4.11 TRANSPORTATION AND TRAFFIC

This section describes the regulatory framework and existing conditions in the Project area related to transportation and parking, and the potential impacts of the Project on transportation and parking.

The following transportation topics are addressed and discussed:
- Intersection operations;
- Route of Regional Significance operations;
- Transit operations;
- Freeway segment operations;
- Significant Impact identification;
- Mitigations;
- Auto site access and circulation;
- Pedestrian circulation;
- Bicycle circulation;
- Parking conditions; and,
- Construction phasing.

The following scenarios are evaluated for the intersection, Route of Regional Significance, transit, and freeway section analyses throughout this section:

**Existing Conditions**
- Existing – Conditions as they existed at the time the data in question was collected;
- Baseline – Existing Conditions with the addition of any projects that will be constructed between the time that Existing data collected, and August 2012, the earliest point at which the Walnut Creek BART Transit Village Project may be approved; and
- Baseline plus the proposed Walnut Creek Transit Village Project – Existing Conditions, with the addition of approved projects, plus the full implementation of the Walnut Creek BART Transit Village Project.
Future (2030) Conditions

- Future Baseline – Future conditions including projected population and employment growth, as well as planned transportation system improvements contained in the latest Contra Costa Transportation Authority (CCTA) travel demand model for the 2030 Baseline Cumulative Scenario; and
- Future Baseline plus the proposed Walnut Creek Transit Village Project – Future conditions plus the full implementation of the Walnut Creek BART Transit Village Project.

A. Regulatory Framework

Existing transportation policies, plans, laws and regulations that apply to the proposed Walnut Creek Transit Village Project are summarized below. This information provides a context for the impact discussion related to the Project’s consistency with applicable regulatory conditions.

1. State Laws and Regulations
   a. California Department of Transportation
      The California Department of Transportation (Caltrans) is responsible for planning, design, construction, and maintenance of all state highways. Caltrans’ jurisdiction includes improvements to the interchange ramps serving area freeways. The Guide for the Preparation of Traffic Impact Studies provides consistent guidance for Caltrans staff who review local development and land use change proposals. The Guide also informs local agencies about the information needed for Caltrans to analyze the traffic impacts to state highway facilities, including freeway segments, on- or off-ramps, and signalized intersections. Caltrans facilities in the project area include Interstate 680 and State Route 24, as well as the on- and off-ramps from these state facilities.

2. Local Regulations and Policies
   a. Measures C and J
      The local Congestion Management Program (CMP) requires each jurisdiction to identify existing and future transportation facilities that would operate
below an acceptable service level, and to provide mitigation where future growth would degrade that service level.

Standards for roadway operations in Walnut Creek are defined on a county-wide basis. In 1988, Contra Costa County voters passed Measure C, which raised the sales tax to provide funding for regional transportation improvements. Measure C requires local jurisdictions to adopt and implement a growth control program in order to receive their share of funds for transportation projects, including maintenance.

Measure J, approved by the voters in 2004, authorized the extension of Measure C and establishes the Transportation Sales Tax Expenditure Plan, which extends the transportation sales tax initially authorized by the passage of Measure C.

The Measure C Growth Management Program establishes a cooperative, multi-jurisdictional planning process requiring participation from all cities and towns and the County in managing the impacts of growth in Contra Costa County. This Program sets standards for regional and non-regional routes in Contra Costa County, which Walnut Creek has incorporated into its General Plan. These standards are tied to land use, and provide for a tiered system, using different standards for different types of streets.

The Contra Costa Transportation Authority (CCTA) was established to implement Measure C and its overall goals. Local jurisdictions work through their respective Regional Transportation Planning Committees. For central Contra Costa County, the Transportation Partnership and Cooperation Committee (TRANSPAC) developed the Central Contra Costa Action Plans, which has identified multi-modal transportation service objectives (MTSOs) for Routes of Regional Significance (RRS), including Ygnacio Valley Road in Walnut Creek. The CCTA updated the Action Plans and incorporated them into its 2009 Countywide Transportation Plan Update.
The transportation analysis in this document was prepared in accordance with CCTA’s Technical Procedures, which were developed to assist local agencies in implementing the Growth Management Program.

b. BART Transit-Oriented Development Policy (2005)
In 2005, the BART Board adopted policy regarding the promotion of high-quality, more intensive development on and near BART-owned properties, reflecting federal, state, and regional policy direction to concentrate growth around transit. The policy seeks to achieve the following goals:

- Increase transit ridership and enhance quality of life by encouraging and supporting transit-oriented development (TOD) within walking distance of BART stations.
- Increase TOD projects on and off BART property through creative planning and development partnerships with local communities.
- Enhance the stability of BART’s financial base through the value capture strategies of TOD.
- Reduce auto access mode share by enhancing multi-modal access to and from BART stations in partnership with communities and access providers.

The policy presents land use, process, and financial strategies to reach the identified goals:

- Land Use Strategies
  - Develop and promote station area land use plans and land use policies that encourage TOD around station properties, enhance the value of BART property, and enhance the performance of the BART system as a whole.
  - Develop performance-based station access strategies on a corridor or line segment basis.
Adjust the 1:1 replacement parking objective in development projects by employing the refined access methodology that examines transit access contextually.

Encourage direct connections to stations from surrounding development in order to promote pedestrian and non-motorized access.

Evaluate access facilities, including parking, as a commodity and locate them according to best planning, design, and real estate practices.

Ensure that TOD opportunities are accounted for in the acquisition of new properties, location of new station sites, and design and construction of station facilities.

Process Strategies

Form sustainable partnerships with local jurisdictions, other transit and regional agencies, and the private sector to implement development plans.

Use a variety of mechanisms, including joint powers authorities, assessment districts, and improvement districts, to achieve coordinated development of station area properties.

In concert with local jurisdictions, employ community involvement techniques that are tailored to the needs of individual communities.

Solicit proposals for TOD 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.

Financial Strategies

Evaluate the financial performance of proposed projects based on sound financial parameters and the ability to generate transit ridership, fare revenue, lease payments, parking revenues, grant resources, other financial participation, and/or cost savings.

When appropriate, use TOD revenues to foster additional TOD projects on BART property in particular, and to assist in financing TOD in general.
Generally favor long-term ground leases, rather than the sale of property, as the standard disposition strategy for joint development projects.

Where land sales are pursued as part of a development project, ensure fulfillment of BART development objectives from the project as a whole, including generating revenue over the long-term, continuing control of property for TOD purposes, leveraging BART property as an equity investment, and protecting the District’s long-term ridership goals.


The Access Guidelines map out how BART can optimize access to stations by all modes, particularly focusing on physical design at both new and existing stations. The key outcomes and recommendations of the report are summarized below.

- BART has developed an “Access Hierarchy” intended to prioritize competing demands for funding and for physical space. It emphasizes low-cost, high-capacity modes that produce the highest ridership and revenue benefits for BART. The Access Hierarchy diagram is shown in Figure 4.11-1.

- The following issues are considered essential when designing pedestrian access to a station:
  - Directness, speed and appeal of the route;
  - Safety and security;
  - Pedestrian-friendly design; and
  - Provision of information.

- Transit access to and from BART must provide passengers with a “seamless journey.” This includes ensuring:
  - Minimal and predictable wait times between modes (may be assisted by real-time information);
Short, safe and direct walking routes between BART platforms and connecting transit services;

Transfer discounts, or preferably, coordinated ticketing that avoids the inconvenience and cost penalty of purchasing separate tickets
Staff members with knowledge about all transit services available at a station; and

Secure, comfortable environments at bus stops and rail platforms.

The design of bicycle access should consider the following key needs and expectations:

- Bicyclists should be informed of the most direct and safest routes to and from the BART station and on-site bicycle parking facilities;

- Sufficient, convenient, and available bicycle parking facilities should be located near the station entrance, within sight of the station agent and/or in a heavily-trafficked area to provide passive security. It is important that bicycle parking be available without prior reservations; and

- The bicycle parking area should be secure, safe and under shelter to provide confidence to cyclists that their bicycle will not be vandalized, stolen, or exposed to rain.

Access Plans should be developed to identify station concerns and make recommendations in a collaborative process with the local community. Access plans should intend to reduce reliance on automobile access and promote other modes, while focusing primarily on AM peak period constraints.

- Carpooling should be encouraged by requiring commuters to register in advance and obtain a BART Carpool Parking Permit.

- Reserved fee parking spaces may also be considered, though BART should not reserve greater than 25 percent of parking supply at any one station.

- Transit-oriented developments (TODs) should be promoted close to BART stations both as a strategy to bring new riders within walking distance of the station and to improve the surrounding pedestrian environment. Amenities that serve transit riders, such as coffee shops, newsstands, ATMs and dry cleaners, should be promoted in the immediate station area and on key pedestrian routes.
Car parking facilities should be designed to provide a comfortable experience for drivers as they walk from the parking space to the station entrance. The design should minimize the impact of parking on the attractiveness of other modes.


BART’s TOD Guidelines were designed to help guide planning and development around BART stations to improve customer experience, station area land use, station circulation, and overall access. The key outcomes and recommendations of the study are summarized below.

- A successful TOD should strive to accomplish the following goals:
  - Enhance customer safety and convenience;
  - Create an attractive, dynamic station area;
  - Increase ridership and revenues for BART;
  - Take advantage of development opportunities and revenue generation for local jurisdictions; and
  - Improve system and station operation efficiency.

- The existing BART network is ideal for serving new transit-oriented communities, as well as strengthening existing ones.

- TOD cannot guarantee freeway congestion relief for the region. It can, however, allow people to live near one station, work near another and shop at a third without using a car.

- BART stations should be served by streets, bus and bicycle routes that extend beyond the immediate station area.

- The highest residential and employee densities within each community should be located within walking distance of the station.

- If a station is not located downtown but is within a reasonable walking distance, then downtown could be “extended” toward the BART station. In these cases, the link between the station and downtown should be pedestrian-friendly and enhanced with bus or shuttle connections. (Downtown Walnut Creek is only five blocks from Walnut Creek BART Station).
Incorporating natural, historic, or cultural features in a station area plan can be a reassuring starting point for the community in custom-tailoring TOD to meet their needs.

Pedestrians should be encouraged to cross major streets and intersections at street level, and sidewalks to the station entrances should be as short, direct and visually unobstructed as possible.

The main pedestrian sidewalks and crosswalks in the area should not be disrupted by wide turning radii, driveways, garage entrances and dedicated turning lanes. Street widths in the immediate station area should not be wider than needed.

Transit boarding zones should have lighting, seating, service information, and shelter from the elements to promote comfort, safety, and reliable connections. The link between BART platforms and connecting transit should be direct, short, and uninterrupted by vehicular traffic.

Bicycle networks should be connected with BART stations, marked with signage and free of any barriers. Bicycle parking should be sheltered, well-lit, and highly visible.

Carpool and vanpool parking should be located close to the station entrance.

Parking facilities should be located to promote retail opportunity along primary pedestrian routes.

Residential parking provisions should generally be lower in a BART TOD than in neighborhoods farther away.

e. BART Bicycle Access and Parking Plan (Volume 1, 2002)
This document outlines strategies necessary to enhance the attractiveness of the bicycle as an access mode and increase the bicycle mode share of passengers accessing BART. The key outcomes and recommendations of the report are summarized below.

Enhance the attractiveness of the bicycle as an access mode and thereby increase bicycle mode share.
Wayfinding signs should be posted to connect cyclists to the station along the most bicycle-friendly routes.

Bicycle-friendly curb cuts that provide separate bicycle/pedestrian access to the station parking facilities should be considered to improve direct and smooth bicycle access to the station and reduce conflicts with vehicular traffic.

Potential conflicts between bicycles and cars, buses and pedestrians must be identified and mitigated. Pedestrians and bicycles should be separated where possible.

Alternatives to carrying a bicycle up and down flights of stairs within BART stations need to be provided. Stair channels should be installed and elevator access improved.

Bicycle parking should have ample supply, provide weather protection, be located near the station and within sight of a station agent and/or in a heavily-trafficked area.

The bicycle parking area and bicycle routes through BART parking lots should be well-lit and provide safe connections to adjoining neighborhoods. The installation of security cameras to increase the perception of personal safety should be considered.

Promotions, incentives, and education programs that support bicycling to BART are needed to promote bicycle access to BART stations. Media campaigns, the internet, and brochures should be used to promote bicycle access.

Accessible faregates, which support disabled as well as bicycle access should be installed where possible. (This has since been implemented throughout the BART system.)

A “bike station” should be considered at a BART station when the demand for Class I bicycle parking exceeds 100 bicycles.

The appropriate installation of a variety of styles of bicycle parking facilities, including lockers, enclosures, and bicycle racks both within the paid area and outside the paid area should be considered.
The supply of Class I bicycle parking should meet existing demand plus 
10 percent for future growth. The supply of Class II bicycle parking 
should meet existing demand plus 30 percent to accommodate for season-
al fluctuations and future growth. The supply of bicycle parking should 
be re-evaluated annually.

Bicycle access should be provided through all areas of a TOD and should 
avoid conflict with parking garage access points. Where this is unavoida-
ble, traffic calming measures should be installed to alert motorists of the 
bicycle crossings.

The objective of the Access BART study was to develop a strategic assessment 
of BART station areas and evaluate the trade-offs between TOD opportuni-
ties and access improvements. This strategic assessment was intended to help 
BART approach station access and land use strategies at a systemwide level 
and help guide the development of access, parking, and TOD programs. The 
key outcomes and recommendations of the report are summarized below.

- BART can realize a 26 percent ridership increase by 2030 if the land use 
  intensification called for in the regional Smart Growth Vision is ultimate-
  ly constructed.

- The land use intensification could also increase daily BART boardings by 
  up to 29 percent without the need for additional parking spaces.

- Shuttle services can boost transit ridership, as demonstrated at MacAr-
  thur BART Station, where shuttles to and from BART serving office, re-
  tail and housing more than a short walk away were found to be effective.

- TOD offers BART the opportunity to build off-peak ridership, taking 
  advantage of spare system capacity without imposing additional costs on 
  the system.

- TOD coupled with transit service can allow BART to serve more people 
  with fewer parking spaces.
Pedestrian and bicycle connections to BART, as well as bicycle storage at BART, should be strengthened in areas where high levels of development are expected near BART stations.

Key bus intermodal stations include Bay Fair, Concord, Dublin/Pleasanton, El Cerrito del Norte, Fremont, Fruitvale, Pittsburg/Bay Point, and Walnut Creek.

g. Walnut Creek General Plan 2025 (2006)
The Walnut Creek General Plan contains the following goals, policies and action statements related to transportation and parking.

i. Chapter 2, Quality of Life
GOAL 6. Make Walnut Creek a community accessible to all.

   Action 8.1.2. As part of the City’s project review processes, consider the needs of persons of all abilities.

ii. Chapter 4, Built Environment
GOAL 10. Coordinate the location, intensity, and mix of land uses with transportation resources.

GOAL 11. Create a balanced, safe, and efficient regional and subregional transportation system.

Policy 11.1. Require that commercial projects comply with the City’s performance standards for fire, police, parks, water, flood control, and sanitary sewer facilities.

Policy 11.2. Implement Measure C and plan for the implementation of Measure J.

Action 11.2.2. At a minimum, comply with the Measure C adopted standards for Level of Service at intersections along Basic Routes.\(^1\)

Policy 11.3. Require that new development pay its share of costs associated with growth. Resolution 4466 of the BART Board of Directors “supports the exemption of any development projects which are within a one-half mile radius of an existing or planned rail transit station, including BART station areas, and which promote the use of rail transit, from development fees (interim or permanent) adopted as part of any Regional Transportation Mitigation Program.”

Action 11.3.1. Implement TRANSPAC’s Regional Transportation Mitigation Program with respect to new regional development and its impacts on Walnut Creek roadways.

Action 11.3.2. Assess a traffic impact fee on new development.

Action 11.3.3. Apply the Transportation Authority’s travel demand model (as updated from time to time) in analyzing developments that exceed Measure J thresholds.

**GOAL 12. Make more efficient use of the regional and subregional transportation system.**

Policy 12.1. Promote the use of carpools and vanpools.

Action 12.1.3. Encourage transportation demand management (TDM) programs in new development.

Policy 12.2. Support infill and redevelopment in existing urban areas.

**GOAL 19. Enhance the urban design quality of the Core Area and its subareas.**

\(^1\) Basic Routes are defined in Measure C.
Policy 19.2. Improve directional signage for pedestrians and vehicles in the Core Area.

   Action 19.2.1. Design and implement a comprehensive Core Area directional sign program that shows shuttle stops; parking garage locations, capacities, and availability; orients residents and visitors; and shows optimal routes for getting to key cultural, shopping, and civic destinations in the city.

iii. Chapter 5, Transportation

**GOAL 3. Maintain a transportation network that provides mobility for all ages and abilities and for all areas of the community.**

Policy 3.1. Maintain the level of service standards for roadways shown in Figure 2 of the Walnut Creek General Plan for the City’s transportation network.

**GOAL 6. Provide a safe and attractive walking environment accessible to all.**

Policy 6.1. Provide safe and attractive pedestrian routes along arterials and collectors leading to schools, along arterials or collectors that carry high traffic volumes, on all downtown streets, along major streets leading to the downtown, and on all streets leading to transit facilities.

Policy 6.2. Require full-frontage curb and sidewalk improvements in all commercial areas.

Policy 6.4. Facilitate use of public sidewalks and walkways throughout the city.

**GOAL 7. Increase transit ridership and service to employment, schools, shopping, and recreation.**

Policy 7.3. Link high-density residential developments, schools, employment centers, and shopping areas via transit.
Policy 7.5. Develop a comprehensive plan with County Connection (CCCTA) to install public transit amenities such as benches, passenger shelters, and walkways.

Action 7.5.4 Require, where appropriate, that new developments provide transit amenities as a condition of project approval.

GOAL 8. Serve as a model for other cities by providing a comprehensive TDM program that strives to decrease the use of the automobile and reduce peak-period traffic congestion.

Policy 8.2. Seek new and innovative methods and programs that address peak-period congestion.

Policy 8.3. Manage employee parking supply and demand in all commercial areas.

Policy 8.5. Link high-density residential developments, employment centers, and shopping areas via transit, bikeways, and walkways.


GOAL 12. Provide convenient and adequate parking.

GOAL 13. Provide convenient and adequate loading facilities in the Core Area.

h. Walnut Creek Zoning Ordinance Parking and Loading Requirements
The Walnut Creek Zoning Ordinance prescribes the required parking ratios and loading spaces for both residential and commercial uses in most zoning districts. An exception is that subset of projects zoned as the Planned Developments, as Applicant proposes here, for which the applicable parking ratio is established by the Planning Commission.
The bicycle parking requirements are summarized in Section 10-2.3.202 of the Walnut Creek Municipal Code. Section G-2 states that “The number of bicycle parking spaces shall be 10 percent of the requirement for automobile spaces…”

i. Walnut Creek Zoning Ordinance: Traffic Impact Fees
In August 1989, the Walnut Creek City Council passed an ordinance establishing a Traffic Impact Fee (TIF) program. The purpose of the TIF is to collect sufficient funds for the construction of transportation improvements that will mitigate cumulative traffic impacts caused by new development.

The TIF is charged for all new development, with the exception of low-income housing, public parks, public open space, schools, day care facilities, public libraries, and places of religious assembly. It is determined by dividing the cost of transportation projects that mitigate new development’s fair share of the impacts by the projected number of net new afternoon peak hour vehicle trips. Prior to issuance of either a building permit or certificate of occupancy, as the case may be, project applicants pay TIF funds into a separate interest-bearing account. Funds collected via the TIF program are earmarked for use for the construction of specific public improvements identified in the list of TIF eligible projects, which is approved by the City Council on a biennial basis.

B. Setting

This subsection provides a description of the existing transportation conditions in the vicinity of the proposed Walnut Creek Transit Village Project. Included in this subsection are descriptions of the existing roadway and transit networks, and documentation of the existing traffic, transit, parking, pedestrian, and bicycle conditions. The subsection also describes the assumptions,
methodologies, and data used to quantify traffic operations under the Existing Conditions scenario.

1. Roadway Network

The location of the Walnut Creek BART Station site (which is the location of the proposed Walnut Creek Transit Village Project) in relation to the surrounding road network is shown in Figure 4.11-2. The existing BART station site is bounded by Pringle Avenue to the north, North California Boulevard to the east, Ygnacio Valley Road to the south and the elevated Interstate 680 Freeway to the west. The classification of each roadway by applicable guidelines as either a Route of Regional Significance, arterial, collector road, or local street has been highlighted. Routes of Regional Significance are major roadways and freeway corridors that serve regional traffic, as identified in Action Plans adopted by the CCTA under the Measure C program.

The locations and configurations of the vehicular access points to and from the BART station site are shown in Figure 4.11-3. A brief description of the following roadways that provide access to Walnut Creek BART Station is provided below. All of the 23 study intersections being evaluated are located on at least one of the roadways discussed below.

- Routes of Regional Significance:
  - Interstate 680
  - State Route 24
  - Ygnacio Valley Road
- Arterials:
  - Parkside Drive (east of Riviera Avenue)
  - North California Boulevard
  - North Main Street (north of Ygnacio Valley Road and south of Newell Avenue)
  - Civic Drive
- Collector Roads:
  - Hillside Avenue (south of Parkside Drive)
  - Parkside Drive (west of Riviera Avenue)
FIGURE 4.11-3
EXISTING VEHICULAR ACCESS POINTS AT PROJECT SITES

ū Riviera Avenue
ū North Main Street (between Ygnacio Valley Road and Newell Avenue)
ū Oakland Boulevard (south of Trinity Avenue)

♦ Local Streets:
ū Pringle Avenue
ū Lacassie Avenue
ū Oakland Boulevard (north of Trinity Avenue)

a. Routes of Regional Significance
i. Interstate 680
Interstate 680 is oriented primarily in a north-south direction through Contra Costa and Alameda Counties and connects with Interstate 80 in Fairfield. Interstate 680 generally provides 5 to 6 freeway lanes in each direction.

Interstate 680 borders the Walnut Creek BART Station site on the west and provides convenient access to and from the station.

ii. State Route 24
State Route 24 is oriented primarily in an east-west direction between Walnut Creek and Oakland, and generally provides five lanes in each direction. State Route 24 connects to Interstate 680 in close proximity to the Walnut Creek BART Station.

Access between the BART station and State Route 24 is effectively available via the same connecting routes as discussed above for Interstate 680.

iii. Ygnacio Valley Road
Ygnacio Valley Road is a Route of Regional Significance oriented primarily in an east-west direction and borders the BART station site on the south. The road generally provides three lanes in each direction with no on-street parking. Exclusive short left turn lanes or short channelized right turns are generally provided on the approaches to most major intersections.
Ygnacio Valley Road is the only continuous east-west roadway through the heart of Walnut Creek and is effectively used as the sole access road to both the BART station and the freeways discussed above from the residential areas to the east.

Direct vehicular access to and from the BART station parking facilities is available from Ygnacio Valley Road on the south side of the station site via a full signalized access at the Interstate 680 Off-Ramp and an unsignalized right-turn-in-only lane to the west of this intersection.

b. Arterials
i. Parkside Drive (east of Riviera Avenue)
Parkside Drive is a divided arterial to the east of its intersection with Riviera Avenue, generally providing two lanes in each direction and oriented in an east-west direction, ending at Civic Drive.

Over its relatively short length, the street provides a key east-west connection in Walnut Creek. It distributes traffic to North Main Street, and in turn, North California Boulevard, as well as to Riviera Avenue, thus facilitating access to the BART station from the north. Connecting to Hillside Avenue, which in turn connects to Ygnacio Valley Road, the street also provides access from the residential neighborhood west of the BART station.

ii. North California Boulevard
North California Boulevard is a divided arterial oriented primarily in a north-south direction along the eastern perimeter of the BART station. North California Boulevard generally provides two traffic lanes and an adjacent on-street parking lane in each direction.

Exclusive left turn lanes are provided on the approaches to most major intersections, and channelized right turn lanes are provided on both approaches to Ygnacio Valley Road and the northbound approaches to Civic Drive and North Main Street.
There is no direct vehicular access to the BART station parking facilities from North California Boulevard. However, a non-signalized right-turn-only egress is provided midway between Pringle Avenue and Ygnacio Valley Road.

iii. North Main Street (North of Ygnacio Valley Road)
North Main Street operates as an arterial north of Ygnacio Valley Road and generally provides at least two traffic lanes in each direction. The number of northbound traffic lanes increases to three as North Main Street approaches Lawrence Way, then returns to two. The southbound lanes approaching the Interstate 680 interchange are joined by the two lanes of the Interstate 680 southbound off-ramp, providing a cross-section of four southbound lanes until the two rightmost lanes diverge to form the southbound lanes of North California Boulevard.

iv. Civic Drive
Civic Drive is an undivided arterial generally oriented in a north-south direction from the north end of downtown Walnut Creek. The southern end of the street loops to connect with another north-south street, North California Boulevard. It intersects with Ygnacio Valley Road and North California Boulevard, each providing direct access to the BART station.

The Civic Drive roadway varies between 50 and 75 feet in width along its “radial” segment south of Parkside Drive. North of this intersection it maintains a width of approximately 60 feet. Two traffic lanes in each direction are provided between North California Boulevard and Ygnacio Valley Road.

The roadway widens to accommodate a left-turn lane and two right-turn lanes at the Ygnacio Valley Road intersection. Between Ygnacio Valley Road and Parkside Drive, a central turning lane is provided. North of Parkside Drive, two travel lanes in each direction are provided.
c. Collector Streets

i. Hillside Avenue

Hillside Avenue functions as a continuation of Ygnacio Valley Road west of Interstate 680. As such, it connects westbound Ygnacio Valley Road to westbound State Route 24 via a loop ramp. The west end of Hillside Avenue intersects with Parkside Drive and provides a connection between the BART station and the hillside neighborhood west of Interstate 680.

Traveling west through an underpass beneath Interstate 680, Ygnacio Valley Road’s three travel lanes expand to two left-turn lanes (to Interstate 680 southbound), a through lane (Hillside Avenue), and the State Route 24 westbound loop ramp. In the opposite direction of travel, a receiving lane is provided for eastbound left turns from Hillside Avenue to the State Route 24 on-ramp. Westbound from this point, Hillside Avenue provides one travel lane and one parking lane in each direction. In the eastbound direction, the parking lane continues nearly to the underpass, where it becomes a right turn lane to enter the Interstate 680 southbound on-ramp. One travel lane continues to the east side of the underpass, where it widens to three lanes.

ii. Parkside Drive (West of Riviera Avenue)

To the west of Riviera Avenue, Parkside Drive is an undivided collector road provided with one lane in each direction and connecting to the neighborhood west of the BART station and Interstate 680. On-street parking is generally provided on both sides of the street.

iii. Riviera Avenue

Riviera Avenue is an undivided collector street oriented in a north-south direction between the northwest corner of the BART station site and Parkside Drive. Riviera Avenue is approximately 40 feet wide and provides one traffic lane in each direction and on-street parking on each side of the street. The Parkside Drive underpass beneath Interstate 680 is located approximately 200 feet west of Riviera Avenue and is one of few vehicular connections between opposite sides of the freeway. Because of this, Riviera Avenue is the likely access route for many residents who live northwest of the BART station.
Direct vehicular access to the BART station parking facilities is available from the intersection of Riviera Avenue and Pringle Avenue.

iv. North Main Street (South of Ygnacio Valley Road)
South of Ygnacio Valley Road, North Main Street functions as a collector street, and generally provides one traffic lane in each direction and adjacent on-street parking. This section of North Main Street travels through the main shopping and restaurant district of downtown Walnut Creek.

v. Oakland Boulevard (between Mount Diablo Boulevard and Trinity Avenue)
Between Mount Diablo Boulevard and Trinity Avenue, Oakland Boulevard functions as a collector street and is approximately 40 feet wide, providing one traffic lane in each direction and on-street parking on both sides of the street.

d. Local Streets
i. Pringle Avenue
Pringle Avenue is an undivided local street oriented in an east-west direction between North Main Street and Riviera Avenue along the northern perimeter of the BART station site. Adjacent to the station site, Pringle Avenue is approximately 40 feet wide and provides one traffic lane in each direction and on-street parking on each side of the street. Direct vehicular access to the BART station parking facilities is available from the intersection of Pringle Avenue and Riviera Avenue.

ii. Lacassie Avenue
Lacassie Avenue is an undivided local street oriented in an east-west direction between North Main Street and a cul-de-sac adjacent to the northbound Interstate 680 Off-Ramp, one block south of the BART station. Lacassie Avenue is approximately 40 feet wide, and provides one traffic lane in each direction and on-street parking on each side of the street.

iii. Oakland Boulevard
Between Ygnacio Valley Road and Trinity Avenue, Oakland Boulevard is an undivided local street oriented in a one-way southbound-only direction. Di-
rect access to southbound Oakland Boulevard is provided at the BART station site’s southern access point.

Between Ygnacio Valley Road and Trinity Avenue, Oakland Boulevard is approximately 20 feet wide, and provides one traffic lane in the southbound direction and on-street parking on the west side of the street.

2. Intersection Operations
   a. Study Locations

Study intersections were selected for analysis based on proximity to the Project site, and at locations where Project trips could potentially affect operations. Specifically, the following 23 intersections were selected as study intersections (existing traffic control noted in parentheses):

1) North Main Street/ Parkside Drive (signalized);
2) North Main Street/ Lawrence Way/ North California Boulevard (signalized);
3) Pringle Avenue/ Riviera Drive (unsignalized);
4) North California Boulevard/ Pringle Avenue (signalized);
5) North Main Street/ Pringle Avenue (signalized);
6) North California Boulevard right-out-only site egress (future mid-block pedestrian crossing) (unsignalized);
7) Ygnacio Valley Road/ Interstate 680 Off-Ramp/ BART Access/ Oakland Boulevard (signalized);
8) Ygnacio Valley Road/ North California Boulevard (signalized);
9) Ygnacio Valley Road/ North Main Street (signalized);
10) Ygnacio Valley Road/ North Broadway (signalized);
11) Ygnacio Valley Road/ Civic Drive (signalized);
12) Lawrence Way/ Penniman Avenue (signalized);
13) Parkside Drive/ Riviera Avenue (one-way stop-controlled);
14) Parkside Drive/ San Juan Avenue (all-way stop-controlled);
15) Parkside Drive/ Buena Vista Avenue (all-way stop-controlled);
16) Parkside Drive/ Hillside Avenue (all-way stop-controlled);
17) Hillside Avenue/ State Route 24 On-Ramp (unsignalized);
18) Ygnacio Valley Road/Interstate 680 On-Ramp (signalized);
19) North California Boulevard/Lacassie Avenue (signalized);
20) North Main Street/Lacassie Avenue (signalized);
21) Trinity Avenue/North California Boulevard/Civic Drive (signalized);
22) North Main Street/Civic Drive (signalized); and
23) North California Boulevard/Bonanza Street (signalized).

Intersections along the extents of Ygnacio Valley Road are evaluated as part of a “delay index” corridor analysis. Also, it is noted that Intersection #7 (Ygnacio Valley Road/Interstate 680 Off-Ramp/BART Access/Oakland Boulevard), Intersection #17 (Hillside Avenue/State Route 24 On-Ramp), and Intersection #18 (Ygnacio Valley Road/Interstate 680 On-Ramp) are under joint Caltrans and City of Walnut Creek jurisdiction.

The location of each study intersection is illustrated in Figure 4.11-4. The lane configurations and traffic control types of the 23 study intersections, as well as the existing AM and PM peak hour intersection turning movement volumes, are provided in Appendix I-2.

b. Intersection Analysis Methodology
The level of service concept qualitatively characterizes traffic conditions associated with varying levels of traffic. A level of service determination is a measure of congestion, which is the principal measure of roadway service. Level of service ranges from level of service (LOS) A, which indicates a free-flow condition, to LOS F, which indicates a congested or overloaded condition, with extremely long delays.

i. Signalized Intersections
The operations analysis for each study intersection was undertaken using the computer software package Traffix. Signalized intersections were evaluated with Traffix using the Contra Costa Transportation Authority (CCTA) methodology.
The CCTA methodology analysis calculates the level of service of signalized intersections based on the volume-to-capacity (v/c) ratio of the intersection. The CCTA level of service methodology was derived from a modified Circular 212 analysis methodology, using the Traffix analysis software package, and following procedures outlined in the "Final Technical Procedures Update" (July 19, 2006) published by CCTA. Level of service definitions for signalized intersections are described in Table 4.11-1.

ii. Unsignalized Intersections

The 2000 Highway Capacity Manual (HCM) methodology was used to evaluate unsignalized intersections, as the CCTA methodology is incapable of evaluating unsignalized intersections.

The level of service of unsignalized intersections are calculated based on the average delay per vehicle experienced. Operations are defined by the average control delay per vehicle (measured in seconds) for each stop-controlled movement or movement that must yield the right-of-way. At four-way stop-controlled intersections, the control delay is calculated for the entire intersection and for each approach. The delays and corresponding level of service for the entire intersection are reported. At one-way and two-way stop-controlled intersections, the movement with the highest delay and level of service is reported. Level of Service definitions for unsignalized intersections are described in Table 4.11-2.

iii. Delay Index

Intersections located on the Ygnacio Valley Road corridor are subject to significance criteria associated with the Route of Regional Significance methodology, which are based on delay index calculations. "Delay index" calculations are established as part of the Measure C growth management program followed by the Walnut Creek General Plan 2025. The delay index is expressed as the ratio of "congested" travel time divided by "uncongested" travel.
### Table 4.11-1  **Signalized Intersection Level of Service Definitions**

<table>
<thead>
<tr>
<th>LOS</th>
<th>Description</th>
<th>CCTA Method (v/c ratio)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Little or no delay</td>
<td>&lt; 0.6</td>
</tr>
<tr>
<td>B</td>
<td>Short traffic delay</td>
<td>0.61 to 0.70</td>
</tr>
<tr>
<td>C</td>
<td>Average traffic delay</td>
<td>0.71 to 0.80</td>
</tr>
<tr>
<td>D</td>
<td>Long traffic delay</td>
<td>0.81 to 0.90</td>
</tr>
<tr>
<td>E</td>
<td>Very long traffic delay</td>
<td>0.91 to 1.00</td>
</tr>
<tr>
<td>F</td>
<td>Extreme traffic delay</td>
<td>&gt; 1.00</td>
</tr>
</tbody>
</table>

Sources: Highway Capacity Manual, CCTA Level of Service Methodology.

### Table 4.11-2  **Unsignalized Intersection Level of Service Definitions**

<table>
<thead>
<tr>
<th>LOS</th>
<th>Description</th>
<th>2000 HCM Method (Delay)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Little or no delay</td>
<td>&lt; 10.0</td>
</tr>
<tr>
<td>B</td>
<td>Short traffic delay</td>
<td>&lt; 10.0 and &lt; 15.0</td>
</tr>
<tr>
<td>C</td>
<td>Average traffic delay</td>
<td>&lt; 15.0 and &lt; 25.0</td>
</tr>
<tr>
<td>D</td>
<td>Long traffic delay</td>
<td>&lt; 25.0 and &lt; 35.0</td>
</tr>
<tr>
<td>E</td>
<td>Very long traffic delay</td>
<td>&lt; 35.0 and &lt; 50.0</td>
</tr>
<tr>
<td>F</td>
<td>Extreme traffic delay</td>
<td>&gt; 50.0</td>
</tr>
</tbody>
</table>

time. A significant impact is deemed to occur if the delay index increases to above 2.0 due to the addition of Project traffic.

The "uncongested" travel time along the corridor is determined by selecting the lowest surveyed travel time among travel surveys for the off-peak period. The "congested" travel time is calculated as the average travel time among travel surveys for the AM and PM peak periods. Using Synchro software, incremental increases in corridor travel time for each analysis scenario are determined, and added to the existing field measured travel times to determine an appropriate delay index.

c. Intersection Levels of Service
The existing level of service results for the 23 study intersections are presented in Appendix L-2. Detailed intersection level of service calculation worksheets are provided in Appendix L-3. Overall, it was found that all intersections operate at acceptable conditions during the weekday AM and PM peak hours.

3. Freeway Operations
The existing operation of the Interstate 680 and State Route 24 freeways, both Caltrans facilities, have been evaluated using the methodology set forth in the Caltrans Guide for the Preparation of Traffic Impact Studies, 2003.

Merge and diverge analyses are primarily used to evaluate the performance of freeway mainline segments and on-ramps and off-ramps, respectively, by calculating an average density on a freeway section and assigning a level of service designation based on the density in the study segment. This method is a representation of both congestion and speed.

Table 4-11.3 presents the criteria for the freeway level of service and merge and diverge level of service based on the methodologies described above.
Table 4.11-3  **Freeway Level of Service Definitions**

<table>
<thead>
<tr>
<th>LOS</th>
<th>Freeway Segment Density (passenger cars/ mile/ lane)</th>
<th>Ramp Merge-Diverge Density (passenger cars/ mile/ lane)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>(&lt; 11.0)</td>
<td>(&lt; 10.0)</td>
</tr>
<tr>
<td>B</td>
<td>(&gt; 11.0 \text{ and } \leq 18.0)</td>
<td>(&gt; 10.0 \text{ and } \leq 20.0)</td>
</tr>
<tr>
<td>C</td>
<td>(&gt; 18.0 \text{ and } \leq 26.0)</td>
<td>(&gt; 20.0 \text{ and } \leq 28.0)</td>
</tr>
<tr>
<td>D</td>
<td>(&gt; 26.0 \text{ and } \leq 35.0)</td>
<td>(&gt; 28.0 \text{ and } \leq 35.0)</td>
</tr>
<tr>
<td>E</td>
<td>(&gt; 35.0 \text{ and } \leq 45.0)</td>
<td>(&gt; 35.0)</td>
</tr>
<tr>
<td>F</td>
<td>(&gt; 45.0) (Demand exceeds capacity)</td>
<td>Demand exceeds capacity when queues begin to form</td>
</tr>
</tbody>
</table>


The existing freeway mainline and ramp volumes that have been evaluated are provided in Appendix I-4. Detailed freeway mainline segment and ramp segment level of service calculations are provided in Appendix I-5.

