

CIRCULATION

A. INTRODUCTION

The circulation element of the Pittsburg/Bay Point BART Station Area 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. In addition, the following agencies were contacted during the process for their inputs: Tri-Delta Transit, Caltrans, Contra Costa Transportation Authority (CCTA), and the East Bay Regional Parks District. The circulation element recognizes the opportunity represented by the recent opening of the Pittsburg/Bay Point BART Station.

The Pittsburg/Bay Point BART Station will be the eastern terminus of BART's popular "C-Line" until the line is extended further eastward. The next phase of the BART extension (based on the 20 year, *1998 Regional Transportation Plan*) will be to a new station at Railroad Avenue in Pittsburg. It is not likely that this extension will occur within the next ten years. The terminus station would tend to attract a lot 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 a significant increase in local and regional transit accessibility. The circulation element includes plans and policies related to streets and roadways, transit, parking, pedestrian circulation, and bicycling. Figure 11 shows the major street and highways in the Specific Plan Area.

The Pittsburg/Bay Point BART Station area shares a common transportation planning problem that is typical of most areas that become important transportation nodes, namely that much of the traffic and other travel activity generated by the BART Station comes from outside the area. In addition, Bailey Road provides an important inter-

change with State Highway 4. Much of the traffic using this interchange comes from areas beyond the limits of the Specific Plan Area. Similarly Willow Pass Road provides a local alternative to State Highway 4 and it is used extensively by non-Specific Plan Area traffic. West Leland Road, when it is extended as planned west to Willow Pass Road, will serve a similar function. All three of these routes have been classified as "routes of regional significance" by the CCTA, recognizing the regional function that these roadways serve. The future growth forecast for the portion of the County which uses the BART station and these roadways is greater by several orders of magnitude than the growth

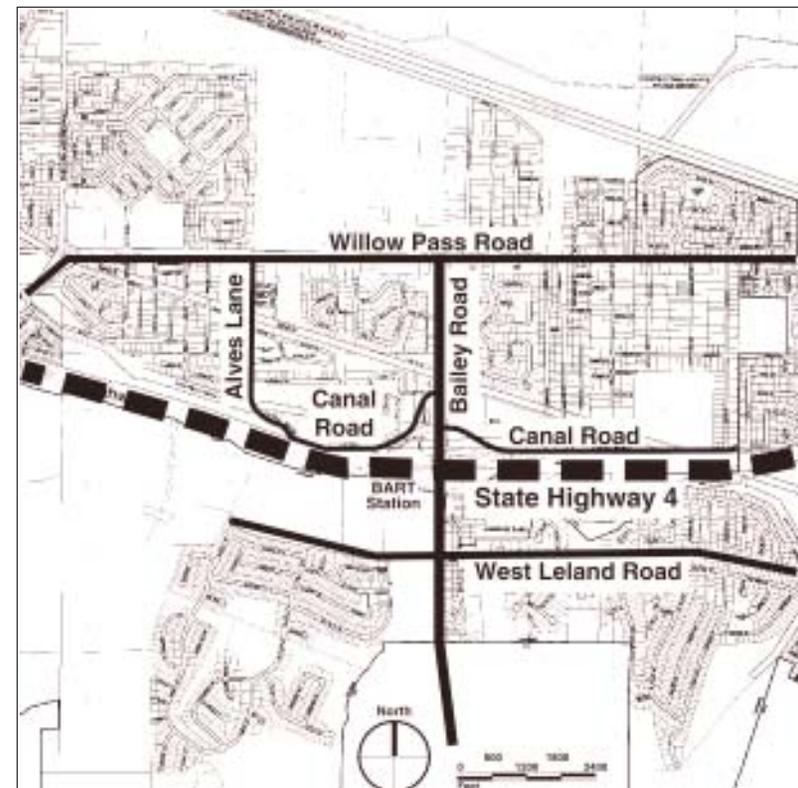


Figure 11 Major Streets and Highways

planned within the Specific Plan Area. As a result of these factors, the future demands for the use of transportation facilities within the Specific Plan Area will be largely determined by growth influences which are outside of the area.

The Circulation Element for the Pittsburg/Bay Point BART Station Area Specific Plan recognizes the potential conflicts and trade-offs between the influences of regional growth and local transportation needs (e.g., a street widening needed to accommodate regional growth may result in a reduced level of utility for pedestrians while the failure to provide enough street capacity may result in congestion that affects both regional and local traffic). The overall planning goals of this Specific Plan emphasize a priority for the local needs for traffic circulation, transit access, and pedestrian/bicycle circulation while maintaining an appropriate balance between local and regional circulation needs.

B. CIRCULATION GOALS AND OBJECTIVES

Goal 1: Maximize the public transit potential of the BART Station

Objectives:

- 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.
- 1.2 Coordinate BART and Tri-Delta Transit activities to increase transit service to the station, especially from East County.

- 1.3 Improve the transportation infrastructure in ways which would support the transit village and transit-oriented land use development goals.
- 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.

