remain the same in 2005 and 2010 as today for analysis purposes (±3.1 percent), although the percentage during peak traffic hours would be expected to drop over time due to the significant increase in residential development (and related auto traffic) in the State Route 4 corridor.

Tables 10-4 and 10-5 show that during the 2005 and 2010 AM peak commute hours, all analyzed segments of the State Route 4 freeway are projected to be operating under capacity except the uphill westbound non-HOV travel lanes over the Willow Pass Grade (from the Bay Point interchange to the top of the pass). During the 2005 and 2010 PM peak commute hours, all analyzed segments of the State Route 4 freeway are projected to be operating under capacity except the uphill eastbound non-HOV travel lanes over the Willow Pass Grade (from the Willow Pass Road [Concord] interchange to the top of the
<table>
<thead>
<tr>
<th>Segment</th>
<th>Base Case No Project Condition</th>
<th>With Specific Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Capacity</td>
<td>Volume</td>
</tr>
<tr>
<td></td>
<td>At or Under</td>
<td>V/C Ratio</td>
</tr>
<tr>
<td>Bailey Road to San Marco Boulevard</td>
<td>8,050 e</td>
<td>6.035</td>
</tr>
<tr>
<td>Willow Pass Grade to top of San Marco Boulevard</td>
<td>8,050 e</td>
<td>1.071</td>
</tr>
<tr>
<td>Top of Willow Pass Grade to Willow Pass Road (Concord)</td>
<td>8,050 e</td>
<td>1.227</td>
</tr>
<tr>
<td>Willow Pass Road (Concord) to Top of Willow Pass Grade to San Marco Boulevard</td>
<td>10,400 e</td>
<td>2.585</td>
</tr>
<tr>
<td>San Marco Boulevard to Bailey Road</td>
<td>10,400 e</td>
<td>2.312</td>
</tr>
<tr>
<td>East of Bailey Road</td>
<td>9,400 e</td>
<td>2.439</td>
</tr>
</tbody>
</table>

* Volume in passenger car equivalents (PCE).
+ Capacity for three non-HOV travel lanes plus one auxiliary lane between interchanges.
+ Capacity for three non-HOV travel lanes plus one auxiliary lane downstream.
+ Capacity for four through travel lanes plus one auxiliary lane between interchanges.
+ Capacity for four through travel lanes plus one auxiliary lane downstream.
+ No HOV lane restrictions in off-peak direction—capacity for four through travel lanes.
+ No HOV lane restrictions—capacity for four through travel lanes.

Source: CalTrans Transportation Group.
### TABLE 10-4 (CONTINUED)
State Route 4 Freeway Operation — 2005: PM Peak Hour

<table>
<thead>
<tr>
<th>Segment</th>
<th>Capacity</th>
<th>Volume</th>
<th>V/C Ratio</th>
<th>At or Under Capacity</th>
<th>Volume</th>
<th>V/C Ratio</th>
<th>At or Under Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Westbound (Off-Peak Direction)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>East of Bailey Road</td>
<td>9,400 b</td>
<td>2,941</td>
<td>.31</td>
<td>Under</td>
<td>3,048</td>
<td>.32</td>
<td>Under</td>
</tr>
<tr>
<td>Bailey Road to San Marco Boulevard</td>
<td>10,400 c</td>
<td>3,007</td>
<td>.29</td>
<td>Under</td>
<td>3,051</td>
<td>.29</td>
<td>Under</td>
</tr>
<tr>
<td>San Marco Boulevard to top of Willow Pass Grade</td>
<td>10,400 c</td>
<td>4,095 d</td>
<td>.39</td>
<td>Under</td>
<td>4,195 d</td>
<td>.40</td>
<td>Under</td>
</tr>
<tr>
<td>Top of Willow Pass Grade to Willow Pass Road (Concord)</td>
<td>10,400 c</td>
<td>3,250 d</td>
<td>.31</td>
<td>Under</td>
<td>3,350 d</td>
<td>.32</td>
<td>Under</td>
</tr>
<tr>
<td><strong>Eastbound (Peak Direction)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Willow Pass Road (Concord) to top of Willow Pass Grade</td>
<td>8,050 a</td>
<td>8,592 d</td>
<td>1.07</td>
<td>At LOS F</td>
<td>8,853 d</td>
<td>1.10</td>
<td>At LOS F</td>
</tr>
<tr>
<td>Top of Willow Pass Grade to San Marco Boulevard</td>
<td>1,800 HOV</td>
<td>1,003</td>
<td>.55</td>
<td>Under</td>
<td>1,035</td>
<td>.58</td>
<td>Under</td>
</tr>
<tr>
<td>San Marco Boulevard to Bailey Road</td>
<td>8,050 a</td>
<td>5,492</td>
<td>.68</td>
<td>Under</td>
<td>5,580</td>
<td>.69</td>
<td>Under</td>
</tr>
<tr>
<td>East of Bailey Road</td>
<td>7,050 a</td>
<td>4,508</td>
<td>.64</td>
<td>Under</td>
<td>4,590</td>
<td>.65</td>
<td>Under</td>
</tr>
</tbody>
</table>

*Volumes are in passenger car equivalents (PCE).*

*No HOV lane restrictions in off-peak direction—capacity for four through travel lanes.*

*No HOV lane restrictions in off-peak direction—capacity for four through travel lanes plus one auxiliary lane between interchanges.*

*Maximum volumes at interchanges reflect different PCEs for truck traffic uphill versus downhill.*

*Capacity for three non-HOV travel lanes plus one auxiliary lane between interchanges.*

*Capacity for one HOV travel lane.*

*Capacity for three non-HOV travel lanes.*

Source: Crane Transportation Group.

1997 HCM Analysis Methodology
### TABLE 10-5
State Route 4 Freeway Operation — 2010: AM Peak Hour

<table>
<thead>
<tr>
<th>Segment</th>
<th>Capacity</th>
<th>Volume</th>
<th>V/C Ratio</th>
<th>At or Under Capacity</th>
<th>With Specific Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Un</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Westbound (Peak Direction)</strong></td>
<td></td>
<td></td>
<td>Un</td>
<td></td>
<td></td>
</tr>
<tr>
<td>East of Bailey Road</td>
<td>7,050 a</td>
<td>6,238</td>
<td>.88</td>
<td>Under</td>
<td>6,394</td>
</tr>
<tr>
<td></td>
<td>1,800 HOV c</td>
<td>1,183</td>
<td>.66</td>
<td>Under</td>
<td>1,179</td>
</tr>
<tr>
<td>Bailey Road to San Marco Boulevard</td>
<td>8,050 a</td>
<td>5,988</td>
<td>.74</td>
<td>Under</td>
<td>6,167</td>
</tr>
<tr>
<td></td>
<td>1,800 HOV c</td>
<td>1,264</td>
<td>.70</td>
<td>Under</td>
<td>1,253</td>
</tr>
<tr>
<td>San Marco Boulevard to top of Willow Pass Grade</td>
<td>8,050 a</td>
<td>8,709 a</td>
<td>1.08</td>
<td>At LOS F</td>
<td>8,959 a</td>
</tr>
<tr>
<td>Top of Willow Pass Grade to Willow Pass Road (Concord)</td>
<td>8,050 a</td>
<td>6,600 a</td>
<td>.82</td>
<td>Under</td>
<td>6,793 a</td>
</tr>
<tr>
<td></td>
<td>1,800 HOV c</td>
<td>1,456</td>
<td>.81</td>
<td>Under</td>
<td>1,450</td>
</tr>
<tr>
<td><strong>Eastbound (Off-Peak Direction)</strong></td>
<td></td>
<td></td>
<td>Un</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Willow Pass Road (Concord) to top of Willow Pass Grade</td>
<td>10,400 a</td>
<td>3,110 a</td>
<td>.30</td>
<td>Under</td>
<td>3,208 a</td>
</tr>
<tr>
<td>Top of Willow Pass Grade to San Marco Boulevard</td>
<td>10,400 a</td>
<td>2,464 a</td>
<td>.24</td>
<td>Under</td>
<td>2,543 a</td>
</tr>
<tr>
<td>San Marco Boulevard to Bailey Road</td>
<td>10,400 a</td>
<td>2,176</td>
<td>.21</td>
<td>Under</td>
<td>2,208</td>
</tr>
<tr>
<td>East of Bailey Road</td>
<td>9,400 a</td>
<td>2,503</td>
<td>.27</td>
<td>Under</td>
<td>2,598</td>
</tr>
</tbody>
</table>

* Volumes are in passenger car equivalents (PCE).
* Capacity for three non-HOV travel lanes.
* Capacity for one HOV travel lane.
* Capacity for three non-HOV travel lanes plus one auxiliary lane between interchanges.
* Difference in volumes between interchanges reflected PCEs for truck traffic uphill versus downhill.
* No HOV lane restrictions in off-peak direction—capacity for four through travel lanes plus one auxiliary lane between interchanges.
* No HOV lane restrictions—capacity for four through travel lanes.

---

1997 HCM Analysis Methodology

Sources: 2010 East County Model Projections by Dowling Associates; Crane Transportation Group.
<table>
<thead>
<tr>
<th>Segment</th>
<th>Capacity</th>
<th>Volume</th>
<th>V/C Ratio</th>
<th>At or Under Capacity</th>
<th>Volume</th>
<th>V/C Ratio</th>
<th>At or Under Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Westbound (Off-Peak Direction)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>East of Bailey Road</td>
<td>9,400²</td>
<td>3,286</td>
<td>.35</td>
<td>Under</td>
<td>3,374</td>
<td>.36</td>
<td>Under</td>
</tr>
<tr>
<td>Bailey Road to San Marco Boulevard</td>
<td>10,400³</td>
<td>2,959</td>
<td>.28</td>
<td>Under</td>
<td>2,996</td>
<td>.29</td>
<td>Under</td>
</tr>
<tr>
<td>San Marco Boulevard to top of Willow Pass Grade</td>
<td>10,400³</td>
<td>4,205</td>
<td>.40</td>
<td>Under</td>
<td>4,310</td>
<td>.41</td>
<td>Under</td>
</tr>
<tr>
<td>Top of Willow Pass Grade to Willow Pass Road (Concord)</td>
<td>10,400³</td>
<td>3,331</td>
<td>.32</td>
<td>Under</td>
<td>3,417</td>
<td>.33</td>
<td>Under</td>
</tr>
<tr>
<td><strong>Eastbound (Peak Direction)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Willow Pass Road (Concord) to top of Willow Pass Grade</td>
<td>8,050*</td>
<td>8,791</td>
<td>1.09</td>
<td>At LOS F</td>
<td>8,938</td>
<td>1.11</td>
<td>At LOS F</td>
</tr>
<tr>
<td>San Marco Boulevard</td>
<td>1,800 HOV¹</td>
<td>1,163</td>
<td>.65</td>
<td>Under</td>
<td>1,165</td>
<td>.65</td>
<td>Under</td>
</tr>
<tr>
<td>Top of Willow Pass Grade to Bay Bailey Road</td>
<td>8,050*</td>
<td>6,720</td>
<td>.83</td>
<td>Under</td>
<td>6,839</td>
<td>.85</td>
<td>Under</td>
</tr>
<tr>
<td>San Marco Boulevard to Bailey Road</td>
<td>1,800 HOV¹</td>
<td>1,163</td>
<td>.65</td>
<td>Under</td>
<td>1,165</td>
<td>.65</td>
<td>Under</td>
</tr>
<tr>
<td>East of Bailey Road</td>
<td>7,050²</td>
<td>6,193</td>
<td>.88</td>
<td>Under</td>
<td>6,394</td>
<td>.91</td>
<td>Under</td>
</tr>
<tr>
<td></td>
<td>1,800 HOV¹</td>
<td>1,009</td>
<td>.56</td>
<td>Under</td>
<td>1,008</td>
<td>.56</td>
<td>Under</td>
</tr>
</tbody>
</table>

*Volumes are in passenger car equivalents (PCE).
²No HOV lane restrictions in off-peak direction—capacity for four through travel lanes.
³No HOV lane restrictions in off-peak direction—capacity for four through travel lanes plus one auxiliary lane between interchanges.
⁴Differences in volumes between interchanges reflects different PCEs for truck traffic uphill versus downhill.
*Capacity for three non-HOV travel lanes plus one auxiliary lane between interchanges.
¹Capacity for one HOV travel lane.
²Capacity for three non-HOV travel lanes.

Sources: 2010 East County Model Projections by Dowling Associates; Crane Transportation Group
pass). Significant congestion would be expected on the uphill grades for peak direction traffic due to the slow uphill truck speeds. It should be noted that year 2010 modeling projections reflect a moderate degree of peak direction traffic diversion from the freeway onto parallel frontage roads (such as Evora Road and West Leland Road) during both commute time periods.

10.2 STANDARDS OF SIGNIFICANCE

The following criteria were applied in this transportation analysis to evaluate the significance of the traffic increases resulting from Specific Plan development. Contra Costa County provided these criteria and a copy is included in Appendix C. For purposes of this Master EIR, the term “project” as used below, refers to the Specific Plan.

- If a facility is projected to operate at an acceptable level of service without the project, and the project is not projected to increase the V/C ratio, the impact is considered less than significant.
- If a facility is projected to operate at an acceptable level of service without the project, and the project is projected to increase the V/C ratio but not create an unacceptable level of service,\(^1\) the impact is considered less than significant.
- If a facility is projected to operate at an acceptable level of service without the project, and the project is projected to cause the facility to operate at an unacceptable level of service, the impact is considered significant.
- If a facility is projected to operate at an unacceptable level of service\(^1\) without the project, and the project is projected to cause an increase in the V/C ratio, the impact is considered significant.
- If a facility is projected to operate at an unacceptable level of service without the project, and the project causes a decrease in the V/C ratio, the impact is considered beneficial.
- If movements at an unsignalized intersection are operating at acceptable levels of service and project traffic results in one or more operating at unacceptable levels, the impact is considered significant.
- If one or more movements at an unsignalized intersection are operating at unacceptable levels and the project increases total volumes entering the intersection by one percent or more, the impact is considered significant.
- If an unsignalized intersection has volumes increased to meet peak hour signal warrant criteria levels due to project traffic, the impact is considered significant.

\(^1\) Unacceptable Intersection Operation = Level of Service F (Volume/Capacity Ratio $\geq 1.00$) along Bailey Road in Pittsburg; $=$ Level of Service D (Volume/Capacity Ratio $\geq .85$) at all other analyzed locations in Pittsburg; and $=$ Level of Service E (Volume/Capacity Ratio $\geq .90$) in Concord.
• If an unsignalized intersection already has volumes that warrant a signal and the project increases total volumes entering the intersection by one percent or more, the impact is considered significant.

• The peak load factor on the BART Concord Line is increased to over 1.15.

• If proposed parking standards are inconsistent with established policies and standards of the City of Pittsburg and Contra Costa County.

• If the local pedestrian and bicycle circulation systems are degraded or are not included in new development planning.

Methodology
To evaluate general impacts on traffic operations, background traffic conditions (year 2005 and year 2010 Base Case traffic without the Specific Plan) and total traffic conditions (2005 or 2010 Base Case traffic plus Specific Plan traffic) were compared to determine if and when project traffic increases produced significant impacts. Once the level of service analyses were completed, each of the study intersections and freeway segments was evaluated to determine if Specific Plan-related traffic increases were significant compared to the criteria above.

Trip Generation
Standard traffic generation characteristics compiled by the Institute of Transportation Engineers in their report entitled *Trip Generation*, Sixth Edition, 1997, were initially applied to the proposed Specific Plan land uses to estimate the daily and peak hour gross vehicle trips. A vehicle trip is defined as a one-way vehicle movement from a point of origin to a point of destination.

Adjustments to Trip Generation Rates
Two adjustments were made to the trip generation numbers to reflect the characteristics of the Pittsburg/Bay Point study area and to account for expected high transit usage. The adjustments reflect those used in the *Pittsburg/Bay Point BART Station Specific Plan Alternatives Evaluation Report* dated November 1996, and the *Pleasant Hill BART Station Specific Plan Draft Environmental Impact Report* dated August 1997. These were used because they are the only available source of trip generation adjustment methodology available for the area. The adjustments taken are as follows:

1) **Transit trip reduction.** A 35 percent reduction was applied to residential uses and office uses. For retail uses in close proximity to the BART station, a 25 percent reduction was applied (which also included a reduction due to pass-by trips—see item #2 below). The residential and office reductions primarily reflect use of the BART system, although a minor part of the reduction would also be attributable to the higher-than-average concentration of local bus lines passing through or ending their routes at the BART station.
2) **Pass-by trip reduction.** Retail uses on major roadways typically attract pass-by trips. Frequently, a retail trip is made from the ambient flow of traffic already on the local roadway system on the way to or from work, and is considered a pass-by trip based upon historical survey data from the Institute of Transportation Engineers. From 35 to 45 percent pass-by reductions were applied to the retail land uses away from the BART station. The specific pass-by reduction was directly related to the size of retail center in question (i.e., the smaller the center, the higher the pass-by reduction).

Table 10-6 presents resultant trip rates used for analysis purposes, while Table 10-7 presents the net new trips expected on the local roadway network due to Specific Plan development.

The proposed Specific Plan development is projected to generate approximately 21,600 net new two-way daily trips to the local roadway network, with 1,110 net new two-way trips during the AM peak hour, and about 2,020 net new two-way trips during the PM peak hour.

### Trip Distribution

The overall directional distribution of the project-generated traffic is based, in part, on the location of the Specific Plan area in relation to Contra Costa County and the City of Pittsburg, on 1990 Census Data provided in the *Pittsburg General Plan Update: Existing Conditions and Planning Issues* and year 2010 traffic modeling results from the East County Traffic Model. The Census Data provided estimations of where the residents of Pittsburg work and also where the workers of Pittsburg live. As expected, the majority of residents of Pittsburg work outside the area and the majority of workers in Pittsburg live outside the area. The overall trip distribution used for the analysis is shown on Figure 10-8.

### Traffic Assignment

Traffic assignment refers to the allocation of trip generation by project to the local roadway system. Assignment of project traffic for year 2005 conditions was different than for the year 2010 in that West Leland Road was not assumed constructed between San Marco Boulevard and Willow Pass Road (Concord) for the 2005 evaluation, whereas it was assumed in place by 2010. Likewise, widening of State Route 4 is only projected to extend to Railroad Avenue by 2005, whereas it will continue to Antioch by 2010. These changes will make a difference in the roadway assignment of project traffic to/from the east and west for the two horizon years.
### TABLE 10-6

Project Trip Generation Rates *

(Net trip generation rates after allowance for pass-by trip capture and increased transit use due to proximity to BART station)

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Size</th>
<th>% Reduction in Gross Trip Rate</th>
<th>Daily Two Way</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>In</td>
<td>Out</td>
<td>Total</td>
</tr>
<tr>
<td>Zone I: Retail</td>
<td>.50 KSF</td>
<td>25%</td>
<td>65.5</td>
<td>.97</td>
<td>.82</td>
</tr>
<tr>
<td>Office</td>
<td>75 KSF</td>
<td>35%</td>
<td>7.18</td>
<td>1.06</td>
<td>.14</td>
</tr>
<tr>
<td>MF Residential</td>
<td>1,790 DU</td>
<td>35%</td>
<td>4.31</td>
<td>.05</td>
<td>.28</td>
</tr>
<tr>
<td>Zone II: Retail</td>
<td>20 KSF</td>
<td>40%</td>
<td>72.7</td>
<td>1.13</td>
<td>.73</td>
</tr>
<tr>
<td>MF Residential</td>
<td>270 DU</td>
<td>35%</td>
<td>4.31</td>
<td>.05</td>
<td>.28</td>
</tr>
<tr>
<td>Zone III: Retail</td>
<td>75 KSF</td>
<td>35%</td>
<td>26.0</td>
<td>.47</td>
<td>.31</td>
</tr>
<tr>
<td>Strip Commercial</td>
<td>85 KSF</td>
<td>35%</td>
<td>46.96</td>
<td>.68</td>
<td>.44</td>
</tr>
<tr>
<td>Retail</td>
<td>135 DU</td>
<td>35%</td>
<td>4.31</td>
<td>.05</td>
<td>.28</td>
</tr>
<tr>
<td>Zone IV: Retail</td>
<td>14 KSF</td>
<td>45%</td>
<td>75.7</td>
<td>1.20</td>
<td>.76</td>
</tr>
</tbody>
</table>

MF = Multi-Family
KSF = Thousand square feet gross floor area
DU = Dwelling units

* Trip rates are per dwelling unit for all residential development or per 1,000 square feet of development for office and retail uses.
* Reduction factors are the same as or determined based upon methodology employed in the Pleasant Hill BART Station Area Draft EIR, August 1997.


Compiled by: Crane Transportation Group.
### TABLE 10-7

Project Trip Generation Summary — Total Net New Trips Added to Local Roadway Network

<table>
<thead>
<tr>
<th>ITE Code</th>
<th>Land Use</th>
<th>Size</th>
<th>Daily</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>In</td>
<td>Out</td>
</tr>
<tr>
<td>Zone 814</td>
<td>Retail</td>
<td>50 KSF</td>
<td>3,276</td>
<td>49</td>
<td>31</td>
</tr>
<tr>
<td>I 130</td>
<td>Office</td>
<td>75 KSF</td>
<td>540</td>
<td>80</td>
<td>11</td>
</tr>
<tr>
<td>220</td>
<td>MF Residential</td>
<td>1,790 DU</td>
<td>7,716</td>
<td>90</td>
<td>501</td>
</tr>
<tr>
<td>Subtotal: Zone I</td>
<td>11,532</td>
<td>219</td>
<td>543</td>
<td>762</td>
<td>642</td>
</tr>
<tr>
<td>Zone 814</td>
<td>Retail</td>
<td>20 KSF</td>
<td>1,454</td>
<td>22</td>
<td>15</td>
</tr>
<tr>
<td>II 220</td>
<td>MF Residential</td>
<td>270 DU</td>
<td>1,164</td>
<td>13</td>
<td>76</td>
</tr>
<tr>
<td>Subtotal: Zone II</td>
<td>2,618</td>
<td>35</td>
<td>91</td>
<td>126</td>
<td>135</td>
</tr>
<tr>
<td>Zone 814</td>
<td>Retail</td>
<td>70 KSF</td>
<td>1,820</td>
<td>33</td>
<td>22</td>
</tr>
<tr>
<td>III 220</td>
<td>MF Residential</td>
<td>135 DU</td>
<td>582</td>
<td>7</td>
<td>38</td>
</tr>
<tr>
<td>Subtotal: Zone III</td>
<td>6,394</td>
<td>98</td>
<td>97</td>
<td>195</td>
<td>294</td>
</tr>
<tr>
<td>Zone 814</td>
<td>Retail</td>
<td>14 KSF</td>
<td>1,060</td>
<td>17</td>
<td>10</td>
</tr>
<tr>
<td>IV 1,060</td>
<td>Subtotal: Zone IV</td>
<td>1,117</td>
<td>1,117</td>
<td>899</td>
<td>2,016</td>
</tr>
</tbody>
</table>

| MF = Multi-Family |
| KSF = Thousand square feet gross floor area |
| DU = Dwelling units |

a For year 2005 horizon only 15,000 square feet of retail would be built along with a 380-space BART surface parking lot. By 2010 the BART surface lot would be replaced by an additional 35,000 square feet of retail use. No net new traffic was projected to or from BART parking lots during commute periods for analysis of the entire specific plan area development.

Source: Crane Transportation Group, March 2001.
CHAPTER 10: TRANSPORTATION

RESIDENTIAL DISTRIBUTION
AM Peak Hour
15% local (outbound)
43% local (inbound)

PM Peak Hour
20% local (inbound)
50% local (outbound)

OFFICE DISTRIBUTION
AM Peak Hour
5% local (inbound and outbound)

PM Peak Hour
5% local (inbound and outbound)

COMMERCIAL DISTRIBUTION
AM Peak Hour
75% local neighborhoods

PM Peak Hour
75% local neighborhoods

FIGURE 10-8
Project Trip Distribution
Analysis of Traffic Operations with the Specific Plan Development

Specific Plan traffic projections were developed for 2005 and 2010 horizons. Projections for year 2005 AM and PM peak hour conditions are presented in Figures 10-9 and 10-10, respectively, while projections for year 2010 AM and PM peak hour conditions are presented in Figures 10-11 and 10-12, respectively.

Analyses were conducted to determine year 2005 and year 2010 total traffic operating conditions at the major signalized intersections in the study area. Tables 10-8 and 10-9 summarize year 2005 AM and PM peak hour total traffic operating conditions, respectively, while Tables 10-10 and 10-11 summarize year 2010 AM and PM peak hour total traffic operating conditions, respectively.

As previously detailed, the signalized intersection level of service threshold for this study area falls under three categories, depending upon location: LOS High D, with a V/C ratio less than or equal to 0.89 for City of Concord signalized intersections; LOS E, with a V/C ratio less than or equal to 0.99 for City of Pittsburg signalized intersections along Bailey Road; and LOS mid-D, with a V/C ratio less than or equal to 0.85 for all other signalized intersections analyzed in Pittsburg.

With Specific Plan development, vehicle access to BART parking from West Leland Road is projected to be consolidated to a single signalized intersection, which would provide access to project development as well as BART parking. A new single intersection would eliminate the separate one-way inbound and outbound roadways now providing access to the BART station from West Leland Road. By 2005, in addition to the new two-way BART access from West Leland Road, the West Leland Road / San Marco Boulevard intersection would be built as part of the San Marco development near the Bay Point interchange.

10.3 IMPACTS AND MITIGATION MEASURES

This section describes the transportation and traffic impacts and required mitigation measures for buildout of the Specific Plan for year 2005 and year 2010 conditions.

The following analysis does not address traffic impacts related to individual project construction. The timing of such construction is impossible to predict. Rather, projects will be implemented over time, in a sequence that is unknown at this time. It is assumed that the issue of construction-related traffic will be addressed in future environmental review as allowed under CEQA, and as part of standard project applications/review procedures in the City of Pittsburg and Contra Costa County. Trip generation estimates and level of service impacts for individual projects will be compared to the total project estimates contained in this Master EIR.
Figure 10-11
Figure 10-12
### TABLE 10-8

Intersection Capacity Analysis Summary – Year 2005 AM Peak Hour (With and without Project)

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Without Project</th>
<th>With Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Willow Pass Road / Bailey Road</td>
<td>A / (.52)</td>
<td>A / (.56)</td>
</tr>
<tr>
<td>Bailey Road / Canal Road / State Route 4 WB On-Ramp</td>
<td>C / (.78)</td>
<td>C / (.78)</td>
</tr>
<tr>
<td>Bailey Road / State Route 4 EB Ramps</td>
<td>A / (.55)</td>
<td>A / (.59)</td>
</tr>
<tr>
<td>Bailey Road / Maylard Street</td>
<td>B / (.62)</td>
<td>A / (.60)</td>
</tr>
<tr>
<td>Bailey Road / West Leland Road</td>
<td>A / (.51)</td>
<td>D / (.90)</td>
</tr>
<tr>
<td>Bailey Road / Concord Boulevard</td>
<td>C / (.79)</td>
<td>D / (.84)</td>
</tr>
<tr>
<td>Concord Boulevard / Denkinger Road</td>
<td>A-B / (.60)</td>
<td>A-B / (.60)</td>
</tr>
<tr>
<td>Bailey Road / Myrtle Drive</td>
<td>F / (52.3) a</td>
<td>F / (90.2) a</td>
</tr>
</tbody>
</table>

Source: Crane Transportation Group, March 2001.

*a Level of Service / (average vehicle delay in seconds) Myrtle Drive stop sign controlled approach.

### TABLE 10-9

Intersection Capacity Analysis Summary – Year 2005 PM Peak Hour (With and without Project)

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Without Project</th>
<th>With Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Willow Pass Road / Bailey Road</td>
<td>A-B / (.60)</td>
<td>B / (.69)</td>
</tr>
<tr>
<td>Bailey Road / Canal Road / State Route 4 WB On-Ramp</td>
<td>B / (.68)</td>
<td>B / (.70)</td>
</tr>
<tr>
<td>Bailey Road / State Route 4 EB Ramps</td>
<td>B / (.69)</td>
<td>C / (.77)</td>
</tr>
<tr>
<td>Bailey Road / Maylard Street</td>
<td>A / (.49)</td>
<td>A / (.57)</td>
</tr>
<tr>
<td>Bailey Road / West Leland Road</td>
<td>C-D / (.80)</td>
<td>D / (.84)</td>
</tr>
<tr>
<td>Bailey Road / Concord Boulevard</td>
<td>E / (.92)</td>
<td>F / (1.01)</td>
</tr>
<tr>
<td>Concord Boulevard / Denkinger Road</td>
<td>B / (.66)</td>
<td>B / (.69)</td>
</tr>
<tr>
<td>Bailey Road / Myrtle Drive</td>
<td>D / (32.1) a</td>
<td>E / (49.0) a</td>
</tr>
</tbody>
</table>

Source: Crane Transportation Group, March 2001.

*a Level of Service / (average vehicle delay in seconds) Myrtle Drive stop sign controlled approach.
### Table 10-10
Intersection Capacity Analysis Summary – Year 2010 AM Peak Hour

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Level of Service (V/C Ratio) Without Project</th>
<th>Level of Service (V/C Ratio) With Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Willow Pass Road / Bailey Road</td>
<td>A (0.50)</td>
<td>A (0.52)</td>
</tr>
<tr>
<td>Bailey Road / Canal Road / State Route 4 WB On-Ramp</td>
<td>A (0.50)</td>
<td>A (0.56)</td>
</tr>
<tr>
<td>Bailey Road / State Route 4 EB Ramps</td>
<td>A (0.40)</td>
<td>A (0.45)</td>
</tr>
<tr>
<td>Bailey Road / Maylard Street</td>
<td>A (0.43)</td>
<td>A (0.53)</td>
</tr>
<tr>
<td>Bailey Road / West Leland Road</td>
<td>D (0.83)</td>
<td>D (0.88)</td>
</tr>
<tr>
<td>Bailey Road / Concord Boulevard</td>
<td>D (0.90)</td>
<td>E (0.96)</td>
</tr>
<tr>
<td>Concord Boulevard / Denkinger Road</td>
<td>A (0.58)</td>
<td>A (0.58)</td>
</tr>
<tr>
<td>Bailey Road / Myrtle Drive</td>
<td>F (114)</td>
<td>F (209)</td>
</tr>
<tr>
<td>Willow Pass Rd / Evora Rd / State Route 4 EB Off-Ramps</td>
<td>B (0.63)</td>
<td>C (0.75)</td>
</tr>
</tbody>
</table>

Source: Crane Transportation Group, March 2001.

*a Level of Service / (average vehicle delay in seconds) Myrtle Drive stop sign controlled approach.

### Table 10-11
Intersection Capacity Analysis Summary – Year 2010 PM Peak Hour

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Level of Service (V/C Ratio) Without Project</th>
<th>Level of Service (V/C Ratio) With Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Willow Pass Road / Bailey Road</td>
<td>D (0.86)</td>
<td>E (0.93)</td>
</tr>
<tr>
<td>Bailey Road / Canal Road / State Route 4 WB On-Ramp</td>
<td>A (0.43)</td>
<td>A (0.46)</td>
</tr>
<tr>
<td>Bailey Road / State Route 4 EB Ramps</td>
<td>A (0.59)</td>
<td>B (0.65)</td>
</tr>
<tr>
<td>Bailey Road / Maylard Street</td>
<td>A (0.50)</td>
<td>B (0.66)</td>
</tr>
<tr>
<td>Bailey Road / West Leland Road</td>
<td>C (0.72)</td>
<td>D (0.81)</td>
</tr>
<tr>
<td>Bailey Road / Concord Boulevard</td>
<td>F (1.09)</td>
<td>F (1.22)</td>
</tr>
<tr>
<td>Concord Boulevard / Denkinger Road</td>
<td>C (0.76)</td>
<td>C (0.74)</td>
</tr>
<tr>
<td>Bailey Road / Myrtle Drive</td>
<td>F (234)</td>
<td>F (480)</td>
</tr>
<tr>
<td>Willow Pass Rd / Evora Rd / State Route 4 EB Off-Ramps</td>
<td>A (0.59)</td>
<td>A (0.59)</td>
</tr>
</tbody>
</table>

Source: Crane Transportation Group, March 2001.

*a Level of Service / (average vehicle delay in seconds) Myrtle Drive stop sign controlled approach.
Year 2005 With Specific Plan Development

IMPACT 10-1. Specific Plan development would decrease the level of service at two intersections under the scenario of Year 2005 With Specific Plan Development. This impact is considered potentially significant should project development occur at a rapidly accelerated pace compared to what is currently anticipated.

As indicated in Tables 10-8 and 10-9 (shown previously), the year 2005 total traffic analyses determined that all intersections will meet acceptable standards with two exceptions. Specific Plan traffic will degrade operation of the Bailey Road / Concord Boulevard intersection from LOS E to LOS F during the PM peak hour. At the Bailey Road / Myrtle Drive intersection, Specific Plan traffic will increase volumes by more than one percent at a location already experiencing unacceptable AM peak hour level of service and with AM peak hour volumes already exceeding peak hour signal warrant criteria levels. Specific Plan traffic will also change PM peak hour operation from LOS D to an unacceptable LOS E on the stop sign controlled Myrtle Drive intersection approach and will increase volumes to meet peak hour signal warrant criteria levels during this time period.

MITIGATION MEASURE 10-1. The following measures would provide acceptable operation at the two intersections experiencing significant impacts due to the addition of project traffic:

Bailey Road / Concord Boulevard
- Provide exclusive left-turn lanes on the northbound and southbound Bailey Road intersection approaches along with protected left-turn phasing for the north- and southbound intersection approaches.
  
  Resultant PM peak hour operation:  LOS D — V/C = .88

Bailey Road / Myrtle Drive
- Provide signalization and an exclusive left-turn lane on the southbound Bailey Road intersection approach.
  
  Resultant AM peak hour operation:  LOS B — V/C = .68
  Resultant PM peak hour operation:  LOS C — V/C = .74
IMPACT 10-2: Specific Plan development would add traffic to sections of the State Route 4 freeway that currently experience LOS F during commute period operation. This impact is considered less than significant.

Volume-to-capacity ratios would be increased by .02 to .03 on these segments. However, since the Congestion Management Program (CMP) mandates that LOS F operation is the minimum standard along the State Route 4 freeway, this impact is considered less than significant.

MITIGATION MEASURE 10-2: None required.

Year 2010 With Specific Plan Development

IMPACT 10-3. Specific Plan development could decrease the level of service at two intersections outside the Specific Plan area. This impact is considered potentially significant.

As indicated in Tables 10-10 and 10-11 (shown previously), for the year 2010, Specific Plan traffic will increase AM and PM peak hour volumes at both the Bailey Road / Myrtle Drive and Bailey Road / Concord Boulevard intersections by more than one percent where Base Case operation will be at unacceptable levels of service. Bailey Road / Myrtle Drive will have Base Case LOS F AM and PM peak hour operation on the stop sign controlled Myrtle Drive intersection approach. In addition, Base Case volumes will be exceeding peak hour signal warrant criteria levels during both peak traffic hours. The Bailey Road / Concord Boulevard intersection will be experiencing LOS E (V/C = .96) AM peak hour and LOS F (V/C = 1.22) PM peak hour Base Case operation.

MITIGATION MEASURE 10-3: The following measures would provide acceptable operation at the two intersections projected to experience significant impacts due to the addition of project traffic. Most measures would already be required to provide acceptable Base Case (without project) operation.

Bailey Road / Myrtle Drive

• Provide signalization and an exclusive left-turn lane on the southbound Bailey Road intersection approach.

