
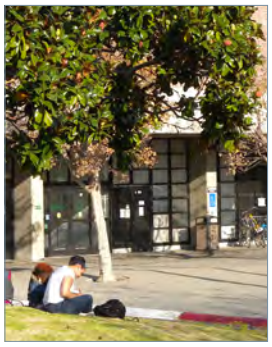

Lake Merritt Station Area Plan

Draft Emerging Plan Analysis Report

September 2011

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Draft Emerging Plan Analysis Report

Prepared for the **City of Oakland** by

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Urban and Regional Planners

September 2011

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1 Emerging Plan Framework

The City of Oakland, community members, BART, and the Peralta Community College District have worked over the past year to develop an exciting plan framework for the Lake Merritt Planning Area. A series of community meetings have been held to sort through a wide range of suggestions, and put together the basic plan ideas. It is a 25-year plan, looking to add between 3,700 and 5,400 new housing units, 4,400 new jobs, and up to 334,000 square feet of additional retail; as well as make near-term improvements related to public safety and lighting. The next steps will include extensive public review, development of the plan specifics, and drafting of the full plan. The Emerging Plan has been developed in order to achieve the vision and goals outlined below.

STUDY AREA OVERVIEW

The Planning Area is located in the heart of Oakland, part of the urban center of the San Francisco Bay Area. The Planning Area includes the Lake Merritt BART Station, Oakland Chinatown, Laney College, the Oakland Museum of California, and the County of Alameda offices and courthouse. Adjacent neighborhoods and destinations include Downtown Oakland, Lake Merritt, the Jack London District, the Lakeside Apartment District, Old Oakland, and Uptown. The Planning Area's strategic location within this context is shown in Figure 1-1. Figures 1-2 and 1-3 provide overviews of the Planning Area.

Figure 1.1:
PLANNING AREA CONTEXT

Figure 1.2:
EXISTING AREA VIEW LOOKING EAST

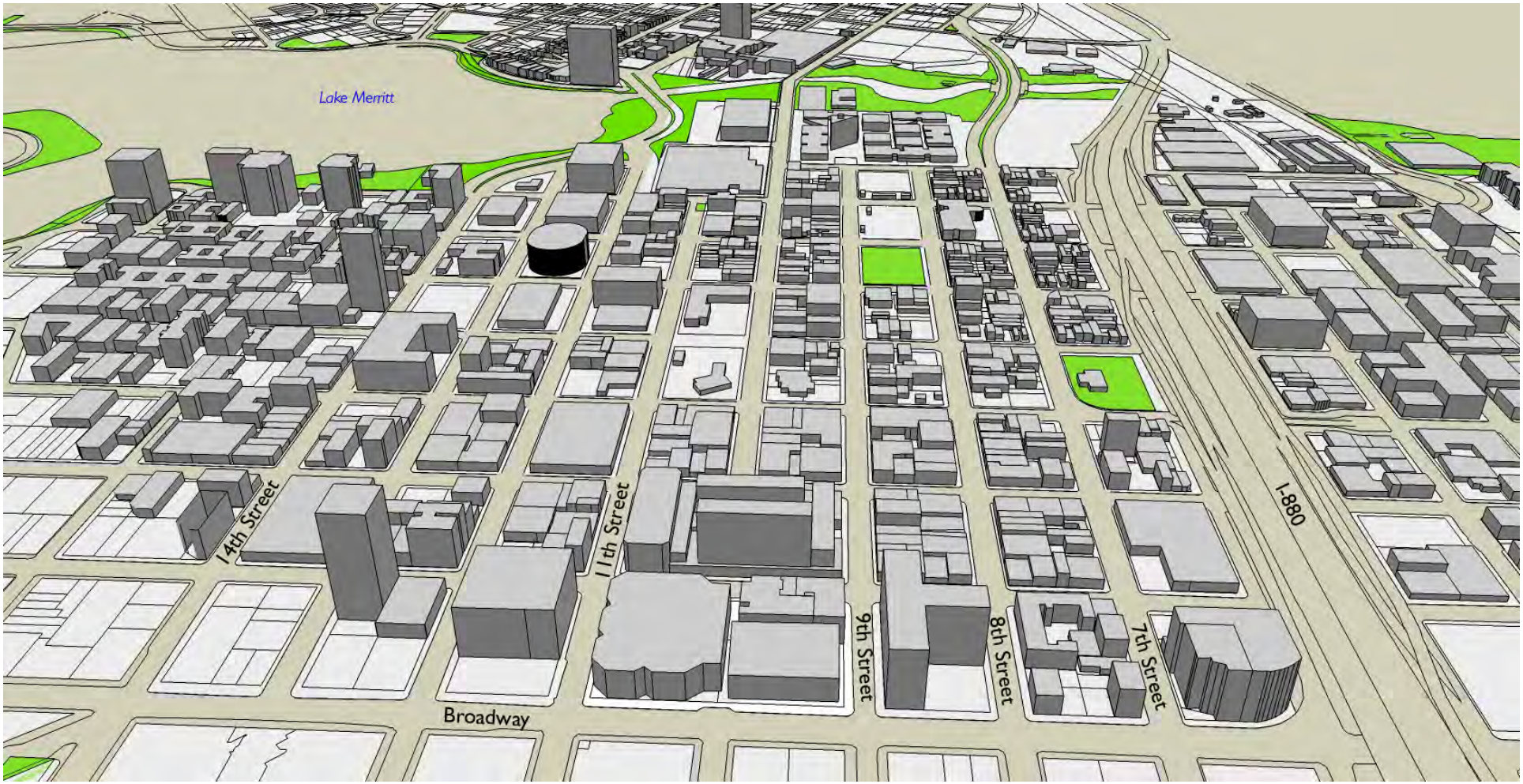


Figure 1.3:
EXISTING AREA VIEW
LOOKING SOUTHEAST

1.1 Vision and Goals

VISION

The shared vision described below for the Lake Merritt Station Area is a reflection of the initial community visioning process (2009), as well as refinements recommended by the Community Stakeholder Group. It provides an important framework for guiding development of a plan for the future of the Lake Merritt Station Area.

- Create a financially feasible, implementable plan that is the result of an authentic community engagement process and is inclusionary of all community voices.
- Create a more active, vibrant, and safe district to serve and attract residents, businesses, students, and visitors.
- Provide for community development that is equitable, sustainable, and healthy.
- Increase use of non-automobile modes of transportation.
- Increase the housing supply to accommodate a diverse community, especially affordable housing and housing around the BART station.
- Increase jobs and improve access to jobs along the transit corridor.
- Provide services and retail options in the station area.
- Identify additional recreation and open space opportunities.
- Celebrate and enhance the heritage of Chinatown as a cultural asset and a regional community destination.
- Establish the Lake Merritt Station Area as a model with innovations in community development, transportation, housing, jobs, and businesses and environmental, social, and economic sustainability, and greenhouse gas reductions.

GOALS

The following goals for the Lake Merritt Station Area Plan include all the major goals within the Nine Guiding Principles identified in the 2009 Community Engagement process, which have in some cases been condensed, or expanded to include additional community comments. In addition, two major goals that came out of additional community input have been added.

1. Community Engagement

- Ensure opportunities for effective community participation by all stakeholders, including residents, businesses, students, employees, and organizations in the further development and implementation of the Plan.

2. Public Safety

- Create safe public spaces by increasing foot traffic, improving lighting, and strengthening linkages.
- Promote safer streets with traffic calming, improved lighting, improved signage, improvements that address the needs of non-English speaking residents and visitors, and improved sidewalks and intersections.
- Improve community police services.

3. Business

- Strengthen and expand businesses in Chinatown, through City zoning, permits, marketing, redevelopment, infrastructure improvements, and other City tools.
- Attract and promote a variety of new businesses, including small businesses and start-ups, larger businesses that provide professional-level jobs (e.g., engineers, attorneys, accountants, etc.), and businesses that serve the local community (such as grocery stores, farmers markets, restaurants, pharmacies, banks, and bookstores).
- Promote more businesses near the Lake Merritt BART Station to activate the streets, serve Chinatown, Laney College, and the Oakland Museum of California, and increase the number of jobs.

4. Jobs

- Attract development of new office and business space that provide jobs and promote economic development for both large and small businesses.
- Increase job and career opportunities, including permanent, well-paying, and green jobs; ensure that these jobs provide work for local residents.
- Support the provision of job training opportunities. Ensure that local training opportunities (including vocational English as a second language opportunities) exist for jobs being developed both in the planning area and the region, particularly those accessible via the transit network.
- Employ local and/or targeted hiring for contracting and construction jobs for implementation of the plan (i.e., construction of infrastructure).

5. Housing

- Accommodate and promote new rental and for sale housing within the project area for individuals and families of all sizes and all income levels (from extremely low to above moderate).
- Prevent involuntary displacement of residents.
- Maintain, preserve, and improve existing housing in the project area and prevent loss of housing that is affordable to residents (subsidized and unsubsidized), and senior housing. Promote healthful homes that are environmentally friendly and that incorporate green building methods.

6. Community Facilities and Open Space

- Improve existing parks and recreation centers, including improving access to existing parks; and add new parks and recreation centers to serve higher housing density and increased number of jobs.
- Ensure all parks are safe, accessible to all age groups, clean, well maintained, and provide public restrooms and trash containers.
- Create a multi-use, multi-generational recreational facility, either in addition to or including a youth center.
- Provide space for community and cultural programs and activities, such as multi-use neighborhood parks, athletic fields, areas for cultural activities such as tai chi, community gardens, and expanded library programs for youth, families, and seniors.
- Work with the Oakland Unified School District to ensure adequate capacity of school and children's recreation facilities.

7. Transportation

- Expand, preserve, and strengthen the neighborhood's access to public transit, walkability, and bicycle access.
- Ensure safety and compatibility of pedestrians, cyclists, and autos through improvements that calm traffic, improve sidewalks, improve intersection crossings, and improve traffic flow and pattern, including reevaluating one-way streets, considering narrowing streets, and reducing speeds. In particular address the flow of traffic using the Posey and Webster tubes.
- Improve connections between existing assets and destinations, including between Chinatown, the Lake Merritt, 12th Street and 19th Street BART stations, Alameda County facilities, and Laney College and between the BART Stations and the Jack London District, including improving the I-880 undercrossings.
- Develop a parking strategy that includes shared parking and allows access to the area, and particularly to local retail, while also promoting non-auto modes of transportation and makes best use of available land.
- Increase walk and bike trips.
- Preserve and reinvest in transit services and facilities to make sure operators can continue to provide reliable services.

8. Community and Cultural Anchor and Regional Destination

- Establish a sense of place and clear identity for the area as a cultural and community anchor and a regional destination, building on exiting assets such as Chinatown, the Oakland Museum of California, Laney College, the Kaiser Convention Center, Jack London Square, and Lake Merritt and the Lake Merritt Channel.
- Preserve, celebrate, and enhance the historic cultural resources and heritage of Chinatown as a regional anchor for businesses, housing, and community services,

and highlight cultural and historic resources in the planning area through signage (both wayfinding signage and by developing sign regulations that allow the display of items in store windows), historic walks, and reuse of historic buildings. Ensure that public services and spaces proposed preserve and reflect the cultural history and aspects of Chinatown's historic geography.

- Promote a more diverse mix of uses near the BART Station, such as cafes, restaurants, music venues, retail stores, nightlife, etc., that activate the area as a lively and vibrant district.
- Encourage restoration of designated historic structures that would achieve priority Chinatown and/or City goals.
- Consider a cultural heritage district or related tools for preserving, enhancing, and strengthening Chinatown.
- Make connections to the Historic Jack London Warehouse District as a key asset in the Planning Area.

9. Health

- Establish the area as a healthier place to live and work, through a range of strategies including:
    - Promoting health awareness and education;
    - Improving environmental quality, including improving air quality as a public health measure;
    - Ensuring access to healthy food and housing;
    - Increasing health and medical services available to the community;
    - Cleaning up air, soil, and water contamination (including trash on the streets);
    - Reducing noise levels where permitted noise levels are exceeded;
    - Providing clean and well maintained public outdoor places that provide public restrooms and trash containers.

10. Redevelopment of Key Publicly-Owned Blocks Near BART

- Establish a long-term plan for redevelopment of key publicly owned blocks near the Lake Merritt BART station to meet identified plan goals, including accommodating improved open spaces, new housing development, more jobs, more retail, and improved BART access.
- Recognize, incorporate, and reflect Chinatown's historic role in the redevelopment of key publicly owned blocks near the Lake Merritt BART station.

11. Green and Sustainable Urban Design

- Establish high-quality, distinctive, and green urban design proposals, standards, and/or guidelines for new private development and public infrastructure, that are place-based and include building design, street design, and park design.
- Build on the existing urban fabric and further promote high density and mixed-use building design that promotes active and safe spaces.
- Promote green and sustainable design in concert with the City's Emerald City initiative.[1]
- Identify landmarks and views at key locations, such as the Lake Merritt BART station plaza, promote improvements such as lights and public art, etc., and consider preservation of key views as new development is proposed (i.e., along 14th Street to Lake Merritt).
- Promote active and safe public spaces and streets by ensuring that design activates the public realm and increases the safety of streets and pedestrian crossings.
- Identify and enhance gateways between the planning area and other neighborhoods, such as on 12th/14th Street, which connects the planning area to the East Lake neighborhood.

[1] The Emerald Cities Collaborative is a consortium of businesses, unions, government representatives, community organizations, research and technical assistance providers, development intermediaries, and social justice advocates, united around the goal of "greening" our metropolitan areas in ways that advance equal opportunity, shared wealth, and democracy. http://www.emeraldcities.org/

1.2 Emerging Plan Concepts

OVERALL CONCEPT

The Lake Merritt Station Area Plan seeks to link the existing unique destinations located within the Plan Area into a series of distinct hubs of activity: the Chinatown hub, the BART Station/Laney College/Oakland Museum (educational/cultural/entertainment) hub and the East Lake Gateway hub. Future improvements will enhance both the existing destinations within each hub, as well as the connections between hubs. The hubs will be linked together and to adjacent neighborhoods and rest of the city and region by east/west and north/south corridors and the Lake Merritt BART Station. This overall concept is illustrated in Figure 1-4.

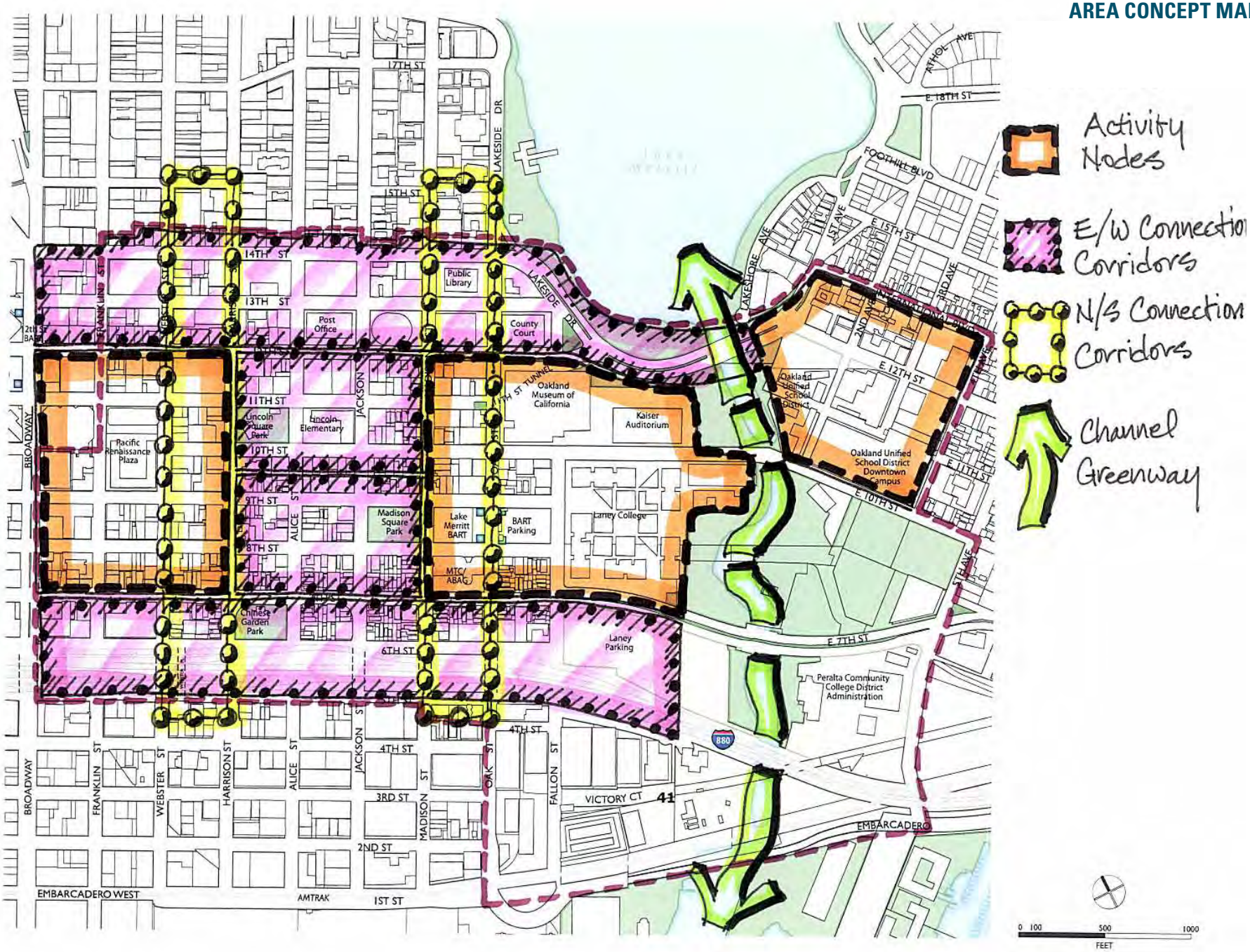
AREA-WIDE CONCEPTS

Three key area-wide concepts – land use character, active ground floor uses, and the circulation improvement strategies – reflect the vision and goals of the Lake Merritt Station Area Plan. These concepts are presented briefly here and then further elaborated in later chapters.

Land Use

The land use character concept, includes a range of flexible mixed-use areas intended to encourage vibrant pedestrian corridors which are complemented by high-density housing and commercial uses that contribute to activating the area, and new public spaces that ensure a high quality urban space. Additional detail on land use character is included in Chapter 4.

Figure 1.4:
LAKE MERRITT STATION AREA CONCEPT MAP



Active Ground Floor Uses

Active ground floor commercial uses – those that attract walk-in visitors – are important because they add vibrancy to streets and increase pedestrian traffic, which results in safer streets and more customers for local businesses. Examples of active ground floor commercial uses include: retail stores, restaurants, cafés, markets, bars, theaters, recreational spaces, health clinics, tourism offices, banks, personal services, libraries, museums, and galleries.

In order to expand the vibrancy and activity that already exists in some areas, like the core of the Chinatown commercial district, guidelines could be implemented that would *require* active uses in *new* buildings along key corridors. In areas where active uses would not be required, and the ground floor might include residential uses or offices that don't have walk-in visitors, guidelines could direct the design of new buildings to create welcoming frontages. Additional detail on active commercial ground floor uses is included in Chapter 4.

Circulation Improvement Strategies

The circulation improvement strategies focus on establishing interconnected and safe travel for people walking, riding bicycles or taking transit. Chapter 7 identifies key streets for improvements to promote access between activity hubs within the planning area, as well as access to the larger regional circulation network. Further detail on these strategies is included in Chapter 7.

STUDY AREAS

To best respond to the nuanced character differences throughout the Planning Area, it is divided into seven study areas, as shown in Figure 1-5. Each study area has a distinct existing character as well as a "big idea" and vision that defines future development in the area and that helps to support the overall vision statements and goals for the Planning Area. Chapter 2 describes each of the study areas in more detail.

OPPORTUNITY SITES

Opportunity sites are shown in Figure 1-6; these show sites that are vacant or underutilized, and may have potential for land use or intensity change over the long-term (25 years). Identification of potential opportunity sites is a way to advance and test the concepts put forth, to understand the potential for future development, and understand patterns of where new development may occur, and how new development could relate with areas less likely to change. An initial analysis of potential opportunity sites was conducted for the Existing Conditions report in 2010, and identified sites that meet one or more of the following criteria:

- Have a low value of improvements relative to land value;
- Have a very low existing building height (one or two stories) relative to allowable height under the zoning;
- Are currently vacant;
- Are currently parking lots;

- Have applications submitted with the City either under review or approved for development;
- Have otherwise been identified as sites for development (i.e. County offices per the Real Estate Master Plan); and/or
- Are adjacent to opportunity sites.

Sites with Priority Historic Resources are excluded even if they meet one or more of the above criteria.

Opportunity sites were further refined through community workshops and feedback from the Community Stakeholders Group, and are now primarily vacant sites or parking lots. While the identified opportunity sites are the best guess for sites that will change, it is likely that some of the sites identified as opportunity sites may remain in their current state, while others that are not identified as opportunity sites will undergo change.

