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This report describes the planning process and design concepts for the Foothill Boulevard Streetscape Design Project. It describes the project background, study area, previous and ongoing planning efforts, the planning process, conceptual design elements and implementation steps necessary for the project’s future construction.

A. PROJECT BACKGROUND

The Foothill Boulevard Streetscape Design Project area lies in the City of Oakland’s Central City East Redevelopment Area established on July 29, 2003. Improving the streetscape was identified as one of the primary projects for the Project Area Committee for this redevelopment area. This is a comprehensive streetscape design built on initial community planning groundwork and traffic and pedestrian safety studies that were previously completed for portions of the corridor. This report and its associated design products will be used to seek capital grant funding for project implementation.
B. Project Area

The project area is within the heart of the Fruitvale District, a two-and-a-half square mile area bordered by 27th Avenue, the Oakland Estuary, High Street and Interstate 580. Fruitvale is the most densely populated neighborhood in Oakland, comprising about 4.5 percent of its total land area but housing 12 percent of its total population.¹ Fruitvale is also known for its rich ethnic diversity. The population is predominantly Chicano and Latino, with a significant percentage of Asian Americans and African Americans. In addition, the Native American population in this district is one of the largest in the Bay Area.

Geographically, the Fruitvale District sits where the Oakland foothills meet the estuary floodplains. The District spans three watersheds, that of Sausal Creek, Peralta Creek and Courtland Creek. This area was originally home to the Ohlone Indian Tribe.

Following the settlement of the Spanish, the area was developed with scattered haciendas and the outline of core roads such as Foothill Boulevard was established. Fruitvale acquired its name in the late 1800’s after German and other immigrants arrived and planted fruit orchards in the rich agriculture foothills. After the turn-of-the-century, taking advantage of the adjacent estuary, canneries also sprang up in the vicinity providing many new jobs. The nearby port was also a significant source of employment and housing and commercial development in Fruitvale quickly ensued. By the late 1920’s, the Fruitvale commercial district was referred to as “Oakland’s second downtown.”

World War II brought an influx of many new African-American and Spanish-speaking residents arriving to work in defense jobs associated with the shipyards and foundries. Following World War II, the area began to experience a decline as factories, canneries and middle income jobs became scarce. New immigrants still came seeking work but by the 1960’s Fruitvale showed signs of economic stress such as deteriorating housing stock, crowded living conditions, high unemployment, a large percentage of households below the poverty line and an increasing crime rate. In response, social support organizations and community improvement groups came together to address the problems and in doing so planted the seeds for the district’s rebirth.

In recent years, the Fruitvale District has experienced the fruits of a remarkable renaissance. Due to the persistent efforts of local residents, business owners, and community organizations, the image of Fruitvale is now buoyed by the reality of a viable business community, new in-fill development, a strong network of community-based organizations, and a well-established neighborhood character and identity.

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C. **Previous Planning Efforts**

A number of studies and plans have been completed in the study area in recent years. A summary of these planning efforts and how they pertain to the study area is provided below.

1. **The City of Oakland Land Use and Transportation Element (1998)**
   The Land Use and Transportation Element of the General Plan identifies Foothill Boulevard as an arterial and regional transit route. Fruitvale Avenue, 35th Avenue and High Street are also arterials while Coolidge and 38th Avenues are collector streets. Additionally, the Foothill Boulevard corridor is part of an AC Transit Route for bus lines 40, 40L and 43. AC Transit has designated Foothill Boulevard as a BRT (Bus Rapid Transit) route, but no decisions have been made towards implementing this plan.

   Completed as an addendum to the Transportation Element, the Pedestrian Master Plan promotes pedestrian safety and access. It includes goals, objectives and design guidelines that are applicable to the Foothill Boulevard Streetscape Design Project, including sidewalk design, crossing treatments, traffic calming, and lists potential improvement projects to be studied and developed for implementation within the City.

   The Pedestrian Master Plan cites Foothill Boulevard as a City Route, defined as a “destination functioning as a place to live, work, shop, socialize, and travel.” Foothill Boulevard thus provides direct connection between the various districts in the City, and also fosters connections between transit centers. In the project area, Coolidge Avenue and 35th Avenue are district routes providing connections to schools, community centers, and neighborhood shops.

   The City of Oakland’s Bicycle Master Plan (BMP) recommends actions for increasing bicycle travel options in Oakland. This plan was being updated during the development of the Foothill Boulevard Streetscape Design Project. In the project area, the draft update recommends bikeways on Foothill Boulevard, Fruitvale Avenue, and 38th Avenue. The plan also recommends nearby bikeways on MacArthur Boulevard, East 12th Street, and a mixed-use path along San Leandro Street and the BART right-of-way.

4. **Fruitvale Alive! Community Transportation Plan (September 2005)**
   The Fruitvale Alive! Community Transportation Plan focuses on streetscape improvements and recommendations for Fruitvale Avenue and the surrounding area that will facilitate mobility along the right-of-way. The plan strives to create a streetscape that is safe and comfortable for pedestrians, bicyclists, transit riders, and motorists, giving people a convenient and compelling alternative to driving motor vehicles. Particular improvement recommendations were focused on two key intersections of the Fruitvale area described below. These intersections directly impact Foothill Boulevard and are taken into consideration in the Streetscape Design Project.

   a. **Fruitvale Avenue and Foothill Boulevard**
      Pedestrian bulbouts at three corners of the Fruitvale Avenue and Foothill Boulevard intersection are located at the northwest and

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southeast sides of Fruitvale Avenue and one bulbout is located at the southwest side of Foothill Boulevard. The plan also recommends street striping to be modified with the westbound striping at the approach to the Fruitvale intersection adding one right turn only lane during the PM peak period only. Additional recommendations include:

♦ Lengthen the Foothill westbound bus stop farther west so that it is at least 80 feet long.

♦ Installation of “No Parking 4:00 – 6:00 PM” signs on Foothill Boulevard westbound between 33rd Avenue and Fruitvale Avenue.

♦ Implement Class III bicycle routes along Fruitvale Avenue with the use of the “Sharrow” marking at Fruitvale Avenue between International Boulevard and Foothill Boulevard.

b. Foothill Boulevard & Coolidge Avenue
Traffic movement from drivers accessing Foothill Boulevard from the Coolidge Avenue southbound direction and accessing Coolidge Avenue from the Foothill Boulevard eastbound direction are delayed and difficulty arises from the intersection and its proximity to Fruitvale Avenue. Proposed improvements for this intersection include adding a southbound lane, striping the southbound approach for one right-turn lane and one left-turn lane to provide a protected signal phase for the eastbound vehicles turning left.

5. The Foothill Boulevard Streetscape Design Concept Plan (Urban Blueprints 2004)
This study was prepared as a precursor to the Fruitvale Alive! Plan focusing on the Foothill Corridor at Fruitvale Avenue, with additional recommendations for César Chávez Park. Concepts included improvements at the corner of Fruitvale Avenue and Foothill Boulevard with a public plaza and a median in the center of the commercial corridor. The concept plan suggests a partial closing of Foothill Boulevard between Fruitvale Avenue and 35th Avenue to through traffic, allowing only alternate methods of transit: buses, bicycles and pedestrians. Other concepts in the study included a gateway element at Sausal Creek and accentuating the César Chávez Park identity.

6. César Chávez Park Landscape Master Plan (Spanish Speaking Unity Council & HOOD Design)
The Landscape Master Plan for César Chávez Park was prepared by Hood Design for the Spanish Speaking Unity Council (Unity Council), a local non-profit organization that has been assisting the Fruitvale neighborhood for over 30 years. The Master Plan looks closely at the history of the area and issues to be addressed at the Park. The plan identifies a series of improvements to be implemented over time, including construction of a large deck near Foothill Boulevard to serve as an outdoor eating and gathering area.

Hood Design Master Plan for César Chávez Park.
D. Streetscape Design Project Goals

The Foothill Boulevard Streetscape Design Project should work to provide more space for pedestrians, as current conditions on the street are busy and crowded, while other stretches are under-utilized. Current activities on the street make it unsafe and uncomfortable for pedestrians trying to cross because of disorderly driving conditions such as illegal passing and high speeds. Street facilities that are organized and consistent in style such as improved sidewalks, street furnishings, landscaping and trees will help to unify the street corridor and promote further improvements in the private realm. Significant elements such as gateways and a neighborhood signage program will also unify and enliven the streetscape and the identity of the neighborhood. The following goals were developed for the streetscape design project:

- Improve pedestrian safety through the implementation of traffic calming measures and pedestrian serving street features.
- Establish consistent improvements to encourage pedestrian use and emphasize Foothill Boulevard as a bicycle friendly arterial route.
- Facilitate the use of streetscape environs for public gathering while ensuring specifically programmed pedestrian plaza spaces.
- Preserve neighborhood identity, historic character and cultural diversity through the use of distinctive street furniture and aesthetic improvements.
- Develop a unified street character from Sausal Creek and Fruitvale Avenue to Courtland Avenue and High Street.
- Highlight neighborhood amenities with improved physical and visual connections, particularly at César Chávez Park.
- Catalyze commercial development.
E. Planning Process

The first step in the planning process was to initiate an existing conditions analysis. During the existing conditions analysis an investigation into the opportunities and constraints of the streetscape ensued through project area site visits that focused on recording building stock and local businesses, noting existing streetscape qualities, and documenting sidewalk furniture and conditions. Another investigation took the form of a traffic analysis of the pedestrian and vehicle counts at a series of intersections. Additionally, photo documentation of the street on several occasions was used for design analysis and concept development, as well as for reference and use in community meetings and Technical Advisory Committee meetings.

♦ Stakeholder Interviews: As a sub-consultant to the project, VSCE engaged many of the area stakeholders in interviews about their role in the community and their business enterprise, and solicited their input, comments, or concerns about the proposed streetscape project. A summary of comments and concerns is included in Chapter 3.

♦ Community Workshops: DC&E developed a planning process for community input that included three community meetings to gather comments and feedback on the community visions for the neighborhood and street, the conceptual design alternatives, and the preferred alternative. Synopses of all three workshops and their outcomes are outlined in Chapter 3 and results from the workshops are in Appendix B.

♦ Fremont Architecture/Construction Academy Student Input: DC&E and City Staff met with students at this high school which is part of the Fremont Federation of High Schools, located on Foothill Boulevard. The students participation from the Academy culminated in a discussion about their vision for Foothill Boulevard. Input from several of the students and faculty has been incorporated into the plan. Future involvement with the Academy should be considered in subsequent phases.

♦ Technical Advisory Committee (TAC): The TAC consisted of several members of the community as well as staff members from various departments in the City agencies. Representatives from the Public Works Agency included the Electrical, Transportation Services, Engineering Design and Maintenance Divisions. Additional members of the TAC included AC Transit, CEDA’s Planning and Zoning Division, and Oakland City Council President, Ignacio de la Fuente’s office. The TAC received minutes from each Community Meeting, and reviewed the concept designs prior to discussing them at public meetings. Additional staff input was solicited from the City’s ADA Compliance Officer, Building Services, and the City street sweeping contractor.
F. 35% Construction Documents

As part of this project, 35% construction documents were developed based on the concepts in the Master Plan, these are included as Appendix D. The 35% construction documents will consist of a title sheet, typical cross sections, layout plans and details that cover the project limits. The layout plans will identify preliminary design elements and will include basic geometric information like lane widths, curb return radii (bulbout design) and median island limits. It will also show the locations of concrete curb, gutter, sidewalk, driveways and curb ramps, signalized intersections, special paving areas (i.e. storm water management opportunities), striping, trees and light poles. The typical sections will show the basic existing and new roadway features and cross slopes. A typical bulbout layout will be developed to show the basic layout and typical assumptions for curb return radii. Each bulbout location will be analyzed for basic drainage constraints, however, no drainage plans or details will be developed at the 35% level. Based on the information available at this time, the approximate location of utilities will be shown on the layout plans, however, verification is still required prior to final design. Due to this uncertainty, some of the proposed project features may require modification or be eliminated during the final design process. A preliminary estimate of probable cost will also be prepared as part of this phase.

G. Streetscape Design Master Plan Overview

The Foothill Boulevard Streetscape Design Project includes a set of goals to guide future implementation of the Master Plan. The document begins with this introduction, which summarizes the design process and contents of the Streetscape Design Master Plan. The document includes the following chapters and appendices:
- Chapter 1: Introduction
- Chapter 2: Existing Conditions & Key Issues
- Chapter 3: Community & Stakeholder Participation
- Chapter 4: Streetscape Design Master Plan
- Chapter 5: Traffic Analysis
- Chapter 6: Phasing & Implementation
- Appendix A: Stakeholder Interviews
- Appendix B: Community Workshops Summaries
- Appendix C: Traffic Analysis Memorandum
- Appendix D: 35% Construction Documents
This chapter summarizes the existing conditions, opportunities and constraints that influenced the development of a streetscape plan for Foothill Boulevard. The Foothill Boulevard Streetscape Design Project provides an opportunity to build on initial improvements and investment in the area. Existing infrastructure, the unique character of the area and recently implemented improvements such as building façade renovations and street tree programs make Foothill Boulevard a prime candidate for a streetscape revitalization project. In addition, the proximity to new housing and commercial activity at the nearby Fruitvale Transit Village and International Boulevard further add to the street’s potential to become a vibrant, neighborhood-serving commercial destination.

A. LAND USES AND ZONING

The General Plan designates the majority of Foothill Boulevard within the project area as Neighborhood Center Mixed Use and Urban Residential, and the surrounding neighborhoods are designated Mixed Housing. One parcel, Mercy Retirement & Care Center, is designated Institutional Use by the General Plan. The land use designations are shown in Figure 2-1.

The Neighborhood Center Mixed Use classification is defined as containing “commercial centers with a pedestrian-oriented street frontage; a mix of retail, housing, office, active open space, eating and drinking places; personal and business services; and smaller-scale educational, cultural, or entertainment uses.” Vertical development is encouraged with a variety of smaller-scaled, street-level businesses and services oriented to the street, with residential units above.
The Urban Residential Use category denotes areas appropriate for multi-unit, mid-rise or high-rise residential structures. This classification also includes areas that have notably good access to transportation and services such as the Foothill Boulevard transit corridor. The primary uses proposed for this classification are residential, with a focus on mixed-use developments with ground floor commercial or civic uses compatible with residential use above.

Per the City of Oakland Planning Code, zoning along Foothill Boulevard is C-30 District Thoroughfare Commercial Zone. This zone is intended to “create, preserve, and enhance areas with a wide range of retail establishments serving both short and long term needs in convenient locations, and is typically appropriate along major thoroughfares.” Cesár Chávez Park, at the east end of the study area, is zoned Open Space-Neighborhood Park OS (NP). Zoning designations are shown in Figure 2-1. It is expected that the stretch of Foothill Boulevard designated with the “Urban Residential” land use will be re-zoned to an appropriate mixed-use medium density residential zone in the near future.
Coring samples were taken throughout the project limits by the City to provide information on the existing pavement materials and their corresponding thicknesses. Where it was feasible, samples were generally obtained within the vicinity of the center of the street. The results of the coring samples indicate an asphalt concrete (AC) layer over a concrete (PCC) layer. The AC layer varies from approximately 7” to 9” thick and the PCC layer varies from approximately 5 ½” to 8 ¼” thick. Due to the relatively deep existing pavement sections, it appears that there should be opportunities to grind the existing pavement and repave in order to improve or flatten the existing cross slopes. Refer to Appendix D for coring sample cross-sections.

CHAPTER 2: EXISTING CONDITIONS

B. EXISTING SETTING

Foothill Boulevard is a key thoroughfare and neighborhood commercial corridor in the Fruitvale District of East Oakland. Presently, the street is occupied by an irregular mix of retail businesses, markets, restaurants, convenience services, auto-service and repair, churches, a retirement center and some residential buildings. Figure 2-3, Existing Businesses indicates the names and locations of businesses and institutions in the study area. Foothill Boulevard experiences a large amount of pedestrian activity, and recent sidewalk improvements, such as bulbous and crosswalks with pedestrian push buttons, have been implemented in select locations to improve safety. Existing amenities include bike racks, tree planters, and traffic signs. However, due to limited sidewalk widths, many of these elements create an impediment to pedestrian movement on the sidewalks.

The study area has two main segments. Foothill Boulevard north-west of César Chávez Park, is a lively commercial area. Neighborhood-serving commercial businesses line this portion of the street, and several are currently improving their facades and building entrances.

Foothill Boulevard east of César Chávez Park, is lacking some of the amenities that make the western portion of Foothill Boulevard more pedestrian friendly, and is generally more auto-oriented. Foothill Boulevard in the eastern area is typically much wider and includes three to four lanes of traffic, with room for parking lanes on both sides of the street. The sidewalks, varying in width from six to ten feet, are in poor condition in many areas, creating difficulty for pedestrians and people with wheelchairs. Commercial businesses are more widespread in this area, interspersed with residential structures and several vacant lots.
1. Neighborhood Context
Beyond the Foothill Boulevard corridor, the project area is surrounded by dense residential neighborhoods. Several schools, including Patten University, Jefferson Elementary School, Fremont Federation of High Schools and Calvin Simmons Middle School are within walking distance of the street and contribute to substantial foot cross-traffic at several intersections. Many residents walk and take the bus to school, work and the various stores and services along Foothill Boulevard. The Fruitvale BART Tranist Village is a ten-minute walk from Foothill Boulevard along 35th Avenue.

The Foothill arterial also crosses two creeks: Sausal Creek and Peralta Creek. Sausal Creek crosses Foothill Boulevard just north of Austin Avenue and is visible at the southern side of the street. Peralta Creek enters a culvert behind the KFC at 34th Avenue, where it remains underground through Foothill Boulevard and 35th Avenue until it re-emerges at César Chávez Park.
2. Building Stock

Many of the buildings along Foothill Boulevard have been determined to have historical significance, dating back to the late 19th and early 20th centuries. The Unity Council has established the Fruitvale neighborhood on the National Register of Historic Places and the area is included in the Fruitvale Main Street Initiative. This initiative addresses International Boulevard, Fruitvale Avenue and Foothill Boulevard. Commercial property owners adopted a Business Improvement District to fund Main Street’s work through the National Trust for Historic Preservation. This district was recently expanded to include the entire length and will become effective January 2007. The initiative addresses five components of revitalization: Safety and Cleanliness, Economic Development, Design, Promotion, and Community Organization.¹

Figure 2-3 Existing Businesses.
3. Streetscape Character

Overall, the Foothill Boulevard corridor has a strong Latino presence, with a predominance of Latino restaurants and businesses, local food vendors, tile motifs at César Chávez Park and murals on the walls of commercial establishments. In addition to highlighting this existing aesthetic and community character, there are opportunities to reflect the natural, historic and ethnic diversity of the district in specific thematic design elements of the project.

Currently, no signage or other markers exist to define the project area as part of a particular District. Several years ago, the locally-based Unity Council acquired grant funding and purchased banners for the area that celebrate and promote the teachings of César Chávez. However, lack of appropriate street poles to attach the banners to has prevented their installation. The Foothill Boulevard Streetscape Project once completed should provide the poles necessary to install these banners.

Foothill Boulevard is an active pedestrian corridor with merchants and patrons moving through the corridor. The variety of businesses and services creates a constant level of activity throughout the day. Several local laundromats, restaurants, grocery stores and shops keep the street active with significant back and forth pedestrian traffic. Currently, the sidewalks are narrow, further concentrating pedestrian activity outside of the businesses. Pedestrian activity diminishes as one moves east from the Fruitvale Avenue intersection; this is largely due to the widening of Foothill Boulevard,
as well as the decrease in commercial businesses in the eastern portion of the study area. Urban residential setbacks, the majority of which are east of 35th Avenue, also create a more ambiguous edge to the street.

Kragens and Walgreens, located at the northeast corner of the Fruitvale and Foothill intersection, provide some commercial activity, but the urban edge at this intersection is diminished due to the openness of the parking lot. Similarly, the intersection of High Street and Foothill lacks a significant presence as the entry to the neighborhood. Two corners are occupied by gas stations, and a third is occupied by Fremont Federation of High Schools’ football field, creating an open underutilized feeling and the absence of an urban edge.
C. EXISTING TRAFFIC CONDITIONS ANALYSIS

Dowling Associates conducted the analysis of the existing traffic conditions within the study area. Pedestrian and motor vehicle counts revealed that the western section of the study area (roughly from Fruitvale Avenue to 35th Avenue) tends to be more pedestrian-oriented, and the eastern section more automobile-oriented. Alameda-Contra Costa Transit District (AC Transit) is the main public transit provider in the study area, and was also analyzed as part of the traffic analysis. The complete traffic analysis report is included as Appendix A. A summary of key findings is included below:

1. Vehicular Traffic

Daily vehicular traffic on Foothill Boulevard in the western section of the study area (near Fruitvale Avenue) reached 13,061 vehicles while it reached 17,692 in the eastern section (near 42nd Avenue). The share of trucks on Foothill Boulevard was higher in the eastern section as well. These differences suggest that the two areas of Foothill Boulevard function somewhat differently, with the western section being more pedestrian-oriented and the eastern section more automobile-oriented.

a. Existing Intersection Levels of Service

For ease of interpretation and analysis, existing level of service (LOS) results for each study intersection are shown in Figure 2-4 in reference to their locations. One study intersection, Foothill Boulevard & Fruitvale Avenue, currently operates below LOS "D", the minimum level of service standard for an intersection outside of the downtown area in the City of Oakland. All other study intersections currently operate at or above LOS “D”.

b. Existing Intersection Queues

Intersection vehicle queues at the study intersections are typically longest at the intersection approaches in the more congested western portion of the study area (between 35th Avenue and Sausal Creek) during both peak hours. Due to the shorter block lengths and narrower road width (i.e., fewer lanes than on the eastern study area section) on Foothill Boulevard in the western portion, vehicle queues tend to block upstream intersections more frequently. Most notable in this area is the westbound build up from 35th Avenue to block Crosby Avenue, from Fruitvale Avenue & Foothill Boulevard southbound to block East 22nd Street, eastbound queues on Foothill Boulevard at Fruitvale Avenue that block Rutherford Street, and westbound queues on Foothill Boulevard from Fruitvale Avenue to block Coolidge Avenue. Significant eastbound queues also develop along Foothill Boulevard at the approach to Fruitvale Avenue during both peak hours, blocking the Rutherford Street intersection.

Figure 2-4 Existing Intersection LOS.
In the eastern half of the project area (along Foothill Boulevard from High Street to 35th Avenue), exiting conditions vehicle queues along Foothill Boulevard generally do not spill over and block upstream intersections, with a few exceptions. The most notable queue in this area is along Foothill Boulevard in the westbound direction, where queues build up at the approach to 38th Avenue to block 39th Avenue.

c. Automobile Parking

♦ Morning Peak Hour: On-street parking occupancies in the study area of Foothill Boulevard were generally low during the morning peak hour. Parking occupancies are heaviest on the eastbound (southern) side of Foothill Boulevard between Fruitvale Avenue and 40th Avenue but with percentages that ran between 37 and 57 percent, the demand for parking in this section was still moderate. Along the rest of Foothill Boulevard, occupancies were found to be range between zero and 26 percent. Overall, the AM peak hour appears to experience light demand for parking along Foothill Boulevard.

♦ Mid-day Peak Hour: Occupancies during the Midday peak hour were substantially higher in the study area overall than in the morning. Occupancies were heaviest on the eastbound (southern) side of Foothill Boulevard between Sausal Creek and 35th Avenue during the lunch hour, suggesting that the restaurants that cluster at this end of the study area are drawing patrons that seek on-street parking near their lunchtime destinations. Moderate parking occupancies (between 34 and 66%) were found between 40th and 42nd Avenues in the eastbound direction, and between 42nd and 35th Avenues and Fruitvale Avenue and Sausal Creek in the westbound direction.

♦ Evening Peak Hour: Occupancies in the study area during the weekday reached their highest levels during the PM peak hour. However, while occupancies were highest during the previous two peak hours (AM and Midday) on the eastbound side of Foothill Boulevard, the westbound side of the street generally had the highest occupancies during the PM peak hour. Occupancies were heaviest on the westbound side of the street from 42nd to 35th Avenues and from Fruitvale Avenue to Sausal Creek - a stretch that covers roughly two-thirds of the study area on the westbound side of the street. Occupancies were also high on the eastbound section from 40th to 42nd Avenues. Moderately high occupancies (ranging between 34 and 66%) were found on all the remaining portions of the study area along Foothill Boulevard, with the exception of both sides of the street between 42nd Avenue and High Street where occupancies were less than 33 percent.

♦ Weekend Peak Period: Parking occupancies during the weekend peak period (Saturday between 2:00 and 2:30 PM) were just as heavy as the evening weekday peak hour. The heaviest occupancy counts were found on the southbound (west) side of Foothill Boulevard between Sausal Creek and 35th Avenue and between 40th and 42nd Avenues, and on the northbound (east) side of the street between 40th and 35th Avenues. Moderately high occupancies were found on the southbound side of Foothill Boulevard between 35th and 40th Avenues, 42nd Avenue and High Street, and on the northbound (east) side of the street between Fruitvale Avenue and Sausal Creek.
2. Pedestrian Activity
A higher than expected number of pedestrians were found in the eastern section of the study area at 38th Avenue during the morning peak hour, which appears to be a result of high numbers of children making their way across Foothill Boulevard to reach Jefferson Elementary School.

A high number of pedestrian collisions in the project area resulted from drivers not recognizing the pedestrian’s right-of-way. This suggests that the design of the street and its intersections may not be optimal for pedestrian safety.

Just as the western section of the study area had the largest number of surveyed pedestrians, it also had the largest share of total pedestrian collisions.