4. **BART**

The Walnut Creek BART Station is located on the Pittsburg/Bay Point line, providing direct service to downtown Oakland and San Francisco. Passengers traveling to or from stations on the Fremont, Richmond, or Dublin/Pleasanton Lines are required to transfer. Services operate approximately between the hours of 4:00 a.m. to midnight on weekdays, 6:00 a.m. to midnight on Saturdays, and 8:00 a.m. to midnight on Sundays.

a. **Services**

Table 4.11-4 summarizes the frequency of direct services operating between Walnut Creek and downtown San Francisco, which also stop at the downtown Oakland stations.
<table>
<thead>
<tr>
<th>Period</th>
<th>Walnut Creek to Downtown San Francisco</th>
<th>Downtown San Francisco to Walnut Creek</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Weekday Morning</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6:00 - 7:00 a.m.</td>
<td>8-9 minutes</td>
<td>15 minutes</td>
</tr>
<tr>
<td>7:00 - 7:50 a.m.</td>
<td>5 minutes</td>
<td>10 minutes</td>
</tr>
<tr>
<td>7:50 - 8:30 a.m.</td>
<td>8 minutes</td>
<td>8 minutes</td>
</tr>
<tr>
<td><strong>Weekday Evening</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4:00 - 5:00 p.m.</td>
<td>15 minutes</td>
<td>12 minutes</td>
</tr>
<tr>
<td>5:00 - 5:30 p.m.</td>
<td>7-8 minutes</td>
<td>7-8 minutes</td>
</tr>
<tr>
<td>5:30 - 6:30 p.m.</td>
<td>15 minutes</td>
<td>6 minutes</td>
</tr>
<tr>
<td>6:30 - 7:30 p.m.</td>
<td>15 minutes</td>
<td>10 minutes</td>
</tr>
<tr>
<td><strong>Weekday Off-Peak</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prior to 6:00 a.m.</td>
<td>15 minutes</td>
<td>15 minutes</td>
</tr>
<tr>
<td>8:30 a.m. - 4 p.m.</td>
<td>15 minutes</td>
<td>15 minutes</td>
</tr>
<tr>
<td>7:30 - 8:30 p.m.</td>
<td>20 minutes</td>
<td>15 minutes</td>
</tr>
<tr>
<td>After 8:30 p.m.</td>
<td>20 minutes</td>
<td>20 minutes</td>
</tr>
<tr>
<td><strong>Saturday</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All day</td>
<td>20 minutes</td>
<td>20 minutes</td>
</tr>
<tr>
<td><strong>Sunday</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All day</td>
<td>20 minutes</td>
<td>20 minutes</td>
</tr>
</tbody>
</table>

*a Every other service terminates at Montgomery Street Station.
b. Ridership
The peak loading on the Pittsburg/Bay Point Line serving Walnut Creek BART Station occurs between Embarcadero and MacArthur Stations. Table 4.11-5 presents existing train capacity utilization between these stations during the morning and evening peak hours. The greatest capacity utilization in the direction inbound to San Francisco occurs during the hour between 8:00 and 9:00 a.m., when the capacity of the average train is 86 percent occupied. In the direction outbound from San Francisco, the greatest capacity utilization occurs during the hour between 5:00 and 6:00 pm, when the capacity of the average train is 84 percent occupied.

c. Faregate Queues and Delays
Site observations were undertaken at Walnut Creek BART Station during the peak periods to determine the extent of queues and delays experienced at the station faregates. The PM peak period is deemed to generate the longest queues at the station faregates, reflective of the period when residents are returning home from work or other activities. As opposed to the more constant arrival of passengers at the station during the AM peak period, passengers exit the station in surges following the arrival of each train during the PM peak period. During the PM peak period, five faregates are set to allow passengers to exit the station and three are set to allow passengers to enter the station. An additional faregate with increased width provides two-way access at all times for passengers with wheelchairs, strollers or bicycles.

The maximum queue lengths of exiting passengers at the station faregates were observed to be approximately 5 to 6 people long. This equates to a queuing delay at each faregate of approximately 12 to 15 seconds per person, based on a faregate capacity of 25 passengers per minute.

5. Bus Services
County Connection, Wheels Transit, and Solano Transit operate bus service in Walnut Creek and the surrounding area. A map illustrating the existing bus routes serving Walnut Creek BART Station is shown in Figure 4.11-5.
### Table 4.11-5  
**BART Capacity Utilization at Peak Load Point**

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Capacity Utilization (Percent of Seated Capacity)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inbound to San Francisco - Peak Load leaving MacArthur (AM Peak Period)</strong></td>
<td></td>
</tr>
<tr>
<td>7:00 a.m. to 8:00 a.m.</td>
<td>76%</td>
</tr>
<tr>
<td>8:00 a.m. to 9:00 a.m.</td>
<td>86%</td>
</tr>
<tr>
<td>9:00 a.m. to 10:00 a.m.</td>
<td>70%</td>
</tr>
<tr>
<td><strong>Outbound from San Francisco - Peak Load leaving Embarcadero (PM Peak Period)</strong></td>
<td></td>
</tr>
<tr>
<td>4:00 p.m. to 5:00 p.m.</td>
<td>75%</td>
</tr>
<tr>
<td>5:00 p.m. to 6:00 p.m.</td>
<td>84%</td>
</tr>
<tr>
<td>6:00 p.m. to 7:00 p.m.</td>
<td>81%</td>
</tr>
</tbody>
</table>

Source: BART, 2012, based on a capacity of 105 passengers per car.

---

a. **The County Connection**  
   County Connection, formally known as Central Contra Costa County Transit Authority (CCCTA), currently operates a total of 30 fixed-route bus routes on weekdays throughout central Contra Costa County, which includes the majority of bus services to and from Walnut Creek BART Station.

   The following nine weekday bus routes provide direct connections to and from Walnut Creek BART Station: 1, 2, 4, 5, 7, 9, 15, 21, and 25. The following four peak period-only express routes also serve Walnut Creek BART Station: 93X, 95X, 96X and 98X.

   The bus services to and from the BART station are scheduled at varying frequencies and during varying operating periods. Weekday service on the non-express routes begins between 5:30 and 7:30 am and ends between 6:30 and 11:20 pm, with peak hour frequencies at 30, 40, 45 or 60 minutes except for the free downtown shuttle, Route 4, which operates every 15 minutes on weekdays and every 20 minutes on weekends.

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4.11-36
Table 4.11-6 summarizes the weekday and weekend bus route services operated by County Connection that serve Walnut Creek BART Station. Single ride adult bus fares are $2 and transfers from BART are $1, and discount passes are available for regular patrons.

b. Wheels Transit
Wheels Transit, formally known as Livermore Amador Valley Transit Authority, primarily operates bus services in the Tri-Valley cities of Dublin, Livermore and Pleasanton. Wheels Transit also operates one express service, Route 70X, from Walnut Creek and Pleasant Hill/Contra Costa Centre BART Stations to Dublin/Pleasanton BART Station, with continuing service to Hacienda Business Park. Route 70X operates every 30 minutes during the AM and PM peak periods, making a total of 14 daily round trips. Approximately 210 passengers boarded the service on average each weekday during the 2011/12 fiscal year. Approximately 50 percent of passengers travel to/from Walnut Creek BART Station. The majority of ridership on this line is directional, with passengers primarily traveling southbound during the AM peak period and northbound during the PM peak period. Single ride adult fares for Wheels Transit match those of County Connection ($2; $1 transfer from BART).

c. Fairfield and Suisun Transit
Fairfield and Suisun Transit (FAST) provides bus service between Fairfield and Vacaville and to regional destinations. Route 40 operates between Vacaville and Walnut Creek BART Station, with stops in Fairfield, Benicia and at Pleasant Hill/Contra Costa Centre BART Station. Nine roundtrips are provided daily; four during the morning and five during the afternoon and evening. Approximately 175 passengers boarded the service on average each weekday during the 2011/12 fiscal year. FAST does not record boarding information by stop, so boardings and alightings at Walnut Creek BART Station are not readily known. Fares to and from Walnut Creek BART Station range between $3.75 and $6.75, depending on the distance of the trip.
<table>
<thead>
<tr>
<th>Route</th>
<th>Service Description</th>
<th>Approx. Hours of Service</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Peak</td>
<td>Off-Peak</td>
</tr>
<tr>
<td>Weekday Routes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Rossmoor Shopping Center, Walnut Creek BART, Ygnacio Valley Road, John Muir Medical Center, Shadelands</td>
<td>6:00 a.m. - 7:30 p.m.</td>
<td>60 min 60 min</td>
</tr>
<tr>
<td>2</td>
<td>Walnut Creek BART, Kaiser Permanente Medical Center, Trotter Way</td>
<td>6:45 a.m. - 6:45 p.m.</td>
<td>60 min 90 min</td>
</tr>
<tr>
<td>4</td>
<td>Free Shuttle - Walnut Creek BART, Broadway Plaza</td>
<td>7:15 a.m. - 7:30 p.m.</td>
<td>15 min 15 min</td>
</tr>
<tr>
<td>5</td>
<td>Walnut Creek BART, South Broadway, Kaiser Permanente Medical Center, Creekside Drive</td>
<td>6:45 a.m. - 7:30 p.m.</td>
<td>45 min 90 min</td>
</tr>
<tr>
<td>7</td>
<td>Walnut Creek BART, Mitchell Park and Ride, Shadelands, Bancroft Road, Treat Boulevard, Buena Vista Avenue, Pleasant Hill/Contra Costa Centre BART</td>
<td>6am - 10:30 a.m., 4:00 - 8:45 p.m.</td>
<td>40 min -</td>
</tr>
<tr>
<td>9</td>
<td>Diablo Valley College, Sun Valley Mall, JFK University, Crescent Plaza, Pleasant Hill/Contra Costa Centre BART, N. Main Street, Walnut Creek BART</td>
<td>6:00 a.m. - 10:45 p.m.</td>
<td>30 min 60 min</td>
</tr>
<tr>
<td>15</td>
<td>Concord BART, Treat Boulevard, Pleasant Hill/Contra Costa Centre BART, Walnut Creek BART</td>
<td>5:45 a.m. - 8:45 p.m.</td>
<td>60 min 60 min</td>
</tr>
<tr>
<td>21</td>
<td>Walnut Creek BART, Alamo, Danville Boulevard, Danville Park and Ride, San Ramon Transit Center</td>
<td>5:30 a.m. - 11:15 p.m.</td>
<td>30 min 60 min</td>
</tr>
<tr>
<td>25</td>
<td>Lafayette BART, Mount Diablo Boulevard, Walnut Creek BART</td>
<td>7:30 a.m. - 6:30 p.m.</td>
<td>60 min 60 min</td>
</tr>
<tr>
<td>Express Routes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>93X</td>
<td>Kirker Pass Express: Hillcrest Park and Ride, John Muir Medical Center, Walnut Creek BART</td>
<td>5:00 a.m. - 7:45 p.m.</td>
<td>30-60 min</td>
</tr>
</tbody>
</table>

4.11-38
### Route 95X
- **Service Description:** San Ramon Express: San Ramon Transit Center to Walnut Creek BART
- **Approx. Hours of Service:** 6:30 – 9 a.m., 4 – 7 p.m.
- **Frequency:** 30 min –

### Route 96X
- **Service Description:** Bishop Ranch Express, North: Walnut Creek BART to Bishop Ranch
- **Approx. Hours of Service:** 5:30 a.m. – 7:45 p.m.
- **Frequency:** 20 min –

### Route 98X
- **Service Description:** Martinez/Walnut Creek Express: Amtrak, Concord, Walnut Creek BART
- **Approx. Hours of Service:** 5:45 a.m. – 7:15 p.m.
- **Frequency:** 30-60 min –

### Weekend Routes

<table>
<thead>
<tr>
<th>Route</th>
<th>Service Description</th>
<th>Approx. Hours of Service</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Free Shuttle - Walnut Creek BART, Broadway Plaza</td>
<td>9:15 a.m. - 6:45 p.m.</td>
<td>20 min all day</td>
</tr>
<tr>
<td>301</td>
<td>Walnut Creek BART, Trinity Avenue, Boulevard Way, Tice Valley Boulevard</td>
<td>9:30 a.m. - 6:15 p.m.</td>
<td>90 min all day</td>
</tr>
<tr>
<td>311</td>
<td>Concord BART, Pleasant Hill/Contra Costa Centre BART, Walnut Creek BART</td>
<td>7:15 a.m. - 7:00 p.m.</td>
<td>80 min all day</td>
</tr>
<tr>
<td>321</td>
<td>Walnut Creek BART, Danville Boulevard, San Ramon Valley Boulevard, San Ramon Transit Center</td>
<td>7:45 a.m. - 10:30 p.m.</td>
<td>120 min, 60 min midday</td>
</tr>
</tbody>
</table>

**Source:** County Connection, http://cccta.org/maps-schedules, January 2012.

d. County Connection Route 4 – Downtown Shuttle
The City of Walnut Creek subsidizes County Connection Route 4, which operates between Walnut Creek BART Station and downtown between approximately 7:15 a.m. and 7:30 p.m. on weekdays, and between 9:15 a.m. and 6:45 p.m. on weekends.

The free shuttle departs and arrives at Walnut Creek BART station every 15 minutes throughout the day on weekdays and every 20 minutes throughout the day on weekends. Southbound trips from the BART station to Broadway Plaza take 13 to 14 minutes; return trips take 16 to 17 minutes. The vehicles used on the route are designed to look like historic trolleys.
The bus route and location of bus stops is illustrated in Figure 4.11-6, showing its one-way operation along adjacent streets within the downtown district. Accordingly, local shoppers and employees can travel to and from the BART station via a more direct route by boarding and alighting the bus from different locations, which may be at most one to two blocks apart.

The shuttle service is well-coordinated with trains arriving from Pittsburg/Bay Point during the AM peak period, with the shuttle leaving the station five minutes after southbound trains arrive. However, the shuttle leaves eleven minutes after the arrival of northbound trains from San Francisco and Oakland during the AM peak period. During the PM peak period, the shuttle is scheduled to arrive at the BART station three minutes before southbound trains depart. Shuttles generally arrive six minutes before northbound trains toward Pittsburg/Bay Point depart.

e. Existing Bus Ridership
Table 4.11-7 summarizes existing weekday bus ridership on County Connection bus services operating to and from Walnut Creek BART Station.

f. Bus Terminal
The existing Walnut Creek BART Station bus terminal is located immediately adjacent to the station entrance. Seven bus bays are provided along a center median perpendicular to the station, flanked on either side by BART parking. Four additional bus bays are arranged parallel to the station, two on each side of the entrance.

A sheltered pedestrian path directly connects the seven bus bays to the station entrance, and sheltered seating is also provided. Convenient and safe pedestrian access is provided between all bus bays and the station entrance; however, no real-time information is currently offered.

6. Pedestrian Conditions
The existing on-site pedestrian facilities are considered adequate for current needs, but inconsistent with regard to connecting pedestrians between the
Figure 4.11-6

County Connection Route 4 - Free Downtown Shuttle

Source: County Connection
## Table 4.11-7  Existing County Connection Bus Ridership - Walnut Creek BART Station

<table>
<thead>
<tr>
<th>Route</th>
<th>All Day</th>
<th>AM Peak</th>
<th>Midday Peak</th>
<th>PM Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Board</td>
<td>Alight</td>
<td>Board</td>
<td>Alight</td>
</tr>
<tr>
<td>1</td>
<td>191</td>
<td>141</td>
<td>47</td>
<td>22</td>
</tr>
<tr>
<td>2</td>
<td>30</td>
<td>16</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>4</td>
<td>487</td>
<td>359</td>
<td>50</td>
<td>22</td>
</tr>
<tr>
<td>5</td>
<td>21</td>
<td>30</td>
<td>5</td>
<td>19</td>
</tr>
<tr>
<td>7</td>
<td>77</td>
<td>58</td>
<td>31</td>
<td>24</td>
</tr>
<tr>
<td>9</td>
<td>97</td>
<td>63</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>15</td>
<td>59</td>
<td>55</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>21</td>
<td>244</td>
<td>161</td>
<td>80</td>
<td>32</td>
</tr>
<tr>
<td>25</td>
<td>19</td>
<td>14</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>93X</td>
<td>73</td>
<td>43</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>95X</td>
<td>67</td>
<td>77</td>
<td>39</td>
<td>17</td>
</tr>
<tr>
<td>96X</td>
<td>297</td>
<td>213</td>
<td>228</td>
<td>17</td>
</tr>
<tr>
<td>98X</td>
<td>130</td>
<td>129</td>
<td>37</td>
<td>26</td>
</tr>
<tr>
<td>Total</td>
<td>1,792</td>
<td>1,359</td>
<td>546</td>
<td>221</td>
</tr>
</tbody>
</table>

Source: Central Contra Costa County Transit Authority Ridership by Route and Stop, Fall 2011.
BART station entrance and the external road network. The proposed Project will substantially change pedestrian and bicycle access to the station.

a. Connectivity to Southeast of BART Station
This existing pedestrian route between the station entrance and the intersection of North California Boulevard and Ygnacio Valley Road is considered direct and provides sheltered pedestrian access adjacent to the bus bays. However, the effective width of this route is reduced by seating, shelters, the sawtooth bus bay design and passengers waiting for buses to arrive. In addition, pedestrians are required to cross one internal circulation roadway. This pedestrian route is observed to be well-utilized in both directions during the peak periods.

b. Connectivity to West of BART Station
The existing on-site pedestrian route connecting the station entrance to the residential areas west of the site is less formally provided and direct than the on-site routes discussed above. There is currently no direct and continuous formal on-site pedestrian path between the station entrance and Hillside Avenue. Pedestrians must either walk informally through a surface parking lot or along a more circuitous route that involves crossing an internal access roadway, a signalized pedestrian crossing, a channelized right turn site egress, and a channelized right turn station entry point. Site observations suggest that nearly all pedestrians use the shorter, informal route through the parking lot.

c. Connectivity to North of BART Station
Formal sidewalks are generally provided along the route between the intersection of Pringle and Riviera Avenues and the station entrance. However, this route is somewhat circuitous and requires pedestrians to cross a channelized right turn and an unsignalized crossing, if continuing along Riviera Avenue. Pedestrians destined for North California Boulevard, north of Pringle Avenue, can either walk along a direct path beside a surface parking lot on the west side of the elevated BART guideway, or along a somewhat more circuitous route on the east side.
d. Connectivity to South of BART Station
The pedestrian route between the station entrance and the area south of the station includes an unsignalized crossing of an internal access roadway and signalized crossings of the north and west legs of the Ygnacio Valley Road/Interstate 680 Off-Ramp/BART Access/Oakland Boulevard intersection.

e. On-Site Wayfinding Signage
Minimal wayfinding signage is currently provided for pedestrians on the BART station site.

7. Bicycle Conditions
Bicycle paths, lanes, and routes are typical examples of bicycle transportation facilities in the Project area. Bicycle facilities are defined by the following three classes in Chapter 1000 of the Caltrans Highway Design Manual:

- Class I – Provides a completely separated facility designed for the exclusive use of bicyclists and pedestrians with crossing points minimized.
- Class II – Provides a restricted right-of-way designated lane for the exclusive or semi-exclusive use of bicycles with through travel by motor vehicles or pedestrians prohibited, but with vehicle parking and cross-flows by pedestrians and motorists permitted.
- Class III – Provides a right-of-way designated by signs or permanent markings and shared with pedestrians and motorists.

Bicycle facilities in the Project area, as identified in the 2011 City of Walnut Creek Bicycle Plan, include:

- Class I
  - Contra Costa Canal Trail,
  - Iron Horse Regional Trail, and
  - Oakland Boulevard between Ygnacio Valley Road and Trinity Avenue;
Class II
- North California Boulevard between Pringle Avenue and Mount Diablo Boulevard,
- Oak Road between Contra Costa Canal Trail and Walden Road, and
- Olympic Boulevard west of South California Boulevard;

Class III
- Ygnacio Valley Road.

The Plan also proposes new Class II and III bicycle facilities along the following roadways:
- Buena Vista Avenue between Geary Road and Parkside Drive (Class III),
- South California Boulevard between Mount Diablo Boulevard and Newell Avenue (Class II and III),
- Civic Drive between North California Boulevard and Walden Road (Class II and III),
- Hillside Drive between Parkside Drive and Interstate 680 (Class II and III),
- Jones Road between Parkside Drive and Iron Horse Regional Trail (Class II and III),
- Lincoln Avenue between Iron Horse Regional Trail and North Broadway (Class III),
- Mount Diablo Boulevard, Walker Avenue and Homestead Avenue between Iron Horse Regional Trail and Ygnacio Valley Road (Class III),
- Newell Avenue between Olympic Boulevard and Blackwood Drive (Class II and III),
- Oakland Boulevard between Trinity Avenue and Mount Diablo Boulevard (Class III),
- Olympic Boulevard under Interstate 680 overpass (Class II),
- Parkside Drive between Hillside Drive and Civic Drive (Class II and III),
Pringle Avenue between Riviera Avenue and North California Boulevard (Class II and III),

Riviera Avenue between Pringle Avenue and Parkside Drive (Class II and III),

Trinity Avenue between Oakland and North California Boulevards (Class III)

Walden Road between Jones Road and Walnut Boulevard (Class II and III), and

Walnut Boulevard between Seven Hills Ranch Road and Rock Spring Place (Class III).

a. On-Site Bicycle Paths

Formal bicycle lanes connecting the BART station entrance, bicycle lockers or bicycle racks with the external road network are not provided, nor are bicycle access ramps to and from the external road network. Bicyclists are required to enter and exit the station site via the limited number of vehicular access points.

The main pedestrian access point, located at the intersection of Ygnacio Valley Road and North California Boulevard, also represents an attractive bicycle access point to and from the BART station, given the presence of the bicycle lanes on North California Boulevard and designation of the sidewalks on Ygnacio Valley Road as Class III bicycle paths. However, no suitable bicycle ramps are currently provided between the BART station and this intersection, and the majority of bicyclists dismount and carry their bicycles up/down the pedestrian stairway.

To enter via the vehicular access point at the Ygnacio Valley Road/ Interstate 680 Off-Ramp/BART Access/Oakland Boulevard intersection, bicyclists are required to ride on the sidewalk along Ygnacio Valley Road. Although bicycling on the sidewalks of Ygnacio Valley Road is allowed and designated with signage, this is not considered an ideal commuter bicyclist route and the con-
nectivity between the on-street North California Boulevard bicycle lanes and the Ygnacio Valley Road sidewalks is considered inadequate.

A bicyclist traveling towards the station on northbound North California Boulevard and turning left onto Ygnacio Valley Road with vehicular traffic is currently afforded no ramp or curb-cut to allow a transition onto the designated sidewalk. Accordingly, bicyclists are required to wait at two pedestrian crossings and then cross the channelized right turn to arrive at the northwest corner of the intersection. From this point, bicyclists must carry their bicycle up the stairs to take the most direct route to the on-site bicycle parking facilities.

b. On-Site Bicycle Parking
The BART station currently provides a total of 64 secure and private bicycle lockers, and 13 bicycle racks with a total capacity of 78 bicycles. The bicycle racks are provided in three locations: south of the station entrance, adjacent to the bicycle lockers; north of the station entrance, along the sides of the ground-level station building; and west of the station entrance, on the side of the existing car parking structure.

A site visit observed 40 bicycles locked to the bicycle racks at midday on a weekday; therefore, there is spare capacity for basic informal parking. However, all of the secure bicycle lockers have been assigned and there are currently about 20 people on a waiting list. Interested bicycle commuters must wait for a locker to become available, then pay a $25 deposit and a $30 annual fee for exclusive use of a locker, accessed by key.

Additionally, 56 electronic bicycle lockers ("eLockers") are slated for installation at the station in early 2013, which would be accessible via smartcard on a first-come, first-served basis. These lockers would address the need for occasional secure parking, bridging the gap between rack parking and lockers assigned to a single user. Designed for greater turnover, these lockers would serve a greater number of bicyclists. Additionally, they would be compatible
with eLockers at other BART stations, increasing the overall utility and attractiveness of bicycle access to BART.

8. Parking

a. General

The Walnut Creek BART Station parking facilities currently provide a total of 2,089 spaces, distributed among four separate surface lots as well as a multi-level parking structure. The capacity, general restrictions and fees applicable to each section of the parking facilities are shown diagrammatically in Figure 4.11-7. The location of the station entrance is also shown to demonstrate comparative walking distances to and from the various parking areas.

Site observations suggest that the general parking spaces ($1 per day) in both the multi-level structure and surface lots are both fully occupied by approximately 7:30 am to 7:45 am on weekdays.

Approximately 381 parking spaces are reserved for monthly and daily reserved permit holders until 10:00 am each weekday morning, after which they are open to all and the daily fee of $1 applies.

A limited supply of carpool parking (36 spaces) is also provided, which has been observed to exhibit moderate spare parking capacity until 10:00 a.m., when the spaces revert to general parking. The same $1 daily fee applicable to the general parking areas also applies to the carpool parking spaces. The carpool parking spaces are located at a greater distance from the station entrance than the majority of other parking spaces, and the carpool parking signage does not state the requirement that two permits must be displayed on each vehicle, nor provide any information regarding how to obtain carpool permits. This potentially creates uncertainty and discourages new users.

b. Patron Drop-off and Pick-up and Taxi Zone Parking

A total of 22 patron drop-off and pick-up parking spaces, one disabled access loading space and four taxi zone parking spaces are currently provided at the BART station, in the locations shown in Figure 4.11-8. The majority of motorists picking up passengers were observed to enter the station site from the
Reserved Permit Parking ($63 per month or $4 per day) until 10:00AM;
General Parking - $1 per day (after 10:00AM and until 3:00PM)
General Parking - $1 per day (until 3:00PM)
Carpool Parking (2 or more people and permits displayed) - $1 per day

Figure 4.11-8

Patron Drop-Off and Pick-Up and Taxi Zone Parking Areas


- Patron Drop-Off and Pick-Up Spaces
- Handicapped Loading Space
- Taxi Zone
southern access, and exit via either the intersection of Pringle Avenue and Riviera Avenue on the north or the right-out-only North California Boulevard egress on the east.

During the PM peak period, the 7 to 8 patron drop-off and pick-up spaces located along the section of roadway parallel to the station were observed to be in high demand, with queues occasionally spilling back to Ygnacio Valley Road. However, there are generally always spare patron drop-off and pick-up parking spaces available along the roadway section downstream that is oriented at an angle perpendicular to the station. During a period when the queue for patron drop-off and pick-up parking spilled back onto Ygnacio Valley Road, it was estimated that the overall demand for patron drop-off and pick-up parking was approximately 20 to 22 spaces, which could have been accommodated within the existing allocation if motorists occupied all of the patron drop-off and pick-up spaces more efficiently.

Some pick-up activity occurring in the surface parking lot located to the east of the station has also been observed, presumably a response to congestion and delays experienced in the formal patron drop-off and pick-up area on the opposite side of the station. This indicates that the overall maximum peak demand for patron drop-off and pick-up spaces is probably modestly higher than the amount of 20 to 22 spaces observed in the formal patron drop-off and pick-up area.

The peak demand for patron drop-off and pick-up spaces was observed to be lower and well within capacity during the AM peak period. Drop-off parking activities, which are generally greatest during the AM peak period, create a lower impact due to the reduced dwell times of vehicles when dropping off passengers as compared with picking up passengers.

The existing provision of approximately four taxi zone spaces is considered sufficient based on the limited taxi usage observed. Additionally, taxis have been observed using the southern end of Riviera Avenue as a layover area, despite signage restricting the on-street parking spaces from taxi use. The
City of Walnut Creek has received complaints from abutting businesses regarding this issue.

c. Surrounding On-Street Parking

The majority of on-street parking spaces in the immediate vicinity of the BART station are subject to time limits and metered parking fees, and thus is unlikely to be utilized by BART commuters. This ensures that these on-street parking spaces are used for their intended purpose of servicing abutting residential or commercial land uses. Metered parking is typically implemented in commercial areas, where the cost is consistently 50 cents per hour, regardless of the time limit.

In residential areas, parking is generally restricted by time limits rather than by meters. The City of Walnut Creek’s Preferential Residential Permit Parking (PRPP) program allows residents of qualified neighborhoods to obtain special permits which exempt them and their guests from certain parking time limits or prohibitions. Within the immediate area of the BART station, PRPP has been applied on Hillside Avenue west of the station and on Almond and Shuey Avenues south of the station.

Lacassie Avenue west of North California Boulevard provides approximately 28 unrestricted parking spaces, which were observed to be fully occupied. This street is within close proximity of the BART station and it is presumed that many motorists parking in this street are likely to be BART commuters utilizing free all-day parking.

Observations of on-street parking patterns in areas located farther from the BART station suggest that the existing demand for free all-day parking extends as far as ¼-mile walking distance from the station. Commuter parking is presumed to occur in street sections which do not necessarily have abutting land uses that require on-street parking, such as Jones Road and Oakland Boulevard south of Trinity Avenue.
In addition, BART commuter parking is also presumed to be occurring along residential streets such as Trinity Avenue, Cole Avenue, Parkside Drive, San Juan Avenue, and Buena Vista Avenue. The presence of commuter parking in these residential streets limits parking opportunities for residents and visitors during the daytime period.

d. Accident Collision Analysis

Accident data was secured from the City of Walnut Creek for a number of intersections in proximity of the BART station, including project study intersections and non-project study intersections. For each intersection, a three-year history covering the period from June 2009 through June 2012 was obtained.

Total accidents, including the total number of injuries and fatalities, as well as the total number of pedestrians and bicyclists involved, are summarized in Appendix I-6. Using the available data, incident rates (collisions per million vehicles) were also determined for each intersection.

Over the three-year data collection period, no fatalities occurred in the vicinity of the Project site. Total accidents at nearby intersections ranged from zero to 24 over the three-year period, equating to an average range of 0 to 8 collisions per year. Intersection #11 (Ygnacio Valley Road and Civic Drive) was found to have the most collisions, with 24 total accidents recorded, including 11 injuries. Intersections directly adjacent to the Project site tended to have few collisions, with total accidents ranging from zero to seven over the three-year period. This equates to fewer than three collisions per year at intersections adjacent to the Project site.

C. Baseline Conditions

Traffic conditions under two future baseline scenarios are evaluated in this section, as summarized below:
 Baseline - Existing Conditions with the addition of any projects that will be constructed between the time that Existing data was collected, and August 2012, the earliest point at which the Walnut Creek BART Transit Village Project may be approved; and

 Future Baseline - Future conditions including projected population and employment growth, as well as planned transportation system improvements contained in the latest Contra Costa Transportation Authority (CCTA) travel demand model for the 2030 Baseline Cumulative Scenario.

A comparison of both baseline conditions to scenarios that include the addition of project traffic is evaluated in Subsection F, enabling a determination of whether the project causes significant impacts to either Baseline scenario.

This approach was standard practice in traffic analyses until 2010, but was rejected by Sunnyvale West Neighborhood Assoc. v. City of Sunnyvale. In Sunnyvale West, based on CEQA Guidelines 15125, the court held that the baseline can only be defined as currently existing conditions, and cannot include other approved or planned traffic improvements. However, Pfeiffer v. City of Sunnyvale later upheld an Environmental Impact Report (EIR) which included both the "existing conditions baseline" and the "future baseline." Rejecting the plaintiffs' claim that this was prohibited by Sunnyvale West, Pfeiffer found that "Sunnyvale West is therefore distinguishable from the present case, where the traffic baselines included in the EIR were not limited to projected traffic conditions in the year 2020, but also included existing conditions and the traffic growth anticipated from approved but not yet constructed developments." Thus, the approach taken in the Walnut Creek BART Transit Village EIR is consistent with the Pfeiffer ruling and the more recent decision in Neighbors for Smart Rail v. Exposition Metro Line Construction Au-

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5 200 Cal. App. 4th at 1573.
authority,\(^6\) which held that CEQA does not prohibit utilization of future conditions as the baseline for analyzing project impacts.

A list of approved projects provided by the City of Walnut Creek, including their locations and proposed land uses, is summarized below in Table 4.11-8. A subset of approved projects anticipated to be completed by August 2012 is included as part of the Baseline Conditions scenario. These projects, as well as those anticipated to be completed after August 2012, are included as part of the Future Baseline scenario.

1. **Baseline Conditions**

Baseline Conditions are made up of a combination of existing traffic data and traffic that will be generated by locally approved projects to be constructed by August 2012.

As shown in Table 4.11-8, seven approved projects are anticipated to be completed by August 2012. Total vehicle trip generation and trip assignment for these approved projects was determined using a combination of:

- Trip generation rates from ITE’s Trip Generation (8th Edition);
- Projected traffic volumes generated from the list of approved projects assumed for the Broadway Plaza Master Plan (traffic volumes provided in Appendix I-7); and
- Traffic distribution assumptions similar to those used for the Walnut Creek Transit Village Project trips.

a. **Intersection Operations**

The resulting Baseline traffic volumes at each of the 23 study intersections are provided in Appendix I-1. The level of service under Baseline Conditions for each of the 23 study intersections is summarized in Table 4.11-9. Detailed intersection level of service calculation worksheets are provided in Appendix I-3.

### Table 4.11-8  **APPROVED PROJECTS**

<table>
<thead>
<tr>
<th>Project</th>
<th>Address</th>
<th>Land Use</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Baseline Projects</strong> (Projects anticipated to be constructed by August 2012)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Walden Park Commons</td>
<td>El Paseo Circle and Oak Road</td>
<td>65 residential units</td>
</tr>
<tr>
<td>Nordstrom Remodel/ Expansion</td>
<td>1200 Broadway Plaza</td>
<td>18.4 KSF retail</td>
</tr>
<tr>
<td>Neiman Marcus</td>
<td>1196 Broadway Plaza</td>
<td>138 KSF retail</td>
</tr>
<tr>
<td>Diritto Brothers Volkswagen Walnut Creek</td>
<td>2020 North Main Street</td>
<td>29.7 KSF automobile dealership</td>
</tr>
<tr>
<td>John Muir Medical Center</td>
<td>1601 Ygnacio Valley Road</td>
<td>443 KSF public use</td>
</tr>
<tr>
<td>24-Hour Fitness / Chick-Fil-A</td>
<td>2800 North Main Street</td>
<td>43 KSF health club,</td>
</tr>
<tr>
<td>Co-op Site Retail Development</td>
<td>1510 Geary Road</td>
<td>4.34 KSF restaurant</td>
</tr>
<tr>
<td><strong>Future Baseline Projects</strong> (Scenario includes Baseline Projects, as well as the following projects anticipated to be constructed after August 2012)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E'lan</td>
<td>1605 Riviera Avenue</td>
<td>48 residential units</td>
</tr>
<tr>
<td>Villagewalk Condos</td>
<td>1725-1727 Lacassie Avenue</td>
<td>13 residential units</td>
</tr>
<tr>
<td>Bonanza Heritage Condominiums</td>
<td>1874 &amp; 1882 Bonanza St., 1826 Sharpe Avenue</td>
<td>15 residential units</td>
</tr>
<tr>
<td>235 Ygnacio Valley Road</td>
<td>236 Ygnacio Valley Road</td>
<td>11 residential units</td>
</tr>
<tr>
<td>Walker-Sierra Townhomes</td>
<td>1241 Walker Avenue</td>
<td>4 residential units</td>
</tr>
<tr>
<td>Overlook Homes</td>
<td>2245 Overlook Drive</td>
<td>9 residential units</td>
</tr>
<tr>
<td>Cole Terrace Condominiums</td>
<td>1756 Cole Avenue</td>
<td>12 residential units</td>
</tr>
<tr>
<td>Parkview Condos</td>
<td>1665 Carmel Drive</td>
<td>8 residential units</td>
</tr>
<tr>
<td>Homestead Terrace Homes</td>
<td>1279 Homestead Avenue</td>
<td>12 residential units</td>
</tr>
<tr>
<td>Holcomb Court Condos</td>
<td>15 Holcomb Court</td>
<td>5 residential units</td>
</tr>
<tr>
<td>Overlook Town Homes</td>
<td>2725 Overlook Drive</td>
<td>7 residential units</td>
</tr>
<tr>
<td>Lincoln Avenue Triplex</td>
<td>1229 Lincoln Avenue</td>
<td>3 residential units</td>
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</tbody>
</table>
### Project Address Land Use

<table>
<thead>
<tr>
<th>Project</th>
<th>Address</th>
<th>Land Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Almond Lofts</td>
<td>1960 &amp; 1972 Almond Ave., 1600 Oakland Blvd.</td>
<td>9 residential units</td>
</tr>
<tr>
<td>Howard Oaks Subdivision</td>
<td>2361 and 2373 Walnut Boulevard</td>
<td>4 lots</td>
</tr>
<tr>
<td>The Village</td>
<td>1500 Newell Avenue</td>
<td>38.1 KSF retail, 49 residential units</td>
</tr>
<tr>
<td>Pleasant Creek Homes</td>
<td>1935 Barkley Avenue</td>
<td>10 residential units</td>
</tr>
<tr>
<td>Paragon Apartments</td>
<td>141 North Civic Drive</td>
<td>300 residential units</td>
</tr>
<tr>
<td>North Main Apartments</td>
<td>1960 North Main Street</td>
<td>126 residential units</td>
</tr>
<tr>
<td>The Arroyo Apartments</td>
<td>1250 Arroyo Way</td>
<td>107 residential units</td>
</tr>
<tr>
<td>Shadelands Gateway</td>
<td>Ygnacio Valley Road and Oak Grove</td>
<td>246 KSF retail</td>
</tr>
<tr>
<td>Safeway Remodel</td>
<td>600 South Broadway</td>
<td>25 KSF retail</td>
</tr>
<tr>
<td>Locust Street/ Mount Diablo Blvd. Specific Plan</td>
<td>N. California Blvd. and Mt. Diablo Blvd.</td>
<td>office, retail, residential</td>
</tr>
<tr>
<td>Block C</td>
<td>Locust Street and Mount Diablo Boulevard</td>
<td>office, retail, residential</td>
</tr>
<tr>
<td>Broadway Plaza Master Plan</td>
<td>S. Main St. and Mt Diablo Blvd.</td>
<td>Commercial/retail, residential</td>
</tr>
</tbody>
</table>

Source: City of Walnut Creek, 2011; KSF = 1,000 square feet.

As shown, all signalized and unsignalized study intersections are expected to operate at acceptable conditions under the Baseline scenario, during both the weekday AM and PM peak hours.