  Resultant AM peak hour operation:  LOS C — V/C = .76
  Resultant PM peak hour operation:  LOS D — V/C = .87
Bailey Road / Concord Boulevard

- Add exclusive left-turn lanes to the northbound and southbound Bailey Road intersection approaches along with protected left-turn phasing for the north- and southbound intersection approaches (required for Base Case operation). These improvements would bring Specific Plan operation to the same or better levels than Base Case operation (but not necessarily to an acceptable level of service).

  \[
  \text{Resultant AM peak hour operation: } \text{LOS C} — \frac{V}{C} = .79 \\
  \text{Resultant PM peak hour operation: } \text{LOS E} — \frac{V}{C} = .99
  \]

- In addition to the improvements listed above, provide seven exclusive right-turn lanes on the westbound Concord Boulevard approach and on the northbound Concord Boulevard approach. These additional improvements would provide overall acceptable intersection operation.

  \[
  \text{Resultant AM peak hour operation: } \text{LOS C} — \frac{V}{C} = .75 \\
  \text{Resultant PM peak hour operation: } \text{LOS D} — \frac{V}{C} = .87
  \]

**IMPACT 10-4.** Specific Plan development would add traffic to sections of the State Route 4 freeway that are projected to experience LOS F commute period operation by 2010 (peak direction travel over the Willow Pass Grade). This impact is considered less than significant.

Volume-to-capacity ratios would be increased by .02 to .03 on these segments. However, since the CMP mandates that LOS F operation is the minimum standard along the State Route 4 freeway, this would not be considered a significant impact.

**MITIGATION MEASURE 10-4:** None required.

**Transit Service Demand at Buildout in Year 2010**

**IMPACT 10-5.** Specific Plan development would generate approximately 5,100 to 5,350 daily transit trips. This impact is considered beneficial.

To estimate transit trips related to Specific Plan development at buildout, two procedures were used (see Table 10-12). Initially, the projected number of total daily auto trips eliminated from the local roadway system was determined based on the transit percentage.
### TABLE 10-12

Projected Transit Trips – Based Upon Auto Trip Reduction Factors

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Total Daily Auto Trips Eliminated Due to Transit</th>
<th>Estimated People per Vehicle</th>
<th>Transit Trips</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail</td>
<td>330</td>
<td>1.20</td>
<td>400</td>
</tr>
<tr>
<td>Office</td>
<td>290</td>
<td>1.25</td>
<td>360</td>
</tr>
<tr>
<td>Multi-Family Residential</td>
<td>3,820(^a)</td>
<td>1.20</td>
<td>4,590</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>5,350</td>
</tr>
</tbody>
</table>

Projected Transit Trips – Based Upon BART Estimate of Transit Use by Development Near BART Stations

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Size or # of Units</th>
<th>Use of BART</th>
<th>Resultant Daily BART Trips</th>
<th>Bus Trips(^d)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail</td>
<td>--</td>
<td>NA(^b)</td>
<td>100(^c)</td>
<td>300</td>
<td>400</td>
</tr>
<tr>
<td>Office</td>
<td>75,000 sq. ft. = 300 employees</td>
<td>10% of employees</td>
<td>60</td>
<td>20</td>
<td>80</td>
</tr>
<tr>
<td>Multi-Family Residential</td>
<td>2,195 units</td>
<td>1 person/unit(^e)</td>
<td>4,390</td>
<td>220</td>
<td>4,610</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>4,550</td>
<td>540</td>
<td>5,090</td>
</tr>
</tbody>
</table>

\(^a\) Projected that 75 percent of reduction in residential trip generation due to use of transit. Remaining 25 percent due to walking distance proximity of retail/commercial services.

\(^b\) NA = No historical data available.

\(^c\) Estimate only.

\(^d\) Estimates only. Tri-Delta Transit has no available data regarding amount of bus use based upon size of development served.

\(^e\) Jeff Ordway, BART staff. On average, one person per unit will use BART for a commute trip during both the AM and PM commute periods.

Sources: BART; Crane Transportation Group, July 2001.
reductions shown in Table 10-6, Trip Generation Summary. Next, a factor was applied converting auto trips to person trips. The result is an estimate of total daily trips on Tri-Delta Transit buses and on BART. Three Tri-Delta Transit routes currently serve the Specific Plan area: Routes 380, 388, and 389. A second procedure to determine project transit trips was then employed based upon BART management estimates of the number of BART customers expected from development in close proximity to a BART station (i.e., one person per residential unit and 10 percent of office employees have been found to use BART when within walking distance of a BART station). Tri-Delta Transit has no such historical data, best estimates have therefore been made regarding expected use of the local bus system for this second procedure.

Table 10-12 shows the projected transit trips by each methodology for the Specific Plan area. Approximately 5,100 to 5,350 daily transit trips would be produced depending upon the analysis procedure. The vast majority of transit trips would be generated in Zone I, which includes the BART station, the majority of project residential units, and the project office development.

It is assumed that the vast majority of transit trips in Zone I will be made by residents or office and retail workers walking to or from the BART station. The Pittsburg/Bay Point BART Station is projected to have 7,500 trips by year 2010 (with constrained parking at the BART station). Based upon the transit use projections for the Specific Plan area contained in Table 10-12, more than half the total BART patronage by 2010 would be produced by project development. Alternatively, if it is assumed that project BART patronage (±4,500 riders per day) are added directly to the existing 7,100 daily ridership level, then there would be about 11,600 riders per day using the Pittsburg/Bay Point BART Station at project buildout. Almost 40 percent of this ridership would be due to Specific Plan development.

The project’s biggest impact on BART will be to load factor or crowding during commute periods. BART has defined the maximum desired train capacity as a load factor of 1.15. The load factor is defined by the ratio of riders to seats. The current maximum load factor on the Concord Line is 1.23, occurring in the AM peak, west of the Rockridge BART Station. Existing peak hour ridership is 7,600 passengers versus 6,300 seats. A similar load factor is also found in the Transbay Tube.

The Specific Plan is expected to generate as many as 700 new AM peak hour BART patrons. The vast majority of these new patrons would be project residents traveling in the peak (westbound) direction. It is estimated that about 665 patrons (95 percent) would be added in the peak direction at the Rockridge Station, which would increase the existing load factor (crowding) just west of the Rockridge Station from 1.23 to 1.31.

BART is planning significant service improvements along the Concord Line. The improvements include Advanced Automated Train Control (AATC) which will permit shorter headways between trains. With AATC, it is estimated that the number of available peak hour seats will
increase to 8,400 seats by 2006. The combination of added Specific Plan passengers and added capacity would yield an improved load factor of 0.96 (with both Bay Point Specific Plan and Pleasant Hill Specific Plan full development). However, with other cumulative growth in BART demand, it is possible that the load factor could increase to 1.23 levels or higher by 2010.

Tri-Delta Transit has indicated that improvement to local route service would be made incrementally over time, as ridership levels warrant. There are currently no capacity problems on any of the routes serving the Specific Plan area.

MITIGATION MEASURE 10-5. None required.

Parking Standards

IMPACT 10-6. The Specific Plan proposes off-street parking standards developed through coordination by the City, County, and local community. This impact is considered less than significant.

The Specific Plan includes off-street parking standards for various land uses. These standards are shown in Chapter 3: Project Description, and reproduced in Table 10-13. The City of Pittsburg, County, and BART coordinated in the development of these standards based on parking requirements in existing City and County zoning codes, and actual use at other BART stations.

The existing BART surface parking lots have 2,032 spaces. The conceptual urban design plan illustrates how such parking might be integrated in the various locations of the plan area. At the BART station, a multi-level garage with about 2,000 spaces and about 380 surface lot spaces would be provided, replacing the existing 2,032 surface spaces. During evenings and weekends, it is likely that part of the parking supply would be made available to shoppers and residents of the mixed-use development in the BART station. During weekday periods, BART would use a range of parking demand measures to ensure that demand is balanced to supply. These include, but are not limited to, adding parking when possible and providing facilities to improve pedestrian, bicycle, carpool, and bus access. In addition, some communities have implemented parking permit areas to address parking overflow from BART stations. (See discussion of this issue in Chapter 8: Community Services and Utilities.)
### Table 10-13
Off-Street Parking Standards

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Parking Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BART Station Area Mixed Use</strong></td>
<td></td>
</tr>
<tr>
<td>Residential</td>
<td>1.3 to 1.5 spaces per dwelling unit</td>
</tr>
<tr>
<td>Commercial</td>
<td>Minimum of 2.0 spaces per 1,000 square feet of net rentable area</td>
</tr>
<tr>
<td>Office</td>
<td>Maximum of 3.3 spaces per 1,000 square feet of net rentable area</td>
</tr>
<tr>
<td>Retail</td>
<td>Maximum of 4.5 spaces per 1,000 square feet of net rentable area</td>
</tr>
<tr>
<td>Residential Mixed Use — Within walking distance of BART</td>
<td></td>
</tr>
<tr>
<td>Residential</td>
<td>1.3 to 1.5 spaces per dwelling unit</td>
</tr>
<tr>
<td>Commercial</td>
<td>3.3 parking spaces per 1,000 square feet of net rentable area</td>
</tr>
<tr>
<td><strong>Commercial</strong></td>
<td></td>
</tr>
<tr>
<td>Commercial</td>
<td>4.0 spaces per 1,000 square feet of gross building area</td>
</tr>
<tr>
<td>Residential</td>
<td>Minimum of 1.0 space per dwelling unit (Senior housing may be granted lower parking requirements)</td>
</tr>
<tr>
<td><strong>Commercial District</strong></td>
<td></td>
</tr>
<tr>
<td>Commercial</td>
<td>3.3 parking spaces per 1,000 square feet of gross building area</td>
</tr>
<tr>
<td>Residential</td>
<td>Minimum of 1.0 space per dwelling unit (Senior housing may be granted lower parking requirement)</td>
</tr>
<tr>
<td><strong>Multi-Family Residential Low and Medium Density</strong></td>
<td></td>
</tr>
<tr>
<td>Studio</td>
<td>1.0 space per unit</td>
</tr>
<tr>
<td>One bedroom</td>
<td>1.5 spaces per unit</td>
</tr>
<tr>
<td>Two or more bedrooms</td>
<td>2.0 spaces per unit plus ¼ space per unit for guest parking</td>
</tr>
<tr>
<td><strong>Light Industry / Business Park</strong></td>
<td></td>
</tr>
<tr>
<td>Office</td>
<td>5.0 spaces per 1,000 square feet of gross building area</td>
</tr>
<tr>
<td>Laboratory</td>
<td>2.0 spaces per 1,000 square feet of gross building area</td>
</tr>
<tr>
<td>Commercial</td>
<td>4.0 spaces per 1,000 square feet of gross building area</td>
</tr>
<tr>
<td>Warehouse</td>
<td>1.0 space per 1,000 square feet of gross building area</td>
</tr>
</tbody>
</table>

Traffic Impact of Possible 380-Space BART Surface Parking Lot

IMPACT 10-7. The Specific Plan assumes expansion of the BART parking lot in the short term by development of approximately 380 spaces in an adjacent 3.45-acre parcel. This impact is considered less than significant.

Year 2005 Specific Plan circulation impacts have also been determined assuming “worst case” traffic conditions due to provision of a new 380-space surface parking lot for BART patrons that would be located immediately east of the existing BART parking area. (See Figure 3-16 in Chapter 3: Project Description for site location.) This additional analysis has conservatively assumed all 380 new parking spaces would be filled during the AM commute peak traffic hour while all 380 new spaces would empty during the PM commute peak traffic hour and local neighborhood BART parking would be allowed, unlike the assumptions used for the previously detailed year 2005 Specific Plan analysis which assumed no net new BART traffic accessing the project area during either the AM or PM peak hours. BART parking lot traffic is shown distributed to the local roadway network in Figure 10-13 for AM and PM peak hour conditions. Traffic from the new surface lot has been projected to distribute in a manner similar to existing BART station traffic, although with a greater emphasis on use of surface streets rather than the State Route 4 freeway to the east of the station in the direction of peak commute traffic flow. It has also been projected that about one-third of the traffic accessing the new parking lot would be captured from the flow of commute traffic on the State Route 4 freeway and local surface streets.

Tables 10-14 and 10-15 show that all analyzed intersections in Pittsburg would maintain acceptable operation during both commute periods with the addition of maximum traffic from the 380-space lot to year 2005 Specific Plan volumes. The amount of project traffic extending along Bailey Road into Concord would be expected to be slightly lower due to the capture (diversion) of some commute vehicles into the BART lot. This would result in slightly improved, although still significant, Specific Plan impacts at the Bailey Road / Concord Boulevard and Bailey Road / Myrtle Drive intersections. Table 10-16 shows that the project would add traffic to those sections of the State Route 4 freeway east of Bailey Road and volume-to-capacity ratios would be increased by .01 on these segments. However, all segments on either side of the Bailey Road interchange would be operating at acceptable levels of service and this impact is considered less than significant. It should also be noted that the new lot would be expected to decrease AM and PM peak hour traffic on the freeway to the west of the Bailey Road interchange in the peak commute direction.

Parking lot construction would be expected to take up to five months. Construction traffic impacts would be temporary in nature and associated with construction worker vehicles entering and leaving the area during normal commute periods, asphalt and concrete delivery.
FIGURE 10-13
Maximum Project Generated Traffic with 380-Space
BART Parking Lot - AM and PM Peak Hours
### TABLE 10-14
Intersection Capacity Analysis Summary – Year 2005 Specific Plan AM Peak Hour
(With and Without Maximum Traffic Levels Due to 380-Space BART Parking Lot)

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Without Project</th>
<th>With Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Willow Pass Road / Bailey Road</td>
<td>A / (.56)</td>
<td>A / (.59)</td>
</tr>
<tr>
<td>Bailey Road / Canal Road / State Route 4 WB On-Ramp</td>
<td>C / (.78)</td>
<td>C / (.80)</td>
</tr>
<tr>
<td>Bailey Road / State Route 4 EB Ramps</td>
<td>A / (.59)</td>
<td>A / (.58)</td>
</tr>
<tr>
<td>Bailey Road / Maylard Street</td>
<td>A / (.60)</td>
<td>A / (.59)</td>
</tr>
<tr>
<td>Bailey Road / West Leland Road</td>
<td>D / (.90)</td>
<td>D / (.88)</td>
</tr>
<tr>
<td>Bailey Road / Concord Boulevard</td>
<td>D / (.84)</td>
<td>D / (.83)</td>
</tr>
</tbody>
</table>

Source: Crane Transportation Group, March 2001.

### TABLE 10-15
Intersection Capacity Analysis Summary – Year 2005 Specific Plan PM Peak Hour
(With and Without Maximum Traffic Levels Due to 380-Space BART Parking Lot)

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Without Project</th>
<th>With Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Willow Pass Road / Bailey Road</td>
<td>B / (.69)</td>
<td>C / (.71)</td>
</tr>
<tr>
<td>Bailey Road / Canal Road / State Route 4 WB On-Ramp</td>
<td>B / (.70)</td>
<td>C / (.72)</td>
</tr>
<tr>
<td>Bailey Road / State Route 4 EB Ramps</td>
<td>C / (.77)</td>
<td>C / (.76)</td>
</tr>
<tr>
<td>Bailey Road / Maylard Street</td>
<td>A / (.57)</td>
<td>A / (.57)</td>
</tr>
<tr>
<td>Bailey Road / West Leland Road</td>
<td>D / (.84)</td>
<td>D / (.86)</td>
</tr>
<tr>
<td>Bailey Road / Concord Boulevard</td>
<td>F / (1.01)</td>
<td>E / (.99)</td>
</tr>
</tbody>
</table>

Source: Crane Transportation Group, March 2001.
# CHAPTER 10: TRANSPORTATION

## TABLE 10-16

State Route 4 Freeway Operation — Year 2005 Specific Plan: AM and PM Peak Hours
(With and Without Maximum Potential Impact Due to the 380-space BART Parking Lot)

<table>
<thead>
<tr>
<th>Segment</th>
<th>No Project Condition</th>
<th>With Project Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Capacity</td>
<td>Volume</td>
</tr>
<tr>
<td><strong>AM Peak Hour</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Westbound (Peak Direction)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>East of Bailey Road</td>
<td>7,050</td>
<td>4,609</td>
</tr>
<tr>
<td>1,800 HOV</td>
<td>777</td>
<td>1,026</td>
</tr>
<tr>
<td>Bailey Road to San Marco Boulevard</td>
<td>8,050</td>
<td>5,380</td>
</tr>
<tr>
<td>1,800 HOV</td>
<td>1,026</td>
<td>1,026</td>
</tr>
<tr>
<td>Eastbound (Off-Peak Direction)</td>
<td>10,400</td>
<td>2,342</td>
</tr>
<tr>
<td>San Marco Boulevard to Bailey Road</td>
<td>9,400</td>
<td>2,534</td>
</tr>
<tr>
<td>East of Bailey Road</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Westbound (Off-Peak Direction)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>East of Bailey Road</td>
<td>9,400</td>
<td>3,048</td>
</tr>
<tr>
<td>Bailey Road to San Marco Boulevard</td>
<td>10,400</td>
<td>3,051</td>
</tr>
<tr>
<td>Eastbound (Peak Direction)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>San Marco Boulevard to Bailey Road</td>
<td>8,050</td>
<td>5,560</td>
</tr>
<tr>
<td>1,800 HOV</td>
<td>879</td>
<td>879</td>
</tr>
<tr>
<td>East of Bailey Road</td>
<td>7,050</td>
<td>4,590</td>
</tr>
<tr>
<td>1,800 HOV</td>
<td>677</td>
<td>677</td>
</tr>
</tbody>
</table>

* Volumes are in passenger car equivalents.
* Capacity for three non-HOV travel lanes.
* Capacity for one HOV travel lane.
* Capacity for three non-HOV travel lanes plus one auxiliary lane between interchanges.
* No HOV lane restrictions in off-peak direction — capacity for four through travel lanes plus one auxiliary lane between interchanges.
* No HOV lane restrictions in off-peak direction — capacity for four through travel lanes.

Sources: DKS Associates; Crane Transportation Group, March 2001.
during daylight hours over several days, delivery of heavy machinery (once—at the beginning of the project) and removal of heavy machinery (once—at the completion of construction), delivery of lighting fixtures, and delivery of landscaping. Construction-related traffic volumes during local commute periods should be significantly less than volumes associated with the new parking area once it is open for patrons. Construction traffic impacts to local intersection operation would be less than significant. It is probable that some existing BART parking spaces would be occupied by construction worker vehicles until an on-site area could be prepared for their use. This short-term use of patron parking would also be considered less than significant. During delivery of asphalt and concrete for lot paving, it is likely that some delivery vehicles would be required to queue off site for short periods of time during the day. A designated queue/staging area internal to the BART parking lot would be needed in order to preclude parked trucks disrupting traffic flow along West Leland Avenue.

**MITIGATION MEASURE 10-7.** None required.

**Pedestrian and Bicycle Circulation**

**IMPACT 10-8.** The Specific Plan contains policies, standards, and proposed streetscape improvements to improve pedestrian and bicycle circulation and safety. This impact is considered beneficial.

The Specific Plan proposes to improve the streetscape of West Leland Road, Bailey Road, and Willow Pass Road. Some of the improvements are intended to improve the aesthetic character and pedestrian appeal of these roadways through the installation of street trees for both beautification and to create additional separation between pedestrians and vehicles; and decorative design elements such as paving, lighting, and landscaping. Selective sidewalk widenings are proposed for key areas targeted for street front commercial uses. When combined with proposed building design guidelines for architectural style, scale, setbacks, off-street parking, and other pedestrian-scale improvements, pedestrian circulation in commercial areas and within the plan area as a whole, would be improved.

Pedestrians currently avoid the existing pedestrian tunnel under the State Route 4 freeway westbound off ramp at Bailey Road primarily out of concern for personal security. Pedestrians prefer to cross the loop off-ramp at-grade despite the hazardous traffic conditions created by poor sight distance at this location. The Specific Plan addresses this condition and proposes to conduct a feasibility study to identify the design elements and traffic controls needed to increase pedestrian safety. This study would be conducted as part of Task 6: Bailey Road Beautification Plan, in the Specific Plan Implementation section. The County would lead the study. A range of possible local, regional, and Federal funding sources would be explored.
Designated Class II bike lanes are proposed for portions of Willow Pass Road, Bailey Road, and as part of the linear park on West Leland Road. Lighting and landscaping are also proposed for the portion of the EBMUD easement to increase its use by pedestrians and bicyclists. For Willow Pass Road, and possibly on other local roads, improvements for bicycle circulation would likely require narrowing of existing travel lanes or removal of curbside parking.

It is recommended that the pedestrian circulation feasibility study described above also address bicycle circulation issues. The study should assess bike-riding demand in the area, and further define the most desired bike routes. Ideally, the feasibility study should be conducted in cooperation with any local bike-riding clubs and with BART. The study should assess the traffic operations and safety impacts of the most effective and safe means for pedestrians and bicyclists to cross Bailey Road at the crossing of the EBMUD easement.

While the impacts bicycle circulation resulting from the Specific Plan projects and policies are beneficial, the above feasibility study should be completed prior to detailed planning to ensure avoidance of possible negative effects.

**MITIGATION MEASURE 10-8:** None required.
NOTES: Transportation

2 Contra Costa County, Cowell Ranch Project Draft EIR, October 1996.
3 Contra Costa County General Plan, Transportation and Circulation Element, 1996.
6 Paul Reinders, City of Pittsburg Community Development Department, personal communication, March 2001.
7 John Templeton, City of Concord Transportation Manager, personal communication, March 2001.
9 CCS Planning and Engineering, November 18, 1998.
10 CCS Planning and Engineering, November 18, 1998.
13 Jill Keimach, Senior Planner, BART Access and Facilities Planning.
This chapter describes existing air quality for the Bay Area and the Specific Plan environs, presents standards of significance, and evaluates potential air quality impacts of proposed development under the Specific Plan. The analysis focuses on whether the proposed Specific Plan is consistent with the most recent regional air quality plan, and discusses expected emissions of criteria air pollutants and toxic air contaminants from both stationary and mobile sources in the Specific Plan area.

11.1 SETTING

This section discusses air pollutants in two categories: criteria air pollutants and toxic air contaminants. Criteria air pollutants include ozone (O$_3$), carbon monoxide (CO), nitrogen dioxide (NO$_2$), sulfur dioxide (SO$_2$), lead (Pb), and small-diameter particulate matter (PM$_{10}$, referring to particulate matter less than 10 microns in diameter). Regulatory agencies have adopted regional, State, and Federal ambient air quality standards and pollution reduction plans for these pollutants.

In contrast, toxic air contaminants (TACs) are not regulated in the same way, as there are no ambient air quality standards for these pollutants. TACs pose a present or potential hazard to human health, but typically have more localized impacts than criteria pollutants. There are more than 700 toxic air contaminants recognized by different regulatory agencies. Some toxic air contaminant sources are regulated at the Federal, State, and local levels.

Regional Climate

The San Francisco Bay Area has a Mediterranean climate, characterized by mild winters due to proximity to the ocean. During the summer, the dominant meteorological condition is a semi-permanent high-pressure cell over the northeastern Pacific Ocean, which keeps storms away. This pressure system also causes predominant westerly winds.

Regional temperature inversions are common in the late summer and fall. When there are inversions, low winds, and strong sunlight, conditions are suitable for photochemical ozone and smog formation. Ozone is formed when reactive organic gases (ROG) and oxides of nitrogen (NO$_x$) react in the presence of sunlight.

Burning of fossil-fuels and other industrial activities enhance the atmosphere’s greenhouse effect. The global climate shows evidence of warming, and may affect regional climate.
Local Climate and Wind Patterns

The Specific Plan area is within the Carquinez Strait Region as defined by the Bay Area Air Quality Management District (BAAQMD) for the purposes of describing subregional climate differences in the Bay Area. The Carquinez Strait Region extends from Rodeo to Martinez. The Carquinez Strait Region is the only sea-level gap between the San Francisco Bay and the Central Valley.

During summer and fall, prevailing winds are from the west, and wind speed is commonly 15 to 20 miles per hour (mph) in the afternoon. Sometimes during summer and fall, winds flow from the east, and there are low wind speeds, shallow mixing depths, high temperatures, and little or no rainfall. Average annual wind speed in this area is 10 mph.

In winter, inversions are typically weak or non-existent, winds are moderate, and air pollution potential is low. Exceptions do occur. Mean minimum temperatures in the Carquinez Strait Region are in the high 30's.

Regulatory Framework

Criteria Air Pollutants

The Federal Clean Air Act of 1970, as amended (1970 CAA), gave the U.S. Environmental Protection Agency (EPA) the authority to set Federal ambient air quality standards. The 1970 CAA indicated the need for primary standards to protect public health and secondary standards to protect public welfare from effects such as visibility reduction and dust nuisance. It also required that the Federal standards be designed to protect those people most susceptible to respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by illness, and persons engaged in strenuous work or exercise, all referred to as “sensitive receptors.” Under the Federal Clean Air Act, there are National Ambient Air Quality Standards for six pollutants, commonly referred to as the criteria pollutants. The health effects of these air pollutants are listed in Table 11-1. Federal air quality standards for these pollutants (and several others) are presented in Table 11-2.

Table 11-2 also shows California standards for the criteria pollutants; these are often more stringent than Federal standards due to California’s serious air pollution problems. The California Clean Air Act of 1988 requires air quality management districts in California to plan and achieve the California ozone standards. The act requires air
**TABLE 11-1**

Health Effects of Criteria Air Pollutants

<table>
<thead>
<tr>
<th>Air Pollutant</th>
<th>Adverse Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ozone</td>
<td>Eye irritation</td>
</tr>
<tr>
<td></td>
<td>Respiratory function impairment</td>
</tr>
<tr>
<td>Carbon Monoxide</td>
<td>Impairment of oxygen transport in the bloodstream, increase of carboxyhemoglobin</td>
</tr>
<tr>
<td></td>
<td>Aggravation of cardiovascular disease</td>
</tr>
<tr>
<td></td>
<td>Impairment of central nervous system function</td>
</tr>
<tr>
<td></td>
<td>Fatigue, headache, confusion, dizziness</td>
</tr>
<tr>
<td></td>
<td>Can be fatal in the case of very high concentrations in enclosed places</td>
</tr>
<tr>
<td>Sulfur Dioxide</td>
<td>Aggravation of chronic obstructive lung disease</td>
</tr>
<tr>
<td></td>
<td>Increased risk of acute and chronic respiratory disease</td>
</tr>
<tr>
<td>Nitrogen Dioxide</td>
<td>Risk of acute and chronic respiratory disease</td>
</tr>
<tr>
<td>Suspended Particulates (PM$_{10}$)</td>
<td>Increase risk of chronic respiratory disease with long exposure</td>
</tr>
<tr>
<td></td>
<td>Altered lung function in children</td>
</tr>
<tr>
<td></td>
<td>With sulfur dioxide, may produce acute illness</td>
</tr>
<tr>
<td></td>
<td>Particulate matter 10 microns or less in size (PM$_{10}$), may lodge in and/or irritate the lungs</td>
</tr>
</tbody>
</table>

*Source: Bay Area Air Quality Management District, 1985.*

districts that exceed the State ozone standard to reduce emissions of ozone precursors (i.e., reactive organic compounds and oxides of nitrogen) by five percent per year, or take all feasible measures to achieve emission reductions.

The BAAQMD is the primary agency responsible for planning, implementing, and enforcing State and Federal ambient air quality standards in the Bay Area. The California Air Resources Board (CARB) is the primary agency for setting mobile source emission standards and certain toxic air contaminant standards for California. The EPA plays an oversight role.

A major focus of regulatory effort in the Bay Area is reduction of tropospheric ozone, i.e., ozone close to the ground. The temperature inversions typical of hot, sunny, summer days in the Bay Area are particularly conducive to ozone formation.
## Table 11-2
Federal and State Ambient Air Quality Standards

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Averaging Time</th>
<th>California Standard</th>
<th>Federal Standards</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Primary</td>
<td>Secondary</td>
<td></td>
</tr>
<tr>
<td><strong>Criteria Air Pollutants</strong></td>
<td></td>
<td></td>
<td>Average</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ozone</td>
<td>1-hour</td>
<td>0.09 ppm</td>
<td>0.12 ppm</td>
<td>0.12 ppm</td>
<td></td>
</tr>
<tr>
<td>Carbon Monoxide</td>
<td>1-hour</td>
<td>20.00 ppm</td>
<td>35.00 ppm</td>
<td>35.00 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8-hour</td>
<td>9.00 ppm</td>
<td>9.00 ppm</td>
<td>9.00 ppm</td>
<td></td>
</tr>
<tr>
<td>Nitrogen Dioxide</td>
<td>1-hour</td>
<td>0.25 ppm</td>
<td>--</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Annual Average</td>
<td>--</td>
<td>0.053 ppm</td>
<td>0.053 ppm</td>
<td></td>
</tr>
<tr>
<td>Sulfur Dioxide</td>
<td>1-hour</td>
<td>0.25 ppm</td>
<td>--</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3-hour</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td></td>
<td>24-hour</td>
<td>0.04 ppm</td>
<td>365 µg/m³</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Annual Average</td>
<td>--</td>
<td>80 µg/m³</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Particulate Matter (PM₁₀)</td>
<td>24-hour</td>
<td>50 µg/m³</td>
<td>150 µg/m³</td>
<td>150 µg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Annual Geometric Mean</td>
<td>30 µg/m³</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Annual Arithmetic Mean</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lead</td>
<td>30 Day Average</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Calendar</td>
<td>1.5 µg/m³</td>
<td>--</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quarter</td>
<td>--</td>
<td>1.5 µg/m³</td>
<td>1.5 µg/m³</td>
<td></td>
</tr>
<tr>
<td><strong>Non-Criteria Air Pollutants</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sulfates</td>
<td>24-hour</td>
<td>25 µg/m³</td>
<td>--</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Hydrogen Sulfide</td>
<td>1-hour</td>
<td>0.03 ppm</td>
<td>--</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Vinyl chloride</td>
<td>24-hour</td>
<td>0.010 ppm</td>
<td>--</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Visibility Reducing Particles</td>
<td>1 observation</td>
<td>--</td>
<td>9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NOTES:**

- Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25 degrees Celsius and a reference pressure of 760 millimeters (mm) of mercury (1,013.2 millibar); parts per million (ppm) in this table refers to ppm by volume, or micromoles of pollutant per mole of gas. The symbol µg/m³ is micrograms per cubic meter.

- California standards for ozone, carbon monoxide, sulfur dioxide (1-hour and 24-hour), nitrogen dioxide; suspended particulate matter or PM₁₀; and visibility-reducing particles; are values that are not to be exceeded. The standards for sulfates, lead, hydrogen sulfide, and vinyl chloride are not to be equaled or exceeded.

- National standards, other than ozone and those based on annual averages or annual arithmetic means, are not to be exceeded more than once a year. The ozone standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above the standard is equal to or less than one.

- National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health. Each state must attain the primary standards no later than three years after that state's implementation plan is approved by the EPA.

- National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant. Each state must attain the secondary standards within a “reasonable time” after the implementation plan is approved by the EPA.

- This standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range when relative humidity is less than 70 percent.
In sufficient amount to produce an extinction coefficient of 0.23 per kilometer due to particles when the relative humidity is less than 70 percent.
There are several regional plans for attaining particular criteria pollutant standards. The *Ozone and Carbon Monoxide Attainment/Maintenance Plans*\(^5\) address Federal requirements. The BAAQMD’s *Bay Area ’97 Clean Air Plan and Triennial Assessment* (’97 Clean Air Plan) addresses how the Bay Area plans to meet the California ozone standard.

The BAAQMD’s ’97 Clean Air Plan and the BAAQMD CEQA Guidelines are particularly relevant to the Specific Plan because they recommend certain requirements for local land use plans and certain methodologies for evaluating the consistency of local land use plans with the regional air quality plan for State ozone standard attainment (i.e., the ’97 Clean Air Plan).

Over the past twenty years in the Bay Area, vehicle miles traveled have increased nearly three times faster than population.\(^6\) Therefore, the BAAQMD, in conjunction with other regional planning agencies, the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC), and local governments (elected officials of which make up the Air District Board of Directors), have developed a number of Transportation Control Measures (TCMs) designed to reduce the number of vehicle trips and vehicle miles traveled, in order to reduce emissions of ozone precursors. TCMs fall into the following functional categories: pricing reform, demand management, user incentives, intermittent controls, voluntary employer-based trip reduction, mobility improvements, and support measures.\(^7\) Several TCMs in the ’97 Clean Air Plan cannot be implemented without action by cities and counties.\(^8\) These include:

- TCM #1: Voluntary Employer-Based Trip Reduction Programs
- TCM #9: Improve Bicycle Access and Facilities
- TCM #12: Improve Arterial Traffic Management
- TCM #13: Transit Use Incentives
- TCM #15: Local Clean Air Plans, Policies, and Programs
- TCM #19: Advocate Planning and Design of Development Projects to Facilitate Pedestrian Travel
- TCM #20: Promote Traffic Calming Measures

Table 11-3 summarizes the key provisions of these TCMs. TCMs 1, 9, 12, 13, and 15 were developed in the ’91 Clean Air Plan and ’94 Clean Air Plan. The ’97 Clean Air Plan added TCMs 19 and 20 and made revisions to other TCMs.

### Toxic Air Contaminants

As discussed above, there are over 700 toxic air contaminants recognized by various Federal, State, and regional agencies. Some toxic air contaminant sources are regulated with emission-based and/or risk-based regulations.
# Table 11-3

<table>
<thead>
<tr>
<th>TCM #</th>
<th>Topic</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCM #1</td>
<td>Voluntary Employer-Based Trip Reduction Programs</td>
<td>Provide assistance to regional and local ridesharing programs; advocate legislation to maintain and expand incentives (e.g., tax deductions/credits)</td>
</tr>
<tr>
<td>TCM #9</td>
<td>Bicycles</td>
<td>Improve and expand bicycle lane system by providing bicycle access in plans for all new road construction or modifications. Establish and maintain bicycle advisory committees in all nine Bay Area counties. Designate a staff person as a Bicycle Program Manager. Encourage employers and developers to provide bicycle access and facilities (see also TCM #15). Provide bicycle safety education.</td>
</tr>
<tr>
<td>TCM #12</td>
<td>Arterial Traffic</td>
<td>Study signal preemption for buses on arterials with high volume of bus traffic. Improve arterials for bus operations and to encourage bicycling and walking. Continue and expand local signal timing programs, only where air quality benefits can be demonstrated.</td>
</tr>
<tr>
<td>TCM #13</td>
<td>Transit Use Incentives</td>
<td>Expand Regional Transit Connection (RTC) ticket distribution and “Commuter Check” (subsidies for transit passes) through employers, including public employers.</td>
</tr>
<tr>
<td>TCM #15</td>
<td>Local Plans</td>
<td>Encourage cities and counties to incorporate air quality beneficial policies and programs into local planning and development activities, with a particular focus on subdivision, zoning, and site design measures that reduce the number and length of single-occupant automobile trips.</td>
</tr>
<tr>
<td>TCM #19</td>
<td>Pedestrian Travel</td>
<td>Review/revise general/specific plan policies to promote development patterns that encourage walking and circulation policies that emphasize pedestrian travel, and modify zoning ordinances to include pedestrian-friendly design standards. Include pedestrian movements in capital improvement projects. Designate a staff person as a Pedestrian Program Manager.</td>
</tr>
<tr>
<td>TCM #20</td>
<td>Traffic Calming</td>
<td>Include traffic calming strategies in the transportation and land use elements of general and specific plans. Include traffic calming strategies in capital improvement projects.</td>
</tr>
</tbody>
</table>

In order to evaluate the danger of toxic air contaminants, regulatory agencies often use risk assessments. Risk assessment includes four steps: hazard identification, exposure assessment, toxicological assessment, and risk characterization. Toxicological effects may be acute (resulting from short-term exposure) or chronic (resulting from long-term exposure).

Chronic health effects may include cancer and non-cancer effects. Cancer risk is usually expressed in terms of an increased risk for an individual (i.e., a ten-in-one-million increased risk of developing cancer over a lifetime, not necessarily fatal) or an increase in the number of cancer cases per one million persons in a population. Non-cancer risks are typically described in terms of a “hazard index.” A hazard index compares the maximum exposure of an individual to an exposure level protective of human health. A hazard index is a ratio, and if it is greater than one, adverse health effects could occur.