3. Bicycle Traffic
While bicycle volumes were heaviest in the western portion of the study area (during the morning peak hour), volumes were heaviest in the eastern section during the evening peak hour, suggesting that the eastern half of Foothill Boulevard may serve as a destination or a corridor of travel for afternoon bicycle shopping trips for neighborhood residents.

Although conclusions should be tempered by the knowledge that the bicycle analysis is based on a relatively small number of bicycle collisions, the higher number of bicycle collisions and low number of bicycles counted in the western section of the study area (particularly during the evening peak hour) may be a result of unfavorable conditions for bicyclists. This may be the case particularly at and near Fruitvale Avenue, the study intersection with the highest number of reported collisions.

4. AC Transit
The largest numbers of riders boarding and alighting buses are in the western section of the study area where surveys found the highest concentrations of pedestrians.

The large number of bus riders that got on or off at High Street and the moderate number that got on or off at 38th Avenue suggest that there may be some potential to increase pedestrian activities in the eastern half of the study area by calming vehicular traffic and providing pedestrian-friendly design elements in this area.

Pedestrian Crossing at Coolidge Avenue.
D. Opportunities & Constraints Analysis

The Foothill Boulevard Streetscape Design Project presents many opportunities for improvements along the corridor. The following opportunities and constraints analysis reflects the input received from the Community and the TAC, as well as the data reviewed by the consultant team. A graphic representation of some of the opportunities and constraints is shown in Figure 2-5.

1. Streetscape Themes
Several different themes present in the area can be incorporated into the streetscape design. An amalgamation of these themes may be needed to produce a streetscape design that accurately reflects the identity of the Foothill Boulevard neighborhood. The chosen theme or hybrid theme will be the inspiration for the remainder of the elements in the streetscape. The following are examples of the themes that can be addressed in the streetscape project:
- Creeks and Natural Features
- Fruitvale Area History
- Arts and Crafts Movement
- Latino Heritage and other Cultural Aspects

2. Traffic Calming, Street Infrastructure and Utilities
Several opportunities exist for slowing traffic at intersections where there are conflicts between traffic and pedestrians. These include infrastructure such as bulbouts, mid-block crossings, medians and pedestrian count-down timers to improve crossing safety. Opportunities include improving bus stop locations as well as moving or eliminating bus stops. There is also a key opportunity to accommodate bicycles along Foothill Boulevard. The project should evaluate the different options for improving travel for bicyclists, and include other related amenities such as bicycle racks and signage that promote bicycle awareness for motorists.

Numerous opportunities exist to improve lighting in the study area. New pedestrian light standards would help to increase the perception of safety in the area and would also unify the street.

33rd Avenue Barricade.

Mercy Retirement & Care Center Plaza.
CHAPTER 2: EXISTING CONDITIONS

Foothill Boulevard Streetscape Design Project
City of Oakland
CHAPTER 2: EXISTING CONDITIONS

Figure 2-5 Opportunities & Constraints.
A key opportunity exists to increase sidewalk widths, particularly in the eastern end of Foothill Boulevard where existing fencing often limits access to the City’s right-of-way. By reclaiming City-owned right-of-way that has been incorporated into areas for private use, some of the sidewalks on Foothill Boulevard could increase from four and six feet in width to eight and ten feet in width.

Based on input from the City and community gathered at the outset of the project, two key constraints were identified: the need to sustain existing traffic flow in the study area, and the need to maintain the existing amount of parking in the area. Foothill Boulevard is a key east-west thoroughfare that serves high volumes of vehicular traffic, as well as serving several AC Transit lines. In addition, numerous parallel parking spaces are located along both sides of the street.

Bulbout implementation or lane reduction may affect transit operations, and will require review and approval by AC-Transit. The streetscape design will need to consider and accommodate existing streetscape and utility infrastructure such as existing driveway cur-bcuts, cobrahead lights and utility poles.

3. Pedestrian Amenities
Numerous opportunities exist for widened sidewalks, bulb-outs, benches and bollards in the study area. Small plazas should be considered at various locations along the corridor should be considered. Areas to be evaluated for potential pedestrian plaza spaces include the southeast corner of the Fruitvale Avenue and Foothill Boulevard intersection, the current street barricade at 33rd Avenue, Mercy Retirement & Care Center Plaza at 35th Avenue, 38th Avenue, and 41st to 42nd Avenue.
Feasible and significant improvements can be made to the pedestrian environment with new crosswalks and special crosswalk treatment such as pavement type and striping. Pedestrian crossings should be evaluated for the maximum use and suggestions for new crosswalks will be evaluated. For instance, a new crosswalk at César Chávez Park would greatly increase pedestrian mobility and safe access to the park.

A street way-finding program would help to increase pedestrian presence on the street. Signage and/or kiosks would help to facilitate movement throughout the corridor as well as advertise local merchant and neighborhood activities.

Pedestrian improvements, such as the small plazas and new crosswalks, have their own constraints, including lack of space within the right-of-way and the potential impacts that these pedestrian amenities would have on existing traffic levels of service.

4. Landscaping
A key opportunity exists to expand upon the existing street tree program in the area. This will provide a significant, positive visual impact along the street, helping to unify the street throughout the corridor. Additional opportunities to enhance landscaping along the street include planted areas as part of bulbouts, medians and edges of plazas.

Opportunities exist to enhance and highlight existing natural features in the area, especially Sausal and Peralta Creeks. The creek crossings provide an opportunity to create a visual connection to the creek corridors, and to create public spaces that relate to them, such as railings and overlooks.

Constraints related to landscaping include the narrow sidewalk areas available for trees and plantings, as well as a City and community concern regarding the maintenance of landscaped areas. Proposed landscaping and trees in the sidewalk and median areas...
should also not obstruct a clear line of sight between vehicles waiting to cross an intersection and vehicles approaching the intersection. An appropriate minimum stopping sight distance for the 85th percentile speed should be maintained at all unsignalized intersections. For signalized intersections, proposed landscaping/trees that will obstruct the line of sight between 3.5 and 8 feet should be placed 50 feet from the corner. One additional constraint to address with the placement of new trees is their positioning in relation to utility pipes and underground lines. Trees must have a five foot horizontal set-back and six foot vertical clearance to the top of pipe. New inlets must be covered up with sidewalk into manholes (no troughs/channels). Finally, major drainage culverts must not be disturbed.

5. Gateway Elements and Visual/Activity Focal Points
Gateway elements provide an opportunity to further the neighborhood’s identity and to signal the arrival into a district. A series of gateway elements will help to develop the design theme for the Foothill Boulevard Streetscape. Current suggestions for gateways include: creek markers, sculptures and public art pieces. Formal gateways, such as an arched element across the street, can be used at intersections such as Fruitvale Avenue, 42nd Avenue, 35th Avenue, High Street and Sausal Creek. Gateway element opportunities exist at several locations, including the following:

♦ Sausal Creek defines a gateway entrance to the project area on Foothill Boulevard. Currently, the creek is obscured by buildings and not highlighted as an urban amenity for the area.

♦ The expansive intersection at 35th Avenue is also a major east-west corridor connecting the Laurel District to the Fruitvale District and a major gateway to the Foothill Boulevard neighborhoods. Central to the project area, 35th Avenue acts as a “knuckle” that connects the two distinct sides of the neighborhood.

♦ High Street provides an urban gateway to the project area across from Fremont High School.

♦ The intersection of Courtland, Foothill and 42nd Avenue, which has significant retail building façade improvements and popular storefronts and a restaurant.
The following key locations were also identified as opportunities to highlight existing landmarks and create focal points along the street:

♦ César Chávez Park is a community landmark along the corridor. Elements that could be incorporated at this location include a pergola at César Chávez Park, planters and artwork such as an Aztec calendar motif at the park entrance to further highlight the neighborhood feature.

♦ Peralta Creek could be acknowledged as a landmark where it passes under Foothill Boulevard north of 35th Avenue at the Mercy Retirement & Care Center. Another opportunity exists to highlight a creek feature at the western end of the study area, where Sausal Creek passes under Foothill Boulevard.

♦ At the back of the privately-owned KFC lot there is a fenced-in Alameda County Flood control area at the end of Eden Street providing a visual connection to the channeled Peralta creek. Although there are constraints with public access and safety, there is an opportunity to create a landscaped creek lookout area. In addition, a potential pedestrian way-finding linkage could be established connecting this potential creek overlook eastwards to Calvin Simmons Middle school, where there is potential opportunity to daylight the creek, and continuing two blocks to the landmark Peralta Hacienda Park at Davis Street where the creek is exposed.

♦ The Unity Council-sponsored bulletin board attracts many fliers supporting local news bulletins and information. This feature could be enhanced with the placement of a new larger kiosk for additional distribution of neighborhood information.
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- The retail stores and restaurants along the first two blocks south of Fruitvale Avenue.

- The plaza area in front of Mercy Retirement & Care Center could be enhanced as a seating area and more visually appealing public space.

- The corner of Fruitvale and Foothill is a nexus of activity in the neighborhood. This importance could be further highlighted by creating a small plaza at the northeast corner of the intersection that could include a trellis, seating and public art.

- The northeast corner of Foothill and 38th Avenue is another location where the importance of pedestrian activity can be facilitated and emphasized through improvements to crosswalks and the addition of bulbouts and other pedestrian amenities.

Unity Council Bulletin Board Near Fruitvale Intersection.
3 Community Participation

This Chapter describes the stakeholder and community participation process that was part of the Foothill Boulevard Streetscape Design Project. It also describes the input received from the participants involved throughout the planning process.

A. Technical Advisory Committee

The Technical Advisory Committee (TAC) met on five occasions throughout the planning process. The following topics were covered at the meetings:

Project Kickoff: Project Introduction
At this first meeting with the City and the TAC, the project was introduced by the project team. Goals of the project were summarized, as well as past planning efforts in the neighborhood. The following topics were discussed: stakeholders and outreach, examples of model streetscape projects and the project schedule. In the meeting, attendees each had the opportunity to mention issues they felt were pertinent to the streetscape project.
TAC Meeting #1: Existing Conditions
At this meeting, a synopsis of the traffic analysis was presented by Dowling Associates. In addition, the stakeholder and community outreach and involvement process was summarized and discussed. TAC members gave input on street infrastructure, other City ongoing programs and how the project would interface with ongoing efforts in the study area.

TAC Meeting #2: Preliminary Alternatives Review
At this meeting, the project team and TAC reviewed the conclusions from the Opportunities and Constraints and Alternatives Summary that had been previously distributed. Topics addressed included: utilities, stormwater management and right-of-way concerns. In addition, the TAC provided feedback on the preliminary alternative concept plans for the different key areas along Foothill Boulevard. Finally, the format and content of the first community meeting was discussed.

TAC Meeting #3: Preferred Alternative Review
The Preferred Alternative was presented at a third TAC meeting. The TAC was invited to provide input on all the design components presented in the alternative, which was based on the community, TAC and City input received to date, as well as the completed existing conditions work. The next steps for the project were also presented and discussed.

TAC Meeting #4: TAC Meeting #4 was a meeting to review the Draft Master Plan. TAC members were provided the document for review and input. Comments from all TAC members were compiled by DC&E and edits were incorporated into the Final Master Plan.

B. Stakeholder Interviews
Several stakeholders within the project area were interviewed. These interviewees were selected because of their role as active members of the community. The names were selected based on discussions with City staff and the Foothill Boulevard Streetscape Design Project Technical Advisory Committee (TAC) members.

In addition to incorporating the input on the proposed streetscape from community-wide surveys conducted by the Unity Council, eight representatives (representing identified stakeholder organizations/businesses) were interviewed, and each individual’s comments were recorded in the session. These are attached as Appendix B of this report. Each of these individuals possess a great deal of knowledge about the area and the history of recent activities, either in their residential neighborhood, or affecting businesses in the area.

The general concerns of the stakeholders centered around issues of crime and safety, aesthetics and cleanliness, and traffic flow relative to pedestrian safety. Interviewees expressed a desire for more police patrols to better curtail muggings, robberies, assaults and the gang activity that happen along Foothill Boulevard. Regarding aesthetics and cleanliness, the key concerns voiced included the need to incorporate more street cleaning and the desire to incorporate landscaping, greenery and other colorful amenities along the street to make it a more attractive and friendly environment. Concerns about traffic flow relative to pedestrian safety focused on a common feeling among interviewees that traffic along Foothill Boulevard needs to be slowed. Several of the interviewees made special note of the significance of César Chávez Park along this stretch of Foothill Boulevard, and expressed their desire for the
The interviewees also identified ongoing neighborhood problems including those stemming from the liquor store at 39th & Foothill, sideshows that occur on 38th & Foothill, the gangs that hang out on Bridge & Foothill or on 38th & Foothill, the blighted apartment next door to La Estrella Market on Foothill just south of 38th Avenue and the problems that happen when the students come out of school at Calvin Simmons Middle School. Also mentioned were their concerns about street cleanliness and improving parking in areas where it could be feasible to install diagonal parking slots.

All the interviewees supported the Foothill Boulevard Streetscape Design Project, and expressed their hope that the project would be implemented. They welcomed and looked forward to positive change for this area.

C. Community Workshops

The Foothill Boulevard Streetscape Design Project involved a series of three community meetings.

1. Community Workshop #1

On Wednesday, March 29, 2006, the first Foothill Boulevard Streetscape Design Project Community Workshop was held at Jefferson Elementary School in the vicinity of the Foothill Boulevard Streetscape project area. VSC and DC&E facilitated a meeting with 20 members of the community-at-large, City Staff members and several members of the Technical Advisory Committee (TAC). The primary purpose of this meeting was to identify what the “street wants to be,” by addressing the issues and concerns for the project area and begin to develop consensus for the design of the street as a whole.

DC&E presented a slideshow of the existing conditions in the area, a selection of images to provide examples of other successful streetscape projects and elements of streetscape design, as well as preliminary ideas for improvements in the project area. Dowling Associates presented the preliminary findings from the traffic analysis.
Following the presentation, a goals and visioning exercise was conducted by VSCE and DC&E to gather community input for the goals that should be achieved by the Streetscape Plan. The list of goals can be found in Chapter 1: Introduction.

Participants then formed five small groups with a set of questions and images provided by DC&E, and were led in a discussion about their goals for improvements. A spokesperson, chosen by each group, reported back their key findings. Each group’s ideas can be found in Appendix C to this report. The recurring themes and comments included:

♦ Street Trees. The majority of workshop attendees were in favor of incorporating street tree plantings along the entire corridor.

♦ Bus Shelters. Bus shelters were desired by many participants, or at a minimum, a bench or other seating at bus stop locations.

♦ Pedestrian Amenities. A need was identified for more crosswalks and an attractive, pedestrian scaled street lighting program for a heightened sense of safety.

♦ Utility Undergrounding. Utility undergrounding for the corridor was also desired by many who felt it was necessary as a key visual improvement to the corridor.

♦ Plaza or Fountain at Coolidge Avenue. A plaza and/or fountain element at the Coolidge Avenue intersection was identified as a desirable focal element.

♦ Signage and Gateway elements. Signage and gateway elements were desired to unify the entire corridor and create a unique identity for the district, including Sausal Creek, 35th Avenue and High Street.

♦ Parking. Concerns over amount of parking were identified and community input revealed opposing views about ways to handle parking restrictions. Many community members did not want to see parking meters installed in the area, stating that the available free parking is not abused and parking meters can be a burden on patrons of the commercial areas, thus resulting in overflow parking in side streets and nearby neighborhoods. Other community members felt that the use of parking meters would be a positive way to monitor and enforce parking restrictions that they feel are currently abused by with abandoned cars. Community members also commented that the area needs a common parking area to serve the many busy commercial areas along corridor. Some locations are fortunate to have a large parking lot for their patrons, such as Bay Apostolic Church, the Laundromat and All Green Produce, as well as the vacant Comcast Building at Courtland Avenue.
Comcast parcel at Courtland Avenue. The consensus for future development of the Comcast parcel at the intersection of Foothill Boulevard and Courtland Avenue was that it should become a recreational field or farmer’s market location. This area of Foothill Boulevard was also identified as the most visually blighted area, due in a large part to the vacant appearance of the parcel.

The input received at Community Workshop #1 was reviewed and used by the DC&E team to develop preliminary concept plans for Foothill Boulevard.

2. Community Workshop #2
On Thursday June 1, 2006 and Thursday June 28, 2006, two workshops, covering the same content and format, were held for the Foothill Boulevard Streetscape Design Project. At the workshops, DC&E presented the preliminary concept plans for input and direction and invited participants to take part in a voting exercise to determine what aesthetic the community would like to see for their streetscape improvements.

a. General Concerns and Comments

♦ Traffic. Workshop participants expressed concern about the effect of streetscape improvements on traffic congestion. Specific areas of concern included the location where Foothill currently narrows to three lanes from four, the proposed signalization of 34th Avenue, the high volumes of traffic at 38th Avenue, and the car congestion at 39th Avenue due to queuing for 38th Avenue.

♦ Medians. Some workshop participants were concerned about eliminating turn lanes, eliminating the area for truck deliveries in highly congested commercial areas, discouraging patronage at commercial areas, and medians causing additional congestion. Other participants saw the value of medians in helping to reduce traffic speeds and illegal passing, discouraging sideshows, and providing aesthetic improvements to the corridor. In cases where medians may be appropriate, landscaping and street trees were preferred of over impervious concrete medians. Community members were very interested in using medians at intersections to incorporate pedestrian refuge islands.
Loitering and Safety. The Foothill Boulevard project area experiences gang activity, crime, prostitution, vandalism of public property and homeless loitering. Community members expressed concerns that streetscape improvements would not help to discourage these activities, and in some cases could exacerbate the situation. Concerns were expressed regarding the use of solid structures that provide surfaces for graffiti; creating walls, structures or plantings that could provide hiding spaces; or incorporating plazas or seating areas that could become overrun with transients or hostile activities. Solutions suggested for improving safety on the street included delaying the addition of potential loitering spots such as benches until a later phase in development, and implementing a pedestrian street lighting program for added safety at night.

Utility Undergrounding. In answer to the question regarding utility undergrounding, it was announced that funding and timing for this project would preclude undergrounding on Foothill Boulevard. In response, the City mentioned that the length of time needed to get on the PG&E list for undergrounding utilities and the cost for doing such comprehensive work would jeopardize the implementation of the project within any reasonable timeframe. Thus, it would be preferable to proceed with the streetscape improvements without comprehensive undergrounding of utilities. A TAC member also mentioned that the inclusion of street trees could detract from the overhead utilities, citing the Rockridge neighborhood as an example.

Maintenance. Community members, as well as some TAC members, expressed concern for the on-going maintenance of the potential streetscape improvements. Many community members felt that the improvements would not make a difference if the general public was not educated on litter and cleanliness. International Boulevard was cited as a project that has already deteriorated because lack of maintenance by the City. Some community members expressed skepticism over the ability of the City to maintain the improvements, especially in regard to landscaping. Other community members suggested alternative approaches to maintenance, whereby community groups could get involved in the up-keep and enhancement of the streetscape elements.

Bikeways. The need for designated bike lanes was of concern for several community members. It was understood from the workshop and a subsequent Bicycle and Pedestrian Advisory Committee (BPAC) Meeting that arterial bike routes will be implemented the entire length of the project corridor. A list of the BPAC’s requests is summarized later in this chapter.
b. Voting Exercise
Community Workshop participants also took part in a voting exercise during the workshop. The voting exercise was also presented to participants at local Fruitvale events, such as the Summer Mariachi Festival, to elicit greater breadth of feedback. Participants were asked to evaluate different aspects of the aesthetics of the design to attain the desired streetscape improvements. Participants voted on the following elements:

- Creek Overlook Feature
- Median Treatment Options
- Plaza Structural Elements
- Gateway Element
- Crosswalk Types
- Paving Types
- Bulbouts
- Widened Sidewalks
- Trees
- Character of Site Amenities

Input received on these items was used to develop the preferred alternative, which was presented at Community Workshop #3.

3. Community Workshop #3
On Wednesday September 27, 2006, DC&E and City of Oakland staff held the final Community Meeting for the Foothill Boulevard Streetscape Design Project. DC&E presented the draft Preferred Alternative for input and direction from the community. Major topics of concern and additional comments are described below.

a. Comprehensive Approach
- Many participants expressed their desire for a plan that looks at the entire neighborhood area with a more comprehensive approach.
- Community members reiterated their concern that the undergrounding of the utilities was crucial to this project.
- Several community members requested the removal of billboards throughout the neighborhood area, specifically along the Foothill Boulevard corridor.

b. Sustainable Design Practices
- Some community members expressed interest in addressing better stormwater treatment practices and green street practices through the design of the street.
c. Traffic Analysis

♦ The analysis and improvements surrounding the Fruitvale Avenue and Foothill Boulevard intersection were cited as critical, asserting that the coordination of improvements, streetscape material choices, traffic control improvements and the relocation of bus stops be seriously evaluated.

♦ Area-wide stress is put on side streets through the improvement efforts on major thoroughfares. Many community members expressed concern over the number of trucks currently using 34th Avenue and East 16th to cross from Foothill to International Blvd.

♦ Significant concern over the traffic conditions at 34th Avenue and 35th Avenue were expressed. The current alignment of the intersection and the transition from four lanes of traffic to three lanes of traffic is constrained by the available right-of-way of the street.

♦ Community members expressed concern and requested that additional studies of these two intersections be included as part of the implementation process. As currently designed, community members expressed concern over the placement of bul-bouts limiting right turns and causing further congestion. Another suggestion included the possibility of a left-hand turn at 35th Avenue, citing current signalization is very dangerous.

♦ It was expressed that though the proposed improvements may be beneficial to pedestrians, bicyclists and transit riders; the community should be presented the Synchro/SimTraffic simulation of existing conditions versus the proposed conditions in order to better understand the benefits and impacts of the proposed improvements.

d. Safety and Public Plaza Spaces

♦ Participants commented that creating public plazas in the streetscape design could add to community tensions with homeless occupancy and unsolicited or unwanted, illegal activities. Conversely, it was noted that new public plaza spaces could add to community pride and aesthetics, while providing a space for gathering and communication.

♦ Some community members felt that the presence of food vendors in the project area can have a negative impact. It was mentioned that the food vendors, including fruit carts and taco trucks, are also part of the unique character of the area.

e. Safety

♦ Safety in the area was a primary topic of discussion. Attendees felt that the design should respond to safety concerns of the community and that design improvements for pedestrian plazas and lighting should address safety concerns in the project area. Recent homicides in Oakland as well as within the project area have heightened the awareness of the projects public amenities. Pay phones in the area have also become a target for potential criminal activity.

♦ Some community members felt that the current design layout of the Kragen’s and Walgreens parking lot allows traffic to cross through the parking lot from Fruitvale Avenue to Coolidge Avenue at high speeds, creating unsafe conditions for pedestrians.
f. Gateways and Art Opportunities

♦ Comments were made regarding the identification of the area as “Fruitvale” and not “Foothill,” as well as aesthetic approach to gateway and art opportunities.

♦ Fremont Architecture/Construction Academy students expressed an interest in having a clock tower element at the intersection of 35th Avenue. The Preferred Alternative indicates the use of four columns as gateway markers at each corner of the 35th Avenue intersection, one of which could include a clock tower theme.

♦ Comments were received regarding proposed ideas for fountains at Cesar Chavez Park and Coolidge Avenue.

g. Crosswalks

♦ Several community members were opposed to the use of textured pavers in the project, indicating that the textured pavers were very difficult for the elderly and disabled to maneuver due to canes, walkers or wheelchairs.

h. Arterial Bike Routes

♦ Comments made at the meeting identified 38th Avenue as an excellent opportunity for a designated Class II bike lane.

i. Parking

♦ Via e-mail, a comment was made that the areas identified for metered parking would deter patronage of local businesses.

D. Fremont Architecture Academy Student Input

On March 23, 2006, DC&E and City Staff met with students at the Fremont Academy, a technical high school located at the very eastern end of the project area, to discuss their vision for Foothill Boulevard. Many of the ideas presented by the students were similar to those discussed at the workshop. The students focused on stormwater improvements and daylighting of creeks in the area. Urban design elements they suggested included a potential roundabout at 35th Avenue intersection with a clock tower located at the center. Gateway elements were also discussed, including a gateway banner or archway over Foothill Boulevard, and a César Chávez sculpture holding the banner. A list of the design input from Fremont Architecture Academy students can be found in the attached Appendix C.
E. Bicycle Pedestrian Advisory Committee (BPAC)

The City of Oakland’s Bicycle Pedestrian Advisory Committee also provided input during the streetscape design process. At a meeting on July 20, 2006, the BPAC discussed the Foothill Boulevard Streetscape Design Project. The Preferred Alternative was presented at the workshop to receive additional comments from committee members. The following is a summary of comments received:

♦ Committee members understand the barriers to providing designated Class II bike lanes and agreed that the sharrow treatment was the best solution (of not particularly good choices).

♦ Potential sidewalk widening would narrow 15-foot shared lanes to 13-foot lanes in part of the corridor. A committee member suggested that sidewalk widening should be considered in conjunction with parking removal rather than lane narrowing.

♦ The intersection of Foothill Blvd and 34th Avenue is a busy pedestrian crossing that also serves cyclists coming directly from Fruitvale BART. Signalizing this intersection would benefit the commercial district while also improving pedestrian/bike safety.

♦ 38th Avenue is a proposed bikeway in the draft plan update. This street provides the primary bicycle connection between the Laurel District and Fruitvale BART. Ensure that the improvements to this intersection do not compromise bike safety and access.