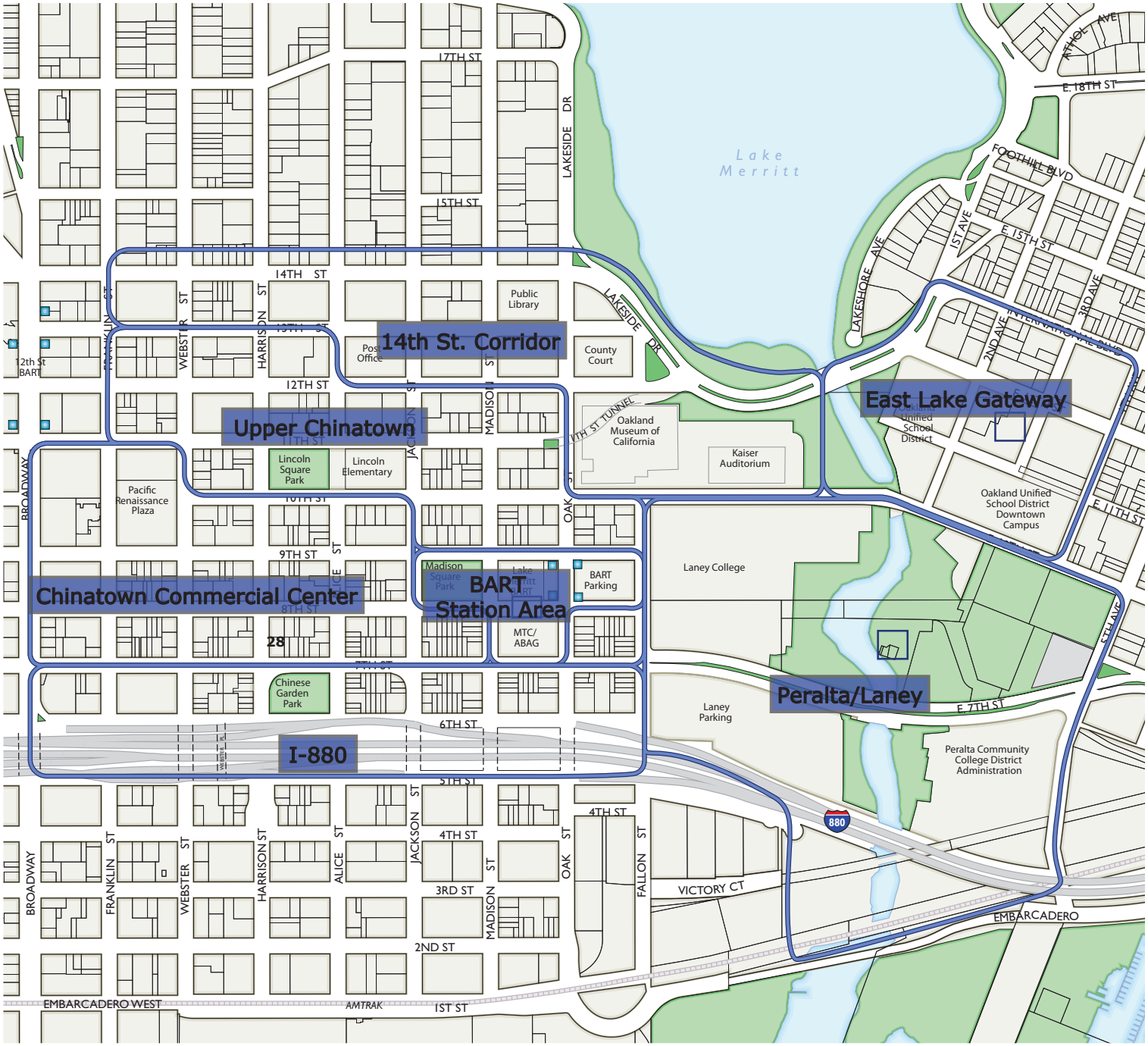


Figure 1.5:
STUDY AREAS

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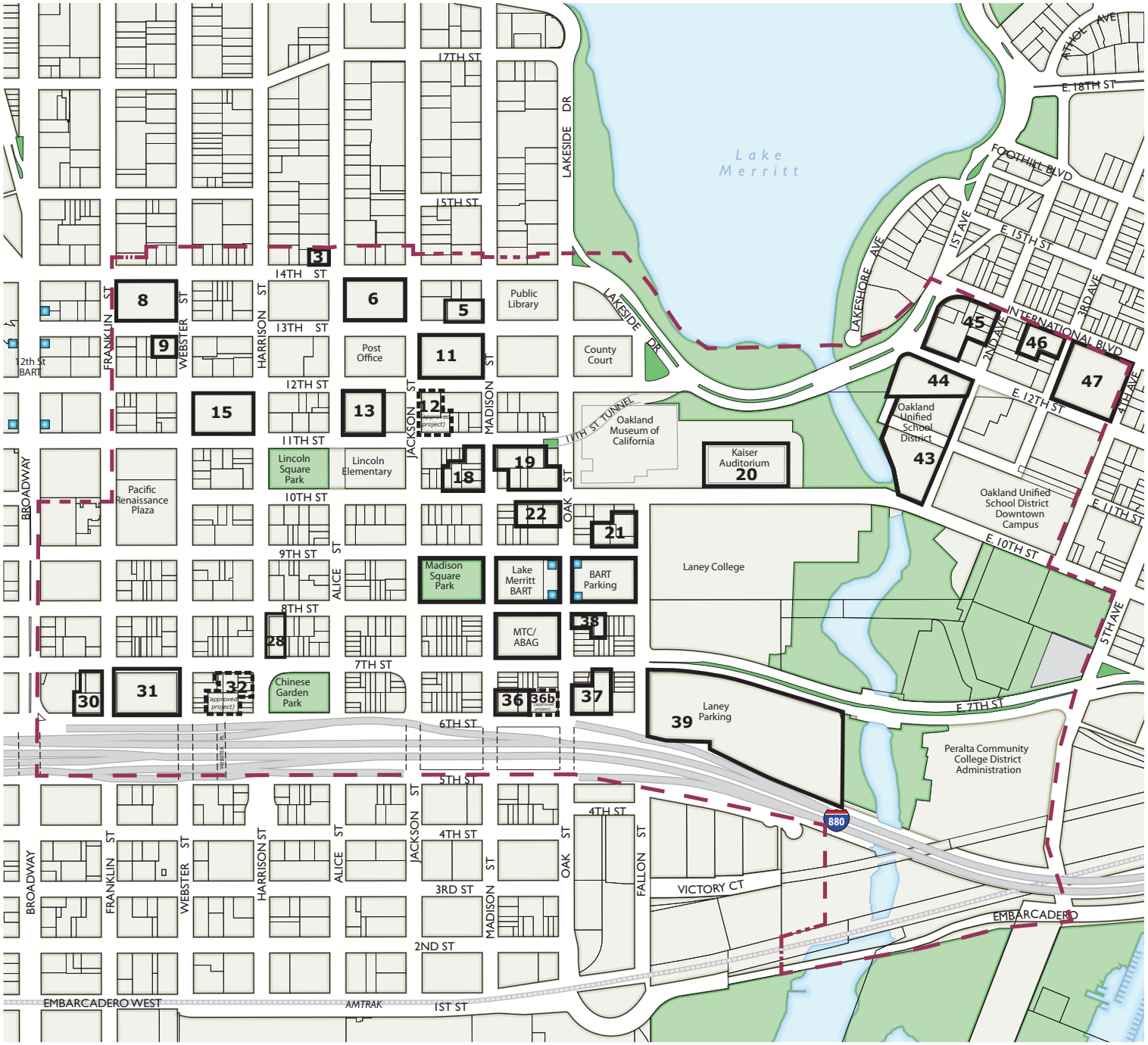

Figure 1.6: POTENTIAL DEVELOPMENT SITES

Focus Area

3 Opportunity Sites with Community Agreement or Vacant Sites

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1.3 Planning Process

COMMUNITY PARTICIPATION

Many diverse residents, merchants, workers, and students make up the community of the Planning Area, and Chinatown functions as a citywide center for the Asian community. Feedback from the community is an essential component of the planning process. To date, the community process has included:

- Community Engagement Process, 2008-2009 (City of Oakland partnered with Asian Health Services (AHS), the Oakland Chinatown Chamber of Commerce, and the Asian Pacific Environmental Network (APEN) to begin community outreach for the Lake Merritt Station Area Plan. Four well-attended community meetings were conducted from 2008 to 2009 and a 19-question survey which garnered 1,100 results was conducted in March and April 2009).
- Partner with local community-based organizations (including, but not limited to, Chinatown Chamber of Commerce, Asian Health Services, East Bay Asian Local Development Corporation, Transform, East Bay Housing Organizations, Walk Oakland Bike Oakland, East Bay Bicycle Coalition, Oakland Asian Cultural Center, Asian Pacific Environmental Network).
- Business surveys (administered to participants of Merchant's Tea).
- Stakeholder interviews (Participants were interviewed individually or in groups, in sessions generally lasting about one hour. A total of 50 stakeholders participated, including 18 City staff).
- Community workshops (four to date).
- Focus Groups/Neighborhood Teas (Brokers/Property Owners, Merchants, Families, Laney College, Youth).
- Community Stakeholder Group meetings (ongoing, ten to date, further discussed below).
- Executive Community Stakeholder Group meetings (five to date).
- Technical Advisory Committee meetings (three to date).
- Other meetings (Peralta Board meeting, Lake Merritt Station Area Plan Institutions meeting, Jack London District Association meeting, Mayor's Cantonese Town Hall meeting, and Oakland Bicycle and Pedestrian Advisory Committee meeting).
- Language Accessibility - meeting materials translated into Chinese and Vietnamese and bi-lingual meeting facilitators and interpreters (Mandarin, Cantonese, Vietnamese).

Summary of Feedback

Feedback from these meetings is summarized in the following documents:

- *Lake Merritt BART Station Area Community Engagement Final Report*, completed by Asian Health Services, Oakland Chinatown Chamber of Commerce, and the City of Oakland in June 2009.
- *Stakeholder Interviews Report*, completed by Dyett & Bhatia and the City of Oakland in May, 2010.
- *Community Workshop #1 Report*, completed by Dyett & Bhatia and the City of Oakland in May, 2010.
- *Summary of Community Feedback*, completed by Dyett & Bhatia and the City of Oakland in April, 2011.

Community Stakeholder Group

Ongoing participation by the Community Stakeholders Group (CSG) has been, and will continue to be, a crucial component of the development of the Plan. The CSG has driven the development of the Emerging Plan through participation in a series of four working meetings, three hours each, over the summer of 2011. These meetings started with community feedback from public workshops and developed the framework for the Emerging Plan through an iterative process between CSG members, City staff, and consultant work.

FORMAL PUBLIC REVIEW

Following development of the Emerging Plan into a Preferred Plan it will be reviewed by several advisory and decision-making bodies, including:

- City Council.
- Community and Economic Development (CED) Committee.
- Planning Commission.
- Parks and Recreation Advisory Commission (PRAC).
- Landmark Preservation Advisory Board (LPAB).
- Bicycle and Pedestrian Advisory Committee (BPAC).

Based on the guidance of these decision-makers, the Preferred Plan will then be further developed and refined, with continued input from the Community Stakeholders Group and Technical Advisory Committee, into the Draft Plan.

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2 Overall Vision by Study Area

As described earlier in Chapter 1, in order to expand on the overall vision, the Planning Area is divided into seven study areas, as shown in Figure 1.5. Each study area has a distinct "big idea" and vision that defines future development in the area and that helps support the overall vision statements and goals for the Planning Area.

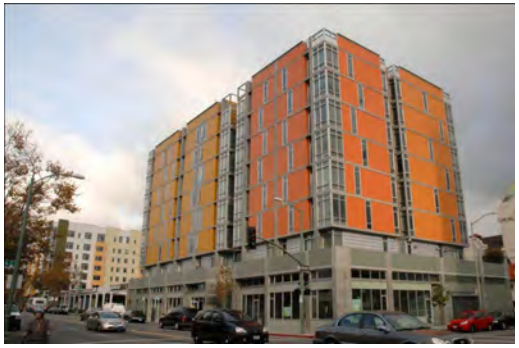
2.1 14th Street Corridor

EXISTING CONTEXT

The existing character of the 14th Street corridor includes a mix of uses and variety of building form. 14th Street is a major east-west connector between Downtown and the neighborhoods east of Lake Merritt. It is a two-way, four-lane street characterized by intermittent retail, new mixed-use housing development, historic buildings, public resources such as the Public Library, the back of Hotel Oakland, and parking lots. Roughly two-thirds of buildings along 14th Street are one to four stories, with the remaining one-third eight stories, and a few taller high-rises.

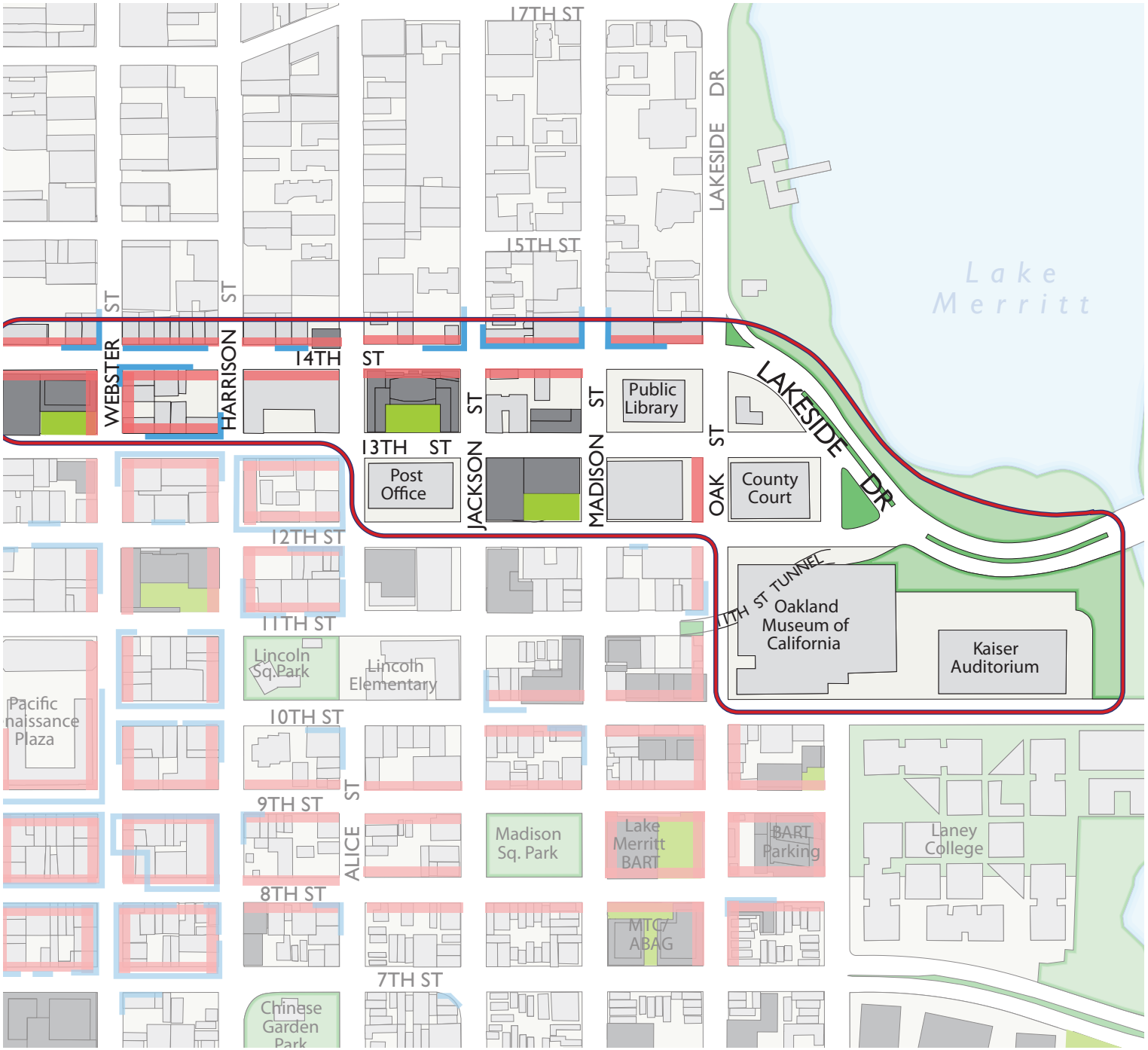
Other areas of the 14th Street Corridor Study Area include significant institutional uses, including office space for Alameda County, the County Courthouse, and key public resources including the Oakland Museum of California and the Kaiser Auditorium, both of which are historic landmarks. The Oakland Museum of California was recently renovated with the main entrance now oriented toward Oak Street. The Kaiser Auditorium currently remains out of use.

Several opportunity sites (see Figure 1-6) exist in this study area, including three full block sites (opportunity sites 6, 8, and 11).



Photos:
14TH STREET CORRIDOR:
POTENTIAL VIEW

Figure 2.1:
14TH STREET CORRIDOR: BUILDINGS, PARKS, & ACTIVE GROUND FLOOR USES



Potential Future Building Footprints

Existing Parks
現存公園
Công viên hiện có

Potential Future Parks
將來可能興建的公園
Tiềm năng công viên tương lai

Future active ground floor use required
必須將來常用樓層
Tương lai hoạt động sử dụng sàn nhà được yêu cầu

Existing active ground floor uses
現存常用地面樓層
Hiện tại tầng trệt hoạt động sử dụng

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Figure 2.2:
14TH STREET CORRIDOR: POTENTIAL VIEW

VISION AND BIG IDEA

Looking forward, the importance and gateway quality of this corridor will be greatly enhanced by the improvements currently underway at the south end of Lake Merritt as part of Measure DD, and the Emerging Plan seeks to build on these improvements.

The vision for 14th Street is to enhance citywide connectivity and activate the northern edge of the Planning Area. While 14th Street will continue to be an important street for vehicular travel, the Plan seeks to enhance the pedestrian and bicycle environment to increase multimodal access. A diversity of uses and more active ground floor uses will make the area more inviting, and the increased activity and additional lighting will add to the safety of the public realm.

Land use and streetscape changes are included to enhance this vibrant center for educational, public services and cultural uses; and to highlight new activity on 14th Street, linking Lake Merritt to Downtown. Key components of the vision include complementing existing government and institutional uses – including the Oakland Museum, Kaiser Auditorium, County Courthouse, Main Public Library – with new residential uses. In addition, active ground floor commercial uses will be promoted in new development (including new County or other office buildings). Detailed streetscape improvements are included in Chapter 6.

2.2 East Lake Gateway

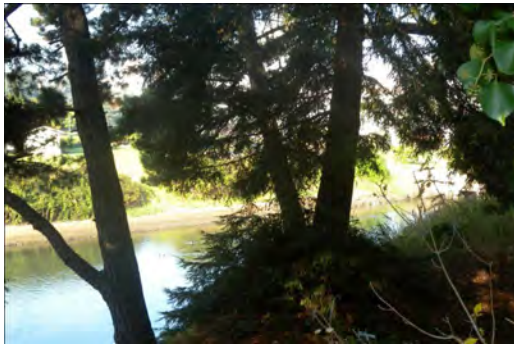
EXISTING CONTEXT

The East Lake Gateway district includes East 12th Street and International Boulevard. It has important linkages to Central and East Oakland neighborhoods and commercial districts, to Lake Merritt, and Downtown, and beyond. East 12th Street is also an important bus route that will carry the future AC Transit Bus Rapid Transit (BRT) service through the area. The East Lake Gateway also connects neighborhoods to Laney College and the Oakland Unified School District (OUSD) Downtown Educational Complex.

The existing character of the East Lake Gateway study area is primarily residential, with some retail and institutional uses. Active commercial ground floor uses are focused on the East 12th Street and International Boulevard corridors. Existing heights are predominantly mid-rise, with some low-rise and a few high-rises.

This area encompasses several key assets, including the Lake Merritt Channel and OUSD sites. The planned OUSD Downtown Educational Complex Project is located between 2nd and 4th avenues on East 10th Street, and will host La Escuelita Elementary, MetWest High School, and Yuk Yau and Centro Infantil Childhood Development Centers (which provide preschool programming for children ages three through five and an afterschool program for children in kindergarten through third grade) in a state-of-the-art, multi-use structure.

Photos:
EAST LAKE GATEWAY



VISION AND BIG IDEA

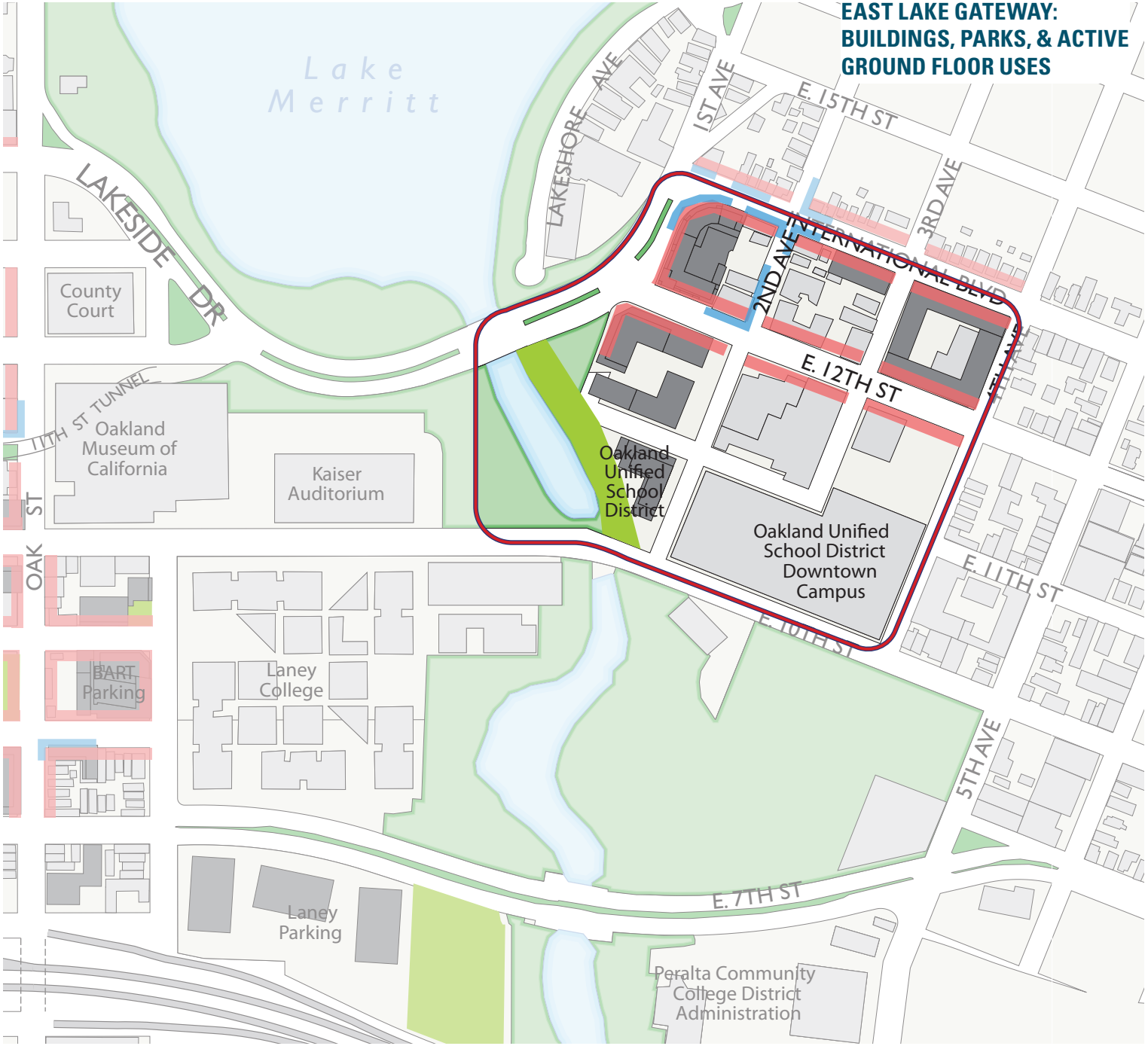
The vision for the East Lake Gateway seeks to balance increased vitality and safety resulting from new residential and retail development with new public benefits such as more open space and improved access and linkages to existing and planned community resources and open spaces.