At the Federal level, the Clean Air Act requires the analysis of hazardous air pollutants. The 1990 Amendments to the Clean Air Act set up a program for more extensive regulation of such pollutants.

At the State level, the 1983 Toxic Air Contaminant Act established a process to identify TACs from stationary sources and to prepare control measures (called airborne toxic control measures). The CARB implements this process.

California’s 1987 Air Toxics “Hot Spots” Information and Assessment Act required existing stationary sources of toxic air contaminants to submit reports regarding their emissions starting in the years 1988, 1989, and 1990. Facilities were grouped based on total emissions of criteria pollutants, with the largest criteria pollutant emitters to report in 1988. The act requires facilities to update their reports every four years, unless they demonstrate that their risks have been reduced. A facility that shows its “prioritization scores” for cancer and non-cancer health effects to be equal to or less than one, becomes exempt and is no longer required to report. A prioritization score of one is regarded as the significance threshold. Even if an existing or new facility shows that its health risks fall below significance criteria, a change in operations or surrounding conditions may make the facility subject to further reporting under the “Hot Spots” Act.

At the regional level, the BAAQMD adopted a Toxic Air Contaminant Reduction Plan in 1991. Its goal was to reduce emissions from stationary sources to less than 50 percent of 1989 levels by 1995, on a toxicity-weighted basis. This goal was achieved in 1994.9

In addition, the BAAQMD requires new or modified sources that would emit one or more air toxic contaminant in quantities above the trigger levels, to obtain permits, unless the owner or operator of the source can demonstrate that the source would pass a risk screening analysis within 90 days of receipt of a request by the BAAQMD.10 A facility passes the risk screening if it would not cause an increased cancer risk of greater than one-in-one million to the maximally-
exposed individual (MEI) and would not cause a non-cancer risk of a hazard index greater than one. If above these levels, the BAAQMD may require Toxic Best Available Control Technology (TBACT). If, even with TBACT, the facility would cause a cancer risk greater than ten-in-one-million or an unacceptable hazard index, it is the BAAQMD’s policy to deny a facility permits to construct and operate, although exceptions may be made.

Efforts to control toxic air contaminants from mobile sources include emission standards for vehicles and specifications for gasoline and diesel fuel sold in California. Reformulated gasoline has reduced TAC emissions from vehicles considerably.

**Regional and Local Air Quality**

**Criteria Air Pollutants**

**Regional Air Quality**

The San Francisco Bay Area Air Basin has a history of violations of Federal and State ambient air quality standards for ozone, carbon monoxide, and PM$_{10}$. Since the 1970s, substantial progress has been made toward reducing ambient levels of these pollutants. The Bay Area briefly attained the Federal ozone standard, but it is again in nonattainment status.

The Bay Area has not attained the State ozone standard. Nevertheless, the Bay Area population exposure to ozone was reduced by 43 percent from the 1986–88 base period to 1997. Reactive organic compounds were reduced by about 4.8 percent per year and oxides of nitrogen were reduced by about 2.1 percent per year over the period 1990–97. But, since the Bay Area did not achieve the five percent per year target of the 1988 California Clean Air Act, it must take “all feasible measures” to attain the State ozone standard.

CARB has designated the Bay Area as an attainment area for the State CO standard. However, occasional violations of State ozone and PM$_{10}$ standards still occur, and although further improvement is anticipated, attainment of State standards for these pollutants is not expected by 2015.

The BAAQMD operates monitoring stations throughout the Bay Area. Table 11-4 summarizes recent data for the City of Pittsburg. As shown, the Federal ozone standard is frequently violated, and the State PM$_{10}$ standard is violated less frequently. Standards for nitrogen dioxide and carbon monoxide have not been violated recently, and neither have standards for sulfur dioxide and lead (not shown).
### TABLE 11-4

Monitoring Data for Air Pollutant Levels in Pittsburg

<table>
<thead>
<tr>
<th>Year</th>
<th>Ozone 1-hr High (ppm)</th>
<th>Ozone Number of Exceedances</th>
<th>Nitrogen Dioxide 1-hr High (ppm)</th>
<th>Nitrogen Dioxide Number of Exceedances</th>
<th>Carbon Monoxide 1-hr High (ppm)</th>
<th>Carbon Monoxide Number of Exceedances</th>
<th>8-hr High (ppm)</th>
<th>Number of Exceedances</th>
<th>PM$_{10}$ 24-hr High ($\mu g/ m^2$)</th>
<th>Number of Exceedances</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>0.12</td>
<td>12</td>
<td>0.07</td>
<td>0</td>
<td>7.0</td>
<td>0</td>
<td>2.9</td>
<td>0</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>1995</td>
<td>0.12</td>
<td>21</td>
<td>0.08</td>
<td>0</td>
<td>6.0</td>
<td>0</td>
<td>2.8</td>
<td>0</td>
<td>56</td>
<td>1</td>
</tr>
<tr>
<td>1994</td>
<td>0.11</td>
<td>10</td>
<td>0.08</td>
<td>0</td>
<td>6.0</td>
<td>0</td>
<td>3.5</td>
<td>0</td>
<td>87</td>
<td>4</td>
</tr>
<tr>
<td>1993</td>
<td>0.13</td>
<td>7</td>
<td>0.08</td>
<td>0</td>
<td>6.0</td>
<td>0</td>
<td>2.8</td>
<td>0</td>
<td>81</td>
<td>2</td>
</tr>
</tbody>
</table>

**Notes:**

The "High" is the highest concentration for the year. Exceedances for ozone, nitrogen dioxide, and carbon monoxide refer to federal and State standards, while those for PM$_{10}$ refer only to State standards. PM$_{10}$ data are not gathered every day (violations shown are among the samples taken—typically about 60 in the year).

ppm = parts per million  
$\mu g/ m^2$ = micrograms per cubic meter  
NA = not available

Local Air Quality
The Carquinez Strait Region has many industrial facilities that emit criteria pollutants, toxic air contaminants, and odors. Refineries, chemical plants, and the Pittsburg Power Plant are large pollution sources near the Specific Plan area. Major roadways, including State Route 4, are sources of carbon monoxide and particulates.

Accidents or upsets at refineries or chemical plants can cause short-term pollution episodes. Odors may frequently emanate from these facilities. From January 1996 to August 1998, the BAAQMD received 290 complaints regarding odors, smoke, and similar nuisances from residents and workers in the City of Pittsburg. Complaints described the problems variously as odors, gases, chlorine, sulfur, “pungent,” “refinery,” and similar characterizations. Problems were attributed to industries, such as the Chemical and Pigment Company, Johns-Manville Corp., USS-Posco Industries, PG&E, and local gas stations, although the basis for, and source of, most complaints were unconfirmed (due to lack of BAAQMD staff and resources). Appendix D contains a compilation of odor complaints in the Pittsburg area from 1996 to present.

Toxic Air Contaminants
Regional Air Quality
Stationary (industries) and mobile sources contribute a wide variety of TACs to the region’s atmosphere each day. As discussed above, the BAAQMD made substantial progress in reducing TAC emissions from stationary sources in the early 1990s, reducing them to less than 50 percent of 1989 levels by 1994. Existing ambient concentrations of TACs are estimated to pose an increased cancer risk of 303-in-one-million.

Local Air Quality
As discussed above, refineries, chemical plants, and the Pittsburg Power Plant are pollutant sources near the Specific Plan area. They emit a wide variety of toxic air contaminants, and receptors downwind of these facilities could suffer long-term exposure to TACs. Major roadways, including State Route 4, are sources of TACs, such as benzene.

In 1995, the BAAQMD listed two facilities in the Bay Area as having health risks requiring public notification under the Air Toxics “Hot Spots” Act. One of these was the Dow Chemical Company located in Pittsburg. Another was the Shell Oil Refinery in Martinez. At the time, each had an estimated increased cancer risk of 3-in-one-million.

As of 1996, the BAAQMD's inventory of stationary sources of TACs included 15 sources in the City of Pittsburg, including seven dry cleaners; and Antioch Building Materials Company; Chemical and Pigment Company; Chevron, Inc.; Dow Chemical Co.; GWF Power System, L.P.; Keller Canyon Landfill Co.; PG&E; and USS-POSOCO Industries.
11.2 STANDARDS OF SIGNIFICANCE

The Specific Plan is considered to have a significant impact on local air quality if it would violate any ambient air quality standard or contribute to an existing or projected air quality violation, contain proposed land uses that would produce objectionable odors, or expose sensitive receptors to substantial concentrations of pollutants. Sensitive receptors are facilities that house or attract children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants.

The BAAQMD sets forth different methodologies for evaluating individual development projects versus local land use plans. In general, projects are evaluated by estimating emissions and determining whether air quality standard violations would occur.¹⁴ Local land use plans are evaluated by determining whether they are consistent with the BAAQMD’s regional air quality plan (the ‘97 Clean Air Plan) and policies regarding land use compatibility and buffer zones.

The Specific Plan is a local land use plan, and is therefore evaluated in this Master EIR primarily in terms of a plan-level analysis.

Regional Air Quality—Plan-Level Analysis

According to the BAAQMD CEQA Guidelines, to evaluate criteria pollutants related to a local land use plan, including a specific plan, consistency with the most recently adopted BAAQMD Clean Air Plan (CAP) should be evaluated.¹⁵ The BAAQMD sets forth a three-part test. A local land use plan is consistent with the CAP and would have a less-than-significant impact, if the following can be demonstrated over the planning period:¹⁶

• population growth for the jurisdiction will not exceed the values included in the current Clean Air Plan;

• the rate of increase in vehicle miles traveled for the jurisdiction is equal to, or lower than, the rate of increase in population; and

• the local government agency(ies) responsible for implementing TCMs from the Clean Air Plan are indeed implementing them.

Regarding the third test, local plans that do not demonstrate reasonable efforts to implement CAP TCMs are considered to be inconsistent with the regional air quality plan, and therefore, would have a significant air quality impact.¹⁷

Construction-related emissions are considered less than significant by the BAAQMD if appropriate mitigation measures are employed to minimize particulate emissions.
Toxic Air Contaminants
A significance standard for evaluating potential toxic air contaminants and odors of local plants is also addressed in BAAQMD CEQA Guidelines. BAAQMD’s standard is qualitative, and does not recommend specific risk thresholds as standards of significance. The BAAQMD recommends that buffer zones should be established around existing and proposed land uses that would emit these air pollutants.  

11.3 IMPACTS AND MITIGATION MEASURES
This section first presents the methodologies for assessing the potential air quality impacts of development under the Specific Plan, then presents the results of the analyses.

Methodology
As mentioned under “Standards of Significance,” the BAAQMD recommends different methodologies for evaluating individual development projects versus local land use plans. In general, projects are evaluated by estimating emissions and determining whether air quality standard violations would occur. Local land use plans are evaluated by determining whether they are consistent with the BAAQMD’s regional air quality plan and policies regarding land use compatibility and buffer zones. The Specific Plan is a local land use plan, but it also has specific development assumptions in terms of square feet and number of dwelling units, which means that where necessary it can also be evaluated using project methodologies.

Criteria Air Pollutants
Regional Air Quality—Plan-Level Analysis
Following the BAAQMD CEQA Guidelines, a three-part test is used to determine if the Specific Plan is consistent with the BAAQMD’s ’97 Clean Air Plan, as follows:

- Population growth projections in the plan are compared to the ABAG projections underlying the ’97 Clean Air Plan.
- The rate of increase in vehicle miles traveled for the Specific Plan area is qualitatively evaluated in terms of jobs-housing balance to determine whether it is equal to or lower than the rate of increase in population.
- The Specific Plan and the general plans of the City of Pittsburg and Contra Costa County are evaluated to determine if they demonstrate reasonable efforts to implement Clean Air Plan Transportation Control Measures to be implemented by these jurisdictions.
Local Air Quality — Mobile Sources
To estimate potential carbon monoxide impacts at intersections, the Caltrans’ CALINE4 model was used, according to the guidelines contained in Transportation Project-Level Carbon Monoxide Protocol (“CO Protocol”). In addition, guidance in the BAAQMD CEQA Guidelines was followed.

Toxic Air Contaminants
To evaluate whether the development under the Specific Plan and other relevant plans would include adequate buffers between sources of TACs and sensitive receptors, the relevant land use plans and existing land uses were reviewed.

Criteria Air Pollutant Analysis
Comparison of Population Growth Projections

**IMPACT 11-1.** The Specific Plan would be consistent with two out of three of the test criteria of the BAAQMD’s Bay Area ’97 Clean Air Plan. This impact is considered less than significant.

As described above, the BAAQMD recommends a three-part test to determine whether a local land use plan is consistent with the BAAQMD’s Bay Area ’97 Clean Air Plan (CAP). The first comparison is whether the population growth projections under the Pittsburg/Bay Point BART Station Area Specific Plan do not exceed the values in the current CAP.

The Specific Plan indicates that it will accommodate 4,000 to 5,000 new residents. This Master EIR projects about 4,500 new residents under the Specific Plan. Placement of the 2,195 dwelling units is conceptually illustrated in the Specific Plan. Approximately 1,790 units would be built within the City of Pittsburg and approximately 405 units within the County. Based on population estimates in Chapter 9: Population, Employment, and Housing, Table 9-5, these dwelling units translate to approximately an additional 3,600 residents in the City and 900 residents in the County. Because the City of Pittsburg’s Sphere of Influence (SOI) includes Bay Point, all of the dwelling units and residents would be located within either the City of Pittsburg or its SOI.

The population projections underlying the emissions inventory in the ’97 Clean Air Plan are from the Association of Bay Area Governments’ Projections ’96. Projections ’96 shows a population for the City of Pittsburg and its SOI, which includes Bay Point (and hence the entire Specific Plan area), of 72,100 in 1995. Projections ’96 forecasts a population of 97,100 for the year 2010. Thus the projected growth is 25,000 persons (35 percent) over the period. The Specific Plan's growth of up to 5,000 residents falls within this forecast; therefore, the Specific Plan passes the first BAAQMD evaluation.
Comparison of Growth in Vehicle Miles Traveled to Population Growth

Under the BAAQMD’s test, the rate of increase of vehicle miles traveled (VMT) would have to be equal to, or lower than, the rate of increase in population for the Specific Plan to be consistent with the Clean Air Plan. Unfortunately, the *Regional Transportation Plan* being prepared by the Metropolitan Transportation Commission (MTC) in August 1998 does not have VMT information for Pittsburg or the State Route 4 corridor.\(^{29}\) Therefore, the jobs-housing balance and countywide data are used in the analysis below.

The *City of Pittsburg General Plan* acknowledges that jobs and housing are not in balance in the City and are not expected to be in the near future.\(^{30}\) The Pittsburg General Plan indicates that the ratio of jobs to housing demand was 0.76 in 1980, 0.72 in 1985, and is projected to be 0.84 in 2005.\(^{31}\) These ratios reflect the City’s role as a residential community for workers elsewhere, such as the urban centers of San Francisco and Oakland.

As discussed in Chapter 9, Section 9.3, the Specific Plan is expected to produce about 800 jobs and 2,195 dwelling units. By providing jobs along with housing, the Specific Plan would improve the jobs-housing balance for the City and the Bay Point unincorporated community of the County (see Impacts 9-2 and 9-3).

On the other hand, development under the Specific Plan would not have an internal balance of jobs supplied and jobs demanded. Using *Projections ‘98*, the countywide estimates for the year 2010 include a population of 1,049,600 and employed residents of 525,900; therefore half of the population is employed. Using this ratio, under the Specific Plan there would be 4,932 people and 2,251 employed residents. The demand for jobs would be 2,251, but there would only be 800 jobs created under the Specific Plan, resulting in a deficit of about 1,450 jobs. Thus, 1,450 persons (net) would be employed outside of the City of Pittsburg SOI.

The relationship between the job deficit and the growth rate of vehicles miles traveled cannot be quantified due to lack of data. However, MTC does have estimates for Contra Costa County of 12,575,000 VMT per day in 1990 and 21,250,000 VMT per day in 2020, for a growth rate of 69 percent over 30 years.\(^{32}\) *Projections ‘98* forecasts population growth from 65,230 in 1990 to 97,000 in 2020,\(^{33}\) for a rate of 49 percent over the period for the City of Pittsburg SOI. Assuming that the 69 percent growth rate for the County would also be true for the City of Pittsburg SOI, then the growth rate would exceed the rate of population growth. Under the BAAQMD’s test, the VMT growth rate would be a significant impact.
On the other hand, transit use is encouraged under the Specific Plan (see subsection below), and many people would use BART to commute to jobs. The Specific Plan fulfills planning recommendations of the BAAQMD in terms of locating high-density residential development close to transit stations, and fulfills other TCMs discussed below. Therefore, although the impact of increasing vehicle miles traveled faster than population could conservatively be assumed to be significant, the Specific Plan contains measures that reduce this impact to a less-than-significant level.

**Implementation of Transportation Control Measures**

Under the third part of the BAAQMD's significance framework, the question is whether the Specific Plan (and related plans by local governments involved) demonstrate reasonable efforts to implement CAP TCMs that are required to be implemented by these jurisdictions. As described under “Regulatory Framework, Criteria Air Pollutants,” certain Transportation Control Measures (1, 9, 12, 13, 15, 19, and 20) require City and County action for implementation.

Table 11-3, shown previously, summarizes the key provisions of these TCMs. Table 11-5 shows policies of the Specific Plan and the general plans of the City of Pittsburg and Contra Costa County that are relevant to these TCMs.

The Specific Plan contains a number of policies that implement or complement the TCMs to be implemented by local governments. The most important TCM for comparison is TCM #15, “Local Clean Air Plans, Policies, and Programs.” Specific Plan Policy LU-1, and the land use plan itself, encourage mixed residential, office, retail, and entertainment projects; therefore, they encourage compact community land use patterns, promote infill development, and establish zoning for higher densities and mixed uses near transit centers (i.e., BART). Similarly, Specific Plan Policy LU-3 and LU-4 would discourage large destination retail stores south of State Route 4 and discourage fast food restaurants and similar uses with drive-through service windows within one-quarter mile of the BART station. Policy LU-8 would encourage commercial uses serving local residents to those that would rely primarily on automobile access. Policy LU-11 would increase the minimum residential unit density in an area near the BART station to 65 units per acre. The Specific Plan also contains a number of goals and policies aimed to improving transit, bicycle, and pedestrian access. Table 11-5 also identifies these goals and policies.
<table>
<thead>
<tr>
<th>TCM # and Topic</th>
<th>Item</th>
<th>Proposed Specific Plan</th>
<th>Pittsburg General Plan</th>
<th>County General Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCM #1</td>
<td>Voluntary Employer-Based Trip Reduction Programs</td>
<td>Policy C-14</td>
<td>TSM policies</td>
<td>--</td>
</tr>
<tr>
<td>TCM #9</td>
<td>Bicycles</td>
<td>Bike access in road plans</td>
<td>Policies C-2, C-10</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bicycle advisory committee</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bicycle Program Manager</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Encourage employees</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Safety education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TCM #12</td>
<td>Arterial Traffic</td>
<td>Signal preemption for buses</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Improve arterials for buses</td>
<td>Policies C-8, C-13</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Local signal timing</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other notes</td>
<td>Yes, in general (assembly of small parcels along Willow Pass Road)</td>
<td></td>
</tr>
<tr>
<td>TCM #13</td>
<td>Transit Use Incentives</td>
<td>RTC ticket distribution and &quot;Commuter Check&quot;</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>TCM #15</td>
<td>Local Plans</td>
<td>Air quality beneficial policies that reduce auto trips</td>
<td>Policies LU-1, LU-3, LU-8, LU-11 and others</td>
<td>TSM policies</td>
</tr>
<tr>
<td>TCM #19</td>
<td>Pedestrian Travel</td>
<td>Promote walking in developments</td>
<td>Policies C-11, C-13, UD-4</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Capital improvement projects</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pedestrian Program Manager</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TCM #20</td>
<td>Traffic Calming</td>
<td>Traffic calming strategies in transportation and land use elements of general and specific plans</td>
<td>No*</td>
<td>No*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Capital improvement projects</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* TCMs 19 and 20 were first introduced in the '97 Clean Air Plan; because the City of Pittsburg and Contra Costa County have not been updated since that time, there has been insufficient time for consideration of measures to implement these TCMs.

The *City of Pittsburg General Plan* (1988) contains a Transportation Systems Management (TSM) section that includes “guiding policies” and “implementing policies” to reduce reliance on automobiles and increase reliance on transit, bicycles, and walking. Similarly, the *Contra Costa County General Plan 1995–2010* contains a number of Transportation Demand Management goals, policies, and implementation measures intended to implement BAAQMD’s TCMs. Table 11-5 identifies selected measures.

In conclusion, the Specific Plan contains policies that directly implement the land-use philosophy of encouraging dense development near transit stations and encouraging alternatives to vehicles. The City of Pittsburg and Contra Costa County general plans also contain policies that implement TCMs. These three plans demonstrate reasonable progress toward implementing TCMs 1, 9, 12, 13, 15, 19, and 20.

**MITIGATION MEASURE 11-1.** None required.

**Estimate of Mobile Source Emissions**

**IMPACT 11-2.** Development of the Specific Plan could result in an increase of mobile source emissions. This impact is considered less than significant.

Although not necessary to evaluate the significance of a local land use plan, Table 11-6 presents estimates of mobile source emissions of criteria pollutants for the year 2010. As shown in Table 11-6, the development assumed in the Specific Plan would be projected to produce approximately 177 pounds per day of ROG, 241 pounds per day of NOx, 341 pounds per day of PM_{10}, and about 2,738 pounds per day of CO. This impact is considered less than significant.

The analysis above relates to the potential long-term impacts of mobile source emissions, and is based on a total parking supply of approximately 2,400 spaces. For the short term, the Specific Plan allows for development of 380 spaces in a 3.45-acre vacant parcel adjacent to the existing BART surface parking lot. The potential mobile source emissions associated with this amount of parking supply is included in the modeling of potential long-term air quality impacts in which no significant impacts were identified. As a result, no impacts to air quality are projected from the development of additional parking in the short term.

**MITIGATION MEASURE 11-2.** None required.

**TABLE 11-6**
Estimated Vehicular Emissions from Traffic Related to Specific Plan Development (2010)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Estimated Vehicular Emissions in 2010 (pounds per day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reactive Organic Compounds</td>
<td>157</td>
</tr>
<tr>
<td>Nitrogen Oxides</td>
<td>209</td>
</tr>
<tr>
<td>Particulate Matter</td>
<td>294</td>
</tr>
<tr>
<td>Carbon Monoxide</td>
<td>2,370</td>
</tr>
</tbody>
</table>

Note: These values are not compared to BAAQMD project-level thresholds of significance for a regional impact, because the Specific Plan is evaluated at the plan-level.


Stationary Sources

**IMPACT 11-3.** Development of the Specific Plan could result in an increase in air emissions from stationary sources. This impact is considered less than significant.

In addition to mobile source emissions, Specific Plan development would include a variety of stationary sources, such as boilers, chillers, and other fuel-burning equipment in commercial, office, and residential buildings. If large enough, such sources would have to obtain emissions offsets. The impact of these additional emissions would be less than significant.

**MITIGATION MEASURE 11-3.** None required.

Local Air Quality

Construction-Related Emissions

**IMPACT 11-4.** Construction activities of development assumed in the Specific Plan could result in short-term emissions of criteria pollutants and fugitive dust. This impact is considered less than significant.

Construction and demolition activities would generate emissions of criteria pollutants and TACs, but the pollutant of greatest concern from such activities is PM$_{10}$. The BAAQMD recommends...
that rather than attempting to quantify construction-related emissions to determine significance, the mitigation program to reduce particulate emissions be evaluated instead.\textsuperscript{37}

For construction sites larger than four acres, as would typically occur under the Specific Plan, the BAAQMD recommends adoption of both basic and “enhanced” measures, including watering exposed soils, covering truck loads, sweeping, soil stabilization, limiting traffic speeds, and others. Table 11-7 lists these measures. With proper mitigation, particulate emissions can be reduced substantially. (The \textit{Pittsburg General Plan: Existing Conditions and Planning Issues Report} also recommends adoption of these standard construction dust abatement measures included in the \textit{BAAQMD CEQA Guidelines}.\textsuperscript{38})

During individual project review, the potential for emissions of particulate matter and fugitive dust would be addressed. Standard Best Management Practices (BMPs) and other dust control measures would be required as part of the project approval and permitting.

\textbf{TABLE 11-7}

\begin{center}
Mitigation Measures for Construction-Related Particulate Emissions
\end{center}

\begin{tabular}{l}
\textbf{Basic Measures} \\
• Water all active construction areas at least twice a day. \\
• Cover all trucks hauling soil, sand, and other loose materials require all trucks to maintain at least two feet of freeboard. \\
• Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved parking areas and staging areas at construction sites. \\
• Sweep daily (preferably with water sweepers) all access routes, parking areas, and staging areas. \\
• Sweep streets daily (preferably with water sweepers) if visible amounts of soil material are carried onto adjacent public streets. \\
\end{tabular}

\begin{tabular}{l}
\textbf{Enhanced Measures} \\
These measures should be implemented at construction sites larger than four acres in size. \\
• Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more). \\
• Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.) \\
• Limit traffic speeds on unpaved roads to 15 mph \\
• Install sandbags or other erosion control measures to prevent silt runoff to public roadways. \\
• Replant vegetation in disturbed areas as quickly as possible. \\
\end{tabular}

MITIGATION MEASURE 11-4. Depending on the location of a Specific Plan project (i.e., within the city limit or in the unincorporated County area), the City or County would require basic or enhanced BMPs and other dust-control measures as set forth in Table 11-7, as part of agency’s project review and approval. With implementation, this impact would be less than significant.

Local Air Quality — Mobile Sources
Localized “hot spots” of carbon monoxide may be generated by vehicles in congested areas, particularly intersections. The transportation study for this Master EIR indicates that the following intersections would become substantially more congested in 2010 in either the AM and PM peak hours, even without the project: Bailey Road and Willow Pass Road; Bailey Road and West Leland Road; and Bailey Road and Concord Boulevard (in the City of Concord). Tables 10-9 and 10-10 in Chapter 10: Transportation, show the changes in estimated Levels of Service at these intersections due to the project, and each of them requires mitigation. For these reasons, these intersections were selected for micro-scale analysis of carbon monoxide concentrations.

The CALINE4 model was used to estimate carbon monoxide concentrations during AM and PM peak hours at these intersections under four scenarios: 1) existing 1998 conditions; 2) existing 1998 conditions with the project (although this scenario is not possible because the project would not be built out until about 2010); 3) future conditions in 2010 without the project; and 4) future conditions in 2010 with the project. Appendix D contains detailed results of the modeling effort.

As shown in Table 11-8, under no conditions would the one-hour State standard of 20 ppm be exceeded. Similarly, under no conditions would the eight-hour State standard of 9.0 ppm be exceeded. Table 11-8 also shows that estimated carbon monoxide concentrations would generally decrease in the future. This is because less-polluting vehicles are replacing, and will continue to replace, older, more-polluting vehicles.

Although congestion in urban areas of the Bay Area sometimes causes exceedances of the carbon monoxide standards, particularly the eight-hour standards, the City of Pittsburg has a relatively low background concentration of carbon monoxide. This low background concentration is a key factor underlying the results in Table 11-8.

IMPACT 11-5. Vehicular traffic associated with Specific Plan development could increase carbon monoxide concentrations at nearby intersections. No violations of the carbon monoxide standards are expected, and this would be a less-than-significant impact.
MITIGATION MEASURE 11-5. None required.

Toxic Air Contaminant — Plan-Level Analysis

IMPACT 11-6. Proposed land uses development under the Specific Plan could emit toxic air contaminants. This impact is considered potentially significant.

The proposed land uses under the Specific Plan are commercial, office, and residential. Although these uses may emit some toxic air contaminants, e.g., from boilers, chillers, and painting, they are generally not large sources of TACs. There is no industrial use specifically proposed; however, industrial uses may develop north of Willow Pass Road in Zone IV. In addition, gas stations and dry cleaners would be allowed land uses under the Commercial and Residential Mixed Use (as a conditional use) land use designations. Gas stations and dry cleaners emit TACs and are subject to BAAQMD regulation.

Any industrial uses proposed would have to comply with State and BAAQMD regulations, possibly including obtaining permits from the BAAQMD (after screening) and Air Toxics “Hot Spots” reporting requirements. Similarly, if sensitive receptors such as residences, day care centers, or schools locate near existing sources of TACs, the source may be required to report its emissions inventory to the BAAQMD, upon request by the BAAQMD.

MITIGATION MEASURE 11-6

(a) Amend the Specific Plan to require any proposed land use with the potential for air or water contamination to be subject to a land use permit.

(b) Any proposed land uses that could emit TACs should be subject to land use compatibility review, and to a screening review by the BAAQMD. With implementation of this mitigation measure, this impact would be reduced to a less-than-significant level.
TABLE 11-8
Estimated Carbon Monoxide Concentrations at Selected Intersections in the Specific Plan Area

<table>
<thead>
<tr>
<th>Intersection (Streets)</th>
<th>One-Hour Total CO Concentration (ppm)</th>
<th>Eight-Hour Total CO Concentration (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2010 Cumulative without Project</td>
<td>2010 Cumulative with Project</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>--------------------------------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td>Bailey and West Leland - AM</td>
<td>Existing 1998</td>
<td>Existing with Project</td>
</tr>
<tr>
<td></td>
<td>11.4</td>
<td>12.3</td>
</tr>
<tr>
<td>Bailey and West Leland - PM</td>
<td>11.7</td>
<td>14.2</td>
</tr>
<tr>
<td>Bailey and Willow Pass - AM</td>
<td>10.7</td>
<td>10.9</td>
</tr>
<tr>
<td>Bailey and Willow Pass - PM</td>
<td>11.7</td>
<td>12.7</td>
</tr>
<tr>
<td>Bailey and Concord Blvd. - AM</td>
<td>12.3</td>
<td>12.7</td>
</tr>
<tr>
<td>Bailey and Concord Blvd. - PM</td>
<td>12.1</td>
<td>12.4</td>
</tr>
</tbody>
</table>

Notes:
* The state one-hour standard is 20 ppm; the federal one-hour standard is 35 ppm.
* The state and federal eight-hour standard is 9 ppm.
* Estimated CO concentrations in 2010 are generally lower due to emission controls (i.e., cleaner cars) in the future.

CHAPTER 11: AIR QUALITY

Buffer Zones Near TAC Sources

IMPACT 11-7. Potential sources of TACs located in areas with Commercial or Residential Mixed Use land use designations and near sensitive receptors could pose a health risk. This impact is considered potentially significant.

The question is whether sufficient buffer zones would exist between potential sources of TACs and sensitive receptors. The BAAQMD does not provide guidance on the minimum acceptable width of buffer zones. Instead, it recommends a qualitative assessment.

The existing land use pattern in Bay Point already has residential uses adjacent to, across the street from, or otherwise in close proximity to industrial uses. North of Willow Pass Road, there are residential uses on the west side of Alves Lane, and industrial uses (land owned by LP Catalyst Holdings, Inc.) northeast of Alves Lane. Although no light industrial development is assumed under the Specific Plan, it identifies the north side of Willow Pass Road as appropriate for light industrial development.

The Ambrose Community Center is located on the south side of Willow Pass Road, across from the potential light industrial area. The community center is typically used by children, senior citizens, and persons engaging in physical exercise. Specific Plan Guideline IBP-1 recommends that parking lots not be placed between buildings and Willow Pass Road. Such parking lots would increase the distance between the potential industrial buildings and the community center.

The following existing or potential sensitive uses would not be near existing or proposed industrial areas: residential development in Zones I, II, and III; day care centers in Zones I, II, and III; and the Bel Air Elementary School. On the other hand, State Route 4 bisects the plan area and is close to most of these existing or potential sensitive uses. Furthermore, gas stations and dry cleaners would be permitted within the Commercial and Residential Mixed Use areas.

In sum, most of the sensitive receptors that could result under the Specific Plan would not be located close to industrial TAC emitters, but they could be located close to gas stations, dry cleaners, or State Route 4. The existing residential development east of Alves Lane and the Ambrose Community Center would be directly across the street from potential light industrial uses.
In the absence of any specific emission-generating facilities and their possible emission of toxic air contaminants, it cannot be precisely determined whether industrial facilities in Zone IV, or gas stations and dry cleaners allowed in commercial or residential mixed use land use designations would be sufficiently buffered from sensitive receptors. It is recommended that all uses (permitted or conditional) under the Specific Plan be reviewed for their potential emissions of TACs. Appropriate site planning should also be used to create buffer zones. Emissions controls should be installed per any BAAQMD permit requirements.

**MITIGATION MEASURE 11-7**

(a) Preclude gas stations and conditionally allow dry cleaning operations from the Residential Mixed Use land use classification; allow dry cleaners in the Commercial land use designation only if not adjacent to sensitive receptors. Dry cleaning retail outlets where no actual dry cleaning is performed would be allowed.

(b) To widen buffers between light industrial uses and potential sensitive receptors to the west and south, provide parking lots between Alves Lane and industrial uses; consider allowing parking lots located between industrial uses and Willow Pass Road.

(c) Consider creation of a buffer zone to create separation between residential uses and day care centers and State Route 4.

(d) Amend the Specific Plan to require any proposed land use with the potential for air or water contamination to be subject to a land use permit.

With implementation of the above mitigation measures, this impact would be reduced to a less-than-significant level.

**Cumulative Impacts**

Cumulative impacts are already addressed above. The plan-level analysis for regional air quality takes into account cumulative growth. The discussion of mobile sources and stationary sources includes sources within and around the Specific Plan area. The evaluation of localized carbon monoxide concentrations is based on traffic data and projections that are cumulative; i.e., expected cumulative growth is included. Finally, the toxic air contaminant analysis is at a plan-level; it is not possible to evaluate specific future industrial uses, but the analysis takes into account State Route 4 and possible emitters of TACs in and around the Specific Plan area.
NOTES: Air Quality

1 Pollutants subject to Federal ambient standards are referred to as “criteria pollutants,” because the EPA publishes criteria documents to justify the choice of standards.


4 The U.S. EPA has promulgated new standards for both ozone and particulate matter. The new ozone standard is 0.08 ppm averaged over eight hours, rather than the existing 0.12 ppm averaged over one hour. Under the new ozone standard, it will be much more difficult for the Bay Area to achieve compliance. The prior particulate standards limited concentrations of particulate matter less than 10 microns in diameter (PM$_{10}$). Due to increased concern over smaller particulate matter being responsible for health impacts, the new standards limit concentrations of particulate matter 2.5 microns or less in diameter (PM$_{2.5}$). The new standard will be implemented in the year 2000.


6 BAAQMD, ’97 Clean Air Plan, Volume I, page 35.

7 BAAQMD, ’97 Clean Air Plan, Volume I, page 36.

8 For a detailed description of the components of the TCMs, see BAAQMD, ’97 Clean Air Plan, Volume II, Appendix E, and for those TCMs requiring local government action for implementation, see pages E-2 to E-4, E-18 to E-20, E-24 to E-27, E-30 to E-32, and E-41 to E-45.


10 BAAQMD, Regulation 2, Rule 1-316, New or Modified Sources of Toxic Air Contaminants, June 1995.

11 BAAQMD, ’97 Clean Air Plan, Volume I, page i.


22 Pittsburg/Bay Point BART Station Area Specific Plan, November 1997, page 5.5.

23 The development assumptions list dwelling units by development zone. Development Zone I is entirely within City of Pittsburg limits. Development Zones II, III, and IV lie within County
limits, except for a portion of Zone II, which lies within the City. See the Specific Plan, page 2.12 for the number of dwelling units in each zone.


26 These ABAG population projections differ from those cited in Chapter 9: Population, Employment, and Housing, because that chapter uses the most recent ABAG projections (*Projections '98*), whereas the air quality analysis must use the population projections underlying the most recent Clean Air Plan.