♦ Avoid concrete crosswalks as well as colored or textured crosswalks. They are a significant expense and provide poor visibility to drivers. Use high-visibility crosswalks, such as continental, wherever possible because of their greater visibility and cost-effectiveness.

  • The BPAC recommended that the design square off the southwest corner of Foothill Boulevard and 35th Avenue to slow vehicle turning movements, improve pedestrian safety, and increase the sidewalk space.

  • Minimize the use of medians but preserve the pedestrian refuge islands.
4 Streetscape Design Master Plan

This chapter describes the Master Plan that will help achieve goals that were developed for the streetscape design along Foothill Boulevard. Design components have been developed that will be applied to specific locations in the Foothill Boulevard Streetscape Design Project and are a result of the community input and the collaborative planning process with the Technical Advisory Committee. The Streetscape Design Project proposes elements such as gateways, plaza spaces, medians, curb bulb-outs and various sidewalk amenities. Overall, these design elements will build upon historic references and the diversity of the neighborhood. The gateways, streetscape details, site furnishings and signage will help to unify the street and express the rich diversity and heritage of Foothill Boulevard and the Fruitvale District. The design concepts illustrated can strengthen Foothill Avenue’s role as a vibrant pedestrian commercial corridor and a significant street in East Oakland. This chapter contains information organized into the following main sections: Master Plan Composite View, Traffic Calming Improvements & Infrastructure, Placemaking Tools, Pedestrian Amenities, Landscaping and Storm Water Management.

A. Master Plan View

The Master Plan composite views shown in Figures 4-2 to 4-5 illustrate the proposed improvements for the entire Foothill Boulevard project area. The plan views help to orient the detailed illustrations for specific areas of improvement throughout Chapter 4.

Figure 4-1 Photo Simulation of Street Frontage at César Chávez Park.
CHAPTER 4: STREETSCAPE DESIGN MASTER PLAN

Figure 4-2 Foothill Boulevard: Sausal Creek to 34th Avenue.

Figure 4-4 Foothill Boulevard: 37th Avenue to 40th Avenue.
Figure 4-3 34th Avenue to 36th Avenue.

Figure 4-5 Foothill Boulevard: Rosedale Avenue to High Street.
B. Traffic Calming Improvements & Infrastructure

Traffic calming improvements such as medians and curb bulb-outs can increase pedestrian safety and help bring vehicular speeds down to safer levels. These improvements are proposed at several locations along Foothill Boulevard and are described below.

1. Medians and Pedestrian Refuge Islands

Constructing medians and pedestrian islands will help to organize traffic patterns and discourage passing in the center turn lanes. These improvements are primarily limited to intersection approaches and where traffic calming is especially important, such as Sausal Creek, César Chávez Park and the High Street intersection. The majority of the proposed medians are 8 feet in width, and planted with trees. Where constraints of the right-of-way preclude the use of an eight foot wide tree median, the minimum width of a median and pedestrian refuge island is 6 feet wide, and may include landscaping, but does not include trees.
a. 35th Avenue
Traffic analysis of the intersection and the constraint of traffic levels of service precluded decreasing the size of the intersection. Maintaining traffic lanes was critical for serving this already congested intersection, however, current pedestrian crossing distances were so wide that the need for medians and pedestrian refuge islands was apparent. A combination of median types are envisioned. Where feasible, an eight foot-wide tree median is used, and two paved six foot wide medians are used in tighter width areas. Figure 4-12 shows one of the three pedestrian refuge islands feasible in this expansive four-way intersection.

b. César Chávez Park
The median helps to slow traffic and also highlight the park. Organization and calming of traffic is critical for recognizing the park’s presence and instigating safety improvements. In this particular instance the median is eight feet wide and landscaped for heightened awareness of the park to accentuate the open space. An illustration of the landscaped median can be seen in Figure 4-20.

c. 39th Avenue
A proposed crosswalk at 39th Avenue provides the opportunity for a pedestrian refuge island. The median is eight feet wide with a potential for low landscape plantings. The refuge island alerts motorists of potential pedestrian crossings, but also highlights the entry into a busy commercial hub and the upcoming traffic light at the 38th Avenue intersection.
d. High Street
A tree median in the center of Foothill Boulevard at the approach to High Street provides space to incorporate additional large canopy street trees into the right-of-way. Parking along the north side of the street has been eliminated to accommodate the four necessary travel lanes and still provide the arterial bike route lane widths. This elimination of parking, including on-street parking in front of two residences, will require a petition process and Council approval. The tree median helps to organize traffic and provide a pedestrian refuge island. The current design shows the use of significantly larger street trees in the median, such as the London Plane tree. The larger canopy tree will help to create a sense of entry, and calm traffic before approaching the gateway element at 42nd and Courtland Avenue. The location of the pedestrian refuge island within the intersection combined with additional intersection improvements at the section of Foothill at High Street could also help to deter the evident side-show activity at this intersection.
Figure 4-7 High Street Plan.
2. Curb Bulb-Outs
Corner bulb-outs increase pedestrian safety by shortening the crossing distance of a street and improving pedestrian visibility. The proposed bulbouts also help to narrow the vehicular right-of-way and reduce turning radii, resulting in slower traffic movements and an increased level of safety for pedestrians. Bulb-outs are recommended at most intersections in the project area where traffic and transit conditions allow. Corner bulb-outs will be constructed per City standards, but will generally have radii equal to or greater than 15 feet and internal radii of 7 feet to accommodate the turning radius of maintenance vehicles.

a. Fruitvale Avenue
The Fruitvale Avenue intersection at Foothill Boulevard is the busiest commercial node in the project area. An intense convergence of auto traffic and congregating pedestrians add to the active commercial area. Many pedestrians patronize shops and mingle on the sidewalks in this location. As shown in Figure 4-16, the Preferred Alternative traffic improvements, per the Fruitvale Alive! Plan, incorporate bulbouts at the corners increasing the amount of pedestrian public space, and provide space for amenities to enhance the commercial node.
b. 38th Avenue
The intersection at 38th Avenue incorporates medians, bulbouts, pedestrian refuge islands and widened sidewalks to help accommodate the busy intersection. As illustrated in Figure 4-8, increased sidewalk space through the use of bulbouts, including widened sidewalks adjacent to bus shelters, supplements public pedestrian space at this very well used transit stop. Medians and pedestrian refuge islands at this intersection also help to calm traffic.

3. Arterial Bike Route
Existing conditions and the curb-to-curb width on the street preclude the use of a Class II designated bike lane along Foothill Boulevard. As part of the planning process, it was agreed that the use of a sharrow lane was the best possible solution given these constraints. Sharrows are used in lanes shared by bicyclists and motorists when there is not sufficient width for a Class II bike lane. In addition to the bicycle icon markings, sharrow stripings include elongated parking “T” marks at the street-side front and back of all on-street parking spaces to provide motorists and cyclists an approximate measure of a vehicle’s street-side open door width. This helps to keep cyclists out of the path of opening car doors as they ride along the bike route. Foothill Boulevard between 36th and 41st Avenues is already striped with the “sharrow” marking and is the City of Oakland’s first official sharrow program on an arterial bike route. The Preferred Alternative extends the sharrow program for the majority of Foothill Boulevard, maintaining a travel lane that varies from a minimum of 13 feet in width to the preferred 15-foot width to accommodate bicyclists.

38th Ave is a proposed bikeway in the draft Bicycle Master Plan update. This street provides the primary bicycle route traveling east-west on 38th between the Laurel District and Fruitvale BART. The Preferred Alternative considers the design implications of the designated bike route and ensures that the improvements to this intersection do not compromise bicycle safety and access.
CHAPTER 4: STREETSCAPE DESIGN MASTER PLAN

Foothill Boulevard Streetscape Design Project
City of Oakland

Figure 4-8 38th Avenue Plan.
4. Intersection Reconfiguration

Current alignments of side streets east of 35th Avenue increase vehicular speeds exiting Foothill Boulevard with a large turning radius and obtuse angle. Incorporating curb bulb-outs that re-align the intersection to a perpendicular configuration will help to slow traffic turning movements entering and exiting Foothill Boulevard via the primarily residential side streets. Additionally, the realignment of these side street intersections helps to decrease pedestrian crossing distances while also promoting a more consistent and cohesive streetscape fabric. A consequence of this intersection realignment is the increase of pedestrian public space within the right-of-way. Thirty-sixth Avenue experiences the same issues as 35th Avenue, by increasing the physical divide in the continuity of the boulevard. As shown in Figure 4-9, re-aligning the intersection with bulbouts to channelize the traffic movements decreases the speed at which autos can exit and enter Foothill Boulevard. The re-alignment occurs at oblique intersections on the south side of Foothill Boulevard at 36th, Bridge, 39th, 40th, Rosedale and 41st Avenues. A turning template analysis will need to be completed for each potentially realigned intersection, and the final design must account for access by emergency, street cleaning and waste management vehicles.

5. Crosswalks

The Preferred Alternative design seeks to respond to the community’s request for crosswalks with special paving, but minimize textured paver crosswalks to save costs and to provide smoother surfaces for bicyclists and ADA accessibility. Textured pavers will be limited to major intersections at Fruitvale, Coolidge, 35th, 36th, 38th, and Courtland Avenues. Standard striped crosswalks are located at all other intersections, and ladder striped crosswalks will be limited to all un-signalized crosswalks per City of Oakland standards. Design documents will address all ADA accessibility requirements, and crosswalks with standard yellow striping will emphasize the presence of children in the vicinity of schools in the area.
6. Parking Restrictions
The Preferred Alternative shows parallel parking along Foothill Boulevard the street in higher traffic areas along commercial stretches of the street. Parking ticks should only be used at parking meters due to maintenance costs, and the ticks should be spaced to match existing spacing of 22 feet for inside stalls and 20 feet for outside stalls. The parking layout responds to the constraints of curbcuts, bus stops, bulbouts and existing parking restrictions on the street. The Preferred Alternative suggests implementing a form of restricted parking at the commercial areas, whether it be in the form of metered parking or better parking enforcement of the existing two-hour parking limits. This will help address the issue of abandoned vehicles remaining on the street and vehicles occupying parking spots for extended periods of time.

7. Sidewalk Widening
There are many cases along Foothill Boulevard where private entities have encroached upon the public right-of-way. The Preferred Alternative recommends an expansion of the right-of-way to the official City-owned width. In some instances where property owners have encroached onto public right-of-way with fences, the sidewalk is constricted to a width of six feet or less. In several instances, such as at the north side of the block between 41st and 42nd Avenue, establishment of official public right-of-way and any potential for the acquisition of additional private land could increase sidewalk widths to eight feet or wider. The potential for re-development of the vacant used car lot at the NE corner at 42nd Avenue further emphasizes the need for a wide urban sidewalk with significant pedestrian amenities. In seeking the removal of fences or obstructions, the City could, as an incentive, offer the replacement of the structures with similar, or in some cases, more aesthetically pleasing ones.

*Sidewalk Encroachment at 35th Avenue.*
C. Placemaking Tools

Several components of the design of the streetscape help create a sense of place for the neighborhood. The following components help to unify the street and create an identity for Foothill Boulevard.

1. Gateways
Specific landmarks, such as gateways, define the entrance to a neighborhood and serve as points of arrival and transition. Gateway locations create recognizable physical symbols of entry into the Foothill Boulevard neighborhood, and serve as the “bookends,” as well as signal the perceived center of the project area. There is a precedent in other areas of Oakland for the placement of gateways such as sculpted columns at the entrance of neighborhoods.

The design of the gateways will be consistent with both the scale and style of nearby buildings, and in particular to the scale of the boulevard. Existing brickwork on buildings and the craftsman bungalow influence should be incorporated into the designs. All signage will identify the neighborhood as a distinct entity within the Fruitvale District, through the use of a combination of words or graphic symbols that represent both Foothill Boulevard and the history of the Fruitvale District. The Laurel District Gateway at MacArthur Boulevard and 35th Avenue in Oakland is an example of a streetscape project gateway reflecting that particular district. The Laurel District Gateway project included integrating lighting into
the columns and receiving help from local artists from the Crucible, a non-profit Oakland based collaborative arts and education center, to create the steel archway that spans the street. Local artists’ work was included in the project and provided opportunities to apply for grant funding.

a. 33rd Avenue
This is a significant intersection for pedestrian crossings within the commercial hub and is recommended as the location of the gateway element for the northern part of the project area. The contrasting pavement pattern of textured colored concrete further sets the corner apart from the rest of the street. At the opposite side of Foothill Boulevard, the corner placita is aligned with mid-block bulb-outs, accentuating the entry to the parking lot of Walgreen’s.

New landscaping, trees, and an entry trellis help to create a more attractive façade for the open parking lot area at the Walgreen’s parking lot. As seen in Figure 4-15 to 4-17, the neighborhood gateway element spans Foothill Boulevard at this mid-block location in the most active commercial area of the project.
Figure 4-10 33rd Avenue Gateway Plan.
b. 35th Avenue
Each corner of this intersection holds a gateway element. The gateway elements will be designed to be in scale with the magnitude of the 35th Avenue intersection. The southwest corner adjacent to the Mercy Retirement & Care Center is a prime location for a gateway that includes a clock tower for the neighborhood area. The clock tower can vary in size and scale, but will match in style and aesthetic of its three corner gateway elements counterparts. Special paving treatments at each intersection set the pedestrian corner spaces apart from the street sidewalks.

The relocation of the northwest bound AC Transit bus stop to the west side of the intersection makes use of the widened sidewalk and corner bulb-out. Improvements to this corner help to reduce the size of the intersection while providing a much needed bus shelter area.
Figure 4-12 35th Avenue Plan.
c. 42nd Avenue to Courtland

Bulb-outs at the “T” intersection of 42nd Avenue creates space for pedestrian amenities, centrally located in the commercial hub. Two column spaces and a gateway arch that spans across Foothill Boulevard welcome users and identify the area from the busy arterial at Courtland Avenue a short distance east of 42nd Avenue. The bulbout at this corner is the site for an improved AC Transit stop with a bus shelter and pedestrian scaled lighting.

The small mid-block bulbout on the southern side of the street helps to accommodate the gateway and a street tree, in the otherwise narrow sidewalk.

An additional bulbout opportunity exists at Courtland Avenue. This would include with textured crosswalks at the signalized intersection to create additional pedestrian public spaces, and to reduce crossing distances at the four lane road.

Figure 4-13 42nd Avenue to Courtland Avenue Gateway Section.
Figure 4-14 42nd Avenue to Courtland Avenue Gateway Plan.
2. Parks, Pedestrian Plazas & “Placitas”
Public plaza spaces can add to community pride and aesthetics, while providing a space for gathering and interaction. Implementation of the designed public spaces in the Preferred Alternative will require further evaluation to program the space as well as investigate the community’s desire to support and act as stewards of these public spaces. The design of the parks and public plaza spaces will emphasize visibility and accessibility. All trellises, fencing and signage in the project shall reflect the unique character of the neighborhood.

a. Fruitvale Avenue
The designed plaza space at Fruitvale Avenue utilizes an easement over a small portion of the property at Kragen’s parking lot. This plaza is an entry to the existing community garden on the northwest side of the intersection that occupies the land between the sidewalk and the Kragen’s parking lot. Visually permeable metal fences separate the plaza area from the parking lot and protect the community garden. A tall concrete and steel trellis feature creates a physical backdrop to the plaza and a curved bench is installed around the Raywood Ash tree that is currently part of the community garden.

Figure 4-15 Fruitvale Plaza Section.
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Colored concrete paving at the intersection enlivens and highlights a pedestrian gathering area. Site improvements, such as a renovated Unity Council bulletin board, newspaper rack, and permanent bollards activate the space as a neighborhood amenity.

East of the plaza at the property line of Kragens and Walgreens, the area between the sidewalk and the parking lot takes advantage of the diagonal parking layout, utilizing the “leftover” spaces for parking lot tree wells and planting areas, or concrete seat walls. These small seating areas can be implemented over time with artist-designed benches that convey a similar streetscape theme carried throughout the project. Permeable paving at the tree planting strips add texture and detail to the sidewalk treatment at each edge of the street.

b. 36th Avenue
The 36th Avenue placita is located over the culverted Peralta Creek. A creek crossing design in the concrete surface of the plaza, artist-designed benches, street trees and a small planting area all help to accentuate the plaza space. Improvements at the A&R Market on the southeast corner are further enhanced with sidewalk improvements, a reorganized parking lot entry and bulbout for the corner commercial store. In many instances along the corridor, particularly at 36th Avenue, the increase in public pedestrian plaza space is a positive public improvement, but also has the potential for negative results. The need for programmed space at this intersection is critical. The new placita, located adjacent to the Greek Assembly of God, could be a great opportunity for programmed church functions and neighborhood stewardship.

Figure 4-17 Photo Simulation of Fruitvale Plaza.

Bollard, Fencing and Bike Racks, Concrete and Steel Trellis.
Figure 4-18 36th Avenue Plan.
c. César Chávez Park
Currently, a no-parking zone provides the opportunity for expanding the sidewalk directly in front of the park. A bulbout the length of the property extends the visibility and awareness of the park into the street with a double line of trees and permeable pavers.

The park should be improved per details and guidelines in the César Chávez Park Landscape Master Plan prepared by HOOD Design. Façade improvements to the Taquería next door, and the construction of a deck at the front of the park will also improve the park’s street frontage.

As an addendum to the Master Plan, the existing planter at the front of César Chávez Park could be restored to incorporate a community fountain. A water line currently exists under this planter. A fountain would add a visually engaging entry to the park, relate to the existing site water and creeks, add a peaceful element that complements the flowers and trees of the planter and harmonize with the cultural motifs expressed on the planter. Consideration must be given to maintenance costs, preventing injury, vandalism and any other potentially undesirable activity at the fountain. A final design will be worked out as part of a larger streetscape public art plan. Based on input collected during the community design phase, the suggested fountain should be shallow, in a mosaic pool with a low flow bubbling fountain to invoke the idea of a “sacred garden pool”. Figure 4-19 is an illustration of the above description at César Chávez Park.
Figure 4-20 César Chávez Park Plan.
d. Coolidge Intersection
At the Coolidge intersection, water that collects on the street is a possible indicator of a spring or of the close surface proximity of a creek culvert. This proximity to hidden water is something that can be revealed through the addition of an interpretive water feature that redirects the emerging water back into the ground via an aesthetic treatment, i.e., with mosaics, tiles, seating, and maybe a tree. This interpretive infrastructure can be located at the bulbout improvements at the Coolidge intersection and expanded upon at the proposed “placita” on the northwest corner.

e. Curb Bulb-Out Placita
Spaces created from the extension of the sidewalk and the use of curb bulb-outs become small plazas or placitas. These placitas can be used to locate street furniture and pedestrian amenities such as signage, trash cans, and bike racks.

f. Parking Lane Bulb-out Placita
An opportunity to create a small parking lane placita is generated by eliminating two parking spaces in the block between Fruitvale Avenue and 33rd Avenue. In this busy commercial corridor, additional sidewalk space for seating and gathering is not only appropriate, but also a necessary amenity.
3. Creek Crossings

Several opportunities exist to emphasize local watersheds and highlight the creeks in the area. Sausal Creek, Peralta Creek and the Avenue Branch tributary of Peralta Creek cross under Foothill Boulevard within the project area. Creek or tributary crossings elements in the streetscape design can help to educate the public about urban creeks and their immediate watershed in an urban context. Textured concrete in a wave-like pattern inlaid into the asphalt evokes the presence of the creek crossings beneath the street and capture the attention of both pedestrians and motorists using the vehicular right-of-way. These textured pattern markings must be distinguished from those for textured concrete crosswalks in order to avoid pedestrian confusion. In addition, attractive barrier fencing where the creek crossing elements occur will help to deter any possibility of mistaking the creek crossing for a pedestrian crossing opportunity. The pavement marking and barriers will need to be further reviewed by Transportation Services Division as the project proceeds through the design phase. Signage is included to educate pedestrians on the history of the creeks in the neighborhood. Additional elements could include boulder seating and river rock pebbles in the bulbouts, as well as artists’ interpretations of the creek themes. The Preferred Alternative illustrates this creek crossing feature at several locations on Foothill Boulevard.

Figure 4-21 Sausal Creek Gateway Section.
Figure 4-22 Sausal Creek Gateway Plan.
a. Sausal Creek
Foothill Boulevard crosses over Sausal Creek at the west side of the project area and is a gateway or point of arrival and transition in the neighborhood. The tree median at this gateway creek crossing will help to emphasize the boulevard character and act as a physical symbol of entry into the busy commercial corridor two blocks west of the intersection of Fruitvale Avenue. The creek crossing pattern highlights the Sausal Creek crossing with textured concrete, alerting drivers and pedestrians to its presence and their passage through the gateway. The two small constructed bulb-outs with fencing will create the sense of a bridge overcrossing at each side of the street. The south side of the street provides the opportunity for a constructed creek overlook with guardrail fencing mirroring the opposite side of the sidewalk bulb-out. The small “placita” created from the two bulb-outs flanking the sidewalk includes seating, boulders, and river rocks, with an educational element such as a sign addressing urban creeks.

b. Peralta Creek at 34th Avenue
Peralta Creek crosses Foothill Boulevard at 34th Avenue through the Mercy Retirement & Care Center. The area is a key transition in the infrastructure of the street where Foothill Boulevard increases from three lanes to four lanes. The textured creek crossing will help to alert drivers of the change and transition into the active pedestrian commercial area.
c. Peralta Creek at 36th Avenue
The 36th Avenue plazita occurs over the culverted Peralta Creek. A creek crossing design in the concrete of the plaza, artist-designed benches, street trees and a small planting area, accentuate the plaza space. An illustration of the creek through the small plaza can be seen in Figure 4-18.

d. Peralta Creek Tributary at César Chávez Park
The site of the crossing of a tributary of Peralta Creek affords the opportunity to educate and bring attention to underground creek. Creek restoration efforts by the City of Oakland at Peralta Creek at the back of the park can be highlighted and emphasized through signage and the creek crossing feature at the front of the park. The creek crossings accentuate the park entry, and connects Harrington Avenue with the park frontage as a unified urban park intersection. The creek crossing element at the park includes fencing, boulder seats and educational signage about the history of Peralta Creek and urban creeks today. An illustration of the creek at the frontage of the park can be seen in Figure 4-20.

D. Pedestrian Amenities
A consistent vocabulary of sidewalk elements creates a unified identity for the street and enhances the visual experience for pedestrians as well as motorists. Community members preferred a site specific approach to the overall aesthetic of Foothill Boulevard over the more traditional prefabricated street furnishings. The following paragraphs describe and give guidance for sidewalk surfacing treatments, the placement of street trees, the use of tree well islands, street lamps, bus stops and shelters, bicycle racks, newspaper racks, trash containers, benches and landscaping.

1. Corner Concrete Pavers
To accentuate pavement treatments, the Preferred Alternative provides aesthetically improved concrete treatment at the corners and intersections of the streetscape design. At the majority of street corners, where additional infrastructure improvements occur, concrete score lines will be rotated 45 degrees to show a change in context from the traditional sidewalk. Corner concrete treatments will be poured with integral color and stamped for a textured concrete aesthetic.
2. Street Trees

Street trees provide the most evident aesthetic improvement for streetscape projects. Street trees help to provide shade, as well as give a pedestrian scale to the street that buffers pedestrians from adjacent traffic. Street trees are also most important in this project to help reduce the visual presence of the overhead utility lines. The community selected smaller ornamental tree species for the aesthetic of the streetscape design, although the Hell’s Angel’s club specifically requested that no trees be located in front of their building. The Preferred Alternative includes consideration of the existing street tree program of planting Crepe Myrtles, as well as the addition of a non-fruiting pear tree alluding to the fruit-growing history of the area. Other types of trees will be used in the Preferred Alternative in locations such as parking lots and special tree medians. The following City of Oakland approved street trees are recommended for Foothill Boulevard.

♦ Street & Median Trees
  • Lagerstroemia hybrids – Crape Myrtle
  • Pyrus calleryana ‘Aristocrat’ – Non-fruited Ornamental Pear

♦ Parking Lot, Plaza & Special Median Trees
  • Fraxinus angustifolia ‘Raywood’ – Raywood Ash
  • Pistache chinensis – Chinese Pistache
  • Platanus acerifolia – London Plane Tree
New street tree plantings will conform to City requirements regarding tree relationships to existing and future utilities and drainage as well as to requirements related to open visibility and lighting. With regards to utilities, the center of the ground-level base of a new street tree must be at least six feet vertically above the top of any storm drain or storm sewage pipe. Similarly, the same point on the tree must be at least five feet away horizontally from the side of the pipe. Furthermore, no new drainage troughs or channels should be created with the design. New inlets may be installed, and if an inlet is to be covered with sidewalk it should be converted into a manhole. Major drainage culverts should not be disturbed by the design. In addition, the future project will consider the impact of utility trenching on any existing street trees, and an irrigation system will be installed in areas where long stretches of street trees is possible. With regards to visibility and lighting, trees will be placed 45 feet from street corners and a minimum of five feet from driveway curbcuts, and 20 feet from all street lights.
a. Sidewalk Tree Wells
The layout of the street trees optimizes space available in the sidewalk. Existing utilities, driveway curb cuts, and City of Oakland standards were taken into consideration in locating street trees throughout the corridor, with an attempt to create a pattern of uniformity and consistency. A two foot by four foot tree well is the minimum accepted by the City of Oakland, and the use of this size tree well in a six-foot sidewalk is generally acceptable for pedestrian passage and ADA accessibility. Standard three-foot by six foot tree wells with ADA accessible tree grates are used while existing tree wells of mature trees are improved with a decomposed granite surface treatment.

b. Permeable Paving Sidewalk Tree Strip
Permeable paving, using a unit paver system, will be installed along the tree planter strip in locations where the sidewalk is eight-feet or greater. The paving strip helps separate the sidewalk from the adjacent street while providing texture and color to the streetscape. Concurrently, the permeable paving promotes the infiltration of groundwater from the sidewalk and supports healthier street trees. All permeable paving areas will be ADA compliant, providing an easily walkable and wheelchair accessible surface.

c. Tree Well Islands
Tree well islands are a way to add street trees where rights-of-way are constrained and where it is not possible to widen sidewalks. Tree well islands consist of a six inch curb constructed around a planting area, located in the parking lane, allowing the entire sidewalk width to be used for pedestrian movement. This approach will require careful maintenance to ensure that tree well islands do not create litter that is sent to the gutters. In addition, street sweeping operations will need to work around the tree well islands.