This study area is envisioned as a residential district with active retail uses as well as civic and commercial uses, linking Central and East Oakland to downtown through the new 12th Street improvements currently underway at the south end of Lake Merritt. Land use and streetscape changes will leverage and further Measure DD improvements to the Channel and East 10th Street. They will link the area to Lake Merritt and adjacent cultural/educational uses, like Laney, the Kaiser Auditorium, the Oakland Museum of California, and the new OUSD Downtown Educational Complex.

Improvements will seek to create distinctive/landmark quality design to create a gateway design of buildings along East 12th Street at 1st Avenue. In particular, design will be required to establish a welcoming gateway between the assets of the Channel and new park spaces, and the burgeoning retail areas along East 12 Street and International Boulevard.

Another key component is the establishment of public access along the eastern edge of the Channel. New buildings will be required to ensure public access to the Channel and be set back from the Channel edge and conform to design guidelines such as those outlined in Chapter 5.

Figure 2.3:
EAST LAKE GATEWAY: BUILDINGS, PARKS, & ACTIVE GROUND FLOOR USES



Existing Building Footprints
現存建築物上蓋圖形
hiện có những sơ đồ toà nhà

Potential Future Building Footprints
將來可能興建的建築物上蓋圖形
Tiềm năng sơ đồ toà nhà trong tương lai

Existing Parks
現存公園
Công viên hiện có

Potential Future Parks
將來可能興建的公園
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Future active ground floor use required
必須將來常用樓層
Tương lai hoạt động sử dụng sàn nhà được yêu cầu

Existing active ground floor uses
現存常用地面樓層
Hiện tại tầng trệt hoạt động sử dụng

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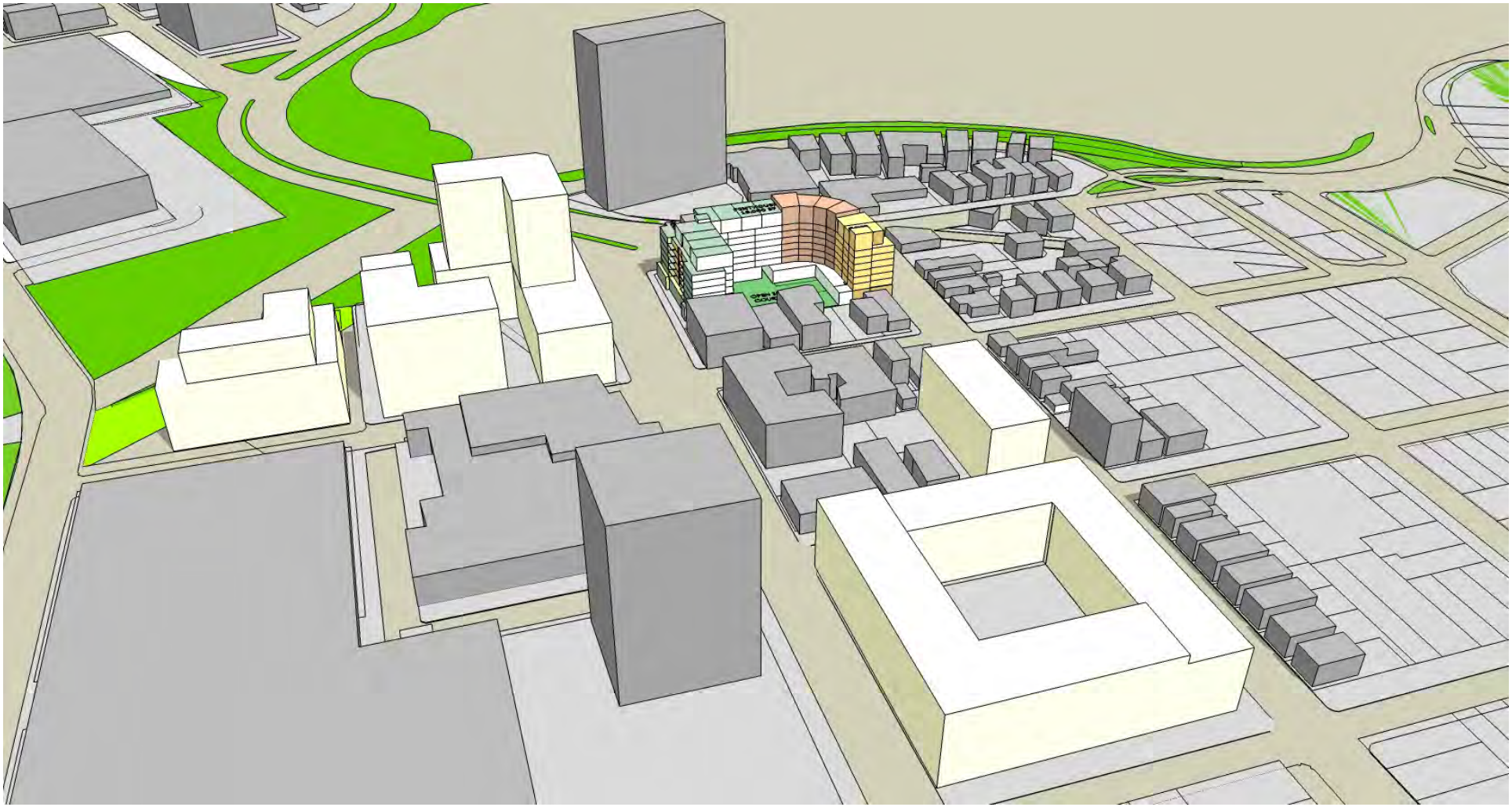
Figure 2.4:
EAST LAKE GATEWAY: POTENTIAL VIEW



2.3 Laney/Peralta

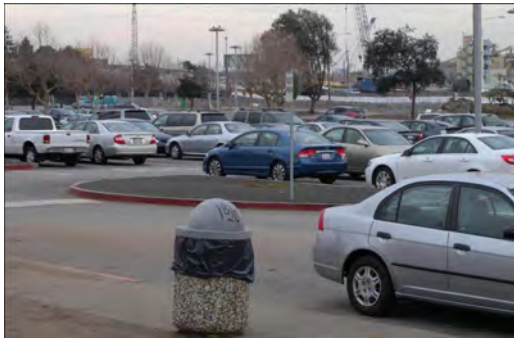
EXISTING CONTEXT

The Laney/Peralta study area includes Laney College campus, athletic fields, and parking lot, and the Peralta College District Administration buildings, with the Lake Merritt Channel creating a north-south pedestrian and bicycle connection and 7th and 10th streets connecting east-west through the study area. The Lake Merritt Channel and some land along its edge is State Tidelands Trust land, indicating that residential and some commercial uses would be prohibited along the Channel edge[1]. In general, the college is made up to two to three story buildings, with one tower reaching eight stories.

Laney College has a Facilities Master Plan that will direct new development on Laney property, to best meet its educational priorities and the vision of students, faculty, staff, and the neighborhood at large. The Master Plan is guided by the following principles:

- Maintain the integrity of the existing campus and zoning of campus core buildings, open space, and athletic fields.
- Identify sites within or at the perimeter of the campus for development to respond to projected growth and programmatic demands.
- Preserve the natural environment along the Estuary and enhance the campus's connection to it.
- Over time, in response to projected growth and creation of potential future development opportunities, replace surface parking with structured parking.
- Strengthen both of the campus's recognized "front doors" and accessible pedestrian access; separate pedestrian from vehicular circulation where possible.
- Prioritize re-use of existing buildings and approach renovation and development through the incorporation of sustainable strategies and practices.

[1] Port of Oakland, Land Records Management Tideland Grants Land, November 9, 2001.



Photos:
LANEY/PERALTA

VISION AND BIG IDEA

Land use and streetscape changes are included to enhance the role of the Laney College campus/Peralta District property as a community asset and lively hub of activity. This study area will act synergistically with the BART Station Area blocks to create a core activity node, in particular through establishment of a "festival street" on Fallon Street ("festival streets" use traffic calming and unique streetscape features to create a street that can easily be converted to public use on weekends or special events). The potential "festival street" treatment of Fallon Street would be designed to accommodate all modes of travel in order to better connect the Lake Merritt BART Station to the Laney College campus, and include a decorative surface to also function as a plaza during periodic closures for community events. The Plan also seeks to enhance connections between Laney College to the BART Station with retail, cultural assets, and entertainment.

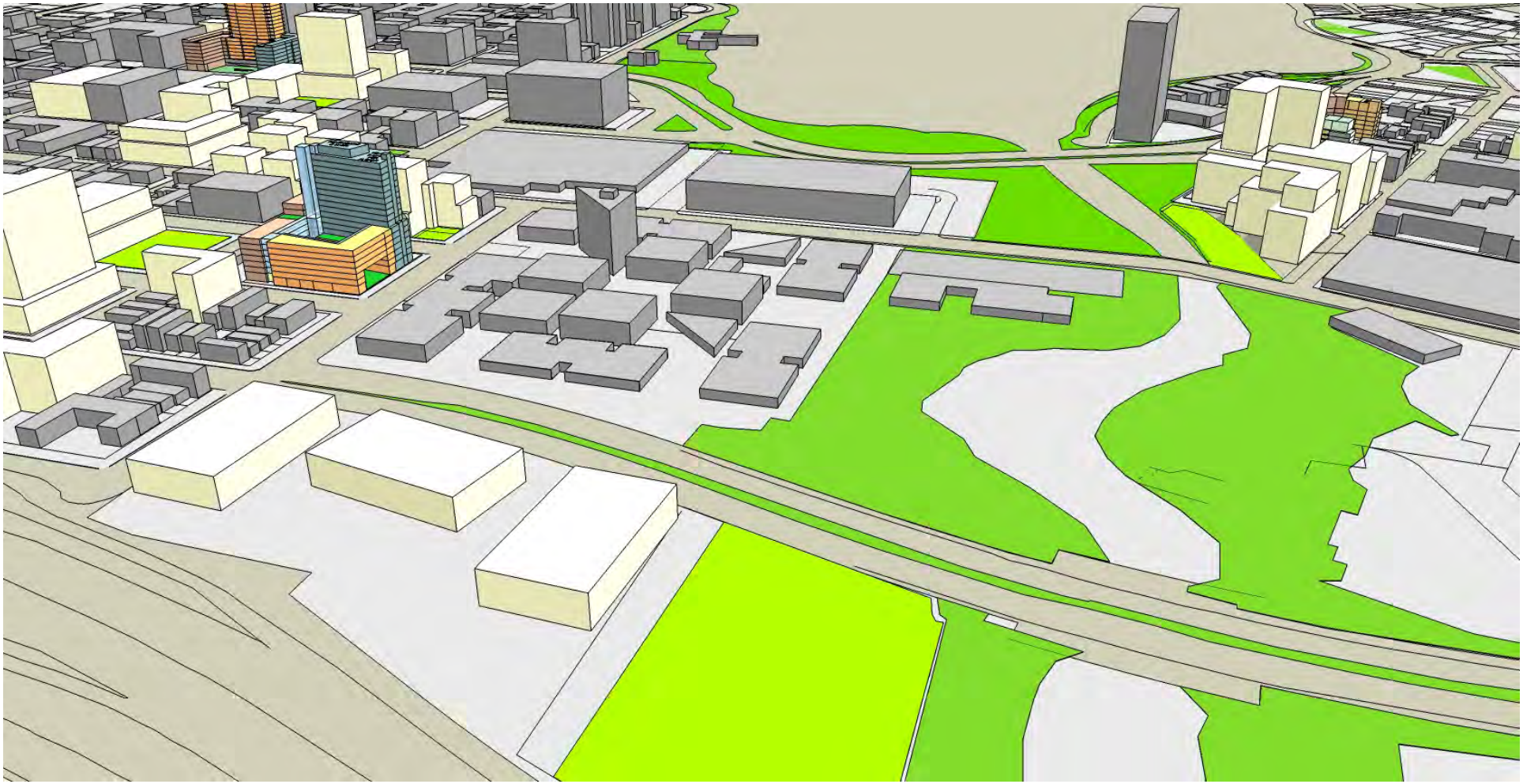
The Plan will further establish Laney College as a cultural entertainment and community center facility with more community uses and classrooms, with redevelopment of Laney parking lot including community uses, classrooms, and parking.

Crucial to the success of this area, the Plan will seek to promote movement through and throughout the campus, connecting the neighborhood to the Lake Merritt Channel, OUSD's Downtown Educational Complex, Oak to 9th development, BART, East Lake commercial, Lake Merritt open space, and the Bay Trail. Access will be facilitated by adding signage and improving streets and intersections to be more pedestrian friendly.

Open space improvements will focus on establishing the Lake Merritt Channel as a regional open space asset linking the public parks and trails around Lake Merritt to the public parks and trails along the Estuary Channel waterfront. Street improvements will focus on enhancing the east-west connections provided by 7th and 10th Streets. Streetscape improvements for 7th, 10th, and Fallon streets are shown in detail in Chapter 6.

Figure 2.5:
LANEY/PERALTA: BUILDINGS, PARKS, & ACTIVE GROUND FLOOR USES

Figure 2.6:
LANEY/PERALTA: POTENTIAL VIEW



2.4 I-880

EXISTING CONTEXT

The I-880 study area includes sites along the freeway edge with high noise and air quality issues, freeway access points, and the areas beneath the freeway. The existing character of the area includes a variety of land uses, such as a new high-rise residential project on 7th and Broadway; and the historic 7th Street/Harrison Square residential district, which is comprised primarily of one- or two-story Queen Anne cottages. Various opportunity sites include the Salvation Army site and underutilized sites along 6th Street between Madison and Fallon streets. Chinese Garden Park (formerly Harrison Square Park) is located between Harrison, 7th, Alice, and 6th streets.

A critical component of the I-880 study area is the area beneath the freeway, which includes six (6) street under-crossings and several parking lots (primarily managed by Caltrans).

VISION AND BIG IDEA

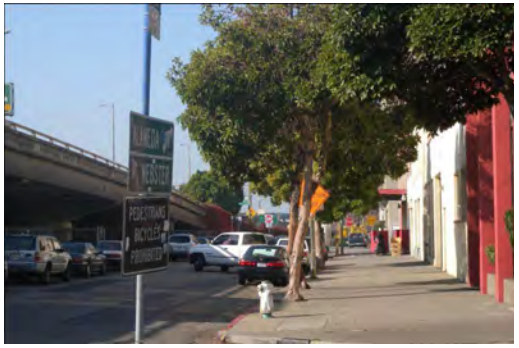
The Plan aims to improve connections between the Jack London District and areas north of the I-880 freeway (Chinatown, BART, Laney College, County offices, Oakland Museum, etc) by improving the freeway under-crossings for pedestrian safety and comfort, including pedestrian-oriented lighting, and improving and/or activating the areas under the freeway. Conceptual streetscape improvements are included in Chapter 6.

In addition, identifying pedestrian safety improvements related to traffic accessing I-880 and the Alameda tubes will be essential for this study area, including improving access to Chinese Garden Park. Note that traffic patterns related to the Alameda tubes are outside the scope of this project.

Importantly, the Emerging Plan seeks to improve the comfort and usability of Chinese Garden Park and ensure the health and safety of both existing residents and residents in new development by adding landscaping and/or sound wall buffers to the highway edge. The Plan will include policies such as:

- Locate taller buildings to buffer the neighborhood from I-880. Face buildings toward 7th Street, with parking located closer to the freeway, wherever possible.
- Ensure new development incorporates air quality and noise controls.
- Maintain clean indoor air quality (mechanical ventilation, building interiors under positive pressure, particulate filtration and carbon filtration as needed, air intakes away from pollution sources).
- Require HVAC system with filtration for sensitive use sites within 500 feet of a high traffic road if warranted by exposure analysis.
- Locate courtyards, balconies and opening windows away from the freeway.
- Consider installation of sound walls or additional landscaping.

Photos:
I-880



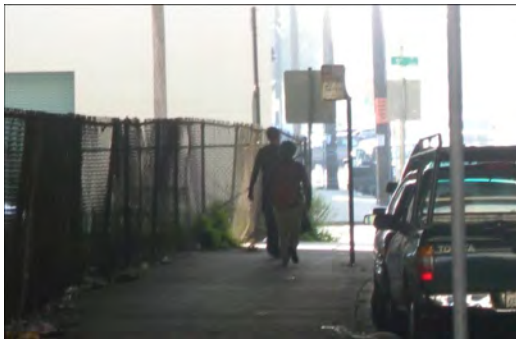


Figure 2.7:
I-880: BUILDINGS, PARKS, & ACTIVE GROUND FLOOR USES

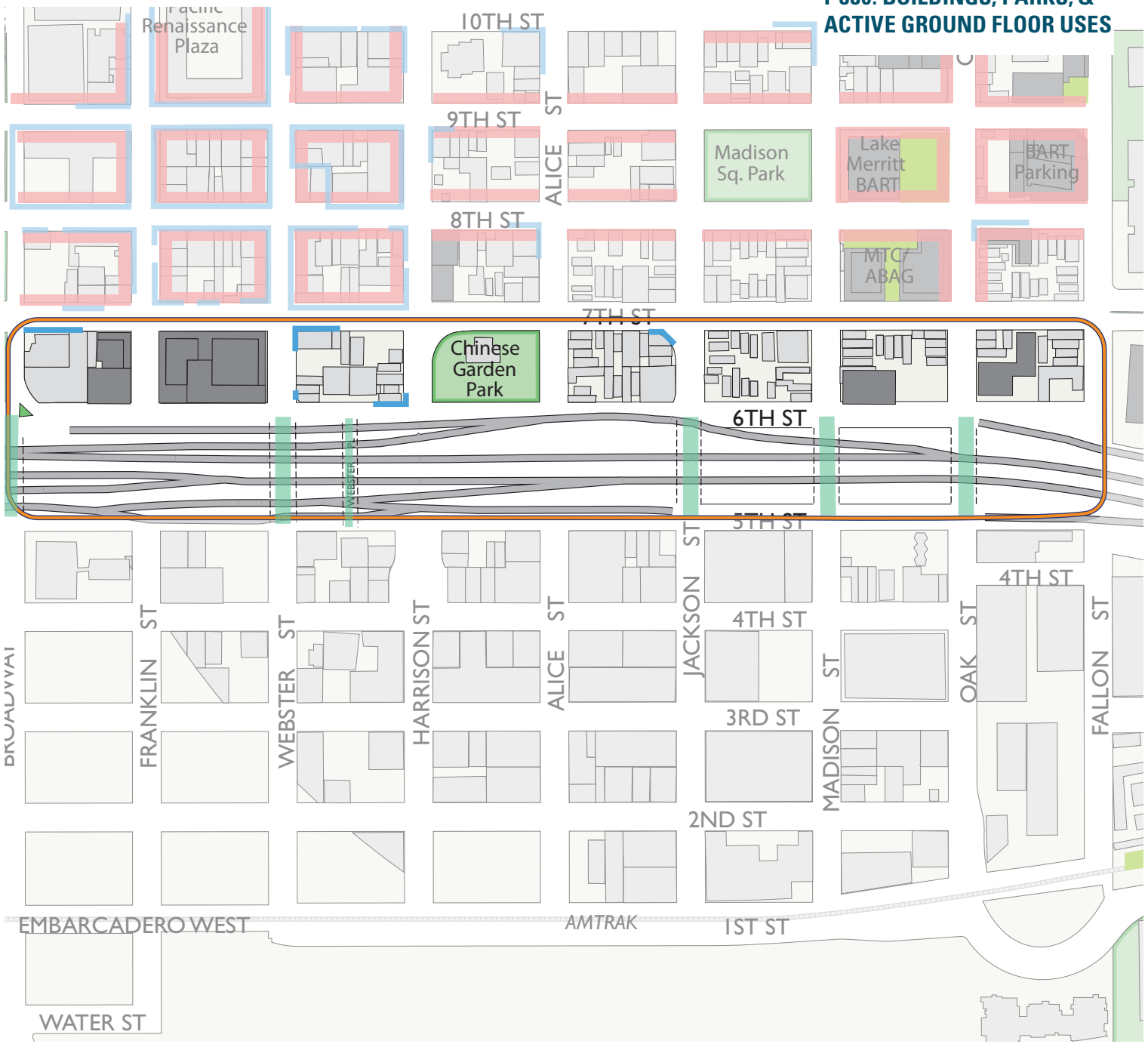


Figure 2.8:
I-880: POTENTIAL VIEW

2.5 BART Station Area

EXISTING CONTEXT

The BART Station Area is located at the center of the Planning Area and includes the Lake Merritt BART station, which is accessible at Oak and 8th and 9th streets; the underground portion of the station runs beneath the two BART blocks bound by Madison, Fallon, 8th and 9th Streets. Aboveground, the two BART blocks include a parking lot (between Fallon and Oak) and undeveloped space with small accessory buildings under construction (between Oak and Madison). The only block in this study area that is developed is the MTC/ABAG block which includes a four-story office building. The fourth block in this study area is Madison Square Park, which is a full-block park widely used by the Tai-Chi community.