Objectives:

- 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.
- 2.5 Promote multifamily residential development within walking distance of the BART Station.
- 2.6 Promote transit-oriented employment opportunities within walking distance of the BART Station.

Goal 3: Balance Regional and Local Circulation Needs.

Objectives:

- 3.1 Maintain a reasonable level of traffic service to the area without removing opportunities for

enhancing the pedestrian, bicycle and pedestrian network.

C. CIRCULATION POLICIES

Circulation requirements within the Specific Plan area include regional access to the BART Station as well as internal vehicular, pedestrian and bicycle to the BART Station and other areas within the broader Pittsburg/Bay Point neighborhood.

The following transportation policies are intended to provide adequate regional access while also fostering conditions which encourage a greater use of the area's transit resources and non-automotive travel:

ROADWAYS

Policy C-1: Within the Specific Plan area, the widening of Bailey Road, Willow Pass Road, and West Leland Road beyond currently planned widths would be discouraged in order to enhance pedestrian/bicycle accessibility.

The portions of Bailey Road, Willow Pass Road, and West Leland Road within the Specific Plan area should be designated as a transit/pedestrian priority zone, with special emphasis given to improvements which facilitate pedestrian and bicycle use, including access to buses and BART transit facilities. The objective would be to maintain currently planned levels of traffic capacity on these roadways, but to focus all future improvements on en-

hancing circulation and safety for pedestrians and bicyclists, and on improving transit stop locations.

Each of these three routes is designated as a "Route of Regional Significance" under both the East County Action Plan and the Contra Costa Countywide Comprehensive Transportation Plan (July 1995). This designation reflects the fact that these routes, while serving an important local function, experience heavy use by regional traffic and have been developed with capacity to carry high volumes of traffic. This is traffic traveling to and from Highway 4, or using Willow Pass or Leland Road as an alternative to Highway 4. A roadway designated as a "Route of Regional Significance" is not subject to the same level-of-service standard as one which primarily serves local traffic. Instead, the East County Action Plan has established a Traffic Service Objective (TSO) for Bailey Road and West Leland Road under a suburban arterial level service standard for intersections at mid LOS D, or a volume to capacity ratio of .85. Additionally, the TSOs for these "Routes of Significance" allow for an alternative TSO measurement based on a travel delay index of less than 2.0. A delay index is defined as the ratio of the peak hour travel time divided by the free flow travel time. If the TSOs on these routes cannot be maintained in accommodating the growth in traffic generated from potential development in the Specific Plan Area, the East County Action Plan/Countywide Comprehensive Transportation Plan will need

to be amended in order to reflect the special status of these roadways as part of a pedestrian priority zone within the Pittsburg/Bay Point BART Station Specific Plan Area.

- Policy C-2** **Future street improvements in the Specific Plan area should emphasize the provision of adequate pedestrian, bicycle and transit facilities and strive to correct existing deficiencies in these facilities.**

Pedestrian/bicycle activity is already high in the area, and will grow as the Station area develops.

BART

- Policy C-3:** **The Pittsburg/Bay Point BART Station should be developed as a full intermodal transportation facility, enabling transfers and interfaces among all travel modes.**

The existing BART Station includes an intermodal bus transit facility which should be reinforced as a transit focus, providing access to and from the community as well as a secure and comfortable location to wait for a bus or to transfer between buses. Services that currently exist at the station area include walkways to the station entrance, bicycle lockers, drop-off areas for various modes of travel, facilities and equipment for modal transfers, and information on local transit service.

The existing surface parking area is currently a barrier to pedestrians attempting to access the station. Also, the

transit center is now strictly a facility for buses to load and unload and offers transit users few amenities. The long term strategy for the BART station should be to replace the surface parking with structured parking using less land area. The land now devoted to surface parking should be developed with land uses that support and complement the use of BART and transit. The area around the transit center would become a community focal point. Users of the center would have access to information about the available transit services, as well as information about the surrounding community. Small commercial uses would offer snacks, reading materials, flowers, and other conveniences to transit users. Pedestrian and bicycle circulation paths to and from the station will assist in encouraging transit usage. Secure storage for bicycles and information about local bike routes, paths, and trails should be provided. The intermodal center should include loading areas for public and private shuttle services, vanpools/carpools, taxis and other local transportation services.

- Policy C-4** **Long distance transit connections to the East County to and from BART should be improved.**

This policy would serve to increase the use of BART without increasing the traffic flows to and from the BART station. It would also reduce traffic on Highway 4. The Pittsburg/Bay Point station will be the eastern terminus of BART in the Highway 4 corridor for some time.

Tri-Delta Transit currently offers express bus service to the station from the East County, but these buses also serve other local service functions, which results in speeds that are less than express. Most commuters find the existing services to be too slow to be attractive. BART's park-and-ride sites in the East County, which are served by these buses, are lightly used. Because existing park-and-ride lots are lightly used, BART has recently adopted a policy to allow non-BART van and carpools to use these lots. A more direct, true express service is needed to attract significant ridership and reduce traffic on Highway 4 and at the Highway 4/Bailey Road interchange.