3. Pedestrian Street Lighting
The Foothill Boulevard project area will greatly benefit from lighting in addition to the existing cobra head fixtures, which are mainly for security purposes. Pedestrian-scaled streetlamps will not only help improve security, but will also add to the character of the street and neighborhood. The City’s Electrical Services Division has agreed that a separate electrical panel could provide underground power for pedestrian lights. This effort will also be coordinated with any bus shelters and holiday lighting possibilities.

The placement of the street lamps in the Preferred Alternative takes into consideration the location of existing street trees, electroliers, and available space along the corridor. The standard pedestrian street light for the project (14 foot pole, Lumec L70 or L80 series) fits well in a sidewalk that is seven feet or more in width. In the few instances where the sidewalk is constrained to six feet, the placement of the light will not meet ADA clearance and will not be installed. The street lights are also located an appropriate distance away from traffic signals, driveway curb-cuts and 20 feet from all street trees.
4. Street Lamp Banners
Many neighborhoods in the East Bay celebrate their identity and create a sense of place with banners mounted on lamp poles. Banners on Foothill Boulevard will reflect the overall identity of the neighborhood with words and images. The general themes that are used for the gateways, fences and signage can also be incorporated into the design aesthetic for the banners. The Unity Council has purchased street sign banners for the area, which will be installed as part of the Foothill Boulevard Streetscape Design Project. Banners similar in style and design motif will be installed to complement the existing Unity Council banners.

5. Bus Stops & Shelters
Existing bus stops along the corridor consist of a bus stop sign and benches. To improve the physical conditions for bus patrons waiting for rides, the Preferred Alternative increases the width of sidewalks at bus stops through the use of curb bulb-outs, where feasible. In the case of limited sidewalk space and the inability to utilize a bulb-out at the bus stop location, the Preferred Alternative recommends an “encroachment easement” to be executed by the City. This strategy allows AC Transit or the City to lease, at a one-time cost, the space from the property owner for the purpose of locating a bus shelter. In the event the shelter is moved, the land reverts to the owner.
6. Bicycle Racks
The Preferred Alternative maintains Foothill Boulevard as a significant arterial bike route with the introduction of “sharrow” pavement markings along the majority of the project corridor to define the bike route. Including bicycle racks as part of the Preferred Alternative will encourage bicyclists to patronize Foothill Boulevard businesses. Bicycle racks will be installed so that they do not impede pedestrian travel. Locating bicycle racks at corner bulbouts near active businesses will be effective and safe for merchants, bicyclists, and pedestrians alike. The following locations were selected for bicycle racks:
- Foothill Boulevard and Fruitvale Avenue Intersection Plaza
- 33rd Avenue Bulb-out Placita
- 33rd Avenue Entrance to Walgreen’s
- Coolidge Avenue Plaza
- 36th Avenue Plaza
- César Chávez Park
- 38th Avenue Commercial Corridor
- 42nd Avenue Bulbout & Gateway

7. Newspaper Racks
In many areas along Foothill Boulevard newspaper racks are scattered at the corners or outside the busiest convenience stores and food markets. A consistent and convenient placement of newspaper racks will organize and improve the function of newspaper services for Foothill Boulevard. The Preferred Alternative proposes to locate newspaper racks together in clusters near bus stops or in plaza spaces, as is shown at Fruitvale Commercial Plaza in Fig. 4-16.

8. Information Kiosks
An existing bulletin board/kiosk at the Fruitvale Avenue and Foothill Boulevard intersection was provided by the Unity Council. The kiosk helps to advertise local news, and serves as a forum for communication among neighbors in the area. The Preferred Alternative includes a renovation of the existing kiosk. Other types of kiosks incorporated into the plaza spaces in the Preferred Alternative, or could replace the Unity Council bulletin board. Kiosks can serve as good way-finding signage and information hubs. In the Preferred Alternative, kiosks are located at the gateway on 33rd Avenue or Coolidge Avenue Plaza, César Chávez Park bulbout extension, and 42nd Avenue sidewalk area.

Information Kiosk at Fruitvale Village.
9. Trash Receptacles
Existing trash receptacles on Foothill Boulevard are the City of Oakland’s standard square concrete street litter cans with pyramid style recycling tops. Additional trash receptacles will be necessary along the corridor. In keeping with the theme selected for other street furnishings, trash containers will represent the aesthetic of the area in their design. New trash receptacles could be implemented with the similar aesthetic as the improved Unity Council trash receptacles or alternatively, trash receptacles with the neighborhood-adopted emblem could be used, as shown in the image from the Laurel District. In addition, for ease of maintenance, new trash receptacles should have a hinged, side door so the liner can be pulled out, instead of being lifted up.

10. Fences
The Preferred Alternative adds fences at strategic locations along the entire Foothill corridor. Key spots include textured paving at creek crossings and at large parking lot areas adjacent to sidewalk access, such as the Walgreen’s parking lot at Fruitvale Avenue. While the fencing should block pedestrian movement, it should not block visual access. Low, permeable fencing should be the standard throughout the project. The fencing also provides another opportunity for cultural expression and placemaking. Symbols, words, and decorative motifs could all be cut into the fence surface to provide both permeability and cultural character.
11. Bollards
Bollards are shown in the Preferred Alternative at the Fruitvale Avenue Plaza for added pedestrian protection. The bollards should be installed with “breakaway” connectors so that in the event that they are struck by a car, the bollards will absorb the damage instead of the paved surface they are embedded into.

12. Benches/Seatwalls
The Preferred Alternative includes benches throughout the study area. However, due to concerns by the community that the installation of benches will bring unsolicited activity, the inclusion of benches along the streetscape corridor and within the designed plaza spaces will be evaluated at the time of project installation, and will require obtain community support before installation.

Where possible, benches will face the sidewalk to accommodate better neighborhood interaction, offering pedestrians the opportunity to rest, look in store windows and watch sidewalk activity. Benches, along with the majority of street furnishings, will be custom designed as part of a community art improvement project reflecting the aesthetic and culture of the neighborhood. Benches will either be a traditional bench embellished with a custom-painted neighborhood theme, or concrete seat walls, similar to those shown in the adjacent photographs, with artistic interpretations. Heights of seat walls should be between 18-20”. Durability is another consideration for the benches. They should be resistant to carving and to graffiti paint. Both Ipe wood and recycled plastic are possible material options to explore further.
E. Landscaping and Storm Water Management

The Community Economic Development Agency has an agency-wide goal to “Develop a Sustainable City.” As such, the approach to landscaping and stormwater management for the project focuses on an ecosystem-based approach. This Master Plan supports a sustainable streetscape by including stormwater management options to help protect and preserve natural resources. The plant materials selected minimize the need for supplemental irrigation, and hardscape elements will incorporate measures to capture and treat stormwater.

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<th>Botanical Name</th>
<th>Common Name</th>
<th>Size</th>
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Table 4-1 Appropriate Plant Species.

1. Landscaping

Several opportunities exist to implement or improve the landscaping in the project area. Plazas and “placitas” will include minimal and easily maintained landscaped areas. Landscape features will contribute to the aesthetic improvements of Foothill Boulevard, but not deter from the visibility and safety of the corridor. All landscaped areas will be installed with an automatic irrigation system to ensure the plants’ survival. Plant species selected will be native or well adapted to climatic conditions, and will not require extensive maintenance. Medians and locations where trees are prohibited due to underground utilities will include landscaping with shrubs or groundcover. Shrubs in medians will be carefully chosen to keep them from getting too tall, i.e. using the ‘Jack Spratt’ dwarf variety of New Zealand Flax. Select bulbous and plaza spaces, particularly in commercial areas such as the Fruitvale Commercial Plaza and the Walgreen’s and Kragen’s parking lot entry will include landscaping. Some species of plants appropriate for the streetscape on Foothill Boulevard are listed in Table 4-1.
2. Stormwater Management

The concept alternatives for this project explored a number of options for stormwater management along the sidewalks and roadway, including infiltration planters and permeable pavers. The Preferred Alternative recommends the use of open-jointed block paving combined with structural soils. This is a viable alternative within the street medians and on-street parking lanes to capture stormwater runoff and intercept roadway pollutants before their entry into the storm drain system.

Paving systems using open-jointed block paving with permeable aggregates have a proven track record with stormwater management. The precast pavers are designed to lock for strength and stability, with openings in the joints where aggregates provide the permeability. These paver units are available in a variety of patterns and color combinations and add a rich urban texture to the roadway. Permeable paving significantly reduces the quantity of runoff entering the storm drain systems. Given that the City’s storm drain infrastructure is aged and will likely require rehabilitation, upsizing, and replacement in this area in the near future, utilizing this approach within the street corridor will likely reduce the demand on the system which could result in cost savings.
In addition to using the permeable paving system, the addition of a structural soil sub-base will provide additional benefits. Structural soils have been extensively researched for many years and provide an optimum growth medium for trees planted in paved areas. The medium utilizes gap-graded gravels and consists of are of crushed stone, clay loam and a hydrogel stabilizing agent. This material can be compacted to meet pavement loading requirements while maintaining a lattice and void structure that allows for root development. Structural soils, when correctly designed and installed, will provide multiple benefits, including:

- growth medium that encourages and extends deeper roots
- reservoir for stormwater retention
- source of water supply for tree roots
- solid, load bearing base course for a variety of paving materials
- protects underlying soils from compaction

The final design of the structural soil sub-base, open jointed unit pavers and tree placement and selection will need to be carefully coordinated during the final design and construction document phase of the project. This will ensure that the system will support auto traffic and capture sufficient runoff to meet stormwater management goals, while also providing an optimum environment for tree growth.
This chapter provides the results of an analysis of future transportation and circulation conditions in the Foothill Boulevard Streetscape Plan study area. There are three areas where the effects of the proposed streetscape design changes on circulation have been analyzed:

1. Automobile Intersection Levels of Service
2. Automobile Intersection Queues
3. Automobile Parking

Changes in these areas attributable to the proposed streetscape design changes are noted here by comparing “Existing” with “Future” circulation conditions.
CHAPTER 5: TRAFFIC ANALYSIS

A. PREFERRED ALTERNATIVE

The final streetscape design for Foothill Boulevard proposes the following changes to the operations of the study area’s circulation network:

1. Foothill Boulevard & Fruitvale Avenue:
   a. Add westbound right turn lane (60 feet); and
   b. Lengthen eastbound left turn lane from 90 to 215 feet.

2. Foothill Boulevard & Coolidge Avenue:
   a. Add eastbound left turn lane; and
   b. Convert shared southbound left/right turn lane to a southbound right exclusive lane.

3. Foothill Boulevard & 35th Avenue:
   a. Shorten length of shared westbound through/right lane to 80 from 160 feet (part of lane removal along this portion of Foothill Boulevard);
   b. Shorten length of eastbound shared through/right lane from 590 from 140 feet (part of lane removal along this portion of Foothill Boulevard); and
   c. Narrow northbound approach lane effectively removing a "de facto" right turn lane from this approach.

4. Foothill Boulevard & 36th Avenue:
   a. Convert shared eastbound shared left /through lane to eastbound exclusive left turn lane; and
   b. Convert westbound shared left/through lane to an exclusive left turn lane.

5. Foothill Boulevard & 38th Avenue:
   a. Narrow shared northbound through/right turn lane (effectively removing a "de facto" right turn lane from this approach).

Future circulation conditions for the Foothill Boulevard streetscape design study area were analyzed for of the Preferred Alternative. Intersection approach volumes and lane configurations for the Future scenario are shown in Figure 5-1.
Figure 5-1 Future Scenario
Automobile Intersection Approach Volumes and Lanes.
1. Preferred Alternative Scenario

In this scenario, the signal timing and phasing at the Foothill Boulevard & Fruitvale Avenue intersection was left to operate as it does the "Existing" scenario.

a. Future Intersection Levels of Service

Future level of service (LOS) calculation results for the Preferred Alternative Scenario at the key study area intersections are shown in Table 5-1.

<table>
<thead>
<tr>
<th>Intersection</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LOS</td>
<td>Delay</td>
</tr>
<tr>
<td>1 Foothill Blvd. &amp; Fruitvale Ave.</td>
<td>F</td>
<td>85.5</td>
</tr>
<tr>
<td>2 Foothill Blvd. &amp; Coolidge Ave.</td>
<td>B</td>
<td>17.3</td>
</tr>
<tr>
<td>3 Foothill Blvd. &amp; 35th Ave.</td>
<td>B</td>
<td>18.2</td>
</tr>
<tr>
<td>4 Foothill Blvd. &amp; 36th Ave.</td>
<td>A</td>
<td>5.8</td>
</tr>
<tr>
<td>5 Foothill Blvd. &amp; 38th Ave.</td>
<td>B</td>
<td>15.1</td>
</tr>
<tr>
<td>6 Foothill Blvd. &amp; Courtland Ave.</td>
<td>C</td>
<td>32.4</td>
</tr>
<tr>
<td>7 Foothill Blvd. &amp; High St.</td>
<td>C</td>
<td>23.0</td>
</tr>
</tbody>
</table>

Table 5-1 Existing and Future Scenario Automobile Intersection Levels of Service.

Source: Dowling Associates, Inc.

LOS = Level of Service
Delay = Average vehicle delay in seconds.

For all the study intersections during both peak hours, the proposed design changes will not cause deterioration of automobile levels of service below the City of Oakland’s standards of significance (i.e., to LOS E or F). At Foothill Boulevard & Fruitvale Avenue and Foothill Boulevard & Coolidge Avenue the striping of new turning lanes at key approaches will serve to improve overall levels of service. For virtually all other intersections, the proposed changes will not have a noticeable effect on automobile delays. This is usually because the reduction in through lanes is offset by the addition of turn lanes (i.e., delays to through traffic caused by turning vehicles are eliminated). For ease of interpretation and analysis, LOS results for each study intersection are shown in Figure 5-2 in reference to their locations.

1Where existing LOS is already at LOS E or F (at Foothill Boulevard & Fruitvale Avenue) the project design would reduce average vehicle delays, improving the performance of this intersection. The design plans do not cause this intersection to increase its average delay by four seconds or more as indicated by the City of Oakland’s significance standards for intersections operating outside the downtown area at LOS E in the existing conditions. A small decrease in delay estimates at Foothill Boulevard & 35th Avenue during the PM peak hour is due to the effects on vehicle arrivals and queuing of improvements to upstream intersections (i.e., Coolidge and Fruitvale Avenues).
b. Future Intersection Queues

Additional analysis of the lengths of vehicle queues at each study intersection was performed. To estimate vehicle queues, the SimTraffic traffic simulation software package was used. Queues (including "de facto" right turn lanes where they are planned) were calculated 95th percentile peak hour conditions shown in Table 5-2.

Intersection vehicle queues at the study intersections are typically the longest on the Foothill Boulevard (west and eastbound) approaches between 35th Avenue and Fruitvale Avenue during both peak hours.

Queues in both the AM and PM peak hours will generally increase in those areas where the plan calls for reducing the number of travel lanes along Foothill Boulevard. For the most part, the plan calls for increasing the number of turn lanes at select intersections in the western portion of the study area (between 35th Avenue and Fruitvale Avenue) and reducing the number of through lanes from four to three (two lanes in each direction, plus a center-left turn lane) along Foothill Boulevard in locations where there are currently four lanes of travel between High Street and 35th Avenue.

In the eastbound direction between Coolidge and 35th Avenues, queues will increase from 156 to 252 feet at the 35th Avenue approach, and as in the existing conditions exceed the available storage space on Foothill Boulevard. This is generally defined as the length of the turn pocket or the lane distance between intersections. On the westbound approach to 35th Avenue, right-turning vehicle queues (105 feet during the PM peak hour) will exceed the planned turn pocket storage length (planned to be 80 feet long), suggesting it may be beneficial to extend the length of this turn pocket to accommodate these queues by removing parallel parking.

### Table 5-2 Existing and Future Scenario Automobile Intersection Queues.

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Movement</th>
<th>Existing</th>
<th>Storage</th>
<th>Existing</th>
<th>Future</th>
<th>Scenario</th>
<th>Storage</th>
<th>Existing</th>
<th>Future</th>
<th>Scenario</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foothill Blvd &amp; Fruitvale Ave.</td>
<td>EBL 90</td>
<td>138</td>
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<td>312</td>
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<td></td>
<td>WBL 140</td>
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<td>153</td>
<td>140</td>
<td>153</td>
<td>189</td>
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<tr>
<td></td>
<td>WEITR 380</td>
<td>236</td>
<td>346</td>
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<td>236</td>
<td>318</td>
<td>380</td>
<td>236</td>
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<td>318</td>
<td>380</td>
<td>236</td>
<td>346</td>
<td>318</td>
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<tr>
<td></td>
<td>NBTL 240</td>
<td>224</td>
<td>178</td>
<td>240</td>
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<tr>
<td></td>
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<td></td>
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<td>SBLT 240</td>
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<td>178</td>
<td>240</td>
<td>224</td>
<td>178</td>
<td>240</td>
</tr>
</tbody>
</table>

*Queues estimated using SimTraffic software.

Red and Bold Values = where 95th% queues are greater than available storage.

Queues ranged from 230 to 1,245 feet over multiple model runs. Due to this large variation, the average 95th percentile value of 10 runs was used.
spaces. While southbound vehicle queues on 35th Avenue increase slightly from 875 to 942 feet (roughly two to three car lengths) in the PM peak hour, queues during existing conditions already exceed the available storage capacities available on this approach. Overall, comparing queues in the existing conditions to those estimated once the final plan is implemented, queues on this approach will remain relatively stable.²

Queues will increase in length on the westbound approach to 38th Avenue, increasing backups during both peak hours that will exceed available storage space. However, increases in westbound through movement vehicle queues during existing conditions already exceed available storage capacity. The final design plan will increase westbound through queues slightly during the AM peak hour from 317 to 349 feet and from 259 to 393 feet in the PM peak hour.

Eastbound approach queues will increase at Courtland Avenue, roughly doubling from existing conditions for the through movement during the AM peak hour (from 235 to 489 feet) and more than tripling in length during the PM peak hour (from 141 to 443 feet). Eastbound right turning vehicle queues (77 feet in the AM peak hour) on this approach will also exceed the planned turn pocket storage length of 55 feet, suggesting it may be beneficial to extend the length of this turn pocket to accommodate these queues by removing parallel parking spaces.

Improvements at the Foothill Boulevard & Fruitvale Avenue intersection will substantially improve queues at this intersection for virtually all movements. While many of these queues will still exceed available storage space, their lengths will be reduced when compared to existing conditions, improving the operations of adjacent intersections as well. Likewise, the striping of an exclusive left turn lane at the southbound approach to Foothill Boulevard & Coolidge Avenue will reduce queues to the point where they will not exceed available storage during peak hours.

²Small decreases in certain queue estimates at Foothill Boulevard & 35th Avenue are due to the effects on vehicle arrivals and queuing of improvements to upstream intersections (i.e., Coolidge and Fruitvale Avenues).
c. Future Automobile Parking

To evaluate the effects of the proposed streetscape design changes on on-street parking availability, the number of planned parking spaces was summed by study area block face and compared to existing parking occupancy survey data. Future scenario parking occupancy calculation results using existing demand and proposed number of parking spaces) on a block-by-block basis are shown in Table 5-2. Comparison of Existing to Future scenario parking conditions in the study area reveals that three are three areas where existing parking occupancies reach the critical threshold of 90% or greater: 1) The blocks directly west and east of Fruitvale Avenue; 2) Rosedale to 38th Avenues; and 3) 41st to 42nd Avenues. The parking spaces that the final design plan will remove will tend to exacerbate the parking shortages in these areas, expanding the areas of shortage to adjacent block faces and into other peak periods where shortages were not measured in the existing conditions parking survey. These planned removals will also create a shortage of spaces on the north side of Foothill Boulevard between 35th and Crosby Avenues.

However, it is reasonable to assume that motorists will change their parking behavior to adjust to the new parking supply conditions once the Final Design Plan is implemented. Therefore, analysis at a more aggregated level is reasonable. As shown in Figure 5-3 for the AM peak hour, Figure 5-4 for the Midday peak hour, Figure 5-5 for the PM peak hour, and Figure 5-6 for the Weekend (Saturday) peak hours, the study area will have adequate parking spaces available in the future scenario. However, there is likely to be a shortage in the area directly west of Fruitvale Avenue, particularly during the weekday PM and Saturday peak hours. This is largely due to the removal of nine parking spaces on the south and three spaces on the north side of Foothill Boulevard.
**B. PREFERRED ALTERNATIVE ANALYSIS KEY FINDINGS**

In the analysis of proposed Foothill Boulevard Streetscape Design circulation conditions, the following findings are worthy of note:

- For all the study intersections during both peak hours, the proposed design changes will not cause deterioration of automobile levels of service below the City of Oakland’s standards of significance (i.e., LOS E or F). For several intersections, particularly Foothill Boulevard & Fruitvale Avenue and Foothill Boulevard & Coolidge Avenue, the striping of new turning lanes at key approaches will serve to improve overall levels of service. For virtually all other intersections, the proposed changes will not have a noticeable effect on automobile delays. This is usually because the reduction in through lanes is offset by the addition of turn lanes (i.e., delays to through traffic caused by turning vehicles are eliminated).

- Ninety-fifth percentile vehicle queues in both the AM and PM peak hours will increase in those areas where the plan calls for reducing the number of travel lanes along Foothill Boulevard.

- Queues will increase in length westbound at the approach to 38th Avenue and eastbound at the approach to Courtland Avenue, increasing backups during both peak hours that will exceed available storage space.

- Analysis of future scenario parking conditions reveals that there are three areas where existing parking occupancies reach the critical threshold of 90% or greater: 1) The blocks directly west and east of Fruitvale Avenue; 2) Rosedale to 38th Avenues; and 3) 41st to 42nd Avenues. The final design plan will tend to worsen the parking shortages in these areas, increasing demand adjacent block faces and into other peak periods where shortages were not measured in the existing conditions parking survey. These planned removals will also create a shortage of spaces on the north side of Foothill Boulevard between 35th and Crosby Avenues.
C. PREFERRED ALTERNATIVE ANALYSIS SUMMARY

While the proposed design for Foothill Boulevard will not cause a significant reduction in intersection levels of service at study area intersections, it will cause longer vehicle queues at approaches to study area intersections and reduce the amount of available on-street parking during peak periods. These longer vehicle queues will also slow bus speeds somewhat along Foothill Boulevard. However, there are a number of circulation benefits the design will bring as well to pedestrians, bicyclists, and transit riders.

While the planned reduction from four to three lanes of travel in select portions of the study area will increase vehicle queues along Foothill Boulevard, the proposed design will also reduce crossing distances for both pedestrians and bicycles. It will also likely reduce the amount of speeding there, since, in most cases, the most prudent driver will now set the speed to which all other vehicles must adhere. Both of these changes should improve safety and enhance the sense of bicycle and pedestrian “friendliness” of the study area, encouraging more people to walk and bicycle in the study area.

These benefits to pedestrians should also encourage more transit ridership in the area since walking is the primary mode of access to bus services in the study area. The extra lane width gained from eliminating a lane of travel from Foothill Boulevard also allows the provision of 13-foot shared travel lanes (or "Sharrows") for bicyclists and autos, improving safety (compared to the existing 10 to 11-foot curb lane) and further encouraging bicycle use in the corridor.

While the vehicle queues and slightly increased intersection delays at several intersections will decrease bus speeds somewhat, overall, these impacts should be mitigated by the improvements to bus and auto circulation that will accrue from the decreased delays at currently congested intersections, such as Foothill Boulevard & Fruitvale Avenue. In addition, there should be a reduction of intersection delays that should result from the proposed relocation of bus stops from their current "near side" locations, where they tend to increase intersection delay, to "far side" locations, where they will not block intersection turning movements. Therefore, while there may be a slight increase in inconveniences for drivers, they will be mitigated by improvements in safety and convenience for pedestrians, bicyclists and transit riders.
This chapter addresses the implementation of the Foothill Boulevard Streetscape Design Project, including a discussion of potential funding and coordination with other ongoing improvement efforts in the study area. Additionally, next steps and outstanding issues are detailed.

A. Project Construction

Construction documents were initiated and executed to a 35% completion set in order to be sure that the Master Plan was feasible and implementable. The purpose of the 35% construction document set is to show accurate grading, right-of-way dimensions and realistic design scenarios and preliminary cost estimates of desired elements. The scenarios were reviewed by City departments and other relevant agencies, as well as experts in transportation and civil engineering to ensure reasonable feasibility and constructability as the level of analysis allows. The Master Plan was developed with a survey base map, incorporating existing utilities and curb cuts into the design. The Master Plan has been through a series of reviews by several qualified agencies, including the different divisions within the City of Oakland Public Works Agency and AC Transit. The construction documents ensure that the Master Plan concepts are realistic approaches to the conditions in the study area. The 35 percent construction documents are included as Appendix D to this document.
B. Project Costs & Funding

As part of the development of the 35% construction document set, a preliminary cost estimate was developed. The cost estimate includes all elements described in the Master Plan. Total project cost for implementation of the Streetscape Master Plan is $8,884,271. The cost estimate is included as Table 6-1.