VISION AND BIG IDEA

The Plan envisions development of the BART blocks, possibly in coordination with the MTC/ABAG block if it becomes available, as a catalyst project that creates an active neighborhood hub and serves as part of an active spine along 8th and 9th Streets connecting Laney College, the BART station, and the heart of Chinatown. Madison Square Park is a key community asset and open space, and the Plan will consider improvements that have been suggested by the community, such as programming, added amenities, and possibly a community facility, to complement new development on the BART blocks.

Redevelopment on the BART blocks is envisioned to include high-density residential, retail, and entertainment uses to promote activity near the BART station, as well as provide community services, public uses, and amenities throughout the area. The BART blocks should act as a hub of vibrant businesses, possibly with some at-grade open space and/or rooftop gardens to activate the area.

Station access should be coordinated and improved, including shuttle service, kiss and ride drop-off areas, and bus bulb-outs. Improving access around the station is discussed at greater length in Chapters 6 and 7. Street improvement concepts for Madison, Oak, 8th, and 9th streets, as described in detail in Chapter 6.

Photos:
BART STATION AREA





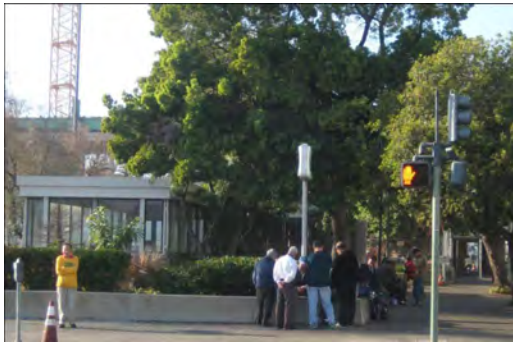
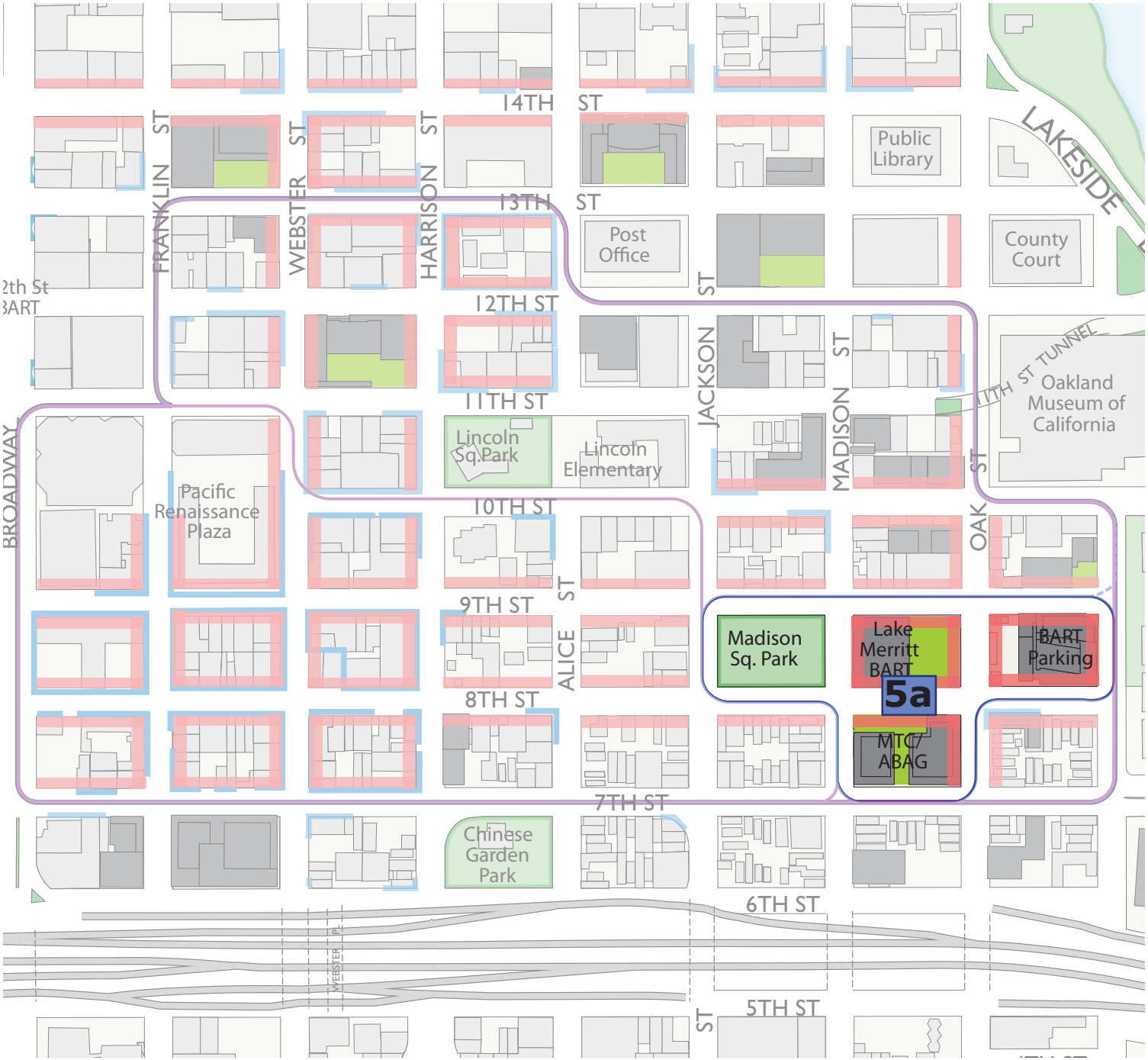



Figure 2.9:
BART STATION AREA: BUILDINGS, PARKS, & ACTIVE GROUND FLOOR USES



Potential Future Building Footprints

Existing Parks

Potential Future Parks

Future active ground floor use required

Existing active ground floors

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FEET

Figure 2.10:
BART STATION AREA: POTENTIAL VIEW

2.6 Chinatown Commercial Center

EXISTING CONTEXT

The Chinatown Commercial Center is a vibrant and active center for shopping, eating, and cultural services, as well as a historic district dating back to the middle/late 1800's. It acts as an important regional draw, particularly for the Asian community, drawing people in for shopping, festivals, services, and visiting family. Existing buildings house a range of diverse uses from retail shops and restaurants, groceries, community services, housing in a range of formats, banks, offices, churches, and cultural institutions. Buildings in this study area are typically one- to four-stories, with most of the historic buildings no more than two stories. However, newer development in the area includes several high-rise buildings between Broadway and Webster.

VISION AND BIG IDEA

The Emerging Plan will further enhance this existing community hub and regional destination with high-density commercial and residential uses. The Emerging Plan will ensure that new development is sensitive to the historic context of the neighborhood, and will seek to improve façades of existing buildings and streetscapes, and improve loading, cleaning, security, parking, and monitoring. Enhancements will seek to address local needs and enhance the vibrancy of one of the most successful retail districts in Oakland.

A key component of the vision for the Chinatown Commercial Center is to enhance the street network to improve pedestrian access and amenities. Streetscape improvements are recommended for all the streets in the Chinatown core, with detailed streetscape recommendations for several streets in this study area, including 8th, 9th, 10th, Alice, Webster, and Harrison streets, described in greater detail in Chapter 6.

Photos:
CHINATOWN COMMERCIAL CENTER

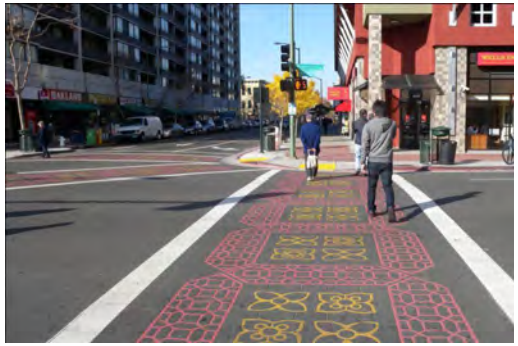
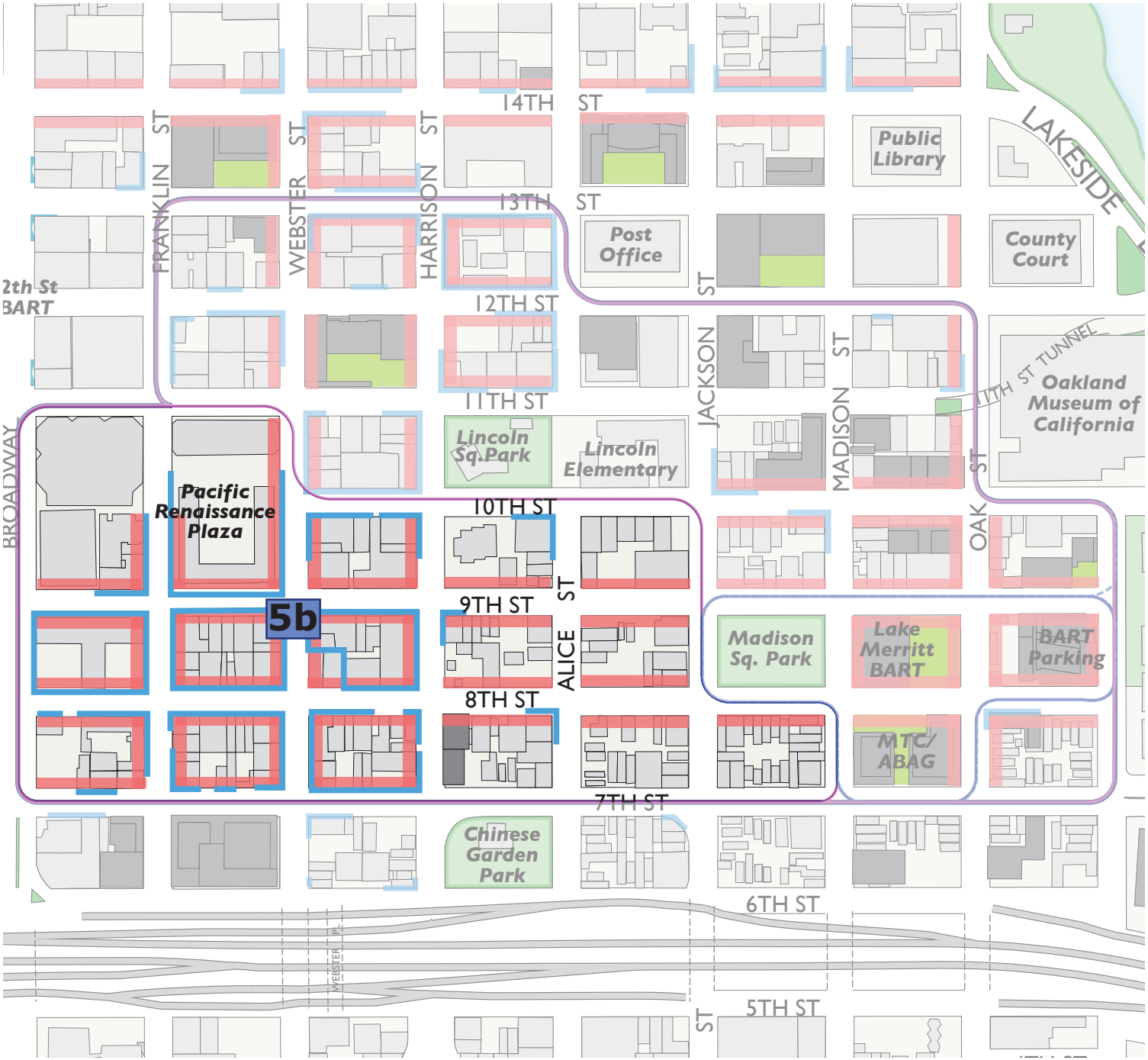


Figure 2.11: CHINATOWN COMMERCIAL CENTER: BUILDINGS, PARKS, & ACTIVE GROUND FLOOR USES



Potential Future Building Footprints

Existing Parks

Potential Future Parks

Future active ground floor use required

Existing active ground floors

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0 100 500

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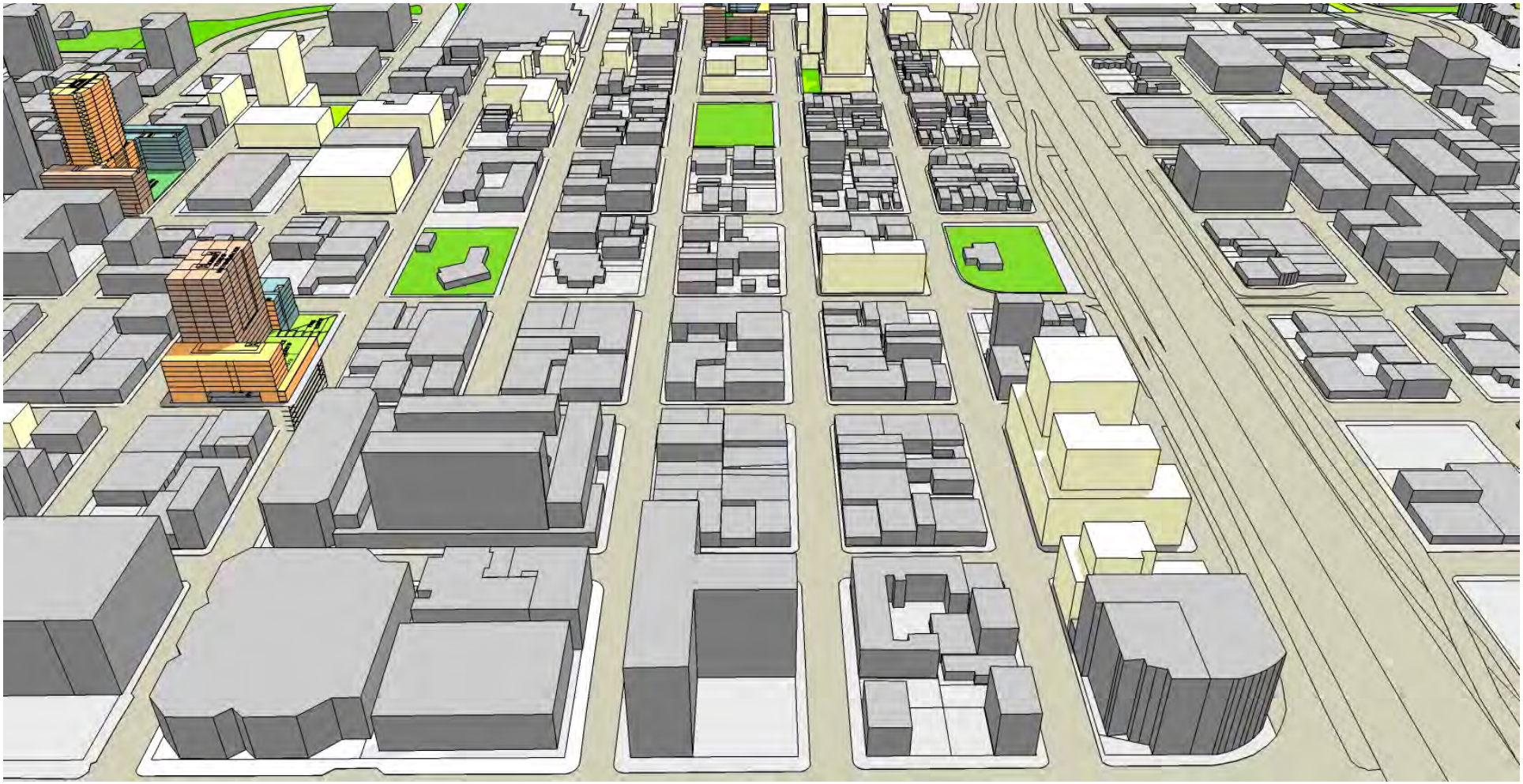
Figure 2.12:
CHINATOWN COMMERCIAL CENTER: POTENTIAL VIEW



2.7 Upper Chinatown

EXISTING CONTEXT

The existing character of the upper Chinatown study area is that of an active urban neighborhood. There are a wide range of uses currently in the area, including residential, office, schools, and recreational space, with retail and restaurants on the ground floor in some places. Lincoln Square Park is a major asset and community destination, adjacent to Lincoln Elementary, an award-winning school and another key asset of the Planning Area. Many of the buildings in this area are older one-story buildings, with several four- and five-story buildings, and a few high-rise buildings. This study are also includes several opportunity sites.

VISION AND BIG IDEA

The Upper Chinatown area is envisioned as becoming an intensified urban area for living with new high-density housing and accompanying retail, restaurants, commercial uses, and publically accessible open spaces to complement Lincoln Square Park and Recreation Center. Active uses at the ground floor and more day-time uses and residences will help to activate the area at all hours, making a safer and more vibrant neighborhood. Buildings on one-half to full-size blocks are likely to include at least one high-rise. Buildings on smaller sites are likely to be mid-rises.

Photos:
UPPER CHINATOWN

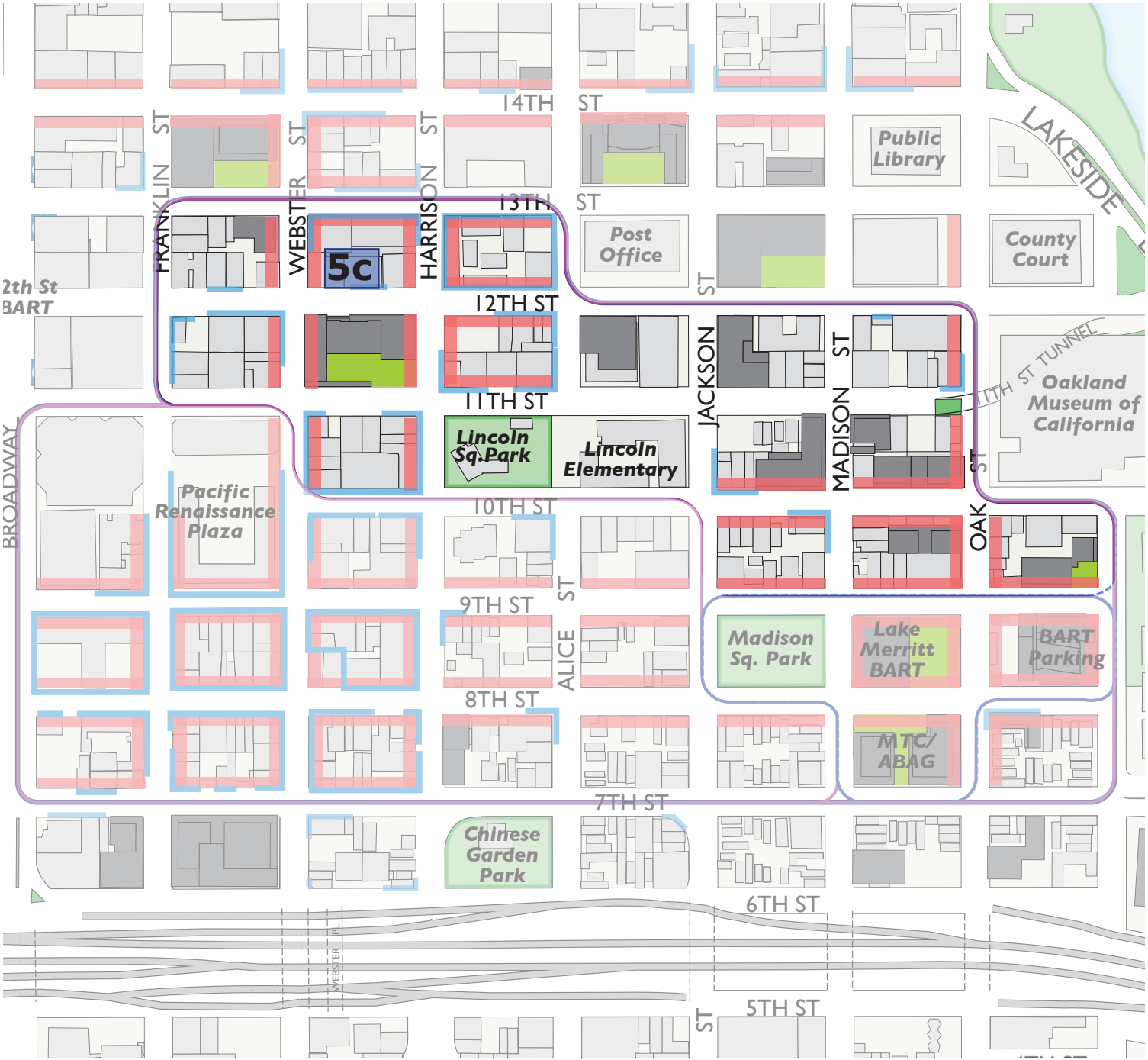


Figure 2.13:
UPPER CHINATOWN: BUILDINGS, PARKS, & ACTIVE GROUND FLOOR USES

- Potential Future Building Footprints
- Existing Parks
- Potential Future Parks
- Future active ground floor use required
- Existing active ground floors

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0 100 500
FEET

Figure 2.14:
UPPER CHINATOWN: POTENTIAL VIEW

3 Summary of Development Potential

This chapter provides an overview of development potential in the Planning Area, including a summary of market demand, development potential by opportunity sites, potential job generation, market feasibility, and summary of architectural and site planning issues.

3.1 Summary of Market Demand Analysis

The following summary of Market Demand Analysis is based on the *Market Opportunity Analysis* report completed by Conley Consulting Group (CCG) in June 2010. The report addresses the market forces that impact future development in the Station Area. The Lake Merritt Station Area Plan is intended to govern changes in the Planning Area between 2010 and 2035, many of which will be incremental and gradual. This market study references the Bay Area growth projections prepared by the Association of Bay Area Governments (ABAG), in the context of the specific market forces affecting this portion of Oakland. The Station Area Plan will consider the environmental, including socioeconomic, impacts of changes in the Planning Area.

Economic Context

The *Market Opportunity Analysis* was written in the winter of 2009-2010, the U.S. and local economies remained in the grip of a deep and protracted global recession. While there are some indicators that the recession, which started in late 2007, may be abating, the collapse of demand across many economic sectors persists into 2011. The recession has impacted the availability of capital (both equity and debt) to fund development, and depressed property values have rendered new development of most land uses infeasible in the near term. In the absence of some currently unforeseen factor that emerges and accelerates the projected slow recovery, it is CCG's judgment that the after-effects of the recession will linger, depressing development activity for several years. For many economic sectors, the recession has brought activity back down to levels that were originally achieved and passed in the beginning of the 21st Century.