**b. Delay Index – Ygnacio Valley Road**

The intersections along Ygnacio Valley Road are subject to the significance criteria for Routes of Regional Significance. The delay index is expressed as the ratio of “congested” travel time divided by “uncongested” travel time. The “uncongested” travel time along the corridor is determined by selecting the lowest surveyed travel time among travel surveys for the off-peak period. The “congested” travel time is calculated as the average travel time among travel surveys for the AM and PM peak periods. Using Synchro software, the delay index was determined for Baseline Conditions.
### Table 4.11-9  Intersection Operations – Baseline Conditions

<table>
<thead>
<tr>
<th>Intersections</th>
<th>AM Peak</th>
<th>PM Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Signalized Intersections</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1  North Main Street and Parkside Drive</td>
<td>A 0.532</td>
<td>A 0.558</td>
</tr>
<tr>
<td>2  North Main Street/ Lawrence Way/North California Boulevard</td>
<td>A 0.382</td>
<td>A 0.414</td>
</tr>
<tr>
<td>4  Pringle Avenue and North California Boulevard</td>
<td>A 0.318</td>
<td>A 0.441</td>
</tr>
<tr>
<td>5  Pringle Avenue and North Main Street</td>
<td>A 0.365</td>
<td>A 0.350</td>
</tr>
<tr>
<td>7  Ygnacio Valley Road/ I-680 Off-Ramp/BART Access/Oakland Boulevard</td>
<td>Performance standard on Ygnacio Valley Road is based on Delay Index</td>
<td></td>
</tr>
<tr>
<td>8  Ygnacio Valley Road and North California Boulevard</td>
<td>Performance standard on Ygnacio Valley Road is based on Delay Index</td>
<td></td>
</tr>
<tr>
<td>9  Ygnacio Valley Road and North Main Street</td>
<td>Performance standard on Ygnacio Valley Road is based on Delay Index</td>
<td></td>
</tr>
<tr>
<td>10 Ygnacio Valley Road and North Broadway</td>
<td>Performance standard on Ygnacio Valley Road is based on Delay Index</td>
<td></td>
</tr>
<tr>
<td>11 Ygnacio Valley Road and Civic Drive</td>
<td>Performance standard on Ygnacio Valley Road is based on Delay Index</td>
<td></td>
</tr>
<tr>
<td>12 Lawrence Way and Penniman Avenue</td>
<td>A 0.284</td>
<td>A 0.593</td>
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<tr>
<td>18 Ygnacio Valley Road and I-680 On-Ramp</td>
<td>A 0.421</td>
<td>A 0.515</td>
</tr>
<tr>
<td>19 Lacassie Avenue and North California Boulevard</td>
<td>A 0.297</td>
<td>A 0.505</td>
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<td>20 Lacassie Avenue and North Main Street</td>
<td>A 0.259</td>
<td>A 0.382</td>
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<tr>
<td>21 Trinity Avenue/ North California Boulevard/Civic Drive</td>
<td>A 0.419</td>
<td>A 0.523</td>
</tr>
<tr>
<td>22 Civic Drive and North Main Street</td>
<td>A 0.399</td>
<td>A 0.609</td>
</tr>
<tr>
<td>23 Bonanza Street and North California Boulevard</td>
<td>B 0.671</td>
<td>D 0.896</td>
</tr>
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</table>

4.11-58
Intersections | AM Peak | PM Peak |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsignalized Intersections</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Pringle Avenue and Riviera Avenue</td>
<td>B 10.3</td>
<td>A 9.7</td>
</tr>
<tr>
<td>6 North California Boulevard Right-</td>
<td>B 11.8</td>
<td>B 14.9</td>
</tr>
<tr>
<td>Out-Only Site Egress</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13 Parkside Drive and Riviera Avenue</td>
<td>C 14.7</td>
<td>B 14.7</td>
</tr>
<tr>
<td>14 Parkside Drive and San Juan Avenue</td>
<td>B 13.5</td>
<td>A 9.2</td>
</tr>
<tr>
<td>15 Parkside Drive and Buena Vista</td>
<td>C 23.9</td>
<td>B 10.5</td>
</tr>
<tr>
<td>Avenue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16 Parkside Drive and Hillside Avenue</td>
<td>B 11.6</td>
<td>B 13.1</td>
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<tr>
<td>17 Hillside Avenue and SR 24</td>
<td>A 7.8</td>
<td>A 8.6</td>
</tr>
</tbody>
</table>


The resulting delay index during both AM and PM peak hours and in both eastbound and westbound directions is presented below in Table 4.11-10. Detailed delay index output is provided in Appendix I-9.

Table 4.11-10 shows that the delay index along Ygnacio Valley Road would remain below 2.0. Synchro also projects that the average speed along this corridor would remain above 15 miles per hour in all three scenarios.

c. Freeway Operations
The operations of Caltrans facilities under Baseline Conditions have been evaluated using the methodology set forth in the Caltrans Guide for the Preparation of Traffic Impact Studies, 2003. Table 4.11-11 summarizes the Baseline operations of the freeway mainline segments and ramp segments that have been evaluated.
### Table 4.11-10 Ygnacio Valley Road Delay Index Summary – Baseline Conditions

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Eastbound</th>
<th>Westbound</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Delay Index</td>
<td>Avg. Speed</td>
</tr>
<tr>
<td>AM Peak Hour</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>1.24</td>
<td>24</td>
</tr>
<tr>
<td>PM Peak Hour</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>1.11</td>
<td>26</td>
</tr>
</tbody>
</table>


2. Future Baseline (2030)

This scenario evaluates intersection operations and freeway operations under a scenario that includes traffic volumes projected for the future year (2030), but does not include the proposed Walnut Creek Transit Village Project.

The CCTA model was used to forecast these Future Baseline traffic volumes. The projections include all past and present projects (existing development and projects under construction), and all approved, pending, and reasonably foreseeable future projects through 2030, as well as increased traffic on roadway facilities associated with regional growth.

Growth rates were determined for all turning movements at each of the 23 study intersections. The projected growth rates were applied to existing turning movement counts to estimate Future Baseline intersection volumes. Due to the Project’s close proximity to Broadway Plaza, growth rates applied to common intersections are consistent with the analysis provided as part of the Broadway Plaza Long Range Master Plan EIR.
# Table 4.11-11: Freeway Operations - Baseline Conditions

<table>
<thead>
<tr>
<th>Freeway Facility</th>
<th>AM Peak</th>
<th>PM Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LOS</td>
<td>Density</td>
</tr>
<tr>
<td><strong>Mainline Segments</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 I-680: North of North Main Street</td>
<td>NB C</td>
<td>22.4</td>
</tr>
<tr>
<td></td>
<td>SB C</td>
<td>24.3</td>
</tr>
<tr>
<td>2 I-680: South of SR 24</td>
<td>NB C</td>
<td>24.8</td>
</tr>
<tr>
<td></td>
<td>SB C</td>
<td>18.5</td>
</tr>
<tr>
<td>3 SR 24: West of I-680</td>
<td>EB B</td>
<td>15.4</td>
</tr>
<tr>
<td></td>
<td>WB E</td>
<td>35.1</td>
</tr>
<tr>
<td><strong>Ramp Junctions</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 I-680: NB Off-Ramp to Ygnacio Valley Road</td>
<td>A</td>
<td>5.2</td>
</tr>
<tr>
<td>5 I-680: NB On-Ramp from Lawrence Way</td>
<td>C</td>
<td>22.3</td>
</tr>
<tr>
<td>6 I-680: SB Off-Ramp to North Main Street (SB and NB exits)</td>
<td>A</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Note: Density levels at the northbound I-680 Off-Ramp to North Main Street are shown as “0.0,” as the large amount of ramp capacity is outside the meaningful range for density calculations. The ramp functions at LOS A levels with sufficient capacity to accommodate vehicles.


---

**a. Intersection Operations**

The projected Future Baseline traffic volumes at each of the 23 study intersections are provided in Appendix I-1. The level of service under Future Baseline Conditions for each of the 23 study intersections is summarized in Table 4.11-12.
### Table 4.11-12  Intersection Operations – Future Baseline Conditions

<table>
<thead>
<tr>
<th>Intersections</th>
<th>AM Peak</th>
<th>PM Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Signalized Intersections</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 North Main Street and Parkside Drive</td>
<td>D 0.836</td>
<td>C 0.787</td>
</tr>
<tr>
<td>2 North Main Street/Lawrence Way/North California Boulevard</td>
<td>B 0.644</td>
<td>C 0.732</td>
</tr>
<tr>
<td>4 Pringle Avenue and North California Boulevard</td>
<td>C 0.747</td>
<td>C 0.728</td>
</tr>
<tr>
<td>5 Pringle Avenue and North Main Street</td>
<td>A 0.518</td>
<td>B 0.646</td>
</tr>
<tr>
<td>7 Ygnacio Valley Road/I-680 Off-Ramp/BART Access/Oakland Boulevard</td>
<td>Performance standard on Ygnacio Valley Road is based on Delay Index</td>
<td></td>
</tr>
<tr>
<td>8 Ygnacio Valley Road and North California Boulevard</td>
<td>Performance standard on Ygnacio Valley Road is based on Delay Index</td>
<td></td>
</tr>
<tr>
<td>9 Ygnacio Valley Road and North Main Street</td>
<td>Performance standard on Ygnacio Valley Road is based on Delay Index</td>
<td></td>
</tr>
<tr>
<td>10 Ygnacio Valley Road and North Broadway</td>
<td>Performance standard on Ygnacio Valley Road is based on Delay Index</td>
<td></td>
</tr>
<tr>
<td>11 Ygnacio Valley Road and Civic Drive</td>
<td>Performance standard on Ygnacio Valley Road is based on Delay Index</td>
<td></td>
</tr>
<tr>
<td>12 Lawrence Way and Penniman Avenue</td>
<td>A 0.420</td>
<td>D 0.867</td>
</tr>
<tr>
<td>18 Ygnacio Valley Road and I-680 On-Ramp</td>
<td>A 0.434</td>
<td>A 0.570</td>
</tr>
<tr>
<td>19 Lacassie Avenue and North California Boulevard</td>
<td>A 0.297</td>
<td>A 0.555</td>
</tr>
<tr>
<td>20 Lacassie Avenue and North Main Street</td>
<td>A 0.579</td>
<td>F 1.203</td>
</tr>
<tr>
<td>21 Trinity Avenue/North California Boulevard/Civic Drive</td>
<td>C 0.746</td>
<td>F 1.027</td>
</tr>
<tr>
<td>22 Civic Drive and North Main Street</td>
<td>D 0.872</td>
<td>F 1.309</td>
</tr>
<tr>
<td>23 Bonanza Street and North California Boulevard</td>
<td>E 0.980</td>
<td>E 0.975</td>
</tr>
</tbody>
</table>

4.11-62
Intersections | AM Peak | PM Peak |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unsignalized Intersections</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Pringle Avenue and Riviera Avenue</td>
<td>B 10.9</td>
<td>B 10.4</td>
</tr>
<tr>
<td>6 North California Boulevard right-out-only site egress</td>
<td>C 23.5</td>
<td>E 43.0</td>
</tr>
<tr>
<td>13 Parkside Drive and Riviera Avenue</td>
<td>D 26.8</td>
<td>C 20.0</td>
</tr>
<tr>
<td>14 Parkside Drive and San Juan Avenue</td>
<td>D 28.4</td>
<td>C 17.3</td>
</tr>
<tr>
<td>15 Parkside Drive and Buena Vista Avenue</td>
<td>F 82.1</td>
<td>E 43.8</td>
</tr>
<tr>
<td>16 Parkside Drive and Hillside Avenue</td>
<td>F 135.6</td>
<td>F 50.5</td>
</tr>
<tr>
<td>17 Hillside Avenue and SR 24 On-Ramp</td>
<td>A 9.1</td>
<td>A 9.6</td>
</tr>
</tbody>
</table>


A total of three intersections during the AM peak hour and seven intersections during the PM peak hour are projected to operate at undesirable LOS E or F under Future Baseline Conditions.

b. Delay Index - Ygnacio Valley Road
The intersections along Ygnacio Valley Road are subject to the significance criteria for Routes of Regional Significance. The delay index under Future Baseline Conditions during both AM and PM peak hours and in both eastbound and westbound directions is presented below in Table 4.11-13. Detailed delay index output is provided in Appendix I-9.

Table 4.11-13 shows that the delay index along Ygnacio Valley Road would remain below 2.0. Synchro also projects that the average speed along this corridor would remain above 15 miles per hour in all three scenarios.
### Table 4.11-13  Ygnacio Valley Road Delay Index Summary – Future Baseline Conditions

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Eastbound</th>
<th>Westbound</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Delay Index</td>
<td>Avg. Speed</td>
</tr>
<tr>
<td>AM Peak Hour</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Future Baseline</td>
<td>1.53</td>
<td>20</td>
</tr>
<tr>
<td>PM Peak Hour</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Future Baseline</td>
<td>1.56</td>
<td>21</td>
</tr>
</tbody>
</table>


c. Freeway Operations
The operations of the following Caltrans facilities under the Future Baseline scenario have been evaluated using the methodology set forth in the Caltrans Guide for the Preparation of Traffic Impact Studies, 2003.

Table 4.11-14 summarizes the Future Baseline operations of the freeway mainline segments and ramp segments that have been evaluated. As shown, the northbound segment of Interstate 680 north of North Main Street would operate at LOS E during the PM peak hour. The segment of State Route 24 west of Interstate 680 would operate at LOS F in the westbound direction during the AM peak hour, and in the eastbound direction during the PM peak hour. The northbound Interstate 680 Off-Ramp to Ygnacio Valley Road would operate at LOS F during the PM peak hour.

### D. Standards of Significance

In accordance with the California Environmental Quality Act (CEQA), the effects of a project are evaluated to determine whether they will result in a
## Table 4.11-14 Freeway Operations – Future Baseline Conditions

<table>
<thead>
<tr>
<th>Freeway Facility</th>
<th>AM Peak</th>
<th>PM Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LOS</td>
<td>Density</td>
</tr>
<tr>
<td><strong>Mainline Segments</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 I-680: North of North Main Street</td>
<td>NB C 23.0 E 36.6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SB D 27.9 C 20.5</td>
<td></td>
</tr>
<tr>
<td>2 I-680: South of SR 24</td>
<td>NB D 28.9 D 26.9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SB C 20.9 C 20.6</td>
<td></td>
</tr>
<tr>
<td>3 SR 24: West of I-680</td>
<td>EB C 20.2 F 52.8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>WB F 54.8 C 22.5</td>
<td></td>
</tr>
<tr>
<td><strong>Ramp Junctions</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 I-680: NB Off-Ramp to Ygnacio Valley Road</td>
<td>A 10.4 F 19.1</td>
<td></td>
</tr>
<tr>
<td>5 I-680: NB On-Ramp from Lawrence Way</td>
<td>C 23.0 D 32.6</td>
<td></td>
</tr>
<tr>
<td>6 I-680: SB Off-Ramp to North Main Street (SB and NB exits)</td>
<td>A 2.4 A 0.0</td>
<td></td>
</tr>
</tbody>
</table>

Note: Density levels at the northbound I-680 Off-Ramp to North Main Street during the weekday PM peak hour are shown as "0.0," as the large amount of ramp capacity is outside the meaningful range for density calculations. The ramp functions at LOS A levels with sufficient capacity to accommodate vehicles.


The significance criteria applied for this analysis are consistent with those established by the Transportation Partnership and Cooperation Committee (TRANSPAC), the regional transportation planning committee for Central Contra Costa County and the City of Walnut Creek. The City of Walnut Creek's significance criteria, which are outlined in the City of Walnut Creek 2025 General Plan (adopted...
April 4, 2006), were used to determine if the Project would result in significant impacts.

1. **City of Walnut Creek Roadways and Intersections**

The proposed Project would have a significant impact with regard to traffic if it would:

- Cause the delay index to exceed 2.0 or the average travel speed to reduce to below 15 mph along Ygnacio Valley Road, which is classified as a Route of Regional Significance.

- Result in a deterioration in intersection operation to high LOS E or worse (v/c ratio of 0.95 or higher) for the study intersections located east of Interstate 680 and not on Ygnacio Valley Road (within the Core Area Roadways and Intersections boundary). Intersections already operating at a v/c ratio greater than 0.95 under the baseline scenario would result in a significant impact if the v/c ratio increases by 0.05 (5 percent) or greater.

- Result in a deterioration in intersection operation to high LOS D or worse (v/c ratio of 0.85 or higher) for the study intersections located west of Interstate 680 (on collector roads). Intersections already operating at a v/c ratio of greater than 0.85 under the baseline scenario would result in a significant impact if the v/c ratio increases by 0.05 (five percent) or greater.

- Exceed, either individually or cumulatively, a level of service standard established by the Contra Costa Transportation Authority for designated roads or highways. The Central Contra Costa Updated Action Plan identifies a significant impact as occurring when project-generated traffic causes:
  - The delay index on a Route of Regional Significance to exceed 2.0; or
  - The average travel speed on a Route of Regional Significance to fall below 15 miles per hour.
The Contra Costa Congestion Management Program establishes a standard of LOS F for intersections on Ygnacio Valley Road between Interstate 680 northbound ramps and Walnut Boulevard.

The significance criteria stated above are summarized below in Table 4.11-15. Figure 4.11-9 summarizes the location of study intersections that are applicable to each form of analysis significance criteria.

The "Core Area Roadways and Intersections" area extends to cover all study intersections bounded by Interstate 680, Iron Horse Regional Trail and Walden Road. These significance criteria have been applied to Study Intersections 1, 2, 3, 4, 5, 6, 12, 13, 19, 20, 21, 22, and 23.

Study Intersections 7, 8, 9, 10, and 11 are located within the "Core Area Roadways and Intersections" area, but are also located on Ygnacio Valley Road. Accordingly, the Routes of Regional Significance criteria are applicable and have been used to evaluate these intersections.

Study Intersections 14, 15, 16 and 17 are located west of Interstate 680 and on collector roads; therefore, the applicable significance criteria have been used to evaluate these intersections.

The significant impacts resulting from the implementation of the Walnut Creek Transit Village Project under Baseline and Future Baseline Conditions are discussed in Subsection F.

The City of Walnut Creek has not adopted significance criteria specifically for unsignalized intersections. However, the Walnut Creek Municipal Code provides that the City Traffic Engineer shall ascertain and determine the locations where traffic signals are required by making field observations, conducting traffic counts, and relying on other relevant traffic information. The Municipal Code further requires that the City Traffic Engineer make his or

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7 Walnut Creek Municipal Code 3.5.402(b).
Significance Criteria Classification

Shown Below

Route of Regional Significance
Study Intersection
Core Area

Figure 4.11-9
Significance Criteria Classification
**Table 4.11-15**  **Intersection Operation Significance Criteria**

<table>
<thead>
<tr>
<th>Intersection Location (Roadway Classification)</th>
<th>Before Project</th>
<th>With Project-Generated Traffic Volumes</th>
</tr>
</thead>
<tbody>
<tr>
<td>On a Local Street outside of the Core Area</td>
<td>LOS A or B</td>
<td>LOS C or worse (v/c of 0.71 or higher)</td>
</tr>
<tr>
<td></td>
<td>LOS C to F</td>
<td>v/c increase of 0.05 or more</td>
</tr>
<tr>
<td>On a Collector Road outside of the Core Area (v/c of 0.84 or lower)</td>
<td>LOS A to low D (v/c of 0.84 or lower)</td>
<td>High LOS D or worse (v/c of 0.85 or higher)</td>
</tr>
<tr>
<td></td>
<td>High LOS D to F</td>
<td>v/c increase of 0.05 or more</td>
</tr>
<tr>
<td>On an Arterial Road outside of the Core Area (v/c of 0.90 or higher)</td>
<td>LOS A to high D (v/c of 0.90 or higher)</td>
<td>LOE or worse (v/c of 0.90 or higher)</td>
</tr>
<tr>
<td></td>
<td>LOE or F</td>
<td>v/c increase of 0.05 or more</td>
</tr>
<tr>
<td>Core Area Roadways and Intersections</td>
<td>LOS A to low LOE (v/c of 0.94 or lower)</td>
<td>High LOE or worse (v/c of 0.95 or higher)</td>
</tr>
<tr>
<td></td>
<td>High LOE to F</td>
<td>v/c increase of 0.05 or more</td>
</tr>
<tr>
<td>On a Route of Regional Significance (Ygnacio Valley Road)</td>
<td>If Delay Index exceeds 2.0 or if peak hour average travel speed falls below 15 mph</td>
<td></td>
</tr>
</tbody>
</table>

Note: Delay Index is the ratio of “congested” travel time (average travel time during the AM and PM peak periods) to “uncongested” travel time (lowest surveyed travel time among travel surveys).

Source: Walnut Creek General Plan 2025.

her determination in accordance with the traffic engineering and safety standards and instructions set forth in the California Manual on Uniform Traffic Control Devices (CA MUTCD).

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*Walnut Creek Municipal Code 3-5.402(b).*
The CA MUTCD establishes criteria which, when met, would satisfy a traffic signal warrant. However, as the CA MUTCD expressly provides, “the satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.” 9 Rather, “an engineering study of traffic conditions, pedestrian characteristics, and physical characteristics of the location shall be performed to determine whether installation of a traffic control signal is justified at a particular location.” 10 Thus, for the purposes of this study, significant impacts at unsignalized intersections are identified when the worst stop-controlled approach to the intersection operates at LOS F, the criteria of the CA MUTCD Peak Hour Traffic Volume Signal Warrant are met, and an engineering study considering the factors set forth has determined the need to install a traffic signal.

2. Caltrans Freeway Mainline and Ramp Segment Facilities
The proposed Project would have a significant impact with regard to traffic on Caltrans freeway facilities if it would result in:

- Failure to maintain operations at or above the LOS C/D threshold, or in cases where the freeway is already projected to operate deficiently at LOS E or F without the Project, failure to maintain the existing measure of effectiveness (MOE).

The significant impacts resulting from the Walnut Creek Transit Village Project under Baseline and Future Baseline Conditions are discussed in Subsection F.

3. Transit Operations
a. BART Assessment
An assessment of conditions on BART and at the Walnut Creek Station facilities has been undertaken. While BART does not have any formal significance criteria in regards to determining significant impacts, the analysis includes an assessment of each of the following categories:

9 California MUTCD 4C.01.02(2012)
10 California MUTCD 4C.01.01(2012)
BART Load Factor Analysis, with an assessment of the increase of passengers per car; and

BART Faregate Capacity Analysis, with an assessment of queue delays at the station faregates.

Existing (2012) ridership data was obtained from BART. The data provides detailed information of commuter origins and destinations by hour for an average weekday.

Site observations were conducted at the Walnut Creek BART Station faregates during the peak periods to determine the extent of current queues at the station faregates and to approximate the maximum delays occurring. The number of faregates open in each direction during the peak periods was also observed to provide an estimate of total faregate capacity.

Future increases in BART ridership generated by the Walnut Creek Transit Village Project have been estimated based on the projected total trip generation and mode split calculations. Future (2030) background increases in BART ridership (non-Project related) were estimated using growth rates determined from the BART Ridership Model.

The travel demand models estimate BART ridership on the Pittsburg/Bay Point line during the peak periods for an existing scenario and a future 2030 scenario. Demands exceeding capacity on BART would be classified as a significant adverse impact.

b. Bus Assessment

Existing ridership data for each County Connection bus route has been collected. Future increases to bus ridership generated by the Walnut Creek Transit Village Project have been estimated based on the predicted total trip generation and mode split calculations. Demands exceeding capacity on bus services would be classified as a significant adverse impact.
4. Site Access, Circulation, and Parking

The proposed Project would have a significant impact if it would:

- Result in a change in traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks;
- Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections);
- Result in inadequate emergency access; or
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Accordingly, the proposed Walnut Creek Transit Village Project’s impact on pedestrian circulation, bus conditions, bicycle conditions, auto circulation, parking, and BART conditions is evaluated in later sections. This includes discussion on safety for pedestrians, bicyclists, buses, and park-and-ride and patron drop-off and pick-up operations.

E. Traffic Analysis Approach

The traffic analysis evaluates the traffic-related impacts of the proposed Project during both the weekday AM and PM peak hours. Traffic conditions are assessed at 23 intersections in the study area for the following scenarios:

Existing Conditions

- Baseline – Existing Conditions with the addition of any projects that will be constructed between the time that Existing data is collected, and August 2012, the earliest point at which the Walnut Creek BART Transit Village Project may be approved; and
- Baseline plus the proposed Walnut Creek Transit Village Project – Existing Conditions, with the addition of approved projects, plus the full implementation of the Walnut Creek BART Transit Village Project.
Future (2030) Conditions

- Future Baseline – Future conditions including projected population and employment growth, as well as planned transportation system improvements contained in the latest Contra Costa Transportation Authority (CCTA) travel demand model for the 2030 Baseline Cumulative Scenario; and

- Future Baseline plus the proposed Walnut Creek Transit Village Project – Future conditions plus the full implementation of the Walnut Creek BART Transit Village Project.

Existing traffic volume data and a list of approved projects and their land uses was provided by the City of Walnut Creek. The projected peak hour traffic volumes generated by these approved projects was estimated to develop a reasonable “near-term” analysis scenario.

Total project trips expected to be generated by the project were determined using ITE’s Trip Generation. A methodology incorporating non-primary trip reductions and internal trip capture was used to estimate mode split for each land use type in order to calculate projections of vehicle trip generation, which was distributed onto the roadway network.

The latest available Contra Costa Transportation Authority (CCTA) travel demand model was used to determine the distribution of project trips and assign them to the roadway network. The CCTA model was also used to determine Future Baseline traffic volumes. The forecasts include all past and present projects (existing development and projects under construction), and all approved, pending, and reasonably foreseeable future projects through 2030, as well as increased traffic on roadway facilities associated with regional growth.

1. Project Description
The Walnut Creek Transit Village Project is proposed to be constructed in three phases, representing three separate development parcels. The Project site plan is presented in Figure 4.11-10. Phase I of the Project includes the South Building, which includes the new BART police station, the new
Figure 4.11-10

Project Site Plan

parking structure, and the bus terminal. In Phase II, the North Buildings would be constructed, including residential units and commercial/retail and flex space. The East Buildings, housing additional residential units and commercial/retail and flex space, would be constructed in Phase III. The completed Project is proposed to include the following land uses and BART parking changes:

- 596 residential apartment units with amenity space;
- 16,705 square feet of flex space, equivalent to 17 residential units, that could be used for office, retail or residential uses;
- 13,300 square feet of commercial/retail space;
- 8,650 square feet of retail space;
- 4,000 square feet of office space (BART police); and
- a net increase of up to 100 BART parking spaces.

For the purposes of the transportation analysis, 13,385 square feet of the flex space is assumed to represent office land use, and 3,320 square feet of flex space is assumed as retail land use. In addition, the 13,300 square feet of commercial/retail space is assumed as restaurant uses, though it is likely that some of the space will ultimately be constructed as locally-serving retail and accordingly generate fewer vehicle trips. These assumptions are intended to represent a conservative, yet realistic, estimate of total vehicle trip generation.

The Project also proposes to implement a number of roadway modifications, including restricting access for motorists exiting onto Ygnacio Valley Road, thus creating a more balanced distribution of trips to other access points. The existing patron drop-off and pick-up and taxi zone parking areas are proposed to be relocated to the north side of the existing multi-story parking structure. Relocation of the patron drop-off and pick-up facility would remove spill-back from passenger pick-up activity from Ygnacio Valley Road and thus improve vehicular access onto the freeway on-ramps. Other modifications include the installation of right-turn-in and right-turn-out residential garage access on North California Boulevard, and a reduction in vehicle circulation at the main pedestrian access (North California Boulevard and Ygnacio Valley Road).
The Project proposes to relocate the existing bus terminal from the area between the station entrance and North California Boulevard. All vehicular traffic movements will also be removed from this area.

The Project includes a comprehensive network of pedestrian paths provided throughout the interior and around the perimeter of the BART station site. The removal of surface parking lots eliminates many pedestrian/vehicle conflict points and allows for the provision of exclusive pedestrian paths.

The existing pedestrian access route to and from the intersection of North California Boulevard and Ygnacio Valley Road would be maintained along a somewhat realigned route. The overall pedestrian amenity of this route would be improved, given that vehicles will be removed from this area and because the route will be designated as an exclusive, landscaped pedestrian space.

In addition, the Project includes the removal of channelized right turns abutting the Project site, the installation of a pedestrian paseo through the proposed North Buildings, and the installation of a signalized mid-block pedestrian crossing on North California Boulevard, between Ygnacio Valley Road and Pringle Avenue.

The Project also proposes the installation of a bicycle parking pavilion, which would provide a designated area for bike storage in lockers and racks, and enhanced amenities such as seating, lighting, and landscaping.

2. Project Trip Generation
   a. Walnut Creek Transit Village Project Land Uses and Net Increase of BART Parking

Vehicle trips, transit trips and other trips (walking and bicycling) projected to be generated by the proposed Walnut Creek Transit Village Project have been estimated using a sophisticated process that attempts to estimate different total trip generation rates and mode splits for each land use type. The detailed memorandum, approved by the City of Walnut Creek, that discusses the as-
sumptions used to estimate Project trip generation is provided in Appendix I-8. A brief summary discussion of the processes used in projecting total trip generation, mode split and trip distribution is presented below.

Total trip generation estimates for the proposed project land uses are based on rates from the Institute of Transportation Engineers (ITE) Trip Generation (8th Edition, 2008). The 8th Edition is the latest in the series, providing the most up-to-date database of land use-based trip rates.

It is noted that the ITE provides trip generation rates for a variety of land uses, based primarily on data collected in driveway counts in suburban areas. In such areas, minimal or no transit service is provided, there are few walk or bike trips, and most trips are made by automobile. The use of ITE trip generation rates in urban areas or locations such as the Project site, which offer substantial transit services and where considerable numbers of trips are made by walking and biking, thus overestimates the number of automobile trips. As a result, reductions have been applied to the ITE vehicle trip generation totals to account for pedestrian, bicycle, and transit trips, based on local Census data and surveys of TODs in California. However, since Census mode split data is unavailable for office and retail uses, this analysis takes a conservative approach and assumes a higher level of vehicular traffic generation for these uses than is likely to occur.

Table 4.11-16 summarizes the calculated mode splits for project trips generated by the residential, office, retail, and restaurant components of the proposed Walnut Creek Transit Village Project. Table 4.11-17 summarizes the number of peak hour trips by each mode that the Project land uses are projected to generate.

In addition, the BART Ridership Model (BRM) was used to estimate future ridership at Walnut Creek BART Station. The BRM was developed to respond directly to factors such as parking supply, feeder bus service levels, and station area households and employment to estimate BART ridership. This analysis uses BRM results to assess whether or not provisions for the various
### Table 4.11-16 Mode Split Summary

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Auto (Percent)</th>
<th>BART (Percent)</th>
<th>Other Transit (Buses)</th>
<th>Other (Walking, Bicycling)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>69</td>
<td>20</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>Office</td>
<td>82</td>
<td>14</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Retail</td>
<td>50</td>
<td>-</td>
<td>-</td>
<td>50</td>
</tr>
<tr>
<td>Restaurant</td>
<td>50</td>
<td>-</td>
<td>-</td>
<td>50</td>
</tr>
</tbody>
</table>

Note: A large percentage (50%) of retail trips generated over the course of a day are expected to be internalized and generated by resident/worker/visitor of the Walnut Creek Transit Village Project or BART passengers. However, during the weekday AM peak hour, all trips generated by Project retail uses are expected to be internally linked or pass-by or diverted trips from existing traffic volumes.


### Table 4.11-17 Walnut Creek Transit Village Project Land Uses TripGeneration – By Mode

<table>
<thead>
<tr>
<th>Mode</th>
<th>Weekday AM Peak Hour</th>
<th>Weekday PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Inbound</td>
<td>Outbound</td>
</tr>
<tr>
<td>Vehicle Trips</td>
<td>73</td>
<td>165</td>
</tr>
<tr>
<td>BART</td>
<td>34</td>
<td>50</td>
</tr>
<tr>
<td>Bus</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>Other</td>
<td>10</td>
<td>33</td>
</tr>
</tbody>
</table>

access modes, e.g. patron drop-off and pick-up and bicycle parking, are met by the Project.

b. Redistribution of Cut-Through Trips
The Project is expected to result in a redistribution of existing vehicle trips using the surrounding road network due to on-site changes in the internal roadway network. The redistribution will affect vehicles which currently cut through the BART station site from north to south during the PM peak hour. This cut-through movement will no longer be possible in the circulation plan of the proposed Walnut Creek Transit Village Project. On-site surveys and observations suggest that the volume of traffic currently performing this cut-through movement is approximately 150 vehicles during the PM peak hour.

Observations suggest that the majority of cut-through trips during the PM peak hour originate from the parking garages accessed from Short Street. The majority of these trips are ultimately bound for the Interstate 680 and State Route 24 On-Ramps accessed from Ygnacio Valley Road and Hillside Avenue.

Only motorists parking in the new parking structure proposed by the Project would be able to exit the station site via the southern access onto Ygnacio Valley Road. Accordingly, motorists originating from other areas of the station site would be required to exit onto either Pringle Avenue or North California Boulevard. While this is considered a reasonable traffic management strategy and would have a positive result for the operation of the internal BART roadways and intersections, increased traffic volumes would be distributed onto the surrounding roadway network.

Vehicles currently cutting through the BART station to access the freeway on-ramps would most likely be redistributed either to the north on Riviera Avenue, Parkside Drive, and Hillside Avenue, or to the south on Riviera Avenue, Pringle Avenue, North California Boulevard, and Ygnacio Valley Road. Travel time surveys conducted on these two alternate routes determined that
the northern route is modestly faster. However, travel on both alternate routes has been found to generally be faster than the perceived shortcut route through the BART station site, particularly during periods when queues and delays are generated within the site. Therefore, it is assumed that “cut-through” motorists are acting out of habit, returning home along the same route through the station site used to get to work in the morning.

Given the above, this analysis assumes that 40 percent of displaced motorists (60 vehicle trips) destined for the freeway on-ramps will re-route along the Riviera Avenue/Parkside Drive/Hillside Avenue route. The other 60 percent of displaced motorists (90 trips) are assumed to re-route along the Riviera Avenue - Pringle Avenue/North California Boulevard/Ygnacio Valley Road route.

Motorists would still be able to access other areas of the BART station site from the right-in-only entrance at the southwest corner of the site. These areas would include the existing parking garage, the relocated patron drop-off and pick-up area, and the proposed North Buildings. Motorists currently making cut-through trips to land uses to the north of the BART station would still be able to make cut-through trips in this direction. Surveys suggest that this volume is approximately 270 vehicles during the AM peak hour.

3. Project Trip Distribution
Trip distribution (assignment of the projected vehicle trips generated by the Walnut Creek Transit Village Project land uses and net increase in BART parking onto the road network) was derived from the Contra Costa Travel Demand Model, using the specific Project land uses. The model was edited to include the specific land uses of the proposed Project only; thus park-and-ride trips associated with external visitors accessing the BART station were removed from the model before determining the trip distribution. The model considers vehicle trips generated by the residential land uses onto the external road network, and vehicle trips generated by surrounding residents to the proposed Project office, retail, and restaurant land uses.
Trips are distributed onto the external road network as follows:

- Interstate 680 and State Route 24, south: 33 percent
- Interstate 680, north: 15 percent
- Local streets north of the Project site and east of N. Main Street: 11 percent
- Ygnacio Valley Road: 9 percent
- Local streets within downtown Walnut Creek: 9 percent
- North Main Street: 9 percent
- Local streets west of the Project site: 7 percent
- Local streets south of downtown Walnut Creek: 7 percent

4. Project Trip Assignment

The assignment of the peak hour Project vehicle trips onto the roadway network and through the 23 study intersections is provided in Appendix I-1. The assignment of the 150 existing cut-through trips during the PM peak hour along the assumed re-routed paths are also provided and are included as Project trips.

F. Traffic Operations - Impact Evaluation

Traffic operations are evaluated for both of the baseline scenarios with the addition of Project trips. The two scenarios are evaluated against the baseline scenarios to determine whether the Project results in significant impacts on the study intersections and freeway segments.

The two scenarios are stated below and summarized in the following:

- Baseline plus the Walnut Creek Transit Village Project; and
- Future Baseline plus the Walnut Creek Transit Village Project.

1. Baseline plus the Walnut Creek Transit Village Project

a. Intersection Operations

The calculated Project trips are added to the Baseline intersection turning movement volumes. The Baseline plus the forecast Walnut Creek Transit
Village Project traffic volumes at each of the 23 study intersections are provided in Appendix I-1.

The level of service under Baseline plus the Walnut Creek Transit Village Project Conditions for each of the 23 study intersections is summarized in Table 4.11-18, and provides a comparison with the level of service under the Baseline Conditions, which was presented earlier in Table 4.11-9. The comparison enables an evaluation of which intersections will experience a significant impact as a result of the Walnut Creek Transit Village Project under Existing Conditions.

With the buildout of the proposed project, a signalized mid-block crossing would be installed adjacent to intersection #6 (North California Boulevard right-out-only site egress), allowing it to function as a signalized intersection when pedestrians use the crosswalk. Based on the calculated trip generation estimates, it is estimated that the project would generate 24 crossings per hour at this location. As such, the analysis accounts for a stopped pedestrian phase for northbound and southbound vehicles, along with free right turn phase for eastbound right-turning vehicles each time that a pedestrian crossing occurs.

Only one intersection is projected to experience an increase in v/c ratio of greater than 0.05 (5 percent) as a result of the addition of Project traffic – #4 (Pringle Avenue/North California Boulevard), which currently operates at LOS A during both peak hours with and without the addition of the Project. Further, none of the study intersections would experience a degradation in level of service from LOS D or better, to LOS E or F. Additionally, Intersection #6 (North California Boulevard right-out-only site egress), which would include an adjacent signalized mid-block crossing, would see its operations improve to LOS A with the implementation of the Project. As such, the Project would result in a less-than-significant traffic impact at locations outside of the Ygnacio Valley Road corridor.
## Table 4.11-18  Intersection Operations – Baseline plus Walnut Creek Transit Village Project

<table>
<thead>
<tr>
<th>Intersection</th>
<th>AM Peak Hour</th>
<th></th>
<th>PM Peak Hour</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LOS &amp; v/c</td>
<td>v/c Incr.</td>
<td>LOS &amp; v/c</td>
<td>v/c Incr.</td>
</tr>
<tr>
<td></td>
<td>Base</td>
<td>+ P</td>
<td>Base</td>
<td>+ P</td>
</tr>
<tr>
<td><strong>Signalized</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 North Main Street and Parkside Drive</td>
<td>A 0.532 A 0.537 0.005</td>
<td>A 0.558 A 0.569 0.011</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 N. Main St./Lawrence Way/N. California Bl.</td>
<td>A 0.382 A 0.39 0.008</td>
<td>A 0.414 A 0.425 0.011</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Pringle Avenue and N. California Boulevard</td>
<td>A 0.318 A 0.357 0.038</td>
<td>A 0.441 A 0.55 0.109</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Pringle Avenue and North Main Street</td>
<td>A 0.365 A 0.376 0.011</td>
<td>A 0.35 A 0.357 0.007</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 N. California Bl. right-out-only site egress</td>
<td>-- A 0.314 -- -- A 0.463 --</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Ygnacio Valley Rd./I-680 Off-Ramp/BART Access/Oakland Blvd.</td>
<td></td>
<td></td>
<td>Performance standard on Ygnacio Valley Road is based on Delay Index</td>
<td></td>
</tr>
<tr>
<td>7 Ygnacio Valley Road and N. California Blvd.</td>
<td></td>
<td></td>
<td>Performance standard on Ygnacio Valley Road is based on Delay Index</td>
<td></td>
</tr>
<tr>
<td>8 Ygnacio Valley Road and North Main Street</td>
<td></td>
<td></td>
<td>Performance standard on Ygnacio Valley Road is based on Delay Index</td>
<td></td>
</tr>
<tr>
<td>9 Ygnacio Valley Road and North Broadway</td>
<td></td>
<td></td>
<td>Performance standard on Ygnacio Valley Road is based on Delay Index</td>
<td></td>
</tr>
<tr>
<td>10 Ygnacio Valley Road and Civic Drive</td>
<td></td>
<td></td>
<td>Performance standard on Ygnacio Valley Road is based on Delay Index</td>
<td></td>
</tr>
<tr>
<td>11 Ygnacio Valley Road and Civic Drive</td>
<td></td>
<td></td>
<td>Performance standard on Ygnacio Valley Road is based on Delay Index</td>
<td></td>
</tr>
<tr>
<td>12 Lawrence Way and Penniman Avenue</td>
<td>A 0.284 A 0.292 0.008</td>
<td>A 0.593 A 0.6 0.007</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13 Ygnacio Valley Road and I-680 On-Ramp</td>
<td>A 0.421 A 0.428 0.007</td>
<td>A 0.515 A 0.524 0.009</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14 Lacasse Avenue and N. California Boulevard</td>
<td>A 0.297 A 0.301 0.004</td>
<td>A 0.505 A 0.513 0.008</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 Lacasse Avenue and North Main Street</td>
<td>A 0.259 A 0.265 0.006</td>
<td>A 0.382 A 0.388 0.006</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16 Trinity Ave./N. California Blvd./Civic Dr.</td>
<td>A 0.419 A 0.423 0.004</td>
<td>A 0.523 A 0.529 0.006</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17 Civic Drive and North</td>
<td>A A 0.007 A B 0.009</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Table 4.11-18  Intersection Operations – Baseline plus Walnut Creek Transit Village Project (continued)

<table>
<thead>
<tr>
<th>Intersection</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LOS &amp; v/c</td>
<td>v/c Incr.</td>
</tr>
<tr>
<td><strong>Main Street</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Base</td>
<td>0.399</td>
<td>0.406</td>
</tr>
<tr>
<td>+P</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>23 Bonanza Street and N. California Boulevard</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Base</td>
<td>0.671</td>
<td>0.674</td>
</tr>
<tr>
<td>+P</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### LOS & Delay

<table>
<thead>
<tr>
<th>Intersection</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Base</td>
<td>+P</td>
</tr>
<tr>
<td>Unsignalized</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Pringle Avenue and Riviera Avenue</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>Base</td>
<td>10.3</td>
<td>10.5</td>
</tr>
<tr>
<td>+P</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 N. California Bl. right-out-only site egress</td>
<td>B</td>
<td>---</td>
</tr>
<tr>
<td>Base</td>
<td>11.8</td>
<td>---</td>
</tr>
<tr>
<td>+P</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13 Parkside Drive and Riviera Avenue</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>Base</td>
<td>14.7</td>
<td>16.1</td>
</tr>
<tr>
<td>+P</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14 Parkside Drive and San Juan Avenue</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>Base</td>
<td>13.5</td>
<td>13.8</td>
</tr>
<tr>
<td>+P</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 Parkside Drive and Buena Vista Avenue</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Base</td>
<td>23.9</td>
<td>24.7</td>
</tr>
<tr>
<td>+P</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16 Parkside Drive and Hillside Avenue</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>Base</td>
<td>11.6</td>
<td>11.7</td>
</tr>
<tr>
<td>+P</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17 Hillside Avenue and State Route 24 On-Ramp</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Base</td>
<td>7.8</td>
<td>7.8</td>
</tr>
<tr>
<td>+P</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


b. **Delay Index – Ygnacio Valley Road**

The intersections located on the Ygnacio Valley Road corridor are subject to the significance criteria for Routes of Regional Significance. Accordingly, significant impact evaluations are based on the delay index calculations, which are discussed below. The delay index is expressed as the ratio of “congested”

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travel time divided by "uncongested" travel time. A significant impact is deemed to occur if the delay index increases to above 2.0 due to the addition of Project traffic or if the average travel speed along Ygnacio Valley Road were to fall below 15 miles per hour.