27 *Projections '96* states that the population of Contra Costa County was 882,700 persons in 1995 and forecasts a population of 1,120,000 by 2010 (page 133), translating into a growth of 237,300. The planned growth within the portion of the Specific Plan that lies in the County falls within this projected growth.

28 *Projections '96* also notes that “Pittsburg and Bay Point, an unincorporated community within its sphere of influence, should add 10,500 households between 1995 and 2015” (page 135).


30 *City of Pittsburg General Plan*, 1988, page 60.

31 *City of Pittsburg General Plan*, 1988, page 60, Table 7.2; Ratio of Jobs to Housing Demand, Pittsburg Planning Area.

32 Chuck Purvis, Metropolitan Transportation Commission, personal communication, August 14, 1998.

33 Association of Bay Area Governments, *Projections '98: Forecasts for the San Francisco Bay Area to the Year 2020*, December 1997, page 106. (*Projections '98.*) Note: *Projections '96* was not used for this comparison (even though it underlies the ‘97 Clean Air Plan), because no estimate for 2020 was available.


This chapter provides a description of the existing environment in the Specific Plan area in terms of noise levels, background information concerning the analysis of noise impacts, standards of significance for noise impacts, and an analysis of noise impacts related to the proposed Specific Plan.

12.1 SETTING
General Information on Noise and Noise Measurement
Noise is defined as unwanted sound. The effects of noise can range from interference with sleep, concentration, verbal communication, physiological stress, and, at higher noise levels, to hearing loss. The method commonly used to quantify environmental noise involves evaluation of all frequencies of sound, with an adjustment to reflect the fact that human hearing is less sensitive to low and high frequencies than to midrange frequencies. This measurement adjustment is called “A-weighting.” A noise level so measured is called the A-weighted sound level measured in A-weighted decibels (dBA). In practice, environmental noise is conveniently measured using a sound level meter that includes an electronic filter corresponding to the A-weighted curve. Table 12-1 provides examples of typical A-weighted noise levels:

<table>
<thead>
<tr>
<th>Typical Sound Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jet takeoff at 200 feet</td>
</tr>
<tr>
<td>Ambulance siren at 100 feet</td>
</tr>
<tr>
<td>Freight train at 50 feet</td>
</tr>
<tr>
<td>Freeway traffic at 50 feet</td>
</tr>
<tr>
<td>Vacuum cleaner at 10 feet</td>
</tr>
<tr>
<td>Average office</td>
</tr>
<tr>
<td>Average residence</td>
</tr>
<tr>
<td>Recording studio</td>
</tr>
</tbody>
</table>

Environmental noise also fluctuates in intensity over time. Therefore, time-averaged noise levels are typically used to quantify noise conditions and determine impacts. The two units of noise most commonly used for environmental noise measurement and control purposes are “L_{dn}” and “CNEL.” L_{dn}, the day/night average noise level, is the computed 24-hour noise level average,
with a 10 dBA “penalty” added for nighttime noise (10:00 p.m. to 7:00 a.m.). This “penalty” is used to account for the greater human sensitivity to noise during this period. CNEL, the community noise equivalent level, is similar to $L_{dn}$, but also includes a 5 dBA “penalty” for early evening noise (7:00 p.m. to 10:00 p.m.).

A single number called the average sound level or “$L_{eq}$” is used widely to quantify a given noise environment. This measurement reflects the average A-weighted sound level in a stated time period. The $L_{eq}$ is useful particularly in describing the subjective change in an environment where the source of noise remains the same but there is change in the level of activity (e.g., increasing traffic levels).

One way of estimating a person's subjective reaction to a new noise is to compare the new noise with the existing noise environment to which the person has become adapted; i.e., the increase over the so-called “ambient” noise level. With regard to such perceived impacts of various degrees of increase in A-weighted noise levels, knowledge of the following relationships will be helpful in understanding the discussion in this chapter:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived.
- Outside of the laboratory, a 3 dBA change is considered a just-perceivable difference.
- A change in noise level of at least 5 dBA is required before any noticeable change in community response would be expected. A 5 dBA increase is often considered a significant impact.
- A 10 dBA increase is subjectively heard as approximately a doubling in loudness and almost always causes an adverse community response.

**Existing Noise Environment**

Noise generation in the Specific Plan area derives primarily from vehicular traffic on State Route 4. Vehicles on Bailey Road and Willow Pass Road, as well as BART trains, comprise the other major noise sources in the plan area.

Existing noise levels in the vicinity were measured as part of the City of Pittsburg’s General Plan Update in 1998.\(^1\) Results of these measurements show a corridor extending about 375 feet on either side of the centerline of State Route 4 in which noise levels reach or exceed 70 dB. The predicted distance from State Route 4 to the future 60 $L_{dn}$ contour in the Specific Plan area is 2,000 feet.\(^2\) Along both Bailey and Willow Pass Roads, noise levels were measured at 65 dB. The *Contra Costa County General Plan* includes a predicted distance of 270 feet between the center of Willow Pass Road and the 60 $L_{dn}$ contour in the future.

Other portions of the Specific Plan area were mapped at a noise level of approximately 60 dB. A site 60 feet west of the Bailey Road median centerline between Mims Avenue and Canal...
Road was selected as a key monitoring location for the Pittsburg General Plan Update. Noise measurements taken in February 1998 produced an $L_{eq}$ value for this site of 66.1 dBA.

The Pittsburg/Bay Point BART Station began operations in 1996. It is located at the southwest corner of the State Route 4/Bailey Road interchange. On a typical weekday, 75 trains provide service from this station to others in the BART system. BART rail tracks traverse the center of State Route 4, contributing to the general noise environment of the Specific Plan area. BART has established maximum passby exterior noise levels for its transit operations, shown in Table 12-2. These noise levels are higher than typical standards for noise sensitive uses because they are based on individual noise events rather than average noise levels over a period of time. The impact of BART train passby noise on CNEL levels depends on the frequency and duration of the train passbys.

**TABLE 12-2**

Maximum Airborne Noise Criteria, BART Transit Operations

<table>
<thead>
<tr>
<th>Residences and Commercial Buildings</th>
<th>Maximum Passby Noise Levels (dBA)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Single Family</td>
</tr>
<tr>
<td>Low Density Residential</td>
<td>70</td>
</tr>
<tr>
<td>Average Residential</td>
<td>75</td>
</tr>
<tr>
<td>High Density Residential</td>
<td>75</td>
</tr>
<tr>
<td>Commercial</td>
<td>80</td>
</tr>
<tr>
<td>Industrial / Highway</td>
<td>80</td>
</tr>
</tbody>
</table>

Source: Bay Area Rapid Transit District.

As part of the *State Route 4/Bailey Road Interchange Improvement Project EIR*, noise measurements were made near the interchange in 1991. This location falls within the Specific Plan area. Some of the noise data generated in this study are summarized here as setting information. One monitoring location was established approximately 1,000 feet north-northeast of the BART station adjacent to the Far Hills mobile home park. At this site, an hourly $L_{eq}$ value of 58 dBA during late morning sampling was recorded. A second relevant sampling site was established about 1,000 feet south of the BART station on the east side of Bailey Road. This site produced the following noise information: hourly $L_{eq}$ (peak hour)—72 dBA; DNL—73 dBA; CNEL—74 dBA.
Noise Compatibility Standards and Guidelines
The following discussion applies to the development of commercial and residential land uses as proposed by the Specific Plan. Applicable policies from City of Pittsburg and Contra Costa County planning documents are summarized below, along with other pertinent information relating to noise and its relationship to land use.

City of Pittsburg Policies Related to Noise
The City of Pittsburg General Plan’s Noise Element contains policies aimed at reducing traffic and railroad noise levels and protecting noise-sensitive uses. Policies relevant to the proposed Specific Plan include:

• Require an acoustic study for all proposed projects that would have noise exposures greater than normally acceptable as indicated by the land use compatibility standards contained in the Noise Element.
• Require construction of sound walls for new development where noise mitigation to acceptable levels by other means is not practical. Require that the effects of the construction of sound walls on noise levels at other areas be considered, and taken into account in the design and location of sound walls.

The Pittsburg General Plan Update refines these policies by suggesting alternatives to the use of sound walls unless otherwise infeasible. Other noise-reduction strategies which avoid visible sound walls, such as use of landscaping or other buildings, are encouraged. Another option cited in the update is to evaluate the use of sound walls only along specifically defined corridors.

The City of Pittsburg General Plan Noise Element suggests maximum community threshold noise levels for various land uses based on recommendations of the California Department of Health Services (DHS) Office of Noise Control. For example, for residential and hotel development, an exterior CNEL of up to 60 dBA would be considered “normally acceptable”; noise levels in excess of a CNEL of 60 dBA would warrant special noise studies and possible mitigation. For commercial uses, an exterior CNEL of up to 65 dBA would be considered “normally acceptable”; noise levels in excess of a CNEL of 65 dBA would warrant mitigation. For parks, an exterior CNEL of up to 70 dBA would be considered “normally acceptable”; noise levels in excess of a CNEL of 70 dBA would warrant mitigation, and CNELs above 73 dBA would be “normally unacceptable.”

Contra Costa County Policies Related to Noise
The Contra Costa County General Plan Noise Element includes the following policies intended to limit the impacts of noise in all areas of the County:
• New projects shall be required to meet acceptable exterior noise level standards as established in the Noise and Land Use Compatibility Guidelines. These guidelines, along with the future noise levels shown in the future noise contours policies from the maps, should be used by the County as a guide for evaluating the compatibility of “noise-sensitive” projects in potentially noisy areas.

• The standard for outdoor noise levels in residential areas is an $L_{dn}$ of 60 dB. However, an $L_{dn}$ of 60 dB or less may not be achievable in all residential areas due to economic or aesthetic constraints.

• If the primary noise source is train passbys, then the standard for outdoor noise levels in residential areas is an $L_{dn}$ of 70 dB.

• Title 24, Part 2, of the California Code of Regulations requires that new multi-family housing projects, hotels, and motels exposed to an $L_{dn}$ of 60 dB or greater have a detailed acoustical analysis describing how the project will provide an interior $L_{dn}$ of 45 dB or less. The County also shall require new single-family housing projects to provide for an interior $L_{dn}$ of 45 dB or less.

• In developing residential areas exposed to a DNL in excess of 65 dB due to single events such as airport, helicopter, or train operations, indoor noise levels due to these single events shall not exceed a maximum A-weighted noise level of 50 dB in bedrooms and 55 dB in other habitable rooms.

• If an area is currently below the maximum “normally acceptable” noise level, an increase in noise up to the maximum should not be allowed necessarily.

• Public projects shall be designed and constructed to minimize long-term noise impacts on existing residents.

• Construction activities shall be concentrated during the hours of the day that are not noise-sensitive for adjacent land uses and should be commissioned to occur during normal work hours of the day to provide relative quiet during the more sensitive evening and early morning periods.

• Sensitive land use shall be encouraged to be located away from noise areas, or the impacts of noise on these uses shall be mitigated. If residential areas are planned adjacent to industrial noise sources, then a noise study shall be performed to determine the extent of any noise impacts and recommend appropriate noise mitigation measures.

• Noise impacts upon the natural environment, including impacts on wildlife, shall be evaluated and considered in review of development projects.
The County routinely implements these policies through development review and the CEQA process. Development review is intended to encourage the use of appropriate site planning, architectural layout, noise barriers, and construction modifications to achieve required noise levels for new developments. Noise mitigation features are to be incorporated into the design and construction of new projects or are to be required as conditions of project approval.\(^5\)

**State Building Standards to Minimize Noise**

The State has enacted into law a set of California Sound Transmission Control Standards (California Code of Regulations, Title 24, Building Standards, Chapter 2.35) establishing minimum noise insulation performance criteria to protect persons within new hotels, motels, apartment houses and dwellings other than detached single-family dwellings. Under this State-mandated criterion, interior noise attributable to exterior sources, with windows closed, shall not exceed an average level of 45 dBA CNEL in a habitable room. In addition, residences or hotels within a 60 dBA CNEL contour related to airport, vehicular, or industrial noise sources shall require an acoustical analysis showing that the proposed building has been designed to limit intruding noise to the allowable 45 dBA CNEL interior noise level.

### 12.2 STANDARDS OF SIGNIFICANCE

The Specific Plan would be considered to have a significant impact related to noise if it would:

- conflict with adopted environmental plans and goals of the City of Pittsburg and the County pertaining to noise;
- substantially increase (e.g., by 5 decibels or greater) the ambient noise levels of adjoining areas; or
- expose people to unacceptable noise levels in excess of the City or County general plans’ or State-established standards of acceptability.

### 12.3 IMPACTS AND MITIGATION MEASURES

Development proposed under the Specific Plan would increase traffic volumes on local roads and lead to an incremental increase in traffic-generated noise. Land uses proposed by the Specific Plan are not industrial and/or otherwise noise-intensive and are not expected to create long-term or chronic noise incompatibilities. These impacts would not be considered significant.
Impact on Surrounding Land Uses

IMPACT 12-1. Construction of projects proposed under the Specific Plan would create short-term noise impacts on surrounding land uses. This impact is considered less than significant.

For projects developed under the Specific Plan, construction noise would occur as a result of demolition, grading, heavy vehicles, and construction work. Noise would be generated by diesel-powered heavy equipment such as dump trucks, cement trucks, graders and bulldozers. Most diesel-powered heavy construction equipment produces noise levels of 80 to 90 dBA at a distance of 50 feet. Noise levels decrease by 6 dBA for every doubling of the distance of separation from a fixed source, so that at 100 feet, most construction noises would range from 74 dBA to 84 dBA.

Significant but short-term construction-period impacts would be expected at sensitive receptors that would not be displaced by the projects. Examples of these receptors include existing residences, parks, and the Ambrose Community Center. Although the high levels of noise generated by construction equipment may annoy residents, they would be a short-term impact.

MITIGATION MEASURE 12-1. Construction equipment and operations must comply with local noise ordinances. Unless nighttime or weekend work is specified in project contracts, or special provisions are approved in writing by the Zoning Administrator, construction operations should be prohibited in residential areas between 7:00 p.m. and 7:00 a.m. Monday through Friday, on weekends, and on holidays. Implementation of local noise ordinances would reduce this impact to a less-than-significant level.

Impact to People Exposed to Noise

IMPACT 12-2. Development proposed under the Specific Plan would increase the number of people exposed to noise levels above those considered “normally acceptable.” This impact is considered potentially significant.

Specific Plan-related development near State Route 4 and along Bailey Road and Willow Pass Road would be exposed to noise levels above the acceptable CNEL of 60 dBA. Although the proposed land uses would not generate a significant change in noise levels, mitigation of existing high noise levels appears to be warranted, especially in Zone I. In this zone, new residential and commercial uses would be developed adjacent to State Route 4 and the BART station. Future
residents of the housing and users of the proposed commercial retail and office development in Zone I would be subject to these noise sources. All proposed Specific Plan development is required to comply with City, County, and State building design guidelines as described in Sections 12.1 and 12.2 of this chapter. Future projects are also subject to acoustical studies to identify any noise exposures greater than normally acceptable. These standards for noise control would be required for all proposed projects in the Specific Plan.

**MITIGATION MEASURE 12-2**

(a) All applicants for proposed projects shall submit a noise study verifying compliance with interior/exterior noise standards. Based on the results of the study, noise exposures greater than normally acceptable shall be mitigated by incorporating site design and acoustic insulation techniques, such as sound-rated windows, to achieve acceptable interior noise levels.

(b) Require construction of sound walls for new development where noise mitigation to acceptable levels by other means (i.e., site design, setbacks, etc.) is not practical. Require that the effects of the construction of sound walls on noise levels at other areas be considered, and taken into account in the design and location of sound walls.

**NOTES: Noise**


3 City of Pittsburg, op. cit.


5 Contra Costa County Community Development Department, op. cit.
This chapter describes existing drainage and water quality conditions in the Specific Plan area, presents standards of significance for surface water-related impacts, and describes potential impacts of Specific Plan development on hydrology and water quality.

13.1 SETTING

Annual rainfall in the plan area is approximately 16 inches, with about 95 percent of the total annual occurring during the period October through April. Rainfall results almost exclusively from cyclonic systems originating in the northern Pacific Ocean during winter. Monthly rainfall may be considered heavy between December and February and is highest in January when it approaches 3.5 inches.

Regulatory Framework

In the Specific Plan area, water resources policies are administered by several agencies. They include the:

- California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB or “Regional Board”),
- State Water Resources Control Board (SWRCB), and the
- U.S. Environmental Protection Agency (U.S. EPA).

Development proposed in the Specific Plan is subject to the Federal Clean Water Act, the California Porter-Cologne Water Quality Control Act (Porter-Cologne Act), applicable Water Code sections, i.e. plans and policies adopted by the RWQCB and SWRCB, and permitting and licensing requirements that may be required during project design/development review by either the City of Pittsburg or Contra Costa County, depending on which agency has land use authority for the project under review.

San Francisco Bay Basin Water Quality Control Plan (Basin Plan)

The RWQCB regulates surface water and groundwater quality in San Francisco Bay through its San Francisco Bay Water Quality Control Plan (Basin Plan). The Basin Plan is the master policy, legal, and technical document for water quality regulation in the San Francisco Bay region. The Basin Plan specifies beneficial uses of receiving waters, water quality objectives imposed to protect the designated beneficial uses, and strategies and schedules for achieving water quality objectives. The Regional Board also issues permits of waste discharges, and implements monitoring programs of pollutant effects.
State policy for water quality control in California is directed toward achieving the highest water quality consistent with maximum benefit to the people of the State. Therefore all water resources must be protected from pollution and nuisance that may occur as a result of waste discharges. Beneficial uses of surface waters, ground waters, marshes, and mud flats serve as a basis for establishing water quality standards and discharge prohibitions to attain this goal. Beneficial uses that have been identified for Suisun Bay include:

- Water contact and non-contact water recreation
- Navigation
- Ocean, commercial and sport fishing
- Wildlife habitat
- Estuarine habitat
- Fish spawning and migration
- Industrial service supply
- Preservation of rare and endangered species

**National Pollutant Discharge Elimination System**

Part of the Clean Water Act provides for the National Pollutant Discharge Elimination System (NPDES), in which discharges into navigable waters from point and non-point sources are prohibited except in compliance with specified requirements and authorizations. Municipal and industrial facilities are required to obtain a NPDES permit that specifies allowable limits for pollutant levels in their effluent based on available wastewater treatment technologies. The U.S. EPA has delegated the implementation of this program to the SWRCB and to the Regional Boards.

Surface runoff is also regulated to protect water quality. NPDES permits are issued for stormwater runoff in urban areas, and are administered by the California Regional Water Quality Control Board (RWQCB). Non-point source pollutants in stormwater may include suspended sediment, hydrocarbons, metals and nutrients (e.g., nitrogen and phosphorus compounds) deriving from exposed soils, roads, rooftops and other surfaces.

The RWQCB has issued general NPDES permits to individual jurisdictions such as Contra Costa County and the City of Pittsburg. These permits require the jurisdiction to enact ordinances and programs to control stormwater pollution from various sources including new urban or suburban development. The County has adopted stormwater pollution prevention ordinance provisions that contain general prohibitions against stormwater pollution and specific requirements pertaining to construction activities.
The RWQCB has adopted a separate *NPDES General Permit for Stormwater Discharge Associated with Construction Activity*. This permit applies to construction projects that would disturb five acres or more of land. Project developers are required to file a Notice of Intent with the RWQCB to obtain coverage under the General Permit. The permit applicant is required to prepare a Stormwater Pollution Prevention Plan (SWPPP) to address potential grading and erosion impacts and non-point source pollution impacts that may occur during and after project construction.

The County and the City of Pittsburg participate in the NPDES process by requiring that Best Management Practices (BMPs) be implemented in the design of a project’s storm drainage system to reduce or eliminate stormwater pollution. These BMPs are to be implemented during project construction and included in long-term operation and maintenance of facility infrastructure. For both the County and City, a project developer must submit a copy of the Notice of Intent filed with the RWQCB, and obtain County or City approval of the SWPPP. SWPPP approval is required prior to issuance of local building permits.

**Groundwater**

The Specific Plan area is within the Pittsburg Plain groundwater basin, a 30-square mile elongated basin which runs east-west along and parallel to State Route 4 in the plan area. Water movement in the aquifer is to the north and recharges the Sacramento/San Joaquin River system. Geotechnical reports prepared for sites in the Pittsburg area indicate that groundwater levels vary considerably. Groundwater depth within upland areas of the Pittsburg Plain has been documented to be between 18 to 28 feet, whereas shallow groundwater may be encountered in low-lying areas near Suisun Bay and in ravines and creek channels.

Intense pumping of groundwater in the period between the 1930s and the 1950s resulted in overdraft and intrusion of saline water into the aquifer. These problems were alleviated by widespread use of surface water from the Contra Costa Canal. The City of Pittsburg currently extracts groundwater to supplement its surface water supply.

**Contra Costa Canal**

The Contra Costa Canal is owned by the U.S. Bureau of Reclamation and operated and maintained by the Contra Costa Water District (CCWD). The canal provides the conveyance of Central Valley Project water from the San Joaquin Delta to the CCWD. The canal traverses through the Specific Plan area. Further discussion of the canal is provided in Chapter 8: Community Services and Utilities.
**Potentially Affected Receiving Waters**

**Suisun Bay**

Of the water bodies that form the San Francisco Bay Estuary–Delta system, Suisun Bay is the first water body that receives flow from the Sacramento and San Joaquin rivers and their tributaries. The drainage areas that contribute flows to the rivers comprise about 37 percent of the land area of the State. Much of the land area is devoted to agricultural and forestry land uses, with major urban centers also contributing discharges into the rivers. Pollutants produced by these activities reach the San Francisco Bay through discharge from wastewater treatment plants, stormwater runoff, agricultural drainage and disposal of dredged materials. Salinity in Suisun Bay is generally lower than in downstream waters such as the San Pablo Bay, because of the fresh water inflow from the rivers.

**Lawlor Creek**

The Lawlor Creek watershed is one of two major watersheds within the Pittsburg planning area. Most of the Lawlor Creek watershed south of Bay Point is undeveloped, though some residential development exists south of State Route 4. Surface runoff is conveyed by natural channels with exception of storm drains located in developed areas, and culverts under State Route 4. The sections of Lawlor Creek downstream of the plan area generally flood during the 100-year storm events as indicated on the Flood Insurance Rate Map dated 1987 issued by the Federal Emergency Management Agency (FEMA). The County requires all developments tributary to Lawlor Creek to mitigate their adverse drainage impacts on the natural creek.

**Floodplains**

Official Flood Insurance Rate Maps have been issued for the Specific Plan area by the Federal Flood Insurance Administration. The special flood hazard area is termed Zone A (i.e., the area subject to inundation by the 100-year flood). The FEMA map indicates areas subject to inundation as follows:

- **City of Pittsburg.** One portion of Lawlor Creek immediately upstream from West Leland Road is identified as flood-prone by FEMA. The area subject to flooding according to FEMA criteria is limited to the lands within approximately 100 feet of the channel.

- **Contra Costa County.** The County map indicates that the channel of Lawlor Creek is inadequate from the Contra Costa Canal downstream to Willow Pass Road, a distance of approximately 0.85 mile. During peak discharge, lands adjacent to the creek are subject to flooding.

The FEMA Flood Rate Insurance Maps designate several areas within the plan area vicinity as within the 100-year flood zone limit. These areas primarily include the areas associated with Lawlor Creek north of State Route 4 and east of Bel Air School and the portion of the creek south of West Leland Road. The 100-year flood zone associated with Lawlor Creek east of the...
interchange and north of State Route 4 extends from Canal Road north along the length of the stream to the Suisun Bay. The flood zone is primarily restricted to the stream channel.

**Existing Specific Plan Area Drainage Patterns**

The Specific Plan area includes several surface water drainage features within the Lawlor Creek watershed. Stormwater runoff generally flows north within the planning area via natural and channelized creek sections and an underground stormwater sewer system. Runoff leaving the area eventually discharges into Suisun Bay. Within the incorporated portions of the planning area, the City of Pittsburg maintains the storm sewer system. Major channels and creeks in both incorporated and unincorporated portions of the County are maintained by Contra Costa County’s Department of Public Works and Flood Control and Water Conservation District.

**Drainage Area Fees**

Within adopted drainage areas in Contra Costa County’s jurisdiction, fees are required from developers to offset the cost of storm sewer system improvements necessitated by the addition of impervious surfaces in the watershed. Where storm drain improvements are needed within parcels under development, the construction of such facilities is designated as a condition of project approval. For projects within the City of Pittsburg, developers are required to verify the adequacy of downstream storm drain facilities to convey runoff from proposed development.

Portions of the Specific Plan area lie within Drainage Areas 48B and 48D as designated by the Contra Costa County Flood Control and Water Conservation District. Drainage Areas 48B and 48D have drainage fees based on $0.27 per square foot and $0.54 per square foot, respectively, for newly created impervious surface area. The County requires payment of fees prior to the filing of final maps, parcel maps, or the issuance of building permits, whichever the case may be within the above drainage areas. For the purposes of this discussion, two primary stormwater systems within these areas are of concern. The system draining the majority of the Specific Plan area is served by Line ‘A’ of Drainage Area 48D while a smaller portion of the planning area including most of the block along Willow Pass Road is served by Line ‘B’ of Drainage Area 48B. Additional detail regarding these systems is provided below.

**Drainage Area 48D: West of Bailey Road**

From West Leland Road west of the BART station (the southern boundary of the Specific Plan area), stormwater runoff is diverted to a 42-inch storm drain which carries runoff north and under State Route 4. From West Leland Road in the vicinity of the BART property, stormwater is diverted to an open channel which conveys runoff northward to a 36-inch storm drain under State Route 4. Stormwater runoff from the shopping center located along Bailey Road is transported north to drainage facilities located along the south side of State Route 4 which carry the runoff west to a culvert under State Route 4. This culvert is located just west of the end of the State Route 4 / Bailey Road interchange on- and off-ramps.
Flows from the upper watershed area (i.e., south of State Route 4) are constricted by the capacity of the existing culverts at State Route 4. Since the Specific Plan would involve increasing runoff from the area south of State Route 4, drainage facility improvements may be required to mitigate the effect of runoff reaching these culverts. However, a drainage area has not been established south of State Route 4, which would trigger the fee requirement for addition of impervious surfaces.

North of State Route 4, stormwater runoff flows northward via two main routes. The first route conveys runoff from the Oak Hills Shopping Center south of State Route 4 under the highway to a small open channel between State Route 4 and Canal Road. From this point, stormwater is diverted under Canal Road to an open drainage channel north of Canal Road. This open drainage channel outflows via a 48-inch storm drain and connects to a 72-inch storm drain north of Mims Avenue.

The second drainage system north of State Route 4 combines the two storm drainage systems south of State Route 4 and west of the shopping center into one drainage just north of Canal Road. From Canal Road, stormwater is conveyed through a series of culverts and open channels northward to the 72-inch storm drain north of Mims Avenue.

The storm drainage system west of Bailey Road has a maximum design capacity of 190 cubic feet per second (cfs) due to downstream capacity constraints.

**Drainage Area 48D: East of Bailey Road**

Stormwater runoff from areas east of Bailey Road and north of West Leland Road flows via Lawlor Creek to a 72-inch culvert under West Leland Road north of Ambrose Park. Runoff is then diverted into a 24-inch storm drain that runs under Ambrose Park to a box culvert measuring 4.0 by 4.5 feet which carries stormwater under the Contra Costa Canal. From this point, runoff is conveyed under State Route 4 via a 72-inch and 48-inch parallel pipe system to an open channel north of State Route 4 (Lawlor Creek). This system is generally adequate to carry flows from a storm of 25-year return frequency as required by the Contra Costa County Flood Control District. The storm drain under Ambrose Park is undersized in comparison to these facilities.

Stormwater runoff from areas further to the east generally flows via above-ground drainage north toward State Route 4. Runoff is directed to a 30-inch culvert, which carries it under State Route 4 to Lawlor Creek north of Canal Road. These drainage facilities are considered adequate to accommodate 25-year storm flows.

As part of the EIR for the State Route 4 / Bailey Road Interchange Improvement Project, runoff was modeled for the area surrounding the interchange. The study identified the area between West Leland Road and State Route 4 as generating greater runoff from a storm of 10-year
return frequency than the capacity of the storm sewer system. Proposed mitigation included the construction of detention basins to reduce outflow to downstream drainage facilities.

**Drainage Area 48B**

The northwest portion of the Specific Plan area lies along Willow Pass Road and includes a block north of Willow Pass. This area is served for stormwater drainage by Line ‘B’ along its western margin and Line ‘B-3.’ Line ‘B-3’ proceeds toward Suisun Bay at a point roughly centered in the east-west direction along the planning area’s northern margin. Line ‘B’ and Line ‘B-3’ meet to the north of the Specific Plan area and feed the ‘Earth Channel Junction’ drainage facility at the railroad tracks.

**Water Pollutants**

Urban stormwater can represent a significant component of the wastewater stream. Pollutants may include the same types identified above for municipal wastewater although the concentrations of oxygen-demanding substances, nutrients, and pathogenic microorganisms are generally much lower compared to untreated municipal wastewater. Sources of urban stormwater pollutants include vehicles, build-up of oil and grease on impervious surfaces during dry periods, landscaping and maintenance activities, construction and industrial activities, and illegal or accidental connections from non-stormwater sources such as system cross connections, spills, and illegal dumping. Heavy metals, and organic and inorganic compounds may also occur through atmospheric deposition of these pollutants.

**City of Pittsburg Polices Related to Flooding and Stormwater**

The following City of Pittsburg General Plan policies related to flooding and stormwater runoff conveyance apply to all Specific Plan projects in the City limits:

- Locate development outside flood-prone areas unless mitigation of flood risk is assured.

- Ensure that new development will not add storm runoff exceeding a proportional share of designed storm-drainage capacity.

- Evaluate storm-drainage needs for each project in the context of demand and capacity when the drainage area is fully developed. Require drainage improvements or other mitigation of the project’s impacts on the storm drainage system appropriate to the project’s share of cumulative effect.

- Require assessment of potential downstream flood impacts and drainage of all major new developments. When significant impacts are identified, require the project sponsor to provide adequate mitigation or assume the costs of necessary facilities to be constructed by public agencies.
The City of Pittsburg Stormwater Management Plan identifies Suisun Bay as a resource of special recreational and habitat value. The plan seeks to protect this resource from pollution contained in stormwater runoff by reducing contamination of stormwater through a set of BMPs. BMPs applicable to development proposed under the Specific Plan should be enforced, and include:

- **Construction Sites and New Development.** BMPs for this category include erosion and sedimentation controls, construction practices, and new development controls. These practices aim to mitigate water quality problems and eliminate future stormwater pollution.

- **Illicit Connections and Discharges.** There are two types of illicit discharges – illicit connections to the storm drain system and the illegal dumping of materials into the system. The objective of practices in this category is to prevent non-stormwater discharges from entering the storm drain system. BMPs include above and below ground facility inspections and household hazardous waste programs.

- **Commercial Areas.** Examples of pollutants from commercial areas include oil and grease from parking lots, grease and other wastes from restaurants, and materials from automotive service areas. BMPs such as the installation of pervious pavement in downstream sections of major parking lots, street sweeping and facility inspections address this issue.

- **Industrial Areas and Facilities.** Discharges from metal plating industries and auto-related facilities are among the pollutants found in the category. BMPs targeting this category include assisting industries to comply with general permits, obtaining the legal authority for inspectors to issue citations, street sweeping, and catch basin cleaning.

- **Transportation Facilities.** These include runoff from roads and parking lots. BMPs addressing water quality problems associated with transportation facilities include encouraging public employees to take public transportation, diverting and treating runoff, and City participation in regional transportation management programs.
• **Agency Activities and Facilities.** Sources of stormwater pollution can be corporation yards, flood control channels, and City streets. Structural controls and source controls can both be used to correct this problem. BMPs include field inspections, reduction of herbicide and pesticide use, and targeted catch basin cleaning (City of Pittsburg 1998).

Other relevant City of Pittsburg policies related to water quality are contained in the General Plan including:

- creek setback standards,
- discouraging the culverting of significant creeks, and
- buffers or landscaped setbacks and storm runoff interception.

Also, the City of Pittsburg Zoning Ordinance forbids the discharge of liquids into a watercourse, sewage system, or the ground, except in compliance with applicable law and regulations. These RWQCB regulations and the California Water Code should be enforced.

**Contra Costa County General Plan Policies Related to Water Quality, Flooding, and Stormwater**

The following County Water Resources goals and policies apply:

**Water Resources Goals**

8-T. To conserve, enhance and manage water resources, protect their quality, and assure an adequate long-term supply of water for domestic, fishing, industrial and agricultural use.

8-U. To maintain the ecology and hydrology of creeks and streams and provide an amenity to the public, while at the same time preventing flooding, erosion, and danger to life and property.

8-V. To preserve and restore remaining natural waterways in the County which have been identified as important and irreplaceable natural resources.

8-W. To employ alternative drainage system improvements which rely on increased retention capacity to lessen or eliminate the need for structural modifications to watercourses, whenever economically possible.

8-X. To enhance opportunities for public accessibility and recreational use of creeks, streams, drainage channels, and other drainage system improvements.
CHAPTER 13: HYDROLOGY AND WATER QUALITY

General Water Resources Policies

8-74. Preserve watersheds and groundwater recharge areas by avoiding the placement of potential pollution sources in areas with high percolation rates.

8-75. Preserve and enhance the quality of surface and groundwater resources.

8-76. Ensure that land uses in rural areas be consistent with the availability of groundwater resources.

8-77. Provide development standards in recharge areas to maintain and protect the quality of groundwater supplies.

Policies for New Development Along Natural Watercourses

8-86. Existing native riparian habitat shall be preserved and enhanced by new development unless public safety concerns require removal of habitat for flood control or other public purposes.

8-87. On-site water control shall be required of major new developments so that no increase in peak flows occurs relative to the site’s pre-development condition, unless the Planning Agency determines that off-site measures can be employed which are equally effective in preventing adverse downstream impacts.

8-88. New development which modifies or destroys riparian habitat because of needed flood control shall be responsible for restoring and enhancing an equivalent amount of habitat within or near the project area.

8-89. Setback areas shall be provided along natural creeks and streams in areas planned for urbanization. The setback areas shall be of a width adequate to allow maintenance and to prevent damage to adjacent structures, the natural channel, and associated riparian vegetation. The setback area shall be a minimum of 100 feet; 50 feet on each side of the centerline of the creek.

8-91. Grading, filling and construction activity near watercourses shall be conducted in such a manner as to minimize impacts from increased runoff, erosion, sedimentation, biochemical degradation, or thermal pollution.