Regional policy favoring growth in the urban core areas, rather than continued suburban and exurban outward expansion, suggests that Oakland should receive a larger share of the East Bay's future growth than has historically been the case. ABAG's projected population growth through 2035 would require more new development than was captured during the recent housing boom for both the city as well as the Planning Area. By the end of the planning period, projected employment growth for the city would require a future total inventory of 31.5

million square feet (SF) of office space, compared to a current Oakland inventory of less than 14 Million SF.

It will be a challenge to achieve these projected growth levels, as delayed development activity in the near term may impact the ability to achieve the robust development projections over the longer term.

Chinatown

The Planning Area includes Chinatown, which is a unique and rich environment, with a wealth of cultural, social, medical, residential, retail and social resources. Chinatown's commercial uses are concentrated in the four city blocks bounded by 7th, 9th, Franklin and Harrison streets. In a less concentrated manner Chinatown's commercial district influences a wider area from I - 880 to 11th Street, and from Broadway to Harrison. Chinatown remains one of the city's most vibrant neighborhood retail districts, and over the last three decades, Asian-oriented retail has spread eastward in Oakland along 12th Street and International Boulevard. In addition to the commercial concentration, Chinatown is a strong residential neighborhood which spans from Harrison to Fallon Streets and from I – 880 to 11th Street.

As described in the project's Existing Conditions Report (2010), Chinatown's rich historical and consistent cultural context attracts residents and visitors, including the many churchgoers and regular patrons of the district's social and health resources. In addition, Chinatown attracts Asian residents from throughout the East Bay for cultural, health and educational services, as well as banking institutions catering to Asian customers.

Demographics and Population Projections

The Planning Area has a current estimated population of 12,500 persons in 6,159 households, compared to the estimated 412,000 population and 157,000 households for the city as a whole. The Planning Area population is nearly 70% Asian, of which 84% are Chinese.

Compared to the city as a whole, the Planning Area has relatively smaller households; more seniors; a larger proportion of renters; lower household incomes; and heavier reliance on public transportation.

The Alameda County Congestion Management Agency (CMA) projects that by 2035, the Planning Area will grow by roughly 10,500 households and 7,300 jobs. For the city as a whole, ABAG projects an additional 54,000 households and 93,000 jobs in that period.

Housing

By the early part of this century, the Oakland housing market switched from one dominated by sales of existing single-family homes to one where new multifamily units were 80% of new housing unit development. Given excellent access afforded by many Oakland locations, including the Planning Area, there is a strong opportunity to develop housing in a Transit Oriented Development (TOD) format.

TOD housing appeals to members of the "Baby Boom" generation (born between 1945-1964, now predominantly empty nesters) who are attracted to amenity-rich urban locations as well as to members of "generation X" (born between 1965 and 1978) and "generation Y" (born 1979 to 1999), who show a preference for more environmentally-sound residential choices and urban amenities, as well as a marked aversion to long commutes. Thus demographic trends favor housing in a TOD format.

When development of new housing in Oakland's Central District resumes, we conclude:

- The Planning Area will face competition from more established neighborhoods, where enough units have already been planned or granted approvals to accommodate likely levels of new housing demand for the next 10 years or more.
- Initial developments in the Planning Area are likely to be low- to mid-rise buildings (below eight stories). High-rise housing development is unlikely for the next three to five years, due to financial feasibility and investment risk issues.

Potential sources of demand for housing in the Planning Area include:

- Asian seniors;
- Immigrant families;
- Singles and young households attracted to recreational amenities along Lake Merritt and the Estuary;
- Laney College students from outside of the Bay Area or outside of the United States;
- Aging Baby Boomers, once the neighborhood character has been established.
- The large and growing group of households who desire housing within an easy commute to jobs in other Bay Area locations in the East Bay, San Francisco, and the Silicon Valley.

Accommodating projected household growth in the Planning Area will require intense development of sites beyond Chinatown, including sites above 11th Street and along the improved Estuary. These areas currently lack the neighborhood amenities, active streets and the character required to attract significant levels of development.

Creating a lively neighborhood character with active, pedestrian-friendly streets is a requirement for achieving significant growth in the housing stock outside of Chinatown in the next decade or so.

Retail

The Planning Area includes Chinatown, one of Oakland's strongest neighborhood retail districts. The most recent taxable sales report showed retail sales in the Focus Area, which is a subset of the Planning Area, at $57 million (2008), representing the city's fifth largest neighborhood retail district in terms of sales. Since 1994, retail sales in Chinatown have grown at a much faster pace (84%) than for the city as a whole (1.74%). Chinatown is unique among Oakland's retail districts in that it regularly draws shoppers to Oakland from outside of the

city. However, Chinatown faces increased competition from suburban stores targeting this customer base and from the growing suburbanization of the East Bay Asian population, thus maintaining the district's vitality should be an important City goal.

Historically, food sellers and other convenience goods merchants have been the most successful retailers in Chinatown, including restaurants, shops selling prepared food, and grocers. More recently Chinatown's merchandise mix has broadened to include comparison stores (those selling apparel, home furnishings, home improvement, and specialty goods) as well.

Currently the primary source of retail demand in the Planning Area is the Asian population of the East Bay. Attracting Downtown office workers and non-Asian Oakland residents to this successful commercial district should be a major goal of the Station Area Plan, and for the city.

Outside of Chinatown, the current lack of pedestrian activity and active street retail in the Planning Area is a constraint to attracting potential development to accommodate population or employment growth in the Planning Area.

Untapped sources of support for retail in the Planning Area include:

- Projected growth of up to 38,400 residents by 2035, who could support an additional 414,000 SF of new retail.
- Projected growth of up to 7,300 new employees by 2035, who could support additional eating and drinking, service, and specialty retail.
- The 15,000 commuting students and 400 faculty and staff members of Laney college, which may be augmented by the addition of residential facilities for the growing enrollment of foreign and out-of-Bay Area students. The college-related demand is for casual dining, cafes, bars, and food to go.

With the possible addition of an entertainment anchor related to the college, there would be an enhanced nighttime draw of city residents to the area, further enhancing the Planning Area opportunities for restaurants and night clubs.

Office

Projected employment growth suggests substantial office development potential for downtown Oakland. However, the Planning Area is outside of the established locations for private sector office activity at Lake Merritt, City Center (See Figure 1.1), and the emerging center at Jack London Square. Although office workers currently patronize Chinatown food establishments, the Planning Area lacks the employee-oriented shopping, dining, lodging, and infrastructure amenities necessary to attract Class A office development.

The primary opportunity for the Planning Area is for expansion of its current role as a cluster of government and educational uses, and for retail and professional services that support those uses. Alameda County has indicated that it plans to consolidate some of its functions from elsewhere in Oakland to other sites in the Planning Area. Ideally, new civic uses should be designed to contribute to a lively pedestrian environment in the Planning Area.

In addition to general office space, Chinatown supports cultural, heath and civic organizations which occupy upper-floor space in mixed-use buildings in the Planning Area, typically over ground-floor retail space.

Hotel

Oakland has a small hotel sector with relatively stable occupancy levels and room rates, and has typically been less vulnerable to economic shifts than other cities' hotel markets. The city's hotels have certainly been impacted by the recent recession. Given the hotel sector's small size, each new property represents a major change in the city's inventory, thus increasing the market risk. The Planning Area includes one first-class hotel, the Marriott Courtyard located on Broadway at 8th Street.

The most probable opportunity to expand the city's hotel sector is from increased corporate demand from an expanded employment base. There are currently four proposed future hotel developments in Oakland which would add 760 rooms to the city's existing inventory of 3,800 first class rooms. Thus, this opportunity will follow recovery and expansion of the city's economy, and is likely after 2020.

Sites in the Planning Area with water views overlooking Lake Merritt or the Estuary would be excellent hotel development opportunities, and would be competitive with other Oakland locations for new first-class hotel development. Given the proposed competition, it is likely that only the strongest potential site(s) would be developed for hotel use.

In the mid- to long-term future, the Planning Area could support either a small boutique hotel (30-100 rooms) or a 200+ room full-service facility.

Planning Area Market Opportunity

The amount of new development supported by market dynamics in the Planning Area over the planning period is summarized in Table 3.1 below.

Table 3.1 Planning Area Development Opportunity (2010-2035)

Product Type	*Next Decade (2010-2020)*	*Remaining Period (2020-2035)*	*Total New Demand*
Residential (Units)	900-2,500	3,450-8,000	4,350-10,500
Retail (Square Feet)	83,000-165,000	124,000-249,000	207,000-414,000
Office (Square Feet)[1]	n/a	850,000	850,000
Local Serving Office (Square Feet)	125,000-165,000	186,000-249,000	310,000-414,000
Hotel (Rooms)	n/a	200	200

1. Assumes 44% of countywide projected employment is office-related. Alameda County proposed expansion represents nearly 50% of the estimated market demand

Source: Conley Consulting Group; February 2010

3.2 High and Low Development Potential

As described in Chapter 1, opportunity sites for development were identified in order to make an assessment of the type and amount of development potential in the Station Area. The potential development identified for each opportunity site (shown in Figure 3-1) under the Emerging Plan was determined based on a variety of factors, including market dynamics, building feasibility and conceptual Plan policies (as discussed and refined by the Community Stakeholder Group). Assumptions used in calculating development potential include:

- ***Public Open Space*** is included throughout the Planning Area, and is estimated in acres. Each full block site dedicates up to 25 percent of land area to park, open space or plaza. Other open space locations include a large plaza on the BART Station Block, and smaller open spaces on the BART Parking lot and Site 21 (which faces the BART Parking block and Laney College), and new regional park space along the Lake Merritt Channel.
- ***Percent of Lot Built*** identifies the portion of the lot assumed for development. This includes an assumption of setback above a base height. In most cases, this is assumed to be 70 percent. This coverage is less for sites along I-880 (60 percent) in order to account for increased setbacks away from the highway. On full blocks, coverage is assumed to be 65 percent.
- ***Housing Density*** is assumed to range from 130 to 160 housing units per acre for mid-rise development, and from 300 to 484 housing units per acre for high-rise development. These assumed densities are used to determine the low and high housing unit estimates.
- ***Office*** numbers are developed based on an assumed footprint and the number of stories.
- ***Retail*** is assumed to be at the ground floor only, focused along key retail streets; the average assumption for ground floor retail is 35% of a site. Some sites have slightly higher or lower retail assumptions based on the portion of the site that fronts onto retail streets.
- ***Net New Development*** includes the subtraction of any existing uses on sites that are not vacant or parking lots.
- ***Development potential compared to regional projections*** includes only the Traffic Analysis Zones that correspond to the focus area. The larger 1/2 mile study area corresponds to a larger projected population and job increase per ABAG and ACTC.

Detailed development potential by Site is shown in Table 3-2. A comparative summary of projected development is shown in Table 3-3.

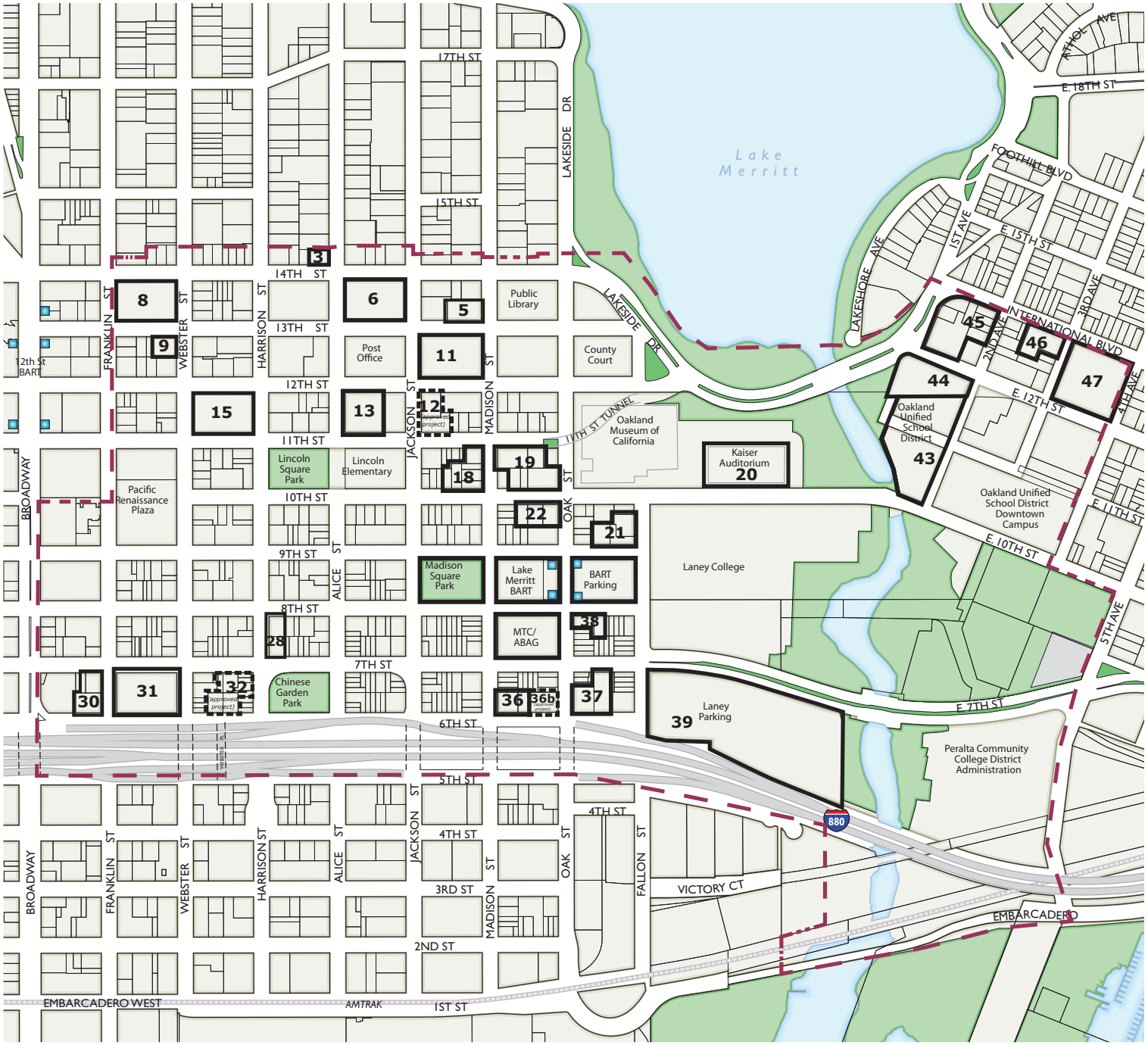

Figure 3.1:
POTENTIAL DEVELOPMENT SITES

Focus Area

3 Opportunity Sites with Community Agreement or Vacant Sites

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Table 3.2:
EMERGING PLAN DEVELOPMENT POTENTIAL

Draft Emerging Plan Development Potential

SITE	SITE ACRES	EXISTING USE	HEIGHT ASSUMPTION	% LOT BUILT	USES: Emerging Plan	UNITS (LOW)	UNITS (HIGH)	SQUARE FEET OFFICE	SQUARE FEET RETAIL	PARKS (ACRES)	COMMUNITY FACILITIES	EXISTING UNITS/SF*	NET NEW UNITS (LOW)	NET NEW UNITS (HIGH)	NET NEW OFFICE	NET NEW RETAIL	LESS HOTEL ROOMS	LESS INSTITUTIONAL	LESS INDUSTRIAL	LESS AUTO SERVICES
CENTRAL BART BLOCKS																				
BART Station	1.4	BART Admin	Mid-rise: 6-8 stories (higher with a CUP; minimum 3-4 stories) Assume 8 stories, development on	45%	Housing	82	101					-	82	101		-				
				35%	Retail/ Entertainment				21,000			-				21,000				
				50%	Park/Plaza					0.70		-								
BART Parking	1.4	BART Parking	High-rise: 9+ stories (minimum 8 stories) Assume one 20 story	55%	Housing	231	373					-	231	373						
				35%	Retail				21,000			-				21,000				
				15%	Park					0.21		-								
MTC/ABAG	1.4	MTC/ABAG Offices	High-rise: 9+ stories (minimum 8 stories) Assume two 20 story	25%	Housing	105	169					-	105	169						
				35%	Office			430,000				106,000			324,000					
				25%	Park					0.35		-								
				33%	Retail				20,000			-				20,000				
Subtotal Central BART Blocks Version 1						*418*	*643*	***430,000***	***62,000***	***1.26***	-	***106,000***	***418***	***643***	***324,000***	***62,000***	-	-	-	-
OTHER SITES WITH COMMUNITY FEEDBACK AGREEMENT OR VACANT SITES																				
3	0.2	Parking Lot	Mid-rise: 6-8 stories (higher with a CUP;	70%	Housing	15	19					-	15	19						
				35%	Retail				3,000			-				3,000				
5	0.4	Parking Lot	Mid-rise: 6-8 stories (higher with a CUP; minimum 3-4	70%	Housing	35	43					-	35	43						
				20%	Retail				3,000			-				3,000				
6	1.4	Parking lot	High-rise: 9+ stories (minimum 8 stories) Assume 20 stories	65%	Housing	273	440					-	273	440						
				35%	Retail				21,000			-				21,000				
				25%	Park					0.35		-								
					Parking							-								
8	1.4	Structured parking lot	High-rise: 9+ stories (minimum 8 stories) Assume 20 stories	65%	Housing	273	440					-	273	440						
				35%	Retail				21,000			-				21,000				
				25%	Park					0.35		-								
					Public parking (8 stories)							-								
9	0.3	Parking Lot	Mid-rise: 6-8 stories (higher with a CUP; minimum 3-4	70%	Housing	25	31					-	25	31						
				20%	Retail				2,000			-				2,000				
11	1.4	Structured parking lot	High-rise: 9+ stories (minimum 8 stories) Assume one 20 story tower	33%	Office (20,000 sf/floor in one tower)			400,000				-			400,000					
				20%	Retail				12,000			-				12,000				
				25%	Park					0.35		-								
				33%	Public parking							-								

Table 3.2 Continued: EMERGING PLAN DEVELOPMENT POTENTIAL

Draft Emerging Plan Development Potential

SITE	SITE ACRES	EXISTING USE	HEIGHT ASSUMPTION	% LOT BUILT	USES: Emerging Plan	UNITS (LOW)	UNITS (HIGH)	SQUARE FEET OFFICE	SQUARE FEET RETAIL	PARKS (ACRES)	COMMUNITY FACILITIES	EXISTING UNITS/SF*	NET NEW UNITS (LOW)	NET NEW UNITS (HIGH)	NET NEW OFFICE	NET NEW RETAIL	LESS HOTEL ROOMS	LESS INSTITUTIONAL	LESS INDUSTRIAL	LESS AUTO SERVICES
12	0.5	Vacant (planned housing)	Mid-rise: APPROVED AFFORDABLE HOUSING	n/a	Approved Affordable Housing Project	68	68						68	68						
13	0.8	Developed one story parking	Mid-rise: 6-8 stories (higher with a CUP; minimum 3-4 stories) Assume	70%	Office			290,000				-			290,000					
				20%	Retail				7,000			-				7,000				
15	1.4	Developed one story: charter school and parking	High-rise: 9+ stories (minimum 8 stories) Assume one 20 story tower above mid-rise base	65%	Housing	273	440					-	273	440						
				35%	Retail				21,000			-				21,000		(23,998)		
				25%	Park					0.35		-								
18	0.7	Parking + developed one story	Mid-rise: 6-8 stories (higher with a CUP; minimum 3-4	70%	Housing	64	78					30	34	48						
				65%	Retail				20,000			-				20,000				(4,000)
19	1.1	Developed one story	Mid-rise: 6-8 stories (higher with a CUP; minimum 3-4	70%	Housing	100	123					4	96	119						
				50%	Retail				24,000			-				24,000				(24,000)
21	0.6	Parking + developed one story	High-rise: 9+ stories (minimum 8 stories) Assume	70%	Housing	126	203					4	122	199						
				35%	Retail				9,000			-			(2,723)	9,000				
				18%	Park					0.11		-								
22	0.5	Developed one story	Mid-rise: 6-8 stories (higher with a CUP; minimum 3-4	70%	Housing	46	56					-	46	56						
				35%	Retail				8,000			-				8,000			(14,500)	
28	0.3	Parking	Mid-rise: 6-8 stories (higher with a CUP; minimum 3-4	50%	Housing	22	28					-	22	28						
				20%	Office			20,000				-			20,000					
				35%	Retail				5,000			-				5,000				
30	0.5	Vacant	High-rise: 9+ stories (minimum 8 stories) Assume	60%	Housing	94	151					-	94	151						
				35%	Retail				8,000			-				8,000				
				50%	Parking							-								
31	1.4	Developed two story building	High-rise: 9+ stories (minimum 8 stories) Assume	60%	Housing	252	407					-	252	407						
				35%	Retail				21,000			-				21,000		(83,725)		
32			High-rise: APPROVED PROJECT			380	380		9,110			0	380	380		9110				
36	0.5	Vacant +one story	Mid-rise: 6-8 stories (higher with a CUP; minimum 3-4 stories) Assume	70%	Office			160,000				-			160,000				(15,040)	
36b			Mid-rise: APPROVED			70	70					0	70	70						

Table 3.2 Continued: EMERGING PLAN DEVELOPMENT POTENTIAL

Draft Emerging Plan Development Potential

SITE	SITE ACRES	EXISTING USE	HEIGHT ASSUMPTION	% LOT BUILT	USES: Emerging Plan	UNITS (LOW)	UNITS (HIGH)	SQUARE FEET OFFICE	SQUARE FEET RETAIL	PARKS (ACRES)	COMMUNITY FACILITIES	EXISTING UNITS/SF*	NET NEW UNITS (LOW)	NET NEW UNITS (HIGH)	NET NEW OFFICE	NET NEW RETAIL	LESS HOTEL ROOMS	LESS INSTITUTIONAL	LESS INDUSTRIAL	LESS AUTO SERVICES
37	0.6	BART Maintenance, Auto Services	Mid-rise: 6-8 stories (higher with a CUP; minimum 3-4 stories)	70%	Office			160,000				-			160,000					(1,019)
38	0.3	Developed 1-2 stories	Mid-rise: 6-8 stories (higher with a CUP; minimum 3-4	70%	Housing	27	34					-	27	34						
				35%	Retail				5,000			10,555			(8,000)	(5,555)				
39a	4.6	Parking lot	High-rise: 9+ stories (minimum 8 stories) Assume two 12 story buildings and two 20 story	60%	Classrooms/ Office			240,000				-			240,000	-				
				5%	Retail/Community Apparatus				10,000			-				10,000				
				10%	Park					0.46		-								
				33%	Structured Parking							-								
39b	4	Parking lot	Park	65%	Park					2.6		-								
				35%	Public Use TBD						61,000	-								
43	3	Developed 4 story and 1 story	High-rise: 9+ stories (minimum 8 stories) Assume	60%	Housing	540	871					-	540	871				(112,410)		
				4%	Retail				5,000			-				5,000				
				30%	Park					0.9		-								
44	1.3	Vacant	High-rise: 9+ stories (minimum 8	70%	Housing	273	440					-	273	440						
				35%	Retail				20,000			-				20,000				
45	1.5	Developed 1-3 stories	Mid-rise: 6-8 stories (higher with a CUP;	70%	Housing	137	168					2	135	166			(75)			
				35%	Retail				23,000			8,765				14,235				
46	0.5	Parking and 1 story	Mid-rise: 6-8 stories (higher with a CUP;	70%	Housing	46	56					-	46	56				(3,878)		
				25%	Retail	0	0		5,000			-				5,000				
47	2	Parking and 1 story	Mid-rise: 6-8 stories (higher with a CUP;	70%	Housing	182	224					-	182	224				(26,202)		
				12%	Retail	0	0		10,000			-				10,000				
n/a	Varied	Channel	n/a	n/a	Parkland					9		-				-				
Subtotal						***3,320***	***4,772***	***1,270,000***	***272,110***	***14.5***	***61,000***		***3,280***	***4,732***	########	***252,790***	***(75)***	***(250,213)***	***(29,540)***	***(29,019)***
TOTAL BART Blocks Low Development						**3,738**	**5,414**	**1,700,000**	**334,110**	**15.8**	**61,000**		**3,698**	**5,374**	**1,583,277**	**314,790**	**(75)**	**(250,213)**	**(29,540)**	**(29,019)**
										3.2										
						7,476	*10,829*						*7,396*	*10,749*						
						19,528	*22,881*						*19,448*	*22,801*						
						2.11	*1.46*						*2.14*	*1.47*						
						0.43	*0.30*						*0.44*	*0.30*						

*Note: Existing Units/SF shows existing units and existing square feet of any uses that are also proposed on that site. For uses that do not currently exist on the site, the reduction is shown in the corresponding column as negative square feet.