The "uncongested" travel time along the corridor is determined by selecting the lowest surveyed travel time among travel surveys. The "congested" travel time is calculated as the average travel time among travel surveys for the AM and PM peak periods. Using Synchro software, the delay index was determined for Baseline and Baseline plus Walnut Creek Transit Village Project scenarios.

The resulting delay index for each scenario during both AM and PM peak hours and in both eastbound and westbound directions is presented below in Table 4.11-19. Detailed delay index output is provided in Appendix I-9.

Table 4.11-19 shows that under each scenario, the delay index along Ygnacio Valley Road would remain below 2.0. Synchro also projects that the average speed along this corridor would remain above 15 miles per hour in both scenarios. In summary, no significant impacts are predicted as a result of the Walnut Creek Transit Village Project for any of the study intersections or the Ygnacio Valley Road corridor under either Baseline or Future Baseline Conditions.

c. Freeway Operations
The vehicle trips expected to be generated by the Walnut Creek Transit Village Project are pathed onto the freeway facilities and added onto the Baseline traffic volumes calculated for the Caltrans freeway facilities being evaluated.

The operations of the Caltrans freeway mainline and ramp facilities under the Baseline plus Walnut Creek Transit Village Project scenario are summarized in Table 4.11-20 and provide a comparison with the projected operations under the Baseline Conditions, which were presented earlier in Table 4.11-11.
TABLE 4.11-19  **YGNACIO VALLEY ROAD DELAY INDEX SUMMARY – BASELINE CONDITIONS SCENARIOS**

<table>
<thead>
<tr>
<th>Scenario</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Eastbound</td>
<td>Westbound</td>
</tr>
<tr>
<td></td>
<td>Delay Index</td>
<td>Avg. Speed</td>
</tr>
<tr>
<td>Baseline</td>
<td>1.24</td>
<td>24</td>
</tr>
<tr>
<td>Baseline plus Walnut Creek Transit Village Project</td>
<td>1.24</td>
<td>24</td>
</tr>
<tr>
<td>Baseline</td>
<td>1.11</td>
<td>26</td>
</tr>
<tr>
<td>Baseline plus Walnut Creek Transit Village Project</td>
<td>1.11</td>
<td>26</td>
</tr>
</tbody>
</table>


The addition of Project-related traffic is expected to result in marginal increases in density of the freeway mainline and ramp segments. None of the segments are projected to worsen in level of service. Therefore, based on the significance criteria for each facility type, the proposed Walnut Creek Transit Village Project would not create a significant impact with regard to the operation of the surrounding freeway mainline and ramp facilities. Westbound State Route 24, west of Interstate 680, is projected to operate at LOS E during the AM peak hour, regardless of whether Project traffic is included.

2. **Future Baseline plus Walnut Creek Transit Village Project**
   a. **Intersection Operations**

   The calculated Project trips are added to the Future Baseline intersection turning movement volumes. The resulting Future Baseline Walnut Creek Transit Village Project traffic volumes at each of the 23 study intersections are provided in Appendix I-1.
### Table 4.11-20  Freeway Operations – Baseline plus Walnut Creek Transit Village Project

<table>
<thead>
<tr>
<th>Freeway Facility</th>
<th>LO S and Density</th>
<th>AM Peak</th>
<th>PM Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mainline Segments</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 I-680: North of N. Main Street</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NB</td>
<td>C</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>SB</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>2 I-680: South of SR 24</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NB</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>SB</td>
<td>18.5</td>
<td>18.5</td>
<td>20.2</td>
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<tr>
<td>3 SR 24: West of I-680</td>
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<td>EB</td>
<td>B</td>
<td>B</td>
<td>D</td>
</tr>
<tr>
<td>WB</td>
<td>35.1</td>
<td>35.2</td>
<td>17.2</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Ramp Junctions</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4 I-680: NB Off-Ramp to Ygnacio Valley Road</td>
<td>A</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>5 I-680: NB On-Ramp from Lawrence Way</td>
<td>C</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>6 I-680: SB Off-Ramp to N. Main St. (SB and NB exits)</td>
<td>A</td>
<td>A</td>
<td>A</td>
</tr>
</tbody>
</table>

Note: Density levels at the northbound I-680 Off-Ramp to North Main Street are shown as “0.0,” as the large amount of ramp capacity is outside the meaningful range for density calculations. The ramp functions at LOS A levels with sufficient capacity to accommodate vehicles.


The level of service under Future Baseline plus Walnut Creek Transit Village Project conditions for each of the 23 study intersections is summarized in Table 4.11-21, and provides a comparison with the level of service under Future Baseline conditions which was presented earlier in Table 4.11-12. The comparison enables an evaluation of which intersections will experience a
### Table 4.11-21  Intersection Operations – Future Baseline plus Walnut Creek Transit Village Project

<table>
<thead>
<tr>
<th>Intersections</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
<th>v/c</th>
<th>Incr</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
<th>v/c</th>
<th>Incr</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Signalized</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 North Main Street and Parkside Drive</td>
<td>D 0.836</td>
<td>D 0.841</td>
<td>0.005</td>
<td>C 0.787</td>
<td>C 0.798</td>
<td>0.011</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 N. Main St./Lawrence Way/ N. California Bl.</td>
<td>B 0.644</td>
<td>B 0.653</td>
<td>0.009</td>
<td>C 0.732</td>
<td>C 0.741</td>
<td>0.009</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Pringle Avenue and N. California Boulevard</td>
<td>C 0.747</td>
<td>C 0.774</td>
<td>0.027</td>
<td>C 0.728</td>
<td>D 0.837</td>
<td>0.109</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Pringle Avenue and North Main Street</td>
<td>A 0.518</td>
<td>A 0.529</td>
<td>0.011</td>
<td>B 0.646</td>
<td>B 0.653</td>
<td>0.007</td>
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<td>--</td>
<td>C 0.760</td>
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<td></td>
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<tr>
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<tr>
<td>9 Ygnacio Valley Road and North Main Street</td>
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<td>Performance standard on Ygnacio Valley Road is based on Delay Index</td>
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<td>19 Lacassie Avenue and N. California Blvd</td>
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<td>A 0.583</td>
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4.11-88
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### Unsignalized

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<th>AM Peak Hour</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3 Pringle Avenue and Riviera</td>
<td>B</td>
<td>B</td>
<td>0.2</td>
</tr>
<tr>
<td>Avenue</td>
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<td>11.1</td>
<td></td>
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<tr>
<td>6 N. California Bl. Right-Out-</td>
<td>C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Only BART Egress</td>
<td>23.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13 Parkside Drive and Riviera</td>
<td>D</td>
<td>D</td>
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</tr>
<tr>
<td>Avenue</td>
<td>26.8</td>
<td>33.6</td>
<td></td>
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<tr>
<td>14 Parkside Drive and San Juan</td>
<td>D</td>
<td>D</td>
<td>1.9</td>
</tr>
<tr>
<td>Avenue</td>
<td>28.4</td>
<td>30.3</td>
<td></td>
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<tr>
<td>15 Parkside Drive and Buena Vista</td>
<td>F</td>
<td>F</td>
<td>2.6</td>
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<td>Avenue</td>
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<td>84.7</td>
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<tr>
<td>16 Parkside Drive and Hillside</td>
<td>F</td>
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<td>Avenue</td>
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<td>137.1</td>
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<tr>
<td>17 Hillside Avenue and SR On-Ramp</td>
<td>A</td>
<td>A</td>
<td>0.0</td>
</tr>
</tbody>
</table>


significant impact as a result of the Walnut Creek Transit Village Project under Future Baseline Conditions.

Also, as noted previously, with the buildout of the proposed project, a signalized mid-block crossing would be installed adjacent to intersection #6 (North California Boulevard right-out-only site egress), allowing it to function as a signalized intersection when pedestrians use the crosswalk. Based on the calculated trip generation estimates, it is estimated that the project would generate 24 crossings per hour at this location. As such, the analysis accounts for a stopped pedestrian phase for northbound and southbound vehicles, along
with a free right turn phase for eastbound right-turning vehicles each time that a pedestrian crossing occurs.

Only one of the signalized study intersections (Intersection #4: Pringle Avenue/North California Boulevard - AM and PM peak hours) is projected to experience an increase in v/c ratio greater than 0.05 (5 percent) with the addition of Project traffic. However, as the intersection would not exceed the established standards for Core Area intersections, the Project would not result in a significant impact on the operation of this intersection. None of the remaining signalized study intersections would experience degradation in level of service in conjunction with an increase in v/c ratio greater than 0.05 as a result of Project-generated traffic. As such, the Project would not result in traffic impacts at locations outside of the Ygnacio Valley Road corridor. The six study intersections along Ygnacio Valley Road are subject to Route of Regional Significance standards (Intersections #7, #8, #9, #10, #11, and #18).

Three of the unsignalized study intersections are projected to operate at undesirable LOS E or LOS F in either the AM or PM peak hour. However, Intersection #6 (North California Boulevard right-out-only site egress), which would operate at LOS E under Future Baseline (without the Project) in the PM peak hour, through the development of an adjacent signalized mid-block crossing would see its operations improve with implementation of the Project to LOS B conditions during the AM peak hour, and LOS C during the PM peak hour.

Intersection #15 (Parkside Drive and Buena Vista Avenue) is projected to deteriorate from LOS E to LOS F in the PM peak hour with the addition of the proposed Project. Further, the criteria of the CA MUTCD Peak Hour Traffic Volume Signal Warrant would be met, and an engineering analysis of the factors identified by the CA MUTCD for determination as to whether to install a traffic signal lead to the conclusion that a signal will be needed at this intersection. Moreover, as the Project is forecast to contribute nearly 17 seconds of delay to the intersection, this is a cumulatively considerable contribution to this cumulative impact. As such, the Project would result in a sig-
significant cumulative impact prior to mitigation at this location under Future Baseline plus Project Conditions.

Intersection #16 (Parkside Drive and Hillside Avenue) is projected to operate at LOS F in the PM peak hour with and without the addition of the proposed Project. Further, the criteria of the CA MUTCD Peak Hour Traffic Volume Signal Warrant would be met, and an engineering analysis of the factors identified by the CA MUTCD for determination as to whether to install a traffic signal lead to the conclusion that a signal will be needed at this intersection. Moreover, as the Project is forecast to contribute over 20 seconds of delay to the unimproved intersection, this is a cumulatively considerable contribution to this cumulative impact. As such, the Project would result in a significant cumulative impact prior to mitigation at this location under Future Baseline plus Project Conditions.

b. Delay Index - Ygnacio Valley Road

The delay index for the Ygnacio Valley Road corridor for each Future Baseline Conditions scenario during both AM and PM peak hours and in both eastbound and westbound directions is presented below in Table 4.11-22.

Table 4.11-22 shows that under each scenario, the delay index along Ygnacio Valley Road would remain below 2.0. Synchro also projects that the average speed along this corridor would remain above 15 miles per hour in both scenarios. In summary, no significant impacts are predicted as a result of the Walnut Creek Transit Village Project for any of the study intersections or the Ygnacio Valley Road corridor under Future Baseline plus Walnut Creek Transit Village Project Conditions.

c. Freeway Operations

The vehicle trips expected to be generated by the Walnut Creek Transit Village Project are pathed onto the freeway facilities and added onto the Future Baseline traffic volumes calculated for the Caltrans freeway facilities being evaluated.
The operations of the Caltrans freeway mainline and ramp facilities under Future Baseline plus Walnut Creek Transit Village Project scenario are summarized in Table 4.11-23 and provide a comparison with the projected operations under the Future Baseline Conditions, which were presented earlier in Table 4.11-14.

Three of the freeway mainline segments and one ramp junction are projected to operate at an unacceptable LOS E or F under Future Baseline Conditions, with and without the addition of Project-related traffic. However, the marginal increases in density at each of these locations as a result of Project-related traffic are not cumulatively considerable. Therefore, the proposed Walnut Creek Transit Village Project would result in a less-than-significant impact with regard to the operation of the surrounding freeway mainline and ramp facilities.
### Table 4.11-23  
**Freeway Operations – Future Baseline plus Walnut Creek Transit Village Project**

<table>
<thead>
<tr>
<th>Freeway Facility</th>
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<th>AM Peak</th>
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<td></td>
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<td>Future Baseline</td>
<td>FB+P</td>
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<tr>
<td><strong>Mainline Segments</strong></td>
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</tr>
<tr>
<td>1 I-680: North of N. Main Street</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NB</td>
<td>C</td>
<td>C</td>
<td>E</td>
</tr>
<tr>
<td></td>
<td>23.0</td>
<td>23.0</td>
<td>36.6</td>
</tr>
<tr>
<td>SB</td>
<td>D</td>
<td>D</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>27.9</td>
<td>27.9</td>
<td>20.5</td>
</tr>
<tr>
<td>2 I-680: South of SR 24</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NB</td>
<td>D</td>
<td>D</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td>28.9</td>
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<td></td>
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</tr>
<tr>
<td>EB</td>
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<td><strong>Ramp Junctions</strong></td>
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<td>A</td>
<td>A</td>
<td>F</td>
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<td></td>
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<td>C</td>
<td>D</td>
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<td>6 I-680: NB Off-Ramp to N. Main St. (SB and NB exits)</td>
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<td>A</td>
<td>A</td>
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<tr>
<td></td>
<td>2.4</td>
<td>2.5</td>
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</table>

Note: Density levels at the northbound I-680 Off-Ramp to North Main Street during the weekday PM peak hour are shown as “0.0,” as the large amount of ramp capacity is outside the meaningful range for density calculations. The ramp functions at LOS A levels with sufficient capacity to accommodate vehicles.


### G. Pedestrian Circulation

The pedestrian circulation plan currently proposed as part of the Walnut Creek Transit Village Project provides access between the external roadways and the station entrance in all directions.
In general, the plans indicate a comprehensive network of pedestrian paths provided throughout the interior and around the perimeter of the BART station site. The provision of exclusive and comfortable pedestrian paseos would replace informal pedestrian routes through surface parking lots and remove conflict with vehicles. The proposed on-site pedestrian circulation routes are summarized in Figure 4.11-11.

A detailed description of the pedestrian routes between the station entrance and key points on the surrounding road network is provided below.

1. **Connectivity with North California Boulevard/Ygnacio Valley Road (Southeast)**

   Site observations have confirmed that the majority of pedestrians accessing the BART station currently arrive via this intersection, which directly connects downtown Walnut Creek and the BART station.

   The existing bus terminal and all vehicular traffic will be removed from this portion of the Project site. The existing pedestrian access route to and from the intersection of North California Boulevard/Ygnacio Valley Road would be improved and this route would be developed as a pedestrian paseo through the proposed East Buildings, which may provide ground level retail and office space.

2. **Connectivity with Oakland Boulevard/Ygnacio Valley Road (South)**

   The Project proposes to substantially improve the directness and safety of pedestrian access between the station entrance and the intersection of Ygnacio Valley Road/Interstate 680 Off-Ramp/BART Access Oakland Boulevard. Pedestrians destined to the BART station from the south side of Ygnacio Valley Road would no longer be required to cross the northern leg of this intersection at a signalized crossing and then an additional unsignalized crossing of an internal roadway. Accordingly, pedestrian travel time and potential conflicts with vehicular traffic would be reduced.
Figure 4.11-11

Pedestrian Circulation

Source: MVE & Partners, 2012

Legend
- Residential
- Retail / Commercial
- Parking
- Residential Amenities
- Flex Areas
- Police Station

Pedestrian Traffic Flow
The Project plans also include the removal of the channelized right turn lanes entering and exiting the site at the intersection of Ygnacio Valley Boulevard/Interstate 680 Off-Ramp/BART Access/Oakland Boulevard. This proposal complements the proposed installation of a sidewalk connecting to the station entrance along the western side of this access/egress, and would improve pedestrian access and reduce the potential for conflicts with vehicular traffic. However, pedestrians would be required to cross the entrance/exit of the proposed new parking structure, necessitating adequate sight lines and warnings for motorists.

3. Connectivity with Hillside Avenue (Southwest)
The proposed site plan improves the pedestrian route through the station site between the station entrance and the residential areas located west of the Interstate 680 Freeway, via Hillside Avenue. The current formal route takes pedestrians south along the BART guideway to the intersection of Ygnacio Valley Road/Interstate 680 Off-Ramp/BART Access/Oakland Boulevard, with an unsignalized crossing of the site access roadway, a signalized crossing of the site egress roadway, and an unsignalized crossing of the channelized right turn station egress. The route turns west along Ygnacio Valley Road, with another unsignalized crossing of the channelized right-in-only site access from Ygnacio Valley Road.

The proposed site plan would reduce the number of pedestrian crossings along this route from four to two; unsignalized crossings would be made at the entrance/exit of the proposed new parking structure (as described in the previous section regarding access to the south), and across the channelized right-in-only site access from Ygnacio Valley Road. However, the latter crossing would be wider than in its present form, and would also be at a more acute angle. Accordingly, the proposed design would result in a significant impact to pedestrian safety prior to mitigations.

The installation of a vehicle stop control at the proposed pedestrian crossing across the channelized right-in-only site access from Ygnacio Valley Road was considered, but determined inappropriate given that it may cause vehicle...
queues to spill back onto Ygnacio Valley Road and delay motorists bound for the State Route 24 On-Ramp. Therefore, the recommended mitigation is intended to optimize pedestrian safety while maintaining adequate vehicle operations within the station site and on the external road network.

4. Connectivity with Pringle Avenue/ Riviera Avenue (Northwest)
The Project proposes to create a pedestrian paseo through the Phase II North Buildings, which would improve the pedestrian safety and amenity of this route. The Project plans also include the removal of the channelized right turn at the site egress onto Pringle Avenue. Combined, these proposals should improve and promote pedestrian access along the Rivera Avenue route, which connects with residential areas located west of Interstate 680.

5. Connectivity with Pringle Avenue/North California Boulevard (Northeast)
The Project plans include the installation of a signalized mid-block pedestrian crossing of North California Boulevard, between Ygnacio Valley Road and Pringle Avenue. This measure would enhance pedestrian access to and from areas northeast of the station and improve bicycle access from the station site to the bicycle lane on northbound North California Boulevard. The mid-block pedestrian crossing would also substantially improve access between the station entrance and the office buildings located on the opposite side of North California Boulevard.

Additionally, while the underground parking facility is not expected to generate excessive volumes of traffic, the mid-block pedestrian signal would reduce delays and improve safety for motorists exiting the residential parking facility by providing more frequent and/or longer gaps in traffic.

6. Connectivity with Bus Terminal
The Project proposes to relocate the bus terminal from the east side of the BART station to the west side, on the ground level of the proposed new parking structure. The proposed plans indicate three bus platforms to facilitate passenger boarding and alighting. Two of the three bus platforms are proposed to adjoin sidewalks abutting the BART parking structures, providing
pedestrians unimpeded access with no vehicular conflicts between the station entrance and the respective platforms. The third bus platform would be located on an island surrounded by bus circulation lanes, connecting to the station entrance by a formal pedestrian crosswalk.

H. Bus Conditions

1. On-Site Circulation
The Project proposes to relocate the existing bus terminal to the opposite side of the BART station, on the ground level of the proposed new BART parking structure. Alighting and boarding of all buses would occur in a single area exclusive to buses, thus minimizing impacts on other vehicular traffic.

The proposed relocation would not substantially alter the existing bus routes, as buses would still enter and exit the BART station site via similar routes. The proposed on-site bus circulation routes are shown in Figure 4.11-12.

2. Increased Ridership
The Walnut Creek Transit Village Project is projected to generate a total of 11 bus trips during the AM peak hour and 12 bus trips during the PM peak hour. While there are not any specific significance criteria for determining bus impacts, the projected increases are considered modest and should be accommodated by the substantial number of bus services operating to/from Walnut Creek BART Station.

The free downtown shuttle service (County Connection Route 4) is expected to experience the greatest increase in bus ridership, due to Project residents using this service to travel downtown to jobs, restaurants or shopping. With a conservative estimate assigning 50 percent of all bus trips generated by the Project to the free downtown shuttle, ridership on this service would increase by approximately 1 or 2 passengers per bus service during the AM and PM peak hours. Site observations indicate that the free downtown shuttle has spare capacity to accommodate such increases.
Figure 4.11-12

Bus Circulation

Source: MVE & Partners, 2012
The Project proposes to relocate the existing bus terminal with eleven bus bays to the opposite side of the BART station, and expand it to include 15 bus bays. This analysis finds that existing bus service has spare capacity to meet Project-related increases in bus ridership; accordingly, the relocated bus terminal would be more than sufficient to meet future demand. The new terminal will feature a similar sawtooth arrangement of bus bays, though its layout and operation will differ from its existing configuration. These have been reviewed and found adequate to support current bus operations.

I. Bicycle Conditions

1. On-Site Circulation

The proposed on-site bicycle circulation is shown in Figure 4.11-13, including site access via Ygnacio Valley Road, North California Boulevard, Pringle Avenue and Riviera Avenue and bicycle routes along the new internal roadways. The Project site is bounded by Ygnacio Valley Road and North California Boulevard, which are the principal bicycle routes in the Project area.

The Project plans include the construction of a right-in and right-out-only vehicular access point on North California Boulevard, approximately 250 feet south of Pringle Avenue. This will enable bicyclists traveling southbound on North California Boulevard to directly access the station and ride safely and conveniently to the on-site bicycle parking facilities.

Additionally, the proposed signalized mid-block pedestrian crossing of North California Boulevard as part of the Project would improve bicycle access from the BART station to areas north of the station. Bicyclists would be able to exit the station, walk across North California Boulevard via the crossing and directly access the northbound North California Boulevard bicycle lane.

Bicycle riding would not be permitted along the pedestrian paseo between the intersection of North California Boulevard/Ygnacio Valley Road and the station entrance, which is currently the preferred route between the bicycle facilities on North California Boulevard or Ygnacio Valley Road and the
FIGURE 4.11-13

BICYCLE CIRCULATION
station entrance. The Project proposes that this access would be facilitated by Ygnacio Valley Road. Bicyclists would reach the station entrance from the southern site access at the intersection of Ygnacio Valley Road/Interstate 680 Off-Ramp/BART Access/Oakland Boulevard, using the new internal roadway.

Bicycle access to the station would also be provided to and from Pringle Avenue and Riviera Avenue via the existing roadway along the west side of the project site and a shared pedestrian/bicycle path between the existing and new parking structures.

2. On-Site BART Bicycle Parking
Parking for 142 bicycles is currently provided at the Project site for BART riders. The Project proposes to maintain this amount of parking, and 56 electronic bicycle lockers are scheduled to be installed at the station in 2013. The bicycle parking pavilion proposed by the Project would also provide additional bike storage in lockers and racks.

BART’s 2008 Station Profile Survey found that approximately 151 bicycle trips were made to Walnut Creek BART Station on a typical weekday. The BRM projects a 63 percent increase in pedestrian and bicycle mode share among station access trips to BART in the Future Baseline scenario over Existing Conditions. Assuming that growth in cumulative bike trips is on par with that of walk trips, parking to accommodate 246 bicycle trips would be required. It is anticipated that this parking demand would be met by existing and planned facilities, which include the bike pavilion.

Bicycle racks require no prior arrangements for their use and are thus suited for short-term parking or for occasional or new bicyclists; however, they offer limited security and protection from the elements. Bicycle lockers provide these benefits, but they require an application for their use and nominal charges are assessed. If too little rack parking is provided, occasional or spontaneous bicycle trips to the station will be discouraged; if insufficient locker parking is provided, all-day or longer-term parking needs such as those re-
quired by commuters would not be met. Ongoing monitoring should be conducted to ensure that an appropriate proportion of bicycle rack and bicycle locker parking is provided.

3. On-Site Bicycle Parking for Project Land Uses

Parking for 92 bicycles is proposed to serve the Project’s residential, retail and office uses. Subsection G of Section 10-2.3.202 of the Walnut Creek Municipal Code states the bicycle parking requirements for new developments. Essentially, bicycle parking amounting to 10 percent of the requirement for automobile parking must be provided.

Accordingly, approximately 50 bicycle parking spaces would be required to serve the residential, retail/commercial, and flex space uses within the Phase II North Buildings, and approximately 34 bicycle parking spaces would be required for the residential, retail/commercial and flex space uses of the Phase III East Buildings. This results in a total of approximately 84 bicycle parking spaces for Project land uses. Thus, the proposed on-site bicycle parking meets City code and is considered adequate for the Project land uses.

In light of the above, the Project would have a less-than-significant impact on on-site bicycle circulation, as well as on-site bicycle parking, for both BART and Project users.

J. Auto Circulation

The proposed on-site auto circulation routes are shown in Figure 4.11-14, highlighting the location of the relocated patron drop-off and pick-up area. The primary considerations with respect to vehicle access and circulation for BART commuters proposed by the Walnut Creek Transit Village Project are summarized below:

1. Modified Site Egress/Access to/ from Ygnacio Valley Road

As discussed under Project Trip Generation in Subsection E, the proposed site circulation plan would not facilitate cut-through trips through the BART
Figure 4.11-14

Automobile Circulation

Legend:
- Residential
- Retail / Commercial
- Parking
- Residential Amenity
- Flex Area
- Police Station

Source: MVE & Partners, 2012
station site from north to south. On-site surveys estimate that approximately 150 vehicles make such trips during the PM peak hour. The main southern site entrance/exit at the intersection of Ygnacio Valley Road/Interstate 680 Off-Ramp/BART Access/Oakland Boulevard would only allow access to/from the proposed new parking structure at the south end of the site.

In addition to preventing cut-through trips from north to south, the proposed circulation would only allow motorists originating from the proposed new parking structure to exit via the southern access point onto Ygnacio Valley Road. Accordingly, motorists from other areas of the station site would not be able to exit the site at this location as is currently possible, primarily impacting motorists bound for southbound Interstate 680 and State Route 24. For example, all motorists who park in the existing parking structure and are ultimately destined for the southbound freeways would be required to exit onto either Pringle Avenue or North California Boulevard and travel on external roadways to access Ygnacio Valley Road and the freeway on-ramps. Motorists exiting the BART station site after accessing the patron drop-off and pick-up area would be subject to this longer route on external roadways.

Motorists would still be able to access other areas of the station site from the right-in-only entrance at the southwest corner of the site, including the existing parking structure, the relocated patron drop-off and pick-up area, and the proposed Phase II North Buildings. Signage should be installed at the main southern site access/egress to indicate that access is only provided to the new parking structure, directing motorists with destinations elsewhere on the station site to proceed to the entrance at the southwest corner of the site.

2. Modified Site Egress/Access to/from North California Boulevard

The existing BART station site circulation provides a right-out egress to southbound North California Boulevard. The Walnut Creek Transit Village Project proposes a right-in and right-out access on North California Boulevard, which would primarily provide access to/from the existing parking structure, the proposed patron drop-off and pick-up area, and the parking of the Phase II North Buildings.
The proposed access would be relocated farther north along North California Boulevard than the existing right-out egress. This modification would improve access to/from the BART parking facilities by providing motorists with an additional entry point. At the location of the existing egress, an additional right-in, right-out access is proposed, which would provide exclusive access to/from the parking of the proposed Phase III East Buildings.

3. Queuing Conditions at the Ygnacio Valley Road/Interstate 680 Off-Ramp/BART Access/Oakland Boulevard Intersection
In the vicinity of the Project site, the Ygnacio Valley Road/Interstate 680 Off-Ramp/BART Access/Oakland Boulevard intersection is among the most congested. The intersection currently operates at unacceptable conditions in both AM and PM peak hours when analyzed using the CCTA level of service methodology, and is projected to continue to do so in the Future Baseline scenarios. A 95th percentile queuing analysis finds that the poorest-performing turning movements and intersection approaches are the east-bound left turn into the station site, the westbound left turn onto Oakland Boulevard, the westbound through movement towards the Interstate 680 southbound on-ramp, the northbound approach (Interstate 680 off-ramp), and the southbound approach (station site egress). A summary of the queuing characteristics for all analysis scenarios is presented in Appendix I-10.

Overall, it was found that the addition of traffic associated with the Project would minimally increase queue lengths at most locations. These increases in queuing would not substantially affect intersection operations or internal Project circulation. Queuing at the southbound approach to the intersection (station site egress) would be reduced with the implementation of the Project, as trips would be dispersed to other access points.

4. Queuing as a Result of Garage Parking Operations
As discussed in Subsection B, existing patron drop-off and pick-up operations can extend to Ygnacio Valley Road, blocking access to the site and creating obstacles for garage parking maneuvers. With the implementation of the Project, patron drop-off and pick-up parking would be relocated and would not
conflict with inbound traffic. In general, a steady flow of vehicles would be able to enter the BART garage and fill the lower levels, well before the peak hour for local street traffic would occur. By the time the AM peak hour approaches, the garage would be filled near capacity, and any vehicles searching for parking spots would be doing so in upper levels. As such, no queues as a result of parking garage use would be likely to occur outside of the garage within the Project site, or on the surrounding roadway network.

Overall, the Project would have a less-than-significant impact on automobile circulation with respect to vehicular access to the site, as well as circulation for BART commuters.

K. Auto Parking Conditions

The State Court of Appeal has held that parking impacts are not changes to the physical environment, that parking conditions change over time as travel patterns change, and that unmet parking demand created by a project is not considered a significant environmental impact under CEQA unless it would cause significant secondary effects.\(^\text{11}\) Similarly, the December 2009 amendments to the State CEQA Guidelines (which became effective March 18, 2010) removed parking from the State’s Environmental Checklist (Appendix G of the CEQA Guidelines) as an environmental factor to be considered under CEQA. Parking supply/demand varies by time of day, day of week, and seasonally. As parking demand increases faster than the supply, parking prices rise to reach equilibrium between supply and demand. Decreased availability and increased costs result in changes to trip mode and pattern of travel. However, the City of Walnut Creek, in its review of the proposed Project, wants to ensure that the Project’s provision of parking spaces along with measures to decrease parking demand (by encouraging the use of non-auto travel modes) would result in minimal adverse effects to project occupants and visitors, and that any secondary effects would be minimized. As such,

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\(^{11}\) San Franciscans Upholding the Downtown Plan v. the City and County of San Francisco, 102 Cal.App.4th 656, 2002.
although not required by CEQA, parking conditions are evaluated in this document as a non-CEQA topic for informational purposes.

Parking deficits may be associated with secondary physical environmental impacts, such as air quality and noise effects caused by congestion resulting from motorists circling as they look for parking. However, the absence of a ready supply of parking spaces, combined with available alternatives to auto travel (e.g. transit, shuttles, taxis, bicycles or walking), may induce motorists to shift to other modes of travel, or change their overall travel habits.

In addition, regarding potential secondary effects, motorists circling and looking for parking in areas of limited parking supply is typically a temporary condition, often offset by a reduction in vehicle trips due to others who are aware of constrained parking conditions in a given area. Therefore, any secondary environmental impacts that might result from a shortfall in parking in the vicinity of the Project site are considered less-than-significant. The remainder of this subsection presents a discussion of BART park-and-ride and patron drop-off and pick-up parking, as well as on-street and Project land uses parking.

1. BART Park-and-Ride

The Project proposes to create a total net gain of 100 off-street parking spaces for BART riders. While the existing surface parking lots east of the station and north of the existing parking structure will be removed to accommodate redevelopment, the southwest surface parking lot is the proposed site of a new parking structure with an overall capacity of approximately 848 spaces. The proportion of general parking, Monthly Reserved, Daily Reserved and Carpool Parking is yet to be determined.

The Project will be phased to construct the proposed new parking structure before beginning development of the remaining parcels. This strategy minimizes the potential impact of reduced BART parking capacity during the construction phases.
However, approximately 271 BART parking spaces would be displaced from the southwest surface parking lot during construction of Phase I of the Project. A further 41 BART parking spaces would be removed from the surface parking lot north of the existing parking structure during construction of Phase I to accommodate the relocation of the patron drop-off and pick-up and taxi zone parking spaces.

2. BART Patron Drop-Off and Pick-Up
The existing patron drop-off and pick-up and taxi zone parking areas are proposed to be relocated to the L-shaped roadway on the north side of the existing parking structure. A total of 19 patron drop-off and pick-up parking spaces and five taxi zone loading spaces are proposed.

Subsection B discusses on-site observations of existing patron drop-off and pick-up and taxi demand during the PM peak period. The observations found that the four existing taxi spaces are sufficient to meet current demand. The site observations of the patron drop-off and pick-up parking spaces indicated that there is currently an overall maximum demand for patron drop-off and pick-up spaces of approximately 20 to 25 spaces during the PM peak hour. Thus, the proposed supply of 19 patron drop-off and pick-up parking spaces would not be sufficient to meet existing and future patron drop-off and pick-up activity during the PM peak hour.

Projections suggest that overall demand for BART will increase substantially by the Future Baseline (2030) scenario. Given that the total number of park-and-ride spaces would only be increased modestly by the Project, the future increases in BART demand will need to be accommodated by other modes—walking, bicycling, bus, as well as patron drop off and pick up. Projections from the BRM indicate that overall demand for patron drop-off and pick-up access to BART will increase by approximately 25 percent, resulting in a future maximum peak demand for patron drop-off and pick-up parking of 32 spaces. Since the Project proposes to maintain the current supply of 19 patron drop-off and pick-up parking spaces, unmet demand in the future may result in safety and access concerns relating to informal pick-ups and drop-offs.
in undesignated locations. However, patron drop-off and pick-up activity at the BART station will not be generated by the Project, as Project residents, workers and customers would walk to/from the station from the their on-site origins/destinations. Therefore, the Project would have a less-than-significant impact on BART patron drop-off and pick-up activity and parking.

Nonetheless, given that the proposed supply of on-site patron drop-off and pick-up parking is considered insufficient to meet future demand, additional patron drop-off, and pick-up parking should be provided to strategically accommodate future demand, projected to increase to 32 total spaces by 2030. Possible locations for additional patron drop-off and pick-up parking provisions include:

- The roadway loop under the north end of the BART station platforms, adjoining the L-shaped internal roadway north of the existing parking structure; and
- Northbound North California Boulevard, just south of the proposed mid-block crosswalk.

The potential patron drop-off and pick-up location on North California Boulevard would appeal to the majority of motorists in the PM peak period, which were observed to be arriving from the south and destined to locations north and east of the station. Patron drop-off and pick-up traffic bound for this location would avoid the circuitous travel and potential congestion of entering the station site. This location is within reasonable walking distance of the station entrance, and although passengers would be required to cross North California Boulevard, they would do so at the proposed signalized mid-block pedestrian crosswalk. The abutting sidewalk is ten feet wide, providing sufficient width to accommodate waiting passengers as well as passing pedestrians.

A maximum of 10 to 12 spaces would likely be available at this location. The spaces could be restricted to patron drop-off and pick-up use during the peak commute periods and revert to the existing metered parking restrictions at other times, which would minimize impact on adjacent businesses.
3. **On-Street Parking**

The Project would result in a net reduction of six on-street parking spaces in the immediate vicinity of the BART station, as described below:

- Reduction of three spaces on North California Boulevard abutting the BART station site, to accommodate the proposed right-in and right-out access; and
- Reduction of 16 spaces on Pringle Avenue abutting the BART station site, to accommodate proposed underground garage access and to accommodate bicycles.

The existing on-street parking spaces abutting the BART station site on Pringle Avenue and North California Boulevard have been observed to exhibit high peak occupancies. Therefore, the proposed net reduction of 19 on-street spaces may create a displacement of parking demand.

4. **Walnut Creek Transit Village Project Land Uses Parking**

The Walnut Creek Transit Village Project would provide the following amounts of car parking for the proposed land uses in each of the three development parcels:

**Phase I – South Building, Existing Parking Structure and Bus Terminal**
- New BART Parking Structure: 848 spaces
- Office (BART Police Station): 8 spaces

**Phase II – North Buildings**
- Residential/Retail Parking: 511 spaces

**Phase III – East Buildings**
- Residential/Retail Parking: 343 reserved spaces

The overall provision of the residential parking spaces (reserved and guest) is subject to the City of Walnut Creek’s Municipal Code, which identifies parking requirements governing most zoning districts. An exception is made for those properties zoned “Planned Development,” such as is proposed by the
Project. As a point of comparison, however, the following information is offered:

a. Residential Uses
BART-proximate parking regulations, such as would apply if this site were not being rezoned to a Planned Development, are summarized in Table C of the Walnut Creek Municipal Code for Parking and Loading Regulations. The parking space requirements are 1.0 for studio units, 1.25 for one-bedroom units, and 1.5 for two-bedroom units. The Project would meet these requirements.

b. Commercial Uses
The Municipal Code requirements (Section 10-2.3.206) for the relevant retail and restaurant land uses are summarized below. The BART station site is located in Area D and is accordingly subject to a reduced parking requirement for office land uses, as outlined in Sub-Section C of Section 10-2.3.203 of the Municipal Code.