Phasing strategies can be investigated to implement the project as funds become available. The current cost estimate assumes the resurfacing of an approximate 95% of concrete and asphalt surfaces in the project area. The line items for excavating and replacing asphaltic concrete, as well as the cost of sidewalk installation and partial removal, have both been estimated at a full rehabilitation for the entire project area. On-site investigations during the construction document phase will likely reveal priority areas for rehabilitation and would significantly reduce the cost for this item. Additionally, the review of the project for priority areas could include the selection of key intersections for implementation of with bulbouts at side streets, special bulbout placitas and crosswalks. In addition, the cost of the 135 new street trees could potentially be covered through the City of Oakland tree program.

There are some potential alternative and community-based approaches to address the project’s maintenance and funding needs. For example, the following programs may be used in order to assist with the implementation of the concepts in the Foothill Boulevard Streetscape Master Plan:

1. CEDA Funding

Capital funding for the project is expected to come from the Central City East Redevelopment Area (CEDA), as well as other potential sources. Funding projections from CEDA indicate an availability of approximately $5 million dollars to be applied toward the implementation of the project.

Central City East Redevelopment Area (CEDA) will need to further coordinate with the City Public Works Agency during the development of construction documents to assure an appropriate maintenance plan is in place to accommodate the proposed design. This project will likely require a moderate increase in maintenance levels from the current base-line levels. Presently, the City maintains the streets and gutters through bi-monthly mechanized street sweeping, periodic sidewalk cleaning at the Fruitvale/Foothill bus stop and at intersection returns, and periodic weeding, tree-trimming and sidewalk repairs as necessary. The proposed design would additionally require manual street sweeping around and behind the street trees in the parking lane, bi-yearly clean-out of storm water filters, and an increase in tree trimming and median maintenance. Other items such as fountains, clocks, and public art pieces will also require additional periodic maintenance attention. Finally, it is also recognized that the first two years following construction will require a higher level of attention to ensure that landscaping and other items are properly maintained. Although the designs included herein are fairly typical of high-quality streetscape design approaches, on-going project maintenance is a critical issue raised by the City of Oakland Public Works Agency as well as the community at-large. Community stakeholders clearly expressed a desire for a high-quality streetscape design and the maintenance investments it will require.
2. Business Improvement District (BID)
The BID is an assessment district which can bring in $150,000-300,000 per year to improve the commercial area. The boundaries for the Business Improvement District are currently Fruitvale Avenue and 34th Street and has been expanded east to High Street in the Fall of 2006. The Unity Council, in its role as area BID manager, has already established sidewalk and landscaping maintenance programs for several years, which are expected to continue along Foothill Boulevard. This ongoing program has focused on improvements to the Foothill Boulevard right-of-way through streetscape infrastructure changes and pedestrian amenities. The program has also focused on weeding in tree wells, sidewalk sweeping and cleaning, and other maintenance tasks.

3. Façade Improvement Program and Redevelopment
The Preferred Alternative addresses several opportunity sites in the project area. The Central City East Façade Improvement Program provides limited matching grants to business and property owners for exterior renovations and interior tenant improvements to commercial and mixed-use properties, and provides free architectural assistance. Façade grants can range up to $20,000 depending on the property location. Redevelopment, with the guidance of the Fruitvale Project Area advisory members, will certainly be instrumental in working with property owners to make improvements on the identified opportunity sites as well as other sites along the corridor. As property owners invest in their own improvements, they have a greater stake in the success of the streetscape and can be encouraged to take on greater responsibility in "adopting" and maintaining their sections of the sidewalk and landscape amenities. Improving the performance of businesses along Foothill Boulevard increases the sales tax generation and thus increases the funding to the BID and to the Fruitvale area funds for Redevelopment.

c. Other Potential Sources of Funding
There is also the potential to create new City programs and partnerships for on-going enhancement in the redevelopment area. While redevelopment funds cannot be used for operating costs or maintenance, support could be directed to fund a "community landscape enhancement and sustainability program" for the area explicitly tied to workforce training. Redevelopment funds have been used successfully for funding community enhancement programs that target blight abatement and landscape management. For the Foothill Boulevard Streetscape, there is an excellent opportunity to coordinate with existing organizations such as the Unity Council, Conservation Corps/Youth Employment Partnership, Oakland Unified School District Academy Community Services, and the City’s Workforce Investment Division to develop a redevelopment funded workforce training program targeting the enhancement and sustainability of the streetscape. Finally, there are also many avenues for incorporating volunteers in periodic neighborhood clean-ups and beautification efforts. The Americorps and other volunteer programs are already active within the Fruitvale area. The Oakland Public Works and Parks Department frequently sponsor volunteer "Keep Oakland Beautiful" activities. Specific designs for public art elements will be developed as part of a public art program for the streetscape project.

Public art opportunities of site furnishings and streetscape items associated with public art could be funded through public art grants, watershed education funds, Community Development Block Grant (CDBG) funding, City Capital Improvement Project funding, or any combination of the above. It is important that funding for these public art opportunities be identified as they are an integral part of the overall design and success of the project.
D. Traffic Considerations

An additional community meeting should be held to present simulation of existing and future traffic conditions before proceeding with design. Dowling Associates has reviewed the final streetscape designs for the project and has identified the following issues that need resolution:

♦ Signalization. Future study and coordination of signalization will be necessary with the implementation of the traffic and streetscape improvements. For example, a suggestion of a protected left turn for the existing southbound left-hand turn lane at 35th Avenue, signalization would need to be adjusted and the impacts to the level of service would need to be evaluated. Traffic signal improvements to mitigate the long queues resulting from lane reductions and reconfigurations should be considered. Potential improvements include traffic signal interconnect for coordination and video detection for signal actuation.

♦ 34th Avenue Left Turn Pocket. The left turn pocket on Foothill Boulevard that serves the offset intersection of 34th Avenue is too short to allow striped left turn pockets for each movement. This is true for the westbound left onto 34th Avenue south, and eastbound left onto 34th Avenue north. At most, the total length of the left turn area in between the two legs of 34th Avenue is 60 feet long, while back-to-back turn pockets would require at least 25 feet for each pocket, plus 25 feet for back-to-back tapers for a total of 75 feet. This left turn lane is currently painted with arrows for a eastbound left turn onto 34th Avenue northbound only, but it does not have signs that indicate a west-bound left onto 34th Avenue south is prohibited. Several citizen workshop attendees mentioned that they have received traffic tickets from police for making this westbound movement, since the police officers interpret the lack of a turn arrow in the westbound direction as indication that this movement is prohibited. It is Dowling Associates recommendation that this movement be allowed by painting left turn arrows for both movements allowing the 60 foot long left turn lane should function as a shared left turn lane for both movements.

♦ Lane Striping at Courtland Avenue Approach. While lane striping details go beyond the scope of services for this project, it should be noted that since the existing westbound left/through lane approaching Courtland Avenue will be converted to an exclusive left turn lane, the proper striping, arrows and signage should be provided in advance of the stop bar at Courtland Avenue to ensure that drivers are not “caught” in a left turn lane when they intended to continue on Foothill Boulevard.

Other striping changes will be required along the project corridor. In addition, the provision of adequate striping transition lengths may require changes/relocations of proposed bulbouts, tree wells and medians. Final striping including arrows, turn lanes, transitions, and merge arrows are subject to review and approval by the Transportation Services Division.

Review of the final streetscape designs by the Transportation Services Division of Oakland’s Public Works Department identified numerous additional areas of traffic study that should be addressed before proceeding further with design.
♦ **Safety Improvements.** The need for signal improvements for safety must be evaluated as soon as possible during the feasibility/design stages of this project because it may impact design elements.

♦ **Traffic Queuing.** Lane configurations and bulb-outs at numerous Foothill Boulevard intersections, including 35th Avenue, 36th Avenue, 38th Avenue, and Courtland Avenue will need to be evaluated in further detail to determine the effects of such changes on LOS and queues at the intersections. Any signal improvements needed to mitigate queuing impacts at these intersections should be identified. Potential improvements include traffic signal interconnect for coordination and video detection for signal actuation. Long queues on Foothill Boulevard that could result from lane reductions or reconfigurations would have the potential to make parking circulation, driveway access, and access at un-signalized intersections more difficult. This could also lead to traffic diversion.

♦ **Bus Stop, Parking, and Loading Zone Changes.** Existing and proposed locations and lengths of all bus stops, parking, and loading zone changes should be clearly documented. Property owners, businesses and residents that will be affected by these individual changes must then be contacted in writing. For proposed bus stop relocation, this includes all property owners, businesses and residents within one block length radius of the proposed location. For any proposed parking meter removals, Oakland’s Finance Agency must be notified, and for removal of parking for entire street blocks, the petition and Council approval process must be followed.

♦ **Future Traffic Safety Improvements.** It should be confirmed that proposed streetscape improvements on Foothill Boulevard will not prevent future traffic safety improvements to intersections identified as having specific collision patterns under the existing conditions section of the Master Plan. This includes Fruitvale Avenue, 38th Avenue, 42nd Avenue and High Street.

♦ **39th Avenue Marked Crosswalk.** The engineering study for a marked crosswalk at 39th Avenue should be completed.

♦ **Pavement Striping and Markings.** Pavement striping and markings, including creek marking, lane transitions and left-turn striping such as at 34th Avenue should be refined and further detailed.

♦ **Bicycle Safety.** Traffic calming measures will reduce vehicular speeds, thereby increasing bicycle safety. In addition, designated arterial bike lanes have been accommodated in the preferred alternative.

♦ **Lane Reductions.** CEQA process for any proposed lane reductions should be followed.
E. PROPOSED IMPROVEMENTS TO AREAS ADJACENT TO THE PROJECT AREA

As part of the planning process, the area at Courtland Avenue, just outside the project area, was identified as needing significant improvement. The landscaped median along Courtland Avenue could be renovated as part of this project, or under separate contract. Landscape plantings are in poor condition and should be replaced. Improvements along Courtland Avenue such as new curbs and sidewalks with street parking could be executed with landscaping improvements for this significant boulevard. Potential improvements on the Comcast parcel in this area would also greatly improve the aesthetics at this intersection.

Another opportunity for improving connections to the Streetscape exists with the nearby and recently refurbished Peralta Hacienda cultural center and park. This beautiful neighborhood asset sits adjacent to a daylighted section of Peralta Creek, and ideally would be part of a greenway link following the creek, past Calvin Simmons School to the creek overlook proposed in the Streetscape Design.

Another site, the Kragen’s and Walgreens parking was identified as an opportunity site for improvements. The current parking lot design allows cross-traffic to cut through from Fruitvale Avenue to Coolidge Avenue at high speeds, creating unsafe conditions for pedestrians using the sidewalk and in the parking lot. A re-design of the parking lot would complement the Master Plan improvements to the corner plaza and the streetscape in this area. This would significantly improve the safety, function and aesthetic at this important corner.
### Table 6-1: ESTIMATE OF ANTICIPATED CONSTRUCTION COSTS

**Foothill Boulevard Streetscape Design Project** *(5,426 ft)*

**Preliminary Cost Est** 31-Jan-07

<table>
<thead>
<tr>
<th>IMPROVEMENTS</th>
<th>Item Description</th>
<th>Quantity</th>
<th>Unit</th>
<th>Cost</th>
<th>Price</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td><strong>1.0 Project Start and Site Preparation</strong></td>
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<tr>
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<td>2.6 PCC Curb &amp; Gutter</td>
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<td>$3,561</td>
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<td>2.20 Thermoplastic Crosswalk Striping (Continental)</td>
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<td>2.21 Re-locate Traffic Sign and Post</td>
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<td>2.22 Signal/Electrolier (Extensions or Modifications)</td>
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<td>2.23 Signal Traffic Flow Mitigation Improvements</td>
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<td>2.24 Signal Improvements for Pedestrians (push-buttons, etc.)</td>
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<td>LS</td>
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<td>$100,000</td>
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### 3.0 Irrigation/Utilities

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<tr>
<th>Item Description</th>
<th>Quantity</th>
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<th>Cost (2022)</th>
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<tr>
<td>3.1 Irrigation System</td>
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<td>3.2 Irrigation Controller</td>
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<td>LS</td>
<td>$20,000.00</td>
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<tr>
<td>3.3 Irrigation Backflow</td>
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<td>3.4 Road Crossing (Sleeve)</td>
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<td>3.5 Utilities Relocation Allowance</td>
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Total: $493,500

### 4.0 Softscape

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<tbody>
<tr>
<td>4.1 Trees - (24” box with irrigation)</td>
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<td>4.2 Median Plantings</td>
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<td>SF</td>
<td>$12,060.00</td>
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<tr>
<td>4.3 Sidewalk Plantings (Kragens, Bulbouts, Etc.)</td>
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<td>SF</td>
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<tr>
<td>4.4 Root barrier at Median Islands</td>
<td>1,605</td>
<td>LF</td>
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<td>4.5 Header @ Median DG Tree Wells</td>
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<td>LF</td>
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<tr>
<td>4.6 Mulch (3” deep)</td>
<td>30</td>
<td>CY</td>
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<td>4.7 Decomposed Granite Tree Wells Medians</td>
<td>1,044</td>
<td>SF</td>
<td>$6,264.00</td>
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<tr>
<td>4.8 Decomposed Granite Tree Wells Sidewalk (Ex. Trees)</td>
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<td>SF</td>
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Total: $366,510

### 5.0 Site Furnishings

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<th>Item Description</th>
<th>Quantity</th>
<th>Unit</th>
<th>Cost (2022)</th>
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<tbody>
<tr>
<td>5.1 Trash Receptacles (Approx. 1 every 400 if each side)</td>
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<td>5.2 Pedestrian Lighting (Overhead Connect &amp; Trenching)</td>
<td>62</td>
<td>EA</td>
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<tr>
<td>5.3 Gateway Features (2 Columns, Light,Overhead Crossing)</td>
<td>4</td>
<td>EA</td>
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<tr>
<td>5.4 Gateway Clock Tower @ 35th</td>
<td>1</td>
<td>EA</td>
<td>$100,000.00</td>
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<td>5.5 Creek Educational Signage</td>
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<td>5.6 Benches (Artist Installed)</td>
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<td>5.7 Seat Wall Benches (12 6’ Benches)</td>
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<td>5.8 Bollards</td>
<td>24</td>
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<tr>
<td>5.9 Permeable Visibility Fencing (w/ Artist Motif)</td>
<td>650</td>
<td>LF</td>
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<td>5.10 Tree Grates &amp; frame (4’x4’) (Sidewalk &amp; Islands)</td>
<td>96</td>
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<td>5.11 Tree Guards (Powder Coated)</td>
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<td>5.12 Tree Well (Sidewalk and Tree Islands w/ str. Soil)</td>
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<td>5.13 Water Fountain at Cesar Chavez</td>
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<td>EA</td>
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<tr>
<td>5.14 Water Fountain at Coolidge</td>
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<td>EA</td>
<td>$150,000.00</td>
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<tr>
<td>5.15 Fruitvale/Coolidge Plaza Trellis</td>
<td>2</td>
<td>EA</td>
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<td>5.16 Re-furbish Fruitvale Information Board</td>
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<td>5.17 Bus Shelters</td>
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<td>5.18 Street Pole Banners</td>
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<tr>
<td>5.19 Information Kiosk (Fruitvale, Cchavez, 38th, 42nd)</td>
<td>4</td>
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Total: $2,027,920
5.20 Newsracks (Fruitvale, 38th, 42nd) 3 EA $4,000.00 $12,000
5.21 Bike Racks (Fruitvale, Coolidge, CChavez, 38th, 42nd) 15 EA $1,000.00 $15,000
5.22 Boulders and River Rocks at Creek Crossings 1 LS $10,000.00 $10,000
5.23 Parking Meters 1 LS $35,000.00 $35,000

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Units</th>
<th>Cost (Each)</th>
<th>Total Cost</th>
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<td>Newsracks (Fruitvale, 38th, 42nd)</td>
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<td>5.21</td>
<td>Bike Racks (Fruitvale, Coolidge, CChavez, 38th, 42nd)</td>
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<td>$1,000.00</td>
<td>$15,000</td>
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<tr>
<td>5.22</td>
<td>Boulders and River Rocks at Creek Crossings</td>
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<tr>
<td>5.23</td>
<td>Parking Meters</td>
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**6.0 Maintenance**

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<td>6.1</td>
<td>60-day Maintenance Period</td>
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**Base Bid Subtotal** $5,922,229

**Construction Contingency 30%** $1,776,669

**Total** $7,698,898

- Construction Management/Administration @ 10% $769,890
- Preliminary Engineering Design $150,000
- Right-of-Way Approvals/Permit Fees $150,000
- City Public Art Surcharge @ 1.5% $115,483

**Total Project Cost** $8,884,271
Several stakeholders and professionals within the Foothill Boulevard Project area were interviewed by VSCE. The names were selected following several discussions with City staff and the Foothill Boulevard Streetscape Design Technical Advisory Committee (TAC) members. A total of eight people were interviewed to date and each individual’s comments were recorded in the session and outlined below.

A. Stakeholder Interview:
   Agnes Ramirez Grace
   Local Resident
   April 5, 2006

1. What do you like about Foothill Boulevard right now? What is working well, e.g., bus stops, new trees?
   I do not walk down Foothill south of 38th Avenue, I usually walk towards Fruitvale. I like how more businesses have become established in this area, and there are some new trees in the area that are nice. I wish we had more trees. I like all the Latino businesses, and I frequent Panadería Peña and Lupita’s Restaurant where I like to get pupusas.

2. Do you feel safe on Foothill Boulevard today? Why or why not, e.g., street crossings?
   I do not feel safe walking along Foothill. In the street crossings, I have to run fast (and it’s hard for me to run fast anymore at my age) before the lights change, and sometimes the cars are in such a hurry they don’t stop to let you go by. I never carry a purse with me. I’m uncomfortable walking down the street because sometimes there are young people standing around, and I feel intimidated by some of them.

3. What are your key concerns with Foothill Boulevard right now? What issues would you like to see addressed through this streetscape project?
   We need more stop signs on the street. We need to clean the street of all the junk! I see piles of junk along the street. We need to get young people aware of their environment and respecting it. I have witnessed a local merchant sweeping the dirt from inside his store and the sidewalk in front of his store, and then, instead of picking up all the dirt and putting it in a garbage can, he swept it all into the gutter. I confronted the merchant about this, asking him why he was sweeping the dirt into the gutter, and his response to me was that the City of Oakland would come and clean up the gutter. But, the street sweeping only happens a couple of times a month, so what happens to the dirt in the meantime? It gets blown all over the neighborhood again. I think the City needs to educate people about cleaning up—people really believe that it’s the City’s job to clean up the mess—this is a huge concern! We have to educate people and especially young people that they need to pick up the trash! Trash is a huge concern. Use Earth Day to educate the residents of the City about cleaning up our city and recycling.

4. What would you like to see happen on Foothill Boulevard? Can you identify a local street environment that you enjoy and feel is a good example of what Foothill Boulevard can become?
   In Alameda, there’s a pretty street named Fernside that has lots of trees and landscaping, and flowers! That would be so nice. Even in San Leandro, on East 14th Street at the border of Oakland, it is very nice there, you see the difference in the cities right away. there you see trees and flowers and it looks very nice and inviting. There was a nice project in Fruitvale recently where local artists created mosaic planter pots and they placed them along the commercial area of International Blvd. and Fruitvale Avenue. Those pots look so pretty, and you know, some vandals have been
breaking those beautiful pots! They should be fined!

5. Do you have concerns about some potential changes to the area?
Any changes are good changes. We need to change and improve the environment. This area should look as pretty and beautiful as it did when I moved here 45 years ago—it was really pretty then. Our neighborhood has gone through many negative changes, so any changes would be good, they would be an improvement!

6. What changes to the streetscape design can encourage more patronage for the/your business(es)?
Local merchants should not plaster their windows full of advertisements—it's so ugly! They need to take down the ugly bulletin board in front of Mi Ranchito Market at Fruitvale and Foothill—it's ugly! I don't like it when merchants put all their merchandise on display in front of their stores, spilling out onto the sidewalk. Also, it would be nice if merchants took out the ugly iron doors—this gives a message that "we're scared". Merchants need to keep their storefronts clean, and make the entrances and insides of their stores inviting for the people to come in! Also, they should paint out graffiti right away! And please, merchants should keep the insides of their stores clean!

7. Any comments about parking meters?
This area needs a common parking area, that's important. Maybe if Walgreen's and Kragen's could work with the other local merchants to jointly use their big parking lot, it would be helpful. There's a problem with parking meters; if they get broken, you still get a ticket. Again, there should be a parking lot to serve this busy area; some merchants are fortunate to have some parking space, like Lupita's that has some space in the back of their store.

8. Anything else that you would like to add?
I'm happy this project is happening. How long will it take?

B. Stakeholder Interview:
Anwer Virani
Business Lessee
Midas Mufflers
3464 Foothill Blvd.
March 30, 2006

1. What do you like about Foothill Boulevard right now? What is working well, e.g., bus stops, new trees?
We have lots of exposure and there's lots of vehicular traffic at this intersection, which is very good for our business. We've seen an increase in traffic in the area since we acquired the business 8 years ago in 1998. Perhaps the traffic increase is due to improvements that have been made in nearby areas, like down on International between 35th & Fruitvale. Having the BART station close by is a big plus for us. 35th Avenue has a big traffic flow from the hills to the flats, so also good for our business; it's a good location between the two freeways (580 and 880).

2. Do you feel safe on Foothill Boulevard today? Why or why not, e.g., street crossings?
We have concerns in terms of cars racing through this intersection. We've seen accidents happen between cars and pedestrians, as well as car crashes in this very busy intersection. We have had break-ins at this property, and property losses. I've had to rush over with break-ins all the way from Fremont in the middle of the night. About 3 years ago, there was a rash of break-ins. We've had to chain down the display tires in our customer waiting area because we've had them stolen. Break-ins are a big concern. For some reason, people find this an accessible corner to dump garbage. The City inspector has fined us heavily for illegal dumping; they've issued citations to us for illegal dumping that has been left on our premises. One time there was a mattress that was put in the dumpster, but then a homeless person would take it out and then we'd get a citation from the City. We've had to
pay for dumping illegal garbage. There was a drive-by shooting around 11/11:30 a.m. recently; this kind of thing makes it scary for our customers. Also, people cut through our parking lot to avoid waiting at the stoplights sometimes. Our property line next to the church is a homeless toilet area; we get cited by the City to clean this up all the time. There’s not enough lighting along the street—it should be more illuminated. We used to chain the lot at night but we stopped doing that for liability issues (sometimes cars would drive in, breaking the chain and damaging their cars). There’s also a big graffiti problem around here, we get tagged all over our walls and windows. There’s a phone booth in our parking lot, and that hasn’t caused any major problems, but cars park in our lot during the nighttime hours and we know that illegal transactions go on. Another thing that happens on this corner is the day laborers, who are picked up on this corner—sometimes the contractors will pull into our lot to pick them up, this is a hazard.

3. What are your key concerns with Foothill Boulevard right now? What issues would you like to see addressed through this streetscape project?
I’m big on attractive landscaping. That would be nice. Someone hacked down a new tree that had been planted just outside our store on the 35th Avenue side, and I used to water it. I was disgusted when it got hacked down. Aesthetics along the street are important. More street cleanings would make it better. Street improvements are certainly an image upgrade for local businesses.

4. What would you like to see happen on Foothill Boulevard? Can you identify a local street environment that you enjoy and feel is a good example of what Foothill Boulevard can become?
What they’ve done to International Blvd. between 35th and Fruitvale seems more warm. People feel safe walking there. Cleanliness of the street is important. Changing the environment to make it more pedestrian-friendly would be very good. More police patrolling in the area would be helpful. We witnessed a huge fight between adults once, and it was 35 minutes before cops showed up. There are lots of kids from Calvin Simmons, who pass by here, and sometimes there are altercations and fights that happen between them; this kind of thing scares away customers. Sometimes people off the street come running into our customer waiting room for safety.

5. Do you have concerns about some potential changes to the area?
We’re looking forward to positive changes. One concern is bulb outs—I have concerns about the problems these pose for cars to maneuver the turns around corners...I understand they are meant to help pedestrians, but I think sometimes they cause driving hazards.

6. What changes to the streetscape design can encourage more patronage for the/your business(es)?
Better lighting is needed on the street. Landscaping would make the street more attractive, and present a friendlier environment. During school hours, it would be helpful to have a crossing guard for safety and keeping the school kids under control. There should be more delay time in the traffic signal changing times.
We used to see a motorcycle cop monitoring this intersection but we haven’t seen him for a couple years now. When he was around, his presence had a positive impact on slowing the traffic down in this very busy intersection, which can be unsafe for pedestrians. Maybe the installation of left-turn signals would help also.

7. Any comments about parking meters?
This doesn’t affect our immediate area. It can be a burden on customers. “I’d like to put them in my parking lot and make some profit for our business!” (He made this comment jokingly)
APPENDIX A: STAKEHOLDER INTERVIEWS

8. Anything else that you would like to add?
Would like to get this street design improvement done. Adding public art would be nice. Pleasanton has done some nice things around Hacienda Road, with arches at intersections that look very nice. There are too many solicitors that come around and disrupt our business, peddling illegal CDs and such. They walk into our shop and disrupt our business and bother customers...this needs to be stopped.