Table 3-3: Comparative Summary of Projected Development

Sites	*Housing Units Low*	*Housing Units High*	*Office Square Feet*	*Retail Square Feet*	*Jobs*
Market Opportunity Analysis (2035)[1]	4,350	10,500	1,212,000	310,500	4,017
ABAG Projections[2]	4,933	4,933	n/a	n/a	4,169
Emerging Plan (Net New)					
Central BART Blocks	418	643	324,000	62,000	987
Other Sites	3,280	4,732	1,259,277	252,790	3,436
TOTAL	**3,698**	**5,374**	**1,583,277**	**314,790**	**4,423**
Emerging Plan % of Market Analysis	85%	51%	131%	101%	110%
Emerging Plan % of ABAG Projection	75%	109%	n/a	n/a	106%

[1] Market Opportunity Analysis estimates for Retail and Office are averages. The office number combines general office and local serving office.

[2] ABAG Projections are 2009, Focus Area only (less than the ½ mile radius).

3.3 Job Generation and Types of Jobs

The Station Area Plan could add an estimated 4,423 new jobs to the Planning Area, as shown in Table 3-4, slightly more than what is projected by ABAG. This is primarily in the addition of new retail and office jobs, and at the expense of some auto and industrial jobs. While the job estimates shown in Table 3-4 reflect a decline in institutional jobs, it should be noted that these job estimates only reflect new jobs on opportunity sites and do not include jobs associated with Laney College or new jobs that may be associated with the proposed OUSD Downtown Educational Complex.

Table 3-4: New Emerging Plan Jobs by Type

Net New Office Jobs	*Net New Retail Jobs*	*Less Hotel Rooms Jobs*	*Less Institutional Jobs*	*Less Light Industrial Jobs*	*Less Auto Services Jobs*	***Net New Jobs***
3,958	899	-38	-250	-74	-73	**4,423**

Note: Jobs are calculated based on the following assumptions: 1,000 square feet per institutional job, 400 square feet per light industrial, office, and auto services jobs, and 350 square feet per retail job.

Source: Conley, 2011; Dyett & Bhatia, 2011.

3.4 Market Feasibility Assessment

APPROACH

This section examines the conceptual financial feasibility of selected development prototypes evaluated in the Station Area Plan. The basic test of financial feasibility used in this assessment is to evaluate the ability to support the conceptual development costs for a given prototype with project-generated revenues, given market standard return requirements for both equity and debt. Four development prototypes were evaluated, all including market rate housing and ground floor retail.

Any feasibility assessment is a function of the assumed economic conditions which drive product type demand, potential revenue, construction costs, and cost of capital. For a plan that is meant to guide development over a long term 25-year period, there are obvious limitations to relying on current economic conditions to predict future development trends. However, instead of attempting to predict the economic future, this assessment is based on current conditions and discusses the implications of possible future changes over the planning period.

RECESSION IMPACT

At the time this assessment was performed, the U.S. economy was still struggling to show definitive signs of recovery from the protracted effects of the deep recession which started with a rapid loss of economic vitality and a collapse of demand across most sectors in 2008. Unlike other downturns, the California economy has shown unusual susceptibility to the national economic malaise, with a higher unemployment rate and a steeper rate of home price collapse than the national norm. Although there are signs of emergent recovery and even growth in the tech-dominated Silicon Valley, for the most part by Fall 2011, the Bay Area remains in the depths of a deep recession, with the housing sector being the most severely impacted sector of both the national and Bay Area economy.

Housing values have declined sharply since the start of the recession, with 2011 sales prices in some parts of the plan area falling to only 35% of peak 2006 sales prices. With few exceptions, most housing developed since 2001 has been for-sale housing (although some distressed for-sale properties have been restructured financially and converted to rentals). A near-term return to housing prices that supported the mid-decade housing boom is not expected by most industry sources. Many analysts now predict that the first wave of housing construction post the current recession conditions will be designed to fill the rental housing demand from young adults entering the labor force and for aging Baby Boomers. The rate of future price and rent increases is dependent on complex demographic and economic factors and cannot be accurately predicted.

Since the start of the recession, the collapse in demand for new construction has led to a steep decline in contractor's construction cost bids, fueled largely by subcontractors bidding aggressively to capture low-end jobs to keep their doors open. Industry experts have recently suggested that the downward pressure on construction costs has abated, since there are now fewer active firms competing for business. Construction costs are no longer declining, but it cannot be known how contractors will respond to an increase in demand in the future when

the economy recovers and demand for new construction increased again. It is likely that construction costs and revenues will rise at different rates, which will impact the feasibility assumption below.

SCENARIOS REVIEWED

The development prototypes are summarized in Scenarios A through D, which are shown in Table 3-5. Scenarios A and B are full-block developments with a base of 6-story residential units over retail. These scenarios also include a 16-story high-rise tower. An underground parking garage is needed to accommodate the project's combined parking need of 380 spaces, and extends for most of the site. Thus, at this conceptual level, it can't be assumed that the buildings are built as independent developments. Although these scenarios include both mid- and high-rise structures, it is likely that both will be built with uniform high-rise construction costs. This project was originally tested at Site 6, which is east of Lake Merritt at the block bounded by 13th, Jackson, 14th and Alice Streets. As such the ground floor retail is located outside of Chinatown's prime commercial core area, which is generally concentrated along 7th to 11th Streets and between Franklin and Harrison Streets.

Scenario C is a conceptual eight-story mid-rise project with slightly larger unit sizes than assumed for the high-rise scenario. We assumed a 0.65 acre site on the outer edge of the existing commercial core area with 50% of the parking located in an underground garage and the remaining 50% located in an above ground structure.

Scenario D is a conceptual low-rise multifamily development on a half-acre site, with the parking located in an above-ground structure.

In each scenario the majority of the parking is provided for residents at a Transit Oriented Development (TOD) ratio of 1 per unit. The remaining parking serves the retail uses, assuming that an appropriate design solution is adopted to protect resident's safety and privacy in a shared parking structure.

Table 3-5: Scenario Descriptions

Scenario A: High/Mid Rise Condo						
Select Site: Site 6		*1.40 Ac*				
		Load		*Avg*	*No. of*	*Density*
	GSF	*Factor*	*NSF*	*SF/Unit*	*Units*	*Units/Ac*
Residential - Hi-Rise	150,000	25%	120,000	750	160	226
Residential - Mid-Rise	213,120	20%	177,600	1,138	156	
Retail	21,300	0%	21,300	21,300	1	
Housing Amenities	3,000	0%	3,000	3,000	1	
Open Space	15,000	0%	15,000	15,000	1	
Parking Underground	120,000				340	
Parking Structure	16,000				40	

Table 3-5: Scenario Descriptions

Scenario B: High/Mid Rise Apartments						
Select Site: Site 6		1.40 Ac				
		Load		*Avg*	*No. of*	*Density*
	GSF	*Factor*	*NSF*	*SF/Unit*	*Units*	*Units/Ac*
Residential - Hi-Rise	150,000	25%	120,000	750	160	226
Residential - Mid-Rise	213,120	20%	177,600	1,138	156	
Retail	21,300	0%	21,300	21,300	1	
Housing Amenities	3,000	0%	3,000	3,000	1	
Open Space	15,000	0%	15,000	15,000	1	
Parking Underground	120,000				340	
Parking Structure	16,000				40	

Scenario C: Mid Rise Apartments						
Select Site: Conceptual Site		0.65 Ac				
		Load		*Avg*	*No. of*	*Density*
	GSF	*Factor*	*NSF*	*SF/Unit*	*Units*	*Units/Ac*
Residential - Mid Rise	102,762	20%	85,635	865	99	152
Retail	15,000	0%	15,000	0	0	
Housing Amenities	3,671	0%	3,671	0	0	
Parking Underground	25,879				61	
Parking Structure	23,300				61	
Open Space	522	0%	522	NA	0	

Scenario D: Low Rise Apartments						
Select Site: Conceptual Low-Rise		0.50 Ac				
		Load		*Avg*	*No. of*	*Density*
	GSF	*Factor*	*NSF*	*SF/Unit*	*Units*	*Units/Ac*
Residential - Low Rise	57,600	20%	48,000	800	60	120
Retail	15,000	0%	15,000	3,000	5	
Commercial		0%	0			
Parking Structure					90	

Source: Conley Consulting Group, September, 2011

Revenue Assumptions

Project revenue for Scenario A is generated by residential condominium sales, retail leasing and parking fees. Revenue for Scenarios B-D is generated from leasing of both residential and retail space and fees for commercial parking. Based on recent home sales in the Plan Area, CCG has estimated current condo sales prices at $350,000 per unit for the high-rise units and $325,000 for mid-rise units.

Conley Consulting Group (CCG) estimated current residential rental rates at a monthly average of $2.50 per square foot (SF) for high-rise units, $2.25/SF for mid-rise units and $2.00/SF for low-rise units. For the retail space, the monthly rent was estimated at $2.50/SF, based on current asking rents at projects on the periphery of the Chinatown core retail area. These rents represent a significant decrease from core Chinatown rents, where current rents as high as $5.00 can be captured. CCG has estimated monthly parking revenue for commercial spaces to be approximately $250 per space.

Feasibility Findings

As demonstrated in Table 3-6, current rents support low rise construction costs in Scenario D. However, in order to acquire development sites, higher rents will be required to generate higher residual land values to support land payments.

The higher density solutions (Scenarios A,B, and C) require substantial increases in rents or sales prices above current levels to be financially feasible, as shown in Exhibits A-D. The required increase in residential sales prices ranges from $225,000-249,000. A residential lease rate increase of $1.80/SF for was required for the high-rise units and $1.87/SF for the mid-rise units. Before providing for a land purchase payment, the per unit feasibility gap is in the range of $240,000 for the high density apartments, and just slightly less (at approximately $233,500) for high density for-sale units. It is important to recall that these feasibility gap estimates do not yet include the cost to buy sites, or to provide affordable housing or any other desired community amenities.

Scenario C, the conceptual mid-rise development prototype, would result in a smaller feasibility gap on a per unit basis (at approximately $46,500), but still required a significant increase in rents to close the gap. A minor $0.29 and $0.50 residential and retail rent increase were required to help close the feasibility gap for this mid-rise development.

CCG estimated a need for a minor $0.25 increase in retail rents for Scenario A and B to a total of $2.75/ SF to close the feasibility gap. We note that the addition of retail uses is generally a positive impact on project feasibility. However we also note that retail rents currently vary throughout the Station Area from a high of $5/SF per month in Chinatown's commercial core to about $2/SF on the edges of the core. Successful expansion of the commercial core in the future to enlarge the area that supports prime rents, by a achieving a careful blend of new tenants, pedestrian draws, and creation of a streetscape and pedestrian way that encourages shopper flow would improve these feasibility findings.

Table 3-6: Summary Of Findings

Scenario A	
Product Type	*High/Mid Rise Condos*
Density	226 Du/Ac
# of du	316
SF of Retail	21,300
Parking Spaces	380
Value at Completion	$117,753,516
Development Cost	($163,909,845)
Residual Value/(Gap)	($73,819,143)
Value (Gap)/DU	($233,605)
Scenario B:	
Product Type	*High/Mid Rise Apartments*
Density	226 Du/Ac
# of du	316
SF of Retail	21,300
Parking Spaces	380
Value at Completion	$115,591,847
Development Cost	($163,909,845)
Residual Value/(Gap)	($75,851,327)
Value (Gap)/DU	($240,036)
Scenario C	
Product Type	*Mid Rise Apartments*
Density	152 Du/Ac
# of du	99
SF of Retail	15,000
Parking Spaces	122
Value at Completion	$36,376,374
Development Cost	($34,919,708)
Residual Value/(Gap)	($4,615,141)
Value (Gap)/DU	($46,618)
Scenario D	
Product Type	*Low Rise Apartments*
Density	120 Du/Ac
# of du	60
SF of Retail	15,000
Parking Spaces	90
Value at Completion	$21,206,959

Table 3-6: Summary Of Findings

Development Cost	($17,423,100)
Residual Value/(Gap)	$734,839
Value (Gap)/DU	$12,247

Source: Conley Consulting Group, September, 2011

Exhibits A through D provide detailed information on the feasibility findings.

Exhibit A:
SCENARIO A - HIGH/MID RISE CONDOMINIUMS

DEVELOPMENT PROGRAM

Select Site: Site 6

Development program per Field Paoli — 226 Du/Ac

	GSF	NSF	Avg SF/Unit	No. of Units
Hi-Rise Residential	150,000	120,000	750	160
Mid-Rise Residential	213,120	177,600	1,138	156
Retail	21,300	21,300	21,300	1
Housing Amenities	3,000	3,000	3,000	1
Open Space	15,000	15,000	15,000	1
Parking Undgrnd				340
Parking Structure				40

DEVELOPMENT COSTS

		CURRENT MARKET		BREAK-EVEN SCENARIO	
Hard Costs			**Estimate**		**Estimate**
Hi-Rise Residential		$285 /SF	42,750,000	$285 /SF	42,750,000
Mid-Rise Residential		$285 /SF	60,739,200	$285 /SF	60,739,200
Retail/Commercial		$285 /SF	6,925,500	$285 /SF	6,925,500
Housing Amenities	incl.	$310 /SF	0	$310 /SF	0
Parking Undgrnd		$30,000 /Sp	10,200,000	$30,000 /Sp	10,200,000
Parking Struc.		$20,000 /Sp	800,000	$20,000 /Sp	800,000
Open Space					
Total Hard Costs			$121,414,700		$121,414,700
Soft Costs		25% Hards	$30,353,675	25% Hards	$30,353,675
Financing Costs		10% Hards	$12,141,470	10% Hards	$12,141,470
Total (excl. Land)			**$163,909,845**		**$163,909,845**

REVENUE AND PROJECT VALUATION

			Per Unit	Total	Per Unit	Total
Hi Rise Residential Sales	160 units		**$350,000**	56,000,000	**$599,000**	95,840,000
Cost of Sale	5.0%		(17,500)	(2,800,000)	(29,950)	(4,792,000)
Net Proceeds			$332,500	$53,200,000	$569,050	$91,048,000
			Monthly	**Annual**		**Total**
Mid Rise Residential Sales	156 units		**$325,000**	50,700,000	**$550,000**	85,800,000
Cost of Sale	5.0%		(16,250)	(2,535,000)	(27,500)	(4,290,000)
Net Proceeds			$308,750	$48,165,000	$522,500	$81,510,000
Gross Income - Retail	**$2.50 NNN**		53,250	639,000	**$2.75 NNN**	702,900
Vacancy	5%		(2,663)	(31,950)	5%	(35,145)
Expenses	0%				0%	
Net Income - Retail			$50,588	$607,050		$667,755
Value at Completion	6.5% Cap			$9,339,231		$10,273,154
Net Income - Parking	40 spaces		**$250 /sp/mo**	$120,000	**$250 /sp/mo**	$120,000
Value at Completion	7% Cap			$1,714,286		$1,714,286
Value at Completion (excl Cost of Sale)				**$117,753,516**		**$193,627,440**

RESIDUAL LAND VALUE

Value at Completion		$117,753,516	$193,627,440
Less: Development Costs (excl Land)		($163,909,845)	($163,909,845)
Less: Cost of Sale - Residential		($2,800,000)	($4,792,000)
Less: Cost of Sale - Retail/Pking	2.5%	($276,338)	($299,686)
Less: Developer Profit (Return on Cost)	15.0%	($24,586,477)	($24,586,477)
Subtotal		($191,572,660)	($193,588,008)
Residual Land Value/Feasibility Gap		($73,819,143)	$39,432
Value (Gap)/DU		($233,605)	$125
Land Value/SF		($1,210)	$0.65

Source: Conley Consulting Group, September, 2011

Exhibit B:
SCENARIO B - HIGH/MID RISE APARTMENTS

DEVELOPMENT PROGRAM

Select Site: Site 6

Development program per Field Paoli — 226 Du/Ac

	GSF	NSF	Avg SF/Unit	No. of Units
Hi-Rise Residential	150,000	120,000	750	160
Mid-Rise Residential	213,120	177,600	1,138	156
Retail	21,300	21,300	21,300	1
Housing Amenities	3,000	3,000	3,000	1
Open Space	15,000	15,000	15,000	1
Parking Undgrnd				340
Parking Structure				40

DEVELOPMENT COSTS

	CURRENT MARKET			BREAK-EVEN SCENARIO		
Hard Costs			**Estimate**			**Estimate**
Hi-Rise Residential		$285 /SF	42,750,000	$285 /SF		42,750,000
Mid-Rise Residential		$285 /SF	60,739,200	$215 /SF		45,820,800
Retail/Commercial		$285 /SF	6,925,500	$285 /SF		6,925,500
Housing Amenities	incl.	$310 /SF	0	$310 /SF		0
Parking Undgrnd		$30,000 /Sp	10,200,000	$30,000 /Sp		10,200,000
Parking Struc.		$20,000 /Sp	800,000	$20,000 /Sp		800,000
Open Space						
Total Hard Costs			$121,414,700			$106,496,300
Soft Costs		25% Hards	$30,353,675	25% Hards		$30,353,675
Financing Costs		10% Hards	$12,141,470	10% Hards		$12,141,470
Total (excl. Land)			**$163,909,845**			**$163,909,845**

REVENUE AND PROJECT VALUATION

		Per Unit	Total		Per Unit	Total
Hi-Rise Residential Income	**$2.50 /Unit/Mo**	**$1,875**	3,600,000	**$4.30 /Unit/Mo**	**$3,225**	6,192,000
Mid-Rise Residential	**$2.25 /Unit/Mo**	**$1,688**	4,795,200	**$4.12 /Unit/Mo**	**$4,690**	8,780,544
Residential Parking Income	**$75 /sp/mo**	**$75**	306,000	**$100 /sp/mo**	**$100**	111,600
Less: Vacancy	5.0%		(435,060)	5%		(754,207)
Less: Operating Expenses	30%		(2,479,842)	30%		(4,298,981)
Net Operating Income			$5,786,298			$10,030,956
Value at Completion	5.5% Cap		$105,205,418	5.5% Cap		$182,381,014
		Monthly	**Annual**		**Monthly**	**Annual**
Gross Income - Retail	**$2.50 NNN**	53,250	639,000	**$2.75 NNN**	58,575	702,900
Vacancy	5%	(2,663)	(31,950)	5%	(17,573)	(35,145)
Expenses	0%			0%		
Net Income - Retail		$50,588	$607,050		$41,003	$667,755
Value at Completion	7.0% Cap		$8,672,143			$9,539,357
Net Income - Parking	40 spaces	**$250 /sp/mo**	$120,000	**$250 /sp/mo**		$120,000
Value at Completion	7% Cap		$1,714,286			$1,714,286
Value at Completion (excl Cost of Sale)			**$115,591,847**			**$193,634,657**

RESIDUAL LAND VALUE

Residual Land Value			
Value at Completion		$115,591,847	$193,634,657
Less: Development Costs (excl Land)		($163,909,845)	($163,909,845)
Less: Cost of Sale - Residential		($2,914,902)	($5,053,188)
Less: Cost of Sale - Retail/Pking	2.5%	($31,950)	($35,145)
Less: Developer Profit (Return on Cost)	15.0%	($24,586,477)	($24,586,477)
Subtotal		($191,443,174)	($193,584,655)
Residual Land Value/ (Feasibility Gap)		($75,851,327)	$50,002
Value (Gap)/DU		($240,036)	$158
Land Value/SF		($1,244)	$0.82