Office Land Uses (see Title 10, page 5)
- 3.3 spaces per 1,000 square feet of RFA (in Area D)

Restaurant Land Uses (Table A, Section B: 8. Eating and/or Drinking Est.)
- 1 for each 5 permanent seats
- Equates to 1 per 190 square feet of GFA (based on assumption of 26.3 seats per 1,000 square feet GFA calculated from ITE Guidelines)

Retail Land Uses (Table A, Section B: 24. Retail Sales/Rental)
- 1 per 250 square feet of RFA

c. Comparison of City Standards and Parking Proposed by Project
A comparison of the on-site parking proposed to be provided by the Walnut Creek Transit Village Project and the parking requirements of the City’s Municipal Code (outlined above) is provided in Table 4.11-24. Assumptions regarding the proportion of restaurant and retail space and the use of the flex units are consistent with those made for trip generation (see Subsection E), yet result in parking requirements greater than the parking supply proposed.
by the Project. However, if parking reduction permits allow the parking required for the assumed restaurant, retail and flex space to be halved (81 vs. 162 spaces), the parking supply proposed by the Project would meet City code.

The Project land uses, based on their proximity to BART, may satisfy the following City Code requirement for parking reduction permits:

Requirement 1a: There is clear and convincing evidence that the parking demand will be less than the requirement... In reaching a decision, the Planning Commission shall consider survey data submitted by an applicant or collected at the applicant’s request and expense.

A parking reduction permit for the retail land uses could potentially be issued based on the likelihood that these uses would primarily serve locally-generated trips by BART commuters and Project residents and workers. Part of the survey data submitted by the applicant could include the trip generation analysis conducted in this report, which projects that the peak volume of vehicle trips generated by the retail land uses (including flex space assumed as retail) would be less than nine trips in any one direction during the peak hours.

The restaurant land uses could be issued a parking reduction permit based on the ability to share under-utilized BART parking spaces during the peak hours of operation for the restaurant land uses, which are likely to occur during the evening and on weekends. The parking occupancy for the BART parking spaces is reduced during these periods and the overall supply of BART parking spaces is considerable. For instance, there would be approximately 200 spare parking spaces available, assuming that ten percent of BART park-and-riders have exited the station parking facilities by the beginning of the peak period for restaurant visits.
### Table 4.11-24 Parking Supply Comparison – Proposed versus Required

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Proposed by Project</th>
<th>Required by City of Walnut Creek Municipal Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>816&lt;sup&gt;a&lt;/sup&gt;</td>
<td>731</td>
</tr>
<tr>
<td>Restaurant</td>
<td>30</td>
<td>70</td>
</tr>
<tr>
<td>Retail</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>Flex Units (Assumed Office)</td>
<td>0&lt;sup&gt;a&lt;/sup&gt;</td>
<td>44</td>
</tr>
<tr>
<td>Flex Units (Assumed Retail)</td>
<td></td>
<td>13</td>
</tr>
<tr>
<td>Office (BART Police Station)</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>854</strong></td>
<td><strong>901</strong></td>
</tr>
</tbody>
</table>

<sup>a</sup> Project-proposed parking assumes flex space is used for residential units.


Accordingly, the restaurant land uses may satisfy the following City Code requirement for parking reduction permits:

> Requirement 2a: The peak hour parking demand from all uses do not coincide and/or the uses are such that the hours of operation are different for various portions of the business...

The Project Applicant could apply and might obtain a permit in order to provide a reduced supply of on-site car parking for the non-residential land uses proposed by the site.
d. Loading Requirements
As with parking requirements, the Project’s proposed Planned Development zoning means that its loading requirements will also be subject to the Planning Commission’s discretion. However, as a point of comparison between that which is proposed by the Project and the standard City requirements. Table A and Table B of Section 10-2.3.206 of the Municipal Code state the loading requirements for the retail and restaurant land uses. All land uses fall into Group I, and accordingly are required to provide one loading space for developments between 10,000 and 50,000 square feet.

L. BART Conditions

1. Existing Conditions
According to 2012 BART ridership data, Walnut Creek BART Station has an average daily ridership of 12,400. During the AM peak hour, 1,178 boardings and 318 alightings are made; during the PM peak hour, 466 boardings and 1,122 alightings are made. As discussed in Subsection B, site observations indicate that the greatest delays at the station faregates currently occur during the PM peak period when passengers are exiting the station.

The Walnut Creek Transit Village Project is projected to generate a total of 34 BART trips inbound to the Project and 50 BART trips outbound from the Project during the AM peak hour, and 51 BART trips inbound to the Project and 57 BART trips outbound from the Project during the PM peak hour.

Therefore, as compared to Existing Conditions, Project-generated BART trips would represent a 5.6 percent increase in boardings and alightings during the AM peak hour, and a 6.8 percent increase in boardings and alightings during the PM peak hour.

Assuming that all of the 50 outbound BART trips during the AM peak hour are westbound to Oakland and San Francisco and pass through the maximum load point, this would add approximately five passengers to each train sched-
uled during this hour. Capacity utilization of these peak hour trains would rise approximately one percentage point to 76 percent.

Assuming that all of the 51 inbound BART trips during the PM peak hour are eastbound from Oakland and San Francisco and pass through the maximum load point, this would add approximately seven passengers to each train scheduled during this hour. Capacity utilization of these peak hour trains would rise approximately one percentage point to 75 percent.

The existing maximum queue lengths of exiting passengers at the station faregates were observed to be approximately five to six people long. This equates to a queuing delay at each faregate of approximately 12 to 15 seconds per person, based on a faregate capacity of 25 passengers per minute. Therefore, the projected increase of 51 BART passengers exiting the station during the PM peak hour would represent an average increase of approximately seven passengers exiting each train during the PM peak hour. Therefore, approximately one additional passenger would be added to queues at each of the five exit faregates following each train arrival during the peak period. This would have a negligible effect on queuing delays.

Project-generated BART trips would therefore be accommodated within existing capacity and would have an insignificant impact on BART operations.

2. Future Baseline Conditions

Total boardings and alightings at Walnut Creek BART Station are projected to increase by approximately 30 percent between 2011 and 2030, from 12,400 to 16,150. Assuming boardings and alightings during the peak hours increase in proportion to overall ridership, 1,534 boardings and 414 alightings would be expected during the AM peak hour, and 607 boardings and 1,461 alightings would be expected during the PM peak hour in Future Baseline Conditions.

The Walnut Creek Transit Village Project is projected to generate a total of 34 BART trips inbound to the Project and 50 BART trips outbound from the
Project during the AM peak hour, and 51 BART trips inbound to the Project and 57 BART trips outbound from the Project during the PM peak hour.

Therefore, as compared to Future Baseline Conditions, Project-generated BART trips would represent a 4.3 percent increase in boardings and alightings during the AM peak hour, and a 5.2 percent increase in boardings and alightings during the PM peak hour.

By 2030, BART expects to reduce base headways from 15 minutes to 12 minutes on the Pittsburg/Bay Point Line, resulting in a 25 percent increase in service frequency. Assuming that all of the 50 outbound BART trips during the AM peak hour are westbound to Oakland and San Francisco and pass through the maximum load point, this would add approximately four passengers to each train scheduled during this hour. Capacity utilization of these peak hour trains, projected at 94 percent, would rise by less than one-half of a percentage point.

Assuming that all of the 51 inbound BART trips during the PM peak hour are eastbound from Oakland and San Francisco and pass through the maximum load point, this would add approximately six passengers to each train scheduled during this hour. Capacity utilization of these peak hour trains, projected at 93 percent, would rise by less than one-half of a percentage point.

The projected increase of 51 BART passengers exiting the station during the PM peak hour would represent an average increase of approximately six passengers exiting each train during the PM peak hour. Therefore, approximately one additional passenger would be added to queues at each of the five exit faregates following each train arrival during the peak period. This would have a negligible effect on queuing delays.

Project-generated BART trips would therefore be accommodated within existing capacity and would have a less-than-significant impact on BART operations.
M. Construction Phasing

The Walnut Creek Transit Village Project is currently proposed to be constructed in three development phases. The key elements and potential issues associated with each phase of development are summarized below:

1. Phase I: South Building and Existing Parking Structure and Bus Terminal

Phase I would be developed at the southwest corner of the BART station site, with an estimated construction period of 15 months. The existing surface parking lot at this location will be closed, removing 271 parking spaces, to facilitate the construction of:

- A BART parking structure with replacing surface parking at a 1:1 ratio with up to 100 additional parking spaces; and
- 4,000 square feet of office space, to be leased to BART police.

Prior to construction of Phase I, the existing BART parking structure would be re-striped to provide up to 63 permanent additional parking spaces for BART patrons.

Key modifications to on-site access during the construction of Phase I include:

- The patron drop-off and pick-up and taxi zone parking spaces would be relocated to the north side of the existing BART parking structure.

- The right-in-only vehicle entrance from Ygnacio Valley Road would be closed during Phase I construction. Traffic entering the station site at the Ygnacio Valley Road/Interstate 680 Off-Ramp/ BART Access/ Oakland Boulevard intersection would navigate through the existing bus terminal on the east side of the station site to access the remaining on-site BART parking facilities. The addition of this traffic may increase congestion on this roadway, and vehicle queues and motorist delays may be generated at the pedestrian crossing connecting between the station entrance and the North California Boulevard/Ygnacio Valley Road intersection. However, there is sufficient roadway space to accommodate a queue that would
form within any reasonable length of time it would take for the pedestrian crossing to clear, without impacting bus operations. Should motorists experience delay on a continued basis, many would be expected to change their travel pattern to access the site at the intersection of Pringle Avenue and Riviera Avenue. Overall, because of the temporary and limited duration of the period when the roadway through the east side of the station site would experience an increase in traffic, this impact is considered less than significant.

- One of the three access points to/from the existing BART parking structure (the southern access) would be permanently closed. BART patrons who find this access most convenient – those entering the station site from the intersection of Ygnacio Valley Road/Oakland Boulevard/Interstate 680 Off-Ramp – would be rerouted through the east side of the station site to the access point on the north side of the existing parking structure, as described in the previous point. These motorists will have more convenient access to the new BART parking structure upon completion of Phase I, than is currently available to the existing parking structure.

- The temporary closure of the right-in-only vehicle entrance from Ygnacio Valley Road would also result in cut-through trips being re-routed to the external roadway network. Site surveys suggest that approximately 270 vehicles use the shortcut route through the station site from south to north during the AM peak hour. These trips would likely be shifted to westbound Ygnacio Valley Road and northbound North California Boulevard. However, upon completion of Phase II of the Project, the right-in-only vehicle access from Ygnacio Valley Road would be restored. Due to the temporary and limited duration of the period when cut-through trips would be re-routed to the external roadway network, this impact is considered less than significant.

- No egress from the station site onto Ygnacio Valley Road would be provided. All motorists bound for the freeways would be required to either exit onto North California Boulevard or exit at the intersection of Pringle Avenue and Rivera Avenue. This may increase traffic congestion on
the surrounding road network, in particular the right turn from the
southbound approach at the intersection of Ygnacio Valley Road and
North California Boulevard. However, upon completion of Phase I of
the Project, station site egress to Ygnacio Valley Road – from the new
BART parking structure – would be restored, providing motorists who
park at the BART station more direct access to the freeways. Due to the
temporary and limited duration of the period when site egress to Ygnacio
Valley Road be unavailable, this impact is considered less than significant.

♦ Direct pedestrian access would not be provided between the station en-
trance and Hillside Avenue to the west of the station. Pedestrians would
not be able to cut through the existing surface parking lot informally, but
would be required to walk a modestly longer route via the intersection of
Ygnacio Valley Road/ Interstate 680 Off-Ramp/ BART Access/Oakland Boulevard. Due to the temporary and limited
duration of the period when a shorter, informal pedestrian route would
not be available, this impact is considered less than significant.

♦ The Project plans state that consideration is being given to providing a
temporary right-in access from North California Boulevard at the exist-
ing right-out egress point during construction of Phase I. Although not
required to mitigate an impact, this measure is recommended to improve
access to the station, particularly to the relocated patron drop-off and
pick-up and taxi zone parking spaces.

♦ Site preparation and construction of the new parking structure, bus ter-
minal, and BART Police facilities would necessarily displace the 220 sur-
f ace parking spaces currently available. As of the date of publication of
this Draft EIR, the Project Applicant has not secured alternative parking
arrangements for BART users during Phase I. Though parking is not a
CEQA issue, the temporary loss of these spaces could nonetheless raise
CEQA concerns if it would have secondary impacts on factors subject to
CEQA review. Analysis of the likely effects of this temporary loss,
however, demonstrate that BART users who will not have sufficient
parking at the Walnut Creek BART Station will most likely use another
nearby BART station. As users will come from locations across the city
and surrounding areas, it is not anticipated that this redistribution of traffic to other stations will have a significant impact on any particular intersection, roadway segment, freeway ramp, or freeway segment. As a result, this will have a less-than-significant impact.

2. Phase II: North Buildings
Phase II would be developed at the northern end of the BART station site, with an estimated construction period of 31 months. While the existing surface parking lot at this location would be closed, removing 535 parking spaces, the new parking structure would have been completed during Phase I, adding 848 parking spaces. Thus, the temporary off-site parking would no longer be required and there would be a net increase of on-site BART parking during the construction of Phase II, with a total of 2,269 spaces available. The development of Phase II is proposed to include construction of the following land uses:

- 358 apartment units;
- 6,500 square feet of commercial/retail space;
- 2,200 square feet of transit-serving retail space; and
- 3,320 square feet of flex space (assumed to be retail space).

Key modifications to on-site access during the construction of Phase II include:

- The right-in-only access from Ygnacio Valley Road would be reopened, providing access to the new BART parking structure, the existing parking structure, and the relocated patron drop-off and pick-up and taxi zone parking areas.

- The reopened right-in-only access would reduce motorist demand to enter the station via the southern access at the Oakland Boulevard/Interstate 680 Off-Ramp/BART Access/Oakland Boulevard intersection and circulate through the parking on the east side of the station, where the existing bus terminal is located.

- The bus terminal would be relocated to the opposite side of the station, occupying the ground level of the proposed new parking structure.
The new 848-space BART parking structure would be operational. Motorists would only be able to enter this new parking structure from Ygnacio Valley Road, either by the right-in-only entrance at the southwest corner of the site or the main southern access at the intersection of Ygnacio Valley Road/Interstate 680 Off-Ramp/BART Access/Oakland Boulevard. Vehicles would be able to exit the station site onto Ygnacio Valley Road at the main southern access, onto southbound North California Boulevard via the L-shaped roadway along the north side of the existing parking structure, or at the intersection of Pringle Avenue/Riviera Avenue.

Pedestrian or bicycle access would not be substantially affected during the construction of Phase II.

3. Phase III: East Buildings
Phase III would be developed on the eastern portion of the BART station site, with an estimated construction period of 25 months. The construction of Phase III would remove 44 parking spaces, leaving the final total of 2,225 parking spaces available for BART patrons. Phase III would include construction of the following land uses:

- 238 apartment units;
- 6,800 square feet of commercial/retail space;
- 6,450 square feet of transit-serving retail space; and
- 13,385 square feet of flex space (assumed as office space).

Key modifications to on-site access during the construction of Phase III include:

- A right-in and right-out BART station access would be implemented on North California Boulevard north of the existing right-out-only egress. A right-in, right-out access would be added at this location to serve the underground parking of the East Buildings, and a mid-block signalized crosswalk would be implemented.

- Direct pedestrian access would not be provided between the station entrance and the intersection of Ygnacio Valley Road/North California Boulevard.
Boulevard. Pedestrians would be required to take a more circuitous route via the intersection of Ygnacio Valley Road/Interstate 680 Off-Ramp/BART Access/Oakland Boulevard during Phase III construction. Due to the temporary and limited duration of the period when the more direct pedestrian route would not be available, this impact is considered less than significant.

N. Transportation Demand Management

One of the goals of transit-oriented developments such as the Walnut Creek Transit Village Project is to reduce auto trips and replace them with transit, walk and bike trips. The Project would encourage trips by these alternative modes due to its proximity to BART and bus service, and because of its pedestrian-oriented design. However, the success of the Project in reducing auto dependency depends on other factors beyond the physical environment alone. Transportation Demand Management (TDM) strategies can work in tandem with the Project’s transit-oriented design to increase transit, walk and bike trips.

Project-applicable TDM measures are presented in greater detail in the Walnut Creek BART Station Access Study being developed contemporaneously with this Draft EIR.

O. CEQA Impacts

The proposed Project would have a significant impact with regard to transportation and traffic if it would:

1. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets,
highways and freeways, pedestrian and bicycle paths, and mass transit?
The proposed Project is found to cumulatively contribute to a significant impact to two intersections in the surrounding roadway network in relation to future baseline traffic conditions. With the proposed mitigation measures, the impacts would be less than significant.

2. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?
The proposed Project is not found to exceed level of service standards established by the Transportation Partnership and Cooperation Committee (TRANSPAC), either individually or cumulatively.

3. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?
The proposed Project would not result in a change in air traffic patterns.

4. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
The proposed Project is expected to result in significant impacts with regard to pedestrian safety. Each impact and the mitigation measures proposed to reduce these impacts to less than significant levels are discussed in greater detail in Subsection G.

5. Result in inadequate emergency access?
The proposed Project is not expected to result in significant impacts to emergency access.
6. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

The proposed Project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, nor would it decrease the performance or safety of such facilities, except as noted under question d.) above.

P. Impacts and Mitigation Measures

Impact TRAFFIC-1: The addition of Project traffic at the Parkside Drive/Buena Vista Avenue intersection would cause the intersection to operate at LOS F, resulting in a potentially significant impact during the PM peak hour under Future Baseline plus Project Conditions.

Mitigation Measure TRAFFIC-1: As the intersection would eventually operate at unacceptable conditions, and meet the criteria of the CA MUTCD Peak Hour Traffic Volume Signal Warrant with and without the addition of the proposed Project, the CA MUTCD criteria suggest the intersection be signalized. However, both the Walnut Creek traffic signalization ordinance and the CA MUTCD also provide that engineering judgment must be brought to bear on the decision to implement and timing of implementation of a traffic signal. The CA MUTCD offers a list of alternatives to traffic control signals for consideration, including (but not limited to) the following:

- Relocating the stop line(s) and making other changes to improve the sight distance at the intersection;

- Adding one or more lanes on a minor-street approach to reduce the number of vehicles per lane on the approach;

- Revising the geometrics at the intersection to channelize vehicular movements and reduce the time required for a vehicle to complete a movement, which could also assist pedestrians; and
Installing a roundabout.

Due to the anticipated cumulative volume increase at this location, the implementation of any of these alternatives would continue to result in unacceptable operations. The City Traffic Engineer has considered all factors, and has likewise considered the fact that modeling done for this EIR suggests no other form of traffic control device will mitigate this impact as effectively as the installation of a traffic signal. In light of this, the City Traffic Engineer concurs with the suggested installation of a traffic signal at this location, when the warrant is satisfied.

Since the impact of the Project itself will not immediately necessitate the installation of a traffic signal, but rather, will make a cumulatively considerable contribution to the future need for a signal at this intersection, it is appropriate to mitigate this future impact through the following measures:

- Project Applicant shall pay the Traffic Impact Fee assessed against the Project.
- Project Applicant shall likewise fund biennial monitoring (i.e., every two years) of the performance of this intersection until issuance of building permits for Phase III of Project construction.
- The City will program the signalization of this intersection into the list of projects eligible for construction funding through the use of Traffic Impact Fees.

Significance After Mitigation: Less than significant.

Impact TRAFFIC-2: The addition of Project traffic at the Parkside Drive/Hillside Avenue intersection would result in a potentially significant impact during the PM peak hour under Future Baseline plus Project Conditions.

Mitigation Measure TRAFFIC-2: As the intersection would eventually operate at unacceptable conditions, and meet the criteria of the CA
MUTCD Peak Hour Traffic Volume Signal Warrant with and without the addition of the proposed Project, the CA MUTCD criteria suggest the intersection be signalized. However, both the Walnut Creek traffic signalization ordinance and the CA MUTCD also provide that engineering judgment must be brought to bear on the decision to implement and timing of implementation of a traffic signal. The CA MUTCD offers a list of alternatives to traffic control signals for consideration, including (but not limited to) the following:

♦ Relocating the stop line(s) and making other changes to improve the sight distance at the intersection;

♦ Adding one or more lanes on a minor-street approach to reduce the number of vehicles per lane on the approach;

♦ Revising the geometrics at the intersection to channelize vehicular movements and reduce the time required for a vehicle to complete a movement, which could also assist pedestrians; and

♦ Installing a roundabout.

Due to the anticipated cumulative volume increase at this location, the implementation of any of these alternatives would continue to result in unacceptable operations. The City Traffic Engineer has considered all factors, and has likewise considered the fact that modeling done for this EIR suggests no other form of traffic control device will mitigate this impact as effectively as the installation of a traffic signal. In light of this, the City Traffic Engineer concurs with the suggested installation of a traffic signal at this location, when the warrant is satisfied.

Since the impact of the Project itself will not immediately necessitate the installation of a traffic signal, but rather, will make a cumulatively considerable contribution to the future need for a signal at this intersection, it is appropriate to mitigate this future impact through the following measures:

♦ Project Applicant shall pay the Traffic Impact Fee assessed against the Project.
Project Applicant shall likewise fund biennial monitoring (i.e., every two years) of the performance of this intersection until issuance of building permits for Phase III of Project Construction.

The City will program the signalization of this intersection into the list of projects eligible for construction funding through the use of Traffic Impact Fees.

**Significance After Mitigation:** Less than significant.

**Impact TRAFFIC-3:** Safety is a concern for the on-site pedestrian route between Hillside Avenue and the BART station entrance. The existing unsignalized crossing of the channelized right-in-only site access is considered less than ideal, as motorists exiting Ygnacio Valley Road may approach the proposed crosswalk at excessive speed. The greater width of the crossing as proposed by the Project would increase pedestrian exposure to this hazard, and the more acute angle would make pedestrians and motorists less visible to each other.

**Mitigation Measure TRAFFIC-3:** The channelized right-in-only site access from Ygnacio Valley Road is recommended to be reconfigured to reduce the risk to pedestrians. The recommended configuration is shown in Figure 4.11-15, which would position the lane splitting off the right-in-only site access to enter the proposed new parking structure slightly farther downstream, allowing the crossing to be limited to the width of one lane, as well as allowing it to be oriented more perpendicular to oncoming traffic, as in its present configuration. The mitigation would also include the installation of yield-to-pedestrians signage.

**Significance After Mitigation:** Less than significant.
Pedestrian crossing limited to one lane and oriented perpendicular to oncoming traffic.

- Position entry lane to parking structure farther downstream.
- Widen curve of exit lane from parking structure.
- Install yield to pedestrians signage.

**Figure 4.11-15**

**Mitigation Measure TRAFFIC-3**

Reconfiguration of Pedestrian Crossing of Ygnacio Valley Road Right-In-Only Access.
4.12 UTILITIES AND SERVICE SYSTEMS

This chapter describes the existing utilities and services systems in Walnut Creek and evaluates the potential impacts from buildout of the Project on those services and facilities. Wastewater, water supply, stormwater, and solid waste are each addressed in a separate section of this chapter. In each section, a summary of the relevant regulatory setting and existing conditions is followed by a discussion of project-specific and cumulative impacts.

A. Water

Water service in Walnut Creek is provided by both the East Bay Municipal Utility District (EBMUD) and the Contra Costa Water District (CCWD). The project site is located within the EBMUD service area. This section outlines the regulatory setting, describes existing conditions, and discusses potential impacts from buildout of the Project with regard to local water supply, treatment, and distribution.

1. Regulatory Setting

a. Federal and State Regulations
The following are federal and State regulations that affect water service at the Project site.

i. Federal Safe Drinking Water Act
The Safe Drinking Water Act authorizes the EPA to set national standards for drinking water, called the National Primary Drinking Water Regulations, to protect against both naturally-occurring and man-made contaminants. These standards set enforceable maximum contaminant levels in drinking water and require all water providers in the United States to treat water to remove contaminants, except for private wells serving fewer than 25 people. In California, the State Department of Health Services conducts most enforcement activities. If a water system does not meet standards, it is the water supplier’s responsibility to notify its customers.
ii. California Porter-Cologne Water Quality Control Act
Under the Porter-Cologne Water Quality Control Act (Porter-Cologne), which was passed in California in 1969, the State Water Resources Control Board (SWRCB) has the ultimate authority over State water rights and water quality policy. Porter-Cologne also establishes nine Regional Water Quality Control Boards (RWQCBs) to oversee water quality on a day-to-day basis at the local and regional level. RWQCBs engage in a number of water quality functions in their respective regions. RWQCBs regulate all pollutant or nuisance discharges that may affect either surface water or groundwater.1 Walnut Creek is overseen by the San Francisco Bay RWQCB.

iii. California Senate Bill (SB) 610 and 221
SB 610 and SB 221 amended State law to ensure better coordination between local water supply and land use decisions and ensure adequate water supply for new development. Both statutes require that detailed information regarding water availability be provided to City and County decision-makers prior to approval of large development projects. SB 610 requires water supply assessments (WSAs) for certain types of projects, as defined by Water Code §10912, that are subject to the California Environmental Quality Act (CEQA).2 SB 221 establishes consultation and analysis requirements related to water supply planning for residential subdivisions including more than 500 dwelling units.3

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iv. California Urban Water Management Planning Act

Through the Urban Water Management Planning Act of 1983, the California Water Code requires all urban water suppliers within California to prepare and adopt an Urban Water Management Plan (UWMP) and update it every five years. This requirement applies to all suppliers providing water to more than 3,000 customers or supplying more than 3,000 acre-feet (AF) of water annually. The Act is intended to support conservation and efficient use of urban water supplies at the local level. The Act requires that total projected water use be compared to water supply sources over the next 20 years in five year increments, that planning occur for single and multiple dry water years, and that plans include a water recycling analysis that incorporates a description of the wastewater collection and treatment system within the agency’s service area along with current and potential recycled water uses.5

v. California Groundwater Management Act

The Groundwater Management Act of the California Water Code (AB 3030) provides guidance for applicable local agencies to develop voluntary Groundwater Management Plans (GMP) in State-designated groundwater basins. GMPs can allow agencies to raise revenue to pay for measures influencing the management of the basin, including extraction, recharge, conveyance, facilities’ maintenance, and water quality.6

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4 One acre-foot is the amount of water required to cover 1 acre of ground (43,560 square feet) to a depth of 1-foot.


vi. The Water Conservation Act of 2009 (Senate Bill X77 (2009))
New requirements per state law (SB-X77) mandate reduction of per capita water use and agricultural water use in Walnut Creek and throughout the State by 20 percent by 2020.

vii. State Updated Model Landscape Ordinance (Assembly Bill 1881 (2006))
The updated Model Landscape Ordinance requires cities and counties to adopt landscape water conservation ordinances by January 31, 2010.

b. Regional and Local Policies and Regulations
i. East Bay Municipal Utilities District
Updated every five years in accordance with California’s Urban Water Management Planning Act, EBMUD’s Urban Water Management Plan (UWMP) 2005 provided an overview of EBMUD’s water supply sources and usage, recycled water and conservation programs and is the reference used for the EBMUD will-serve letter for this project. On October 13, 2009, EBMUD approved the Water Supply Management Program 2040 (WSMP 2040) which is a 30-year plan that covers the growth of the District from 1.4 million to 1.7 million customers by 2040. The CEQA analysis for the WSMP 2040 was challenged in court, and on May 24, 2011 the EBMUD Board of Directors set aside certification of the WSMP Environmental Impact Report (EIR) and directed staff to revise the Program.

EBMUD released the Draft UWMP 2010 for public review on April 12, 2011. As a result of the de-certification of the WSMP 2040 EIR, EBMUD updated

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8 http://www.water.ca.gov/wateruseefficiency/landscapeordinance/.
the Plan and released a revised Draft UWMP 2010 for review on May 6, 2011.\textsuperscript{11} The EBMUD Board of Directors adopted the UWMP 2010 on June 28, 2011.\textsuperscript{12}

\textbf{ii. City of Walnut Creek}

The General Plan 2025 Safety and Noise chapter contains the following goals, policies, and actions to work with the EBMUD and CCWD to ensure an adequate water supply and infrastructure.

\textbf{Chapter 6}

\textbf{GOAL 7. Work with the water districts to ensure safe and adequate water supplies for the Planning Area.}

\textbf{Policy 7.1} Work with water agencies to secure water supplies to serve the Planning Area’s growing number of residents and employees.

\textbf{Action 7.1.1} Work with water agencies and the fire district to ensure the availability of an adequate water supply, particularly during peak load periods, to serve firefighting needs.

The Built Environment Chapter contains the following goal and policy relevant to water and sanitary sewer facilities.

\begin{footnotesize}

\end{footnotesize}
Chapter 4

GOAL 11. Create a balanced, safe, and efficient regional and subregional transportation system.

Policy 11.1 Require that commercial projects comply with the City’s performance standards for fire, police, parks, water, flood control, and sanitary sewer facilities.

The Built Environment chapter contains the following water conservation goal and policy.

GOAL 29. Promote water conservation.

Policy 29.2. Promote water conservation throughout the community.

Action 29.2.3 Encourage water use consistent with the City’s adopted water-conservation guidelines.

Action 29.2.4 Follow existing standards and guidelines for water-conserving landscaping, and encourage the planting of native and drought-tolerant plants.

2. Existing Conditions
This section describes water supply sources, water supply infrastructure, water treatment facilities, as well as projected demand and supply through 2040.

a. Water Supply Sources
EBMUD supplies water to approximately 1.3 million people in the East Bay region of the San Francisco Bay Area, including a portion of Walnut Creek. Since the late 1920s, EBMUD’s primary source of water has been the Mokelumne River, and today approximately 90 percent of EBMUD’s water supply comes from the Mokelumne River watershed. EBMUD has water rights that allow for delivery of up to a maximum of 325 million gallons per day.

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(MGD) from the Mokelumne River, subject to the availability of Mokelumne River runoff and to the senior water rights of other users, downstream fishery flow requirements, and other Mokelumne River water uses. Existing supply is currently supplemented by local runoff from East Bay area watersheds that is stored in five terminal reservoirs within the EBMUD service area boundaries.\textsuperscript{14}

EBMUD has also recently completed construction of two new facilities designed to improve water supply reliability and diversify its water supply sources. The Freeport Regional Water Facility, which became operational in February 2011, enables the delivery of water diverted from the Sacramento River to EBMUD customers in dry years. The facility will provide EBMUD with up to 133,000 AF of water in a single dry year, not to exceed 165,000 AF in three consecutive dry years, when EBMUD’s total stored water supply is forecast to be below 500,000 AF on September 30 of each year.\textsuperscript{15}

Additionally, in 2010, the Bayside Groundwater Facility became operational. This facility was built to enable EBMUD to inject potable drinking water into the deep aquifer of the South East Bay Plain Groundwater Basin (SEBPB) during wet years for use later in times of drought.\textsuperscript{16} The facility consists of a new water treatment facility and associated pipelines linking the treatment plant to the injection/extraction well, subsidence monitoring system, and a network of groundwater monitoring wells. The Bayside Groundwater Facility will supply water to EBMUD customers only when supplemental water is needed because of drought conditions.

b. Water Supply Infrastructure

The existing EBMUD water supply system consists of a network of reservoirs, aqueducts (pipelines), water treatment plants (WTP), pumping plants, and other distribution facilities that convey from the Mokelumne River to customers in the EBMUD service area. The principal components of the system are the Pardee Dam and Reservoir, the Camanche Dam and Reservoir, and the Mokelumne Aqueduct System.

The Pardee Dam and Reservoir, located approximately 38 miles northeast of Stockton on the Mokelumne River, were constructed in 1929. The Dam is a concrete gravity arch structure rising 345 feet above the river bed, and the reservoir has a current capacity of 197,950 AF at spillway crest elevation. Camanche Dam, located about 10 miles downstream from Pardee dam was constructed in 1964. Its reservoir has a current capacity of 417,120 AF at spillway crest elevation. Together these reservoirs provide water to EBMUD customers while also satisfying downstream requirements including streamflow regulation, water for fisheries and riparian habitat, and flood control.

From the Pardee Reservoir, raw water is transported roughly 90 miles to EBMUD’s three WTPs via the Mokelumne Aqueduct System. The system is composed of the 2.2-mile Pardee Tunnel and three 82-mile-long pipelines, known as the Mokelumne Aqueducts and the Lafayette Aqueducts, which convey water to Walnut Creek for eventual distribution to the Walnut Creek, Lafayette, and Orinda. The Mokelumne Aqueducts have a total capacity of 200 MGD by gravity flow and up to 325 MGD with pumping at the Walnut Creek pumping plants.

EBMUD operates and maintains all storage, pumping, and distribution facilities within its service area and is responsible for all facilities up to the customer’s water meter. Water at the Project site is currently provided by the EBMUD, which operates and maintains below grade water supply lines.

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c. Water Demand and Supply Projections

Water consumption in the EBMUD service area has remained relatively constant in recent years even as population and accounts have grown. Since the 1970s, water demand has remained between 200 to 220 MGD in non-drought years. EBMUD’s current water demand projections are based on the 2040 Demand Study, completed in 2009, which used a land-use based method to project average annual water demands of the distribution system out to year 2040. The 2040 Demand Study relied on the adopted general plans of the cities and counties in the EBMUD service area and on a series of meetings with local planning agencies regarding the timing and direction of future development in their respective communities. As shown in Table 4.12-2, the 2040 Demand Study forecasts an unadjusted customer demand of 312 MGD for the year 2040. Assuming that cumulative savings since implementation of the WCMP in 1994 of 62 MGD is achieved through existing and future conservation efforts and cumulative savings of 20 MGD is achieved through existing and future recycled water programs, the adjusted 2040 forecasted planning level of demand is 230 MGD. This forecasted planning level of demand accounts for SBX7-7 mandated reduction of statewide per capita water consumption by 20 percent by the year 2020.

Water supply availability for a given calendar year is based on a forecast of runoff and existing storage levels in EBMUD reservoirs. In a normal year, when EBMUD does not need to implement a Drought Management Program, the April projection of the total system storage at the end of September would be 500,000 AF. As shown in Table 4.12-2, EBMUD can meet projected customer demands through the year 2040 during normal year conditions. However, under dry year and consecutive dry year scenarios EBMUD service area demand exceeds available supply, even with the current supplemental supplies provided through the Freeport Regional Water Facility and the Bayside Groundwater Facility. For 2030 level demands over multiple dry years there is a total supplemental supply need of 69,000 AF. EBMUD would fill this supplemental supply need by relying on short-term supplemental supply sources, including 15,000 AF per year from Northern California Water
TABLE 4.12-2  EBMUD DEMAND AND SUPPLY PROJECTIONS

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<th></th>
<th>2010</th>
<th>2015</th>
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<th>2030</th>
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<td>(43)</td>
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<td>Three-Year Drought</td>
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</table>

Transfers and 10,000 AF per year from an expansion of the Bayside Groundwater Project. In the future beyond the 2030 planning horizon, conservation and recycled water programs will play an increasingly important role in the reliability of EBMUD’s supply. In 2040 under normal year conditions, conservation is expected to offset about 20 percent of the needed supply, while recycled water programs would likely offset about 6 percent. Under a multiple dry year scenario of three consecutive drought years, rationing and supplemental supply would account for 25 percent of the supplemental supply need, and the projected shortfall to be met by developing supplemental water supply sources would be about 11 percent.

d. Water Treatment Facilities

EBMUD operates six water treatment plants (WTPs). Three of these are full conventional plants: the Upper San Leandro WTP, the San Pablo WTP, and the Sobrante WTP. These receive water from the Upper San Leandro and San Pablo reservoirs, and serve the northern and southern parts of the EBMUD service area. In addition, there are three other in line filtration plants located in Walnut Creek, Lafayette, and Orinda.\textsuperscript{18}

Major reconstruction of the Walnut Creek WTP treatment and storage facilities was completed in 2006. Table 4.12-3 presents capacity, and existing and future demand, for the treatment plant.\textsuperscript{19} The current plant capacity of 91 MGD is adequate to meet the City’s existing demand of 72 MGD, but falls short of the projected demand of 96 MGD in 2030.

EBMUD’s Water Treatment and Transmission Improvement Project (WTTIP) includes additional improvements to the treatment plant and other facilities in the Walnut Creek area to address existing deficiencies and future demand. The plant needs new filters to increase capacity to 115 MGD to


meet peak operational demands and to accommodate occasional changes in source water quality due to increases in seasonal turbidity and algae in Pardee reservoir.20 A new pumping plant is also proposed at the treatment plant to improve water pressure for customers in higher elevations of Walnut Creek and adjacent areas.21 Planned longer-term improvements beyond 2010 include the addition of high-rate sedimentation units and UV disinfection facilities.22 The proposed improvements to be completed in 2012 will adequately address future demand through 2030.23

3. Standards of Significance
The proposed Project would have a significant impact on water service if it would:

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4. Impact Discussion

a. Have insufficient water supplies available to serve the project from existing entitlements and resources, therefore requiring new or expanded entitlements.

The EBMUD has a total water right and capacity of 325 MGD from the Mokelumne River. This capacity exceeds the projected adjusted District-wide demand through 2040 of 230 MGD shown in Table 4.12-2. According to the UWMP 2010, there is adequate capacity within the District to support projected growth. During normal years, the District anticipates that it could meet projected demand; during dry years, the District would implement a Drought Management Program.\(^\text{24}\)

EBMUD issued a WSA as required under SB 610 on January 12, 2010\(^\text{25}\) confirming that the proposed project was included in calculations of land use class changes and increased density and it therefore had capacity to serve the project. The WSA, included as Appendix H of this Draft EIR, specifically states:

“The water demands for the Walnut Creek BART Transit Village area are accounted for in EBMUD’s water demand projections published in EBMUD’s 2005 Urban Water Management Plan...EBMUD’s water demand projections account for anticipated future water demands with EBMUD’s service bound-


aries and for variations in demand-attributed changes in development patterns. Current water demand for the project site is approximately 8,200 gallons per day (gpd). The estimated water demand for the proposed development that consists of residential, commercial and office area is estimated to be about 130,000 gpd and is consistent with EBMUD’s demand projections that indicate both densification and land use class changes in some areas with these types of land uses.

Since the time that EBMUD issued the WSA, the Project has been revised such that the retail/commercial and office components have been reduced by approximately 30,000 square feet. In addition, since that time EBMUD has published the UWMP 2010. EBMUD was asked to comment on the Project as revised, and submitted a letter on December 19, 2011 confirming that the January 2010 WSA is still valid and a second WSA is not required.

In the January 2010 WSA, EBMUD calculates that the Project would have a water demand of 130,000 gallons per day, based on the original Project components before the amount of commercial and office space proposed was revised downward by 30,000 square feet. Therefore, as the Project would be expected to use less than 130,000 gallons of water per day calculated by EBMUD in the 2010 WSA, the total projected water demand from the Project would be less than the figure that EBMUD determined as within their supply capacity. Furthermore, EBMUD re-confirmed that it has adequate water supplies to serve the Project in its letter of December 19, 2011. Therefore, the Project would result in a less than significant impact on water supplies.

b. Require or result in the construction of new water facilities or expansion of existing facilities, the construction or operation of which would cause significant environmental effects.