C. Stakeholder Interview:
David Ramirez
Manager, Big O Tires
3500 Foothill Blvd.
April 6, 2006

1. What do you like about Foothill Boulevard right now? What is working well, e.g., bus stops, new trees?
It's a good street for our business. This is a good corner. There are lots of pedestrians, and lots of drive-by traffic. It could be cleaned up better. It’s also a dangerous intersection—lots of accidents, hits and runs, especially because of all the school kids from Calvin Simmons Middle School. We don’t have too many problems with break-ins and such; there was a recent shooting on Crosby, which is the street that runs along side the rear of our garage shop. That was scary for our customers and embarrassing for us; we closed down for safety reasons on that day. I installed an iron fence behind our property to make it safer back there, because they used to use it like an alley way. But I like everything about the neighborhood; it’s been good for our business.

2. Do you feel safe on Foothill Boulevard today? Why or why not, e.g., street crossings?
Yes, I feel safe here. We used to have the shop across the street too, and I used to run back and forth across the street all the time, and it was fine.

3. What are your key concerns with Foothill Boulevard right now? What issues would you like to see addressed through this streetscape project?
Our biggest concern is with the school kids from Calvin Simmons Middle School during the half hour after school lets out, the students rush down this way to bum rush the bus stops. Some of the kids get unruly; some have scratched cars in our lot. It would be nice if there were some kind of authority over the kids during this peak time that could enforce consequences if they get out of hand. I hate the graffiti—that is a big problem in this area.

4. What would you like to see happen on Foothill Boulevard? Can you identify a local street environment that you enjoy and feel is a good example of what Foothill Boulevard can become?
I like what they’ve done down on International, around the BART station. It’s a nice clean atmosphere there. Anything that can be done to clean up the area better is a nicer image for the city.

5. Do you have concerns about some potential changes to the area?
No.

6. What changes to the streetscape design can encourage more patronage for the/your business(es)?
Well, we’re already located on a prime corner that is good for our business. Trees would certainly make the area nice, and more lighting on the street would be an improvement and would be appreciated by customers. Whenever an area is well-maintained and attractive, it attracts more customers. What’s the deal with the street peddlers? Do they need special permits to wheel those carts around? Sometimes those are bothersome, but they don’t
really come and park near our shop, but I’ve seen them around a lot in nearby areas.

7. Any comments about parking meters?
Ha! Ha! I think they would be great! Good for the city-and a way to deal with the "dead" cars that get parked out here. I see that a lot-unattractive cars that get parked out here for 3-4 days at a time, they’re eyesores! With parking meters, that kind of thing would be better monitored.

8. Anything else that you would like to add?
I think most people (merchants) around here tend to keep up the area by keeping it clean. I know I spend time every morning before business and after hours sweeping up the area, mostly of trash dropped by the school kids going to and from school. I’m all for improvements. People would spend more money on their businesses if the area looked nice and was improved. I know I’m planning on installing some new signs to make our shop more attractive for new customers. Graffiti is a big problem, and I do not wait for the City to come help me get it out, I paint it out myself as soon as I find it, just to keep up with it.

D. Stakeholder Interview:
Grey Kolevson  Local Resident; Cycles of Change
April 4, 2006

1. What do you like about Foothill Boulevard right now? What is working well, e.g., bus stops, new trees?
There are lots of businesses where folks shop at and the neighborhood uses them. Lots of variety and uses-there’s the senior center (Mercy Retirement Center), Cesar Chavez Park, a Buddhist temple and other churches. It’s an important area—a neighborhood center. There’s fresh food available at good prices and the two busy markets, Mi Ranchito and Evergreen, also the Asian market next to Evergreen. I rarely ride the buses, but Foothill is definitely a heavy crossroads for major bus stops. They sure could use some bus shelters, especially at the stops in the Foothill and Fruitvale intersection. These bus stops are heavily used, and shelters would be nice for those waiting to board the buses, especially in bad weather like we’ve been having lately.

2. Do you feel safe on Foothill Boulevard today? Why or why not, e.g., street crossings?
In the stretch between 35th and Fruitvale Avenues, this is a good area for pedestrians because the traffic has slowed down there a lot, so it’s better for pedestrians there. Beyond 35th Avenue, the street becomes a dragstrip for cars. It’s a wide street especially near High Street. It’s intimidating for elderly and anyone walking—the drivers feel they have the run of the stretch of road. To me the street feels nice—I don’t notice lots of criminal activity, I feel it’s a good neighborhood.

3. What are your key concerns with Foothill Boulevard right now? What issues would you like to see addressed through this streetscape project?
I would appreciate signage, for example for the bicyclists. They I’m concerned about putting in a bike lane on Foothill because if you’re turning a portion of Foothill into a bike corridor, but then suddenly the bike lane comes to an end, that’s not good for the bikers. Another concern is about pedestrians trying to get to Cesar Chavez Park—there should be a better crosswalk near that park, making it more pedestrian-friendly. Perhaps things that can slow cars down-maybe signs saying “watch for pedestrians” or something. The park deserves to be better used. It’s good to work with people who feel ownership of the park; it’s important to engage them in the process. There should be an effort to make more of a presence of community in the park, which would be a
positive thing. There is a neighborhood bike route that was developed by the Transportation and Land Use Coalition—they actually created a bike route map of the Fruitvale neighborhood. Josh Hart (I think) is the contact person.

4. What would you like to see happen on Foothill Boulevard? Can you identify a local street environment that you enjoy and feel is a good example of what Foothill Boulevard can become?

Overall Fruitvale has been successful at drawing on positive things and building a neighborhood feeling. Owing a lot to work that’s been put in over the years by community and organizations. I’m happy with the Fruitvale Village, and using community areas for community events. Things that will highlight the value of local businesses and resources would be good-make them as attractive and as accessible as possible. Things that draw attention to attractions, such as Peralta Hacienda Historical Park, or Cesar Chavez Park-visible directional signs from the street, for example. These kinds of things would help people to appreciate the parks and neighborhood assets. The Peralta Creek areas that run through Peralta Hacienda Historical Park and Chavez Park-these can also be highlighted somehow. Draw attention to some of the local businesses and religious centers too. Perhaps public art that local muralists and local school children contribute to would be good. The street vendors are also an important neighborhood asset and are worth supporting on Foothill just like they are on International Boulevard.

Every community needs more community resource centers. The Chavez library functioned as an important center in the Foothill/Fruitvale area, but moving it to the Fruitvale Transit Village moved that resource away. It would be nice to draw more services back to the Foothill/Fruitvale area-put some thought into what assets and locations for community services. Down toward High Street there’s a need for more services, I think.

I like the improvements made on International at 34th Avenue; the Dimond district is nice and the Laurel district is nice-these improvements are nice. Public art elements are always a plus-the tile work at the Fruitvale Transit Village, for example. How about a colorful mural on the street to illustrate that a creek runs beneath it? That would be nice.

5. Do you have concerns about some potential changes to the area?
I’m in favor of change, especially with a positive intention. Community involvement is important. Design for people not for cars. The Foothill area is an opportunity to reverse that direction-this is a vibrant pedestrian neighborhood.

6. What changes to the streetscape design can encourage more patronage for the/your business(es)?
Colorful signage to shop locally-to support local businesses. Talk to some residents to ask what types of businesses they’d like to see around them. I usually shop locally. More street landscaping would be very good, and would please people. Trees, plantings-greenery is a plus.
I really like the community garden in back of the Mercy Retirement Center. There’s obviously an interest among some local neighbors to do community gardening, so celebrating the community gardens is good.

7. Any comments about parking meters?
The fewer the better. If there were a fair fining system, maybe.

8. Anything else that you would like to add?
A way of encouraging people to be more pedestrian is good. One good crosswalk improvement between 35th and High Street would be a great improvement. Signage like “Seniors Crossing”
or "Children Crossing" would be helpful. 34th Avenue is an incredibly vibrant area, a special street that deserves attention. I have a dream of a walking promenade from the Fruitvale Transit Village up 34th Avenue all the way up to Peralta Hacienda Historical Park, with nice landscaping along the way. I think this neighborhood would support this idea.

E. Stakeholder Interview:
Juan Jose Gonzalez
Owner (co-Owner, Abel Robles)
Los Petates Restaurant
4149 Foothill Blvd.
March 27, 2006

1. What do you like about Foothill Boulevard right now? What is working well, e.g., bus stops, new trees?
It is a very busy street, good for attracting customers. There are lots of Latino businesses along Foothill Boulevard, which I think is good in this community.

2. Do you feel safe on Foothill Boulevard today? Why or why not, e.g., street crossings?
Well, the street crossings are okay, plenty of signal lights. But we need more police patrols in this area. There are lots of loiterers on the street. After 9pm, there are too many gang groups that hang out in the street. We stay open until 10pm, but it gets dangerous for our customers after 9pm. Some of our customers have been chased to their cars. Our customers want to feel safe. There need to be more police patrols on the street to stop the gangsters from hanging out. Also the liquor store just up the street (across on the other side of Foothill) is a big problem. It attracts a lot of negative activity around here.

3. What are your key concerns with Foothill Boulevard right now? What issues would you like to see addressed through this streetscape project?
Our main concern is safety. We want our customers to feel safe. Sometimes our customers come in running to get away from loiterers and gangsters that hang around. This is not good for business. There needs to be additional street lighting, and more police patrol officers keeping the streets clear of gangsters. Also, the street needs to be swept more often...now it’s only once a week, but it should be a couple of times a week to keep it clean.

4. What would you like to see happen on Foothill Boulevard? Can you identify a local street environment that you enjoy and feel is a good example of what Foothill Boulevard can become?
We need more trees on the street. That would be nice. Would like to see more police officers patrolling the street on foot. I like the changes and improvements they’ve made up on MacArthur Blvd. in the Laurel District—the arches, the brickwork in the intersections, the street furniture, all that looks real nice.

5. Do you have concerns about some potential changes to the area?
None.

6. What changes to the streetscape design can encourage more patronage for the/your business(es)?
Well, if they widen the street, that might mean they tear down our business, and no more Los Petates! But if there’s a way to improve the parking somehow, that would be a welcome improvement—maybe diagonal parking, or something that would help the parking situation. Parking is a big problem for our restaurant—it’s very tight along Foothill, and around the corner on 42nd. Would be nice if there were more and better parking for our customers.
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No-no to the carts on the corners-those are bad for our business. We pay hefty taxes, and these guys can buy a little cart for a few hundred dollars and set up shop on any corner—that’s just not fair for those of us with legitimate businesses!

7. Any comments about parking meters?
Don’t put any parking meters in!!

8. Anything else that you would like to add?
No thank you.

F. Stakeholder Interview:
Lillian Lopez & Pamela Magnusson Peddle
Local Residents
April 4, 2006

1. What do you like about Foothill Boulevard right now? What is working well, e.g., bus stops, new trees?
LL: Not much. It is heavily used by pedestrians, and I like that.
PMP: Many well-established businesses along the street. I like the housing development that was built near 36th Avenue a few years ago, the brown-shingled building. That development was well done, and it is nicely maintained and attractive. There were new trees planted in recent years, but I was sorry to see lots of businesses took them out.

2. Do you feel safe on Foothill Boulevard today? Why or why not, e.g., street crossings?
LL: I feel safe, but I don’t go out at night. Mostly I walk around the neighborhood in the afternoons. At nights on the intersection of 38th and Foothill the kids prepare for "sideshows" where the cars do donuts in the intersection. The liquor store on 39th and Foothill is a hangout for drug dealers. I like the All Green Produce place. As for the traffic—I don’t feel safe—people drive too fast along Foothill, and it’s hard to make left turns.
PMP: I feel safer during the day except when driving. This is definitely a through-fare street, and people drive too fast. They don’t stop for pedestrians in the crosswalks. If I felt safe at night I would take the bus to work, but as it is now, I wouldn’t feel safe. There have been armed robberies in the neighborhood recently. Some intersections don’t feel safe.

3. What are your key concerns with Foothill Boulevard right now? What issues would you like to see addressed through this streetscape project?
LL: The sidewalks are not wide enough. Kids hang out on corners. Leave areas "open"-i.e., don’t build any structures or areas where people can hide. There’s a big problem on 38th Avenue half a block below Foothill, lots of gang activity goes on there. It would be nice to see a more attractive storefront on the store on 38th and Foothill (La Estrella, which used to be The Red Sea Market). It’s creepy to go inside that store because they installed bullet proof enclosures because of a shooting that took place there awhile back.
PMP: Broadly speaking, I’d like the street to look more attractive so that people will take more pride in the street. People would be inclined to shop there if it looked nicer. Many shop along Foothill by necessity, but some stores are not attractive. It would be nice if some of them would "open up" their windows instead of having them all shuttered closed.

4. What would you like to see happen on Foothill Boulevard? Can you identify a local street environment that you enjoy and feel is a good example of what Foothill Boulevard can become?
LL: In North Oakland near MacArthur BART station, on
Telegraph Avenue between 40th and 51st Streets—that’s a nice area. Also College Avenue in Berkeley, they have nice areas where people can come out and have coffee in their neighborhoods. The new stoplight they installed at 40th Avenue is good. Where people won’t drive, where they can walk around their neighborhood safely, that would be nice.

PMP: The Fruitvale Main Street Program, with the City’s Neighborhood Commercial Revitalization Program, has done a remarkable job on International Boulevard to improve the area and make storefronts look nicer. I like the street furniture they’ve installed up in the Laurel district. The garbage cans and benches they installed are simple but nice amenities. One of the ugly things on Foothill is the utilities. It would be nice to underground the utilities. It makes it difficult to plant more trees with the ugly utility lines in the way. The traffic speeds by on this busy street.

5. Do you have concerns about some potential changes to the area?
LL: That it doesn’t become a place where bad elements hang out, like at De La Fuente Plaza and the Fruitvale Plaza Park, where druggies and drinkers take over those spaces and make them unattractive and places where people want to stay away.

PMP: I’m concerned about gentrification. There are some good things about gentrification, but I would hate to see the nice mix in our neighborhood go away because people can’t afford to live here anymore.

6. What changes to the streetscape design can encourage more patronage for the/your business(es)?
LL: Make the building facades look more attractive. Also the insides of businesses need to look more attractive for customers. It would be nice if La Finca could “open up” their windows, it looks so enclosed and unwelcoming now.

PMP: Any number of things can be done to improve the area. For example, painting—there are some very charming buildings on Foothill but they aren’t well taken care of. Property owners should take advantage of the unique characteristics of their buildings, and this would make more of a focus for pedestrians. The markets like All Green Produce are great; they speak so many languages, but the store is kind of depressing inside.

7. Any comments about parking meters?
LL: I don’t know that we need them around here. I think there would be a tendency for people to avoid them and then start clogging up the nearby neighborhoods to find non-metered parking spaces. There’s already a problem with not enough parking. I don’t think people abuse the free parking that’s available. The blue apartments in between La Estrella Market and the liquor store (at 38th Avenue)—this kind of a dump—there’s always cars everywhere, and people there seem to use the apartment garages to work on cars. Maybe this needs to be looked at.

PMP: It would be great not to have parking meters.

8. Anything else that you would like to add?
LL: We need wide sidewalks. Again, check into the ugly apartment building on Foothill next to La Estrella Market.

PMP: Two things: 1) bulb-outs at some intersections would be good, like at 41st Avenue and at Rosedale Avenue, and 2) I’m charmed by the underground creek crossings—if there were a way to draw attention that there are creeks nearby, that would be great. Daylighting Sausal Creek would be nice. They’ve daylighted creeks in other areas of the city and it’s been nice, like in Temescal and off Piedmont Avenue, these creek areas are really beautiful.
G. Stakeholder Interview:
Pastor Art Oceguera  
Bay Apostolic Church  
3715 Foothill Blvd.  
March 31, 2006

1. What do you like about Foothill Boulevard right now? What is working well, e.g., bus stops, new trees?
Foothill is a good bus artery. It’s good for lots of people in our congregation, and lots of people in this neighborhood use the bus frequently. They installed more street signals, which seem to be working pretty good (at 38th & Foothill). The middle lane they installed seems to be working well.

2. Do you feel safe on Foothill Boulevard today? Why or why not, e.g., street crossings?
No, this street does not feel safe. I’ll say that the street crossings are better than they were when we moved here 16 years ago. Still, 38th Avenue at Foothill is very dangerous—the cars coming down 38th (from the hills) come down way too fast. Elderly people around here get mugged. The lady that runs the Taqueria Campos on the other side of the park told me just the other day she saw another elderly woman get mugged. The day laborers congregate all along the street, and this makes my daughter feel unsafe—this is not good for girls in general. They say inappropriate things and it’s just not safe for girls to walk in this area. I’d rather drive my daughter over to Patten where she attends school than allow her to walk down the street around here.

3. What are your key concerns with Foothill Boulevard right now? What issues would you like to see addressed through this streetscape project?
There’s lots of congestion, especially at 34th and Foothill—there’s a bottleneck that happens when you cross 35th Avenue towards Fruitvale, right in front of the KFC—two lanes converge into one lane, and it causes really bad congestion. This is a major concern. I don’t like the big festival days on International (Cinco de Mayo and Día de Los Muertos) because all the traffic gets diverted up to Foothill, and it becomes a big mess. Of course, these are only two days of the year, so I guess it’s not that bad. Improvements to César Chávez Park in recent years have been excellent in creating a better environment for families in the park. It helped clean up the gang activity going on there—it’s definitely not like what it used to be. It’s nice to see families come out to enjoy the park; before it was just gangs who hung out there. The park rangers seem to be doing a good job in keeping this in check. Now the gangsters seem to hang out on the corner of Bridge & Foothill and over on 38th Avenue (the Norteños). Drug dealers hang out at the bus stop in front of the Red Sea Market on the corner of 38th & Foothill—it’s real obvious what they’re doing there. Graffiti is a big problem in this area. 16 years ago, the gangsters tagged up our church, but then they stopped tagging our church, thank God. But they still tag everywhere else around here. There needs to be better control of the traffic coming down 38th Avenue (too fast). We are concerned for the safety of the elderly, too many muggings.

4. What would you like to see happen on Foothill Boulevard? Can you identify a local street environment that you enjoy and feel is a good example of what Foothill Boulevard can become?
I would like to see an atmosphere like the one on Foothill between Fruitvale to 34th Avenue. That area has become nice, lots of shops, taquerias, it’s always busy, which is so nice to see. Lots of people walking around the area. They do have a problem with parking—need better parking in that commercial area. I like the improvements they’ve put in up in the Laurel district—those all look very nice. I do not like the benches they installed on the ends of the median strips on International Blvd.—who sits in them, and they are hard for drivers to see when making turns. This is
wasted cement! The Plaza Park on 35th and International is a nice area.

5. Do you have concerns about some potential changes to the area?
The parking and traffic congestion—if less parking, that would be of concern—we don’t want less parking, we need more. Improvements to the entrance of Chávez Park would be nice. Lots of folks play soccer in the park, so improvements to the turf in the park would be great; also, lots of kids use the basketball courts, so improvements to the pavement for the basketball courts would be great too. Don’t lose parking. We need more trees! That would be good along the street. Some of the new trees that were installed recently were not professionally done, they basically just dug holes...should be done better. I recently spoke with the groundskeeper of the park, and he had some comments about the basketball court in Chávez Park. The way the park is designed now, people have to walk through the basketball court to get from one end of the park to the other. Whenever basketball games are actively being played, it is intimidating for people (especially for ladies with children and strollers) to walk through the court, and the players do not want to pause their play to allow people to walk through. This is a problem, and it would be nice if there could be a path designed to go around the basketball to avoid this situation. Also, the groundskeeper does not think trees are a good idea in the creek area because people can go down there and hide.

6. What changes to the streetscape design can encourage more patronage for the/your business(es)?
Our church is lucky to have a parking lot, which is a plus for our congregation. Creating a more attractive street will make people more comfortable, and more attracted to come to the area. Buses are a great asset to this area, providing easy access for patrons. Diagonal parking might be helpful, especially in the more congested areas, like between Fruitvale and 34th Avenues.

7. Any comments about parking meters?
We don’t want parking meters! Where does the money go? If the money were re-invested into the area to maintain and take care of the street, then it might not be so bad, but if it just goes into some general fund, then where does it benefit?

8. Anything else that you would like to add?
I’m pleased that the area is looking better since we moved here 16 years ago; we’ve seen some improvements, which are good. Adding some nice landscaping would sure make it nicer and improve it even more. Let me emphasize again—no concrete benches on median strips!

H. Stakeholder Interview:
Raúl Guzman
Taco Zamorano Restaurant
4032 Foothill Blvd.
April 4, 2006

1. What do you like about Foothill Boulevard right now? What is working well, e.g., bus stops, new trees?
It’s a nice combination of commercial and residential. Lots of businesses on the street. It’s a busy street, but not overly congested—it’s “busy enough”. International Boulevard, with the new median strip between 35th and Fruitvale, has become too congested.

2. Do you feel safe on Foothill Boulevard today? Why or why not, e.g., street crossings?
No. There’s lots of crime problems on this street. Some of our customers have been assaulted by gunpoint on the street and in the parking lot. The catering trucks in the parking lot have been
APPENDIX A: STAKEHOLDER INTERVIEWS

broken into. There have been robberies and assaults with weapons, and several break-ins to our business in the past couple of months. One of our customers suffered a broken jaw from being assaulted.

3. What are your key concerns with Foothill Boulevard right now? What issues would you like to see addressed through this streetscape project?
Crime is our number one concern. More lighting on the street would be helpful. More façade improvements, both commercial and residential, would be good. Improving the aesthetics along the street would be nice. Parking—there’s not enough available parking. Diagonal parking along the street, like they’ve done further south on Foothill near Seminary would be an improvement along certain areas of the street. The signal that’s been installed at 40th Avenue has been a good improvement. My grandmother was run over on Foothill—the cars just go too fast on this street. Need to slow down the cars.

4. What would you like to see happen on Foothill Boulevard? Can you identify a local street environment that you enjoy and feel is a good example of what Foothill Boulevard can become?
What they’ve done up in the Laurel area is nice—the brickwork in the crosswalks, the arches are nice. The palm trees along East 12th Street near 5th Avenue are very nice. Benches are nice, but they attract people to hang out there too much...like at Plaza De La Fuente—the benches there attract the wrong element. The median strip down on International—it looks nice, but has congested the traffic too much. I prefer palm trees, better and more lighting along the street, and more garbage cans!

5. Do you have concerns about some potential changes to the area?
The proposed BID for this area—no one likes it…it sounds like a good idea, but I have mixed feelings about it. I’m leaning toward not wanting it. Just another expense on top of the $1500 we have to pay for our beer & wine license. We don’t need to be paying more expenses.

6. What changes to the streetscape design can encourage more patronage for the/your business(es)?
Lighting improvements on the street would make it feel safer. Palm trees would make it nice. Litter—the laundry across the street has bushes in front, and they’re always full of litter. There should be more enforcement for upkeep to the fronts of businesses. All these kinds of things would make it nicer, more “homey” feeling. We’ve been thinking about putting some outdoor seating on the sidewalk on the Rosedale side, but we’ll have to see how it goes.

7. Any comments about parking meters?
Hate them. More revenue for the city, but not for us businesses. No parking meters—they are no benefit to local businesses.

8. Anything else that you would like to add?
Lots of other merchants along Foothill would be good to talk to—All Greens Produce, Lion’s Liquors, La Finca. They are all concerned about improving the street and making their businesses better.
On Wednesday, March 29, 2006 the first Foothill Boulevard Streetscape Design Project Community Workshop was held at Jefferson Elementary School in the vicinity of the Foothill Boulevard Streetscape project area. In addition a separate meeting was held with the students at Fremont Architecture Academy on March 23, 2006.