Policy C-5

The "Pathfinder" signing and information system proposed by BART should be implemented for the Pittsburg/Bay Point Station. BART has funding to develop a system of signs at and around the Pittsburg/Bay Point Station to increase the visibility of the Station and to direct BART riders to community activity centers. The East Bay Regional Park District and Tri-Delta Transit also participate in the Pathfinder Implementation Program. This program should be implemented in coordination with Contra Costa County and City of Pittsburg staff.

Policy C-6

BART should continue to pursue a line extension east of the Pittsburg/Bay Point Station.

Contra Costa County and the City of Pittsburg will participate in promoting the eastward expansion of the

BART line as a local planning priority. An eastward extension would reduce traffic and parking impacts within the Specific Plan area.

The Major Investment Study being prepared by CCTA for State Route 4, east of Railroad Avenue to Highway 160, will lay out a transportation investment strategy for the entire corridor for the next 30 years, and would be considered in the environmental review process of Specific Plan projects.

TRANSIT

Policy C-7

Local transit services to and from the BART station and within the Pittsburg/Bay Point community should be improved.

Tri-Delta Transit recently reorganized its service in the Specific Plan Area to serve the new BART Station. Now that the service has been in place, it should be evaluated to see if any enhancements could be made.

Policy C-8

Transit centers or nodes should be developed in both the north and south portions of the Specific Plan area.

In addition to the southern transit node at the BART station, a northern node should be established near the intersection of Bailey Road and Willow Pass Road. North of Highway 4, improvements to both Willow Pass and Bailey Road should explore an improved identity for transit. Currently the transit stops for Tri-Delta Transit are located well away from the intersection of

Willow Pass and Bailey Roads. This helps avoid conflicts with traffic and facilitates left-turns by the buses, but minimizes the importance of transit in the area. A strategy should be developed to move these stops closer to the intersection, and to physically improve the stops in terms of their identity as transit stops and their amenities for transit users.

Policy C-9 The opportunity for an interface with the proposed East County commuter rail service should be explored.

The concept of an East County commuter rail service is now being studied by the CCTA as part of the Highway 4 widening related studies. The potential would exist for a station on the Union Pacific tracks about one mile north of the Specific Plan Area. Access to this station and the linkage between the commuter rail and BART would be important aspects of the new service.

BICYCLE

Policy C-10 The utility of the Delta De Anza Recreational Trail should be enhanced.

The Delta De Anza Trail must use Bailey Road to transition from the north to the south side of Highway 4. Efforts should be made to enhance this important linkage as well as to improve access to the trail throughout the study area. The Delta De Anza Trail should maintain its separated, Class I status wherever possible.

PEDESTRIAN

Policy C-11 Pedestrian linkages to and from the BART Station and within the Pittsburg/Bay Point community should be improved.

The existing pedestrian network is discontinuous in many portions of the Specific Plan Area and the linkage between portions of the area is poor. Local development patterns have impeded pedestrian mobility and bus travel. The Specific Plan policies and improvements are designed to improve this situation.

Highway 4 is a major barrier to pedestrian movement between the north and south portions of the Specific Plan area. In addition, development patterns in the area, particularly north of Highway 4, have resulted in a discontinuous street pattern and a lack of convenient connections and paths for pedestrians. A strategy to improve pedestrian and bicycle circulation should be developed.

While a new connection across Highway 4 would be costly and difficult to develop due to the physical constraints of the area, opportunities exist to improve pedestrian circulation on a smaller scale. For example, as the area north of Highway 4 redevelops, pedestrian linkages to Bailey Road, Willow Pass Road, the Delta De Anza Trail and other continuous streets should be developed. Opportunities for enhancing pedestrian linkages to these facilities from developed areas not undergoing redevelopment should also be implemented. The “pathfinder” signing system planned by BART is also an im-

portant pedestrian amenity. Transit users are often disoriented when they exit a BART station. The path-finder system would direct them to and from nearby destinations, such as shopping, schools, and the Delta De Anza Trail. The signs increase the visibility of these destinations and emphasize their relationship to the BART Station.

OTHER

Policy C-12 **Maximum parking requirements for commercial and residential development to encourage the use of BART should be established.**

Transit-oriented development uses and opportunities for shared parking make consideration of maximum parking standards appropriate. In setting these requirements, care would be taken not to impact the marketability of the planned developments. Shared and joint use parking should also be encouraged to reduce the amount of land area devoted to parking.

Policy C-13 **The use of transit/pedestrian-oriented design principles in new development projects should be encouraged.**

These principles include placing buildings close to the street and parking to the rear in order to encourage pedestrian flow, and providing clear paths for pedestrians to transit stops and the BART Station.

Policy C-14 **The developer of any nonresidential use should be required to deal with traffic impacts by implementing a Transportation System Management (TSM) program to reduce single-occupant auto use among employees.**

The purpose of the policy is to attract businesses to locate near transit. Such businesses would be expected to cooperatively develop transportation demand management with the City to minimize single occupant vehicle use. Businesses located away from rail transit would be required to comply with TSM ordinances.