Source: Conley Consulting Group, September, 2011

Exhibit C:
SCENARIO C - MID RISE APARTMENTS

DEVELOPMENT PROGRAM

Select Site: Conceptual Site
Residential Density 152 Du/Ac

		GSF	NSF	Avg SF/Unit	No. of Units
Mid-Rise Residential		102,762	85,635	865	99
Retail	incl.	15,000	15,000	0	0
Housing Amenities	incl.	3,671	3,671	0	0
Open Space		522	522	0	0
Parking Undgrnd		25,879			61
Parking Structure		23,300			61

DEVELOPMENT COSTS

	CURRENT MARKET			BREAK-EVEN SCENARIO		
Hard Costs			**Estimate**			**Estimate**
Mid-Rise Residential		$225 /SF	23,121,450	$225 /SF		23,121,450
Retail/Commercial	incl.	$150 /SF		$150 /SF		
Housing Amenities	incl.	$165 /SF		$165 /SF		
Parking Undgrnd		$25,000 /Sp	1,525,000	$25,000 /Sp		1,525,000
Parking Struc.		$20,000 /Sp	1,220,000	$20,000 /Sp		1,220,000
Open Space						
Total Hard Costs			$25,866,450			$25,866,450
Soft Costs		25% Hards	$6,466,613	25% Hards		$6,466,613
Financing Costs		10% Hards	$2,586,645	10% Hards		$2,586,645
Total (excl. Land)			**$34,919,708**			**$34,919,708**

REVENUE AND PROJECT VALUATION

			Per Unit	**Total**		**Per Unit**	**Total**
Mid-Rise Residential	**$2.25 /Unit/Mo**		**$1,946**	2,312,145	**$2.54 /Unit/Mo**	**$2,197**	2,610,155
Residential Parking Income	**$75 /sp/mo**		**$75**	109,800	**$75 /sp/mo**	**$75**	109,800
Less: Vacancy	5.0%			(121,097)	5%		(135,998)
Less: Operating Expenses	30%			(690,254)	30%		(775,187)
Net Operating Income				$1,610,593			$1,808,770
Value at Completion	5.5% Cap			$29,283,517	5.5% Cap		$32,886,726
			Monthly	**Annual**		**Monthly**	**Annual**
Gross Income - Retail	**$2.50 NNN**		37,500	450,000	**$3.00 NNN**	2,595	540,000
Vacancy	5%		(1,875)	(22,500)	5%		(27,000)
Expenses	0%				0%		
Net Income - Retail			$35,625	$427,500			$513,000
Value at Completion	7.0% Cap			$6,107,143			$7,328,571
Net Income - Parking	23 spaces		**$250 /sp/mo**	$69,000	**$250 /sp/mo**		$69,000
Value at Completion	7% Cap			$985,714			$985,714
Value at Completion (excl Cost of Sale)				**$36,376,374**			**$41,201,012**

RESIDUAL LAND VALUE

Residual Land Value			
Value at Completion		$36,376,374	$41,201,012
Less: Development Costs (excl Land)		($34,919,708)	($34,919,708)
Less: Cost of Sale - Residential		($811,352)	($911,185)
Less: Cost of Sale - Retail/Pking		($22,500)	($27,000)
Less: Developer Profit (Return on Cost)	15.0%	($5,237,956)	($5,237,956)
Subtotal		($40,991,515)	($41,095,848)
Residual Land Value		($4,615,141)	$105,163
Value (Gap)/DU		($46,618)	$1,062
Land Value/SF		($163)	$4

Source: Conley Consulting Group, September, 2011

Exhibit D:
SCENARIO D - LOW RISE APARTMENTS

DEVELOPMENT PROGRAM

Select Site: Conceptual Low-Rise

Residential Density 120 Du/Ac

	GSF	NSF	Avg SF/Unit	No. of Units
Residential	57,600	48,000	800	60
Retail	15,000	15,000	3,000	5
Commercial	0	0	0	0
Parking (Podium)				90

DEVELOPMENT COSTS

	CURRENT MARKET		BREAK-EVEN SCENARIO	
Hard Costs		**Estimate**		**Estimate**
Low-Rise Residential (incl. Parking)	$185 /SF	10,656,000	$185 /SF	10,656,000
Retail/Commercial	$150 /SF	2,250,000	$150 /SF	2,250,000
Open Space				
Total Hard Costs		12,906,000		12,906,000
Soft Costs	25% Hards	$3,226,500	25% Hards	$3,226,500
Financing Costs	10% Hards	$1,290,600	10% Hards	$1,290,600
Total (excl. Land)		**$17,423,100**		**$17,423,100**

REVENUE AND PROJECT VALUATION

		Per Unit	Total		Per Unit	Total
Residential Income	**$2.00 /Unit/Mo**	**$1,600**	1,152,000	**$2.00 /Unit/Mo**	**$1,600**	1,152,000
Residential Parking Income	**$75 /sp/mo**	**$75**	81,000	**$75 /sp/mo**	**$75**	54,000
Less: Vacancy	5.0%		(61,650)	5%		(60,300)
Less: Operating Expenses	30%		(351,405)	30%		(343,710)
Net Operating Income			$819,945			$801,990
Value at Completion	6.0% Cap		$13,665,750	6.0% Cap		$13,366,500
		Monthly	**Annual**		**Monthly**	**Annual**
Gross Income - Retail	**$2.50 NNN**	37,500	450,000	**$2.34 NNN**	35,100	421,200
Vacancy	5%	(1,875)	(22,500)	5%	(1,755)	(21,060)
Expenses	0%			0%		
Net Income - Retail		$35,625	$427,500		$33,345	$400,140
Value at Completion	6.5% Cap		$6,576,923	6.5% Cap		$6,156,000
Net Income - Parking	23 spaces	**$250 /sp/mo**	$67,500	**$250 /sp/mo**		$67,500
Value at Completion	7% Cap		$964,286	7% Cap		$964,286
Value at Completion (excl Cost of Sale)			**$21,206,959**			**$20,486,786**

RESIDUAL LAND VALUE

Residual Land Value			
Value at Completion		$21,206,959	$20,486,786
Less: Development Costs (excl Land)		($17,423,100)	($17,423,100)
Less: Cost of Sale - Residential		($413,055)	($404,010)
Less: Cost of Sale - Retail/Pking	2.5%	($22,500)	($21,060)
Less: Developer Profit (Return on Cost)	15.0%	($2,613,465)	($2,613,465)
Subtotal		($20,472,120)	($20,461,635)
Residual Land Value		$734,839	$25,151
Value (Gap)/DU		$12,247	$419
Land Value/SF		$34	$1

Source: Conley Consulting Group, September, 2011

PLAN IMPLICATIONS

While it is not possible to accurately predict the rate at which housing prices and rents will escalate once the market begins to recover, most industry experts do not predict that a return to values and rents captured during the housing boom will occur in the near term. Thus, it is an assumption of this assessment that lower density housing solutions are most likely to be developed in the near term, and that the higher density developments will occur in the latter part of the Station Area planning period.

Currently, making housing units affordable in Oakland requires a local subsidy of approximately $123,000 per unit, after application of all non-local courses of affordable housing subsides. As described above, CCG's analysis of current market conditions in the LMSAP area indicate that adding additional housing units through a density bonus would not incent private developers to provide additional affordable housing units. After the housing price and value increased described above, feasible market rated developments would provide revenues to support land purchase price plus other desired amenities, including affordable housing. At a hypothetical land value of $25,000 per unit, it would take an additional six market-rate units to support a single affordable housing unit, assuming these units could be added without moving the development as a whole to a higher density, higher cost development product type. A preliminary affordable housing strategy for the Planning Area is provided in Chapter 8 that outlines options for ensuring adequate affordable housing is included in the Planning Area in order to support a sustainable and diverse neighborhood.

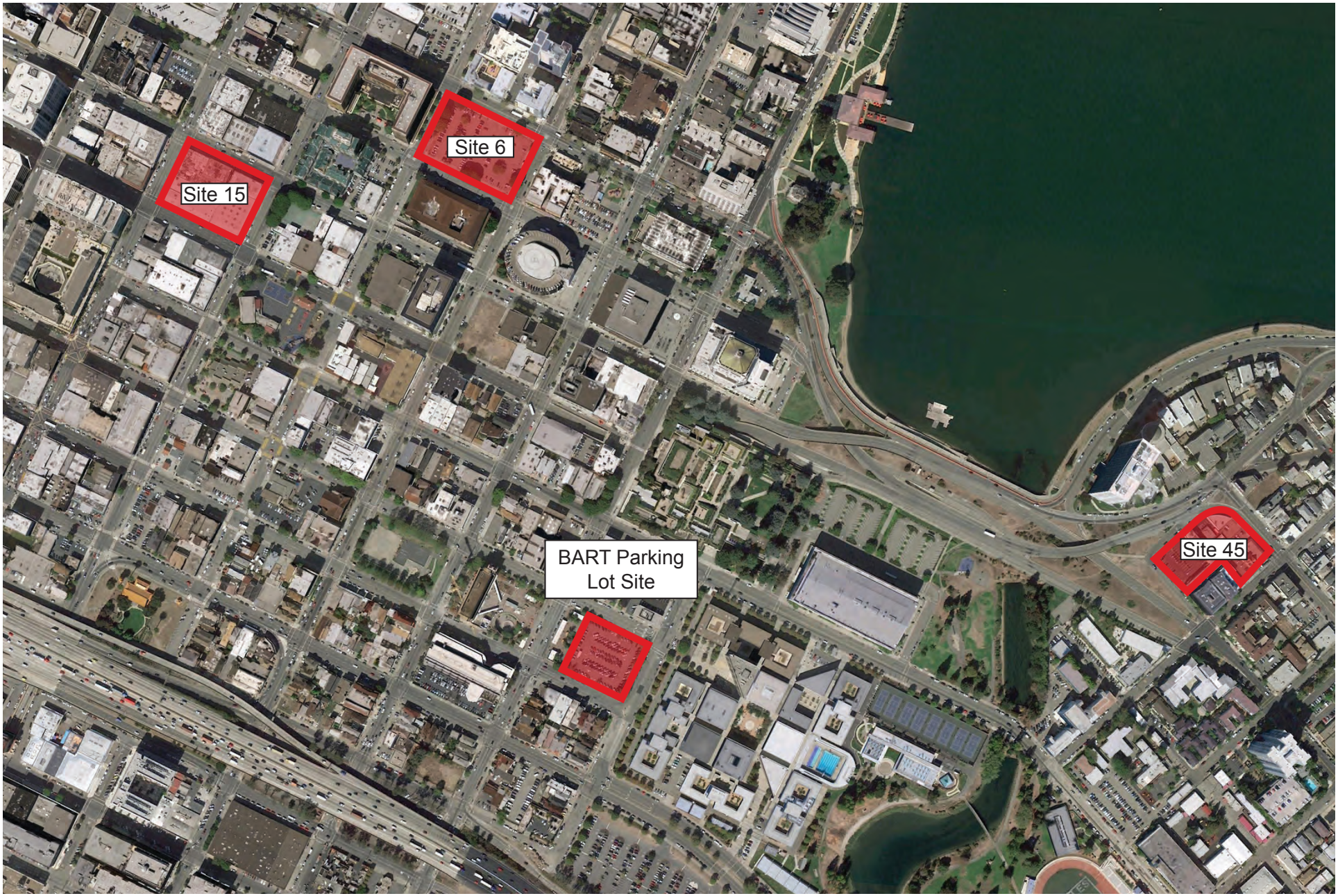
The amount of retail space in the emerging plan, at 315,000 SF is within the upper end of the range of demand for new space projected in the Existing Conditions report. Retail is not a public amenity that needs to be subsidized, but rather a valuable element of a project, particularly in the commercial core area. Successful introduction of this amount of retail is dependent on creating strong retail streets that act as an extension of Chinatown's existing commercial strengths, encourages pedestrian flow, and provides for strong visibility and identity.

3.5 Site Planning and Architectural Issues

This section provides a brief commentary on the site planning and architectural issues and a list of opportunities and constraints associated with the four City blocks for which the Design Team has prepared massing studies. The studies yield maximum development totals with the creation of a conceptual design for each of the sites. These four blocks are referred to as the BART Parking Lot Opportunity Site, Opportunity Site 6, Opportunity Site 15 and Opportunity Site 45. Figure 3-2 indicates the location of each of the sites within the context of The Lake Merritt Study Area.

The Design Team acknowledges that there are multiple valid architectural and urban design approaches to each of these sites and that the conceptual massing proposals within this study are not the only ways of developing the sites. The massing studies, or test-fit conceptual designs, , however, serve as a reasonable vehicle for testing the development potential of each of the sites. This section was not prepared as a piece of work integrated with the earlier subchapters 3.1-3.4.

Figure 3.2:
SITE STUDIES



BART PARKING LOT SITE

This City block is bounded by 9th and 8th Streets on the North and South and by Fallon and Oak Streets on the East and West. The western portion of the block contains the BART East Plaza, with pedestrian access to the BART station below, and is not a part of the development site. The remainder of the block is currently in use as a surface parking lot, approximately 220 by 200 feet within the property lines (i.e. to the inside edge of the existing sidewalks) and has been tested for redevelopment potential.

The BART concourse, platforms and tracks run diagonally across this site below ground. Building directly above this zone will be structurally challenging; therefore a portion of this area has been designated as an appropriate location for open space at ground level.. Thus the 'heart' of this block is a green space which the new development can view and use.

New development is primarily on the northern and southern areas of the site, overlooking the park, which is on top of the BART tube. Additional development is located at the eastern and western ends, which can 'bridge' over the BART tube and the park. It is possible for these 'bridges" to provide additional dwelling units without impacting the footprint of the park or the structure of the BART tube below ground.

The assumed preferred mix of uses for this site is retail units at ground level (predominantly facing 8th and 9th Streets) with a mix of residential unit sizes and types above. Lobbies and vertical access to the residential blocks above, as well as ramped access to parking levels, are accommodated at the ground level.

In terms of urban context and development potential, the test-fit design concept assumes that the most appropriate massing would be 6 to 8 stories (70 to 80 feet) around the full perimeter of the block with a residential tower rising out of this 'podium' up to a maximum height of 20 stories.

On-site parking is not required for the retail units, but is provided at a ratio of minimum 0.5 spaces per residential unit. Due to the existence of the BART station below ground across the center of the site, the opportunity for efficient below-ground parking within this site is severely limited. The southern block is too narrow to provide any below-ground parking; therefore this is restricted to the area below the northern block. For the purposes of the test-fit concept, it was assumed that a maximum of two levels below ground is economically viable.

Due to this limited opportunity for below-ground parking, additional upper-level parking is provided directly above the retail spaces in the northern block. Access to below-ground parking is by a ramp down from 9th Street, and to upper-level parking by a ramp up from Fallon Street.

This massing study yields 19,200 SF (square feet) ofground floor retail space, 123 residential units,assuming an average size of 1000 GSF (gross square feet) per unit, in the mid-rise blocks (including residential units in the two 'bridges' across the park), and a further 118 residential units in the tower and penthouse, for a possible total of 241 units.

To accommodate the minimum required parking spaces on-site, three upper levels of parking are located above the retail on 9th and Fallon Streets in addition to the two levels below ground, providing a total of 139 spaces, slightly higher than the minimum ratio of 0.5 spaces per unit.

Site massing concepts for the BART parking lot are shown in Figure 3-3.

OPPORTUNITIES

- Readily available site – currently used for surface parking
- Potential for connection to public open space at BART plaza
- Tall building possible – maximizes development potential and density
- Walking distance to Lake Merritt, Oakland Museum and Laney College
- New public open space above the BART tube
- Immediate access to transit at BART station allows lower on-site parking ratios
- Great views from upper levels above the fourth floor

CONSTRAINTS

- Not full city block – western end occupied by BART plaza and station entrances
- Limited space at ground floor to accommodate all desired uses
- Existing station and tracks run through the site diagonally
- Structural challenge of building above existing BART tube and operations
- Inadequate room below ground for basement parking spaces
- One-way traffic flow around site compromises service and ramp access locations

Figure 3.3:
BART SITE OVERVIEW

BART PARKING LOT SITE

RETAIL

GROUND FLOOR	19,200 SF

OPEN SPACE 16,000 SF

GROUND FLOOR	16,000 SF

PARKING

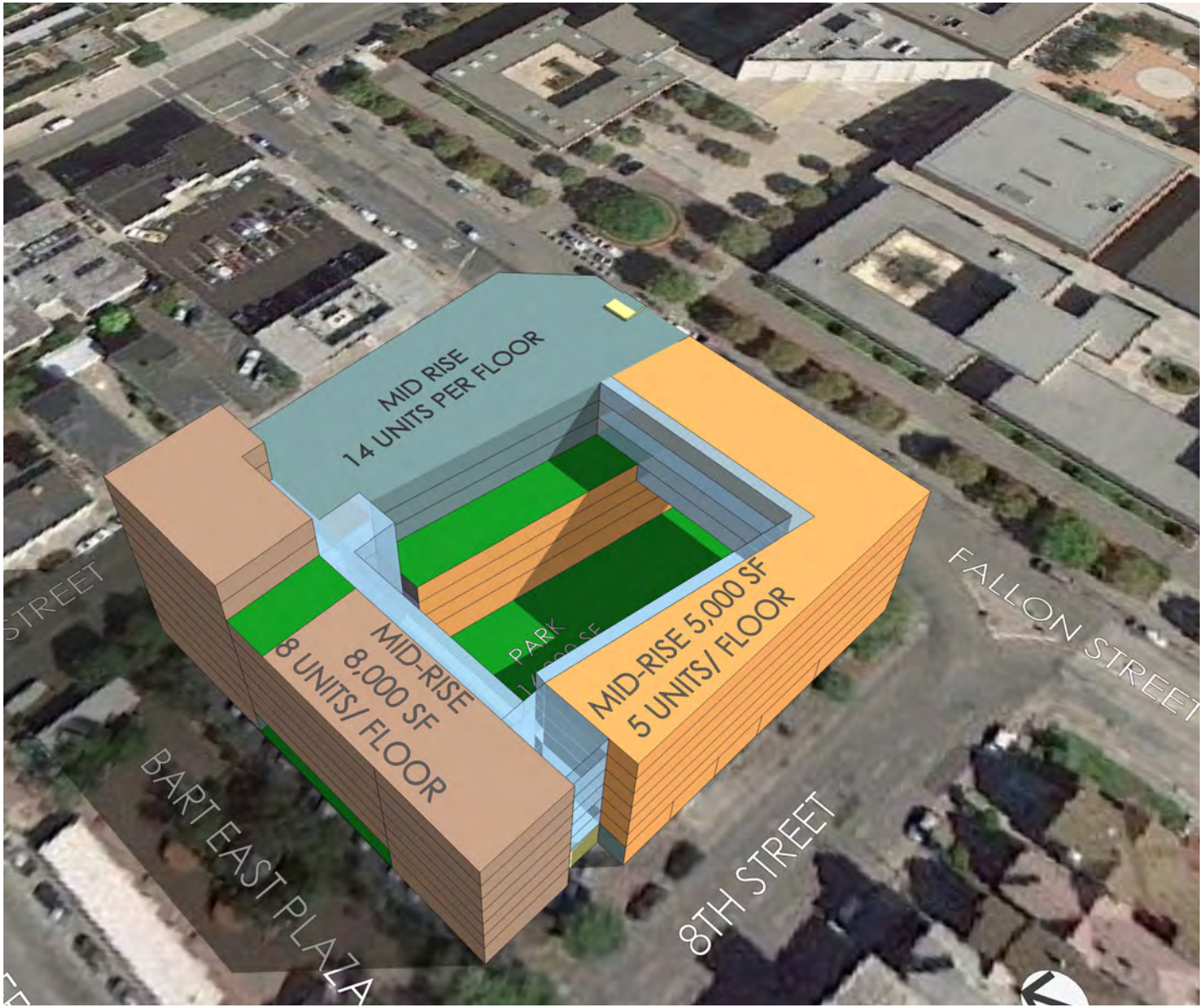
2 LEVELS BELOW GRADE	
AREA PER LEVEL	17,800 SF
STALLS PER LEVEL	35
SUBTOTAL	70
3 LEVELS ABOVE RETAIL	
AREA PER LEVEL	14,250 SF
STALLS PER LEVEL	23
SUBTOTAL	69
TOTAL PARKING SPACES	139

RESIDENTIAL

MID-RISE LEVELS	
6 FLOORS - LEVEL 2 thru 7	
UNITS PER FLOOR	16-27
SUBTOTAL	123 UNITS
TOWER LEVELS	
12 FLOORS - LEVEL 8 thru 19	
UNITS PER FLOOR	9-12
SUBTOTAL	114 UNITS
PENTHOUSE (LEVEL 20)	4 UNITS
TOTAL RESIDENTIAL UNITS	241

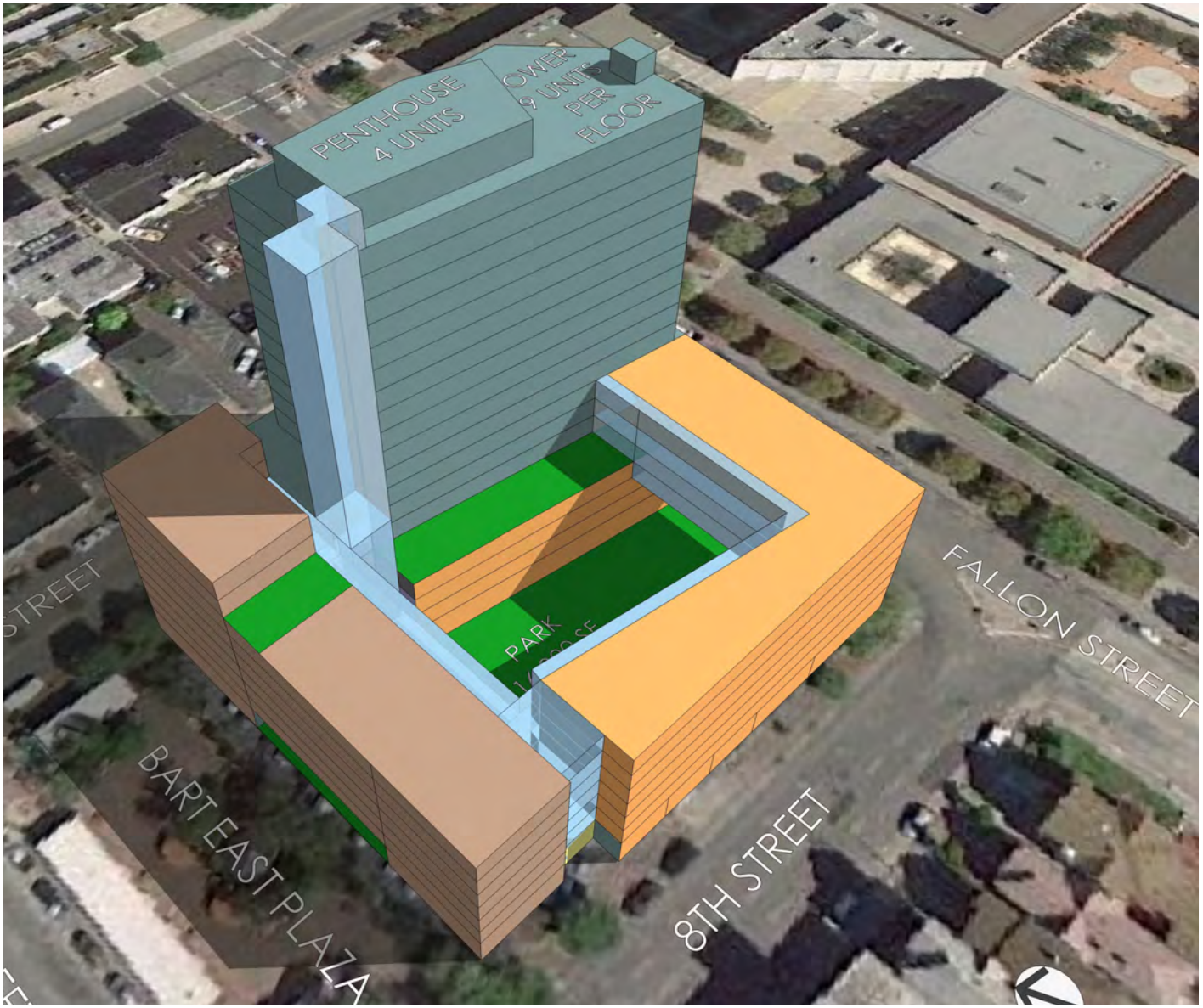
241 HOUSING UNITS TOTAL
139 PARKING SPACES TOTAL (0.58 PER UNIT)

Figure 3.3 Continued:
BART SITE MID-RISE



BART PARKING LOT SITE

Figure 3.3: Continued
BART SITE HIGH-RISE



BART PARKING LOT SITE

SITE 6

Site 6 is a full City block, bounded by 14th and 13th Streets on the north and south and by Jackson and Alice Streets on the east and west. The entire site is currently occupied by a surface parking lot. The block is approximately 300 by 200 feet within the property lines (i.e. to the inside edge of the existing sidewalks) and has been tested for redevelopment potential.