8-92. Revegetation of a watercourse shall employ native vegetation, providing the type of vegetation is compatible with the watercourse’s maintenance program and does not adversely alter channel capacity.
The following *Contra Costa County General Plan* implementation measures related to water quality, drainage and flood hazard apply to all Specific Plan projects in the unincorporated areas of the County:

- New development should be required to finance its legal share of the full costs of drainage improvements necessary to accommodate projected peak flows due to the project. Reimbursement from subsequent developments which benefit from the added capacity may be provided. (Public Facilities/Services Element, Policy 7-44, page 7-33)

- Regional detention basins shall be favored over smaller, on-site detention basins. (Policy 7-46, page 7-33)

- Open bypass channels, detention and all drainage facility rights-of-way which are provided at different locations in order to supplement existing natural creeks should be developed as an asset to the development; e.g., as a secondary recreation use. (Policy 7-48, page 7-33)

- Natural streams and channels which have been structurally modified shall be evaluated for potential use as urban open spaces, linear parks, and trails. Cities and other agencies responsible for recreation shall be encouraged to undertake this evaluation. (Policy 7-49, page 7-33)

- Detention basins shall be designed for multiple uses such as parks and playing fields when not used for holding water, if liability and maintenance issues can be satisfactorily resolve. (Policy 7-51, page 7-33)

- As appropriate and to the extent allowed by law, assess all new development projects at least $0.35 per square foot of impervious surface created. This drainage fee is to be collected through existing County Flood Control drainage area fee ordinances, newly adopted drainage area fee ordinances, existing and new assessment districts, or other financial entities. The fee may be applied to the cost of any developer-sponsored regional flood control improvements on- or off-site which mitigate the project’s flooding impacts. Regional facilities are defined as systems sized to handle at least 15 cubic feet per second and suitable for public agency maintenance; i.e., 24-inch diameter and larger storm drains. (Public Facilities/Services Element, Policy 7-55, page 7-34)

- Applications of toxic pesticides and herbicides shall be kept at a minimum and applied in accordance with the strictest standards designed to conserve all the living resources of the County. The use of biological and other non-toxic controls shall be encouraged (Policy 8-22, page 8-29)
CHAPTER 13: HYDROLOGY AND WATER QUALITY

- Runoff of pollutants and siltation into marsh and wetland areas from outfalls serving nearby urban development shall be discouraged. Where permitted, development plans shall be designed in such a manner that no such pollutant and siltation will significantly adversely affect the value or function of wetlands. In addition, berms, gutters, or other structures should be required at the outer boundary of the buffer zones to divert runoff to sewer systems for transport out of the area. (Policy 8-23, page 8-30)

- Ensure that additional new drainage facilities, including road culverts and bridges, are designed to pass the flow specified in County Ordinance Code.

- Through the environmental review process, ensure that potential flooding impacts, due to new development, including on-site and downstream flood damage . . . are adequately assessed. Impose appropriate mitigation measures.

Contra Costa County Subdivision Ordinance
Developments within County-designated drainage areas are also required to comply with the flood control improvement requirements of the Contra Costa County Subdivision Ordinance. The pertinent sections of this ordinance are:

- All portions of the subdivision shall be protected from flood hazard, inundation, sheet overflow, and ponding of storm waters, springs and all other surface waters. All finished floors shall be above the water surface of a 100-year frequency storm runoff. (Section 914-2.002)

- The design of all improvements within the subdivision shall be constructed such that all surface waters occurring within the subdivision, as well as surface waters flowing onto and/or through the subdivision, are conveyed without damage to any improvement, building site, or dwelling which may be constructed within the subdivision. Storm drainage facilities within the subdivision shall be designed to adequately convey the stormwater runoff from the ultimate development of the drainage basin or watershed. (Section 914-2.004)

- Surface waters flowing from the subdivision in any form or manner shall be conveyed without damage to any improvement, building, or dwelling to a natural water course having a definable bed and banks, or to an existing adequate storm drainage facility. Storm drainage facilities to be constructed outside of the subdivision shall be designed to adequately convey the storm water runoff from the ultimate development of the drainage basin or watershed lying within and above the subdivision. (Section 914-2.006)
Conditions for a 21st Century Community

Contra Costa County’s *Conditions for a 21st Century Community* contains the following policies and conditions of approval that relate to drainage, flooding, and water quality:

- Require project development to finance the full cost of drainage improvements necessary to accommodate peak flows from the project. (Flood Control section, Policy 1)

- Establish a storm drainage system that protects property and ensures public safety while maintaining the natural resource values of the creeks. (Flood Control section, Policy 2)

- Mitigate the project storm water runoff so that peak storm water flows, under existing conditions, are not exceeded. (Flood Control section, Policy 3)

- Mitigate the project storm water runoff in those areas with downstream flooding by providing downstream drainage improvements commensurate with project impacts. (Flood Control section, Policy 4)

- The project proponents shall construct on-site detention basins to Flood Control District standards. The detention basins shall reduce post-project peak floodflows to predicted pre-project levels. Each phase of development shall be reviewed to ensure compliance with this condition. NOTE: Any detention basins or flood control facilities constructed as part of an adopted Drainage Area Plan shall be subject to the review and approval of the Contra Costa County Flood Control District. (Flood Control section, Condition of Approval 1)

- Construct a storm drain infrastructure system throughout the proposed project that safely conveys runoff from individual homes, lots, and streets to the major creeks via a system of culverts, gutters, and swales constructed to jurisdictional standards. (Flood Control section, Condition of Approval 2)

- During project construction, or to satisfy the NPDES requirements, the project proponents shall construct, as appropriate, on-site retention or detention facilities or install silt or grease traps in the storm drain system for the proposed project drainages. (Flood Control section, Condition of Approval 3)

- The project proponents shall develop a hazardous materials control program for construction activities to reduce potentially significant impacts on water quality caused by a chemical spill. This program should require safe collection and disposal of hazardous materials generated during construction activities, and should include an emergency response program to ensure quick and safe cleanup of accidental spills. (Flood control section, Condition of Approval 4)
• Bridges shall be designed to jurisdictional standards such that they do not constrict flows, including the 100-year flood flow. Design of bridges must be reviewed by a registered civil engineer. (Flood Control section, Condition of Approval 5)

• The project proponents shall form a Benefit Assessment District, or other funding mechanism with a guaranteed revenue source, to fund the maintenance of the detention basins and flood control structures. The funding mechanism shall be of a type acceptable to the fee-title owner and the entity responsible for maintaining other facilities. (Flood Control section, Condition of Approval 6)

• The project proponents may propose joint use of the detention basins for drainage purposes and for recreational, golf course, or passive uses, if the land rights, maintenance, and liability issues are addressed in an agreement with the fee-title owner and the entity responsible for maintaining the basin. (Flood Control section, Condition of Approval 7)

• Where appropriate, the project proponents shall design stormwater detention facilities to fit the area’s natural landform patterns and be curvilinear in form and with undulating sideslopes averaging 3:1 or less in steepness, use natural-appearing materials and colors for drainage facility structures, and screen all drainage facility structures from important viewpoints using native vegetation. (Flood Control section, Condition of Approval 8)

• All storm drainage facilities shall be designed to accommodate the ultimate development of the watershed. (Flood Control section, Condition of Approval 9)

13.2 STANDARDS OF SIGNIFICANCE

The Specific Plan would be considered to have a significant effect on hydrology or water quality if it would result in one or more of the following:

• substantially degrade water quality;
• contaminate a public water supply; or
• cause substantial flooding, erosion, or siltation.

Criteria for evaluating surface and ground water quality in the San Francisco Bay Area are based on beneficial uses and water quality objectives established by the RWQCB, as authorized by the Porter-Cologne Act.
13.3 IMPACTS AND MITIGATION MEASURES

The primary impact of development related to the Specific Plan on hydrology and water quality would be from increased amounts of impervious surface area, thereby increasing runoff and the demand on downstream stormwater runoff drainage facilities.

IMPACT 13-1. Development associated with the Specific Plan would increase runoff from the plan area and could lead to exceeding the capacities of existing storm sewer facilities. This impact is considered potentially significant.

Where portions of the planning area are currently covered with pervious surfaces, the potential exists for increased surface runoff due to increases in the amount of impervious surface area typically associated with development projects. In the short term, possible expansion of BART parking by 380 spaces in an adjacent vacant parcel would replace the existing pervious surface of soil, grasses, and ruderal (weedy) plant species with impervious asphalt paving. Runoff from development of the parking lot would be conveyed to existing storm sewer facilities that serve the existing parking lot. No significant impacts to hydrology would occur from development of this parking lot.

In the long term, the amount of additional runoff expected to result from a specific development project would depend on the nature of the existing surface cover and that proposed in the development. Runoff coefficients, or “C” values, may approach 100 percent in urban environments, depending on the presence or absence of desirable design features intended to ameliorate the effects of impervious surfaces on downstream storm sewer facilities.

MITIGATION MEASURE 13-1

(a) Individual projects would be required to consider the effects of additional runoff on existing storm sewer facilities. The developer will be required to demonstrate the adequacy of the system to convey flows as required by the drainage plan. Where existing facilities are inadequate to convey additional runoff, the developer will be required to construct necessary storm sewer system improvements and/or participate in an established Drainage Area program. Improvements needed within individual project boundaries and off site to satisfy project collection and conveyance requirements would be included as conditions of approval.

(b) To the extent feasible and where appropriate, projects should include design techniques to reduce off-site stormwater conveyance requirements. Such elements may include limiting impermeable outdoor surfaces, the use of permeable hard surfaces, and on-site detention basins or drainage to vegetated swales.
IMPACT 13-2. During construction, developments associated with the Specific Plan would cause increased pollutant loads in stormwater runoff from project sites including suspended sediment and hydrocarbons. This impact is considered potentially significant.

As described earlier, urban stormwater runoff has the potential to contain a wide range of pollutants, especially suspended solids and hydrocarbons. These pollutants, if not managed properly, can accumulate in concentrations that are harmful to aquatic environments. It is essential that new development under the Specific Plan be required to prepare and submit for approval, a SWPPP and implement related BMPs.

MITIGATION MEASURE 13-2. Developments associated with the Specific Plan shall include a site-specific erosion control plan. In addition, projects greater than 5 acres in area must include a Stormwater Pollution Prevention Plan (SWPPP) and implement control measures (or Best Management Practices) to control discharges of pollutants from the project sites. Implementation of project SWPPPs should be monitored by a designated monitor.

IMPACT 13-3. Specific Plan development would lead to long-term increases in contamination of stormwater runoff from pollutants such as hydrocarbons, metals and nutrients associated with residential and commercial land uses. This impact is considered potentially significant.

MITIGATION MEASURE 13-3

(a) Pollution control measures contained in the SWPPP shall be implemented until the project site has stabilized following construction.

(b) Developments should implement, whenever feasible, a stormwater protection program including but not limited to long-term measures to: control discharge of pollutants to storm drains, such as labeling storm drains; minimizing the use of fertilizers and pesticides on landscaping; street and/or parking area sweeping programs and/or filtering runoff from such areas to prevent hydrocarbons from entering runoff; increasing the use of pervious surfaces; and education/training programs for residents and employees. (Additional BMPs are cited in the discussion under the heading “Surface Water Quality” above.)

NOTES: Hydrology and Water Quality


3 Ibid.

4 Ibid.


This chapter describes the regional geologic environment as well as local geologic considerations that may affect development proposed under the Specific Plan. Standards of significance related to geologic impacts are provided, followed by the description of potential impacts and recommended mitigation measures.

14.1 SETTING

Regional/Local Geology

The Specific Plan area is located in northeastern Contra Costa County, on the northern flank of the Diablo Range at the southern edge of the Pittsburg-Antioch Plain. The Pittsburg-Antioch Plain is essentially a floodplain of Suisun Bay, which is itself a flooded estuary of the Sacramento River. The river channel was carved through the area during the Pleistocene, a geologic epoch of much lower sea level. The northern half of the plain is currently dominated by salt water marshes. The southern half of the plain is covered by alluvial materials eroded from the Diablo Range to the south. Alluvial materials were deposited along the length of its base in a series of fans that spread outward across the plain toward Suisun Bay.

The area covered by the Specific Plan is lowland, with elevations of less than 200 feet above sea level. The topography is gentle with minimal areas of steep slopes which could present hazards. High slope areas are found in the extreme southern part of the plan area within drainages immediately east and west of Bailey Road between State Route 4 and West Leland Road.

The majority of the plan area consists of surficial deposits of alluvium, alluvial fan, and terrace deposits consisting of clay, silt, sand, and gravel. The high slope areas cited above correspond roughly with the northern extension of Tulare formation surface materials in the plan area. Materials of this formation are described as poorly consolidated, non-marine sandstone, siltstone and conglomerate, with some tuff (volcanic ash deposits) included.

Soils

Soils within the plan area are flatland soils, which dominate the alluvial slope from the base of the hills to the south to the Suisun Bay margin estuaries. Most of the plan area overlies Antioch Loam soil of flat to moderate slopes. This soil consists of well-drained soils overlying older mixed alluvial terrace and fan materials. Runoff is slow to medium and presents a slight to
moderate erosion hazard where exposed. Loam portions of this soil demonstrate low shrink-swell potential, while clay portions may present high to moderate shrink-swell potential.

Other portions of the plan area overlie moderately well-drained Capay Clay on gentle slopes. Runoff in such soils is generally very slow and there is little hazard of erosion where soil is exposed. Soils of this type present high shrink-swell and subsidence potential.

**Faults and Seismicity**

No known active faults, or those which have had surface displacement within the last 11,000 years, are located within the plan area. However, several major active faults are sufficiently close to cause intense ground shaking during earthquake events. The main trace of the San Andreas fault is located approximately 40 miles west of the plan area. In addition, the Hayward fault is located approximately 20 miles west, while the Calaveras fault is 10 miles southwest of the Specific Plan area. The Concord fault is approximately 6.5 miles southwest, the Clayton-Greenville fault is approximately 3 miles southwest, and the Antioch fault is located approximately 6.5 miles east of the project location.

The San Andreas fault is considered capable of producing a maximum credible earthquake (MCE) of magnitude 8.0. Both the Hayward and Calaveras faults could produce MCEs of magnitude 7.5, while the Concord-Green Valley, the Clayton-Greenville, and the Antioch faults are classified as capable of producing MCEs between magnitude 6.3 and 6.9.² The Hayward fault currently is considered to have the highest regional potential of producing a major earthquake. The probability of a magnitude 7 or larger earthquake occurring on the Hayward fault was determined in 1990 to be about 28 percent for the subsequent 30 years.³

Several potentially active faults, or faults that have experienced displacement within the last two million years, occur near the plan area. These include the Kirker Pass and the Black Diamond Area faults. Evidence exists that there has been extensive differential movement along a series of northwest-trending splays of the Kirker Pass and Clayton faults, which are centered within the Mount Diablo foothills and extend northward. These faults currently are considered to be inactive, and earthquakes they could generate likely would be of lesser magnitude than other regional faults and would not be expected to produce surface faulting in the Specific Plan area.⁴

**Geologic Hazards**

No active faults are mapped within the Specific Plan area and hazards associated with fault rupture would not be expected. There are no Alquist-Priolo Earthquake Fault Zones in the Specific Plan area. (The Alquist-Priolo Act is intended to reduce the loss of life from earthquakes by prohibiting buildings for human occupation from being constructed across an active fault. Under the act, zones have been established along active faults in California.)

**Ground Shaking**
Ground shaking is the most widespread hazard in the planning area. Damage to structures in the planning area resulting from an earthquake would depend on the length of the fault break, distance from the fault, the nature of the underlying ground materials, and the type of structures, their materials, and construction quality.

The Uniform Building Code (UBC) in California incorporates standard response spectra (i.e., the response of structures with different frequencies to specific ground motions) as a basis for structural design. The response spectra establish the minimum strength for which a building must be designed. The UBC considers primary lateral seismic forces and general soil type. Incorporation of vertical forces into code design is being considered currently. The objective of the UBC is to protect the life safety of building occupants and the public. For large earthquakes, the UBC primarily ensures that the building will not collapse, but some structural and non-structural damage may be expected.

Buildings constructed prior to code revisions in the 1970s generally would not meet current design provisions for earthquake forces of the UBC. Expected damage to different types of buildings is described below:

- The most severe hazards are presented by unreinforced masonry buildings constructed of brick or concrete block. Under strong intensity ground shaking, many of these structures may be expected to collapse or require demolition. The City of Pittsburg has developed a list of unreinforced masonry buildings to assess their potential to meet Uniform Code for Building Conservation (UCBC) requirements through retrofit.

- Other types of buildings that may also be severely damaged are older buildings of steel and concrete framing that were not designed to resist earthquake vibrations, and older reinforced brick and masonry structures.

- Light wood-frame, such as most residential structures, and sheet metal buildings would be expected to have moderate damage in most conditions.

- Steel-frame structures designed to resist earthquake vibrations have an excellent record in earthquakes.

New construction in the Specific Plan area would be required to conform to the UBC. Table 14-1 identifies the expected damage levels to newly constructed buildings from ground shaking of moderate and large earthquakes. These estimates represent general conditions in UBC Seismic Zone 4, and specifically apply to buildings constructed to the requirements of all UBC editions between 1976 and 1994. Buildings of special occupancy are required by the State to meet more stringent design requirements than the UBC. Special occupancy buildings include hospitals, schools, and other structures that are important to protecting health and safety in the community.
TABLE 14-1
Damage Expected for Buildings Designed Under the 1994 UBC

<table>
<thead>
<tr>
<th>Distance to Fault</th>
<th>Expected MMI a</th>
<th>Standardized Damage Status b</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mag. 6.0-6.5</td>
<td>Mag. 7.5-8.0</td>
<td>None</td>
</tr>
<tr>
<td>30 mi.</td>
<td>50 mi.</td>
<td>VII 60-90%</td>
</tr>
<tr>
<td>5 mi.</td>
<td>40 mi.</td>
<td>VIII 35-60%</td>
</tr>
<tr>
<td>1 mi.</td>
<td>30 mi.</td>
<td>IX 25-40%</td>
</tr>
<tr>
<td>--</td>
<td>3 mi.</td>
<td>X 5-25%</td>
</tr>
</tbody>
</table>

Notes:

a MMI=Modified Mercali Scale Intensity

b Standardized Damage States:
- None and Slight—No damage or minor damage to non-structural elements; only incidental hazard
- Moderate—Primarily non-structural damage; also could be minor non-threatening structural damage; remote chance of life-threatening situation from structural elements
- Extensive—Extensive structural and non-structural damage; localized life-threatening situations could be common
- Complete—Complete collapse or damage that is not economically repairable; life-threatening situations in every building of this category

Source: City of Pittsburg 1998 After Earthquake Engineering Research Institute.

The Association of Bay Area Governments (ABAG) has released maps showing estimated ground shaking intensities for communities throughout the San Francisco Bay Region. These maps are used for depicting the general risk within neighborhoods. For the Specific Plan area, the worst-case scenario is a magnitude 7.1 earthquake on the Concord-Green Valley fault. The Concord fault has been projected to be capable of producing ground shaking intensity of VIII on the Modified Mercali Intensity Scale. Peak horizontal ground acceleration from a severe earthquake on the Concord fault could reach 0.45 g, where “g” equals the acceleration of gravity.

Unstable Surface Materials

According to the City of Pittsburg General Plan Seismic Safety Element, the vicinity of the Specific Plan area is considered moderately to generally stable. Relatively small areas in the southwestern portion of the plan area have been mapped as “moderately unstable.” These areas are located between State Route 4 and West Leland Road west of Bailey Road.

Alluvial strata underlying portions of the plan area are not considered particularly susceptible to liquefaction. The Specific Plan area is deemed to have ‘generally moderate to low’ liquefaction potential.
City of Pittsburg Policies Related to Geology, Soils, and Seismicity

The *City of Pittsburg General Plan* Safety Element policies apply to development proposed under the Specific Plan. These policies include:

- Require geotechnical studies prior to approval of rezoning, specific plans, or subdivision maps in areas of low damage susceptibility designated B through D and areas of high damage susceptibility as shown on the Geologic and Seismic Hazards map. Require comprehensive geologic and engineering studies of critical structures regardless of location.

- Require preparation of a soils report prior to issuing a building permit, except where the Building Inspector determines that a report is not needed.

- Limit cut slopes to 3:1 (33 percent slope) except where an engineering geologist can establish that a steeper slope would perform satisfactorily over the long term. Encourage use of retaining walls or rock-filled crib walls as alternatives to high cut slopes.

- Require contour rounding and revegetation. Require blending of cut-and-fill slopes with existing contours, and provision of horizontal variation, in order to mitigate the artificial appearance of engineered slopes. Require revegetation to control erosion.

Contra Costa County Policies Related to Geology, Soils, and Seismicity

*Contra Costa County General Plan* policies relative to geologic hazards also apply to development proposed under the Specific Plan. These policies include:

- Significant land use decisions (general plan amendment, rezoning, etc.) shall be based on a thorough evaluation of geologic-seismic and soils conditions and risk.

- Because the region is seismically active, structures for human occupancy shall be designed to perform satisfactorily under earthquake conditions.

- Staff review of applications for development permits and other entitlements, and review of applications to other agencies which are referred to the County, shall include appropriate recommendations for seismic strengthening and detailing to meet the latest adopted seismic design criteria.

- Ground conditions shall be a primary consideration in the selection of land use and in the design of development projects.

- Through the environmental review process, require geologic, seismic and/or soils studies as necessary to evaluate proposed development in areas subject to ground shaking, fault displacement, or liquefaction.
CHAPTER 14: GEOLOGY, SOILS, AND SEISMICITY

14.2 STANDARDS OF SIGNIFICANCE
The Specific Plan would be considered to have a significant geologic impact if it would:

- cause substantial erosion;
- create unstable ground conditions due to disruptions, displacements, or overcovering of soil;
- substantially change topography; or
- expose substantial numbers of people or structures to major geologic or seismic hazards.

14.3 IMPACTS AND MITIGATION MEASURES
In general, geologic constraints at a project site can be mitigated by standard engineering design and construction specifications. Review of the Specific Plan area did not reveal any geologic hazard deemed beyond mitigation using standard building practices. Such hazards include steep slopes, high earth shaking amplification, or liquefaction potential.

Both the City of Pittsburg and the Contra Costa County general plans identify the need for geotechnical studies in association with land use decisions to identify geologic hazards. The lead agency for the design review of Specific Plan projects should determine the need for such studies prior to implementation of particular projects proposed under the plan.

IMPACT 14-1. Development associated with the Specific Plan would increase population and employment in the planning area and expose people to hazards associated with strong ground shaking likely to occur in the area within the lifetime of the project. This impact is considered less than significant.

Under worst-case projections, the Specific Plan area likely would be subject to mostly ‘moderate’ or lesser damage from earth shaking, assuming construction according to UBC specifications. ‘Severe’ damage is projected to be less than five percent while ‘complete’ damage is expected to be less than one percent. All Specific Plan projects (both permitted and conditional uses) would be required to conform with UBC design specifications.

MITIGATION MEASURE 14-1. None required.
As noted above, geologic constraints at a project site can be mitigated by standard engineering design and construction specifications. Review of the Specific Plan area with regard to erosion potential did not reveal any areas that could not be mitigated through standard building practices and Best Management Practices to minimize erosion.

In the short term, possible construction of 380 parking spaces in the 3.45-acre parcel adjacent to the existing BART parking lot would involve construction grading and site development. The topography of the parcel is mostly flat with slight changes in elevation. No significant impacts of erosion or sedimentation would occur. The parking lot would be designed to meet City of Pittsburg design requirements to minimize erosion.

**MITIGATION MEASURE 14-2.** Developments associated with the Specific Plan shall include a site-specific erosion control plan. In addition, projects greater than 5 acres in area must include a Stormwater Pollution Prevention Plan (SWPPP) and implement control measures (or Best Management Practices) to control discharges of pollutants from the project sites. Implementation of project SWPPPs should be monitored by a designated monitor.

Erosion must be minimized by implementing SWPPP measures and other mitigations including, but not limited to, the following:

- perform earthmoving activities during the dry season (mid-March to mid-October);
- stabilize disturbed areas before the start of the rainy season (i.e., before October 15) using vegetation or other methods; and
- use silt fences, straw bales or similar measures to prevent sediment from being mobilized in runoff.

**NOTES: Geology, Soils, and Seismicity**

3. Ibid.
4. Ibid.
5 Ibid.
7 City of Pittsburg, Pittsburg General Plan Update, op. cit.
8 Ibid.
VEGETATION AND WILDLIFE

This chapter describes the biological resources within the Specific Plan study area. It also discusses laws and regulations that may apply to resources within the area. Finally, it sets standards for determining significant impacts to biological resources and provides mitigation measures for reducing or avoiding those impacts.

15.1 SETTING

Biological resources for the project site were evaluated by site surveys supplemented with existing documentation. Documents used include the State Route 4 / Bailey Road Interchange Improvement Project EIR and the Pittsburg General Plan Update Existing Conditions Report. Field surveys were conducted for both projects. More recent general site surveys were done in May and July of 1998 as part of this project. However, no surveys were conducted for special status species. Although wetlands and riparian habitat were observed within the Specific Plan study area no jurisdictional delineation was conducted as part of the Specific Plan studies or this Master EIR.

Existing Vegetation and Wildlife

The study area is mainly developed land with typical urban uses such as roads, parks, shopping centers, residential districts, and the Pittsburg/Bay Point BART Station. The Specific Plan area (or “study area”) is bordered on the south by open hills used for cattle grazing. Vacant lots and undeveloped areas are scattered throughout the study area as well. Three general habitats exist in the study area: weedy annual grassland, freshwater wetland and riparian habitat, and urban landscape. The first two communities have been affected by the surrounding development, changing both species composition and diversity from their original condition. Urban landscape is the main habitat type within the Specific Plan area.

Annual Grassland and Ruderal Habitat

The most common natural vegetation in the study area consists of annual grassland and ruderal (weedy) species. These grasslands occupy hillsides, graded areas, and vacant lots, and are dominated by introduced, annual species, such as wild oat (Avena spp.) and various brome grasses (Bromus spp.). The dominant broad-leaf plants include yellow star thistle (Centaurea solstitialis), summer mustard (Hirshfeldia incana), and dove weed (Eremocarpus setigerus). These species are typical of habitats disturbed by grazing, grading, and other agricultural and urban activities. Vacant lots in the area are usually disked or graded and are particularly rich in
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ruderal species. Vegetation along the State Route 4 right-of-way is dominated by ruderal species.

The annual grassland community provides habitat for a variety of wildlife species. However, because these areas are highly disturbed and fragmented, they have limited value to wildlife. Animal species using these areas are mostly those adapted to human environments.

At least two raptor species have been observed in area grasslands. These are the red-tailed hawk and American kestrel, which use the grassland for foraging. Additional raptors probably using grassland include the turkey vulture, red-shouldered hawk, and possibly several owl species. Other bird species commonly inhabiting annual grasslands that could be present within the study area include the western meadowlark, horned lark, Say's phoebe, and savannah sparrow.

Grasslands also provide habitat for various reptiles, including the western fence lizard, western skink, gopher snake, common kingsnake, and western rattlesnake. Lizards may be particularly common in vacant lots.

Mammals commonly found in annual grasslands include a number of small rodents, such as the California vole, western harvest mouse, house mouse, Botta’s pocket gopher, and deer mouse. Ground squirrels are common in the surrounding grassland and in the larger open graded areas within the study area. The study area generally lacks suitable habitat for larger mammal, such as deer or coyote, although deer might browse hills around Lawlor Creek on the southern boundary.

Freshwater Wetland and Riparian Habitat

Three wetlands occur within the study area as shown on Figure 15-1. Wetland A is a constructed mitigation wetland of approximately 1.2 acres east of Ambrose Park on the south side of State Route 4. Monitoring studies on the wetland in 1997 show that it is dominated by umbrella sedge (Cyperus eragrostis) and Italian ryegrass (Lolium multiflorum). Small amounts of other grasses and annual broad-leaf species were also present.

Wetland B of about 0.4 acre occurs between Canal Street and Mims Road. This wetland is on a triangular lot surrounded by development and fill, but it contained standing water in the spring of 1998. Water collects in the southeast and southwest corners of the site and drains toward the northwest corner where it empties into a culvert. Vegetation in the wetland includes (Typha sp.) and bulrush (Scirpus sp.) in the wettest areas. Drier portions support crabgrass (Digitaria sanguinalis and D. ischaemum) and dallisgrass (Paspalum dilatatum). Upland habitat surrounding the wetland is highly disturbed and dominated by ruderal species.
Figure 15-1
Wetland Areas

Source: Pittsburg/Bay Point BART Station Area Specific Plan Public Review Draft, November 1997
The third wetland (Wetland C) is a water detention basin just south of Canal Road. The bottom of the basin supports a stand of cattails (*Typha* sp.). This wetland area is approximately 0.02 acre.

Riparian habitat occurs along Lawlor Creek just east of Bailey Road. Portions of the ravine support vegetation such as Fremont cottonwood (*Populus fremontii*), Eucalyptus (*Eucalyptus* spp.), and Northern California black walnut (*Juglans californica* var. *hindsii*). The black walnut is a native species and is on the California Native Plant Society’s List 1B; however, this population probably came from seed of trees planted for orchards. South of West Leland Avenue native willows and ornamental trees and shrubs are the dominant woody vegetation. Lawlor Creek is a blue line (perennial) stream on the Honker Bay 7-½ minute USGS map, and is consequently considered waters of the United States.

Small pockets of additional wetland may be found along roads, ditches, and canals in the study area and may be within the jurisdiction of the U.S. Army Corps of Engineers. Freshwater wetland and riparian vegetation typically provide valuable habitat for a variety of wildlife species. However, the highly disturbed condition of wetlands in the study area and their close proximity to urban environments probably limits their habitat value.

Common birds that might use area wetlands include the house finch, white crowned sparrow, song sparrow, northern mockingbird, common yellowthroat, American goldfinch, bushtit, and redwinged blackbird. The mature trees located along Lawlor Creek north of Canal Road could support nesting habitat for birds such as red-tailed hawk, red-shouldered hawk, and northern oriole. Wading birds and wetland-edge species such as the Virginia rail, sora rail, great blue heron, great egret, snowy egret, and American bittern could use the open marshes in the study area during wet years. However, the wetlands are small and their proximity to human environments probably precludes some of these species, especially those that are secretive and avoid human contact.

Most amphibians are dependent on freshwater for all or part of their life cycle. Common amphibians that could occur in wetlands and riparian habitats within the study area include the Pacific tree frog and western toad. The small size of the wetlands and their proximity to human environments may render these habitats unsuitable for California red-legged frogs and California tiger salamanders, but no recent surveys for these species have been done. Various reptiles may use wetland edges, including the western garter snake, ringneck snake, western fence lizard, and alligator lizard.

Small mammals that may inhabit wetland areas include the broad-footed mole, western harvest mouse, and California vole. Larger mammals such as the Virginia opossum, raccoon, and skunk also may use these areas.

**Urban Landscape Habitat**
Although not often considered wildlife habitat, urban landscape vegetation does have some value to wildlife, and it is the main vegetation in the study area. Vegetation in this habitat consists of trees, shrubs, and herbs having horticultural value. Urban landscapes with very few plant species offer relatively little habitat value; however, more value can be obtained where plant species diversity is high. Higher plant diversity provides wildlife with more sources and types of food and greater structural complexity for feeding, nesting, and resting.

Animal species attracted to urban landscapes are primarily birds, including the house finch, woodpeckers and sapsuckers, Anna’s hummingbird, goldfinches, the introduced house sparrow, and various native sparrows in the winter. Orioles are occasionally attracted to food in urban environments.

Lizards, particularly alligators and western fence lizards, are common in urban vacant lots and more open places. Rats, mice, raccoons, skunks, and opossums are often common in semi-rural urban areas, especially where water and food are available.

**Special Status Plant and Animal Species**

Appendix E is a list of special status plant and animal species that are known to occur or that could occur within the study area or in surrounding areas. The list was taken from the Pittsburg General Plan Update (City of Pittsburg 1998) and checked against the most recent California Natural Diversity Data Base (CNDDB) report for the study area. Because the area is mostly urban, and the undeveloped areas have been highly disturbed, it is unlikely that any species given in Appendix E would occur within the study area. Several reports for other projects in the area indicate that no special status species were found during field studies (Contra Costa County 1991; City of Pittsburg 1998). Nevertheless, the California Department of Fish and Game and the U.S. Fish and Wildlife Service may require surveys for California red-legged frogs for any Specific Plan projects that might affect Lawlor Creek. Lawlor Creek could have habitat for this species.

Although only a few raptors are listed species, all raptors are protected under the California Fish and Game Code. Raptors have been observed in the study area, but it is not known whether they nest there.

**Regulatory Background**

This section discusses the laws, regulations, and policies that protect biological resources, and identifies those agencies charged with conserving those resources.

**Endangered Species Acts**

The Federal act is administered by the U.S. Fish and Wildlife Service. This act prohibits activities that harm threatened or endangered species or their habitat, although plants have less protection than animals. Under some conditions, the U.S. Fish and Wildlife Service issues permits for taking listed species or their habitat. Where the proposed project is a Federal
action, the Service will enter into a Section 7 consultation with the other Federal agency. If the project is not a Federal action, the project proponent may obtain a permit to take a listed species under Section 10 of the Endangered Species Act. Section 10 requires preparation of a Habitat Conservation Plan (HCP) designed to offset project impacts and provide long-term benefits to the species. The Service has available a manual to guide preparation of a HCP. The California Endangered Species Act is administered by the California Department of Fish and Game. The Department of Fish and Game can issue permits for taking State-listed species.

The list in Appendix E includes both Federal- and State-listed species. The appropriate State and Federal agencies should be consulted when projects might affect special status species or their habitat, and surveys for these species should be conducted according to current agency protocols. If a species or its habitat is found, regulatory agencies usually require measures to reduce impacts. Such measures can include habitat restoration, enhancement, or creation.

**Clean Water Act**

Section 404 of the Clean Water Act authorizes the U.S. Army Corps of Engineers to issue permits for projects that would discharge fill into waters of the United States, including wetlands. Regulated wetlands and waters of the United States in the study area are within the Corps’ Section 404 jurisdiction. These resources include all streams, marshes, Bay waters, and seasonal wetlands.

In the Corps’ permit process, some projects may require individual permits. Others may qualify for one or more of several general or nationwide permits. Currently, Nationwide 26 (for isolated wetlands and those above the headwaters) applies if the total wetland area affected would be between one-third and 3 acres, or if the project affects less than 500 linear feet of creek channel. Nationwide 26 expired in December 1998, and it is not known what regulations will be used for projects filling small amounts of wetlands.

In California, various Regional Water Quality Control Boards are authorized to issue Clean Water Certifications under Section 401 of the Clean Water Act. These certifications are required for projects receiving Section 404 permits. The SWRCB, acting through the Regional Boards, must certify that a Corps permit action meets State water quality objectives. Regional Boards also regulate waste discharge into waters of the United States under Section 402 of the Clean Water Act. Both the Corps and the Regional Water Quality Control Board may require measures to offset wetland losses for those projects affecting wetlands. Appendix E contains the Federal and California wetland definitions.

**California Fish and Game Code**

The California Fish and Game Code has provisions for protecting various resources within the State. The California Department of Fish and Game is the State agency authorized to implement provisions of the Code.
Lakes and Streams

Under Section 1601-1603 of the Fish and Game Code, the Department of Fish and Game has the authority to issue Streambed Alteration Agreements for projects affecting the bed or bank of lakes, rivers, creeks, and streams. These agreements usually have measures designed to reduce impacts, which can include habitat restoration, enhancement, or creation. Specific Plan projects that could affect Lawlor Creek would probably require a Streambed Alteration Agreement.

Raptors

The Fish and Game Code prohibits harming any raptor or destroying their eggs or nests. Consequently, the Department of Fish and Game usually restricts tree removal or activities that would disturb nesting raptors by prohibiting these activities until after the nesting season.