D. CIRCULATION PLAN

EXISTING AND FUTURE CONDITIONS

The land uses proposed in the Specific Plan for each zone or portion of the study area were evaluated in terms of the relative amounts of traffic, transit, pedestrian, and bicycle activity they would generate. These traffic generation numbers were developed by applying standard trip generation factors to each land use type proposed in each of the four development zones. Two adjustments were made to the trip generation rates to reflect the characteristics of the Pittsburg/Bay Point study area as follows:

Transit trip reduction - For those land uses within walking distance of the BART station, the total trip rate was reduced to reflect the level of transit use which has occurred at other BART stations such as

Pleasant Hill and El Cerrito del Norte. These are stations where high and medium density residential, office, and other commercial development has occurred. A 40 percent reduction was applied to residential uses and a 10 percent reduction to retail and other commercial uses.

Passerby trip reduction - Retail uses on major travel routes attract “passerby trips”. These are trips being made for another purpose, returning home from work, for example, that also involve a stop at the retail attraction. A 25 percent reduction was applied to retail uses and 10 percent to other commercial uses.

The combined land uses included in the Specific Plan would generate at build-out, about 16,500 daily vehicle trips compared to about 10,000 additional trips which would result from development based on recent development intensity trends in the area. This is consistent with the increased residential densities allowed by the Specific Plan in

order to capitalize upon the area’s transit resources and support the objectives of increase transit use and pedestrian/bicycle activity.

Table 2 presents the results of the traffic analysis of the Specific Plan land uses. The first set of columns show the existing traffic conditions during the AM and PM peak traffic hours at six study intersections on Bailey Road.

Today the primary problem in the area is congestion on the eastbound off-ramp from Highway 4 onto southbound Bailey Road during the afternoon commute peak hour. Also some congestion occurs during the morning and the afternoon peak hours at the Bailey Road/ Canal Road intersection. Superimposing the traffic generated by the Specific Plan land uses on the existing volumes of traffic would result in some increased congestion at this problem area, which would each decline from a level of service “D” to an “E.”

TABLE 2 COMPARISON OF EXISTING AND FUTURE TRAFFIC CONDITIONS

Intersection	Peak Hour Volume/Capacity - Level of Service							
	Existing ⁽¹⁾		Existing plus Specific Plan		Year 2010 ⁽⁴⁾		Year 2010 plus Specific Plan	
	AM peak	PM peak	AM peak	PM peak	AM peak	PM peak	AM peak	PM peak
Bailey Road @ Willow Pass Road	0.64/B	0.69/B	0.73/C	0.75/C	0.23/A	0.52/A	0.27/A	0.54/A
Bailey Road @ Canal Road	N/A/D	N/A/D	0.91/E	0.90/E	N/A	N/A	N/A	N/A
Bailey Road @ Highway 4 Westbound Ramps	0.74/C	0.59/A	0.81/D	0.66/B	0.93/E	0.55/A	0.97/E	0.58/A
Bailey Road @ Highway 4 Eastbound Ramps	0.50/A	0.84/D	0.57/A	0.91/E	0.44/A	1.05/F	0.48/A	1.08/F
Bailey Road @ Maynard Street	N/A/C	N/A/C	0.83/D	0.83/D	N/A	N/A	N/A	N/A
Bailey Road @ West Leland Road	0.76/C	0.57/A	0.85/D	0.66/B	0.80/C	0.70/B	0.85/C	0.74/C

Notes:

- NA: Information not Available
- (1)Source: (see notes (2) & (3) below) - conditions are prior to Bailey Road Interchange Improvements
- (2) Source: Draft EIR - State Route 4 / Bailey Road Interchange Improvement Project, June 1991
- (3) Source: SEIR for the San Marco Subdivision - June 1992 - V/C Calculations by WSA with full buildout
- (4) Source: Eastern Contra Costa County Travel Demand Model Final Report - Volume III Intersection Analysis, November 1994

Table 2 also shows forecast conditions for the year 2010. These conditions reflect buildout of the area under the current General Plans for the County and the City of Pittsburg. They also reflect currently planned traffic improvements as shown on Figure 12. The most important of these is the westward extension of West Leland Road. The forecasts indicate that traffic conditions will be acceptable in the future except for potential congestion at the Highway 4 on-and off ramps at Bailey Road. The eastbound off-ramp currently is congested and this condition can be expected to worsen over time. Although the Bailey