1. Group #1
   - All along way: bulbouts
   - Street trees
   - Stand out crosswalks
   - Underground power lines
   - Attractive street lights
   - High to 42nd: dead and desolate
   - Comcast building: get an interesting tenant
   - Farmers Market
   - Lower street lights for better street illumination
   - Chavez Park: bulbout on street, ball stop, workout benches
   - Bus Shelter
   - Clock tower w/ roundabout to highlight 35th Ave.
   - Fountain at Coolidge
   - FV and FH Public Plaza with benches and protection from sun
   - Coolidge: another plaza
   - Sausal Creek: metal sculpture
   - Directional signage to PHHP

2. Group #2
   - Cars go too fast around 35th - need more stoplights and bulbouts
   - Chavez Park is very unsafe
   - Businesses have "bandit barriers" these should be opened up
   - Trees - mixed thoughts... palm trees are low maintenance
   - Abandoned cars near body shops - so make 2 hour parking limits
   - Better and more lighting all along the street

3. Group #3
   - Gateway at High St. / 42nd Courtland
   - Block 42nd and put a fountain
   - Trees along entire stretch
   - Raised median strip
   - A pergola over establishments
   - Underground utilities
   - Enlarge sidewalks
   - Drought tolerant plants
4. Group #4

- Utilities Underground
- Put a park at 42nd and Foothill
- Bulbout at Chavez Park
- Gateway - nice at High Street
- Chavez Park needs to be more family friendly
- 35th Ave.: no bulbout, too dangerous, put "pork chop" islands instead
- Platform stage at 33rd Ave. blocked off
- Timers for pedestrians
- Crosswalk at Chavez Park
- Landscaping, trees

5. Freemont Academy Student Input

a. Foothill Boulevard Project

- Gateway banner - Archway over Blvd., Cesar Chavez sculpture on side Rigoberta Menchu(?) on other side holding banner over thoroughfare
- Possibility of gateway every 10 blocks
- Clock tower at intersection (35th?)
- Underground power lines along Blvd.
- Skyway pedestrian overpass
- Green strip to filter storm water before it enters drain to bay system
- Bring water to surface along walkways at three creeks
- Natural spring at Coolidge Ave. Create fountain and information plaque about spring feed to fountain
- Investigate empty Comcast building, possible soccer field?
- Discontinued bus route on 35th Ave.
- Street signs unique treatment to identify neighborhood
- Turn signal lanes at major intersections (e.g. 38th)
- Fountain at High Street with glory circle/roundabout in intersection
- Fountain in green strip in front of retirement home
- Street light redesign
- Flower beds along walkway
Identifying plaques at streams
Farmers market

b. Cesar Chavez Park Input
Ball guard around basketball courts so ball does not go into creek
Skateboard park
Soccer/Football field developed with workout stations
Entrance gateway with Aztec calendar motif
This appendix provides the results of an analysis of future transportation and circulation conditions in the Foothill Boulevard Streetscape Plan study area. The study area is defined as Foothill Boulevard between Sausal Creek and High Street. There are three areas where the effects of the proposed streetscape design changes on circulation have been analyzed:

1. Automobile Intersection Levels of Service
2. Automobile Intersection Queues
3. Automobile Parking

Changes in these areas attributable to the proposed streetscape design are reported here by comparing "Existing" with "Future" circulation conditions. These three areas were also analyzed in the Existing Conditions memorandum for this project (attached to this report), along with analysis of transit, pedestrian and bicycle circulation, and reported collisions. However, since there are no accepted methods for forecasting the changes in these areas that will result from the proposed design changes, the effects of the streetscape design on these areas will be discussed qualitatively in the Summary and Conclusions section of this appendix.
Appendix C Traffic Analysis

Existing Conditions

Automobile circulation was primarily analyzed in terms of the levels of service provided by key study area intersections. Manual turning movement counts for automobiles were collected during weekday (Tuesday through Thursday) morning and afternoon peak periods at the following intersections:

1. Fruitvale Avenue & Foothill Boulevard (Tuesday, January 24, 2006)
2. Coolidge Avenue & Foothill Boulevard (Wednesday, January 12, 2005)
3. 35th Avenue & Foothill Boulevard (Tuesday, January 24, 2006)
4. 36th Avenue & Foothill Boulevard (Tuesday, January 24, 2006)
5. 38th Avenue & Foothill Boulevard (Tuesday, January 24, 2006)
6. 42nd Avenue & Foothill Boulevard (Tuesday, January 24, 2006)

Machine (tube) counts were also conducted to collect total daily traffic volumes for each direction of travel on Foothill Boulevard at the following two locations:

1. Foothill Boulevard between Fruitvale Avenue & Coolidge Avenue (Wednesday, March 8, 2006)
2. Foothill Boulevard between Fruitvale Avenue & Coolidge Avenue (Thursday, March 9, 2006)

24-hour machine vehicle traffic counts are summarized in Table 1.

<table>
<thead>
<tr>
<th></th>
<th>Eastbound</th>
<th>Westbound</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% Trucks</td>
<td>% Trucks</td>
<td></td>
</tr>
<tr>
<td>Fruitvale Ave. to Coolidge Ave.</td>
<td>6,642 1.49%</td>
<td>6,670 -</td>
<td>13,412* -</td>
</tr>
<tr>
<td>41st Ave. to 42nd Ave.</td>
<td>8,776 2.85%</td>
<td>8,916 1.10%</td>
<td>17,692 1.97%</td>
</tr>
</tbody>
</table>

Notes:
* - Estimated volume.
Dowling Associates, Inc.

In addition to these counts, pedestrian and bicycle counts were also collected and are reported in the Existing Conditions memorandum in the attachments to this report.

Daily vehicular traffic on Foothill Boulevard in the western section of the study area (near Fruitvale Avenue) reached 13,061 vehicles while it reached 17,692 in the eastern section (near 42nd Avenue). The share trucks on Foothill Boulevard was higher in the eastern section as well.
(note that repeated problems with the counts machine prevented us from obtaining a westbound count for the Fruitvale Avenue to Coolidge Avenue segment of Foothill Boulevard). These differences suggest that the two areas of Foothill Boulevard function somewhat differently, with the western section being somewhat more pedestrian-oriented and the eastern section somewhat more automobile-oriented.

Existing conditions automobile turning movement volumes, intersection approach geometries and daily traffic volumes are summarized in Figure 1.

**Level of Service Methodology**

To analyze intersection levels of service in the project area, this study used the Transportation Research Board's *Highway Capacity Manual* (2000) method. Level of service is a qualitative indication of the level of delay and congestion experienced by motorists using an intersection, which is based on calculations using intersection geometries, traffic volumes, and other information. Levels of service are designated by the letters A through F, with A having the best operating conditions and F the worst (high delay and congestion). The criteria used for signalized intersections are summarized in Table 2.

Analysis of intersection levels of service was performed using the Synchro 7.0 software package using signal timing information as provided by the City of Oakland. Adjustments are made to the analysis to reflect the influence of factors such as pedestrian and bicycle crossing volumes, parking maneuvers, and delays due to bus stops. Where appropriate (as determined by professional judgment and in consultation with the appropriate City of Oakland staff), right turn lanes that are not formally designated with pavement markings but serve this function (referred to here as “de facto” right turn lanes) have been included in the Synchro/Simtraffic model. Table 3 presents the LOS and average stop delay analysis for the study intersections.

---

1 Additional adjustments were made to the southbound left turning movement at Foothill Boulevard & Fruitvale Avenue where there is adequate room for a single, left-turning vehicle to wait for gaps in oncoming traffic at the center of the intersection and not block southbound through traffic. Since the Syncrho/SimTraffic models do not allow through traffic to maneuver around this left-turning vehicle, a left-turn lane with enough length for a single vehicle was coded into the models for this movement at this intersection to adequately reflect these real-world operating conditions. Saturation flow rates for the through and right turning southbound movements were reduced using professional judgment (1,516 vphpl) to reflect the added delay that this left-turning vehicle would have the other southbound movements.
<table>
<thead>
<tr>
<th>Level of Service (LOS)</th>
<th>Average Delay(^1) (sec/veh)</th>
<th>Volume to Capacity (V/C) Ratio(^2)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>(&lt;10.00)</td>
<td>(&lt;0.59)</td>
<td><strong>Very Low Delay:</strong> This level of service occurs when progression is extremely favorable and most vehicles arrive during a green phase. Most vehicles do not stop at all.</td>
</tr>
<tr>
<td>B</td>
<td>10.1-20.0</td>
<td>0.60-0.69</td>
<td><strong>Minimal Delays:</strong> This level of service generally occurs with good progression, short cycle lengths, or both. More vehicles stop than at LOS A, causing higher levels of average delay.</td>
</tr>
<tr>
<td>C</td>
<td>20.1-35.0</td>
<td>0.70-0.79</td>
<td><strong>Acceptable Delay:</strong> Delay increases due to only fair progression, longer cycle lengths, or both. Individual cycle failures (to service all waiting vehicles) may begin to appear at this level of service. The number of vehicles stopping is significant, though many still pass through the intersection without stopping.</td>
</tr>
<tr>
<td>D</td>
<td>35.1-55.0</td>
<td>0.80-0.89</td>
<td><strong>Approaching Unstable/Tolerable Delays:</strong> The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.</td>
</tr>
<tr>
<td>E</td>
<td>55.1-80.0</td>
<td>0.90-0.99</td>
<td><strong>Unstable Operation/Significant Delays:</strong> This is considered by many agencies the upper limit of acceptable delays. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent occurrences.</td>
</tr>
<tr>
<td>F</td>
<td>(\geq 80.0)</td>
<td>(\geq 1.00)</td>
<td><strong>Excessive Delays:</strong> Describes operations with average delay in excess of 60 seconds per vehicle. This level, considered to be unacceptable to most drivers, often occurs with oversaturation (i.e., when arrival flow rates exceed the capacity of the intersection). It may also occur at high v/c ratios below 1.00 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.</td>
</tr>
</tbody>
</table>

\(^1\) Weighted average of delay on all approaches. This is the measure used by the *Highway Capacity Manual* to determine level of service.

\(^2\) Sum of the volume to capacity ratios for the critical movements at the intersection. Used by some agencies to estimate level of service for planning and impact analysis purposes.

Figure 1: Existing Conditions Automobile Intersection Approach Volumes and Lanes and Daily Traffic Volumes

- **xx(xx)** = AM(PM) traffic volume
- **=** Traffic Signal Control
- **=** Directional 24-Hour traffic volume
- *** =** Estimated volume
**Existing Intersection Levels of Service**

Existing level of service (LOS) calculation results for the key study area intersections are shown in Table 3.

Table 3: Existing Automobile Intersection Levels of Service

<table>
<thead>
<tr>
<th>Intersection</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LOS</td>
<td>Delay</td>
</tr>
<tr>
<td>1 Foothill Blvd. &amp; Fruitvale Ave.</td>
<td>F</td>
<td>85.5</td>
</tr>
<tr>
<td>2 Foothill Blvd. &amp; Coolidge Ave.</td>
<td>B</td>
<td>17.3</td>
</tr>
<tr>
<td>3 Foothill Blvd. &amp; 35th Ave.</td>
<td>B</td>
<td>18.2</td>
</tr>
<tr>
<td>4 Foothill Blvd. &amp; 36th Ave.</td>
<td>A</td>
<td>5.8</td>
</tr>
<tr>
<td>5 Foothill Blvd. &amp; 38th Ave.</td>
<td>B</td>
<td>15.1</td>
</tr>
<tr>
<td>6 Foothill Blvd. &amp; Courtland Ave.</td>
<td>C</td>
<td>32.4</td>
</tr>
<tr>
<td>7 Foothill Blvd. &amp; High St.</td>
<td>C</td>
<td>23.0</td>
</tr>
</tbody>
</table>

Source: Dowling Associates, Inc.

LOS = Level of Service
Delay = Average vehicle delay in seconds.

One study intersection, Foothill Boulevard & Fruitvale Avenue, currently operates below LOS “D”, the minimum level of service standard for an intersection outside of the downtown area in the City of Oakland. All other study intersections currently operate at or above LOS D. For ease of interpretation and analysis, LOS results for each study intersection are shown in Figure 2 in reference to their locations.

**Existing Intersection Queues**

Additional analysis of the lengths of vehicle queues at each study intersection was performed. To estimate vehicle queues, the SimTraffic traffic simulation software package was used. Queues (including for “de facto” right turn lanes where they exist) were estimated for 95th percentile peak hour conditions shown in Table 4.
Figure 2: Existing Automobile Intersection Levels of Service Map

Legend

A(A) = AM Peak Hour LOS (PM Peak Hour LOS)

Note: Drawing is not to scale.
Dowling Associates, Inc.
### Table 4: Estimated Existing Automobile Intersection 95th Percentile Queues (Feet)

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Movement</th>
<th>Storage</th>
<th>AM Queue</th>
<th>PM Queue</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Foothill Blvd. &amp; Fruitvale Ave.</td>
<td>EBL</td>
<td>90</td>
<td>138</td>
<td>129</td>
</tr>
<tr>
<td></td>
<td>EBTR</td>
<td>215</td>
<td>350</td>
<td>521*</td>
</tr>
<tr>
<td></td>
<td>WBL</td>
<td>140</td>
<td>83</td>
<td>153</td>
</tr>
<tr>
<td></td>
<td>WBTR</td>
<td>380</td>
<td>236</td>
<td>346</td>
</tr>
<tr>
<td></td>
<td>NBTL</td>
<td>280</td>
<td>224</td>
<td>178</td>
</tr>
<tr>
<td></td>
<td>NBTR</td>
<td>280</td>
<td>250</td>
<td>205</td>
</tr>
<tr>
<td></td>
<td>SBLTR</td>
<td>402</td>
<td>959</td>
<td>761</td>
</tr>
<tr>
<td>2) Foothill Blvd. &amp; Coolidge Ave.</td>
<td>EBL</td>
<td>180</td>
<td>94</td>
<td>79</td>
</tr>
<tr>
<td></td>
<td>EBT</td>
<td>380</td>
<td>222</td>
<td>238</td>
</tr>
<tr>
<td></td>
<td>WBTR</td>
<td>458</td>
<td>327</td>
<td>323</td>
</tr>
<tr>
<td></td>
<td>SBLR</td>
<td>226</td>
<td>255</td>
<td>517</td>
</tr>
<tr>
<td>3) Foothill Blvd. &amp; 35th Ave.</td>
<td>EBL</td>
<td>100</td>
<td>61</td>
<td>156</td>
</tr>
<tr>
<td></td>
<td>EBT</td>
<td>588</td>
<td>211</td>
<td>165</td>
</tr>
<tr>
<td></td>
<td>EBTR</td>
<td>301</td>
<td>170</td>
<td>94</td>
</tr>
<tr>
<td></td>
<td>WBLT</td>
<td>440</td>
<td>123</td>
<td>92</td>
</tr>
<tr>
<td></td>
<td>WBTR</td>
<td>440</td>
<td>74</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>NBLTR</td>
<td>156</td>
<td>59</td>
<td>73</td>
</tr>
<tr>
<td></td>
<td>SBLTR</td>
<td>1005</td>
<td>133</td>
<td>27</td>
</tr>
<tr>
<td>4) Foothill Blvd. &amp; 36th Ave.</td>
<td>EBLT</td>
<td>205</td>
<td>114</td>
<td>117</td>
</tr>
<tr>
<td></td>
<td>EBTR</td>
<td>210</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>WBLT</td>
<td>394</td>
<td>123</td>
<td>92</td>
</tr>
<tr>
<td></td>
<td>WBTR</td>
<td>394</td>
<td>74</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>NBLTR</td>
<td>156</td>
<td>59</td>
<td>73</td>
</tr>
<tr>
<td></td>
<td>SBLTR</td>
<td>1005</td>
<td>133</td>
<td>27</td>
</tr>
<tr>
<td>5) Foothill Blvd. &amp; 38th Ave.</td>
<td>EBL</td>
<td>60</td>
<td>44</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>EBT</td>
<td>865</td>
<td>239</td>
<td>189</td>
</tr>
<tr>
<td></td>
<td>WBL</td>
<td>40</td>
<td>78</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>WBT</td>
<td>200</td>
<td>317</td>
<td>259</td>
</tr>
<tr>
<td></td>
<td>WBR</td>
<td>100</td>
<td>36</td>
<td>110</td>
</tr>
<tr>
<td></td>
<td>NBLTR</td>
<td>1700</td>
<td>73</td>
<td>171</td>
</tr>
<tr>
<td></td>
<td>SBLT</td>
<td>258</td>
<td>98</td>
<td>91</td>
</tr>
<tr>
<td></td>
<td>SBT</td>
<td>258</td>
<td>93</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>SBR</td>
<td>258</td>
<td>63</td>
<td>64</td>
</tr>
<tr>
<td>6) Foothill Blvd. &amp; Courtland Ave.</td>
<td>EBL</td>
<td>70</td>
<td>110</td>
<td>78</td>
</tr>
<tr>
<td></td>
<td>EBT</td>
<td>300</td>
<td>235</td>
<td>141</td>
</tr>
<tr>
<td></td>
<td>EBTR</td>
<td>300</td>
<td>258</td>
<td>184</td>
</tr>
<tr>
<td></td>
<td>WBL</td>
<td>365</td>
<td>94</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td>WBTR</td>
<td>470</td>
<td>405</td>
<td>441</td>
</tr>
<tr>
<td></td>
<td>NBL</td>
<td>390</td>
<td>152</td>
<td>144</td>
</tr>
<tr>
<td></td>
<td>NBTR</td>
<td>390</td>
<td>100</td>
<td>125</td>
</tr>
<tr>
<td></td>
<td>SBLT</td>
<td>478</td>
<td>198</td>
<td>94</td>
</tr>
<tr>
<td></td>
<td>SBTR</td>
<td>478</td>
<td>211</td>
<td>110</td>
</tr>
<tr>
<td>7) Foothill Blvd. &amp; High St.</td>
<td>EBLT</td>
<td>470</td>
<td>241</td>
<td>126</td>
</tr>
<tr>
<td></td>
<td>EBTR</td>
<td>470</td>
<td>232</td>
<td>132</td>
</tr>
<tr>
<td></td>
<td>WBLT</td>
<td>300</td>
<td>97</td>
<td>112</td>
</tr>
<tr>
<td></td>
<td>WBTR</td>
<td>300</td>
<td>130</td>
<td>140</td>
</tr>
<tr>
<td></td>
<td>NBLT</td>
<td>219</td>
<td>170</td>
<td>169</td>
</tr>
<tr>
<td></td>
<td>NBTR</td>
<td>219</td>
<td>167</td>
<td>203</td>
</tr>
<tr>
<td></td>
<td>SBLT</td>
<td>350</td>
<td>218</td>
<td>121</td>
</tr>
<tr>
<td></td>
<td>SBTR</td>
<td>350</td>
<td>230</td>
<td>158</td>
</tr>
</tbody>
</table>

* Red and Bold Values = where 95th% queues are greater than available storage.
* Queues estimated using SimTraffic software.
* Queues ranged from 230 to 1,245 feet over multiple model runs. Due to this large variation, the average 95th percentile value of 10 runs was used.
Intersection vehicle queues at the study intersections are typically longest at the intersection approaches in the more congested western portion of the study area (between 35th Avenue and Sausal Creek) during both peak hours. Due to the shorter block lengths and narrower road width (i.e., fewer lanes than on the eastern study area section) on Foothill Boulevard in the western portion, vehicle queues tend to block upstream intersections more frequently. Most notable in this area is the westbound build up from 35th Avenue to block Crosby Avenue, from Fruitvale Avenue & Foothill Boulevard southbound to block East 22nd Street, eastbound queues on Foothill Boulevard at Fruitvale Avenue that block Rutherford Street, and westbound queues on Foothill Boulevard from Fruitvale Avenue to block Coolidge Avenue. Significant eastbound queues also develop along Foothill Boulevard at the approach to Fruitvale Avenue during both peak hours, blocking the Rutherford Street intersection.

In the eastern half of the project area (along Foothill Boulevard from High Street to 35th Avenue), exiting conditions vehicle queues along Foothill Boulevard generally do not spill over and block upstream intersections (with a few exceptions). The most notable queue in this area is along Foothill Boulevard in the westbound direction, where queues build up at the approach to 38th Avenue to block 39th Avenue.

**Automobile Parking**

On-street automobile parking occupancy surveys were conducted in the study area during typical weekday AM, Midday and PM peak hour conditions as well as weekend peak hour conditions. Parking occupancy survey results are shown in Table 5.
Table 5: Study Area Parking Occupancy Survey Counts

<table>
<thead>
<tr>
<th>Segment</th>
<th>Side</th>
<th># of Spaces</th>
<th># Occupied Spaces</th>
<th>% Spaces Occupied</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>AM</td>
<td>Midday</td>
</tr>
<tr>
<td><strong>Westbound</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High to 42nd (South)</td>
<td>South</td>
<td>10</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>42nd (South) to 42nd (North)</td>
<td>South</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>42nd (North) to 41st</td>
<td>South</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>41st to Rosedale</td>
<td>South</td>
<td>6</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Rosedale to 40th</td>
<td>South</td>
<td>5</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>40th to 38th</td>
<td>South</td>
<td>12</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12-min green zone</td>
<td>South</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>38th to Harrington</td>
<td>South</td>
<td>8</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Harrington to 36th</td>
<td>South</td>
<td>10</td>
<td>None</td>
<td>4</td>
</tr>
<tr>
<td>36th to Crosby</td>
<td>South</td>
<td>5</td>
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<td>0</td>
</tr>
<tr>
<td>Crosby to 35th</td>
<td>South</td>
<td>4</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>35th to 34th</td>
<td>South</td>
<td>12</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>34th to Coolidge</td>
<td>South</td>
<td>6</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Coolidge to Fruitvale</td>
<td>South</td>
<td>9</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Fruitvale to Rutherford</td>
<td>South</td>
<td>5</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Rutherford to Austin</td>
<td>South</td>
<td>6</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Austin to 28th</td>
<td>South</td>
<td>9</td>
<td>1 hr</td>
<td>2</td>
</tr>
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<td></td>
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<td>22</td>
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<td><strong>Eastbound</strong></td>
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<td></td>
</tr>
<tr>
<td>28th to Austin</td>
<td>North</td>
<td>9</td>
<td>None</td>
<td>1</td>
</tr>
<tr>
<td>Austin to Rutherford</td>
<td>North</td>
<td>9</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Rutherford to Fruitvale</td>
<td>North</td>
<td>6</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Fruitvale to 33rd</td>
<td>North</td>
<td>8</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>33rd to 34th</td>
<td>North</td>
<td>7</td>
<td>1</td>
<td>6</td>
</tr>
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<td>North</td>
<td>13</td>
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<td>3</td>
</tr>
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<td>35th to 36th</td>
<td>North</td>
<td>8</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>36th to Bridge</td>
<td>North</td>
<td>4</td>
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<td>Bridge to 38th</td>
<td>North</td>
<td>11</td>
<td>None</td>
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<td>7</td>
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<td>North</td>
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<td>None</td>
<td>0</td>
</tr>
<tr>
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<td>North</td>
<td>9</td>
<td>None</td>
<td>1</td>
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<tr>
<td><strong>Totals</strong></td>
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<td></td>
<td>118</td>
<td>39</td>
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</tbody>
</table>

Survey was conducted on Feb 9th, 25th, and 29th, 2006 by Dowling Associates, Inc.:
AM: between 8:00 & 8:30 am; Midday: between 12noon to 1:00 pm; PM: between 6:20 to 6:45 pm; Sat: between 2 & 2:30 pm
Red and Bold Values = where occupancies reach 90% or greater.
For ease of analysis and interpretation, the results of the parking survey have been summarized and graphically displayed in Figure 3 for the AM peak hour, Figure 4 for the Midday peak hour, Figure 5 for the PM peak hour, Figure 6 and for the Weekend (Saturday) peak hour.

On-street parking occupancies in the study area of Foothill Boulevard were generally low during the morning peak hour. Parking occupancies are heaviest on the eastbound (southern) side of Foothill Boulevard between Fruitvale Avenue and 40th Avenue but with percentages that ran between 37 and 57 percent, the demand for parking in this section was still moderate. Along the rest of Foothill Boulevard, occupancies were found to be range between zero and 26 percent. Overall, the AM peak hour appears to experience light demand for parking along Foothill Boulevard.

Occupancies during the Midday peak hour were substantially higher in the study area overall than in the morning. Occupancies were heaviest on the eastbound (southern) side of Foothill Boulevard between Sausal Creek and 35th Avenue during the lunch hour, suggesting that the restaurants that cluster at this end of the study area are drawing patrons that seek on-street parking near their lunchtime destinations. Moderate parking occupancies (between 34 and 66%) were found between 40th and 42nd Avenues in the eastbound direction, and between 42nd and 35th Avenues and Fruitvale Avenue and Sausal Creek in the westbound direction.

**Figure 3: AM Peak Hour Parking Occupancy Survey Map**

![AM Peak Hour Parking Occupancy Survey Map](image)

Legend:
- Blue = 0 - 29.9% occupied
- Green = 30 - 59.9% Occupied
- Yellow = 60 - 89.9% Occupied
- Red = 90 - 100% Occupied

Note: Drawing is not to scale.
Dowling Associates, Inc.
Figure 4: Midday Peak Hour Parking Occupancy Survey Map

Legend
- = 0 - 29.9% occupied
- = 30 - 59.9% Occupied
- = 60 - 89.9% Occupied
- = 90 - 100% Occupied

Note: Drawing is not to scale.
Dowling Associates, Inc.

Figure 5: PM Peak Period Parking Occupancy Survey Map

Legend
- = 0 - 29.9% occupied
- = 30 - 59.9% Occupied
- = 60 - 89.9% Occupied
- = 90 - 100% Occupied

Note: Drawing is not to scale.
Dowling Associates, Inc.
Occupancies in the study area during the weekday reached their highest levels during the PM peak hour. However, while occupancies were highest during the previous two peak hours (AM and Midday) on the eastbound side of Foothill Boulevard, the westbound side of the street generally had the highest occupancies during the PM peak hour. Occupancies were heaviest on the westbound side of the street from 42nd to 35th Avenues and from Fruitvale Avenue to Sausal Creek – a stretch that covers roughly two-thirds of the study area on the westbound side of the street. Occupancies were also high on the eastbound section from 40th to 42nd Avenues. Moderately high occupancies (ranging between 34 and 66%) were found on all the remaining portions of the study area along Foothill Boulevard with the exception of both sides of the street between 42nd Avenue and High Street where occupancies were less than 33 percent.

Parking occupancies during the weekend peak period (Saturday between 2:00 and 2:30 PM) were essentially just as heavy as the PM weekday peak hour, but with a somewhat different pattern of demand. The heaviest occupancy counts were found on the eastbound (south) side of Foothill Boulevard between Sausal Creek and 35th Avenue and between 40th and 42nd Avenues, and on the westbound (north) side of the street between 40th and 35th Avenues. Moderately high occupancies were found on the eastbound side of Foothill Boulevard between 35th and 40th Avenues, 42nd Avenue and High Street, and on the westbound (north) side of the street between Fruitvale Avenue and Sausal Creek. Low parking occupancies were found on the remaining street segments in the study area.
The Final streetscape design for Foothill Boulevard proposed the following changes to the operations of the study area’s circulation network:

1. Foothill Boulevard & Fruitvale Avenue:
   a. Add westbound right turn lane (60 feet); and
   b. Lengthen eastbound left turn lane from 90 to 215 feet.
2. Foothill Boulevard & Coolidge Avenue:
   a. Add eastbound left turn lane; and
   b. Convert shared southbound left/right turn lane to a southbound right exclusive lane.
3. Foothill Boulevard & 35th Avenue:
   a. Shorten length of shared westbound through/right lane to 80 from 160 feet (part of lane removal along this portion of Foothill Boulevard);
   b. Shorten length of eastbound shared through/right lane from 590 from 140 feet (part of lane removal along this portion of Foothill Boulevard); and
   c. Narrow northbound approach lane (effectively removing a “de facto” right turn lane from this approach).
4. Foothill Boulevard & 36th Avenue:
   a. Convert shared eastbound shared left /through lane to eastbound exclusive left turn lane; and
   b. Convert westbound shared left/through lane to an exclusive left turn lane.
5. Foothill Boulevard & 38th Avenue:
   a. Narrow shared northbound through/right turn lane (effectively removing a “de facto” right turn lane from this approach).