Contra Costa County Policies Related to Vegetation and Wildlife

- To protect ecologically significant lands, wetlands, plant and wildlife habitats. (Conservation Element, Goal 8-D, page 8-26)

- To protect rare, threatened and endangered species of fish, wildlife and plants, significant plant communities, and other resources which stand out as unique because of their scarcity, scientific value, aesthetic quality or cultural significance. Attempt to achieve a significant net increase in wetland values and functions within the County over the life of the General Plan. The definition of rare, threatened and endangered includes those definitions provided by the Federal Endangered Species Act, the California Endangered Species Act, the California Native Plant Protection Act, and the California Environmental Quality Act. (Conservation Element, Goal 8-E, page 8-26)

- Significant trees, natural vegetation, and wildlife populations generally shall be preserved. (Conservation Element, Policy 8-6, page 8-26)

- Important wildlife habitats which would be disturbed by major development shall be preserved, and corridors for wildlife migration between undeveloped lands shall be retained. (Conservation Element, Policy 8-7, page 8-26)

- Significant ecological resource areas in the County shall be identified and designated for compatible low-intensity land uses. Setback zones shall be established around the resource areas to assist in their protection. (Conservation Element, Policy 8-8, page 8-26)

- Areas determined to contain significant ecological resources, particularly those containing endangered species, shall be maintained in their natural state and carefully regulated to the maximum legal extent. Acquisition of the most ecologically sensitive properties within the County by appropriate public agencies shall be encouraged. (Conservation Element, Policy 8-9, page 8-26)
• Any development located or proposed within significant ecological resource areas shall ensure that the resource is protected. (Conservation Element, Policy 8-10, page 8-29)

• The County shall utilize performance criteria and standards which seek to regulate uses in and adjacent to significant ecological resource areas. (Conservation Element, Policy 8-11, page 8-29)

• The ecological value of wetland areas, especially the salt marshes and tidelands of the bay and delta, shall be recognized. Existing wetlands in the County shall be identified and regulated. Restoration of degraded wetland areas shall be encouraged and supported whenever possible. (Conservation Element, Policy 8-17, page 8-29)

• The planting of native trees and shrubs shall be encouraged in order to preserve the visual integrity of the landscape, provide habitat conditions suitable for native wildlife, and ensure that a maximum number and variety of well-adapted plants are sustained in urban areas. (Conservation Element, Policy 8-21, page 8-29)

• Applications of toxic pesticides and herbicides shall be kept at a minimum and applied in accordance with the strictest standards designed to conserve all the living resources of the County. The use of biological and other non-toxic controls shall be encouraged. (Conservation Element, Policy 8-22, page 8-29)

• Runoff of pollutants and siltation into marsh and wetland areas from outfalls serving nearby urban development shall be discouraged. Where permitted, development plans shall be designed in such a manner that no such pollutants and siltation will significantly adversely affect the value or function of wetlands. In addition, berms, gutters, or other structures should be required at the outer boundary of the buffer zones to divert runoff to sewer systems for transport out of the area. (Conservation Element, Policy 8-23, page 8-30)

• The County shall protect marshes, wetlands, and riparian corridors from the effects of potential industrial spills. (Conservation Element, Policy 8-25, page 8-30)

• Seasonal wetlands in grassland areas of the County shall be identified and protected. (Conservation Element, Policy 8-27, page 8-30)

• All efforts shall be made to identify and protect the County’s mature native oak, bay, and buckeye trees. (Conservation Element, Policy 8-28, page 8-30)
Contra Costa County Tree Preservation Ordinance

Contra Costa County has adopted a tree protection and preservation ordinance (Ordinances 94-59, 94-22) that defines “protected trees” and regulates their removal. Trees meeting all of the following criteria are “protected trees”: 1) trees native to Contra Costa County; 2) trees at least 20 inches in circumference as measured 4.5 feet above the ground; and 3) trees occurring on any properties in unincorporated areas of the County, developed properties within any commercial district, or any areas designated on the General Plan as recreational or open space. Persons wishing to remove or alter protected trees from their property must first obtain a permit from the County. The County will regulate the removal of trees from properties proposed for development by setting the conditions for removal when approving project applications. All protected trees to be affected by development must be shown on all grading, site and development plans. A tabulation of all trees proposed for removal must also be provided to the County.

City of Pittsburg Policies Related to Vegetation and Wildlife

Creeks and Watershed Protection

Guiding Policies

- Preserve and enhance Pittsburg’s creeks for their value in providing visual amenity, drainage, and wildlife habitat.
- Minimize cost and hazard to homeowners created by creeks infringing on private property.
- Where possible integrate creeks with trails and other recreational open space. Encourage provision of public access to creek corridors.
- Preserve and protect water resource areas, including the watershed area for the raw water reservoir.

Implementing Policies

- Develop regulations for creek setback standards.
- Discourage culverting of creeks of significance to the Planning Area.
- Develop standards requiring restoration of creeks following construction.
- Protect existing stream channels by requiring buffering or landscaped setbacks and storm runoff interception.
- Consider the establishment of maintenance districts to ensure uniform maintenance for selected channels and creeks.
- Encourage preservation of mature trees; require a permit to remove existing mature trees. Require replacement of any mature tree removed.

Wildlife and Vegetation
Guiding Policies

- Protect natural environments in recognition of their importance as wildlife habitats and visual amenities.
- Manage open space in a manner consistent with wildlife protection.
- Retain unique vegetation and wildlife areas adjacent to the water in the northern portion of the planning area in a natural condition. Such areas include the salt marshes and special habitat areas (for birds and mammals).

Implementing Policies

- Require preservation or, where preservation is not possible, replacement of riparian vegetation. Resource protection regulations should address conservation of riparian vegetation.
- Minimize removal of woodland habitat.
- Provide wildlife corridors, where feasible, to enable free movement of animals and minimize wildlife-urban conflicts.

15.2 STANDARDS OF SIGNIFICANCE

The following standards of significance were derived from the State and Federal Endangered Species Acts, the Clean Water Act, the California Fish and Game Code, the CEQA Initial Study Checklist, and local ordinances.

The Specific Plan would have a significant effect on biological resources if it would:

- adversely affect a designated rare, threatened, or endangered species of plant or animal, or habitat of the species;
- adversely affect breeding raptors;
- interfere substantially with the movement of any resident or migratory fish or wildlife species;
- result in a the loss or degradation of waters of the United States, including wetlands; or
- require removal of substantial numbers of mature, scenic heritage trees.

15.3 IMPACTS AND MITIGATION MEASURES

The following assessment of impacts and mitigation measures are based on the Standards of Significance in Section 15.2, recent environmental documents for projects in and around the project area, and individuals knowledgeable about the project area.

Impact to Rare or Endangered Species
Impact to Nesting Raptors

Some raptors are known to nest in urban habitats, particularly those with vacant lots or nearby open space. Trees within the study area, especially along Lawlor Creek, could provide raptors with nesting habitat. Activities that would adversely affect nesting raptors are considered significant.

In the short term, the 3.45-acre vacant parcel adjacent to the existing BART parking lot may be developed for 380 parking spaces for use by BART patrons. This parcel is made up of primarily grasses and ruderal (weedy) plant species. This site does not serve as habitat for endangered plant or animal species. No trees or roost areas exist on the parcel which could be used by raptors. It is possible that the parcel is habitat for common rodents and reptiles that serve as prey for local raptors; however, its habitat value is extremely limited by the surrounding urban development of the BART station, Oak Hills Shopping Center, and adjacent housing.
MITIGATION MEASURE 15-2. The agency (City or County) with land use and environmental review authority would assess the potential for tree removal as part of project planning and environmental review. Before large trees are removed, or where heavy construction would take place near large trees, surveys for nesting raptors would be done by a qualified biologist. If nesting raptors are located, the Department of Fish and Game would be consulted. This consultation would likely result in some restriction on tree removal or construction, and would reduce this impact to raptors to a less-than-significant level.

Impact to Migratory Fish or Wildlife

IMPACT 15-3. Activities associated with the Specific Plan could interfere with the movement of resident or migratory fish or wildlife species. This impact is considered less than significant.

Developments that fragment habitat or disrupt migratory corridors can have an adverse affect on migratory animals. However, the habitat in the study area is already highly fragmented and disturbed. Consequently, it is unlikely that any Specific Plan activities would significantly affect migratory species.

MITIGATION MEASURE 15-3. None required.

Impact to Area Wetlands

IMPACT 15-4. Activities associated with the Specific Plan could adversely affect waters of the United States, including wetlands, located in the Lawlor Creek drainage, and along Canal Road west of Bailey Road. This impact is considered potentially significant.

Wetlands and riparian habitat do occur within the Specific Plan study area. In most cases, they are highly disturbed and surrounded by urban areas. Two wetland locations may be subject to encroachment by development proposed in the Specific Plan. The first location is the Bailey Road Interchange Mitigation Area (Wetland A in Figure 15-1), an area of 1.2 acres, in Zone II. The Specific Plan proposes up to 70 units of multi-family residential, low-density housing adjacent to and overlooking the existing wetland mitigation area. The second location is Wetland B of 0.4 acre along Canal Road, west of Bailey Road, in Zone III. The Specific Plan proposes up to 70 units of multi-family, low-density housing north of this area. These areas may be considered to be within the jurisdiction of the U.S. Army Corps of Engineers. Impacts to waters of the United States are normally considered to be significant. Care must be taken to
ensure that construction activities do not impact these wetlands, either through physical encroachment or activities that could adversely affect wetland soils, vegetation, or hydrology.

**MITIGATION MEASURE 15-4.** Wetland areas A and B are located within the jurisdiction of Contra Costa County. As the agency with land use and environmental review authority, the County would require a precise assessment of wetlands as part of project planning. A wetland delineation would be done on any wetland areas before approving any project that could potentially affect those areas. The delineation would be submitted to the U.S. Army Corps of Engineers for verification. The County would use the approved wetland delineation to establish an appropriate buffer zone around a subject wetland, to preclude disturbance or project construction. If the waters are isolated or above the headwaters, they may be eligible for a Nationwide Permit and may require measures to offset wetland loss.

A Section 401 Clean Water Certification will be needed from California Regional Water Quality Control Board San Francisco Bay Region. Currently, the Board asks for measures to offset wetland loss regardless of the amount of wetland fill. The Board would be consulted before any activity that would potential fill wetlands. If these measures are followed, potential impacts to waters of the United States would be reduced to less-than-significant levels.

**Impact to Mature or Scenic Trees**

**IMPACT 15-5.** Development associated with the Specific Plan could remove substantial numbers of mature, scenic trees. This impact is considered potentially significant.

Development may require the removal of large trees, either native or landscape in Zones II and III of the plan area. Both the City of Pittsburg and the County have ordinances and/or policies requiring protection of heritage trees. Consequently, any activity or development that would eliminate large, mature, or scenic trees would be considered significant if it violates a local ordinance.

**MITIGATION MEASURE 15-5.** Depending on project location, the agency with land use authority (the City or County) would determine if this tree protection ordinance applies. If it is determined that heritage trees exist, the review agency would ensure compliance with the tree protection ordinance. Compliance would reduce impacts to heritage trees to a less-than-significant level.

**NOTES - Vegetation and Wildlife**
CHAPTER 15: VEGETATION AND WILDLIFE


4 *Cowell Ranch Project Draft EIR*, October 1996.

The following discussion of cultural resources within the plan area summarizes information contained in a previous EIR for the State Route 4 / Bailey Road Interchange Improvement Project and the Pittsburg General Plan Update. Additional information was obtained from interviews as part of this Master EIR. The Cultural Resources setting is presented in Section 16.1, followed by a definition of standards of significance related to cultural resources impacts, and a description of potential impacts and recommended mitigation measures related to the proposed Specific Plan.

16.1 SETTING

Archaeological Resources
Most Native American archeological sites that have been recorded in the City of Pittsburg area are in the form of small to large shell middens, some of which may contain human remains. These sites tend to be situated on alluvial flats and along historic bay margins, as well as near sources of water. Since the Specific Plan area encompasses such environmental settings, there is a potential for identifying archeological sites as projects are constructed. In particular, the portion of the Specific Plan area falling north of the intersection of Mims Road and Bailey Road was identified in the City of Pittsburg General Plan Update as sensitive for Native American resources.

No specific cultural resources are known to occur in the Specific Plan area. Further, previous archaeological surveys of portions of the plan area have not revealed the presence of any prehistoric or historic cultural resources. The nearest prehistoric site is CA-CCo-609, a petroglyph located outside the plan area approximately 1.25 miles southeast of the intersection of State Route 4 and Bailey Road.

Historic Resources
Inventories pertaining to the City of Pittsburg’s historic resources have been compiled by Contra Costa County (the Historical Resources Inventory), the State Department of Parks and Recreation (the California Inventory of Historic Resources), and the California Office of Historic Preservation (which maintains the National Register of Historic Places). The Office of Historic Preservation has determined that buildings, structures, and objects 45 years or older may be of historical value and may be eligible for inclusion in the National Register. Eligibility for inclusion requires conformance to strict criteria. No structures or objects in the City of Pittsburg are listed in the National Register.
No evidence of any Spanish/Mexican Period, or 19th Century artifact, foundations, or features were recognized during a field survey performed for the State Route 4 / Bailey Road Interchange project. A nearby historic ranch complex, located about one mile southeast of the same intersection, was the only historic resource identified for the vicinity.

A survey of standing structures within the State Route 4 / Bailey Road interchange area revealed a mix of structures, many with associated garages or other secondary structures. In addition, one church, one shopping center, one school, and one trailer park were inventoried. Although many structures appeared to predate World War II, none appeared to represent significant architectural resources. According to a representative of the Pittsburg Historical Society and long-time resident of the Specific Plan area, the zone proposed for development does not contain significant historical resources.

### 16.2 STANDARDS OF SIGNIFICANCE

The Specific Plan is considered to have a significant affect on cultural and historical resources if any activity of the plan has the potential to destroy or disturb known, or previously unknown, prehistoric, archaeological, paleontological, or historical resources. An historical resource is defined as a structure or place that is: listed on the National Register of Historic Places, included in the State Historic Resources Inventory, designated as a State Historical Landmark, or designated by the City of Pittsburg as a City Landmark.

### 16.3 IMPACTS AND MITIGATION MEASURES

**IMPACT 16-1. Development of projects proposed in the Specific Plan have the potential to disturb previously unknown cultural resources.**

This impact is considered potentially significant.

Although no cultural resources have been identified within the Specific Plan area, the possibility that such resources may be present cannot be precluded at this time. Ground surface modifications including grading, fill and coverage by recent construction may have obscured or buried important archaeological resources. Because the area is in proximity to the Suisun Bay water courses (in Lawlor Creek and several minor drainages), evidence of previously unrecognized prehistoric occupation may be encountered during future development. Therefore, construction activities, such as demolition, and site clearing and grading for proposed development projects, could result in the discovery of, or impacts to, previously unknown archaeological resources.

Environmental review of future projects within the Specific Plan area also should include review of possible sites of archaeological significance. In the event that a cultural resource is identified
and evaluated as “unique,” a program of archaeological mitigation should be formulated for the resource(s). This program should be formulated and implemented prior to construction. This program should include, but not be limited to, monitoring during project-related construction. Monitoring should be undertaken by a qualified archaeologist monitor who would keep a log, document and evaluate all finds, and prepare a report of findings.

In the event that a prehistoric site, burial, or other historic resource is encountered during project-specific construction activities, work should be stopped or relocated until the find is examined and evaluated. In the event a significant prehistoric or historic resource is identified, no further construction should be permitted in that location until a mitigation plan can be formulated and implemented by a qualified archaeologist.

**MITIGATION MEASURE 16-1.** In the event human remains are discovered during construction, such a find would be reported to the Contra Costa County Coroner’s Office; in the event that the remains are determined to be prehistoric, the Native American Heritage Commission should be notified immediately to permit the designation of a Native American representative, in accordance with State regulations.

Consultation between the archaeological consultants in charge of monitoring, the sponsoring agency or agencies, and the Native American representative would determine the course of action to be taken with the cultural resources in question. A report of findings and analyses of all archaeological data recovered during testing/excavation, monitoring, and any mitigation procedures undertaken would be prepared by a qualified archaeologist. Implementation of this mitigation measure would make this impact less than significant.

**IMPACT 16-2. Development of the Specific Plan would require removal of existing structures with no historical value or architectural merit. This impact is considered less than significant.**

Development associated with the Specific Plan would require the removal of existing structures. Previous studies within the plan area indicated that loss of existing structures would not be considered a significant impact because the structures surveyed do not represent significant examples of their architectural style, nor were they associated with any known historical events. It is recommended that this finding be confirmed through project-specific surveys to determine if historically significant structures could be displaced by future projects.

**MITIGATION MEASURE 16-2.** None required.
NOTES: Cultural Resources


2 Ibid.


4 Ibid.

CEQA requires that an EIR “describe a range of alternatives to the project, or to 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.” This section evaluates alternatives to the proposed Pittsburg/Bay Point BART Station Area Specific Plan. For each alternative, a comparative analysis of potential environmental impacts is presented. Mitigation measures for the alternatives include some that are similar to, or the same as, those proposed for the Specific Plan.

In this recirculated DEIR, this chapter has been revised to contain analysis and evaluation of potential environmental impacts of two additional alternatives to the Pittsburg/Bay Point BART Station Area Specific Plan. The alternatives were developed in early 2000 in response to comments received in fall 1999 on the DEIR for the Specific Plan. The additional alternatives include:

• Alternative 5 – Very High Commercial/Office and Low Residential. West Coast Home Builder’s proposed these uses for its properties adjacent to the BART station.

• Alternative 6 – High Commercial/Office and High Residential. This alternative was developed by the City of Pittsburg, Contra Costa County and BART (City/County/BART Hybrid). This hybrid alternative was developed to include a portion of the very high office/commercial development assumed in the West Coast Home Builder’s proposal while retaining the high residential use comparable to the Specific Plan.

The analyses focused on the opportunities and constraints these new alternatives present for achievement of the goals and objectives of the Specific Plan. The new alternatives’ impacts on traffic and infrastructure capacities were a primary concern expressed by the City of Pittsburg, BART, and Contra Costa County. The study approach included:

• horizon years of 2005 for the near term, and 2010 for the long term;
• specialized use of the East County Traffic Model;
• use of the most current data for land uses and traffic operations for the Alves Ranch and San Marco projects proposed west of the BART station;
• level of service analyses for local intersections in Pittsburg, Bay Point, and Concord,
• level of service analysis for freeway segments of State Route 4; and
• estimates of infrastructure and public service demand based on demand factors applied in the DEIR on the Specific Plan.
17.1 ALTERNATIVES UNDER REVIEW

Six alternatives are evaluated in addition to the Specific Plan. Table 17-1 presents the development assumptions of the Specific Plan compared to each alternative. The alternatives include:

- Alternative 1 – No Project (Expected Growth Under General Plans)
- Alternative 2 – Mixed Use Development
- Alternative 3 – Low Commercial/Office and High Residential
- Alternative 4 – Low Commercial/Office and Low Residential
- Alternative 5 – Very High Commercial/Office and Low Residential
- Alternative 6 – High Commercial/Office and High Residential

**TABLE 17-1**

Comparison of Development Assumptions of Specific Plan to Alternatives

<table>
<thead>
<tr>
<th></th>
<th>Commercial (GSF)</th>
<th>Office (GSF)</th>
<th>Total (GSF)</th>
<th>Residential (Dwelling Units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific Plan –</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderate Commercial / High Residential</td>
<td>239,000</td>
<td>75,000</td>
<td>314,000</td>
<td>2,195</td>
</tr>
<tr>
<td>Alternative 1 –</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Project</td>
<td>262,580</td>
<td>NA</td>
<td>262,580</td>
<td>5,600</td>
</tr>
<tr>
<td>Alternative 2 –</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixed Use</td>
<td>294,000</td>
<td>100,000</td>
<td>394,000</td>
<td>1,754</td>
</tr>
<tr>
<td>Alternative 3 –</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Commercial / Office and High Residential</td>
<td>162,000</td>
<td>56,000</td>
<td>218,000</td>
<td>2,248</td>
</tr>
<tr>
<td>Alternative 4 –</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Commercial / Office and Low Residential</td>
<td>124,000</td>
<td>40,000</td>
<td>164,000</td>
<td>1,130</td>
</tr>
<tr>
<td>Alternative 5 –</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very High Commercial / Office and Low Residential</td>
<td>359,000</td>
<td>1,489,000</td>
<td>1,848,000</td>
<td>1,099</td>
</tr>
<tr>
<td>Alternative 6 –</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Commercial / Office and High Residential</td>
<td>422,750</td>
<td>465,000</td>
<td>887,750</td>
<td>1,882</td>
</tr>
</tbody>
</table>

GSF = Gross square feet

There are no parcels proposed for development in the Specific Plan that are currently designated Office or Office Commercial in either the Pittsburg General Plan or County General Plan. All parcels are designated as either Residential or Commercial.

**Alternative 1 – No Project/Expected Growth** is based on expected growth under the existing general plan designations for parcels or assembled parcels proposed for development in the Specific Plan area. As a result, the No Project Alternative does not mean that no development would occur; expected growth would not necessarily occur as assumed in the Specific Plan. Land use designations for the City of Pittsburg and the Contra Costa County General Plan were used to project the commercial floor space and housing units. Development assumptions for the No Project Alternative, are presented Table 17-1. The No Project Alternative assumes approximately 262,580 square feet of commercial uses, and a total of
about 5,600 dwelling units. About 3,100 units would be developed on parcels of land within the Specific Plan area, with the remainder of 2,500 homes built in the surrounding area.

**Alternative 2 – Mixed Use Development** was obtained from the analysis of alternatives performed during the development of the Specific Plan (originally titled Alternative A in the Alternatives Report). This alternative contains a mixed-use transit village focused around the BART station, and a Neighborhood Shopping District on Willow Pass Road. Medium density residential would be encouraged on opportunity sites to take advantage of BART and to support neighborhood commercial uses. Its implementation would likely require a significant period of time (5 to 10 years) to achieve through natural market forces or substantial public sector assistance. This alternative assumes 294,000 square feet of commercial uses, 100,000 square feet of office uses, and 1,754 dwelling units.

**Alternative 3 – Low Commercial/Office and High Residential** reflects a scenario of a slower commercial/office market and strong residential market, and contains less overall development than the Specific Plan. This alternative assumes 162,000 square feet of commercial uses, 56,000 square feet of office uses, and 2,248 dwelling units. The following assumptions were made in developing this alternative:

- Retain the 2,248 residential unit component of Alternative C evaluated previously in the Specific Plan Alternatives Analysis Report.
- Zone I – BART station transit village, assume 75 percent of the commercial and office development, respectively, at the transit village compared to the Specific Plan.
- Zone II – Orbisonia Heights, assume 50 percent of the commercial development compared to the Specific Plan.
- Zone III – Bailey Road Corridor, assume 66 percent of the commercial development compared to the Specific Plan.
- Zone IV – Willow Pass Road Commercial District, assume the same amount of commercial use, 14,000 square feet, as that proposed in the Specific Plan.

**Alternative 4 – Low Commercial/Office and Low Residential** reflects a further “reduced” project alternative, similar to Alternative 3. This alternative includes substantial reductions in total development and residential uses. Under this alternative, the concepts of the transit village at the BART station, and Neighborhood Commercial District along Willow Pass Road are retained, but with less development. A reduction in development is also assumed along Bailey Road. Finally, a significant reduction in residential uses is also assumed. This alternative assumes 124,000 square feet of commercial uses, 40,000 square feet of office uses, and 1,130 dwelling units. To achieve this, the following assumptions were made:
Reduce total residential units to 1,130.

Zone I – BART station transit village, assume 50 percent of the commercial and office development, respectively, compared to the Specific Plan, and about 50 percent of the residential development.

Zone II – Orbisonia Heights, assume 50 percent of the commercial development compared to the Specific Plan. Assume no new residential development.

Zone III – Bailey Road Corridor, assume 50 percent of the commercial development compared to the Specific Plan.

Zone IV – Willow Pass Road Commercial District, assume the same amount of commercial space as that proposed in the Specific Plan.

Alternative 5 – Very High Commercial/Office and Low Residential would substantially increase office and commercial uses at the BART station and adjacent vacant parcels (Development Zone I) while reducing the number of residential units. Development Zones II – Orbisonia Heights, III – Bailey Road Corridor, and IV – Willow Pass Road Commercial District would contain the same development assumptions as those contained in the Specific Plan.

This alternative was proposed by West Coast Home Builders, the owner of the two vacant undeveloped parcels adjacent to the BART station, and proposes the following for Development Zone I parcels:

- 170,000 gross square feet (gsf) of commercial space on the BART and West Coast Home Builders’ properties.
- 1,489,000 gsf of office space, of which 1,480,000 (99 percent) would occur on West Coast Home Builders’ properties; the remainder of office space would be built on BART properties.
- 694 residential units at a density of 65 du/ac, or a reduction of 1,096 units (61 percent) in Development Zone I dwelling units compared to the Specific Plan.

Alternative 6 – High Commercial/Office and High Residential represents a higher development intensity for Development Zones I, II and III, and also presumes the development assumptions for Development Zone IV contained in the Specific Plan. This alternative was developed by the City of Pittsburg, Contra Costa County and BART to reflect a higher intensity development concept for Development Zones I, II and III. It contains comparable commercial development to Alternative 5 but assumes substantially less office development. This alternative also retains the high residential development concept of the Specific Plan, distributed throughout Development Zones I, II, and III. This alternative proposes the following for parcels in Development Zones I, II, and III:
Development Zone I
- 175,000 gsf of commercial space on the BART and West Coast Home Builders’ properties.
- 465,000 gsf of office space, all of which would be located on West Coast Home Builders’ properties.
- 1,190 residential units at a density of 65 du/ac, or a reduction of 600 units (34 percent) in Zone I compared to the Specific Plan.

Development Zone II
- 40,000 gsf of commercial space in the Orbisonia Heights area.
- 325 residential units at a density of 65 du/ac, or an increase of 125 units (63 percent) compared to the Specific Plan.
- 120 residential units at a density of 15 du/ac, or an increase of 50 units (71 percent) compared to the Specific Plan.

Development Zone III
- 193,750 gsf of commercial space, an increase of 38,000 gsf compared to the Specific Plan.
- 57 residential units at a density of 20 du/ac on a parcel located at Canal Road near Alves Lane, or an increase of 22 units compared to the Specific Plan.
- 140 residential units at a density of 24 du/ac on the west side of Bailey Road, north of State Route 4, or an increase of 70 units compared to the Specific Plan.
- 50 residential units at a density of 24 du/ac on the west side of Bailey Road, north of the EBMUD pipeline.

Table 17-2 provides a comparison of the Specific Plan to the new Alternatives 5 and 6. Development assumptions are shown by development zone.

17.2 ALTERNATIVES CONSIDERED BUT REJECTED
Alternative Locations for Possible Short Term Expansion of Existing BART Parking Lot
In the short term, the Specific Plan allows for the possible development of 380 parking spaces in a 3.45-acre vacant parcel located adjacent to the existing BART parking lot. The long-term uses of this site include development consistent with the BART Station Area Mixed Use designation described in the Specific Plan. This parcel is contiguous to the existing BART parking lot, and would be efficiently served by existing parking lot access and egress, BART security and police services, and other community services and utilities. The parcel’s close proximity to the BART station represents a high degree of pedestrian access. On-site development of parking is also consistent with BART’s joint development policies. Development of the additional parking would result in a total supply of approximately 2,400 spaces.
## CHAPTER 17: ALTERNATIVES

### TABLE 17-2
Comparison of Specific Plan to Alternatives 5 and 6 by Development Zone

<table>
<thead>
<tr>
<th>Specific Plan Development Zones</th>
<th>Zone I</th>
<th>Zone II</th>
<th>Zone III</th>
<th>Zone IV</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Office (Gsf)</td>
<td>Commercial (Gsf)</td>
<td>Residential (Units)</td>
<td>Office (Gsf)</td>
</tr>
<tr>
<td>Specific Plan</td>
<td>75,000</td>
<td>50,000</td>
<td>1,790</td>
<td>14,000</td>
</tr>
<tr>
<td>Alternative 5: West Coast Home Builders</td>
<td>1,489,000</td>
<td>170,000</td>
<td>654</td>
<td>14,000</td>
</tr>
<tr>
<td>City/County/BART Hybrid</td>
<td>175,000</td>
<td>465,000</td>
<td>1,190</td>
<td>14,000</td>
</tr>
</tbody>
</table>

GSF = Gross Square Feet  
* There are no parcels proposed for development in the Specific Plan that are currently designated Office or Office Commercial in either the Pittsburg General Plan or County General Plan. All parcels are designated as either Residential or Commercial.  
* See Specific Plan for map of Development Zones.  
* No residential units are proposed in Zone IV.  

Off-station parcels were considered as possible sites for development of additional BART parking. The Specific Plan identified all vacant parcels within the planning area (see Figure 17-1). The parcels that are of comparable size of three to five acres are located on Canal Road, east of Alves Lane, north of State Route 4, and designated as parcels E and F in Figure 17-1. Other parcels, some larger and some smaller than the size of the proposed site (3.45 acres), are located further from the BART station along Bailey Road (north of State Route 4) and Willow Pass Road. These parcels are located at distances of one-quarter mile (5-minute walk) to one-half mile (10-minute walk). Most of these parcels are designated in the Specific Plan for development of residential, commercial, or open space uses.

Development of these alternative off-site parcels (in lieu of development of the 3.45-acre parcel adjacent to the BART station) would result in a greater level of environmental impacts. Depending on a parcel’s distance from the BART station, shuttles would likely be required to transport BART patrons from off-site parking areas to the BART station. A remote lot would be less attractive to patrons than on-street or shopping center parking. Project impacts of a remote lot would therefore be greater compared to the development of the 3.45-acre parcel adjacent to the BART parking lot. Based on these impacts, alternative off-site locations for development of the 380 spaces were considered but rejected.

**Alternative Location for Specific Plan Development**

The Specific Plan addresses individual parcels, neighborhood locations, and other site-specific land use and urban design characteristics of the Pittsburg/Bay Point area. Due to these unique characteristics and the goals and objectives of the agencies sponsoring the plan, there is no comparable site within Contra Costa County that represents a viable alternative location. As a result, this Master EIR does not evaluate an alternative location for the Specific Plan.

**Alternative B**

Alternative B was evaluated during development of the Specific Plan as described in the Alternatives Report. Alternative B was rejected because it contains greater overall commercial and residential development than the proposed Specific Plan. This assumption could not be supported by future market conditions. A mixed-use transit village would be encouraged adjacent to the BART station. BART parking in a surface lot would be maintained, at least initially; however, the lot would be reconfigured to allow commercial development along the West Leland Road frontage to link the Oak Hills Shopping Center with the uses on parcels to the west. Entertainment, restaurant, and commercial land uses would be emphasized at the BART Station Area.
CHAPTER 17: ALTERNATIVES

FIGURE 17-1
Land Ownership / Large Parcels

LEGEND
A LP CAPITAL HOLDINGS, INC.
B TOBEY AND ARRON ROLAND
C MARY SAN AND
THE ESTATE OF HORACE SANO
D AMBROSE RECREATION
AND PARK DISTRICT
E ROMAN CATHOLIC BISHOP
OF OAKLAND
F JACK AND CHRISTINA EDWARDS
G FAR HILLS MOBILE HOME PARK
H MT. DIABLO UNIFIED
SCHOOL DISTRICT
I DAVID AND NAOMI DOBRICH
J WEST COAST HOME BUILDERS
K BART
L SIERRA PACIFIC PROPERTIES, INC.
M CONTRA COSTA COUNTY
Land uses along Bailey Road north of State Route 4 would emphasize commercial uses. A neighborhood-oriented commercial center is also assumed on Willow Pass Road along with the revitalization and infill of commercial and residential uses.

**Alternative C**
Alternative C was also studied in the Alternatives Report of the Specific Plan. It was also rejected as not meeting the CEQA requirement for reduced environmental impacts. Residential uses would be concentrated immediately adjacent to the BART station with implementation phased over time as market conditions strengthen. It assumes the replacement of the BART surface parking lot with structured parking. Ambrose Park would be relocated to a site near the current Ambrose Community Center, and commercial uses would be developed east of Bailey Road between West Leland Road and State Route 4.

**17.3 ANALYSIS OF ALTERNATIVES**

**No Project/Expected Growth—Alternative 1**
CEQA requires that the “no project” alternative discuss the existing conditions, as well as what would reasonably be expected to occur in the future if the project were not approved, based on current plans and consistent with available infrastructure and community services. The term “existing condition” means a scenario in which no physical change and no development occurs in the Specific Plan area, with future conditions remaining as they are at present.

If physical conditions were to remain unchanged into the foreseeable future, conditions in the Specific Plan area would be the conditions that are described in the Setting sections of each of the environmental topics included in Chapters 5 through 16. Growth in the Pittsburg Sphere of Influence (SOI) would continue as described in Chapter 9: Population, Employment, and Housing. Existing conditions also include existing zoning and land use controls which govern the development of the areas within the Specific Plan. For existing conditions to continue, the existing zoning and land use controls would have to be amended to permit only the development currently in existence in the Specific Plan area, or some other control would have to be assumed that could freeze existing conditions through the buildout year 2010 of the Specific Plan. This scenario is unlikely to occur, and thus has not been analyzed further in this Master EIR. The focus of the No Project Alternative is therefore the No Project/Expected Growth Alternative, to better represent reasonably foreseeable development without the project.
Under the No Project/Expected Growth Alternative, there would be no Specific Plan containing comprehensive land use, circulation, and urban design policies and actions for the Pittsburg/Bay Point BART Station Area and associated parcels. The existing land uses, City and County general plan designations, and zoning, would be consistent with the growth projections for the Pittsburg SOI area. Actions and policies guiding future land use and development changes would be implemented on an individual basis by each respective agency: the City of Pittsburg, the County, and BART, without the coordinated implementation framework that is integral to the Specific Plan. Potential impacts and mitigating effects of the No Project/Expected Growth Alternative are described below.

**Land Use**
Under the no project alternative, the general plan and zoning designations for parcels comprising the BART Station Area would remain unchanged. The concept of a high density, mixed-use transit village, with strong pedestrian linkages to the Pittsburg/Bay Point community would be more difficult to achieve, with the existing medium density residential and community commercial designations. Rather than concentrating residential and commercial development within one-quarter mile (a 5-minute walk) from the BART station, the majority of the residential development would occur in large, vacant undeveloped parcels north of Willow Pass Road over one-half mile (over a 10-minute walk) distant. The urban design elements, such as street trees, roadway improvements, and pedestrian and bicycle linkages, would not necessarily occur in a coordinated, and systematic fashion. The beneficial land use impacts of the Specific Plan (i.e., enhanced aesthetics, and creation of a cohesive community identity through design and development standards) would be more difficult to achieve.

**Urban Design**
As noted above, the urban design policies, design and development standards that were developed for the Pittsburg/Bay Point area would not be in effect.

**Parks and Recreation**
The number of residents added to the planning area would be greater under this alternative, resulting in a greater demand for park and recreation facilities. The severity of this impact would depend on the provision of such facilities. The Specific Plan tasks and policies related to providing parks and recreation would not be in effect.

**Community Services and Utilities**
The greater number of residents added to the planning area under the No Project Alternative would generate larger demands on services and utilities including water, wastewater, schools, solid waste, fire and police. It should be noted that no significant impacts were identified relating to the provision of such services for development proposed under the Specific Plan.

**Population, Employment, and Housing**
The No Project Alternative would result in a greater population in the planning area in the year 2010, but with fewer jobs generated than under the Specific Plan. Construction of a greater number of housing units would be necessary. No significant impacts related to this environmental impact category were identified for the Specific Plan.

**Transportation**

The development assumptions of the No Project Alternative would generate about 21 percent more AM peak hour and 18 percent more PM peak hour traffic than the Specific Plan. The distribution of the generated traffic would also differ from traffic patterns of the Specific Plan. Traffic increases would not be uniform over the project area. There would be less traffic generated south of the freeway in the vicinity of the BART station, and a large increase along the Willow Pass Road corridor, as well as along Bailey Road to the north of the freeway. It is possible that traffic generated under the No Project Alternative would produce significant impacts at additional intersections north of State Route 4. Project traffic impacts to the State Route 4 freeway would be greater, but still not considered significant. The delay index during commute periods would be expected to degrade similar to the Specific Plan.

**Air Quality**

Compared to the Specific Plan, increased air emissions would be expected under the No Project Alternative. The increase in air emissions would be due to increased population, and associated vehicle miles traveled, combined with the possible absence of transportation control measures and other transportation improvements envisioned in the Specific Plan. In this regard, the No Project Alternative would likely be inconsistent with the Bay Area Clean Air Plan criteria for evaluating specific plans. The No Project Alternative would present similar site planning, permitting, and buffer zone creation requirements to mitigate effects of land uses with the potential to emit toxic air contaminants.

**Noise**

The No Project Alternative would involve a lesser amount of combined commercial and office development than the Specific Plan, and would be expected to generate fewer vehicle trips related to associated activities. Noise generated by commercial and office-related vehicle trips would be less. Also, fewer people occupying commercial and office space would be exposed to existing noise levels in the planning area worse than the levels deemed normally acceptable.