According to the project’s Conceptual Utility Plan, new water supply lines would tie into the existing water lines on Pringle Avenue, North California

Boulevard, and Ygnacio Valley Road.\textsuperscript{27} As such, these new water supply lines would tie into areas already affected by installation of the original utility infrastructure. In addition, installation of these new water lines would occur during, and as part of, three separate construction phases. Therefore, the new water line construction and connections would occur as part of the proposed site disturbance.

With regard to water treatment, the existing capacity of the Walnut Creek water treatment plant is sufficient to meet existing demand, and proposed improvements anticipated to be completed in 2012 are projected to adequately address future demand through 2030. Given the 115 MGD capacity that is expected at the Walnut Creek water treatment plant upon completion of the planned improvements, which will come online prior to the Project’s completion, the Project’s estimated daily water use of approximately 130,000 gallons per day is not expected to require the expansion of existing water treatment facilities or construction of new such facilities. Finally, the proposed project would not require any off-site expansion or new construction of water supply facilities such as a major conveyance line from a storage point. In conclusion, the project would not require the construction of new facilities or the expansion of existing facilities that could result in significant physical impacts. A less-than-significant impact would occur.

5. Cumulative Impacts
As stated in the December 19, 2011 letter from EBMUD, EBMUD’s water rights are adequate to meet existing and projected demand through 2040. EBMUD is also implementing water conservation and recycling programs and developing water supply projects to manage future water supply needs. In terms of water treatment, the Walnut Creek WTP’s current capacity of 91 MGD falls short of the projected demand of 96 MGD in 2030. To address this shortfall, the WTTIP includes improvements to the treatment plant to be

\textsuperscript{27} Walnut Creek Transit Lifestyle Associates, Walnut Creek Transit Village, Conceptual Utility Plan, Sheet C1.1, August 21, 2011.
completed in 2012 that will meet future demand through 2030. With these improvements, the treatment capacity will be 115 MGD.

While the project would contribute to an increased cumulative demand for water supply, long-term demand, including the project, has been accounted for in EBMUD’s long-term planning.

6. Impacts and Mitigation Measures
The Project would not result in any significant impacts to water supply, treatment, or distribution; therefore, no mitigation measures are necessary.

B. Sanitary Wastewater (Sewer)

The Central Contra Costa Sanitary District (CCCSD) provides wastewater collection and treatment service for Walnut Creek. This section describes the existing conditions and potential impacts of the Project with regard to wastewater collection and treatment facilities.

1. Regulatory Setting
   a. Federal Regulations
      The federal government regulates wastewater treatment and planning through the Federal Water Pollution Control Act of 1972, more commonly known as the Clean Water Act (CWA), as well as through the National Pollutant Discharge Elimination System (NPDES) permit program, both of which are discussed in further detail below.

      i. Clean Water Act (CWA)
         The CWA regulates the discharge of pollutants into watersheds throughout the nation. Under the CWA, the United States Environmental Protection Agency (EPA) implements pollution control programs and sets wastewater standards.
ii. National Pollutant Discharge Elimination System (NPDES)
The NPDES permit program was established in the CWA to regulate municipal and industrial discharges to surface waters of the United States. Federal NPDES permit regulations have been established for broad categories of discharges, including point-source municipal waste discharges and nonpoint-source stormwater runoff. NPDES permits generally identify effluent and receiving water limits on allowable concentrations and/or mass emissions of pollutants contained in the discharge; prohibitions on discharges not specifically allowed under the permit; and provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities.

Wastewater discharge is regulated under the NPDES permit program for direct discharges into receiving waters and by the National Pretreatment Program for indirect discharges to a sewage treatment plant.

b. State Regulations and Agencies
Wastewater treatment and planning is regulated at the State level. Specific regulations relevant to the proposed Project are described below.

i. State Water Resources Control Board (SWRCB)
On May 2, 2006 the SWRCB adopted a General Waste Discharge Requirement (Order No. 2006-0003) for all publicly owned sanitary sewer collection systems in California with more than 1 mile of sewer pipe. The order provides a consistent statewide approach to reducing sanitary sewer overflows (SSOs) by requiring public sewer system operators to take all feasible steps to control the volume of waste discharged into the system, to prevent sanitary sewer waste from entering the storm sewer system, and to develop a Sewer System Management Plan (SSMP). The General Waste Discharge Requirement also requires that storm sewer overflows be reported to the SWRCB using an online reporting system.

The San Francisco Bay Regional Water Quality Control Board (RWQCB) is the local division of the SWRCB. The San Francisco Bay RWQCB issues
NPDES permits in Walnut Creek. NPDES permits allow the RWQCB to collect information on where the waste is disposed, what type of waste is being disposed, and what entity is depositing the wastes. The RWQCB is also charged with conducting inspections of permitted discharges and monitoring permit compliance.

ii. Sanitary District Act of 1923
The Sanitary District Act of 1923 (Health and Safety Code Section 6400 et seq.) authorizes the formation of sanitation districts and enforces the Districts to construct, operate, and maintain facilities for the collection, treatment, and disposal of wastewater. The Act was amended in 1949 to allow the Districts to also provide solid waste management and disposal services, including refuse transfer and resource recovery. Walnut Creek is within the Central Contra Costa Sanitary District, which is discussed in further detail below.

c. Local Regulations
Locally, wastewater treatment and planning is regulated at both the county and the city level, as described below.

i. Central Contra Costa Sanitary District
The Central Contra Costa Sanitary District (CCCSD or District), established in 1946, collects and treats the wastewater of 462,000 residents and more than 5,000 businesses in 11 cities in central Contra Costa County, including the City of Walnut Creek.

a) Standard Specifications for Design and Construction
The CCCSD established and enforces the Standard Specifications for Design and Construction (Specifications), pursuant to Division 6, Part 1, of the Health and Safety Code of the state of California. The Specifications govern

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sewer design and construction work by private individuals, public agencies and businesses within the boundaries of the CCCSD. The Specifications requires all Plans, profiles, cut sheets, right-of-way documents, and specifications to conform to the established standards and requirements.30

b) Capacity Fee Program
The purpose of the Capacity Fee Program is to equalize the investment in District assets among current and new users, thus ensuring that new users pay their fair share for facilities capacity and services. On May 5, 2011, the CCCSD adopted the revised schedule of capacity fees, rates, and charges in accordance with District Code Chapter 6.12. The capacity fees are included in sewer connection fees, which are required when building’s plumbing facilities are connected to the CCCSD public sewer system. The type of user (i.e., residential or commercial) determines the fees required to pay when connecting to the public sewer system.31

d. City of Walnut Creek General Plan 2025
General Plan 2025 contains the following goal, policy, and action related to sanitary wastewater service.

Chapter 4

GOAL 32. Meet or exceed State and federal water quality standards.

Policy 32.6. Reduce pollutant loading in the wastewater system

Action 32.6.1. Apply best management practices to discharges to the sanitary sewage system.


2. Existing Setting

This section describes the existing conditions and capacity of the sewer lines in the project area and the applicable wastewater treatment plant.

a. Wastewater (Sewer) Collection

Existing CCCSD sewer lines service the Project site. These lines are currently located along the northeast, south, and west sides of the property.\(^\text{32}\)

According to the CCCSD Collection System Master Plan, which was updated in 2008, there are 1,500 miles of sewers and 18 pump stations system-wide, serving Danville, Lafayette, Moraga, Orinda, Pleasant Hill, Walnut Creek, portions of Martinez and San Ramon, and some portions of unincorporated Contra Costa County.\(^\text{33}\) Throughout the system there are some eight inch lines serving as trunk sewers, although most trunk sewers are at least 10-inch pipes.\(^\text{34}\) There are also interceptor pipes greater than 24 inches.\(^\text{35}\)

One of the goals of the CCCSD Collection Master Plan was to provide a comprehensive analysis of system capacity and make recommendations for future improvements. To aid in this analysis, CCCSD identified future land uses by referencing land use changes in city General Plans and related documents. This information, together with CCCSD’s own existing user data, was used to develop estimates that were then validated by city planning staff. Additionally, CCCSD developed design flow criteria for wastewater flows under two basic wet weather scenarios: a five-year event to demonstrate the need for capital improvements and a 20-year event to determine the sizing of sewer improvements and the need for new sewer facilities. The CCCSD Col-

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\(^\text{32}\) BKF Engineers, 2011. Walnut Creek Transit Village Conceptual Utility Plan C2.0.


lection System Master Plan analyzed existing and projected (i.e. 2040) flows under peak dry and peak wet weather conditions and identified areas in need of improved capacity.36

One of these areas, D4-A Walnut Creek – Walnut Boulevard (D4-A), is approximately 1 mile east of the Project site.37 All areas identified as in need of improvement were ranked from one to four in order of priority based on the length of deficient pipe and length of pipe where flows would exceed 130 percent of full capacity.38 Priority one largely represents areas that are deficient in the near term (e.g. 2010). D4-A is a priority two area and is recommended for improvements such as the addition of 2,005 feet in new pipe length and use of 18-inch diameter pipe.39

Improvements are prioritized and scheduled annually in the CCCSD’s Capital Improvement Budget and Ten-Year Capital Improvement Plan. Funding for maintenance and upgrade of existing facilities comes from property taxes and a portion of the CCCSD’s annual Sewer Service Charge. Improvements required as a result of new development are funded from fees and charges applicable to all new development at the time of connection to the sewer system.40

As described above, developers must adhere to the CCCSD’s Standard Specifications for Design and Construction. The collection system can accommodate projects with up to 50 units; however, for larger projects, the CCCSD

37 Central Contra Costa County Sanitary District, 2010. Collection System Master Plan Update Final Report, Figure 5-7.
conducts an analysis of downstream collector ability to absorb increased flows.\(^\text{41}\)

b. Wastewater (Sewer) Treatment and Disposal
Sanitary wastewater generated on the project site is treated by CCCSD, which has a permit to discharge treated wastewater into Suisun Bay, from its treatment plant in Martinez. The CCCSD is operating under an NPDES permit and has complied 100 percent with the discharge limits for thirteen straight years as of 2011\(^\text{42,43}\). The CCCSD’s current discharge permit allows an average dry weather flow rate of 53.8 MGD based on a secondary level of treatment. The actual average dry weather flow rate in the year 2010 was 33.5 MGD.\(^\text{44}\)

3. Standards of Significance
The proposed Project would have a significant impact on wastewater service if it would:

a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

b. Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to


\(^{44}\)Leavitt, Russell, Engineering Assistant III, Central Contra Costa Sanitary District. Personal communication with The Planning Center | DC&E, October 19, 2011.
serve the project’s projected demand in addition to the provider’s existing commitments.

4. Impact Discussion

a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

The project land use types are primarily residential, with some commercial, retail, and office space and ancillary parking. Wastewater effluent associated with these land uses include would not substantially increase pollutant loads as there is no heavy industrial use nor agricultural processing where pollutant loads and wastewater volumes are heavy. Therefore, construction of the Project is not expected to exceed treatment requirements established by the RWQCB and impacts to sanitary wastewater quality would be less than significant.

b. Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities.

According to the Project’s Conceptual Utility Plan, new sanitary sewer lines installed on the project site would connect to current CCCSD lines that run along the northeast, south, and west sides of the property. Installation of these new wastewater lines would occur during, and as part of, the three separate construction phases.

As described in Chapter 4.9 of this EIR, the Project site would allow residential development on a parcel not foreseen in General Plan 2025, however, buildout of the proposed 596 residential units, 22,000 gross square feet of retail and commercial space, and 16,700 gross square feet of flex space (i.e. either residential representing an additional 17 dwelling units or retail and commercial space) would not exceed the total number of units and square footage assumed for the Project site in General Plan 2025. As mentioned earlier, the CCCSD Collection Master Plan’s five-year event, which determines

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the need for capital improvements, and the 20-year event analysis, which determines the necessary sizing for sewer improvements and the need for new or expanded treatment facilities, utilized land use assumptions based, in part, on General Plan 2025 projections and was vetted by city planning staff. Therefore, the Project, by being within General Plan 2025 projections, is also within the capacity estimates used by CCCSD to determine future capacity. The proposed Project would not require any off-site expansions or new construction of wastewater facilities because the anticipated wastewater generation would be within the capacity of the existing CCCSD wastewater treatment plant. See the response to criteria (c) below for additional information on project wastewater volumes versus capacity.

The proposed Project would not result in the construction of new treatment facilities, or in expanded facilities that would have a significant physical impact. A less-than-significant impact would occur.

c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments.

Wastewater generation, as mentioned earlier, is determined by estimating the flow per unit, or in the case of non-residential uses, per lot size or building space, based on existing CCCSD user data and General Plan land use projections.46 More specifically, the CCCSD Collection System Master Plan calculates the base wastewater flow (BWF), which takes into consideration sanitary and process flow contributions from different users and dry season groundwater infiltration (GWI).47 As shown in Table 4.12-5, there would be a total wastewater generation of 92,854 GPD, or about 0.09 MGD. The estimated

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### Table 4.12-5  Wastewater Generation

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Demand Factor</th>
<th>Area/No. Units</th>
<th>Wastewater Generated (GPD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>150 GPD per dwelling unit</td>
<td>596 dwelling units</td>
<td>89,400</td>
</tr>
<tr>
<td>Flex Spacea</td>
<td>150 GPD per dwelling unit</td>
<td>17 units</td>
<td>2,550</td>
</tr>
<tr>
<td>Commercial/Retail</td>
<td>1,000 GPD per acre</td>
<td>0.504 acres</td>
<td>504</td>
</tr>
<tr>
<td>Office</td>
<td>100 GPD per 1,000 SF</td>
<td>4,000 SF</td>
<td>400</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>92,854</strong></td>
</tr>
</tbody>
</table>

Note: GPD = gallons per day; SF = square feet.

*a  See the Project Description, which states that this flex space would be equivalent to 17 ground floor dwelling units.

Source: Base wastewater generation rates by land use are adapted from DC&E, 2005, City of Walnut Creek General Plan 2025, page 139.

Wastewater generation from the proposed project would be well within the existing capacity of the CCCSD wastewater treatment plant of 53.8 MGD average dry weather flow and 240 MGD wet weather flow. Additionally, as described above, the Project’s proposed number of residential units and square footage of retail and commercial space, regardless of whether the proposed flex space is used as residential or retail and commercial, would be consistent with General Plan 2025. Since the Project is consistent with General Plan 2025, it is also consistent with CCCSD planning which is based, in part, on General Plan estimates. As a result, a less-than-significant impact would occur.

5. **Cumulative Impacts**

Cumulative impacts would occur if buildout of the proposed Project, in combination with other past, present, and reasonably foreseeable projects, would exceed the wastewater treatment requirements of the applicable RWQCB; require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause signifi-
significant environmental effects; or result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments. The geographic scope of this analysis is taken as the CCCSD service area.

Walnut Creek’s General Plan buildout population through 2025 was estimated to be 77,314 people. This buildout population would generate approximately 5.8 MGD of wastewater. The existing wastewater system has a reliable physical capacity and permit to discharge up to 53.8 MGD, which is able to accommodate the buildout population. Additionally, CCCSD’s own capacity projections and related capacity improvement plans assume that growth in Walnut Creek follows General Plan 2025 estimates. As discussed in chapter 4.9 of this Draft EIR, the proposed Project, together with other cumulative projects, would not exceed the level of growth expected under General Plan 2025 and therefore cumulative impacts to wastewater would therefore be less than significant.

6. Impacts and Mitigation Measures
The Project would not result in any significant project-specific or cumulative impacts related to wastewater collection and treatment infrastructure, and therefore no mitigation measures are required.

C. Storm Water Drainage
The City of Walnut Creek Public Services Department oversees and maintains the City’s storm drainage system. This section describes the potential impacts of the project on drainage facilities.

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1. Regulatory Setting

The General Plan contains policies related to the adequacy of drainage facilities. These policies, copied below, govern maintenance of storm drainage.

Chapter 4

GOAL 32. Meet or exceed State and federal water-quality standards.

Policy 32.1. Support regional, State, and federal clean water efforts

   Action 32.1.1 Implement the Stormwater Management Plan.

Policy 32.2. In redevelopment projects in the Core Area, evaluate the desirability of specific, off-site, source control measures.

Policy 32.3. Maximize infiltration of rainwater into the soil, where appropriate.

   Action 32.3.1 Reduce the amount of impervious surfaces in new development and redevelopment.

   Action 32.3.2 Require that impervious surfaces not drain directly into storm drains.

Policy 32.4 Reduce the transport of urban runoff and surface pollutants off-site.

   Action 32.4.1 Verify the effectiveness of stormwater treatment facilities.

Policy 32.5 Encourage preservation of natural water bodies and drainage systems.

   Action 32.5.1 Retain natural water bodies and leave drainage systems undisturbed while allowing construction of adjacent creek walks.

2. Existing Conditions

Stormwater runoff from the BART station and the existing parking structure currently flows into the City storm sewer system. There are currently at-grade storm sewer collection drains located on all sides of the site.
3. **Standards of Significance**

The proposed Project would have a significant impact on drainage facilities if it would:

a. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

4. **Impact Discussion**

a. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

The Project is a relatively self-contained area. The 16.5-acre Project site is almost entirely covered with building roofs, hardscapes, or paved surface parking lots, except for several landscaped areas. Some landscaped areas are located across parking lots, but they are primarily placed along the periphery of the site, including along Ygnacio Valley Road in the southeastern corner of the site, I-680, and Pringle Avenue. As part of the Project, a network of bio-retention areas and flow-thru planters connecting to the City’s storm sewer system would be installed around the perimeter of the Project site. This would provide in-ground filtration of stormwater and reduce the volume of run-off flowing into the storm sewer system from existing levels. Landscaping and pervious pavers would also be used extensively throughout the site to provide bio-filtration and natural drainage of run off from the new structures. In total, 19,960 square feet of stormwater treatment area would be provided. The construction of the new stormwater drainage facilities within the Project site would not require the expansion of existing City-owned storm water facilities. As a result, a **less-than-significant** impact would occur.

5. **Cumulative Impacts**

The Project would not change the amount of stormwater runoff from the Project site. Therefore the Project would have no impact on the off-site stormwater drainage system and would not contribute to potential cumulative drainage impacts. A **less-than-significant** impact would occur.
6. Impacts and Mitigation Measures
The Project would not result in significant impacts on drainage facilities; therefore, no mitigation measures are required.

D. Solid Waste
This section describes existing conditions related to solid waste disposal services and the potential impacts of the Project.

1. Regulatory Setting
   a. State Regulations
      i. California Integrated Waste Management Act
California’s Integrated Waste Management Act of 1989 (AB 939) requires that cities and counties divert 50 percent of all solid waste from landfills as of January 1, 2000 through source reduction, recycling, and composting. AB 939 also establishes a goal for all California counties to provide at least 15 years of ongoing landfill capacity. To help achieve this, this act requires that each city and county prepare a Source Reduction and Recycling Element to be submitted to the Department of Resources Recycling and Recovery (CalRecycle), a new department within the California Natural Resources Agency, which administers programs formerly managed by the State’s Integrated Waste Management Board and Division of Recycling. As part of CalRecycle’s Zero Waste Campaign, regulations affect what common household items can be placed in the trash. As of February 2006, household materials including fluorescent lamps and tubes, batteries, electronic devices, and thermostats that contain mercury are no longer permitted in the trash.\(^\text{50}\)

In 2007, SB 1016 amended AB 939 to establish a per capita disposal measurement system. The per capita disposal measurement system is based on two factors: a jurisdiction’s reported total disposal of solid waste divided by a jurisdiction’s population. CalRecycle sets a target per capita disposal rate for

each jurisdiction. Each jurisdiction must submit an annual report to CalRecycle with an update of its progress in implementing diversion programs and its current per capita disposal rate. The Central Contra Costa Solid Waste Authority (CCCSWA)’s disposal rate in 2010 was 3.9 pounds of waste per person per day, which was well below the CalRecycle target of 4.7 pounds of waste per person per day for 2010.

The California Solid Waste Reuse and Recycling Access Act requires areas in development projects to be set aside for collecting and loading recyclable materials. The Act required CalRecycle to develop a model ordinance for adoption by any local agency relating to adequate areas for collection and loading of recyclable materials as part of development projects. Local agencies are required to adopt the model, or an ordinance of their own, governing adequate areas in development projects for collection and loading of recyclable materials.

iii. CALGreen Building Code
The California Green Building Standards Code (CALGreen Code) became effective for all projects beginning after January 1, 2011. Section 4.408, Construction Waste Reduction Disposal and Recycling, mandates that, in the absence of a more stringent local ordinance, a minimum of 50 percent of non-hazardous construction and demolition debris must be recycled or salvaged. The Code requires the Applicant to have a waste management plan, for on-site sorting of construction debris, which is submitted to the City of Walnut Creek for approval. The plan:

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♦ Identifies the materials to be diverted from disposal by recycling, reuse on the project or salvage for future use or sale.

♦ Specifies if materials will be sorted on-site or mixed for transportation to a diversion facility.

♦ Identifies the diversion facility where the material collected will be taken.

♦ Identifies construction methods employed to reduce the amount of waste generated.

♦ Specifies that the amount of materials diverted shall be calculated by weight or volume, but not by both.

b. Local Policies and Regulations
   i. Contra Costa County Health Services Department
      The Contra Costa County Health Services Department (CCCHSD) is the State-certified Local Enforcement Agency (LEA) for solid waste in Contra Costa County. The LEA is authorized to enforce the solid waste laws and regulations established by legislation and the predecessor to CalRecycle, the California Integrated Waste Management Board, as well as local enactments, including Public Resources Code and California Code of Regulations. The LEA also issues permits to all solid waste facilities and operations within the county, which include three active landfills, four transfer stations, and one compost facility. Other facilities include a soil remediation facility, and a few closed, illegal, and abandoned landfills.53

   ii. Central Contra Costa Solid Waste Authority
      The CCCSWA provides solid waste and residential recycling services for Contra Costa County and is responsible for recycling and solid waste management in Walnut Creek, including the Project site. The CCCSWA holds franchise agreements with Allied Waste Services for the collection, transfer, and disposal of residential and commercial solid waste, and with Valley Waste Management for the collection and marketing of residential recycling, green

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waste, and food scraps. The CCCSWA was created by a Joint Powers Authority in 1990.

iii. Walnut Creek Municipal Code
Chapter 3 of Title 5 (Sanitation and Health) of the Walnut Creek Municipal Code addresses the handling, collection, and disposal of solid waste and recyclable materials. Article 1 outlines general provisions, which prohibit depositing refuse on private and vacant property and burning garbage on yards or open space, and require access to waste receptacles for garbage collectors. Articles 2 and 3 permit the City Council to enter into collection contract agreements.

iv. Planning Documents
The City has adopted three additional plans relevant to solid waste services: the Source Reduction and Recycling Element (SRRE), the Household Hazardous Waste Element (HHWE), and the Non-Disposal Facility Element (NDFE). These three plans were prepared by the CCCSD on the City’s behalf, in compliance with the requirements of AB939. The plans are distinct from the General Plan and were adopted separately in 1993.54 They are part of the County-wide Integrated Waste Management Plan and EIR approved by CalRecycle’s predecessor, the California Integrated Waste Management Board, in December 1993.

v. Walnut Creek Construction Debris Ordinance
The City’s Construction Debris Ordinance (Title 5, Chapter 3, Article 6 of the Walnut Creek Municipal Code) requires that projects equal to or greater than $50,000 in value, 1,000 square feet or greater in construction or renovation floor area, or 300 square feet or greater in demolition surface area, must divert 50 percent of their recyclable construction and demolition (C&D) debris. The Ordinance requires each project to prepare and implement a Waste


4.12-32
Management Plan (WMP), which includes the estimated volume of reusable and recyclable C&D debris, the vendor or facility proposed to collect or receive the diverted materials, and the estimated volume of the residual debris that will be disposed of rather than reused or recycled. Additionally, within 30 days after the completion of any covered project, the permit holder is required to submit a Waste Management Report (WMR) that proves that the covered project has met the diversion requirement.

vi. Walnut Creek General Plan 2025
General Plan 2025 contains the following provisions which pertain to solid waste.

Chapter 4

GOAL 30. Meet or exceed State goals for source reduction and waste diversion.

Policy 30.2. Promote source reduction and recycling throughout the community.

Action 30.2.3. Promote and participate in residential and commercial waste prevention and diversion programs.

Action 30.2.4. Make recycling convenient for small businesses.

Action 30.2.7. Require the recycling of construction waste for all City and private projects.

Action 30.2.8. Encourage shared recycling facilities among businesses, especially those with limited space, for example, within the Core Area.

2. Existing Conditions
The Central Contra Costa Solid Waste Authority (CCCSWA), a Joint Powers Authority, oversees solid waste collection, disposal, and recycling services in Walnut Creek, Danville, Moraga, Lafayette, and Orinda, and the unincorporated areas of Contra Costa County. The CCCSWA has agreements with
Allied Waste for the collection, transfer, and disposal of residential and commercial solid waste within its jurisdiction, including the Project site.

a. Contra Costa Transfer and Recovery Station
   Materials collected by Allied Waste are transferred to the Contra Costa Transfer and Recovery Station in Martinez, which has a daily capacity of 1,900 tons and receives an average of 1,100 tons per day.\(^{55}\) From there, non-recyclable material is taken to the Keller Canyon Landfill in Contra Costa County for ultimate disposal.

b. Keller Canyon Landfill
   As noted above, solid waste collected by Allied Waste is disposed of at the Keller Canyon Landfill in Pittsburg. The Keller Canyon Landfill covers 2,600 acres, of which 244 acres are permitted for disposal. The Keller Canyon Landfill is permitted to receive up to 3,500 tons of waste per day and currently receives approximately 2,500 tons of waste per day.\(^{56}\) CalRecycle lists the expected closure date of the landfill to be December 31, 2030.\(^{57}\) The landfill has a total capacity of 75.018 million cubic yards and a remaining capacity of over 63.408 million cubic yards.\(^{58}\) The CCCSWA does not anticipate the need for a new landfill within the next 20 years.\(^{59}\)

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\(^{55}\) Craig, Tom, Contra Costa Transfer and Recovery Station. Personal communication with Alejandro A. Huerta, DC&E, October 7, 2009.


\(^{59}\) Hill, Mickey, Keller Canyon Landfill Company. Personal communication with Alejandro A. Huerta, DC&E, October 5, 2009.
c. Recycling
Commercial recycling is voluntary in Contra Costa County, with services provided by various private commercial recycling businesses, which are authorized by the CCCSWA, and each of which accepts different types of materials. Additionally, residents and businesses may bring recyclable and/or reusable materials to several drop-off recycling facilities, or to businesses or non-profits that seek specific construction and demolition materials, such as carpeting and bricks.

3. Standard of Significance
The Project would have a significant impact on solid waste disposal if it would:

a. Not be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs.

b. Be out of compliance with federal, State, and local statues and regulations related to solid waste.

4. Impact Discussion
a. Be served by a landfill with insufficient permitted capacity to accommodate the Project’s solid waste disposal needs.

Solid waste from the proposed Project site would be transferred to the Keller Canyon Landfill in Contra Costa County for ultimate disposal. As described above, the Keller Canyon Landfill is permitted to receive up to 3,500 tons of waste per day and currently receives about 2,500 tons of waste per day. Remaining capacity is over 63.408 million cubic yards.

The Project would comply with State Law SB1016, targeting a disposal rate of 4.7 pounds per person per day. As described in chapter 4.9, Population, Housing and Employment, of this DEIR, the construction of 596 residential units on the Project site between 2013 and 2018 would bring about 1,275 new
residents to the city. Additionally, the 42,705 square feet of commercial, flex, and office space proposed for construction would generate 142 new jobs. When fully operational, the Project would have a service population of 1,346 people and this service population would result in approximately 3.16 tons of solid waste per day generated by the Project. The total solid waste generated from the Project would therefore be approximately 0.09 percent of the permitted daily capacity of the Keller Canyon Landfill. Additionally, buildout of the Project is consistent with General Plan 2025 projections, for which it was determined that the Keller Canyon Landfill has sufficient capacity to accommodate buildout conditions, as discussed in the Draft EIR for General Plan 2025. Therefore, the Keller Canyon Landfill has sufficient capacity to accommodate the Project’s solid waste disposal needs.

Construction and demolition associated with the Project would generate significant solid waste. As described in Chapter 3, Project Description, of this Draft EIR, the Project would generate a total of 156,000 cubic yards of C&D wastes over the three phases from 2013 to 2018: 35,600 cubic yards during Phase I; 86,100 cubic yards during Phase II; and 60,400 cubic yards during Phase III. At least half of this waste would be expected to be diverted from landfill disposal by recycling in accordance with the City’s Construction Debris Ordinance. Per requirements of the Construction Debris Ordinance, the applicant would be required to prepare a WMP and a WMR in order to ensure that the covered project meets the diversion requirement for reused or recycled C&D debris. Therefore, the impact of the construction and operation of the Project on solid waste disposal would be less than significant.

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60 Based on an average household size of 2.14 people as projected by ABAG for Walnut Creek in 2025, 596 residential units x 2.14 = 1,275 residents.

61 Service population is calculated as follows: 100 percent of the residents (1,275) + 50 percent of employees (142/2) = 1,346.

62 1,346 people x 4.7 pound/person/day (at target diversion rate) = 6,326.2 pounds or 3.16 tons per day.
b. Comply with federal, state, and local statutes and regulations related to solid waste.

As discussed above, General Plan 2025 established goals and policies to comply with State requirements to reduce the volume of solid waste through recycling and reuse of solid waste. Additionally, Walnut Creek has adopted a SRRE, a HHWE, and a NDFE in compliance with the California Integrated Waste Management Act. These strategies and programs are sufficient to ensure that future development in Walnut Creek would not compromise the ability to meet or perform better than State the mandated target. Additionally, as discussed previously, construction and demolition associated with the Project would be subject to the City’s Construction Debris Ordinance, requiring that a minimum of 50 percent of C&D debris be diverted from landfill. Therefore, the proposed Project would comply with applicable statutes and regulations and the impact would be less than significant.

5. Cumulative Impacts

Cumulative impacts would occur if buildout of the proposed Project, in combination with other past, present, and reasonably foreseeable projects, would be served by a landfill with insufficient permitted capacity to accommodate the Project’s solid waste disposal needs or not comply with federal, state, and local statutes and regulations related to solid waste. The geographic scope of this analysis is taken as the CCCSWA service area.

Walnut Creek’s General Plan buildout population through 2025 was estimated to be 77,314 people. This buildout population would generate approximately 181.7 tons per day.\(^{62}\) As discussed above, the Keller Canyon Landfill has 63,408 million cubic yards of available capacity and an estimated life through 2030. Keller Canyon currently receives 2,500 tons of waste per day out of a maximum of 3,500 allowable by permit and therefore could accommodate 818.3 tons per day of additional solid waste over and above the total that would be generated by the buildout population. As a result, the pro-

\(^{62}\) 77,314 residents x 4.7 pound/person/day (at target diversion rate) = 363,376 pounds or 181.7 tons per day.
posed Project would not make a significant contribution to cumulative impacts relating to solid waste management or disposal. Additionally, as explained previously, the proposed Project would comply with applicable statutes and regulations. Therefore, cumulative impacts from the proposed Project would be less than significant.

6. Impacts and Mitigation Measures
The Project would not result in any significant impacts to solid waste disposal services; therefore, no mitigation measures are necessary.
This chapter of the EIR evaluates the potential for the proposed Project to cumulatively contribute to greenhouse gas (GHG) emissions. Because individually no single project is large enough to result in a measurable increase in global concentrations of GHG emissions, global warming impacts of a project are considered on a cumulative basis.

The chapter evaluates consistency of the revised Project with the strategies outlined in the California Air Resources Board’s (CARB) Scoping Plan in accordance with the GHG reduction goals of Assembly Bill 32 (AB 32), and strategies proposed by the Metropolitan Transportation Commission (MTC) to reduce vehicle miles traveled (VMT) in the region, in accordance with Senate Bill 375 (SB 375). GHG emissions modeling is included in Appendix G of this EIR.

A. Environmental Setting

1. Greenhouse Gases and Climate Change

Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as GHG, to the atmosphere. The primary source of these GHG is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHG—water vapor, carbon dioxide (CO₂), methane (CH₄), and ozone (O₃)—that are the likely cause of an increase in global average temperatures observed within the 20th and 21st centuries. Other GHG identified by the IPCC that contribute to global warming to a lesser extent include nitrous oxide (N₂O), sulfur hexafluoride (SF₆), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons. The major GHG are briefly described be-

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2 Water vapor (H₂O) is the strongest GHG and the most variable in its phases (vapor, cloud droplets, ice crystals). However, water vapor is not considered a pollutant.
low. Table 4.13-1 lists the GHG applicable to the proposed Project and their relative global warming potentials (GWP) compared to CO₂.

- **Carbon dioxide** (CO₂) enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and respiration, and also as a result of other chemical reactions (e.g. manufacture of cement). Carbon dioxide is removed from the atmosphere (sequestered) when it is absorbed by plants as part of the biological carbon cycle.

- **Methane** (CH₄) is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and from the decay of organic waste in municipal landfills and water treatment facilities.

- **Nitrous oxide** (N₂O) is emitted during agricultural and industrial activities as well as during combustion of fossil fuels and solid waste.

- **Fluorinated gases** are synthetic, strong GHGs that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for ozone-depleting substances. These gases are typically emitted in smaller quantities, but because they are potent GHGs, they are sometimes referred to as High GWP gases.

- **Chlorofluorocarbons** (CFCs) are GHGs covered under the 1987 Montreal Protocol and used for refrigeration, air conditioning, packaging, insulation, solvents, or aerosol propellants. Since they are not destroyed in the lower atmosphere (troposphere, stratosphere), CFCs drift into the upper atmosphere where, given suitable conditions, they break down ozone. These gases are also ozone-depleting gases and are therefore being replaced by other compounds that are GHGs covered under the Kyoto Protocol.

- **Perfluorocarbons** (PFCs) are a group of human-made chemicals composed of carbon and fluorine only. These chemicals (predominantly perfluoromethane [CF₃] and perfluoroethane [C₂F₆]) were introduced as alternatives, along with HFCs, to the ozone-depleting substances. In addition,
Table 4.13-1  GREENHOUSE GASES AND THEIR RELATIVE GLOBAL WARMING POTENTIAL COMPARED TO CO₂

<table>
<thead>
<tr>
<th>GHGs</th>
<th>Atmospheric Lifetime (Years)</th>
<th>Global Warming Potential Relative to CO₂a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Dioxide (CO₂)</td>
<td>50 to 200</td>
<td>1</td>
</tr>
<tr>
<td>Methane (CH₄)b</td>
<td>12 (±3)</td>
<td>21</td>
</tr>
<tr>
<td>Nitrous Oxide (N₂O)</td>
<td>120</td>
<td>310</td>
</tr>
</tbody>
</table>

a Based on 100-Year Time Horizon of the Global Warming Potential (GWP) of the air pollutant relative to CO₂.

b The methane GWP includes the direct effects and those indirect effects due to the production of tropospheric ozone and stratospheric water vapor. The indirect effect due to the production of CO₂ is not included.


PFCs are emitted as by-products of industrial processes and are also used in manufacturing. PFCs do not harm the stratospheric ozone layer, but they have a high global warming potential.

Sulfur Hexafluoride (SF₆) is a colorless gas soluble in alcohol and ether, slightly soluble in water. SF₆ is a strong GHG used primarily in electrical transmission and distribution systems as an insulator.

Hydrochlorofluorocarbons (HCFCs) contain hydrogen, fluorine, chlorine, and carbon atoms. Although ozone-depleting substances, they are less potent at destroying stratospheric ozone than CFCs. They have been introduced as temporary replacements for CFCs and are also GHGs.

Hydrofluorocarbons (HFCs) contain only hydrogen, fluorine, and carbon atoms. They were introduced as alternatives to ozone-depleting substances to serve many industrial, commercial, and personal needs. HFCs are emitted as by-products of industrial processes and are also used in
manufacturing. They do not significantly deplete the stratospheric ozone layer, but they are strong GHGs.\textsuperscript{3,4,5}

2. California’s Greenhouse Gas Sources and Relative Contribution

California is the second largest emitter of GHG in the United States, only surpassed by Texas, and the tenth largest GHG emitter in the world.\textsuperscript{6} However, because of more stringent air emission regulations, in 2001 California ranked fourth lowest in carbon emissions per capita and fifth lowest among states in CO\textsubscript{2} emissions from fossil fuel consumption per unit of Gross State Product (total economic output of goods and services).\textsuperscript{7}

CARB’s latest update to the statewide GHG emissions inventory was conducted in 2012 for year 2009 emissions.\textsuperscript{8} In 2009, California produced 457 million metric tons (MMTons) of CO\textsubscript{2}-equivalent (CO\textsubscript{2}e) GHG emissions. California’s transportation sector is the single largest generator of GHG emissions, producing 37.9 percent of the State’s total emissions. Electricity consumption is the second largest source, comprising 22.7 percent. Industrial activities are California’s third largest source of GHG emissions, comprising


\textsuperscript{8} Methodology for determining the statewide GHG inventory is not the same as the methodology used to determine statewide GHG emissions under Assembly Bill 32 (AB 32) (2006).
17.8 percent of the state’s total emissions. Other major sectors of GHG emissions include commercial and residential, recycling and waste, high global warming potential GHGs, agriculture, and forestry.

3. Human Influence on Climate Change

For approximately 1,000 years before the Industrial Revolution, the amount of GHG in the atmosphere remained relatively constant. During the 20th century, however, scientists observed a rapid change in the climate and climate change pollutants that are attributable to human activities. The amount of CO₂ has increased by more than 35 percent since preindustrial times and has increased at an average rate of 1.4 parts per million (ppm) per year since 1960, mainly due to combustion of fossil fuels and deforestation. These recent changes in climate change pollutants far exceed the extremes of the ice ages, and the global mean temperature is warming at a rate that cannot be explained by natural causes alone. Human activities are directly altering the chemical composition of the atmosphere through the buildup of climate change pollutants.

Climate-change scenarios are affected by varying degrees of uncertainty. IPCC’s 2007 IPCC Fourth Assessment Report projects that the global mean temperature increase from 1990 to 2100, under different climate-change scenarios, will range from 1.4 to 5.8°C (2.5 to 10.4°F). In the past, gradual changes in the earth’s temperature changed the distribution of species, availability of water, etc. However, human activities are accelerating this process.

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9 CO₂-equivalence is used to show the relative potential that different GHGs have to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. The global warming potential of a GHG is also dependent on the lifetime, or persistence, of the gas molecule in the atmosphere.