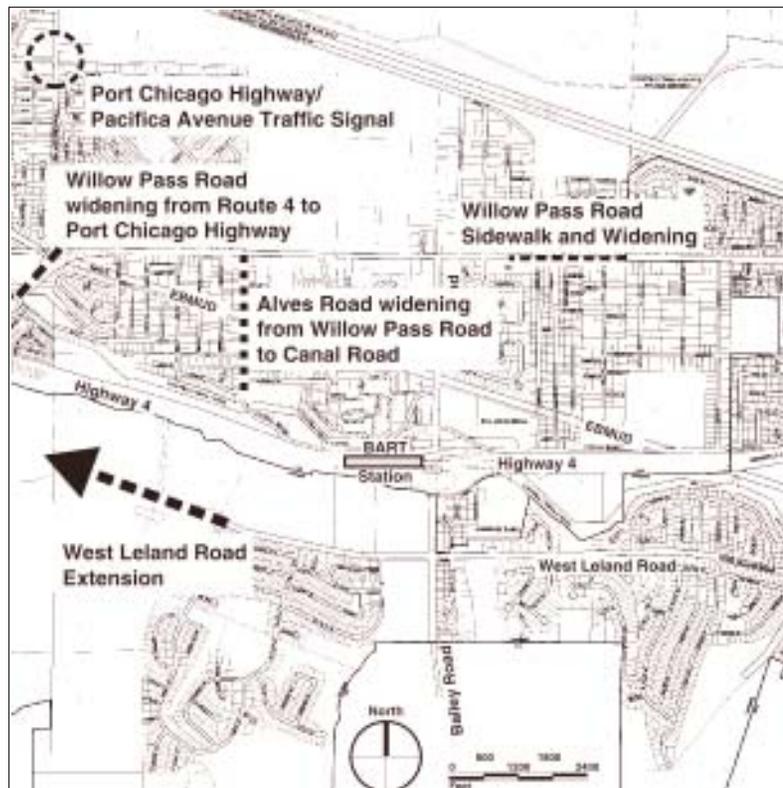


Figure 12 Planned Traffic Improvements

Road/Canal Road intersection was not included in the forecasts, congestion at this location is likely. The forecasts indicate that the eventual western extension of West Leland Road to link with the Central Bay Point (Willow Pass Road) interchange to the west will somewhat relieve this problem, but is not forecast to completely eliminate congestion on Bailey Road.

The addition of the Specific Plan related traffic to that associated with year 2010 conditions would result in further increases in congestion at the eastbound off-ramp from Highway 4 and at the Canal Road intersection. However, it is important to consider the impacts of Specific Plan related traffic in the context of the overall regional growth of the East County, and in particular the nearby areas of the City of Pittsburg. For example, at the intersection of the Highway 4 eastbound off-ramp and Bailey Road southbound, traffic growth between now and the year 2010 due to general development in the area would account for 88 percent of the total traffic growth at the intersection while Specific Plan related growth would account for the other 12 percent. Thus much of the traffic growth in the Specific Plan area will be due to development activity outside of the area.

The following options to mitigate the impacts of the future traffic growth at the intersections with Level of Service D, E, or F, were studied during the course of Specific Plan preparation:

1. Further widening of Bailey Road, West Leland Road, and Canal Road.
2. Further improvements to the Highway 4/Bailey Road interchange.
3. Development of an alternative route to Bailey Road (i.e., a new crossing of Highway 4).

None of the alternatives were determined to be appropriate or cost effective. Further widening of Bailey Road would be very difficult and would conflict with the goals of the plan to develop transit and pedestrian friendly street infrastructure. Further improvements to the Highway 4 interchange in this area would also be very difficult since the interchange has been recently reconstructed, and its design is very much integrated with the BART station. A new crossing of Highway 4 would provide local traffic, pedestrians and bicycles with an alternative route across the freeway, but it would not significantly mitigate the region related traffic congestion that is forecast on Bailey Road, and would not be cost effective given its limited congestion relief at an estimated cost of \$4.5 to \$8.0 million. However, since the most critical problem is the eastbound off-ramp to southbound Bailey Road, consideration will be given to the reconfiguration of Bailey Road between State Highway 4 and West Leland Road with the development of the east side of Bailey Road in this area to add one traffic lane to ease traffic flows from Highway 4.

In addition, an emphasis will be placed on region-wide traffic reduction measures and on optimizing the transit orientation of the area around the Pittsburg/Bay Point BART Station. There has been considerable recent research on the impact of increased densities on transit use and on auto use. Figure 13 shows the documented relationship between auto vehicle miles of travel and the density of housing for California communities. Current housing densities in the Pittsburg/Bay Point area are roughly 10 to 20 units per acre. The chart shows that efforts to increase the densities to 40 to 60 units per acre could reduce vehicle miles of travel by a third. This would result in a substantial increase in transit, pedestrian, and bicycle use.

ROADWAYS

The overall objective of the roadway improvements is to maintain current levels of traffic capacity while improving pedestrian/bicycle access and safety. Figure 14 shows the existing and proposed cross-section for the major roadways in the study area.