Since the No Project Alternative is assumed to involve a greater amount of residential development than under the Specific Plan, a greater number of residents would be exposed to existing high levels of traffic noise near State Route 4 and major roadways such as Bailey Road and Willow Pass Road. Because residential land use involves greater nighttime exposure to noise and more stringent noise compatibility standards, noise impacts under this alternative would be greater than under the Specific Plan prior to mitigation.

**Hydrology and Water Quality**
Impacts on stormwater drainage systems would depend on the amount of impervious surface added to the planning area under either the Specific Plan or the No Project Alternative. In general, the greater emphasis on residential development envisioned under the No Project Alternative likely would allow for lower amounts of runoff from newly developed areas. However, the design of commercial and office building projects could incorporate on-site detention basins or other features to reduce the level of impact on downstream drainage facilities. City of Pittsburg and County requirements for evaluating stormwater drainage impacts and contributing fees for new impervious surfaces in established drainage areas would mitigate impacts from development occurring under either development scenario.

Water quality impacts would be similar under the Specific Plan and the No Project Alternatives.

**Geology, Soils, and Seismicity**

No geologic hazards such as extreme slopes, soils subject to liquefaction, or active fault traces have been identified in the planning area that cannot be overcome by standard engineering and construction practices. City of Pittsburg and County environmental and design review require that buildings conform to Uniform Building Code (UBC) requirements and include consideration of adverse geologic conditions. Development under the No Project Alternative would differ from Specific Plan development in that it would consist of residential land use to a greater extent, and commercial and office use to a lesser extent. While the hours of primary occupancy of new structures would differ between the alternatives, neither residential buildings nor commercial/office buildings would be expected to be more susceptible to hazards associated with earthquake ground shaking. Similarly, the two types of development would be expected to produce similar impacts in terms of their potential to cause erosion. Since this impact also may be mitigated, the alternatives are considered to have virtually identical less-than-significant impacts related to geology, soils and seismicity.

**Vegetation and Wildlife**

Since development would still occur in the absence of adoption of the Specific Plan, potentially significant impacts related to biotic resources would be expected under the No Project Alternative. These impacts include potential destruction of endangered species habitat, disruption of raptors and the movement of wildlife species, degradation or loss of
waters or wetlands, and removal of special status trees. Mitigation measures identified for the Specific Plan also would apply to development under the No Project Alternative. Therefore, residual impacts to vegetation and wildlife would be expected to be less than significant for the No Project Alternative.

**Cultural Resources**

No significant cultural resources were identified in the planning area. However, mitigation measures were identified to protect any previously unknown archaeological resources or historic resources that might be disturbed by future development. The types of development emphasized in the No Project Alternative would not present a greater or lesser threat to such potentially unidentified cultural resources. Therefore, neither alternative is preferable on the basis of cultural resources impacts.

**Mixed Use—Alternative 2**

**Land Use**

Land use goals would be similar between the Specific Plan and Mixed Use – Alternative 2. These goals include: focusing development around the Pittsburg/Bay Point BART Station; establishing a commercial center or district along Willow Pass Road; providing land use and urban design linkages between the BART Station Area and the Willow Pass Road commercial area; and concentrating efforts to improve infrastructure, rehabilitate existing structures and encourage new residential and commercial construction.

The Mixed Use Alternative would have similar land use impacts to the Specific Plan, although the relative contribution of effects from commercial/office development and residential development would vary. Both alternatives would require a general plan amendment, involve adoption of new land use policies to guide development, and include replacement of existing housing. Alternative 2 would be more effective in guiding future development toward commercial/office uses and away from residential land use than either the Specific Plan or a No Project Alternative.

**Urban Design**

The Mixed Use Alternative, like the Specific Plan, would improve the visual character of the planning area by establishing a development theme and removing blighted structures from the planning area. The overall level of development effected under this alternative would be greater than under the Specific Plan and would create more pronounced visual impacts. Such impacts are projected to be less than significant in that development would conform with the urban design concepts and provisions contained in the plan for the Mixed Use Alternative. Visual effects associated with construction of individual projects would be more extensive under this alternative; however, they would be of a limited duration.
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Parks and Recreation
The Mixed Use Alternative would require new park space, mostly in Zone I where residential growth would be directed. The lower number of residences projected under this alternative would lessen the need for providing park space from the level associated with the Specific Plan. A mitigation proposed under this alternative is utilization of in-lieu fees to develop a more usable substitute for Ambrose Park. If all park space requirements were satisfied by the payment of in-lieu fees, a fund of around $2.5 to $3.0 million would be available under Mixed Use – Alternative 2.

Community Services and Utilities
The smaller number of residents added to the planning area under the Mixed Use Alternative would generate less demand on schools than implementation of the Specific Plan. It is estimated that Mixed Use – Alternative 2 would create the need for more classrooms and buses. Development impact fees would help to mitigate any impacts on existing schools in the Mount Diablo Unified School District.

Police service is density-dependent, meaning the Mixed Use – Alternative 2 would increase demand for police services in new commercial districts more than under the Specific Plan. Both alternatives would possibly require establishing a new beat around the BART station as well as hiring a minimum of five City of Pittsburg officers and one supervisor, and the purchase of two cars. It is estimated that Alternative 2 would entail the Contra Costa Sheriff's Department providing additional staffing of two new police officers and one car at the time of project buildout. The existing fire station on Willow Pass Road near Bailey Road (Station 86) may need to be expanded to accommodate two crews and equipment.

Development under either the Specific Plan or Alternative 2 would require upgrades to existing water and sewer lines. Developers would be responsible for costs associated with improvements. It should be noted that no significant impacts related to the provision of the above-mentioned services, or to providing solid waste handling, were identified for the Specific Plan.

Population, Employment, and Housing
Population increases including increases in K-12 students, would be less under Mixed Use Alternative 2, compared to the Specific Plan and Alternative 3, but greater compared to Alternative 4. Alternative 2 assumes 1,754 dwelling units, which is less than the Specific Plan and all alternatives except Alternative 4 (see Table 17-1). Alternative 2 would introduce a smaller number of residents to the planning area, but would increase the daytime population (compared to the Specific Plan and other alternatives) due to its greater office and commercial uses. As a result, the Mixed Use Alternative would generate the greatest number of jobs compared to either the Specific Plan or other alternatives.
**Transportation**

Overall, development assumptions under Alternative 2 would generate about 4 percent less AM peak hour and 4 percent more PM peak hour traffic than the Specific Plan. The higher PM peak would reflect the higher commercial land uses assumed in this alternative. Traffic volumes would be lower during both commute time periods south of State Route 4 in the vicinity of the Pittsburg/Bay Point BART Station. Traffic volumes would be higher during both time periods north of State Route 4. There would be major traffic volume increases along the Willow Pass Road corridor and moderate increases along Bailey Road north of the freeway. It is possible that project traffic would produce significant impacts at additional intersections north of the freeway. There likely would be less project traffic on the State Route 4 freeway during both AM and PM commute periods.

**Air Quality**

The Mixed Use Alternative would result in greater overall emissions of criteria air pollutants and toxic air contaminants compared to the Specific Plan and other alternatives. The population and vehicle miles traveled (VMT) associated with the Mixed Use Alternative would most likely be inconsistent with the Bay Area Clean Air Plan criteria for evaluating specific plans. This alternative would present similar site planning, permitting, and buffer zone requirements needed to minimize effects of land uses with potential to emit toxic air contaminants.

**Noise**

The Mixed Use Alternative would involve a greater amount of combined commercial and office development than the Specific Plan, and would be expected to generate more vehicle trips related to associated activities. Noise generated by commercial and office-related vehicle trips would be greater. Also, a larger number of people occupying commercial and office space would be exposed to higher noise levels than deemed normally acceptable.

Since the Mixed Use Alternative would involve less residential development than under the Specific Plan, fewer residents would be exposed to existing high levels of traffic noise near State Route 4 and other major roadways including Bailey Road and Willow Pass Road. Because residential land use involves greater nighttime exposure to noise and more stringent noise compatibility standards, noise impacts under this alternative would be less than under the Specific Plan.

**Hydrology and Water Quality**

Impacts on stormwater drainage systems would depend on the amount of impervious surface added to the planning area under either the Specific Plan or the Mixed Use Alternative. The greater emphasis on commercial/office development envisioned under the Mixed Use Alternative likely would cause greater runoff from newly developed areas. However, the design of commercial and office building projects could incorporate on-site detention basins or other features to reduce the level of impact on downstream drainage facilities. Residential
development in Zone I related to Alternative 2 of the Specific Plan would require providing drainage retention basins.

City of Pittsburg and County requirements for evaluating stormwater drainage impacts and contributing fees for new impervious surfaces in established drainage areas would mitigate impacts from development occurring under either development scenario. Water quality impacts would be similar under the Specific Plan and the Mixed Use Alternatives.

Geology, Soils, and Seismicity
No geologic hazards such as extreme slopes, soils subject to liquefaction, or active fault traces have been identified that cannot be overcome by standard engineering and construction practices. City of Pittsburg and County environmental and design review require that buildings conform to UBC requirements and include consideration of adverse geologic conditions.

Development under the Mixed Use Alternative would differ from Specific Plan development in that it would consist of higher intensity commercial/office land use and residential use to a lesser extent. While the hours of primary occupancy of new structures would differ between the alternatives, neither residential buildings nor commercial/office buildings would be expected to be more susceptible to hazards associated with earthquake ground shaking. Similarly, the two types of development would be expected to produce similar impacts in terms of their potential to cause erosion. Since this impact also may be mitigated, the alternatives are considered to have virtually identical less-than-significant impacts related to geology, soils and seismicity.

Vegetation and Wildlife
Biotic resources impacts from development in the planning area include potential destruction of endangered species and natural habitat, disruption of raptors and the movement of wildlife species, degradation or loss of waters or wetlands and removal of special status trees. Mitigation measures identified for the Specific Plan also would apply to development under Mixed Use – Alternative 2. Since Specific Plan biological resources impacts would be mitigated to less-than-significant levels, residual impacts to vegetation and wildlife from Mixed Use – Alternative 2 would be expected to be less than significant as well.

Cultural Resources
No significant cultural resources were identified in the planning area. However, mitigation measures were identified to protect previously unknown archaeological resources or historic resources that might be disturbed by future development. The types
of development emphasized in the Mixed Use Alternative would not present a greater or lesser threat to such potentially unidentified cultural resources. Therefore, neither alternative is preferable on the basis of cultural resources impacts.

**Low Commercial/Office and High Residential—Alternative 3**

**Low Commercial/Office and Low Residential—Alternative 4**

This section provides a concurrent review of Alternatives 3 and 4. Both Alternatives 3 and 4 offer lower levels of development compared to the Specific Plan. The two alternatives differ in the amount of commercial/office and residential they propose, with Alternative 4 being the most “reduced” development alternative. Environmental impacts associated with these alternatives generally would differ quantitatively rather than qualitatively, and therefore are discussed together below.

**Land Use**

Land use impacts under Alternatives 3 and 4 would be similar to the proposed Specific Plan. A general plan amendment would be required, new land use guidelines would be established and some existing deteriorated housing would be replaced with new housing. As these alternatives represent “reduced” projects, the intensity of commercial/office land use would be less than under the Specific Plan. The intensity of residential land use would be approximately equal between the Specific Plan and Alternative 3. Alternative 4 would result in lower intensity residential uses of the planning area.

**Urban Design**

Assuming the adoption of a development theme and the removal of blighted structures from the planning area, both Alternatives 3 and 4 may be expected to improve and enhance the visual quality of the area. Development guidelines also would mitigate the effects of adding new development under either of these alternatives. Both alternatives would involve less-than-significant residual impacts related to adding new commercial/office and residential areas, and to temporary construction activities.

**Parks and Recreation**

Alternative 3 would add a similar number of residents to the planning area as would Specific Plan development, while Alternative 4 would add substantially fewer. Correspondingly, demand for parks and recreation facilities would be roughly equivalent between the Specific Plan and Alternative 3. Alternative 4 would involve additional, but lesser, demand for such services compared to the Specific Plan and other alternatives. It is assumed that tasks and policies incorporated in the Specific Plan would also apply to either Alternative 3 or 4 and will result in residually less-than-significant impacts in this category.
CHAPTER 17: ALTERNATIVES

Community Services and Utilities
Alternative 3 would add approximately the same number of residents to the planning area as the Specific Plan and would generate similar impacts on schools and other residentially-related services. Alternative 4 would introduce fewer new student to the planning area because of less residential development that is assumed.

Fewer new staff and vehicles to provide police and fire service in the planning area would be required under Alternatives 3 and 4. Growth is assumed under all alternatives, but Alternative 4 in particular would present a “reduced” development option suggesting less expansion of staffing and equipment to accommodate growth.

Development under either the Specific Plan or Alternative 3 or 4 would require upgrades to existing water and sewer lines. Again, Alternative 4 would reduce demand for such capital improvements. Developers would be responsible for costs associated with improvements. It should be noted that no significant impacts related to the provision of the above-mentioned services, or to providing solid waste handling, were identified for the Specific Plan.

Population, Employment, and Housing
Population increases including increases in K-12 students, would be similar under Alternative 3 and the Specific Plan. Housing provisions also would be similar. Alternative 4 would introduce a substantially smaller number of people to the planning area and require substantially less housing. Alternatives 3 and 4 would provide fewer employment opportunities than development under the Specific Plan.

Transportation
Alternative 3 assumes less commercial development and higher residential development compared to the Specific Plan. Overall, assumed land uses would generate about 9 percent less AM peak hour and 17 percent less PM peak hour traffic than the Specific Plan. The traffic volume decreases would be relatively uniform over the Specific Plan area. Traffic impacts to the freeway would be similar to those from Specific Plan development, and would result in traffic congestion during both the AM and PM commute periods. All intersections that are projected to experience significant level of service impacts under the Specific Plan traffic would also be expected to experience similar significant impacts.

Alternative 4 assumes less commercial development and lower residential development compared to the Specific Plan. These development assumptions would generate about 48 percent less AM and PM peak hour traffic than the Specific Plan. Traffic volume decreases would be relatively uniform over the Specific Plan area. Traffic impacts to the State Route 4 freeway would also be reduced a proportionate amount. All intersections projected to experience significant level of service impacts under the Specific Plan would also be expected to experience similar significant impacts.
Air Quality

Alternatives 3 and 4 would each contain lesser levels of traffic generation, and resultant air emissions compared to the Specific Plan and the Mixed Use – Alternative 2. The populations and VMT associated with each alternative would be more consistent with the projections in the Bay Area Clean Air Plan, compared to the Specific Plan and Alternative 2. Alternatives 3 and 4 would present similar site planning, permitting, and buffer zone creation requirements as the Specific Plan in order to mitigate effects of land uses that have the potential to emit toxic air contaminants.

Noise

Alternative 3 would involve a lesser amount of combined commercial and office development than the Specific Plan, and would be expected to generate fewer vehicle trips related to associated activities. Noise generated by commercial and office-related vehicle trips would be less. Also, fewer people occupying commercial and office space would be exposed to existing noise levels higher than deemed normally acceptable.

Since Alternative 3 is assumed to involve a slightly greater amount of residential development than under the Specific Plan, a greater number of residents would be exposed to existing high levels of traffic noise near State Route 4 and other major roadways including Bailey Road and Willow Pass Road. Because residential land use involves greater nighttime exposure to noise and more stringent noise compatibility standards, noise impacts under this alternative would be incrementally greater than under the Specific Plan.

As a further “reduced” project alternative, Alternative 4 would have similar, but lesser, impacts than the proposed Specific Plan. Alternative 4 would involve lower levels of both commercial/office and residential development, and would generate less vehicle trips than Specific Plan development. Accordingly, impacts from noise generation would be less. Also, fewer people would be occupying commercial/office and residential buildings in the planning area and impacts from introducing people to areas with existing high noise levels would be less severe than under the other alternatives, including the Specific Plan.

Hydrology and Water Quality

Impacts on stormwater drainage systems would depend on the amount of impervious surface added to the planning area under either the Specific Plan or Alternative 3. Since Alternative 3 would add less commercial/office space in the planning area than under the Specific Plan, it would be expected to produce less runoff. Also, the design of commercial and office building projects could incorporate on-site detention basins or other features to reduce the level of impact on downstream drainage facilities. Runoff from the somewhat greater amount of residential buildings would offset the lesser amount of runoff under Alternative 3. City of Pittsburg and County requirements for evaluating stormwater drainage impacts and contributing fees for new impervious surfaces in established drainage areas would mitigate impacts from development occurring under either Alternative 3 or 4.
Since Alternative 4 would involve less building than under the Specific Plan, the amount of impervious surface added to the planning area would be less and less runoff would be generated. Impacts on stormwater drainage systems therefore would be reduced. With mitigation, no significant impacts related to stormwater drainage facilities have been identified for any of the alternatives.

Water quality impacts would be similar under the Specific Plan and Alternative 3. Alternative 4 would contribute less pollutant loading into runoff due to reduced development levels. Water quality impacts are expected to be less than significant under any of the proposed alternatives with the incorporation of mitigation cited in Chapter 13: Hydrology and Water Quality.

**Geology, Soils, and Seismicity**

No geologic hazards such as extreme slopes, soils subject to liquefaction, or active fault traces have been identified that cannot be overcome by standard engineering and construction practices. City of Pittsburg and County environmental and design review require that buildings conform to UBC requirements and include consideration of adverse geologic conditions.

Development under Alternative 3 would differ from Specific Plan development in that it would consist of less commercial/office development and slightly greater residential land use. While the hours of primary occupancy of new structures would differ between the alternatives, neither residential buildings nor commercial/office buildings would be expected to be more susceptible to hazards associated with earthquake ground shaking. Similarly, the two types of development would be expected to produce similar impacts in terms of their potential to cause erosion. Since this impact also may be mitigated, the alternatives are considered to have virtually identical less-than-significant impacts related to geology, soils and seismicity.

Population increases in the planning area would be lowered by Alternative 4, thereby reducing the number of people exposed to geologic hazards. Similarly, the potential for development to cause erosion would be reduced by the lower level of development under this scenario. However, geologic impacts from Specific plan development also are expected to be less than significant with the adoption of mitigation measures cited in Chapter 14: Geology, Soils, and Seismicity.

**Vegetation and Wildlife**

Biotic resources impacts under the Specific Plan are expected to be less than significant assuming the incorporation of the mitigation measures listed in Chapter 15: Vegetation and Wildlife. The lesser development associated with Alternative 3, and the still lower level under Alternative 4, would lessen impacts on biological resources. In either case, individual development projects would conform to the requirements imposed by Federal, State, and local agencies governing natural resources management as described in Chapter 15: Vegetation and Wildlife.
Cultural Resources

No significant cultural resources were identified in the planning area. However, mitigation measures were identified in Chapter 16: Cultural Resources, to protect any previously unknown archaeological resources or historic resources that might be disturbed by future development. These mitigations would apply to Alternatives 3 and 4 as well. The types of development emphasized in Alternative 3 would not present a greater or lesser potential impact to such unidentified cultural resources. Therefore, neither alternative is preferable on the basis of cultural resources impacts. Alternative 4 would further reduce the potential for impacting previous undiscovered cultural resources, due to the lesser amount of residential development.

17.4 ANALYSIS OF NEW ALTERNATIVES 5 AND 6

This section contains a summary of the analysis and conclusions contained in the Technical Memorandum presented in Appendix C. In response to comments regarding potential impacts of Alternatives 5 and 6, Contra Costa County as Lead Agency for CEQA, directed analysis to focus on potential impacts on traffic and infrastructure capacities.

By design, the new alternatives contained the same development assumptions as the Specific Plan for Development Zone IV located outside of the immediate BART station area. As a result, review of potential impacts in this zone is essentially the same as those described in the original DEIR published in fall 1999. The development assumptions, building height limits, site plan, and visual simulation for Alternative 5 are shown in Figures 17-2 through 17-4. Development for Zones II and III is substantially increased in Alternative 6. Figures 17-5 and 17-6 illustrate the development assumptions and building height limits for Alternative 6.

Potential impacts from Alternatives 5 and 6 were expected to occur to systems in the immediate vicinity of the BART station (Development Zone I), roadway intersections in the City of Concord, portions of Bailey Road, and freeway traffic operation during AM and PM peak periods. The evaluation that follows is a summary of detailed analyses contained in Appendix C.
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FIGURE 17-2
Development Assumptions
Alternative 5 (Seeno)

Source: Contra Costa County
Community Development Department, February 2001
FIGURE 17-3
Building Height Limits
(in feet)

Alternative 5
(Seeno)

Source: Contra Costa County
Community Development Department, February 2001
Development Assumptions

Alternative 6 (Hybrid)
CHAPTER 17: ALTERNATIVES

**Figure 17-6**
Building Height Limits (in feet)

Alternative 6 (Hybrid)

Source: Contra Costa County Community Development Department, February 2001
Traffic Impacts
Year 2005

Alternative 5 (West Coast Home Builders)

Significant impacts would result at three intersections:

- Bailey Road / West Leland Road
  Project traffic would degrade acceptable AM and PM peak hour operation to LOS F conditions.

- Bailey Road / Concord Boulevard
  Project traffic would degrade PM peak hour operation from LOS E to LOS F conditions.

- Bailey Road / Myrtle Drive
  Project traffic would increase AM peak hour volumes by more than one percent at a location with unacceptable Base Case level of service and where Base Case volumes would already meet peak hour signal warrant criteria levels. PM peak hour level of service on the Myrtle Drive stop sign controlled intersection approach would also degrade from LOS D to an unacceptable LOS E and volumes would be increased to meet peak hour signal warrant criteria levels.

Alternative 6 (City/County/BART Alternative)

Significant impacts would result at two intersections:

- Bailey Road / Concord Boulevard
  Project traffic would increase volumes by more than one percent at a location with Base Case unacceptable LOS E operation.

- Bailey Road / Myrtle Drive
  Project traffic would increase AM peak hour volumes by more than one percent at a location with unacceptable Base Case level of service and where Base Case volumes would already meet peak hour signal warrant criteria levels. PM peak hour level of service on the Myrtle Drive stop sign controlled intersection approach would also degrade from LOS D to an unacceptable LOS E and volumes would be increased to meet peak hour signal warrant criteria levels.

Impacts are summarized in Tables 17-3 and 17-4.
### Table 17-3

Intersection Level of Service – Year 2005 AM Peak Hour

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Base Case</th>
<th>Specific Plan</th>
<th>Alternative 5 (Seeno)</th>
<th>Alternative 6 (Hybrid)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Willow Pass Road / Bailey Road</td>
<td>A / (.52)</td>
<td>A / (.56)</td>
<td>A / (.59)</td>
<td>A / (.59)</td>
</tr>
<tr>
<td>Bailey Road / Canal Road / State Route 4 WB On-Ramp</td>
<td>C / (.78)</td>
<td>C / (.78)</td>
<td>C / (.77)</td>
<td>C-D / (.80)</td>
</tr>
<tr>
<td>Bailey Road / State Route 4 EB Ramps</td>
<td>A / (.55)</td>
<td>A / (.59)</td>
<td>A / (.58)</td>
<td>A / (.59)</td>
</tr>
<tr>
<td>Bailey Road / Maylard Street</td>
<td>A / (.51)</td>
<td>A / (.60)</td>
<td>B / (.62)</td>
<td>B / (.63)</td>
</tr>
<tr>
<td>Bailey Road / West Leland Road</td>
<td>D / (.81)</td>
<td>D / (.90)</td>
<td>F / (1.08)</td>
<td>E / (.93)</td>
</tr>
<tr>
<td>Bailey Road / Concord Boulevard</td>
<td>C / (.79)</td>
<td>D / (.84)</td>
<td>D / (.86)</td>
<td>D / (.85)</td>
</tr>
<tr>
<td>Concord Boulevard / Denkinger Road</td>
<td>A-B / (.60)</td>
<td>A-B / (.60)</td>
<td>A-B / (.60)</td>
<td>A-B / (.60)</td>
</tr>
<tr>
<td>Bailey Road / Myrtle Drive</td>
<td>F / (52.3)</td>
<td>F / (90.2)</td>
<td>F / (116.6)</td>
<td>F / (83.2)</td>
</tr>
</tbody>
</table>

Source: Crane Transportation Group, March 2001.

a Intersection Level of Service / (Volume to Capacity Ratio) unless noted.
b Intersection Level of Service / (average vehicle delay in seconds) – Myrtle Drive stop sign controlled approach.

### Table 17-4

Intersection Level of Service – Year 2005 PM Peak Hour

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Base Case</th>
<th>Specific Plan</th>
<th>Alternative 5 (Seeno)</th>
<th>Alternative 6 (Hybrid)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Willow Pass Road / Bailey Road</td>
<td>A-B / (.60)</td>
<td>B / (.69)</td>
<td>B / (.69)</td>
<td>C / (.71)</td>
</tr>
<tr>
<td>Bailey Road / Canal Road / State Route 4 WB On-Ramp</td>
<td>B / (.68)</td>
<td>B / (.70)</td>
<td>C / (.71)</td>
<td>C / (.74)</td>
</tr>
<tr>
<td>Bailey Road / State Route 4 EB Ramps</td>
<td>B / (.69)</td>
<td>C / (.77)</td>
<td>D / (.85)</td>
<td>C / (.77)</td>
</tr>
<tr>
<td>Bailey Road / Maylard Street</td>
<td>A / (.49)</td>
<td>A / (.57)</td>
<td>B / (.69)</td>
<td>B / (.63)</td>
</tr>
<tr>
<td>Bailey Road / West Leland Road</td>
<td>C-D / (.80)</td>
<td>D / (.84)</td>
<td>F / (1.20)</td>
<td>E / (.96)</td>
</tr>
<tr>
<td>Bailey Road / Concord Boulevard</td>
<td>E / (.92)</td>
<td>F / (1.01)</td>
<td>F / (1.03)</td>
<td>E / (.99)</td>
</tr>
<tr>
<td>Concord Boulevard / Denkinger Road</td>
<td>B / (.66)</td>
<td>B / (.69)</td>
<td>B / (.68)</td>
<td>B / (.68)</td>
</tr>
<tr>
<td>Bailey Road / Myrtle Drive</td>
<td>D / (32.1)</td>
<td>E / (49.0)</td>
<td>E / (49.9)</td>
<td>E / (43.4)</td>
</tr>
</tbody>
</table>

Source: Crane Transportation Group, March 2001.

a Intersection Level of Service / (Volume to Capacity Ratio) unless noted.
b Intersection Level of Service / (average vehicle delay in seconds) – Myrtle Drive stop sign controlled approach.
Year 2010

**Alternative 5 (West Coast Home Builders)**

Significant impacts would result at three intersections:

- **Bailey Road / West Leland Road**
  Project traffic would degrade acceptable AM and PM peak hour operation to LOS F or LOS E-F conditions.

- **Bailey Road / Concord Boulevard**
  Project traffic would increase AM and PM peak hour volumes by more than one percent at a location with unacceptable Base Case levels of service and volume-to-capacity (V/C) ratios.

- **Bailey Road / Myrtle Drive**
  Project traffic would increase AM and PM peak hour volumes by more than one percent at a location with unacceptable Base Case level of service for the Myrtle Drive stop sign controlled intersection approach and where both AM and PM peak hour Base Case volumes would already meet peak hour signal warrant criteria levels.

**Alternative 6 (City/County/BART Alternative)**

Significant impacts would result at three intersections:

- **Bailey Road / Concord Boulevard**
  Project traffic would increase AM and PM peak hour volumes by more than one percent at a location with unacceptable Base Case levels of service and volume-to-capacity (V/C) ratios.

- **Bailey Road / Myrtle Drive**
  Project traffic would increase AM and PM peak hour volumes by more than one percent at a location with unacceptable Base Case level of service for the Myrtle Drive stop sign controlled intersection approach and where both AM and PM peak hour Base Case volumes would already meet peak hour signal warrant criteria levels.

- **Bailey Road / Willow Pass Road**
  Project traffic would degrade PM peak hour operation from LOS E to an unacceptable LOS F.

Impacts are summarized in Tables 17-5 and 17-6.
### TABLE 17-5
Intersection Level of Service – Year 2010 AM Peak Hour

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Base Case</th>
<th>Specific Plan</th>
<th>Alternative 5 (Seeno)</th>
<th>Alternative 6 (Hybrid)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Willow Pass Road / Bailey Road</td>
<td>A / (.50)</td>
<td>A / (.52)</td>
<td>A / (.53)</td>
<td>A / (.53)</td>
</tr>
<tr>
<td>Bailey Road / Canal Road / State Route 4 WB On-Ramp</td>
<td>A / (.50)</td>
<td>A / (.56)</td>
<td>A / (.60)</td>
<td>A / (.60)</td>
</tr>
<tr>
<td>Bailey Road / State Route 4 EB Ramps</td>
<td>A / (.40)</td>
<td>A / (.45)</td>
<td>A / (.54)</td>
<td>A / (.51)</td>
</tr>
<tr>
<td>Bailey Road / Maylard Street</td>
<td>A / (.43)</td>
<td>A / (.53)</td>
<td>A / (.57)</td>
<td>A / (.59)</td>
</tr>
<tr>
<td>Bailey Road / West Leland Road</td>
<td>D / (.83)</td>
<td>D / (.88)</td>
<td>E / (1.00)</td>
<td>E / (.95)</td>
</tr>
<tr>
<td>Bailey Road / Concord Boulevard</td>
<td>D / (.90)</td>
<td>E / (.96)</td>
<td>E / (.98)</td>
<td>E / (.99)</td>
</tr>
<tr>
<td>Concord Boulevard / Denkinger Road</td>
<td>A / (.58)</td>
<td>A / (.58)</td>
<td>A / (.58)</td>
<td>A / (.58)</td>
</tr>
<tr>
<td>Bailey Road / Myrtle Drive</td>
<td>F / (114)</td>
<td>F / (209)</td>
<td>F / (275)</td>
<td>F / (118)</td>
</tr>
<tr>
<td>Willow Pass Road / Evora Road / State Route 4 EB Off-Ramps</td>
<td>B / (.63)</td>
<td>C / (.75)</td>
<td>B / (.67)</td>
<td>B / (.70)</td>
</tr>
</tbody>
</table>

Source:  Crane Transportation Group, March 2001.

a Intersection Level of Service / (Volume to Capacity Ratio) unless noted.

b Intersection Level of Service / (average vehicle delay in seconds) – Myrtle Drive stop sign controlled approach.

### TABLE 17-6
Intersection Level of Service – Year 2010 PM Peak Hour

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Base Case</th>
<th>Specific Plan</th>
<th>Alternative 5 (Seeno)</th>
<th>Alternative 6 (Hybrid)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Willow Pass Road / Bailey Road</td>
<td>D / (.86)</td>
<td>E / (.93)</td>
<td>E / (.96)</td>
<td>F / (1.01)</td>
</tr>
<tr>
<td>Bailey Road / Canal Road / State Route 4 WB On-Ramp</td>
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<td>A / (.46)</td>
<td>A / (.50)</td>
<td>A / (.48)</td>
</tr>
<tr>
<td>Bailey Road / State Route 4 EB Ramps</td>
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<td>B / (.65)</td>
<td>C / (.72)</td>
<td>B / (.69)</td>
</tr>
<tr>
<td>Bailey Road / Maylard Street</td>
<td>A / (.50)</td>
<td>B / (.66)</td>
<td>C / (.73)</td>
<td>C / (.76)</td>
</tr>
<tr>
<td>Bailey Road / West Leland Road</td>
<td>C / (.72)</td>
<td>D / (.81)</td>
<td>F / (1.02)</td>
<td>E / (.92)</td>
</tr>
<tr>
<td>Bailey Road / Concord Boulevard</td>
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<td>F / (1.23)</td>
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<tr>
<td>Concord Boulevard / Denkinger Road</td>
<td>C / (.76)</td>
<td>C / (.74)</td>
<td>B / (.70)</td>
<td>C / (.74)</td>
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<tr>
<td>Bailey Road / Myrtle Drive</td>
<td>F / (234)</td>
<td>F / (480)</td>
<td>F / (371)</td>
<td>F / (454)</td>
</tr>
<tr>
<td>Willow Pass Road / Evora Road / State Route 4 EB Off-Ramps</td>
<td>A / (.59)</td>
<td>A / (.58)</td>
<td>B / (.67)</td>
<td>B / (.64)</td>
</tr>
</tbody>
</table>

Source:  Crane Transportation Group, March 2001.

a Intersection Level of Service / (Volume to Capacity Ratio) unless noted.

b Intersection Level of Service / (average vehicle delay in seconds) – Myrtle Drive stop sign controlled approach.
Mitigation Measures

Year 2005

Alternative 5 (West Coast Home Builders)

Bailey Road / West Leland Road

- Restripe the southbound Bailey Road approach to provide an exclusive left-turn lane, a shared through/left-turn lane, a shared through/right-turn lane, and an exclusive right-turn lane.
- Add a second left-turn lane on the eastbound West Leland Road approach.

Resultant AM peak hour operation: LOS D — V/C = .89
Resultant PM peak hour operation: LOS E — V/C = .96

Bailey Road / Concord Boulevard

- Provide exclusive left-turn lanes on the northbound and southbound Bailey Road intersection approaches and protected left-turn phasing on the north- and southbound intersection approaches. (Required for Base Case operation.) These improvements would bring Specific Plan operation to the same or better levels than Base Case operation (but not necessarily to an acceptable level of service).

Resultant PM peak hour operation: LOS D — V/C = .86

Bailey Road / Myrtle Drive

- Signalize and provide a left-turn lane on the southbound Bailey Road approach.

Resultant AM peak hour operation: LOS B — V/C = .66
Resultant PM peak hour operation: LOS C — V/C = .72

Alternative 6 (City/County/BART Alternative)

Bailey Road / Concord Boulevard

- Provide exclusive left-turn lanes on the northbound and southbound Bailey Road intersection approaches and protected left-turn phasing on the north- and southbound intersection approaches.

Resultant PM peak hour operation: LOS D — V/C = .85

Bailey Road / Myrtle Drive

- Signalize and provide a left-turn lane on the southbound Bailey Road approach.

Resultant AM peak hour operation: LOS B — V/C = .65
Resultant PM peak hour operation: LOS C — V/C = .71
**Year 2010**

**Alternative 5 (West Coast Home Builders)**

**Bailey Road / West Leland Road**
- Restripe the southbound Bailey Road approach to provide an exclusive left-turn lane, a shared through/left-turn lane, a shared through/right-turn lane, and an exclusive right-turn lane.
- Provide split signal phasing for the north- and southbound approaches.
- Add a second left-turn lane on the eastbound West Leland Road approach.
  
  Resultant AM peak hour operation: LOS D — V/C = .81  
  Resultant PM peak hour operation: LOS C — V/C = .74

**Bailey Road / Concord Boulevard**
- Provide exclusive left-turn lanes on the northbound and southbound Bailey Road intersection approaches and protected left-turn phasing on the north- and southbound approaches. (Required for Base Case operation.) These improvements would bring Specific Plan operation to the same or better levels than Base Case operation (but not necessarily to an acceptable level of service).
  
  Resultant AM peak hour operation: LOS C — V/C = .74  
  Resultant PM peak hour operation: LOS E — V/C = .95

- In addition to the above improvements, provide an exclusive right-turn lane on the westbound Concord Boulevard intersection approach. This additional improvement would provide acceptable operation.
  
  Resultant AM peak hour operation: LOS B — V/C = .68  
  Resultant PM peak hour operation: LOS D — V/C = .87

**Bailey Road / Myrtle Drive**
- Signalize and provide a left-turn lane on the southbound Bailey Road approach.

  Resultant AM peak hour operation: LOS B — V/C = .68  
  Resultant PM peak hour operation: LOS C — V/C = .75

**Alternative 6 (City/County/BART Alternative)**

**Bailey Road / Willow Pass Road**
- Stripe a second left-turn lane on the northbound Bailey Road intersection approach.

  Resultant PM peak hour operation: LOS D — V/C = .90
Bailey Road / Concord Boulevard

- Provide exclusive left-turn lanes on the northbound and southbound Bailey Road intersection approaches and protected left-turn phasing on the north- and southbound intersection approaches. (Required for Base Case operation.) These improvements would bring Specific Plan operation to the same or better levels than Base Case operation (but not necessarily to an acceptable level of service).