12 California Climate Action Team (CAT), 2006. Climate Action Team Report to Governor Schwarzenegger and the Legislature. March.
so that environmental impacts associated with climate change no longer occur in a geologic timeframe but within a human lifetime.\(^\text{13}\)

4. Potential Climate Change Impacts for California

Like the variability in the projections of the expected increase in global surface temperatures, the environmental consequences of gradual changes in the Earth’s temperature are also hard to predict. In California and western North America, observations of the climate have shown: 1) a trend toward warmer winter and spring temperatures, 2) a smaller fraction of precipitation is falling as snow, 3) a decrease in the amount of spring snow accumulation in the lower and middle elevation mountain zones, 4) an advance snowmelt of 5 to 30 days earlier in the springs, and 5) a similar shift (5 to 30 days earlier) in the timing of spring flower blooms.\(^\text{14}\) According to the California Climate Action Team (CAT), even if actions could be taken to immediately curtail climate change emissions, the potency of emissions that have already built up, their long atmospheric lifetimes (see Table 4.13-1), and the inertia of the Earth’s climate system could produce as much as 0.6°C (1.1°F) of additional warming. Consequently, some impacts from climate change are now considered unavoidable. Global climate change risks to California are shown in Table 4.13-2 and include public health impacts, water resources impacts, agricultural impacts, coastal sea level impacts, forest and biological resource impacts, and energy impacts. Specific climate change impacts that could affect the Project include health impacts from a reduction in air quality, water resources impacts from a reduction in water supply, and increased energy demand.


\(^{14}\) California Climate Action Team (CAT), 2006. Climate Action Team Report to Governor Schwarzenegger and the Legislature. March.
### Table 4.13-2: Summary of Global Climate Change Risks to California

<table>
<thead>
<tr>
<th>Impact Category</th>
<th>Potential Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Health Impacts</td>
<td>Poor air quality made worse</td>
</tr>
<tr>
<td></td>
<td>More severe heat</td>
</tr>
<tr>
<td>Water Resources Impacts</td>
<td>Decreasing Sierra Nevada snow pack</td>
</tr>
<tr>
<td></td>
<td>Challenges in securing adequate water supply</td>
</tr>
<tr>
<td></td>
<td>Potential reduction in hydropower</td>
</tr>
<tr>
<td></td>
<td>Loss of winter recreation</td>
</tr>
<tr>
<td>Agricultural Impacts</td>
<td>Increasing temperature</td>
</tr>
<tr>
<td></td>
<td>Increasing threats from pests and pathogens</td>
</tr>
<tr>
<td></td>
<td>Expanded ranges of agricultural weeds</td>
</tr>
<tr>
<td></td>
<td>Declining productivity</td>
</tr>
<tr>
<td></td>
<td>Irregular blooms and harvests</td>
</tr>
<tr>
<td>Coastal Sea Level Impacts</td>
<td>Accelerated sea level rise</td>
</tr>
<tr>
<td></td>
<td>Increasing coastal floods</td>
</tr>
<tr>
<td></td>
<td>Shrinking beaches</td>
</tr>
<tr>
<td></td>
<td>Worsened impacts on infrastructure</td>
</tr>
<tr>
<td>Forest and Biological Resource Impacts</td>
<td>Increased risk and severity of wildfires</td>
</tr>
<tr>
<td></td>
<td>Lengthening of the wildfire season</td>
</tr>
<tr>
<td></td>
<td>Movement of forest areas</td>
</tr>
<tr>
<td></td>
<td>Conversion of forest to grassland</td>
</tr>
<tr>
<td></td>
<td>Declining forest productivity</td>
</tr>
<tr>
<td></td>
<td>Increasing threats from pest and pathogens</td>
</tr>
<tr>
<td></td>
<td>Shifting vegetation and species distribution</td>
</tr>
<tr>
<td></td>
<td>Altered timing of migration and mating habits</td>
</tr>
<tr>
<td></td>
<td>Loss of sensitive or slow-moving species</td>
</tr>
<tr>
<td>Energy Demand Impacts</td>
<td>Potential reduction in hydropower</td>
</tr>
<tr>
<td></td>
<td>Increased energy demand</td>
</tr>
</tbody>
</table>

B. Regulatory Framework

1. Federal Laws and Regulations
The U.S. Environmental Protection Agency (EPA) announced on December 7, 2009, that GHG emissions threaten the public health and welfare of the American people and that GHG emissions from on-road vehicles contribute to that threat. The EPA’s final findings respond to the 2007 U.S. Supreme Court decision that GHG emissions fit within the Clean Air Act definition of air pollutants. The findings do not in and of themselves impose any emission reduction requirements, but allow the EPA to finalize the GHG standards proposed in 2009 for new light-duty vehicles as part of the joint rulemaking with the Department of Transportation.15

The EPA’s endangerment finding covers emissions of six key GHGs—CO₂, CH₄, N₂O, hydrofluorocarbons, perfluorocarbons, and SF₆—that have been the subject of scrutiny and intense analysis for decades by scientists in the United States and around the world (the first three are applicable to the proposed Project).

In response to the endangerment finding, the EPA issued the Mandatory Reporting of GHG Rule that requires substantial emitters of GHG emissions (large stationary sources, etc.) to report GHG emissions data. Facilities that emit 25,000 metric tons (MTons) or more per year are required to submit an annual report.

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2. **State Laws and Regulations**

a. **AB 32, the Global Warming Solutions Act**

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in AB 32, the Global Warming Solutions Act, and Executive Order S-03-05.

AB 32 was passed by the California state legislature on August 31, 2006, to place the state on a course toward reducing its contribution of GHG emissions. AB 32 follows the 2020 tier of emissions reduction targets established in Executive Order S-3-05, signed June 1, 2005. Executive Order S-03-05 set the following GHG reduction targets for the State:

- 2000 levels by 2010
- 1990 levels by 2020
- 80 percent below 1990 levels by 2050

AB 32 directed CARB to adopt discrete early action measures to reduce GHG emissions and outline additional reduction measures to meet the 2020 target. Based on the GHG emissions inventory conducted for the Scoping Plan by CARB, GHG emissions in California by 2020 are anticipated to be approximately 596 MMTons. In December 2007, CARB approved a 2020 emissions limit of 427 MMTons (471 million tons) for the State. The 2020 target requires a total emissions reduction of 169 MMTons, 28.5 percent from the projected emissions of the business-as-usual (BAU) scenario for the year 2020 (i.e. 28.5 percent of 596 MMTons).\(^{16,17}\)

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\(^{16}\) California Air Resources Board (CARB), 2008. Climate Change Scoping Plan, a Framework for Change.

\(^{17}\) CARB defines BAU in its Scoping Plan as emissions levels that would occur if California continued to grow and add new GHG emissions but did not adopt any measures to reduce emissions. Projections for each emission-generating sector were compiled and used to estimate emissions for 2020 based on 2002–2004 emissions intensities. Under CARB’s definition of BAU, new growth is assumed to have the same carbon intensities as was typical from 2002 through 2004.
In order to effectively implement the emissions cap, AB 32 directed CARB to establish a mandatory reporting system to track and monitor GHG emissions levels for large stationary sources that generate more than 25,000 MTons per year, prepare a plan demonstrating how the 2020 deadline can be met, and develop appropriate regulations and programs to implement the plan by 2012. The Climate Action Registry Reporting Online Tool was established through the Climate Action Registry to track GHG emissions. The final Scoping Plan was adopted by CARB on December 11, 2008. Key elements of CARB’s GHG reduction plan that may be applicable to the proposed Project include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a mix of 33 percent for energy generation from renewable sources;
- Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets;
- Adopting and implementing measures pursuant to state laws and policies, including California’s clean car standards, goods movement measures, and the Low Carbon Fuel Standard (LCFS).18

While local government operations were not accounted for in achieving the 2020 emissions reduction, CARB estimates that land use changes implemented by local governments that integrate jobs, housing, and services result in a reduction of 5 MMTons, which is approximately 3 percent of the 2020 GHG emissions reduction goal. In recognition of the critical role local governments play in the successful implementation of AB 32, CARB is recommending

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18 On December 29, 2011, the U.S. District Court for the Eastern District of California issued several rulings in the federal lawsuits challenging the LCFS. One of the court’s rulings preliminarily enjoins the CARB from enforcing the regulation during the pendency of the litigation. In January 2012, CARB appealed the decision and on April 23, 2012, the Ninth Circuit Court granted CARB’s motion for a stay of the injunction while it continues to consider CARB’s appeal of the lower court’s decision.
GHG reduction goals of 15 percent of today’s levels by 2020 to ensure that municipal and community-wide emissions match the State’s reduction target. Measures that local governments take to support shifts in land use patterns are anticipated to emphasize compact, low-impact growth over development in greenfields, resulting in fewer VMT.

b. Energy Conservation Standards

Energy conservation standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission in June 1977 and most recently revised in 2008 (Title 24, Part 6, of the California Code of Regulations [CCR]). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods.

The 2006 Appliance Efficiency Regulations (Title 20, CCR Sections 1601 through 1608) were adopted by the California Energy Commission on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non-federally regulated appliances. While these regulations are now often viewed as “business-as-usual,” they exceed the standards imposed by all other states and they reduce GHG emissions by reducing energy demand.

On July 17, 2008, the California Building Standards Commission adopted the nation’s first green building standards. The California Green Building Standards Code (Part 11, Title 24, known as “CALGreen”) was adopted as part of the California Building Standards Code (Title 24, California Code of Regulations). CALGreen established planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air

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19 Although new building energy efficiency standards were adopted in April 2008, these standards did not go into effect until 2009.

c. Renewable Power Requirements
A major component of California’s Renewable Energy Program is the renewable portfolio standard (RPS) established under Senate Bills 1078 (Sher) and 107 (Simitian). Under the original RPS, certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least 1 percent in order to reach at least 20 percent by December 30, 2010. In 2011, Senate Bill 1X-2 set an even higher goal of 33 percent by 2020. Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas. The increase in renewable sources for electricity production will decrease indirect GHG emissions from development projects because electricity production from renewable sources is generally considered carbon neutral.

d. Vehicle Emission Standards/Improved Fuel Economy
Vehicle GHG emission standards were enacted under AB 1493 (Pavley I) and the LCFS. Pavley I is a clean-car standard that reduces GHG emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016 and is anticipated to reduce GHG emissions from new passenger vehicles by 30 percent in 2016. The LCFS requires a reduction of 2.5 percent in the carbon intensity of California’s transportation fuels by 2015 and a reduction of at least 10 percent by 2020.

3. Regulation of GHG Emissions on a Regional Level
In 2008, Senate Bill 375 (SB 375), the Sustainable Communities and Climate Protection Act, was adopted to connect the GHG emissions reductions targets established in the Scoping Plan for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles (excludes emissions associated

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20 The green building standards became mandatory in the 2010 edition of the code.
with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce VMT and vehicle trips. Specifically, SB 375 required CARB to establish GHG emissions reduction targets for each of the 17 regions in California managed by a metropolitan planning organization (MPO). MTC is the MPO for the nine-county San Francisco Bay Area region. MTC’s targets are a 7 percent reduction from 2005 by 2020, and 15 percent reduction from 2005 by 2035.21

SB 375 requires the MPOs to prepare a Sustainable Communities Strategy (SCS) in their regional transportation plan. For the MTC region, the first SCS is anticipated by April 2013. The SCS sets forth a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce GHG emissions from transportation (excluding goods movement). The SCS is meant to provide individual jurisdictions with growth strategies that, when taken together, achieve the regional GHG emissions reduction targets. The SCS does not require that local general plans, specific plans, or zoning be consistent with the SCS, but provides incentives for consistency to governments and developers. If the SCS is unable to achieve the regional GHG emissions reduction targets, the MPO is required to prepare an Alternative Planning Strategy that shows how the GHG emissions reduction target could be achieved through other development patterns, infrastructure, and/or transportation measures.

4. Local Regulations and Policies - City of Walnut Creek Climate Action Plan
On April 17, 2012, the City of Walnut Creek approved its first Climate Action Plan, which outlines GHG reduction measures the City has committed to in order to ensure the City is on track with the local GHG reduction target identified in CARB’s Scoping Plan. Many of the measures require further action on the part of the City before they would be applicable to individual

developments. For purposes of this analysis, the Project’s GHG emissions are analyzed based on their conformance to the BAAQMD thresholds identified below; the City does not seek to “streamline” its analysis of this issue on the basis of the Project’s conformance with the Climate Action Plan. Nonetheless, the Climate Action Plan does include some presently applicable GHG reduction measures that pertain to the Project, including:

EU 3.2(A): Continue to implement the City’s Tree Preservation Ordinance.

TLU 2.3(A): Continue to implement the policies set forth in the City’s Housing Element.

TLU 3.3(B): Expand the number of bicycle racks and lockers in parking garages, employment centers, shopping centers, transit stations, and the Core Area to meet future demand.

C. Existing Conditions

A useful and common tool for addressing GHG emissions is an emissions inventory that identifies and quantifies the primary human-generated sources and sinks of GHGs. This section provides a summary of recent information on global, nationwide, California, and local GHG emission inventories.

1. Local Greenhouse Gas Emissions Inventories
a. Bay Area Inventory
BAAQMD estimated GHG emissions for the Bay Area at 102.7 million metric tons of equivalent CO₂ (MMCO₂e) in 2007. The inventory is broken down by county, where Contra Costa County emissions are the highest in the Bay Area at 31 percent. Unlike most Bay Area counties, a majority of Contra Costa County’s emissions are from industry (e.g., refineries and power production). In Contra Costa County, industry and commercial activity account for 78 percent of the County’s emissions. Much of these emissions are from oil refining. On-road vehicles account for about 17 percent of the
County’s CO2e emissions. About 30 percent of the entire Bay Area inventory is attributable to on-road vehicles.22

b. City of Walnut Creek Inventory
The City of Walnut Creek inventoried its GHG emissions with the help of ICLEI-Local Governments for Sustainability.23 Figures shown in Table 4.13-3 are from 2005. This inventory provides a baseline against which to measure future changes in emissions and is also the year used by many other local cities to facilitate comparisons. Table 4.13-3 describes the emissions per sector for Walnut Creek.

As shown in Table 4.13-3, the transportation sector accounted for the majority of Walnut Creek’s GHG emissions at 377,305 metric tons of CO2e (MTCO2e) or 59 percent. Emissions from the “built environment,” namely the residential and commercial/industrial sectors contributed 18 percent each.

D. Standards of Significance
GHG impacts associated with the proposed Project would be considered significant if the Project would:

a. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

b. Conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

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23 City of Walnut Creek, 2012. City of Walnut Creek Climate Action Plan, April.
Table 4.13-3  Walnut Creek Community GHG Emissions by Sector

<table>
<thead>
<tr>
<th>Sector</th>
<th>Scope</th>
<th>Metric Tons of CO₂e</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>Natural Gas and Electricity</td>
<td>117,868</td>
<td>18</td>
</tr>
<tr>
<td>Commercial/Industrial</td>
<td>Natural Gas and Point Source Emissions, and Electricity</td>
<td>117,312</td>
<td>18</td>
</tr>
<tr>
<td>Transportation-Highway</td>
<td>Gasoline and Diesel</td>
<td>174,369</td>
<td>27</td>
</tr>
<tr>
<td>Transportation-Local Road</td>
<td>Gasoline and Diesel</td>
<td>202,936</td>
<td>32</td>
</tr>
<tr>
<td>Waste</td>
<td>Emissions from WCCS Landfill and Future Emissions from 2005 Waste</td>
<td>9,892</td>
<td>2</td>
</tr>
<tr>
<td>Water</td>
<td>Natural Gas and Electricity</td>
<td>6,736</td>
<td>1</td>
</tr>
<tr>
<td>Off-Road</td>
<td>Diesel</td>
<td>12,293</td>
<td>2</td>
</tr>
<tr>
<td>BART</td>
<td>Gasoline, Natural Gas, Electricity, and Point Source Emissions</td>
<td>2,191</td>
<td>&lt;1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>643,596</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Source: City of Walnut Creek Climate Action Plan, 2012.

1. Bay Area Air Quality Management District - Project-Level GHG Thresholds

BAAQMD adopted its CEQA Air Quality Guidelines in June 2010 (revised in May 2011). The Guidelines include methodology and thresholds for

24 The Superior Court for the County of Alameda has issued a ruling in California Building Industry Association v. Bay Area Air Quality Management District (Case No. RG10548693). Pursuant to the ruling, the Court found that the adoption of the BAAQMD’s CEQA Guidelines is a “project” requiring CEQA review. No CEQA review was conducted for the CEQA Guidelines prior to their adoption and so the Court has ordered that BAAQMD set aside its CEQA Guidelines pending completion of that review. However, BAAQMD’s GHG significance criteria, as outlined in its CEQA Guidelines, are supported by extensive studies and analysis which constitute substantial evidence supporting the threshold at which potential project-
GHG impacts. Pursuant to BAAQMD methodology, GHG emissions impacts represent the Project’s cumulative contribution to GHG emissions and the associated level of significance in connection with global climate change. No single project could generate enough GHG emissions to noticeably change global average temperature.25

The methodology set forth in BAAQMD’s Guidelines uses a tiered approach for assessing GHG emissions impacts of a project. If the Project is within the jurisdiction of an agency that has a “qualified” GHG reduction strategy, the Project can assess consistency of its GHG emissions impacts with the reduction strategy outlined. BAAQMD has not identified the City of Walnut Creek’s Climate Action Plan as a qualified GHG reduction plan for CEQA streamlining; and therefore, the analysis below conservatively uses BAAQMD’s GHG screening and significance criteria to evaluate impacts of the proposed Project. If the GHG screening levels are exceeded, a full GHG analysis using the following significance criteria would be required:

- 1,100 MTons of CO2e per year; or
- 4.6 MTons of CO2e per service population26

related impacts could occur (see http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx). Accordingly, pursuant to its discretion under CEQA Guidelines section 15064 (b) (“lead agencies may exercise their discretion on what criteria to use”), and the recent holding in Citizen for Responsible Equitable Environmental Development v. City of Chula Vista (2011) 197 Cal.App.4th 327, 335-336, (“[t]he determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data.”) the City, in its discretion, has determined to use the significance criteria for GHG impacts set forth in the BAAQMD CEQA Guidelines. In addition, BAAQMD has recently appealed the BIA decision, and the matter is pending. Therefore, BAAQMD thresholds are considered applicable to the proposed Project.

25 The BAAQMD methodology defines Plan-Level thresholds for GHG emissions for General Plan projects only. All other projects, including CEQA program-level analysis, would use its Project-Level criteria.

26 Under the BAAQMD methodology, service population is defined as residents and employees generated by the project.
Direct sources of emissions from development projects (including residential, commercial, industrial, and public land use facilities) may include on-site energy combustion such as natural gas used for heating and cooking, emissions from industrial processes (not applicable for most land use development projects), and fuel combustion from mobile sources. Indirect emissions are emissions produced off-site from energy production and water conveyance due to a project’s energy use and water consumption. Pursuant to BAAQMD’s Guidelines, biogenic CO₂ emissions are not included in the quantification of a project’s GHG emissions, because biogenic CO₂ is derived from living biomass (e.g. organic matter present in wood, paper, vegetable oils, animal fat, food, animal, and yard waste) as opposed to fossil fuels, limestone and other materials that have been transformed by geological processes.²⁷

The BAAQMD Guidelines do not include a threshold of significance for construction-related GHG emissions; however, BAAQMD recommends that the Lead Agency quantify and disclose GHG emissions that would occur during construction, and make a determination on the significance of these construction-generated GHG emission impacts in relation to meeting AB 32 GHG reduction goals.²⁸ Additionally, BAAQMD encourages Lead Agencies to incorporate best management practices to reduce GHG emissions during construction, as feasible and applicable.

The City notes that the purpose of this EIR is to identify the significant effects of the Project on the environment, not the significant effects of the environment on the Project. (South Orange County Wastewater Authority v. City of Dana Point (2011) 196 Cal.App.4th 1604, 1614-1618; City of Long Beach v. Los Angeles Unified School Dist. (2009) 176 Cal.App.4th 889, 905.) While identifying the environmental effects of attracting development and people to an area is consistent with CEQA’s legislative purpose and statutory requirements, identifying the effects on the project and its users of locating the project in a

²⁷ Bay Area Air Quality Management District, CEQA Guidelines, June 2010, page 4-5.
particular environmental setting is neither consistent with CEQA’s legislative purpose nor required by the CEQA statutes. Accordingly the EIR’s analysis of GHG emissions is confined to identifying significant GHG emissions-related effects of the Project on the environment, but not the impacts of climate change on the Project.

E. Impact Discussion

1. Project and Cumulative Analysis
   a. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment

As described previously, the Project does not generate enough GHG emissions on its own to influence global climate change; therefore, the GHG chapter measures the Project’s contribution to the cumulative environmental impact.

In accordance with BAAQMD recommendations, Project-related GHG emissions were calculated using CalEEMod. Please refer to Appendix G for the modeling results conducted for the Project. Project-related GHG emissions are shown in Table 4.13-4.

i. Construction-Related GHG Emissions

Annual GHG emissions were calculated for construction of the Project. Construction phases included demolition, mass grading trenching, building construction, paving, and architectural coatings. Construction emissions would occur in three phases over a period of five years. As shown in Table 4.13-4, construction of the proposed Project would generate approximately 1,231 MTons of GHG emissions in 2015 at the peak of construction activities.

Construction emissions are, by their nature, short-term and would cease upon completion of construction activities. As such, GHG emissions from construction activities would contribute only nominally to GHG emissions impacts, and therefore are not assumed to significantly contribute to cumulative GHG emission impacts of the Project. In addition, the proposed Project
### Table 4.13-4  Project-Related GHG Emissions

<table>
<thead>
<tr>
<th>Exposure Type</th>
<th>GHG (MTons/Year)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Construction</strong></td>
<td></td>
</tr>
<tr>
<td>Year 2013</td>
<td>696</td>
</tr>
<tr>
<td>Year 2014</td>
<td>1,171</td>
</tr>
<tr>
<td>Year 2015</td>
<td>1,231</td>
</tr>
<tr>
<td>Year 2016</td>
<td>781</td>
</tr>
<tr>
<td>Year 2017</td>
<td>947</td>
</tr>
<tr>
<td>Year 2018</td>
<td>30</td>
</tr>
<tr>
<td><strong>Operation</strong></td>
<td></td>
</tr>
<tr>
<td>Transportation</td>
<td>3,391</td>
</tr>
<tr>
<td>Area Sources</td>
<td>54</td>
</tr>
<tr>
<td>Indirect Sources (Electricity)</td>
<td>920</td>
</tr>
<tr>
<td>Direct Area Sources (Natural Gas)</td>
<td>527</td>
</tr>
<tr>
<td>Water and Wastewater Energy Usage</td>
<td>125</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>5,017</td>
</tr>
<tr>
<td>Solid Waste (For information only)b</td>
<td>583</td>
</tr>
<tr>
<td>Service Population (SP)c</td>
<td>1,346</td>
</tr>
<tr>
<td><strong>Operational Emissions per capita (MT CO2e/SP/yr)</strong></td>
<td>3.7</td>
</tr>
<tr>
<td><strong>Threshold (MT CO2e/SP/yr)</strong></td>
<td>4.6</td>
</tr>
</tbody>
</table>

**Exceeds Threshold?** Yes

**Note:** CO2e = carbon dioxide equivalent

- Construction emissions are provided for informational purposes, but not included in totals since they are temporary.
- These emissions are not included in the per capita emissions computation. BAAQMD did not include solid waste emissions when developing the per capita significance thresholds. However, if these emissions are included in the analysis for the Project, per capita emissions would remain below the threshold (3.94 MT/SP/yr).
- Service population, calculated as 100 percent of residents + 50 percent of employees, is based on 1,275 residents based on an average household size of 2.14 people and 142 employees based on a city-wide average employment density of one job per 300 square feet.

would comply with the City’s Construction Debris (C&D) Ordinance, which requires diversion of a minimum of 50 percent of their recyclable C&D debris to reduce waste disposal.\textsuperscript{29} Compliance would reduce the need for new construction materials, thereby reducing the amount of energy used to extract, process, produce, and transfer new construction materials. Consequently, GHG emissions generated by Project-related construction activities are considered \textit{less than significant}.

ii. Operational-Related GHG Emissions

Operation of the proposed Project would contribute to global climate change through direct emissions of GHG from transportation sources, energy usage, water use, and waste disposal. A per capita GHG threshold for operation-related GHG emissions of 4.6 metric tons per year per service population (MT/SP/yr) was used for this analysis.

Operation-related GHG emissions derive primarily from five sources:

- Mobile source emissions due to additional trips generated by the Project;
- Emissions from landscape maintenance equipment;
- Emissions caused by consumption of natural gas for heating, cooking and water heating by residents of the Project;
- Emissions generated by fossil-fuel power plants producing electricity used by the Project;
- Emissions created through the transport and treatment of water supplied to the Project and by electricity used to light City streets.

GHG emissions were modeled for year 2018, which is the first year the Project would be fully operational. The GHG emissions associated with the development of the Project were calculated based primarily on guidance in the BAAQMD CEQA Air Quality Guidelines. Operational source emissions were calculated using CalEEMod incorporating the Project land uses and trip

\textsuperscript{29} The City’s Construction Debris Ordinance is described in detail in chapter 4.12 of this Draft EIR.
generation forecasts. The total square footages for the various land uses (e.g., residential, office, retail, etc.) were input to the model. Project trip generation rates for the different land use types, as calculated by AECOM and described in Chapter 4.11 of this EIR, were used in the model.

Additionally, the Project would include bicycle amenities such as secure bicycle parking for residents and retail employees, bicycle racks for retail customers, and bike lane connections to other parts of the community. These amenities would be expected to reduce vehicle trips. The Project also includes features that facilitate pedestrian access, such as wayfinding signage and pedestrian paseos. Appendix G, which includes the GHG modeling information, contains the trip rate computations that are based on AECOM data.

Emissions of CO2e associated with natural gas combustion and electricity usage were computed using default consumption rates contained in CalEEMod. Since the proposed Project would include construction of new buildings that would be compliant with Title 24 CALGreen codes. The Project proposes to install a photovoltaic array on the roof of the new parking garage. Although detailed design of the array was not complete in May 2012, the energy produced by this feature would further reduce Project GHG emissions by off-setting the need for electricity decreasing associated indirect Project emissions. The emissions reported in Table 4.13-4 do not reflect the effect of the Project’s solar power generation.

The per capita rate is the total annual GHG emissions expressed in metric tons divided by the service population (i.e., number of full time employees and residents added together). Although the Project is predominantly residential, it includes a mix of residences, retail, and restaurant uses. Development of the proposed Project is anticipated to result in as many as 1,275 new residents and 142 new jobs, as described in Chapter 4.9 of this EIR. Therefore the service population of the Project would be 1,346. 30

30 Service population is calculated as follows: 100 percent of the residents (1,275) + 50 percent of employees (142/2) = 1,346.
Table 4.13-4 shows that GHG emissions associated with the proposed Project would be below the BAAQMD per capita threshold. The per capita emissions calculations include the effect of non-residential uses (e.g., that have relatively high emissions and low service population). These uses were not predicted by the traffic analysis to benefit much from the close proximity of BART. The per capita emissions do not include emissions associated with solid waste. These are predominantly biogenic emissions and they were not considered by BAAQMD when developing emissions-based thresholds for GHG. Because the GHG emissions associated with the Project would not exceed this per capita threshold, the proposed Project’s cumulative contribution to GHG emissions would be less than significant.

b. Conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs

i. CARB Scoping Plan
In accordance with AB 32, CARB developed the Scoping Plan to outline the State’s strategy to achieve 1990 level emissions by year 2020. To estimate the reductions necessary, CARB projected statewide 2020 business-as-usual (BAU) GHG emissions (i.e. GHG emissions in the absence of statewide emission reduction measures). CARB identified that the State as a whole would be required to reduce GHG emissions by 28.5 percent from year 2020 BAU to achieve the targets of AB 32.31  The revised BAU 2020 forecast shows that the state would have to reduce GHG emissions by 21.6 percent from BAU (without implementation of the Pavley standards and the 33 percent Renewable Portfolio Standard (RPS)) or 15.7 percent from the adjusted baseline (i.e., with Pavley and 33 percent RPS).32

Statewide strategies to reduce GHG emissions include implementation of the Low Carbon Fuel Standard, California Appliance Energy Efficiency regu-

http://www.arb.ca.gov/cc/scopingplan/status_of_scoping_plan_measures.pdf
tions, California Building Standards (e.g. California Green Building Code [CALGreen] and the 2008 Building and Energy Efficiency Standards), 33 percent RPS, changes in the corporate average fuel economy standards (e.g. Pavley I and Pavley II), and other measures that would ensure the state is on target to achieve the GHG emissions reduction goals of AB 32. Statewide GHG emissions reduction measures that are being implemented over the next 10 years would reduce the Project’s GHG emissions.

The proposed Project would be constructed to achieve the current building and energy efficiency standards, which are the 2008 standards. The 2008 standards are approximately 15 percent more energy efficient than the 2005 standards. In addition, the proposed buildings would be constructed in conformance with the CALGreen water efficiency standards, which require high-efficiency water fixtures for indoor plumbing and water efficient irrigation systems. Consequently, overall, the Project would be consistent with the statewide GHG reduction goals of AB 32 and impacts would be less than significant.

ii. Walnut Creek Climate Action Plan

As noted above, the City of Walnut Creek adopted its first Climate Action Plan in 2012. For purposes of this analysis, the Project’s GHG emissions are analyzed based on their conformance to the BAAQMD thresholds discussed above; the City does not seek to “streamline” its analysis of this issue on the basis of the Project’s conformance to the Climate Action Plan. Nonetheless, the Climate Action Plan does include some presently applicable GHG reduction measures that pertain to the Project.

As analyzed in greater detail in chapter 4.7 (Land Use and Planning) of this Draft EIR, the Project is subject to and conforms to the City’s Tree Preservation Ordinance. Likewise, the Project’s conformance to the City’s Housing Element is evaluated and confirmed in chapter 4.9 (Population, Housing, and Employment) of this document. Finally, given that the Project would include bicycle amenities such as an addition to the number of secure bicycle parking spaces on the site, it will carry out the vision of Climate Action Plan measure
TLU3.3(B) (“Expand the number of bicycle racks and lockers in parking garages, employment centers, shopping centers, transit stations, and the Core Area to meet future demand.”).

F. Impacts and Mitigation Measures

Impact GHG-1: GHG emissions generated by the proposed Project would not exceed BAAQMD’s per capita GHG threshold for operation-related GHG emissions. This would be a less than significant impact. However, BAAQMD encourages implementation of measures to reduce construction-related emissions to the maximum extent practicable. Mitigation Measure AQ-2, described in Chapter 4.2 of this EIR, would reduce construction equipment exhaust emissions during grading and construction activities and would also reduce construction-related GHG emissions.
The Walnut Creek BART Transit Village Project, as proposed by the Applicant, was described and analyzed in the previous chapters with an emphasis on potentially significant impacts and recommended mitigation measures to avoid those impacts. The State CEQA Guidelines require the description and comparative analysis of a range of alternatives to the proposed 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, focusing on alternatives that would avoid or substantially lessen any significant effects of the Project, even if these alternatives would impede to some degree the attainment of the Project objectives, or would be more costly. (CEQA Guidelines § 15126.6(a), (b)).

“There is no ironclad rule governing the nature or scope of the alternatives to be discussed [in an EIR] other than the rule of reason.” (CEQA Guidelines § 15126.6(a).) Under the rule of reason, an EIR need discuss only those alternatives necessary to permit a reasoned choice. (CEQA Guidelines § 15126.6(f).) An EIR need only contain a “range of reasonable alternatives to the project” which would “feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant [impacts] of the project.” (CEQA Guidelines § 15126.6(a).)

The following discussion is intended to inform the public and decision makers of the feasible alternatives that would avoid or substantially lessen any significant effects of the Project.

A. Alternatives Evaluated

CEQA requires that an EIR analyze a "no project" alternative (CEQA Guidelines, § 15126.6(e)). Where, as here, this alternative means a proposed project would not proceed, the discussion "[sh]ould compare the environmental effects of the property remaining in its existing state against environmental effects which would occur if the project is approved.” (Id. at (e)(3)(B).)
CEQA Guidelines also require that the environmentally superior alternative be designated. If the alternative with the least environmental impact is the No Project Alternative, then the EIR must also designate the next most environmentally superior alternative.

The three alternatives are as follows:

- **No Project Alternative.** Consistent with Section 15126.6(e)(2) of the CEQA Guidelines, under the No Project Alternative, the site would remain in its existing condition and continue functioning as a multi-modal transit hub with a BART station, CCCTA bus transfer facility, and surface parking lots. None of the proposed Project components would be constructed.

- **Reduced Residential/Reconfigured Site Plan Alternative.** Under this alternative, the total number of residential units built would be reduced by approximately one third, from 596 residential units to 394. A portion of the existing surface parking lot in the northern sector of the site would remain in operation, providing 250 surface parking spaces for the use of BART patrons, while the remainder of this sector of the site would be redeveloped with a four-story mixed use building containing 156 residential units, and 8,700 square feet of ground floor restaurant and commercial space outside of the area subject to excess health risk shown on Figure 4.2-2 in Chapter 4.2 of this Draft EIR. Phase III would be developed as under the proposed Project; however, Phase I would involve construction of a reduced scale parking structure. Please refer to section B in this chapter for a more detailed description of the alternative.

- **Equal Residential/Reconfigured Site Plan Alternative.** This alternative would see the same number of residential units and the same square footage of office, commercial, and flex space developed; however the site plan would be reconfigured to locate all Phase II inhabitable development outside of the area subject to excess health risk shown on Figure 4.2-2 in Chapter 4.2 of this Draft EIR. In order to accomplish this, Phase II building height would be 89 feet and Phase III building heights would be as tall as 72 feet. Voter approval would be required for a General Plan
Amendment to raise the current building height limits above the established Measure A limits for the site. Please refer to Section C in this chapter for a more detailed description of the alternative.

B. Comparison of Alternatives

Table 5-1 below presents a comparative summary of the alternatives considered in this analysis. As the Project, with mitigation, will not result in any significant impacts, the Table's use of the phrases “substantial” or “slight improvement compared to the Proposed Project,” do not reflect a determination that the Alternative in question will avoid or substantially lessen a significant impact, but rather that the Alternative will substantially or slightly reduce an already less-than-significant impact. The proposed Project impacts are stated as levels of significance after implementation of mitigation measures identified in Chapters 4.1 through 4.13 of this Draft EIR. The basis for the determinations presented in the table is presented in the next section of this chapter, where each of the topics listed is evaluated for each alternative.

Table 5-2, below, summarizes the impacts and mitigation measures applicable to the proposed Project and each of the alternatives considered in this analysis.

C. No Project Alternative

Under the following No Project Alternative, the Project site would not be re-designated or rezoned and would continue in its existing use, operating as a regional transit hub.

1. Principal Characteristics

This alternative assumes that the site would remain in its existing condition and no new structures would be built. The current General Plan 2025 land use designations and zoning would not be amended and none of the proposed improvements would be implemented.
<table>
<thead>
<tr>
<th>Topic</th>
<th>No Project Alternative</th>
<th>Reduced Density Alternative</th>
<th>Equal Density Alternative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aesthetics</td>
<td>-</td>
<td>=</td>
<td>=</td>
</tr>
<tr>
<td>Air Quality</td>
<td>+ +</td>
<td>+ +</td>
<td>+ +</td>
</tr>
<tr>
<td>Cultural Resources</td>
<td>+</td>
<td>=</td>
<td>=</td>
</tr>
<tr>
<td>Geology and Soils</td>
<td>+</td>
<td>=</td>
<td>=</td>
</tr>
<tr>
<td>Hazards and Hazardous</td>
<td>+</td>
<td>=</td>
<td>=</td>
</tr>
<tr>
<td>Materials</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydrology and Water Quality</td>
<td>- -</td>
<td>=</td>
<td>+</td>
</tr>
<tr>
<td>Land Use and Planning</td>
<td>-</td>
<td>=</td>
<td>=</td>
</tr>
<tr>
<td>Noise</td>
<td>+</td>
<td>+</td>
<td>=</td>
</tr>
<tr>
<td>Population and Housing</td>
<td>-</td>
<td>=</td>
<td>=</td>
</tr>
<tr>
<td>Public Services and</td>
<td>+</td>
<td>+</td>
<td>=</td>
</tr>
<tr>
<td>Recreation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transportation and Traffic</td>
<td>+</td>
<td>=</td>
<td>=</td>
</tr>
<tr>
<td>Utilities and Infrastructure</td>
<td>+</td>
<td>+</td>
<td>=</td>
</tr>
<tr>
<td>Greenhouse Gas Emissions</td>
<td>+</td>
<td>=</td>
<td>=</td>
</tr>
<tr>
<td>Project Objectives</td>
<td>- -</td>
<td>-</td>
<td>=</td>
</tr>
</tbody>
</table>

++ Substantial improvement compared to the proposed Project after mitigation
+ Slight improvement compared to the proposed Project after mitigation
= Equivalent impact to the proposed Project after mitigation
- Slight deterioration compared to the proposed Project after mitigation
-- Substantial deterioration compared to the proposed Project after mitigation
### Table 5-2  Comparison of Impacts and Required Mitigation for the Project and Alternatives

<table>
<thead>
<tr>
<th>Impact</th>
<th>Proposed Project</th>
<th>No Project Alternative</th>
<th>Reduced Density/Reconfigured Alternative</th>
<th>Equal Density/Reconfigured Alternative</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Significance Before Mitigation</td>
<td>Significance After Mitigation</td>
<td>Significance Before Mitigation</td>
<td>Significance After Mitigation</td>
</tr>
<tr>
<td><strong>AQ-1:</strong> Project demolition and construction activities could generate fugitive dust, specifically PM10. Fugitive dust emissions (PM10 and PM2.5) are considered to be significant unless the proposed Project implements the BAAQMD’s Basic Control Measures for fugitive dust control during construction. This would result in a significant impact prior to mitigation.</td>
<td>S</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>AQ-2:</strong> Use of heavy off-road and on-road construction equipment would produce substantial emissions of TACs and PM2.5, which would exceed the BAAQMD off-site community risk and hazards threshold of significance. This would be a significant impact.</td>
<td>S</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>AQ-3:</strong> Operation of the Project would expose sensitive receptors residing in Phase II of the Project to unhealthy levels of TACs, particularly DPM, emitted by vehicle traffic on Interstate 680 adjacent to the Project site. This would result in a significant impact.</td>
<td>S</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>NOISE-1:</strong> The Project proposes residential units in an area where noise levels are considered “conditionally acceptable,” resulting</td>
<td>S</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
TABLE 5-2  COMPARISON OF IMPACTS AND REQUIRED MITIGATION FOR THE PROJECT AND ALTERNATIVES (CONTINUED)

<table>
<thead>
<tr>
<th>Impact</th>
<th>Proposed Project</th>
<th>No Project Alternative</th>
<th>Reduced Density / Reconfigured Alternative</th>
<th>Equal Density / Reconfigured Alternative</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Significance Before Mitigation</td>
<td>Significance After Mitigation</td>
<td>Significance Before Mitigation</td>
<td>Significance After Mitigation</td>
</tr>
<tr>
<td>NOISE-2: Noise generated by construction activities is anticipated to exceed ambient average noise level limits by more than 5 dBA L_{eq} for a period exceeding one year.</td>
<td>S</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>TRAFFIC-1: The addition of Project traffic at the Parkside Drive/Buena Vista Avenue intersection would cause the intersection to operate at LOS F, resulting in a potentially significant impact during the PM peak hour under Future Baseline plus Project Conditions.</td>
<td>S</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>TRAFFIC-2: The addition of Project traffic at the Parkside Drive/Hillside Avenue intersection would result in a potentially significant impact during the PM peak hour under Future Baseline plus Project Conditions.</td>
<td>S</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

in a potentially significant impact. The site design locates primary outdoor activity areas in shielded courtyards. Exterior noise levels would be 65 dBA L_{dn} or less, assuming the shielding provided by the structure surrounding the primary outdoor use areas, meeting the “normally acceptable” noise level standard. The following mitigation measure reduces interior noise to an acceptable level.
<table>
<thead>
<tr>
<th>Impact</th>
<th>Proposed Project</th>
<th>No Project Alternative</th>
<th>Reduced Density/Reconfigured Alternative</th>
<th>Equal Density/Reconfigured Alternative</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Significance Before Mitigation</td>
<td>Significance After Mitigation</td>
<td>Significance Before Mitigation</td>
<td>Significance After Mitigation</td>
</tr>
<tr>
<td>TRAFFIC-3</td>
<td>Safety is a concern for the on-site pedestrian route between Hillside Avenue and the BART station entrance. The existing unsignalized crossing of the channelized right-in-only site access is considered less than ideal, as motorists exiting Ygnacio Valley Road may approach the proposed crosswalk at excessive speed. The greater width of the crossing as proposed by the Project would increase pedestrian exposure to this hazard, and the more acute angle would make pedestrians and motorists less visible to each other.</td>
<td>S</td>
<td>LTS</td>
<td>N/A</td>
</tr>
<tr>
<td>GHG-1</td>
<td>GHG emissions generated by the proposed Project would not exceed BAAQMD’s per capita GHG threshold for operation-related GHG emissions. This would be a less than significant impact. However, BAAQMD encourages implementation of measures to reduce construction-related emissions to the maximum extent practicable.</td>
<td>S</td>
<td>LTS</td>
<td>N/A</td>
</tr>
</tbody>
</table>
1. Impact Analysis

The No Project Alternative would have the following impacts relative to the proposed Project (following mitigation):

a. Aesthetics

The Project site is currently entirely built out, with the Walnut Creek BART Station and an eleven bay CCCTA bus terminal near its center, surrounded on all sides by parking infrastructure, including an existing 1,241 space parking garage and four surface parking lots. The Walnut Creek BART station is a two-level concrete structure with red colored metallic roofing and porticos. The station’s ticket vending area, fare gates, and bicycle storage lockers are located at ground level, with two elevated train platforms above, the central portions of which are covered by overhead canopies that provide protection from weather. The existing BART garage is located immediately to the west of the station building, which screens it when viewed from North California Boulevard. The surface parking lots are landscaped with ornamental trees and plantings. Additionally, a landscaped berm running along the southern perimeter of the site partially screens the view of the parking area from Ygnacio Valley Road.