Bailey Road - 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 very narrow for the amount of pedestrian activity in the area. Bike lanes are provided between Willow Pass and Canal Road. Between Canal Road and Willow Pass Road an opportunity exists to modify the cross-section to increase the width of the sidewalk areas. As shown in Figure 14 this would be done 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. The result is that the sidewalk area could be increased to 12

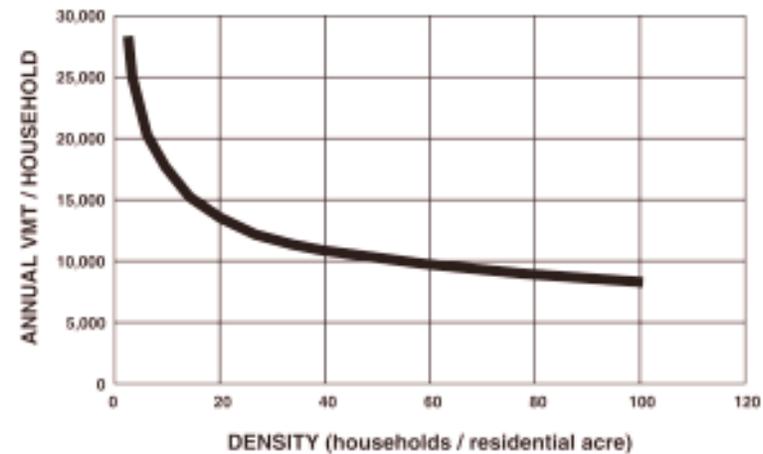


Figure 13 Relationship of Residential Density to Automobile Use
Source: *Using Residential Patterns to Decrease Auto Dependence*, John Holtzclaw, 1994

feet, allowing for a sidewalk and some landscaping. Recommended landscaping as outlined in the Urban Design Section of this Specific Plan would fully 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 would not be possible.

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 a 100 foot right-of-way which allows four lanes plus a left-turn lane, parking on the south side and bike lanes. Ten foot wide sidewalks are also provided. 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. Since the area, on the south side of Willow Pass Road, is designated to become a Neighborhood Commercial District there will be increased pedestrian traffic in the area, and it is desirable to moderate vehicular speeds in order to encourage pedestrian use and provide improved safety. Figure 14 shows the existing cross-section and the proposed future cross-section. The future cross-section would maintain the four traffic lanes, and would maintain the existing 11 feet wide lane widths with a 12 foot wide raised median area between Bailey road and Clearland Drive, which would 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. While the provision of six foot wide bike lanes to provide continuity with the lanes that are east and west of this location and with the lanes on Bailey Road would be desirable, it would require that the right-of-way be increased by four feet to a total

of 88 feet. The alternative to this widening would be to forego the bike lanes and provide 15 foot wide curb traffic lanes, which would provide a three foot area along the curb for bicyclists. No on-street parking would be provide in either case.

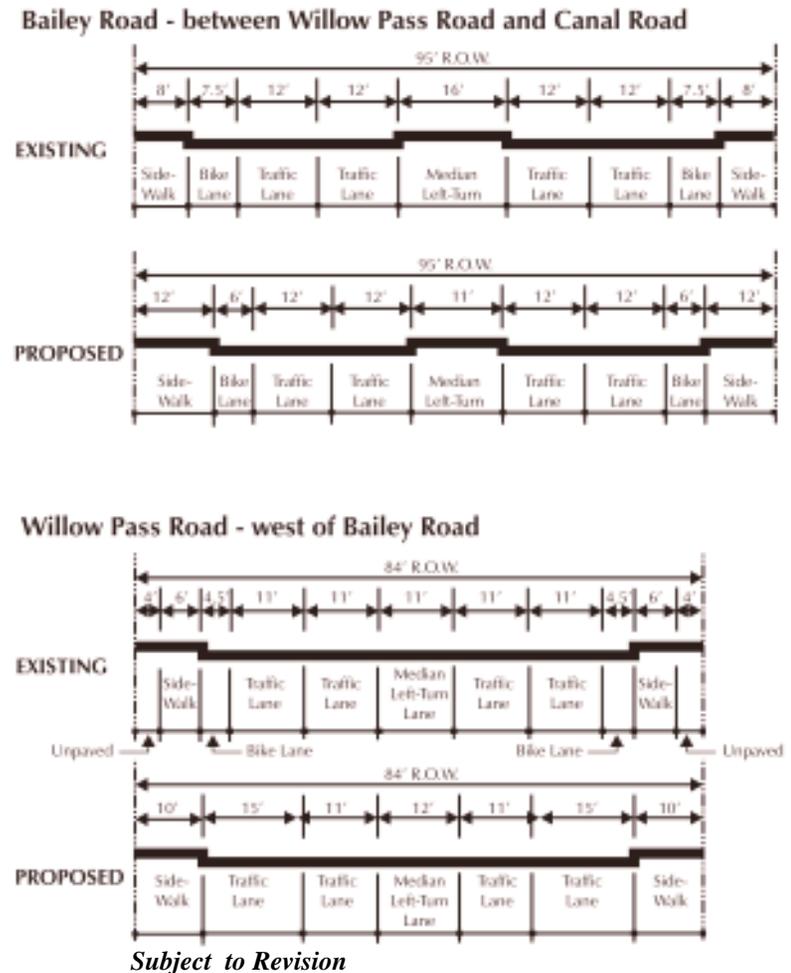


Figure 14 Existing and Proposed Major Roadway Cross Sections

West Leland Road - 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. Bike lanes can be provided in mid-block areas but would be displaced wherever a left-turn lane was provided. However, the Linear Open Space described in the Urban Design Section makes provisions for shared pedestrian and bicycle paths between the BART Station and areas to the west of the Specific Plan area. No modification of this cross-section is proposed in the Specific Plan.