Resultant AM peak hour operation:  LOS C — V/C = .76
Resultant PM peak hour operation:  LOS E — V/C = 1.00

- In addition to the above improvements, provide an exclusive right-turn lane on the westbound Concord Boulevard intersection approach, and

- Provide an exclusive right-turn lane on the northbound Bailey Road intersection approach.

Resultant AM peak hour operation:  LOS C — V/C = .72
Resultant PM peak hour operation:  LOS D — V/C = .87

Bailey Road / Myrtle Drive

- Signalize and provide a left-turn lane on the southbound Bailey Road approach.

Resultant AM peak hour operation:  LOS C — V/C = .72
Resultant PM peak hour operation:  LOS D — V/C = .81

Infrastructure and Public Services

Estimates of infrastructure and public service impacts were prepared for the City/County/BART alternative and West Coast Home Builders (Seeno) alternatives. For purposes of consistency, the demand factors used previously in the published DEIR were applied to the new alternatives. The same demand factors were also applied to land uses proposed in the San Marco and Alves Ranch projects west of the Specific Plan area. Minor discrepancies in demand estimates may exist in this Recirculated DEIR analysis for the San Marco and Alves Ranch projects compared to estimates published in other environmental review; however, use of the same demand factors in this Recirculated DEIR analysis for all the development scenarios allows for direct and more meaningful comparison.

Table 17-7 shows a comparison of the Specific Plan to Alternatives 5 and 6 with regard to potential infrastructure and public services demand.
### Table 17-7, Summary of Population, Infrastructure, Services Impacts (landscape)

<table>
<thead>
<tr>
<th>Impact Category</th>
<th>Alternative 6 (Hydro)</th>
<th>Alternative 5 (Severn)</th>
<th>Specific Plan + Adjacent Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>4,483</td>
<td>2,200</td>
<td>7,680</td>
</tr>
<tr>
<td>Water Demand (AFAD)</td>
<td>680.35</td>
<td>540.16</td>
<td>1,220.52</td>
</tr>
<tr>
<td>Wastewater (GPD)</td>
<td>525.275</td>
<td>432.075</td>
<td>957.352</td>
</tr>
<tr>
<td>Elementary Students</td>
<td>396</td>
<td>198</td>
<td>594</td>
</tr>
<tr>
<td>Middle Students</td>
<td>176</td>
<td>88</td>
<td>264</td>
</tr>
<tr>
<td>High School Students</td>
<td>198</td>
<td>98</td>
<td>396</td>
</tr>
<tr>
<td>Solid Waste (tons/yr)</td>
<td>2,044</td>
<td>1,655</td>
<td>5,976</td>
</tr>
<tr>
<td>City Parks (acres)</td>
<td>17.9</td>
<td>6.94</td>
<td>41.5</td>
</tr>
<tr>
<td>County Parks (acres)</td>
<td>3.7</td>
<td>3.7</td>
<td>6.3</td>
</tr>
</tbody>
</table>

* San Marco and Avens Ranch Projects

The estimates for each demand category (e.g., annual water demand, wastewater and solid waste generation) appear to be more sensitive to the total number of dwelling units assumed and the resultant population, than compared to gross square footage of office or commercial uses. For example, the Specific Plan proposes a total of 2,195 units compared to 1,882 units for Alternative 6 and 1,099 units for Alternative 5.

**Water Demand**

Alternative 6 would have the highest demand of 692 acre-feet annually (AFA), as compared to 680 AFA for the Specific Plan and 540 AFA for Alternative 5. These estimates reflect Alternative 6’s higher overall balance between housing, office, and commercial uses. Individually, none of the development scenarios (Specific Plan, Alternatives 5 and 6) would exceed infrastructure capacity for water; however, facility or service standards of the City and County’s Growth Management Elements would be applied to ensure water availability as described in Mitigation Measure 8-1 on page 8-16 in this Recirculated DEIR.

**Wastewater**

The Specific Plan would generate the highest wastewater volume at approximately 525,000 gallons per day (GPD), as compared to 512,000 GPD for Alternative 6 and 432,000 for Alternative 5. Individually, none of the development scenarios (Specific Plan, Alternative 5 and 6) would exceed infrastructure capacity for wastewater; however, facility or service standards of the City and County’s Growth Management Elements would be applied to ensure wastewater treatment capacity as described in Mitigation Measure 8-2 on page 8-18 in this DEIR.

**Student Populations**

The Specific Plan would generate a higher number of students across all categories of elementary, middle school, and high school for a total of about 769 students. This result reflects the greater number of dwelling units assumed in the Specific Plan. Alternative 6 would generate a total of about 659 students (14 percent fewer students than the Specific Plan). Alternative 5 would result in approximately 385 students, or about 50 percent fewer students compared to the Specific Plan. With the documented overcrowding in local classrooms, it is possible that either Alternative 5 or 6 would exacerbate the problem. Mitigation measures 8-3 (a) and (b) as described on page 8-19 of this DEIR would be required to mitigate adverse impacts on schools.
Solid Waste

The Specific Plan would generate the highest volume of solid waste at approximately 3,235 tons per year; followed by 2,844 tons per year and 1,656 tons per year for the City/County/BART Hybrid and West Coast Home Builders alternative, respectively. The Specific Plan’s impact on solid waste management was considered less than significant in this DEIR (Impact 8-4 on pages 8-19 and 8-20). Impacts on solid waste management from Alternatives 5 and 6 would also be less than significant.

City and County Parks

The Specific Plan would require the greatest amount of parks acreage for both the City of Pittsburg and County. This result would be expected as the parks demand factors are also directly tied to population. For this analysis, the same parks demand factors were applied to the new alternatives that were previously applied in the DEIR. The Specific Plan would result in about 17.9 acres of City parks and 3.5 acres of County parks. Alternative 6 would require about 11.9 acres of City parks and 6.3 acres of County parks. Alternative 5 would require approximately 6.9 acres of City parks and 3.7 acres of County parks. Mitigation Measure 7-1 as described on page 7-7 of this DEIR, would be required to ensure parks acreage is created concurrent with new development. Both alternatives would allow flexibility in the Park Master Plan, which could provide for residential development along the eastern and southern park boundaries. Any development on park property would require equal replacement of park land for development within the park district.

Noise

Potential noise impacts would be a function of the volume of traffic and other noise generators and the presence of sensitive noise receptors during nighttime and early morning hours. Alternatives 5 and 6 would have traffic volumes comparable to the Specific Plan at Year 2010 for both the AM and PM peak hours (see Tables 17-5 and 17-6). Using traffic volumes as a measure of potential noise levels suggest both Alternatives 5 and 6 would generate more traffic noise on roadways immediately adjacent to the BART station; however, fewer people would potentially be affected. Both alternatives include few residential units than the Specific Plan. The increases in commercial and office space under Alternatives 5 and 6 could increase ambient noise levels during daytime hours such as the AM and PM peak hours. Such noise levels, while quantified in this analysis, would be similar to those identified for the Specific Plan.

Air Quality

As noted above, Alternatives 5 and 6 would have similar traffic impacts as the Specific Plan, and would be expected to generate comparable volumes of emissions of criteria air pollutants. Criteria air pollutants are those pollutants for which air quality standards must be achieved and maintained. Both alternatives would be consistent with the BAAQMD’s
Bay Area '97 CAP Plan. As with the Specific Plan, potential air quality impacts from mobile and stationary sources, and construction-related emissions could be mitigated to a less than significant level. The mitigation measures described in detail in the impact analysis of Chapter 11: Air Quality in this DEIR would be applicable to these alternatives.

17.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The preceding discussion identifies two alternatives as environmentally superior to the proposed Specific Plan. The land use and urban design objectives of the Specific Plan are achieved by Alternatives 3 and 4. Both alternatives pose less severe environmental impacts due to “reduced” levels of commercial and residential development. Since the No Project Alternative assumes continued growth in both commercial and residential land use in the planning area, its associated environmental impacts would be greater than impacts under the Specific Plan, or Alternatives 3 or 4.

The types of impacts identified for the Specific Plan do not differ substantially from those associated with either Alternative 3 or Alternative 4. Rather, the lower level of commercial/office development proposed under Alternative 3 would result in a corresponding decrease in traffic levels, not avoidance of the impact or a reduction in the impact’s level of significance. The Specific Plan and these alternatives present tradeoffs, then, between desired levels of development and incremental lessening of adverse impacts.

Alternative 4 would be environmentally superior to the Specific Plan and Alternative 3 due to its lowest levels of associated overall development. However, Alternative 4 would not avoid significant environmental impacts that would occur under the Specific Plan or Alternative 3. Potentially significant impacts identified for the Specific Plan may be reduced to less-than-significant levels by the incorporation of mitigation measures identified in this Master EIR.

While Alternatives 3 and 4 would have fewer overall environmental impacts, they would not be consistent with City, County, and BART goals to increase residential density and create mixed-use office and commercial development in and around regional transit centers such as the Pittsburg/Bay Point BART Station. The fewer impacts associated with Alternatives 3 and 4 would occur mostly on a local basis, and should be viewed within the context of potential effects that would be “transferred” outside of the Specific Plan area. That is, it is possible that the increment of development between the Specific Plan and the “reduced alternatives” would occur outside of the Specific Plan area. Assuming this occurred, local traffic, air quality, and noise impacts due to commuter traffic entering or leaving the Pittsburg/Bay Point BART Station would still be expected. In this regard, the Specific Plan minimizes this potential impact.

Alternatives 5 and 6 would have a reduced level of environmental impacts compared to the Specific Plan and Alternative 2, but greater impacts compared to Alternatives 1, 3 and 4. Table 17-7 shows that the fewer numbers of residential units included in Alternatives 5 and 6 would
result in lower populations and lower demand for infrastructure and services compared to the Specific Plan. Alternatives 5 and 6 would be consistent with the City, County, and BART goals to increase residential density and create mixed-use office and commercial development in and around regional transit centers. Potential traffic impacts of Alternatives 5 and 6 would mostly occur at local intersections during AM and PM peak hours. If implemented, the mitigation measures described in the traffic analysis for Alternatives 5 and 6 would reduce traffic impacts to a less-than-significant level.

NOTES: Alternatives

1 CEQA Guidelines, Section 15126(d)(4).
2 Pittsburg/Bay Point BART Station Area Specific Plan, Alternatives Evaluation Report, November 1996.
3 Pittsburg/Bay Point BART Station Area Specific Plan, Alternatives Evaluation Report, November 1996.
4 Ibid., page 24.
5 Ibid., page 28.
6 CEQA Guidelines, op. cit.
7 Information for the evaluation of this alternative was largely obtained from the Specific Plan Alternatives Report, November 1996.
18.1 SIGNIFICANT ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED IF THE PROPOSED PROJECT IS IMPLEMENTED

In accordance with Section 21067 of CEQA, and Section 15126(b) of the State CEQA Guidelines, the purpose of this section is to identify impacts that could not be eliminated or reduced to an insignificant level by mitigation measures included as part of the proposed Specific Plan, or by other mitigation measures that could be implemented. The findings of significant impacts are subject to final determination by the County Zoning Administrator and County Board of Supervisors as part of the certification process for this Master EIR. The City of Pittsburg and BART will also provide input to these findings. It is possible that this chapter in the Final Master EIR will be revised as needed to reflect the findings of the Zoning Administrator and the County Board of Supervisors.

Significant unavoidable environmental effects could occur in two basic forms: impacts that could be attributable to the proposed Specific Plan itself, and cumulative impacts to which the Specific Plan would contribute. Environmental effects of the Specific Plan have been projected with a certainty that reflects the information comprising the environmental setting and the proposed Specific Plan development assumptions. By definition, the possible cumulative effects are less certain because their analysis and evaluation are dependent on a prediction of future events and environmental changes. Both of these conditions are not only difficult to predict with accuracy, but are also beyond the scope of the Specific Plan. Significant unavoidable effects that have been identified in this analysis include:

• Project and cumulative traffic intersection impacts, primarily affecting the intersections of Bailey Road at the State Route 4 eastbound ramps, and at Bailey Road and West Leland Road. The extent of these impacts depends on when, and if, regional traffic improvements are implemented. The traffic analysis in this Master EIR indicates that the conclusion that no significant impacts will occur is based on regional traffic improvements reflected in the County Travel Demand Model.

• Potentially significant Specific Plan-related impacts from toxic air contaminants from individual stationary sources and from combined risk due to emissions from unspecified,
future light industrial uses. Adequate buffers between potential stationary sources and sensitive receptors cannot be demonstrated at this time.

18.2 IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA Guidelines, Sections 15126(f) and 15127, require that a Draft EIR identify significant environmental changes if the following could occur:

- the project would involve a large commitment of non-renewable resources;
- the primary and secondary impacts of a project would generally commit future generations to similar uses, e.g., a highway that provides vehicular access to a previously remote area;
- the project involves uses in which irreversible damage could result from any potential accidents associated with the project; or
- the project would wastefully consume resources such as energy.

As described throughout this Master EIR, implementation of the development proposed in the Specific Plan would result in beneficial changes to the urban character, design, and function of the Specific Plan area. Development of the transit village and multi-family housing at the BART Station Area would transform currently vacant undeveloped parcels and the existing BART parking lots. Major streetscape improvements would improve the aesthetic character of the Specific Plan area. In some areas, blighted housing and commercial parcels would be redeveloped, resulting in possible displacement of existing uses. While not necessarily irreversible, the commitment to these changes would be difficult to change in the short term. Such changes would commit future generations to the same land uses.

Implementation of the Specific Plan would require an irreversible commitment of energy resources generally in the form of fossil fuels. These fuels include fuel oil, natural gas, and gasoline or diesel fuel. Automobiles and construction equipment would consume fuel during periods of individual project construction, and during long-term use and operation of proposed land uses. Consumption of other non-renewable resources would also occur during construction and long-term occupancy of the parcels assumed to be developed under the Specific Plan. These resources include, but are not necessarily limited to: water, soil, sand and gravel, concrete, asphalt, masonry, and construction steel and other metal products. Implementation of Specific Plan development would also generate solid waste and use water resources during construction and operation.

Because the Specific Plan area is located in a known seismically active region, irreversible damage could occur similar to what might occur in other areas of the City of Pittsburg or eastern Contra Costa County. The creation of additional homes and businesses in the Specific Plan area would increase the resident and employee population. In doing so, the Specific Plan would expose larger numbers of people to possible death and injury during a major earthquake in the
San Francisco Bay Area; however, with compliance with requirements of the Uniform Building Code, California Building Code, or other local City and County building codes in effect at the time of building permit issuance, seismic risks would be reduced to a less-than-significant level (see Chapter 14: Geology, Soils, and Seismicity).

18.3 GROWTH INDUCEMENT

The Specific Plan would add 2,195 multi-family residential units to the area. About 1,790 of these units would be built in the City of Pittsburg at the BART Station Area, with the remaining 405 units to be developed in various parcels located in the Bay Point community. The Specific Plan would also add 75,000 square feet of office space at the BART Station, 239,000 square feet of commercial retail uses, and generate about 800 jobs by the year 2010. Adoption of the Specific Plan may encourage or accelerate future urban development in and near the Specific Plan area. The planned upgrades of community services and facilities could also facilitate additional urbanization in the vicinity of the Specific Plan area.

18.4 CUMULATIVE ANALYSIS

CEQA Guidelines Section 15355 defines cumulative impacts as “...two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” The cumulative effects of the Specific Plan are described where applicable in individual chapters of this Master EIR. Reasonably foreseeable projects are identified in Table 18-1, as obtained from the City of Pittsburg General Plan Update: Existing Conditions and Planning Issues Report, June 1998, and the Contra Costa County Redevelopment Agency.

Cumulative development was incorporated into the year 2010 traffic forecasts of the County Travel Demand Model used to assess traffic impacts of the Specific Plan plus cumulative development (see Chapter 10: Transportation), as well as air quality and noise. Year 2010 projections for population, employment, housing, water demand, wastewater generation, and solid waste generation were obtained from the Pittsburg General Plan Update Report, or from master plans prepared by service providers. The projections for each of these potential impact areas include assumptions of cumulative development occurring at the buildout year of 2010.
# Table 18-1

Approved Development in the City of Pittsburg by Use, April 1998

<table>
<thead>
<tr>
<th>Residential</th>
<th>Units</th>
<th>Acres</th>
<th>Density (units/gross acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Single-Family</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evergreen Estates</td>
<td>46</td>
<td>20.0</td>
<td>2.3</td>
</tr>
<tr>
<td>Stonegate</td>
<td>27</td>
<td>7.0</td>
<td>3.9</td>
</tr>
<tr>
<td>Americana b</td>
<td>193</td>
<td>43.0</td>
<td>4.5</td>
</tr>
<tr>
<td>San Marco</td>
<td>1,363</td>
<td>415.0</td>
<td>3.3</td>
</tr>
<tr>
<td>Oak Hills</td>
<td>442</td>
<td>87.3</td>
<td>5.1</td>
</tr>
<tr>
<td>Oak Hills South b</td>
<td>459</td>
<td>211.0</td>
<td>2.2</td>
</tr>
<tr>
<td>Oak Hills Crest</td>
<td>29</td>
<td>4.0</td>
<td>7.2</td>
</tr>
<tr>
<td>Oak Hills South, Unit 5</td>
<td>188</td>
<td>53.0</td>
<td>3.5</td>
</tr>
<tr>
<td>Village at New York Landing</td>
<td>114</td>
<td>27.0</td>
<td>4.2</td>
</tr>
<tr>
<td>Jubilee</td>
<td>51</td>
<td>9.5</td>
<td>5.4</td>
</tr>
<tr>
<td>Rockridge</td>
<td>56</td>
<td>7.6</td>
<td>7.4</td>
</tr>
<tr>
<td><strong>Multifamily and Mobile Home</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>San Marco</td>
<td>680</td>
<td>34.0</td>
<td>20.0</td>
</tr>
<tr>
<td>Stoneman Village</td>
<td>60</td>
<td>1.4</td>
<td>41.4</td>
</tr>
<tr>
<td>Columbia Park Manor</td>
<td>78</td>
<td>3.2</td>
<td>24.4</td>
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<tr>
<td>Pittsburg Park Apartments b</td>
<td>76</td>
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<td>13.9</td>
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<tr>
<td>Regency Mobile Home</td>
<td>253</td>
<td>46.3</td>
<td>5.5</td>
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<tr>
<td>Woodland Hills II</td>
<td>96</td>
<td>4.9</td>
<td>19.5</td>
</tr>
<tr>
<td><strong>Total Residential</strong></td>
<td>4,211</td>
<td>979.7</td>
<td>10.2</td>
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</table>

<table>
<thead>
<tr>
<th>Commercial</th>
<th>Building Square Footage</th>
<th>Acres</th>
<th>Intensity (FAR)</th>
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<tbody>
<tr>
<td>Century Plaza</td>
<td>439,830</td>
<td>50.0</td>
<td>0.2</td>
</tr>
<tr>
<td>North Park Plaza</td>
<td>361,952</td>
<td>32.8</td>
<td>0.2</td>
</tr>
<tr>
<td>Brendan Theaters Expansion</td>
<td>9,000</td>
<td>44.0</td>
<td>NA</td>
</tr>
<tr>
<td>Pep Boys</td>
<td>22,000</td>
<td>3.0</td>
<td>0.2</td>
</tr>
<tr>
<td>Wendy's</td>
<td>2,700</td>
<td>0.5</td>
<td>0.1</td>
</tr>
<tr>
<td>IHOP Restaurant</td>
<td>3,838</td>
<td>0.8</td>
<td>0.1</td>
</tr>
<tr>
<td>Staples (North Park Plaza)</td>
<td>24,000</td>
<td>32.8</td>
<td>NA</td>
</tr>
<tr>
<td>Albertson's/Railroad Plaza</td>
<td>76,109</td>
<td>9.0</td>
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<tr>
<td><strong>Total Commercial</strong></td>
<td>939,419</td>
<td>172.9</td>
<td>0.1</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Industrial</th>
<th>Building Square Footage</th>
<th>Acres</th>
<th>Intensity (FAR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOW Chemical Hygiene Building</td>
<td>5,088</td>
<td>7.1</td>
<td>NA</td>
</tr>
<tr>
<td>Merit USA</td>
<td>2,700</td>
<td>1.8</td>
<td>NA</td>
</tr>
<tr>
<td>Air Liquide</td>
<td>9,320</td>
<td>5.0</td>
<td>NA</td>
</tr>
<tr>
<td>Pittsburg Marine Terminal</td>
<td>NA</td>
<td>17.5</td>
<td>NA</td>
</tr>
<tr>
<td>Recycling Center &amp; Transfer Station</td>
<td>167,000</td>
<td>11.0</td>
<td>10.3</td>
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<tr>
<td><strong>Total Industrial</strong></td>
<td>184,108</td>
<td>31.4</td>
<td>0.1</td>
</tr>
</tbody>
</table>

---

*Includes projects that are approved, under construction, and recently completed.

*bProjects under construction.
Cumulative traffic impacts were identified for year 2010 at the intersections of Bailey Road and West Leland Road, and Bailey Road at the eastbound State Route 4 ramps (see Chapter 10: Transportation). These cumulative impacts assumed certain traffic improvements contained in the County transit model are implemented and were determined to be mitigable. No other cumulative impacts were determined to be significant.

**Reasonably Foreseeable Projects in the Bay Point Area**

Three projects in the Bay Point area are foreseen for the future as described below:

1) **North Broadway Area Infrastructure Project.** The project involves revitalizing the North Broadway neighborhood with the installation of sidewalks, curb and gutter, underground drainage, and reconstruction and/or extensions of roads where necessary.

   The proposed improvements will widen North Broadway Avenue to 40 feet. Solano Avenue, Poinsettia Avenue, Bella Monte Avenue, Highway Avenue, and Crivello Avenue will be widened to 36 feet. Siino Avenue and Suisun Avenue between North Broadway Avenue and Poinsettia Avenue will be widened to 32 feet with no parking zones on both sides. Fairview Street between Willow Pass Road and Pullman Avenue will be constructed to 36 feet wide when the land on the east side develops, and Fairview Street from Pullman Avenue north will be constructed 28 feet wide with curb and sidewalk on the west side only. Pullman Avenue between Bella Monte Avenue and Crivello Avenue is proposed to be constructed to 28 feet with curb and sidewalk on the south side only. It is also proposed that Pullman Avenue will be extended from Fairview Street to North Broadway Avenue, and will be constructed 32 feet wide with curb and sidewalk on both sides. Both sections of Pullman Avenue will have no parking on both sides.

   An east-west cross street is proposed to be constructed between North Broadway Avenue and Fairview Street approximately 500 feet north of Willow Pass Road. This street will be 32 feet wide with no parking on both sides. Another east-west cross street is proposed to be constructed between North Broadway Avenue and Poinsettia Avenue approximately 450 feet north of Pullman Avenue. This street is proposed to be 32 feet wide with no parking on both sides. When the two large vacant lots between Fairview Street and Bella Monte Avenue are developed, Siino Avenue will be extended to Fairview Street to connect to the proposed cross street 500 feet north of Willow Pass Road. The street is proposed to be 32 feet wide with curb and sidewalk on both sides. Parking would be prohibited on both sides of this street. In addition, Pullman Avenue is proposed to be extended from Bella Monte Avenue to Fairview Street when the two large vacant lots are developed. The street is proposed to be 28 feet wide with curb and sidewalk on the south side only. Parking would be prohibited on this street. No
improvements are proposed for all of Tormay Avenue plus Pullman Avenue and Siino Avenue east of Crivello Avenue, and the offer of dedication will be terminated.

The proposed project includes the installation of storm drains in Poinsettia Avenue, Fairview Street, Bella Monte Avenue, Highway Avenue, and Crivello Avenue. Minor improvements are proposed for the storm drains in North Broadway Avenue and Solano Avenue. The proposed project also includes adding 23 street lights to existing utility poles. The proposed spacing of the street lights would average about 145 feet.

2) **Eight Acre Mixed Use Project.** As part of the North Broadway infrastructure project, the Redevelopment Agency proposes to acquire two large parcels, totaling eight acres, located in the center of the project area. Acquisition of the property would allow for the construction of two of the east-west roads and reserve the remainder of the site for housing or other development. It is anticipated that 75 to 115 units (including single family and multiple family) would be constructed.

3) **Grocery Store/Shopping Center.** The proposed project consists of constructing a 76,495-square-foot shopping center, including a 14,546-square-foot building (Building A) with a drive-through feature; 50,174-square-foot grocery store (Building B); 8,400-square-foot building (Building C); and a 3,375-square-foot building (Pad D) with a drive-through feature. The proposed building height is approximately 50 feet. It is anticipated that Building A will be leased to a drug store and Pad D developed as a fast-food restaurant. The proposed project also consists of subdividing the 6.84-acre parcel into three parcels. The .77-acre parcel is not proposed to be further divided.

**18.5 EFFECTS FOUND NOT TO BE SIGNIFICANT**

In the Initial Study prepared by Contra Costa County, several potential environmental effects were determined to be insignificant or could be adequately addressed by County staff during the development review process without further environmental assessment in this Master EIR. The Initial Study determinations are presented in their entirety in Appendix A. The effects determined to be insignificant include:

- change in topography or ground surface relief features;
- destruction, covering or modification of any unique geologic or physical features;
- changes in deposition or erosion of beach sands, or changes in siltation; deposition, or erosion which may modify the channel of a river or stream or the bed of the ocean or any bay, inlet or lake;
- creation of objectionable odors;
- alteration of air movement, moisture, temperature, or any change in climate, either locally or regionally;
• changes in quantity of ground waters, or reduction in water available for public water supplies;
• exposure of people or property to water-related hazards, flooding, or tidal waves;
• changes in diversity or numbers of unique, rare, or endangered plant species;
• changes in diversity of numbers of unique, rare, or endangered animal species;
• increased noise levels, or expose people to severe noise levels;
• increased light and glare;
• increased rate of use of natural resources;
• risk of explosion or release of hazardous substances;
• location, distribution, or growth rate of the area population;
• housing or create a demand for additional housing;
• effects on existing parking facilities or demand new parking;
• alter present circulation patterns of people, goods, or freight transport systems;
• effects on parks and other public facilities; and
• effects on energy, human health, and cultural resources
ABBREVIATIONS

This chapter alphabetically lists the abbreviations and acronyms used throughout the report.

<table>
<thead>
<tr>
<th>A</th>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AATC</td>
<td>Advanced Automated Train Control</td>
<td></td>
</tr>
<tr>
<td>ABAG</td>
<td>Association of Bay Area Governments</td>
<td></td>
</tr>
<tr>
<td>ADA</td>
<td>Americans with Disabilities Act</td>
<td></td>
</tr>
<tr>
<td>ADT</td>
<td>average daily traffic</td>
<td></td>
</tr>
<tr>
<td>AFA</td>
<td>acre-feet annually</td>
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<tr>
<td>af/yr</td>
<td>acre feet per year</td>
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<table>
<thead>
<tr>
<th>B</th>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>BAAQMD</td>
<td>Bay Area Air Quality Management District</td>
<td></td>
</tr>
<tr>
<td>BART</td>
<td>Bay Area Rapid Transit District</td>
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</tr>
<tr>
<td>BMPs</td>
<td>Best Management Practices</td>
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<tr>
<th>C</th>
<th>Abbreviation</th>
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<tbody>
<tr>
<td>CAA</td>
<td>Clean Air Act</td>
<td></td>
</tr>
<tr>
<td>Caltrans</td>
<td>California Department of Transportation</td>
<td></td>
</tr>
<tr>
<td>CAP</td>
<td>Clean Air Plan</td>
<td></td>
</tr>
<tr>
<td>CARB</td>
<td>California Air Resources Board</td>
<td></td>
</tr>
<tr>
<td>CBD</td>
<td>central business district</td>
<td></td>
</tr>
<tr>
<td>CCTA</td>
<td>Contra Costa Transportation Authority</td>
<td></td>
</tr>
<tr>
<td>CCWC</td>
<td>California Cities Water Company</td>
<td></td>
</tr>
<tr>
<td>CCWD</td>
<td>Contra Costa Water District</td>
<td></td>
</tr>
<tr>
<td>CDFG</td>
<td>California Department of Fish and Game</td>
<td></td>
</tr>
<tr>
<td>CEQA</td>
<td>California Environmental Quality Act</td>
<td></td>
</tr>
<tr>
<td>cfs</td>
<td>cubic feet per second</td>
<td></td>
</tr>
<tr>
<td>CFR</td>
<td>Code of Federal Regulations</td>
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</tr>
<tr>
<td>CIP</td>
<td>Capital Improvement Program</td>
<td></td>
</tr>
<tr>
<td>CMA</td>
<td>Congestion Management Agency</td>
<td></td>
</tr>
<tr>
<td>CMP</td>
<td>Congestion Management Program</td>
<td></td>
</tr>
<tr>
<td>CNDDDB</td>
<td>California Natural Diversity Data Base</td>
<td></td>
</tr>
<tr>
<td>CO</td>
<td>carbon monoxide</td>
<td></td>
</tr>
<tr>
<td>CoIWMP</td>
<td>Countywide Integrated Waste Management Plan</td>
<td></td>
</tr>
<tr>
<td>CPTED</td>
<td>Crime Prevention Through Environmental Design</td>
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## Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
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<tbody>
<tr>
<td>CPUC</td>
<td>California Public Utilities Commission</td>
</tr>
<tr>
<td>CSAs</td>
<td>community services assistants</td>
</tr>
<tr>
<td>CTC</td>
<td>California Transportation Commission</td>
</tr>
<tr>
<td>CVP</td>
<td>Central Valley Project</td>
</tr>
<tr>
<td>CWA</td>
<td>Clean Water Act</td>
</tr>
<tr>
<td>dBA</td>
<td>A-weighted decibels</td>
</tr>
<tr>
<td>DDSD</td>
<td>Delta Diablo Sanitation District</td>
</tr>
<tr>
<td>DEIR</td>
<td>Draft Environmental Impact Report</td>
</tr>
<tr>
<td>DHS</td>
<td>Department of Health Services, State of California</td>
</tr>
<tr>
<td>DOF</td>
<td>Department of Finance, State of California</td>
</tr>
<tr>
<td>du</td>
<td>dwelling unit(s)</td>
</tr>
<tr>
<td>DU/Ac</td>
<td>dwelling units per acre</td>
</tr>
<tr>
<td>DWD</td>
<td>Diablo Water District</td>
</tr>
<tr>
<td>EB</td>
<td>eastbound</td>
</tr>
<tr>
<td>EBMUD</td>
<td>East Bay Municipal Utilities District</td>
</tr>
<tr>
<td>EBRPD</td>
<td>East Bay Regional Park District</td>
</tr>
<tr>
<td>ECCID</td>
<td>East Contra Costa Irrigation District</td>
</tr>
<tr>
<td>EIR/EIS</td>
<td>Environmental Impact Report/Statement</td>
</tr>
<tr>
<td>EPA</td>
<td>U.S. Environmental Protection Agency</td>
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<tr>
<td>FAR</td>
<td>floor area ratio</td>
</tr>
<tr>
<td>FEMA</td>
<td>Federal Emergency Management Agency</td>
</tr>
<tr>
<td>“FIRE”</td>
<td>finance, insurance, and real estate</td>
</tr>
<tr>
<td>gpd</td>
<td>gallons per day</td>
</tr>
<tr>
<td>gsf</td>
<td>gross square feet</td>
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<tr>
<td>HCM</td>
<td><em>Highway Capacity Manual</em></td>
</tr>
<tr>
<td>HCP</td>
<td>Habitat Conservation Plan</td>
</tr>
<tr>
<td>HOV</td>
<td>high occupancy vehicle</td>
</tr>
<tr>
<td>ISO</td>
<td>Insurance Service Office</td>
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*Page 19-2 Pittsburg/Bay Point BART Station Area Specific Plan DEIR*
### Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>K</td>
<td>level of service</td>
</tr>
<tr>
<td>L</td>
<td>maximum credible earthquake</td>
</tr>
<tr>
<td>MDUSD</td>
<td>Mount Diablo Unified School District</td>
</tr>
<tr>
<td>MEI</td>
<td>maximally-exposed individual</td>
</tr>
<tr>
<td>mg</td>
<td>million gallons</td>
</tr>
<tr>
<td>mgd</td>
<td>million gallons per day</td>
</tr>
<tr>
<td>mg/l</td>
<td>milligrams per liter</td>
</tr>
<tr>
<td>mph</td>
<td>miles per hour</td>
</tr>
<tr>
<td>MTC</td>
<td>Metropolitan Transportation Commission</td>
</tr>
<tr>
<td>NO₂</td>
<td>nitrogen dioxide</td>
</tr>
<tr>
<td>NO₃</td>
<td>nitrogen</td>
</tr>
<tr>
<td>NPDES</td>
<td>National Pollutant Discharge Elimination System</td>
</tr>
<tr>
<td>O</td>
<td>ozone</td>
</tr>
<tr>
<td>PM₁₀</td>
<td>particulate matter (10 microns)</td>
</tr>
<tr>
<td>ppm</td>
<td>parts per million</td>
</tr>
<tr>
<td>PUSD</td>
<td>Pittsburg Unified School District</td>
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<tr>
<td>ROG</td>
<td>reactive organic gases</td>
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<tr>
<td>RTC</td>
<td>Regional Transit Connection</td>
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<tr>
<td>RWQCB</td>
<td>Regional Water Quality Control Board</td>
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### Chapter 19: Abbreviations

<table>
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<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>sf/sqft</td>
<td>square feet</td>
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<tr>
<td>SO$_2$</td>
<td>sulfur dioxide</td>
</tr>
<tr>
<td>SOI</td>
<td>Sphere of Influence</td>
</tr>
<tr>
<td>SRRE</td>
<td>Source Reduction and Recycling Element</td>
</tr>
<tr>
<td>SWPPP</td>
<td>Stormwater Pollution Prevention Plan</td>
</tr>
<tr>
<td>SWRCB</td>
<td>State Water Resources Control Board</td>
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<tr>
<td><strong>T</strong></td>
<td></td>
</tr>
<tr>
<td>TACs</td>
<td>toxic air contaminants</td>
</tr>
<tr>
<td>TBACT</td>
<td>Toxic Best Available Control Technology</td>
</tr>
<tr>
<td>TCMs</td>
<td>transportation control measures</td>
</tr>
<tr>
<td>TDM</td>
<td>Transportation Demand Management</td>
</tr>
<tr>
<td>TOD</td>
<td>transportation-oriented development</td>
</tr>
<tr>
<td>TSM</td>
<td>Transportation System Management</td>
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<tr>
<td>TSO</td>
<td>Traffic Service Objective</td>
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<tr>
<td>TRB</td>
<td>Transportation Research Board</td>
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<tr>
<td><strong>U</strong></td>
<td></td>
</tr>
<tr>
<td>UBC</td>
<td>Uniform Building Code</td>
</tr>
<tr>
<td>UCBC</td>
<td>Uniform Code for Building Conservation</td>
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<tr>
<td>ULL</td>
<td>Urban Limit Line</td>
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<tr>
<td>USGS</td>
<td>U.S. Geological Survey</td>
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<tr>
<td><strong>V</strong></td>
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<tr>
<td>V/C</td>
<td>volume-to-capacity</td>
</tr>
<tr>
<td>VCCC</td>
<td>volume-to-capacity Contra Costa</td>
</tr>
<tr>
<td>VMT</td>
<td>vehicle miles traveled</td>
</tr>
<tr>
<td><strong>W</strong></td>
<td></td>
</tr>
<tr>
<td>WB</td>
<td>westbound</td>
</tr>
<tr>
<td><strong>X, Y, Z</strong></td>
<td>♦ ♦ ♦</td>
</tr>
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</table>