General Plan 2025 designates the BART tracks, which bisect the site, as a Scenic Corridor and identifies the intersection of Ygnacio Valley Road and North California Boulevard at the southeastern edge of the Project site as a vehicular gateway, important for promoting local identity and strengthening Walnut Creek’s sense of place. Existing development on the site does not block scenic views, nor is it out of context with surrounding development; however, neither does it significantly enhance local identity or sense of place.

The proposed Project would have a less-than-significant impact on scenic vistas and would be visually compatible with other mixed-use development in the Core Area. Additionally, the proposed Project, which would involve construction of landscaped pedestrian paseos and installation of public art, would add features of visual interest to the site and locate distinctive buildings at General Plan designated vehicular gateway. Therefore, on balance, the No
b. Air Quality
No new demolition or construction activities would be associated with this alternative; therefore there would not be any corresponding emissions of air pollutants. As there would be no new development on the site, there would be no associated increase in vehicle trips and no development in the area subject to excess health risk adjacent to Interstate 680. Although with implementation of Mitigation Measure AQ-1 and AQ-2, air quality impacts from the proposed Project would be less-than-significant, mitigation would not be required under the No Project Alternative, and as such, the No Project Alternative would be a substantial improvement over the proposed Project in that it would substantially reduce an already less-than-significant impact.

c. Cultural Resources
Under the No Project Alternative, there would be no ground disturbance, thereby reducing the potential of disturbing archeological resources and human remains. However, as the Project site was heavily graded for previous uses, the likelihood of unearthing as-yet-undiscovered resources or remains is minimal with development of the proposed Project. Nevertheless, the No Project Alternative would be considered a slight improvement over the proposed Project in that it would reduce the Project’s already less-than-significant impact.

d. Geology and Soils
The site would remain in its existing state under the No Project Alternative. In comparison, new development under the proposed Project would subject more people and structures to the risks associated with ground shaking during a seismic event. However, compliance with the latest California Building Code requirements would ensure that impacts associated with strong seismic ground shaking would be less-than-significant. Additionally, compliance with existing regulatory requirements, including the requirements of the SWRCB Construction General Permit (2009-0009-DWQ) and implementation of relat-
ed BMPs would ensure that impacts resulting from substantial erosion and loss of topsoil would also be less-than-significant. Therefore, the No Project Alternative would be considered a slight improvement in relation to the proposed Project.

e. Hazards and Hazardous Materials
The No Project Alternative would not result in the construction of new uses or the transport of hazardous materials. Construction workers could be exposed to potentially hazardous construction materials or equipment during the course of Project construction activities, however, compliance with federal Occupational Safety and Health Administration (OSHA) and California OSHA regulations would ensure that associated impacts would be less-than-significant. During the operational phase of the Project, common cleaning substances, building maintenance products, batteries, paints and solvents, and similar items would be stored, used, and disposed of in the proposed buildings; however, they would not be of a type or occur in sufficient quantities on-site to pose a significant hazard to public health and safety or the environment. Therefore the No Project Alternative would be a slight improvement when compared to the proposed Project.

f. Hydrology and Water Quality
The No Project Alternative would involve no change to the existing hydrological or water quality conditions of the site. By contrast, as discussed in Chapter 4.6 of this Draft EIR, the proposed Project would result in improvements to hydrology and water quality due to the introduction of bio-retention areas, flow through planters, and pervious pavers on-site. Because the No Project Alternative would not include these features, it would be considered a substantial deterioration in comparison to the proposed Project.

g. Land Use, Planning, and Policy Consistency
The No Project Alternative would result in no change to existing land uses and would not require amendments to land use or zoning designations. The proposed Project would require a General Plan Amendment and a change in the site’s zoning designation, as well as a tree removal permit; however, it
would be generally consistent with several General Plan 2025 policies regard-
ing increased development at the BART station. Because the No Project Al-
ternative would not align with these policies, it would not be entirely cons-
sistent with the vision set out in General Plan 2025 and is therefore consid-
ered a slight deterioration in relation to the proposed Project.

h. Noise
There would be no construction-related noise or vibration impacts associated
with the No Project Alternative. Furthermore, because daily traffic volumes
would be lower with this alternative than under the proposed Project, the
operational noise impacts of this alternative would be lower than under the
proposed Project. While the implementation of Mitigation Measures
NOISE-1 through NOISE-3 would reduce construction and operation noise
impacts from the proposed Project to less-than-significant levels, the No Pro-
ject Alternative would nevertheless be a slight improvement compared to the
proposed Project, in that it would slightly reduce the Project’s already less-
than-significant impact.

i. Population and Housing
This alternative would not result in a change to population, housing, or em-
ployment, while the proposed Project would result in approximately 1,275
new residents and 142 new jobs. Growth in population, housing, and em-
ployment under the proposed Project would not exceed the level foreseen in
City or regional planning efforts and would be consistent with local and re-
regional goals to promote urban infill development in the vicinity of transit
centers. The proposed Project would also pay a Housing Impact Fee which
would contribute to the City’s ability to provide more affordable housing.
By contrast, the No Project Alternative would not contribute to the availabil-
ity of affordable housing options in Walnut Creek, and therefore it would be
a slight deterioration as compared to the proposed Project.

j. Public Services and Recreational Facilities
Development of the proposed Project would bring new residents to Walnut
Creek, and as such, would result in an increased demand for public services
and recreational facilities. However, as this increased demand would not require the construction of new facilities or the expansion of existing facilities, associated impacts would be less-than-significant and would not require mitigation. The No Project Alternative would not increase population or result in an increase in demand for public services or recreational facilities. Therefore, the No Project Alternative would be considered a slight improvement when compared to the proposed Project.

k. Transportation and Traffic
This alternative would not alter pedestrian, bicycle, or vehicle circulation on-site. It would not involve any of the intersection or roadway improvement of the proposed Project, nor would it provide the pedestrian paseos or bicycle pavilion or improve access to transit options on-site. As such, it would not improve on-site circulation to the extent that the proposed Project would. However, this alternative would not reconfigure the site plan to eliminate cut-through traffic as the proposed Project would, and therefore, under cumulative conditions, this alternative would not result in significant impacts at two intersections on Parkside Drive. Therefore, on balance, the No Project Alternative would be a slight improvement compared to the proposed Project.

l. Utilities and Service Systems
Because development of the Project would not result in growth beyond the level foreseen in City and regional planning efforts, impacts to utilities and service systems would be less-than-significant. Implementation of Municipal Regional Stormwater Permit C.3 BMPs proposed as part of the Project would also provide in-ground filtration of stormwater and reduce the volume of runoff flowing into the storm sewer system as compared to existing levels. Overall, however, the No Project Alternative would be a slight improvement, in that it would slightly reduce the Project’s already less-than-significant impact on utility and service systems.
m. Greenhouse Gas Emissions
The No Project Alternative would not involve any new development and therefore would not result in an increase in GHG emissions over existing conditions. With the proposed Project, GHG emissions impacts would be less-than-significant. Although the proposed Project would result in increased GHG emissions from the site, siting high density housing adjacent to BART is consistent with regional, long-term strategies to reduce GHG emissions. Nevertheless, the No Project Alternative would be considered a slight improvement over the proposed Project, as it would reduce the Project’s already less-than-significant impact.

D. Reduced Residential Density/Reconfigured Site Plan Alternative

1. Principal Characteristics
Under this alternative, the total number of residential units built would be reduced by approximately one third, from 596 residential units to 394. Of this total, 156 units would be developed in the Phase II area, outside of the area subject to excess health risk as shown in Figure 4.2-2 in Chapter 4.2 of this Draft EIR. Phase II would consist of a single four-story mixed use building with approximately 8,700 square feet of ground floor restaurant and commercial space fronting Pringle Avenue. Parking for the residential and commercial uses proposed in the Phase II building would be provided in an underground parking garage below the building. The remaining portion of the Phase II area would continue to function as a surface parking lot, providing 250 spaces for the use of BART patrons. As this portion of the site would continue to operate largely in its existing condition, 13 ornamental trees (6 Canary Island pine, 4 Red Iron bark, and 3 camphor) currently located in the parking lot would remain in place and a total of 53 trees would be removed, 13 fewer than with the proposed Project.

The Phase III area would be developed as under the proposed Project, with no modifications to the site plan for this sector of the site. The two four-story mixed use buildings with underground parking would still be provided on this portion of the Project site, as would the pedestrian paseo linking the
BART fare gates with the intersection of Ygnacio Valley Road and North California Boulevard and the bicycle pavilion. Under this alternative, BART surface parking spaces eliminated to make room for new development would be replaced at a 1:1 ratio in a new parking structure located in the Phase I area; however, because the existing parking lot in the northern portion of the Project site would remain in operation and provide 250 spaces for BART patrons, the total number of spaces provided in the new structure would be reduced commensurately. There would be no underground level in the proposed parking structure under this alternative, and the total footprint of the structure would be reduced given the smaller number of spaces to be provided. As under the proposed Project, 4,000 square feet of office space would be provided in the Phase I area. All the intersection and circulation improvements included as part of the proposed Project would also be provided under this alternative.

Assuming ABAG’s projected average household size for Walnut Creek in 2025, under this alternative the Project would have approximately 843 residents once operational.\(^1\) The 31,505 square feet of office, restaurant, commercial space provided under this alternative would result in approximately 105 jobs on the Project site. No flex space would be provided under this alternative.

2. Impact Analysis
The Reduced Density Alternative would have the following impacts relative to the proposed Project:

a. Aesthetics
As with the proposed Project, this alternative would involve construction of buildings, landscape features, and public spaces in the place of parking lots at a visually prominent “Gateway” intersection in Walnut Creek. Under this alternative, the visual appearance of the site would change dramatically from

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\(^1\) Under this alternative, assuming an average household size of 2.14 persons, the 394 residential units would be expected to house approximately 843 people.
both external and internal viewpoints, but the proposed modifications would not result in any new significant impacts to views, visual quality, scenic highways, or glare. Design Review Approval would ensure that visual character and quality under this alternative would be consistent with established community standards. Furthermore, proposed modifications would not result in an exceedance of the 50-foot Measure A building height limit applicable to the site. Therefore, this alternative would have an equivalent impact when compared to the proposed Project.

b. Air Quality
This alternative would substantially reduce the amount of development on-site. The duration of construction activities would be shorter and less construction equipment be used on-site. Therefore, construction-related criteria air pollutants, TACs/PM2.5, and GHG emissions generated during construction activities for Phase II would be slightly reduced compared to Phase II of the proposed Project. Construction-related air quality impacts (criteria air pollutants and off-site community risk and hazards) would be reduced compared to the proposed Project and would be less-than-significant with mitigation.

This alternative would restrict placement of sensitive receptors proximate to Interstate 680 and substantially reduce the associated excess cancer risk for the operational phase. Therefore, this alternative would eliminate the need to mitigate the significant operational on-site community risk and hazard impacts of the proposed Project. Overall, this alternative would substantially reduce construction and operational air quality impacts compared to the proposed Project. Although, with mitigation, the air quality impacts of the proposed Project would be less-than-significant, this alternative would be an improvement over the proposed Project in that it would substantially reduce the less-than-significant air quality impacts of the Project.

c. Cultural Resources
The area of excavation for Phase II would be reduced under this alternative and there would be no underground level in the Phase I parking structure.
Consequently, the total area of ground disturbance would be less than under the proposed Project. Nonetheless, the potential for discovery of previously unknown paleontological/archaeological resources or human remains during demolition and construction activities would still exist. As under the proposed Project, compliance with applicable State and local regulations would reduce impacts to less-than-significant levels, and as a result, this alternative would have an equivalent impact compared to the proposed Project.

d. Geology and Soils
Construction of this alternative would require the same degree of site preparation as the proposed Project to account for geologic and soil conditions on the site. As with the proposed Project, the foundation and structural design of the buildings and parking structures would be constructed in conformance with applicable State and City building regulations in order to minimize damage in the event of a seismic event in the Bay Area region. Although this alternative would result in fewer new residents than under the proposed Project, it is expected that new residents would be drawn from Walnut Creek and surrounding communities where the same risk of injury or death from severe seismic events exists, and therefore a reduced resident population would not appreciably reduce impacts associated with severe seismic events. Consequently, the impacts associated with geology and soils under this alternative would be equivalent to the proposed Project.

e. Hazards and Hazardous Materials
Transport and use on-site of hazardous materials, such as diesel gasoline and fertilizers, during construction would occur under this alternative as with the proposed Project. Following construction, hazardous materials stored and used under this alternative would also be similar to those stored and used under the proposed Project. These would consist primarily of common cleaning substances, building maintenance products, batteries, paints, and solvents (see Section 4.5, Hazards and Hazardous Materials). These materials are not considered to present a substantial risk to the public or the environment and compliance with applicable federal, State, and local regulations would ensure
that associated impacts are *less-than-significant*. Therefore, this alternative would have an equivalent impact compared to the proposed Project.

f. **Hydrology and Water Quality**
Under this alternative, development would occur on the remainder of the surface area of the Project site as with the proposed Project, except that a portion of the existing surface parking lot in the north of the site would remain in its current condition. Post-construction drainage may change slightly under this alternative due to the reconfiguration of the site plan, but this alternative would not substantially alter either the volume or velocity of runoff during or after construction, and compliance with C.3 regulations would ensure that water quality impacts from stormwater runoff would be *less-than-significant*, as under the proposed Project. Similarly, this alternative would not result in a notable change in the effects on water quality compared to the proposed Project. Therefore, impacts to hydrology and water quality would be equivalent to the proposed Project.

g. **Land Use, Planning, and Policy Consistency**
The development of residential, commercial, and office uses under this alternative would require the same General Plan and Zoning Amendments as the proposed Project. This alternative would also be consistent with City and BART policy intended to promote transit-oriented (mixed-use) development on the site. Compliance with applicable land use regulations in the Walnut Creek Municipal Code, as under the proposed Project, would ensure that land use and planning impacts are *less-than-significant*. Therefore, this alternative would be equivalent to the proposed Project.

h. **Noise**
Given the reduced number of Phase II units to be constructed and the reduced scale of the proposed parking structure, the overall construction schedule would be slightly reduced under this alternative. Nevertheless, mitigation would still be required to reduce construction noise to *less-than-significant* levels, as under the proposed Project. As this alternative would also involve construction of residential units in an area where noise levels are considered
“conditionally acceptable,” mitigation would be required to reduce interior noise levels to less-than-significant levels, as under the proposed Project. However, noise levels generated by traffic would be lower when compared to the proposed Project, given the smaller scale of the alternative. Therefore the noise impacts for the Reduced Density / Reconfigured Site Plan Alternative would result in a slight improvement compared to the proposed Project, in that it would slightly reduce the Project’s already less-than-significant impact.

i. Population and Housing
The approximately 1,275 new residents and 142 new permanent jobs that would result from the proposed Project would be within the range of planned growth anticipated in Walnut Creek and no significant impacts to population and housing would occur. As described previously, this alternative would involve the construction of 394 residential units and 31,505 square feet of office, restaurant, commercial space, generating approximately 843 new residents and 105 new jobs. Although this would be a substantial reduction in both resident and employee populations compared to the proposed Project, both would be within the range of growth foreseen in local and regional planning efforts, and therefore this alternative would be equivalent to the proposed Project.

j. Public Services and Recreational Facilities
This alternative would result in fewer residential units and a reduced average daily population on-site. Demand for public services and recreational facilities would be correspondingly reduced compared to the proposed Project, so this alternative is considered a slight improvement over the proposed Project.

k. Transportation and Traffic
Under this alternative, the site plan would provide the same pedestrian, bicycle, and vehicle circulation as the proposed Project. Additionally, the same intersection improvements would be made as with the proposed Project, and the bicycle pavilion would also be provided. The Phase I parking structure would provide 1:1 replacement of BART surface parking spaces removed for development of the site, but would not provide the additional 100 parking
spaces proposed with the Project. Under this alternative, approximately 518 spaces would be needed for residents of the three mixed use buildings, a reduction of 266 spaces compared to the proposed Project.

The reduced residential component would result in approximately 80 fewer vehicle trips generated during each of the AM and PM peak hours. However, in combination with foreseeable cumulative growth, this alternative would still result in significant impacts prior to mitigation at two Parkside Drive intersections, as this alternative would also involve the diversion of cut-through traffic, as described in Chapter 4.11 of this Draft EIR. Therefore, overall, this alternative would be equivalent to the proposed Project.

l. Utilities and Service Systems
Given the reduced service population under this alternative, the demand for utilities, including water, wastewater treatment, and solid waste disposal would be lower than under the proposed Project. This alternative would also involve the installation of a photovoltaic array and would incorporate the similar energy conservation features required for Title 24 compliance as the proposed Project. Impacts of the proposed Project were found to be less-than-significant; however, impacts to utilities and service systems for the Reduced Density / Reconfigure Site Plan Alternative would be a slight improvement, in that it would slightly reduce the Project’s already less-than-significant impact.

m. Greenhouse Gas Emissions
This alternative would reduce the development intensity on-site by approximately one third as a result of the reduction in residential units during Phase II. Consequently, this alternative would reduce the total GHG emissions compared to the proposed Project. However, for purposes of this EIR, GHG emissions impacts are not based on the magnitude of GHG emissions but on per capita emissions, which is a measure of the project’s efficiency. Therefore, while this alternative would reduce operational-related air quality impacts, GHG emissions impacts would be similar to the proposed Project.
Overall, impacts under this alternative would be less than significant and approximately equivalent to the proposed Project.

E. Equal Residential/Reconfigured Site Plan Alternative

1. Principal Characteristics

This alternative would involve development of the same number of residential units (596) on-site as with the proposed Project; however, the site plan would be reconfigured so that all units would be located outside of the area subject to increased health risks shown in Figure 4.2-2 in Chapter 4.2 of this Draft EIR. In order to accommodate an equivalent number of residential units in a reduced area, building heights would be increased and average unit size would be decreased slightly. In the Phase II area of the site, the height limit would be increased from 50 feet to 89 feet in order to allow for construction of an eight-story mixed use building containing 320 apartment units, 8,700 square feet of ground floor restaurant/commercial space, and 3,320 square feet of flex space. In the Phase III area of the site, the height limit would be raised to from the current limit of 35 feet to a maximum of 72 feet to allow for construction of two five-story mixed use buildings containing a total of 276 apartment units, 13,250 square feet of ground floor commercial space, and 13,385 square feet of flex space. As the increased height limit would exceed the established Measure A Building Height Limit in both the Phase II and Phase III areas, voter approval would be required.

Under this alternative, BART surface parking spaces eliminated to make room for new development would be replaced at a 1:1 ratio in a new parking structure located in the Phase I area, with up to an additional 100 spaces provided by restriping the existing garage and construction of additional spaces in the new parking structure, as under the proposed Project. As with the proposed Project, 4,000 square feet of office space would be provided in the parking structure on the Phase I portion of the site. Underground parking would be provided for new development in the Phase II and Phase III buildings. The area adjacent to the Phase II building would be landscaped open space for the use of Project residents. A total of 66 trees would be removed from the site.
to accommodate new development as with the proposed Project; however, additional replacement trees and outdoor recreational amenities would be provided in the open space adjacent to the Phase II building. All the intersection and circulation improvements included as part of the proposed Project would also be provided under this alternative.

The resident population of the Project under this alternative would be 1,275, assuming ABAG’s projected average household size for Walnut Creek in 2025 as with the proposed Project. The total amount of restaurant, commercial, and flex space would also be the same as under the proposed Project, and therefore, assuming an employment density of one job per 300 square feet of space, the 42,655 square feet of office, commercial, and flex space provided under this alternative would result in 142 jobs on-site.

2. Impact Analysis
The Equal Density / Reconfigured Site Plan Alternative would have the following impacts relative to the proposed Project:

a. Aesthetics
The Equal Density / Reconfigured Site Plan Alternative would be subject to Design Review Approval and would conform with the Project-specific Transit Village Design Guidelines developed during the design review process, as would the proposed Project. The pedestrian paseos, public open spaces, and public art components would also be substantially the same as the proposed Project, however, the taller building façades along the pedestrian paseo from the corner of North California Boulevard and Ygnacio Valley Road to the fare gates would detract from the pedestrian experience through the passageway. Generally, this alternative would result in an architecturally distinguished development at an important Gateway to Walnut Creek. However, although the pedestrian paseo leading from the BART fare gates to the corner of North California Boulevard and Ygnacio Valley Road would still frame views of Mount Diablo as under the proposed Project, the increased height of the Phase III buildings would substantially screen views of Mount Diablo from the BART tracks, a General Plan 2025 designated Scenic Corridor. As
the height of the Phase III buildings would be a maximum of 72 feet, in excess of the established Measure A building height for that portion of the site, this would be a significant impact.

Additionally, the 89-foot height proposed for the Phase II building, while not out of context with the office buildings of the Golden Triangle across Pringle Avenue from the site, would nonetheless screen views of Mount Diablo from the BART tracks as well as from the General Plan’s established Mount Diablo View from Buena Vista Avenue. This would also be a significant impact. Therefore, The Equal Density / Reconfigured Site Plan Alternative would be a substantial deterioration compared to the proposed Project.

b. Air Quality
This alternative would have the same development intensity as the proposed Project and would generate similar construction-related emissions of criteria air pollutants, TACs, and particulate matter. As with the proposed Project, mitigation would be necessary to reduce the construction-related air quality impacts of this alternative to less-than-significant levels. Assuming the same construction equipment mix and approximately the same construction schedule, off-site community risk and hazards would be the same as with the proposed Project.

This alternative would restrict placement of sensitive receptors proximate to Interstate 680, and therefore, this alternative would not result in a significant excess cancer risk for the operational phase. With mitigation, the proposed Project would also not result in a significant operational excess cancer risk; however, as this alternative would substantially reduce that less-than-significant impact, it would be a substantial improvement compared to the proposed Project.

c. Cultural Resources
The area of excavation for Phase II would be reduced under this alternative, and consequently, the total area of ground disturbance would be less than under the proposed Project. Nonetheless, the potential for discovery of pre-
viously unknown paleontological/archaeological resources or human remains during demolition and construction activities would still exist. As under the proposed Project, compliance with applicable State and local regulations would reduce impacts to less-than-significant levels, and as a result, this alternative would have an equivalent impact compared to the proposed Project.

d. Geology and Soils
Construction of this alternative would require the same degree of site preparation as the proposed Project to account for geologic and soil conditions on the site. As with the proposed Project, the foundation and structural design of the buildings and parking structures would be constructed in conformance with applicable State and City’s building regulation in order to minimize damage in the event of a seismic event in the Bay Area region. Consequently, the impacts associated with geology and soils under this alternative would be equivalent to the proposed Project.

e. Hazards and Hazardous Materials
Construction of this alternative would involve the same transport and use of hazardous materials as the proposed Project, and operation of this alternative would also involve the same storage and use of common cleaning substances, building maintenance products, batteries, paints, and solvents as the proposed Project. Under this alternative, as with the proposed Project, compliance with applicable federal, State, and local regulations would ensure that associated impacts are less-than-significant. Therefore, this alternative would have an equivalent impact compared to the proposed Project.

f. Hydrology and Water Quality
The reconfiguration of the site plan under this alternative would result in the maintenance of a portion of the surface parking lot adjacent to Interstate 680 in the northern portion of the site; however, development would occur on the remainder of the surface area of the Project site as with the proposed Project. Although compliance with C.3 regulations would ensure that water quality impacts from stormwater runoff under the proposed Project would be less than significant, the addition of pervious surface to the Project site under
this alternative would be beneficial for water quality and groundwater recharge. Other aspects of this alternative would not result in a notable change in the effects on water quality compared to the proposed Project. Overall, this would be a slight improvement compared to the proposed Project.

**g. Land Use, Planning, and Policy Consistency**

This alternative would be consistent with City and BART policy that seeks to promote transit-oriented (mixed-use) development on the site; however, as it would require voter approval for a General Plan Amendment raising the height limit on both the eastern and northern portions of the site above the building height limits established by Measure A, this alternative would not be consistent with established land use regulations. Therefore the Equal Density/Reconfigured Site Plan Alternative would be a substantial deterioration compared to the proposed Project.

**h. Noise**

Like the proposed Project, this alternative would also require mitigation to reduce construction noise to less-than-significant levels. As the development intensity is the same under this alternative, the construction period would be of approximately the same duration. Also as with the proposed Project, construction of residential units in an area where noise levels are considered “conditionally acceptable,” would require mitigation to reduce interior noise levels to less-than-significant levels; however, given the height of the Phase II building under this alternative and its slightly greater distance from Interstate 680 the degree of mitigation required for some units would be slightly reduced in view of the associated noise attenuation. Overall, however, this alternative would result in equivalent, less-than-significant noise impacts with mitigation.

**i. Population and Housing**

As described previously, the proposed Project would be within the range of planned growth anticipated in Walnut Creek and no significant impacts to population and housing would occur. This alternative would result in the same number of residential units and the same amount of office, commercial,
and flex space as the proposed Project, and therefore would be equivalent to the proposed Project.

j. Public Services and Recreational Facilities
This alternative would result in the same residential and average daily site populations as the proposed Project, and would therefore generate a similar level of demand for public services and recreational facilities compared to the Project. As such, this alternative would be equivalent to the proposed Project.

k. Transportation and Traffic
This alternative would have the same development intensity as the proposed Project, and as such, trip generation would also be the same. As the site plan would provide substantially similar vehicle circulation and divert cut-through traffic as the proposed alternative would, significant impacts at two Parkside intersections would result under cumulative conditions. With mitigation, these impacts would be less-than-significant, as under the proposed Project. Other circulation, access, and parking components of this alternative would be the same as the proposed Project. Consequently, the Equal Density / Reconfigured Site Plan Alternative would be equivalent to the proposed Project.

l. Utilities and Service Systems
With the same number of residential units and the same amount of office, commercial, and flex space as the proposed Project, this alternative would result in the same service population. This alternative could also involve the installation of a photovoltaic array and would incorporate the similar energy conservation features required for Title 24 compliance as the proposed Project. Therefore, the Equal Density / Reconfigured Site Plan Alternative would also result in less-than-significant impacts to utilities and service systems and would be equivalent to the proposed Project.

m. Greenhouse Gas Emissions
As described previously, because this alternative would have the same development intensity as the proposed Project, it would generate the same magni-
tude of GHG emissions during both the construction and operational phases. With mitigation, this alternative would also result in a less-than-significant impact with respect to GHG emissions and would therefore be equivalent to the proposed Project.

**F. Ability to Meet Project Objectives**

This section describes how each alternative would meet the Project objectives, described in Chapter 3 of this Draft EIR, and repeated here for reference:

1. **Project Objectives**

   This section describes how each alternative would meet the Project objectives, described in Chapter 3 of this Draft EIR, and repeated here for reference:

   - Enhance the role of the site as a regional transportation hub;
   - Provide access and circulation to and through the site that works for all modes of transportation;
   - Ensure visual and physical connections of the Project with the City of Walnut Creek;
   - Create an attractive, mixed-use residential neighborhood with retail uses that cater to future residents, transit riders, and surrounding uses;
   - Consistent with the transit-oriented policies in SB 375, BART’s Transit Oriented Development Policy, and the City’s General Plan 2025, capitalize on the proximity to BART by maximizing the residential density;
   - Provide various features of value to residents, transit riders, and users, potentially including programmable public plazas/urban open space, publicly accessible views of Mt. Diablo, public art, rentable meeting room/commercial space, car-share program, and shuttle service to downtown Walnut Creek.
2. Comparison of Alternatives to the Project

a. No Project Alternative
Although this alternative would not result in any significant environmental impacts, it would not satisfy any of the Project objectives. In particular, it would not capitalize on the opportunity to promote transit-oriented, mixed-use development on the site, consistent with the goals of SB 375, BART’s Transit-Oriented Development Policy, and the City’s General Plan 2025.

b. Reduced Density/Reconfigured Site Plan Alternative
This alternative would meet many of the Project objectives, including enhancing the role of the site as a regional transit hub; creating an attractive, mixed-use residential neighborhood; and providing public benefits such as programmable public plazas/urban open space, publicly accessible views of Mt. Diablo, and public art. However, the Reduced Density/Reconfigured Site Plan Alternative would not meet the objective of maximizing residential density near transit as is consistent with SB 375, BART’s TOD Policy, and other regional planning initiatives. Additionally, the residential density assumed under this alternative may not provide the financial feasibility to allow for construction of other Project features, including the new parking structure, pedestrian paseos, public spaces, or intersection improvements, and therefore would not fully achieve this Project objective.

c. Equal Density/Reconfigured Site Plan Alternative
This alternative would meet all of the Project objectives; however, as voter approval would be required to raise the Measure A building height limits currently applicable to the site and as those limits were previously set by voter initiative, this alternative may prove infeasible.

G. Environmentally Superior Alternative

Based on the analysis presented in this chapter, the results of which are summarized in Table 5-1, the No Project Alternative would be the environmentally superior alternative. Notably, it would substantially reduce air quality impacts compared to the proposed Project. While all significant air quality
impacts, including the impact associated with excess cancer risk resulting from the location of residences in close proximity to Interstate 680, would be less-than-significant with mitigation, the No Project Alternative would avoid this impact altogether. The No Project Alternative would also avoid other less-than-significant impacts related to noise, transportation, and GHG emissions, although it would also fail to improve the site with respect to aesthetics, hydrology and water quality, conformity to land use policies, and provision of affordable housing options.

As required under CEQA, if the No Project Alternative is identified as environmentally superior, the next most superior alternative must be identified. In this case, the Reduced Residential/Reconfigured Site Plan Alternative would be superior to the Equal Residential/Reconfigured Site Plan Alternative. Each would substantially reduce an already less-than-significant impact related to DPM exposure for residences in Phase II; however, as summarized in Table 5-1, by virtue of the reduced traffic volumes and service population that would result from this alternative, less-than-significant impacts related to noise and utilities and services systems would be further reduced under the Reduced Density/Reconfigured Site Plan Alternative. While the Equal Density/Reconfigured Site Plan Alternative would offer benefits to hydrology and water quality as it would provide additional pervious surface, because of the Measure A building height limit increases required, it would represent a substantial deterioration in terms of aesthetics and land use planning compared to the Reduced Density/Reconfigured Site Plan Alternative. Therefore, the Reduced Density/Reconfigured Site Plan Alternative is considered the next most environmentally superior alternative.
6  CEQA REQUIRED ASSESSMENT CONCLUSIONS

This chapter provides an overview, as required by CEQA, of the impacts of the proposed Project. Information in this chapter is based on the analyses presented in chapters 4.1 through 4.13 and chapter 5 of this Draft EIR. The topics covered in this chapter include growth inducement, unavoidable significant impacts and significant irreversible changes. A more detailed analysis of the effects the Project would have on the environment and proposed mitigation measures to minimize significant impacts is provided in Chapters 4.1 through 4.13.

A. Growth Inducement

Section 15126.2(d) of the CEQA Guidelines requires that an EIR discuss the ways in which a proposed Project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Typical growth inducing factors might be the extension of urban services or transportation infrastructure to a previously unserved or under-served area, or the removal of major barriers to development. This section evaluates the proposed Project’s potential to create such growth inducements. Not all aspects of growth inducement are negative; rather, negative impacts associated with growth inducement occur only where the Project growth would cause adverse environmental impacts.

1. Direct Growth Inducement

The Project would directly induce growth through the construction of 596 new housing units. Assuming an average household size of 2.14 people as projected by ABAG for Walnut Creek in 2025, the construction of 596 residential units on the Project site could bring as many as 1,275 new residents to the city. However, as described in chapter 4.9, Population and Housing, development of the proposed Project would not exceed the level of population or housing foreseen in City or regional planning efforts. Additionally, as described in chapter 4.7 Land Use and Planning, of this Draft EIR the Project is consistent with Goal 3 of General Plan 2025, which seeks to encourage housing and commercial mixed-use development in the vicinity of the Walnut Creek BART station.
2. Indirect Growth Inducement

The Project is not expected to result in indirect growth inducement because all development associated with the Project would occur on or immediately adjacent to the Project site. The Project site is a previously developed site in the highly urbanized Core Area of Walnut Creek, and would not involve the extension of infrastructure or services to a previously unserved area.

Development of the proposed Project would involve demolition and construction activities that could generate some temporary employment opportunities; however, it is anticipated that the Project would draw primarily from the local labor pool. Given the number of workers with applicable skills who reside in Contra Costa and adjacent counties, it is unlikely that a substantial number of construction workers would relocate to work on the proposed project. As such, the proposed plan would not be considered growth-inducing from a short-term employment perspective.

Once operational, the commercial, flex, and office space proposed as part of the Project would be expected to generate approximately 142 new jobs primarily in restaurant and retail uses serving transit patrons and Project residents, as described in chapter 4.9, Population and Housing, of this Draft EIR. While some future employees may choose to relocate to Walnut Creek when they take jobs at the Project site, in general, given the excellent access to the regional roadway and transit network offered by the Project site, it is expected that future employees not already living in Walnut Creek would commute to work. Therefore, development of the Project would not result in significant indirect growth inducement.

B. Unavoidable Significant Impacts

Section 15126.2(b) of the CEQA Guidelines requires that an EIR describe any significant impacts that cannot be avoided, even with the implementation of feasible mitigation measures. As detailed in Chapters 4.1 through 4.13 of this Draft EIR, none of the environmental impacts associated with the proposed Project were found to be significant and unavoidable.
C. Significant Irreversible Changes

Section 15126.2(c) of the CEQA Guidelines requires an EIR to discuss the extent to which a proposed project would commit nonrenewable resources to uses that future generations would probably be unable to reverse. The three CEQA-required categories of irreversible changes are discussed below.

1. Land Use Changes that Commit Future Generations

While the proposed Project would require a General Plan Amendment to allow residential and commercial development on the eastern portion of the site, such development is allowed on the remaining portion of the site under existing City regulations and would be compatible with surrounding development in the highly urbanized Core Area of Walnut Creek. Additionally, the proposed residential and commercial development is consistent with regional and local policies that encourage mixed-use development in the vicinity of transit stations. These policies include the BART Transit-Oriented Development (TOD) Policy, as well as General Plan 2025 Goal 3 which encourages housing and commercial mixed-use development in areas around the Walnut Creek and Pleasant Hill BART Stations, and Policy 10.1 which supports the development of residential uses and local service retail near and around the stations. As such, development of the proposed Project would not commit future generations to significant changes in land use.

2. Irreversible Damage from Environmental Accidents

Development of the Project, which would involve construction and operation of residential and commercial uses on the Project site, is not anticipated to create the potential for significant, irreversible environmental damage of the type that could occur in the event of accidental spill or explosion of hazardous materials. Furthermore, compliance with existing federal, State, and local regulations pertaining to the storage, handling, and use of hazardous materials would prevent the potential for significant environmental damage due to hazardous substances to the maximum practicable extent. Therefore, development of the Project would not pose substantial risk of environmental accidents.
3. Large Commitment of Nonrenewable Resources

Consumption of nonrenewable resources includes issues related to increased energy consumption, conservation of agricultural lands, and lost access to mining reserves. The Project would require water, electric, and gas service, and resources for construction, and the ongoing operation of the Project would involve the use of nonrenewable resources. Construction and ongoing maintenance of the proposed Project would irreversibly commit some materials and nonrenewable energy resources. Materials and resources used would include, but are not limited to, nonrenewable and limited resources such as oil, gasoline, sand and gravel, asphalt, and steel. These materials and energy resources would be used for infrastructure development, transportation of people and goods, and utilities. During the operational phase of the Project (post-construction), energy sources including oil and gasoline would be used for construction, lighting, heating, and cooling of residences, and transportation of people to and from the Project site.

The Project, however, would include several features that would offset or reduce the need for nonrenewable resources. The Project may include the installation of a photovoltaic array on the roof of the proposed parking structure that would generate electric power to serve the systems in the parking structure. The Project would be required to comply with all applicable building and design requirements, including those set forth in Title 24 relating to energy conservation. In compliance with CALGreen, the State’s Green Building Standards Code, the Project would be required to reduce water consumption by 20 percent, divert 50 percent of construction waste from landfills, and install low pollutant-emitting materials. The landscaping plan for the proposed Project includes the use of vegetation that reduces the amount of irrigation required, and the irrigation system would be fully automated, in compliance with the City of Walnut Creek’s recently adopted Landscape Water Efficiency Ordinance. The proposed Project would also apply environmentally sustainable standards for demolition, construction, and operation.

Although the construction and ongoing operation of the Project would involve the use of nonrenewable resources, the inclusion of energy-conserving
Project features and compliance with applicable standards and regulations would minimize the use of nonrenewable resources to the maximum extent practicable, and as such, the Project would not represent a large commitment of nonrenewable resources.

The Project site does not contain any agricultural land or a mining reserve, so it would not affect those natural resources.
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