Figure 15 provides a summary of the roadway improvements proposed in the Specific Plan. It also shows year 2010 levels-of-service with and without the Specific Plan land uses.

BART

The Pittsburg/Bay Point BART Station will be a major regional transit node for as long as it remains the terminus station on the Concord Line. Even after a further eastward extension occurs, the station is likely to remain as an important transit hub due to its strategic location immediately east of Willow Pass Road, particularly for Tri-Delta transit services. The BART station design includes an intermodal terminal area for bus loading and unloading. This is an area where people will transfer from buses to and from BART, but also to other buses. In addition, transit riders will use this area to access the nearby commercial and residential land uses. The opportunity exists to transform this transit transfer area into a transit center integrated with the surrounding land uses, eliminating the “island” effect that the current BART station design creates.

TRANSIT

With the opening of the BART Station, Tri-Delta Transit reorganized its route structure to bring all its local services into the transit center at the station. The existing routes are shown on Figure 16. These routes consist of three routes providing local service within the specific plan area and the immediate surrounding areas, - Routes 380, 388 and 389. In addition Tri-Delta has recently taken over the operation of the East

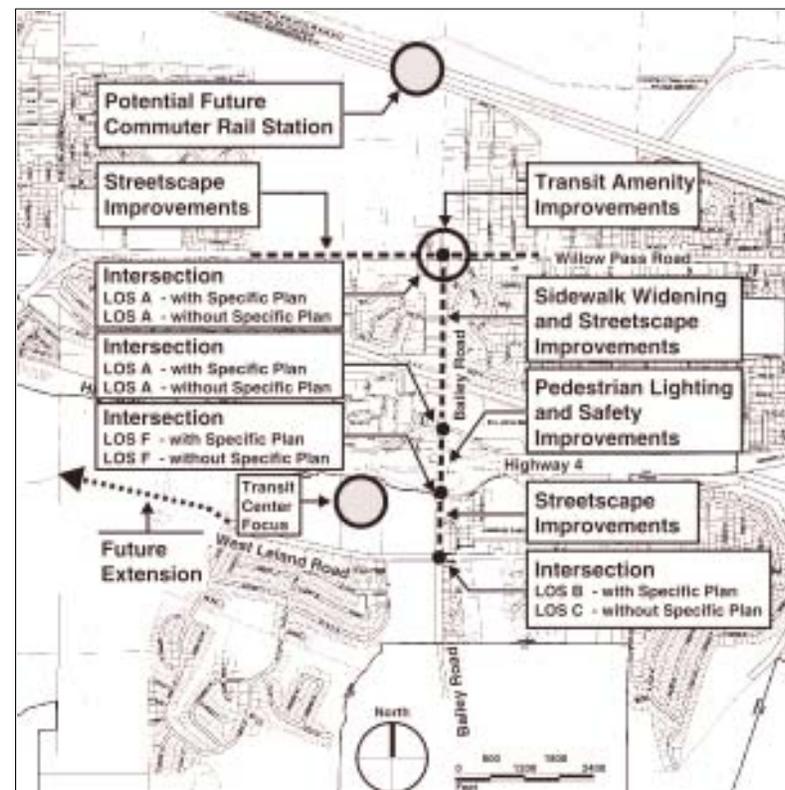


Figure 15 Roadway Improvements and Year 2010 Levels of Service Summary

County BART Express Bus service which is now provided by Route 390. Now that these routes have been in operation for some time, it would be appropriate to reassess the operation of these routes. Funds for transit services are extremely limited at this time, and the potential for new services beyond those that are currently provided is limited.

The area at the intersection of Willow Pass Road and Bailey Road is proposed to be developed as a locally oriented retail center. As such, it will become an important transit destination. The existing Tri-Delta transit stops in this area need to be enhanced by adding improved user

amenities and moving them closer to the intersection. The concept would be to create a special identity for transit at this area, which will be the center of the Bay Point community.

PEDESTRIAN/BICYCLE

The Highway 4/Bailey Road Interchange area creates a difficult environment for pedestrians and bicycles attempting to cross from one side of the freeway to the other. Despite this, a relatively large number of pedestrians and bicyclists were observed making this trip. While a pedestrian underpass of the westbound on-ramp and off-ramp from the west side of Bailey Road was provided to improve pedestrian safety, it is not used. Most pedestrians cross the ramps, dodging the traffic, rather than risk using the uninviting tunnel which is felt by many to be unsafe. Barriers have been erected to prevent a number of pedestrian movements at this intersection. In addition, the crossing under the Highway 4 bridge on either side of Bailey Road places pedestrians very close to fast moving traffic. An effort should be made to enhance as much as practical the environment of this area for pedestrians by slowing traffic down approaching the intersection and enhancing pedestrian crossings. A pedestrian safety study should be conducted of this area to examine the feasibility of closing the pedestrian tunnel and improving at-grade crossing of the ramp. The operation of the traffic signal at the intersection of the westbound Highway 4 ramps and Bailey Road should be evaluated to determine if pedestrian crossings could be allowed at one or more of the locations where they are currently prohibited. The area under the freeway should also be studied to determine if there is any way to widen existing sidewalks. Also a railing or other barrier (e.g., bollards) along the outer edge of the sidewalks would help to separate pedestrians from the vehicles. The curb traffic lane