Future circulation conditions for the Foothill Boulevard streetscape design study area were analyzed for two variants of the final design: the “No Pedestrian Scramble” and “With Pedestrian Scramble” options. These two scenarios differ in only one respect: the installation of so-called “pedestrian scramble” signal phasing (one phase where pedestrians cross in any direction; vehicles all-stop) at the intersection of Foothill Boulevard & Fruitvale Avenue. Since this intersection is the busiest in terms of pedestrian and automobile traffic, and also has the most pedestrian-involved collisions in the study area (see Existing Conditions memorandum), the design team tested the feasibility of installing a pedestrian-only walk phase for all directions of travel. During the automobile movement phases of the signal, no pedestrians would be allowed to cross. Intersection approach volumes and lane configurations for both Future scenarios (with and without the Pedestrian Scramble) are shown in Figure 7.
“No Pedestrian Scramble” Scenario

In this scenario, the signal timing and phasing at the Foothill Boulevard & Fruitvale Avenue intersection was left to operate as it does the “Existing” scenario.

“No Pedestrian Scramble” Intersection Levels of Service

Future level of service (LOS) calculation results for the “No Pedestrian Scramble” scenario at the key study area intersections are shown in Table 6.

Table 6: Existing and “No Pedestrian Scramble” Scenario Automobile Intersection Levels of Service

<table>
<thead>
<tr>
<th>Intersection</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
<th>Existing</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
<th>Future--No Ped. Scramble</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LOS</td>
<td>Delay</td>
<td>LOS</td>
<td>Delay</td>
<td>LOS</td>
<td>Delay</td>
</tr>
<tr>
<td>1 Foothill Blvd. &amp; Fruitvale Ave.</td>
<td>F</td>
<td>85.5</td>
<td>E</td>
<td>66.8</td>
<td>E</td>
<td>72.9</td>
</tr>
<tr>
<td>2 Foothill Blvd. &amp; Coolidge Ave.</td>
<td>B</td>
<td>17.3</td>
<td>C</td>
<td>25.2</td>
<td>B</td>
<td>16.6</td>
</tr>
<tr>
<td>3 Foothill Blvd. &amp; 35th Ave.</td>
<td>B</td>
<td>18.2</td>
<td>C</td>
<td>22.9</td>
<td>B</td>
<td>18.7</td>
</tr>
<tr>
<td>4 Foothill Blvd. &amp; 36th Ave.</td>
<td>A</td>
<td>5.8</td>
<td>A</td>
<td>5.3</td>
<td>B</td>
<td>13.1</td>
</tr>
<tr>
<td>5 Foothill Blvd. &amp; 38th Ave.</td>
<td>B</td>
<td>15.1</td>
<td>A</td>
<td>17.5</td>
<td>B</td>
<td>15.1</td>
</tr>
<tr>
<td>6 Foothill Blvd. &amp; Courtland Ave.</td>
<td>C</td>
<td>32.4</td>
<td>C</td>
<td>31.7</td>
<td>C</td>
<td>32.6</td>
</tr>
<tr>
<td>7 Foothill Blvd. &amp; High St.</td>
<td>C</td>
<td>23.0</td>
<td>C</td>
<td>24.7</td>
<td>C</td>
<td>22.9</td>
</tr>
</tbody>
</table>

Source: Dowling Associates, Inc.

LOS = Level of Service
Delay = Average vehicle delay in seconds.

For all the study intersections during both peak hours, the proposed design changes will not cause deterioration of automobile levels of service below the City of Oakland’s standards of significance (i.e., to LOS E or F).2 For several intersections – Foothill Boulevard & Fruitvale Avenue and Foothill Boulevard & Coolidge Avenue in particular – the striping of new turning lanes at key approaches will serve to improve overall levels of service. For virtually all other intersections, the proposed changes will not have a noticeable effect on automobile delays. This is usually because the reduction in through lanes is offset by the addition of turn lanes (i.e., delays to through traffic caused by turning vehicles are eliminated). For ease of interpretation and analysis, LOS results for each study intersection are shown in Figure 8 in reference to their locations.

Furthermore, where existing LOS is already at LOS E or F (at Foothill Boulevard & Fruitvale Avenue) the project design would reduce average vehicle delays, improving the performance of this intersection. The design plans do not cause this intersection to increase its average delay by four seconds or more as indicated by the City of Oakland’s significance standards for intersections operating outside the downtown area at LOS E in the existing conditions. A small decrease in delay estimates at Foothill Boulevard & 35th Avenue during the PM peak hour is due to the effects on vehicle arrivals and queuing of improvements to upstream intersections (i.e., Coolidge and Fruitvale Avenues).
Additional analysis of the lengths of vehicle queues at each study intersection was performed. To estimate vehicle queues, the SimTraffic traffic simulation software package was used. Queues (including “de facto” right turn lanes where they are planned) were calculated 95th percentile peak hour conditions shown in Table 7.

Intersection vehicle queues at the study intersections are typically the longest on the Foothill Boulevard (west and eastbound) approaches between 35th Avenue and Fruitvale Avenue during both peak hours.

Comparing queues in existing conditions to those projected for the future “No Pedestrian Scramble” scenario, queues in both the AM and PM peak hours will generally increase in those areas where the plan calls for reducing the number of travel lanes along Foothill Boulevard. For the most part, the plan calls for increasing the number of turn lanes at select intersections in the western portion of the study area (between 35th Avenue and Fruitvale Avenue) and reducing the number of through lanes from four to three (two lanes in each direction, plus a center-left turn lane) along Foothill Boulevard in locations where there are currently four lanes of travel between High Street and 35th Avenue.

In the eastbound direction between Coolidge and 35th Avenues, queues will increase (from 156 to 252 feet) at the 35th Avenue approach, and – as in the existing conditions – exceed the available storage space on Foothill Boulevard (generally defined as the length of the turn pocket or the lane distance between intersections). On the westbound approach to 35th Avenue, right-turning vehicle queues (105 feet during the PM peak hour) will exceed the planned turn pocket storage length (planned to be 80 feet long), suggesting it may be beneficial to extend the length of this turn pocket to accommodate these queues by removing parallel parking spaces. While southbound vehicle queues on 35th Avenue increase slightly from 875 to 942 feet (roughly two to three car lengths) in the PM peak hour, queues during existing conditions already exceed the available storage capacities available on this approach. Overall, comparing queues in the existing conditions to those estimated once the final plan is implemented, queues on this approach will remain relatively stable.3

---

3 Small decreases in certain queue estimates at Foothill Boulevard & 35th Avenue are due to the effects on vehicle arrivals and queuing of improvements to upstream intersections (i.e., Coolidge and Fruitvale Avenues).
Figure 8: "No Pedestrian Scramble" Scenario Automobile Intersection Levels of Service Map

Note: Drawing is not to scale.
Dowling Associates, Inc.
Table 7: Estimated Existing and “No Pedestrian Scramble” Automobile Intersection 95th Percentile Queues (Feet)

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Movement</th>
<th>Existing Storage</th>
<th>No Ped. Scramble Storage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AM Queue</td>
<td>PM Queue</td>
<td>AM Queue</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>PM Queue</td>
</tr>
<tr>
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<td></td>
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<tr>
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<td>90</td>
<td>138, 129</td>
<td>215, 212, 312</td>
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<tr>
<td>EBTR</td>
<td>215</td>
<td>350, 521*</td>
<td>215, 348, 372</td>
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<tr>
<td>WBL</td>
<td>140</td>
<td>83, 153</td>
<td>140, 153, 189</td>
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<tr>
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<td>380</td>
<td>236, 346</td>
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<td></td>
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<td>NBLTR</td>
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</tr>
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</tr>
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<td>WBR</td>
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<td>36, 110</td>
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<tr>
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<td>241, 126</td>
<td>470, 159, 150</td>
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<tr>
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<td>232, 132</td>
<td>470, 196, 175</td>
</tr>
<tr>
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<td>300</td>
<td>97, 112</td>
<td>300, 111, 121</td>
</tr>
<tr>
<td>WBTR</td>
<td>300</td>
<td>130, 140</td>
<td>300, 146, 156</td>
</tr>
<tr>
<td>NBLTR</td>
<td>219</td>
<td>170, 169</td>
<td>219, 205, 207</td>
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<tr>
<td>NBLTR</td>
<td>219</td>
<td>167, 203</td>
<td>219, 174, 213</td>
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<tr>
<td>SBLR</td>
<td>350</td>
<td>218, 121</td>
<td>350, 147, 211</td>
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<tr>
<td>SBR</td>
<td>350</td>
<td>230, 158</td>
<td>350, 160, 202</td>
</tr>
</tbody>
</table>

Red and Bold Values = where 95th% queues are greater than available storage. Queues estimated using SimTraffic software.

* - Queues ranged from 230 to 1,245 feet over multiple model runs. Due to this large variation, the average 95th percentile value of 10 runs was used.
Queues will increase in length on the westbound approach to 38th Avenue, increasing backups during both peak hours that will exceed available storage space. However, increases in westbound through movement vehicle queues during existing conditions already exceed available storage capacity. The final design plan will increase westbound through queues slightly during the AM peak hour from 317 to 349 feet and from 259 to 393 feet in the PM peak hour.

Eastbound approach queues will increase at Courtland Avenue, roughly doubling from existing conditions for the through movement during the AM peak hour (from 235 to 489 feet) and more than tripling in length during the PM peak hour (from 141 to 443 feet). Eastbound right turning vehicle queues (77 feet in the AM peak hour) on this approach will also exceed the planned turn pocket storage length of 55 feet, suggesting it may be beneficial to extend the length of this turn pocket to accommodate these queues by removing parallel parking spaces.

Improvements at the Foothill Boulevard & Fruitvale Avenue intersection will substantially improve queues at this intersection for virtually all movements. While many of these queues will still exceed available storage space, their lengths will be reduced when compared to existing conditions, improving the operations of adjacent intersections as well. Likewise, the addition (striping) of an exclusive left turn lane at the southbound approach to Foothill Boulevard & Coolidge Avenue will reduce queues to the point where they will not exceed available storage during peak hours.

“No Pedestrian Scramble” Automobile Parking

To evaluate the effects of the proposed streetscape design changes on on-street parking availability, the number of planned parking spaces was summed by study area block face and compared to existing parking occupancy survey data. Future scenario parking occupancy calculation results using existing demand and proposed number of parking spaces) on a block-by-block basis are shown in Table 8. Comparison of Existing to Future scenario parking conditions in the study area reveals that three are three areas where existing parking occupancies reach the critical threshold of 90% or greater: 1) The blocks directly west and east of Fruitvale Avenue; 2) Rosedale to 38th Avenues; and 3) 41st to 42nd Avenues. The parking spaces that the final design plan will remove will tend to exacerbate the parking shortages in these areas, expanding the areas of shortage to adjacent block faces and into other peak periods where shortages were not measured in the existing conditions parking survey. These planned removals will also create a shortage of spaces on the north side of Foothill Boulevard between 35th and Crosby Avenues.
### Table 8: “No Pedestrian Scramble” Parking Occupancies

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<th>Segment</th>
<th>Side</th>
<th># of Spaces</th>
<th>% Spaces Occupied</th>
<th>Side</th>
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<th>% Spaces Occupied</th>
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<tr>
<td></td>
<td></td>
<td>AM Midday</td>
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<tr>
<td>Westbound</td>
<td>South</td>
<td>10</td>
<td>2 hr</td>
<td>North</td>
<td>11</td>
<td>1 hr (partially)</td>
</tr>
<tr>
<td>High to 42nd</td>
<td>South</td>
<td>10</td>
<td>2 hr</td>
<td>North</td>
<td>11</td>
<td>1 hr (partially)</td>
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<td>South (South)</td>
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<td>42nd (South)</td>
<td>South</td>
<td>2</td>
<td>None</td>
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<td>to 42nd (North)</td>
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<td>to 41st</td>
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<td>41st to Rosedale</td>
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<td>Rosedale to 40th</td>
<td>South</td>
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<td>40th to 38th</td>
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<tr>
<td>38th to Harrington</td>
<td>South</td>
<td>2</td>
<td>67%</td>
<td>North</td>
<td>2</td>
<td>67%</td>
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<tr>
<td>Harrington to 36th</td>
<td>South</td>
<td>2</td>
<td>None</td>
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<td>36th to Crosby</td>
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<td>2</td>
<td>60%</td>
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<td>Crosby to 35th</td>
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<td>35th to 34th</td>
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<td>34th to Coolidge</td>
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<td>2</td>
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<td>Coolidge to Fruitvale</td>
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<td>Fruitvale to Rutherford</td>
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<td>Rutherford to Austin</td>
<td>South</td>
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<tr>
<td>Austin to 28th</td>
<td>South</td>
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<td>Totals</td>
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### Future Conditions: “No Pedestrian Scramble” Scenario

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<th>Segment</th>
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|                  |       | AM Midday   | PM Weekend         |       | AM Midday   | PM Week tima

Survey was conducted on Feb 9th, 25th, and 29th, 2006 by Dowling Associates, Inc.: AM: between 8:00 & 8:30 am; Midday: between 12noon to 1:00 pm; PM: between 6:20 to 6:45 pm; Sat: between 2 & 2:30 pm

OVR = Overflow. Removal of parking spaces results in cars seeking parking in nearby locations. Vehicle counts in these block face segments have been added to nearby block face segments.

Red and Bold Values = where occupancies reach 90% or greater.
However, it is reasonable to assume that motorists will change their parking behavior to adjust to the new parking supply conditions once the Final Design Plan is implemented. Therefore, analysis at a more aggregated level is reasonable. As shown in Figure 3 for the AM peak hour, Figure 4 for the Midday peak hour, Figure 5 for the PM peak hour, and Figure 6 for the Weekend (Saturday) peak hour show that overall, the study area will have adequate parking spaces available in the future scenario. However, there is likely to be a shortage in the area directly west of Fruitvale Avenue, particularly during the weekday PM and Saturday peak hours. This is largely due to the removal of nine parking spaces on the south and three spaces on the north side of Foothill Boulevard.

Figure 9: AM Peak Hour Parking Occupancy Survey Map

Note: Drawing is not to scale.
Figure 10: Midday Peak Hour Parking Occupancy Survey Map

Legend:
- Blue = 0 - 29.9% occupied
- Green = 30 - 59.9% Occupied
- Yellow = 60 - 89.9% Occupied
- Red = 90 - 100% Occupied
- Gray = Parking spaces removed

Note: Drawing is not to scale.
Dowling Associates, Inc.

Figure 11: PM Peak Period Parking Occupancy Survey Map

Legend:
- Blue = 0 - 29.9% occupied
- Green = 30 - 59.9% Occupied
- Yellow = 60 - 89.9% Occupied
- Red = 90 - 100% Occupied
- Gray = Parking spaces removed

Note: Drawing is not to scale.
Dowling Associates, Inc.
“Pedestrian Scramble” Scenario

In this scenario, all the changes analyzed for the “No Pedestrian Scramble” scenario are included here as well. In addition, the signal timing and phasing at the Foothill Boulevard & Fruitvale Avenue intersection has been adjusted to accommodate a “Pedestrian Scramble” phase where only pedestrians would be allowed to enter and cross the intersection. Since this new phase effectively reduces the amount of green time for each vehicular movement at the intersection, this additional phase tends to degrade vehicular LOS and increase vehicular queues. Compensating for this effect necessitates lengthening the signal’s total cycle length from its current 80 seconds to 110 seconds, allowing more green time for all vehicular movements when the pedestrian scramble phase is included. These are the only changes made to this scenario.

“Pedestrian Scramble” Intersection Levels of Service

Future level of service (LOS) calculation results for the “Pedestrian Scramble” scenario at the key study area intersections are shown in Table 9.

---

4 According to the City of Oakland’s Transportation Services Division, the signals in the study area along Foothill Boulevard are not currently coordinated, but are planned for coordination in the near-future. It is likely that the cycle length will be set for 80 seconds for all signals along the corridor. Therefore, if the Pedestrian Scramble option is selected for implementation at Foothill Boulevard & Fruitvale Avenue, a new signal coordination plan will need to be developed that will accommodate the longer cycle length.
### Table 9: Existing and Future Scenarios Automobile Intersection Levels of Service

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Existing AM Peak Hour LOS</th>
<th>Existing AM Peak Hour Delay</th>
<th>Existing PM Peak Hour LOS</th>
<th>Existing PM Peak Hour Delay</th>
<th>Future--No Ped. Scramble AM Peak Hour LOS</th>
<th>Future--No Ped. Scramble AM Peak Hour Delay</th>
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Source: Dowling Associates, Inc.

LOS = Level of Service

Delay = Average vehicle delay in seconds.
For all the study intersections during both peak hours, the proposed design changes with a “pedestrian scramble” phase at the Foothill Boulevard & Fruitvale Avenue intersection would cause deterioration of automobile levels of service the PM peak hour from LOS E to LOS F, triggering the City of Oakland’s standards of significance. For the remaining study intersections, the proposed “Pedestrian Scramble” at Foothill Boulevard & Fruitvale Avenue would have no effect on average vehicle delays or LOS as calculated using the Synchro 7.0 software package.

**“Pedestrian Scramble” Scenario Intersection Queues**

Additional analysis of the lengths of vehicle queues at each study intersection was performed. To calculate vehicle queues, the SimTraffic traffic simulation software package was used. Queues were calculated 95th percentile peak hour conditions shown in Table 10.

Intersection vehicle queues at the study intersections are typically the longest on the Foothill Boulevard (west and eastbound) approaches between 35th Avenue and Fruitvale Avenue during both peak hours.

Comparing queues for the future “No Pedestrian Scramble” to those estimated for the Existing scenario, queues in both the AM and PM peak hours will increase substantially on several approaches to the intersection of Foothill Boulevard & Fruitvale Avenue. While there are a few movements that will benefit from shorter projected queues with the addition of the pedestrian scramble phase (southbound all movements in the AM peak hour, for example), the predominant effect of the pedestrian scramble phase would be to increase queues at this and adjacent intersections. The most pronounced effects can be seen at the eastbound through/right movements (increasing from 553 to 1,283 feet in the PM peak). At the approaches to the other study intersections, the “Pedestrian Scramble” phase at Foothill Boulevard & Fruitvale Avenue will generally increase vehicular queues as well.
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Red and Bold Values = where 95th% queues are greater than available storage.
Queues estimated using SimTraffic software.
* - Queues ranged from 230 to 1,245 feet over multiple model runs. Due to this large variation, the average 95th percentile value of 10 runs was used.
“Pedestrian Scramble” Automobile Parking
Since the added “Pedestrian Scramble” phase at Foothill Boulevard & Fruitvale Avenue will not have any affect on parking availability, the analysis of parking occupancies presented above for the “No Pedestrian Scramble” scenario applies to this scenario as well.

Streetscape Design Review
Dowling Associates has reviewed the final streetscape designs for the project and has identified the following issues that need resolution:

1. 34th Avenue Left Turn Pocket: The left turn pocket on Foothill Boulevard that serves the offset intersection of 34th Avenue is too short to allow striped left turn pockets for each movement (westbound left onto 34th Avenue south, and eastbound left onto 34th Avenue north). At most, the total length of the left turn area in between the two legs of 34th Avenue is 60 feet long, while back-to-back turn pockets would require at least 25 feet for each pocket, plus 25 feet for back-to-back tapers for a total of 75 feet. This left turn lane is currently painted with arrows for a eastbound left turn onto 34th Avenue northbound only, but it does not have signs that indicate a westbound left onto 34th Avenue south is prohibited. Several citizen workshop attendees mentioned that they have received traffic tickets from police for making this westbound movement, since the police officers interpret the lack of a turn arrow in the westbound direction as indication that this movement is prohibited. It is Dowling Associates recommendation that this movement be allowed by painting left turn arrows for both movements allowing the 60-foot-long left turn lane should function as a shared left turn lane for both movements.

2. Courtland Avenue Approach Lane Striping: While lane striping details go beyond the scope of services for this project, it should be noted that since the existing westbound left/through lane approaching Courtland Avenue will be converted to an exclusive left turn lane, the proper striping, arrows and signage should be provided in advance of the stop bar at Courtland Avenue to ensure that drivers are not “caught” in a left turn lane when they intended to continue on Foothill Boulevard.

Summary and Conclusions

In the analysis of proposed Foothill Boulevard Streetscape Design circulation conditions, the following findings are worthy of note:

“No Pedestrian Scramble” Scenario Analysis Key Findings

- While the proposed design for Foothill Boulevard will not cause a significant reduction in intersection levels of service at study area intersections, it will cause longer vehicle queues at approaches to study area intersections and reduce the amount of available on-
street parking during peak periods. These longer vehicle queues will also slow bus speeds somewhat along Foothill Boulevard. However, there are a number of circulation benefits the design will bring as well to pedestrians, bicyclists, and transit riders. While the planned reduction from four to three lanes of travel in select portions of the study area will increase vehicle queues along Foothill Boulevard, the proposed design will also reduce crossing distances for both pedestrians and bicycles. It will also likely reduce the amount of speeding there, since, in most cases, the most prudent driver will now set the speed to which all other vehicles must adhere. Both of these changes should improve safety and enhance the sense of bicycle and pedestrian “friendliness” of the study area, encouraging more people to walk and bicycle in the study area. These benefits to pedestrians should also encourage more transit ridership in the area since walking is the primary mode of access to bus services in the study area. The extra lane width gained from eliminating a lane of travel from Foothill Boulevard also allows the provision of 13-foot shared travel lanes (or “Sharrows”) for bicyclists and autos, improving safety (compared to the existing 10- to 11-foot curb lane) and further encouraging bicycle use in the corridor. While the vehicle queues and slightly increased intersection delays at several intersections will decrease bus speeds somewhat, overall, these impacts should be mitigated by the improvements to bus and auto circulation that will accrue from the decreased delays at currently congested intersections (such as Foothill Boulevard & Fruitvale Avenue) and the reduction of intersection delays that should result from the proposed relocation of bus stops from their current “near side” locations where they tend to increase intersection delay to “far side” locations where they will not block intersection turning movements. Therefore, while the inconveniences for drivers will increase somewhat, they will be mitigated by improvements in safety and convenience for pedestrians, bicyclists and transit riders.

- For all the study intersections during both peak hours, the proposed design changes will not cause deterioration of automobile levels of service below the City of Oakland’s standards of significance (i.e., LOS E or F). For several intersections – Foothill Boulevard & Fruitvale Avenue and Foothill Boulevard & Coolidge Avenue in particular – the striping of new turning lanes at key approaches will serve to improve overall levels of service. For virtually all other intersections, the proposed changes will not have a noticeable effect on automobile delays. This is usually because the reduction in through lanes is offset by the addition of turn lanes (i.e., delays to through traffic caused by turning vehicles are eliminated).

- 95th percentile vehicle queues in both the AM and PM peak hours will, in certain locations, increase in those areas where the plan calls for reducing the number of travel lanes along Foothill Boulevard.

- Queues will increase in length westbound at the approach to 38th Avenue and eastbound at the approach to Courtland Avenue, increasing backups during both peak hours that will exceed available storage space.

- Analysis of future scenario parking conditions reveals that there are three areas where existing parking occupancies reach the critical threshold of 90% or greater: 1) The blocks directly west and east of Fruitvale Avenue; 2) Rosedale to 38th Avenues; and 3) 41st to 42nd Avenues. The final design plan will tend to worsen the parking shortages in these areas, increasing demand adjacent block faces and into other peak periods where shortages were not measured in the existing conditions parking survey. These planned
removals will also create a shortage of spaces on the north side of Foothill Boulevard between 35th and Crosby Avenues.

“Pedestrian Scramble” Scenario Analysis Key Findings

- For all the study intersections during both peak hours, the proposed design changes with a “pedestrian scramble” phase at the Foothill Boulevard & Fruitvale Avenue intersection would cause deterioration of automobile levels of service during both peak hours from LOS E to LOS F, triggering the City of Oakland’s standards of significance.
- Comparing queues for the future “No Pedestrian Scramble” to those estimated for the Existing scenario, queues in both the AM and PM peak hours will increase on several approaches to the intersection of Foothill Boulevard & Fruitvale Avenue. The most pronounced effects can be seen at the eastbound through/right movements (increasing from 521 to 1,283 feet in the PM peak). At the approaches to the other study intersections, the “Pedestrian Scramble” phase at Foothill Boulevard & Fruitvale Avenue will generally increase vehicular queues as well.

Appendix

- Intersection Level of Service Calculations
  - Existing AM Peak Hour
  - Existing PM Peak Hour
  - Future “No Pedestrian Scramble” AM Peak Hour
  - Future “No Pedestrian Scramble” PM Peak Hour
  - Future “Pedestrian Scramble” AM Peak Hour
  - Future “Pedestrian Scramble” PM Peak Hour

Appendices to this traffic analysis appendix are in a separate attachment to this Master Plan report.