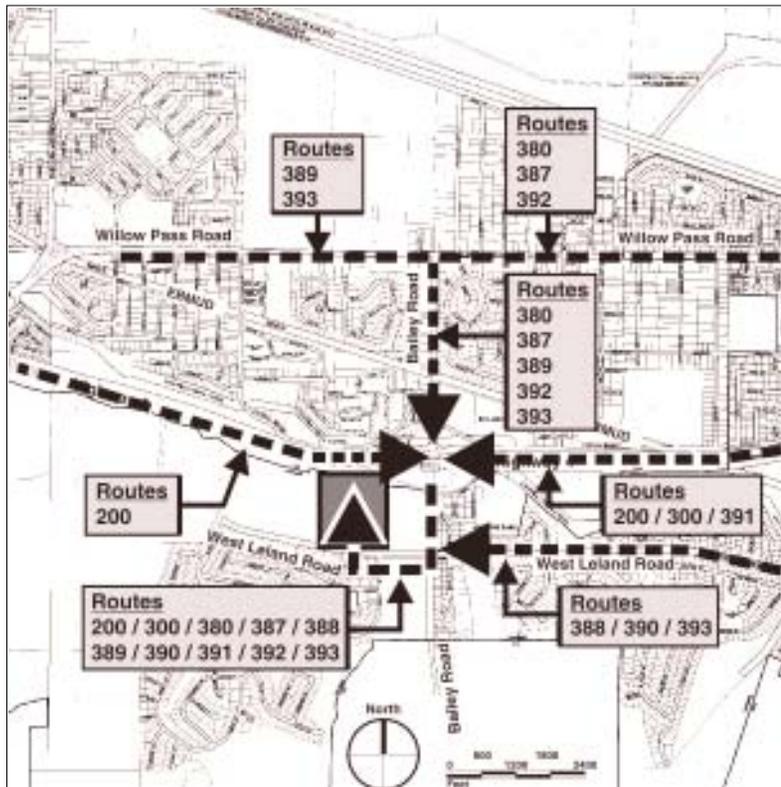


Figure 16 Existing Transit Routes

puts cars at relatively high speeds very close to these sidewalks. Lighting condition, the general appearance of these sidewalk areas, and the potential for improving the appearance of the undercrossing with murals or other art works should also be examined. Pedestrian and bicycle routes in the Specific Plan Area are shown on Figure 17.

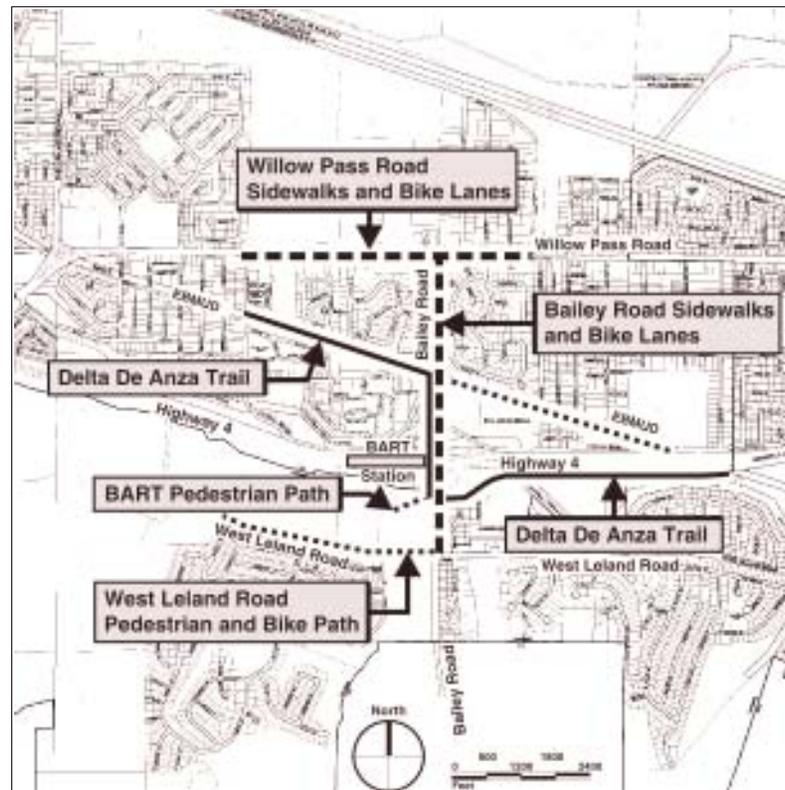


Figure 17 Pedestrian and Bicycle Routes