The general configuration of the proposed test-fit conceptual design of this block echoes the U-shaped building directly to the west of the site, with the lower and mid-rise accommodation arranged around the east, north and west sides. This U-shape defines and embraces a new public open space, which is located to take advantage of the southern exposure facing 13th Street.

The assumed preferred mix of uses for this site is retail units at ground level, facing 14th Street as well as at the corners of Alice & 13th and Jackson & 13th Streets,with a mix of residential unit sizes and types above. Lobbies and vertical access to the residential blocks above and some above ground parking are accommodated at the ground level. Some of the ground floor retail space has the potential for direct access from the new public open space.

The test-fit massing concept assumes that the mid-rise U-shaped block would be a similar size and shape to its neighbor. The base of the building complex is 6 or 7 stories above the ground floor retail, with a slender residential tower rising symmetrically out of this base in the center of the northern side of the block, up to a maximum height of 25 stories above ground. The tower is sculpted with chamfered corners and inset corner balconies to create an elegant profile which reduces its apparent massing.

On-site parking is not required for the retail units, but is provided at a ratio of 1.2 spaces per residential unit. For the purposes of this test-fit concept, it is assumed that the entire block could accommodate two full levels of below ground parking, including the area below the public open space.

In addition to the 15,000 SF public open space facing 13th Street, this massing study yields a total of 21,300 SF ground floor retail space, some ground floor residential support areas, 156 residential units (assuming an average size of 1000 GSF per unit) in the mid-rise block and a further 160 residential units in the tower, for a possible total of 316 units.

The two full floors of below ground parking provide a total of 340 parking spaces (170 per level) which does not provide all the spaces of the assumed ratio of 1.2 spaces per unit. Thus the central zone of the mid-rise block, which accommodates the ramp down to the below ground parking from Alice Street, also includes a small area of above ground parking on the first two levels. This above ground parking is located in the middle of the block and is generally shielded from view by the surrounding retail spaces. Above grade parking provides an additional 40 parking spaces (20 per level) for a total of 380 parking spaces on-site, which meets the requirements of the preferred parking ratio for the residential units.

Site massing concepts for Site 6 are shown in Figure 3-4.

OPPORTUNITIES

- Readily available site – currently used for surface parking
- Full city block
- Tall building possible – maximizes development potential and density
- Walking distance to Lake Merritt and other downtown locations
- Already surrounded by mid-rise buildings
- Walking distance to transit at two BART stations and lines
- Great views from upper floors

CONSTRAINTS

- Requirement for some public open space compromises development potential at ground floor
- Limited space at ground floor to accommodate all desired uses
- One-way traffic flow around site compromises service and ramp access locations

Figure 3.4:
SITE 6 OVERVIEW

SITE 6

STREET LEVEL

RETAIL	21,300 SF
HOUSING AMENITIES	3,000 SF
OPEN SPACE	15,000 SF
PARKING AT CORE	
LEVEL 1	8,000 SF
20 STALLS	
LEVEL 2	8,000 SF
20 STALLS	
TOTAL PARKING	40

UNDERGROUND PARKING

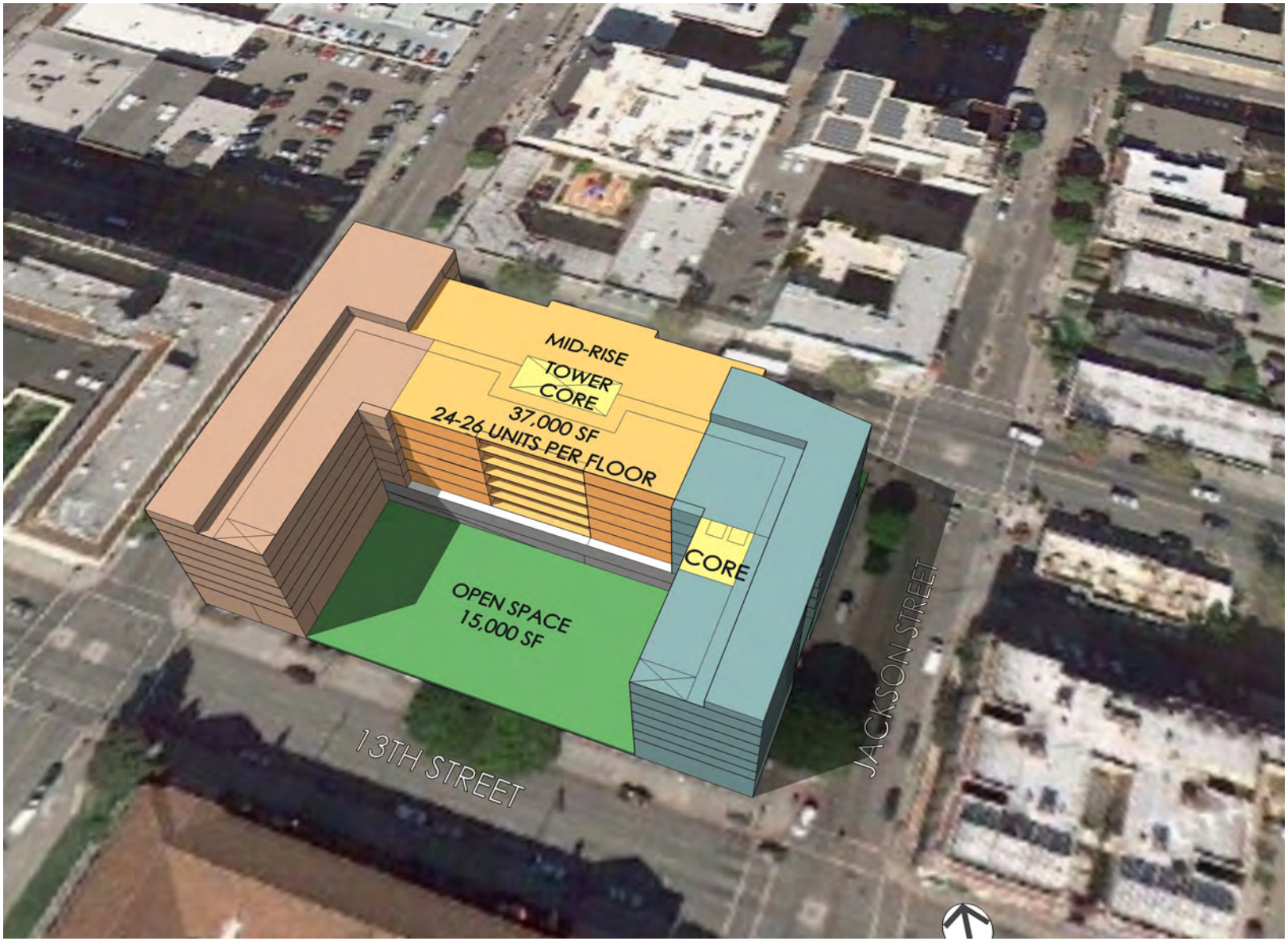
LEVEL B1	60,000 SF
	170 SPACES
LEVEL B2	60,000 SF
	170 SPACES
TOTAL PARKING	340 SPACES

MID-RISE LEVELS
6(FLOORS) - LEVEL 3-8
37,000 SF FLOOR PLATE
24-26 UNITS PER FLOOR
156 UNITS TOTAL

TOWER LEVELS
(16 FLOORS) LEVEL 9-25
10,000 SF FLOOR PLATE
150' X 80' FOOTPRINT
10 UNITS PER FLOOR
160 UNITS TOTAL

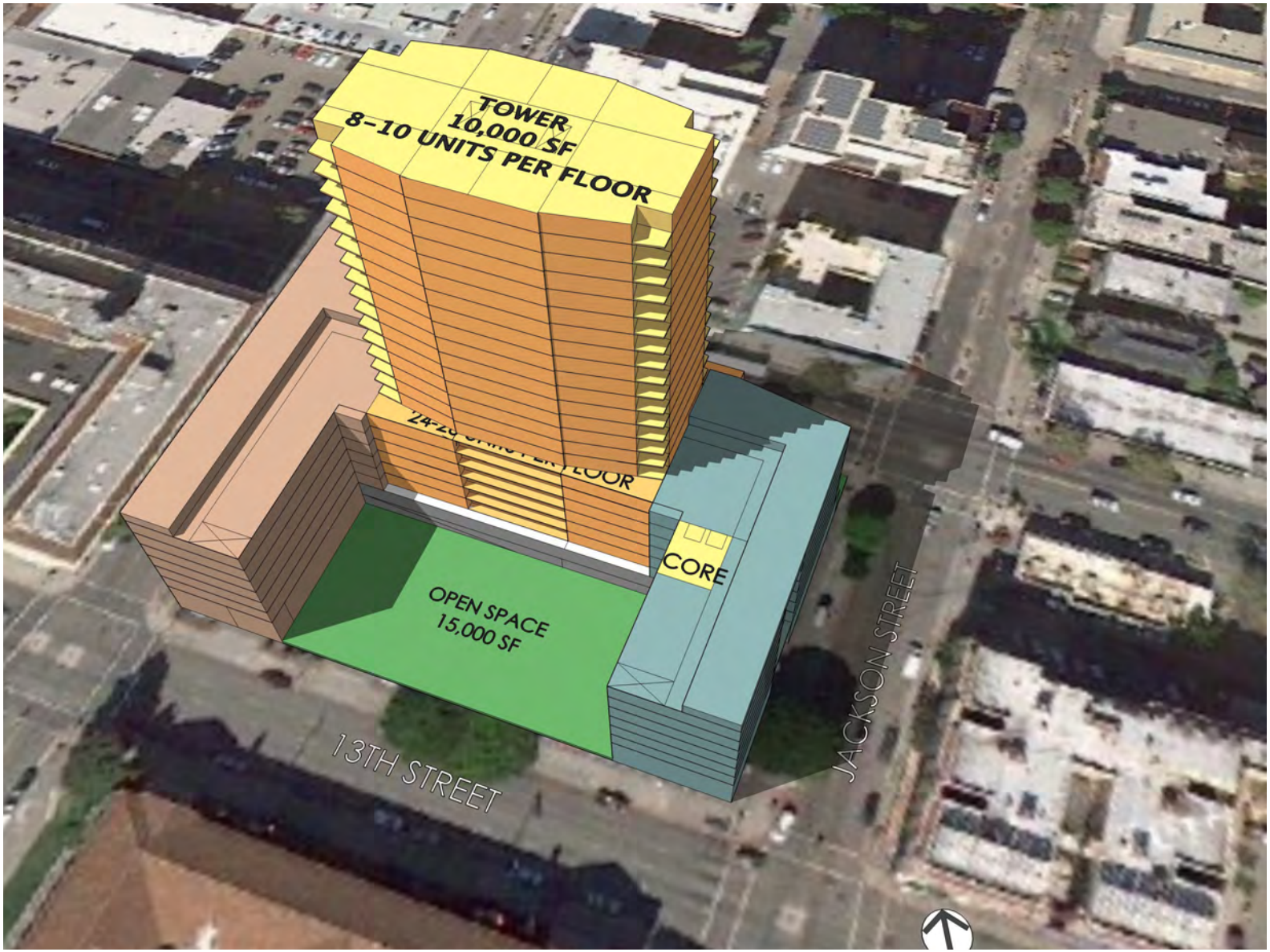
316 HOUSING UNITS TOTAL
380 PARKING SPACES
(1.2 PER UNIT)

Figure 3.4 Continued:
SITE 6 MID-RISE



SITE 6

Figure 3.4 Continued:
SITE 6 HIGH-RISE



SITE 6

SITE 15

Site 15 is a full City block, bounded by 12th and 11th Streets on the north and south and by Harrison and Webster Streets on the east and west. The block is currently occupied by a collection of single and two story buildings, mostly dedicated to vehicle storage and repair, with some office and ancillary uses along the 12th Street frontage. This block is approximately 300 by 200 feet within the property lines (i.e. to the inside edge of the existing sidewalks) and has been tested for redevelopment potential.

The general configuration of the proposed test-fit conceptual massing of this block is a U-shaped building at mid-rise levels with residential accommodation ranged around the east, north and west sides. However, at the lower level, the buildings are held back from the 11th & Harrison Street corner, in order to create the lower levels of a new public open space. The open space sweeps up from the southeast corner, which is at street level, through a series of generously sized steps and ramps, into a larger south-facing open space at the center of the site, above the ground level retail and mid-block parking. The total area of this two-level park is 17,500 SF and is surrounded by the mid-rise building above.

The assumed preferred mix of uses for this site is retail units at ground level with a mix of residential unit sizes and types above. At the ground floor level, retail units are arranged around most of the perimeter, facing 11th, 12th and Harrison Streets. Two levels of above ground parking are located in the middle of the block, accessible from Webster Street, and generally shielded from view by the surrounding retail spaces and the park above. Lobbies and vertical access to the residential blocks above, as well as ramped access down to below ground parking levels, are also located at the ground level.

The test-fit massing concept assumed that the mid-rise U-shaped block would be 6 or 7 stories above the ground floor retail, with a residential tower rising out of this base in the center of the northern side of the block, up to a maximum height of 20 stories above ground. The tower faces onto the elevated public open space, with south-facing units having views onto it.

On-site parking is not required for the retail units, but is provided at a preferred ratio of 1.0 space per residential unit. For the purposes of this test-fit concept, it was assumed that the entire block could accommodate up to two full levels of below ground parking, including the area below the public open space on the southeast corner.

In addition to the 17,500 SF of public open space, this massing study yields a maximum of 25,000 SF ground floor retail space, 156 residential units (assuming an average size of 1000 GSF per unit) in the mid-rise blocks and a further 144 residential units in the tower, for a possible total of 300 units.

The mid-block above ground parking provides a total of 90 parking spaces (45 per level). To meet the minimum spaces required by the preferred parking ratio, an additional 210 spaces are required. The additional spaces are provided in one full below ground parking level at Basement One (170 spaces) and a partial Basement Two below the western half of the site (65 spaces) for a total 325 spaces on-site. This slightly exceeds the minimum requirements and allows some flexibility for added visitor parking.

Site massing concepts for Site 15 are shown in Figure 3-5.

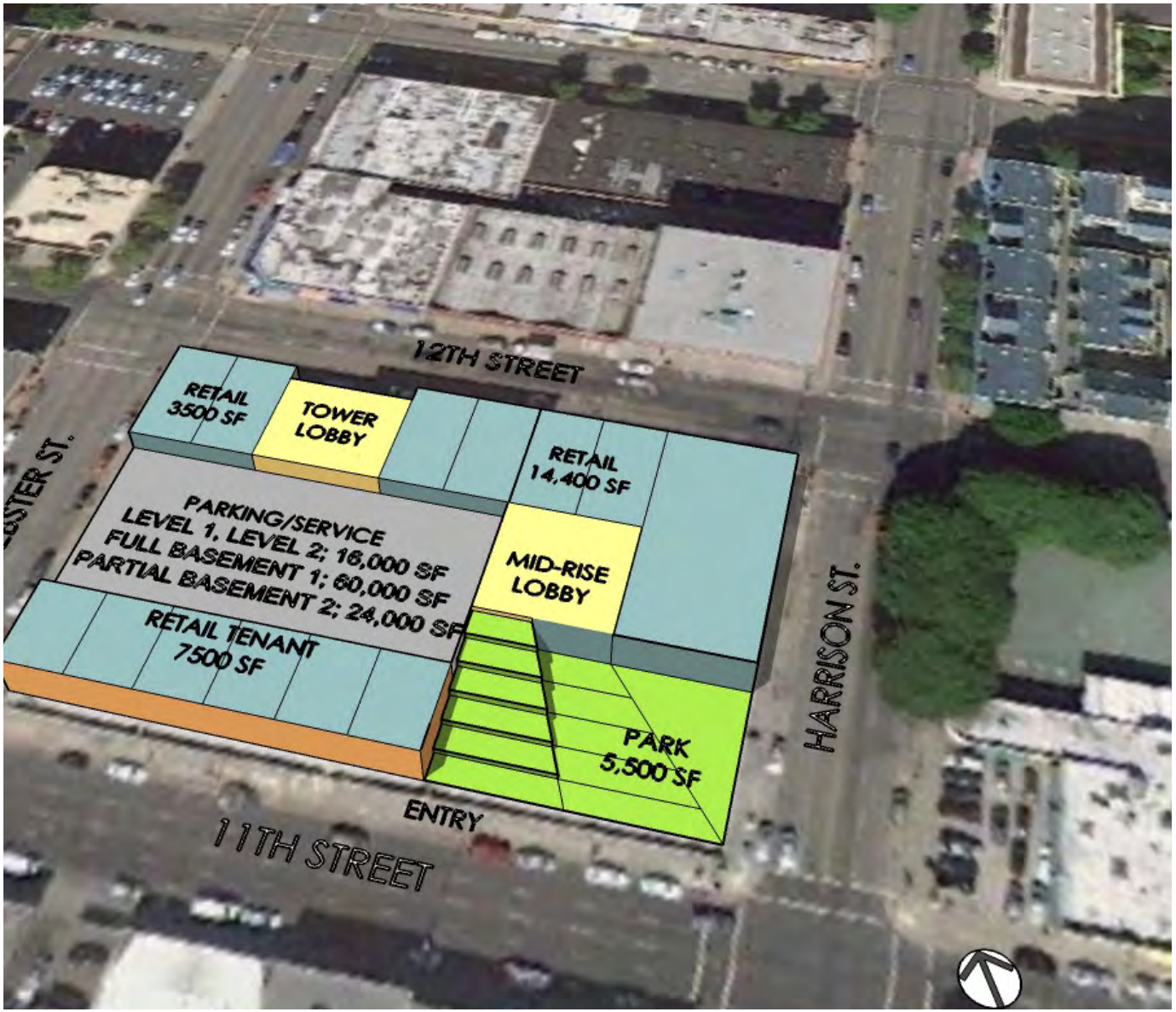
OPPORTUNITIES

- Close to existing downtown high-rise buildings
- Full city block site
- Tall building is possible – maximizes development potential and density
- Walking distance to Lake Merritt and other downtown locations
- Walking distance to transit at two BART stations and lines
- Great views from upper floors

CONSTRAINTS

- Requirement for some public open space compromises development potential at ground floor, especially at corner of 11th and Harrison Streets
- Limited space at ground floor to accommodate all desired uses
- One-way traffic flow around site compromises service and ramp access locations
- Site is currently occupied by one and two story buildings still in use
- Desire to maximize ground floor retail opportunities conflicts with preferred location of public open space

Figure 3.5:
SITE 15 OVERVIEW



SITE 15

STREET LEVEL

RETAIL	25,000 SF
PARK AT CORNER	17,500 SF
(INCLUDES 2ND FLOOR PODIUM)	

PARKING

ABOVE GRADE		
LEVEL 1	16,000 SF	45 SPACES
LEVEL 2	16,000 SF	45 SPACES
BELOW GRADE		
FULL BASEMENT 1	60,000 SF	170 SPACES
PART BASEMENT 2	24,000 SF	65 SPACES
TOTAL PARKING		325 SPACES

MID-RISE LEVELS RESIDENTIAL

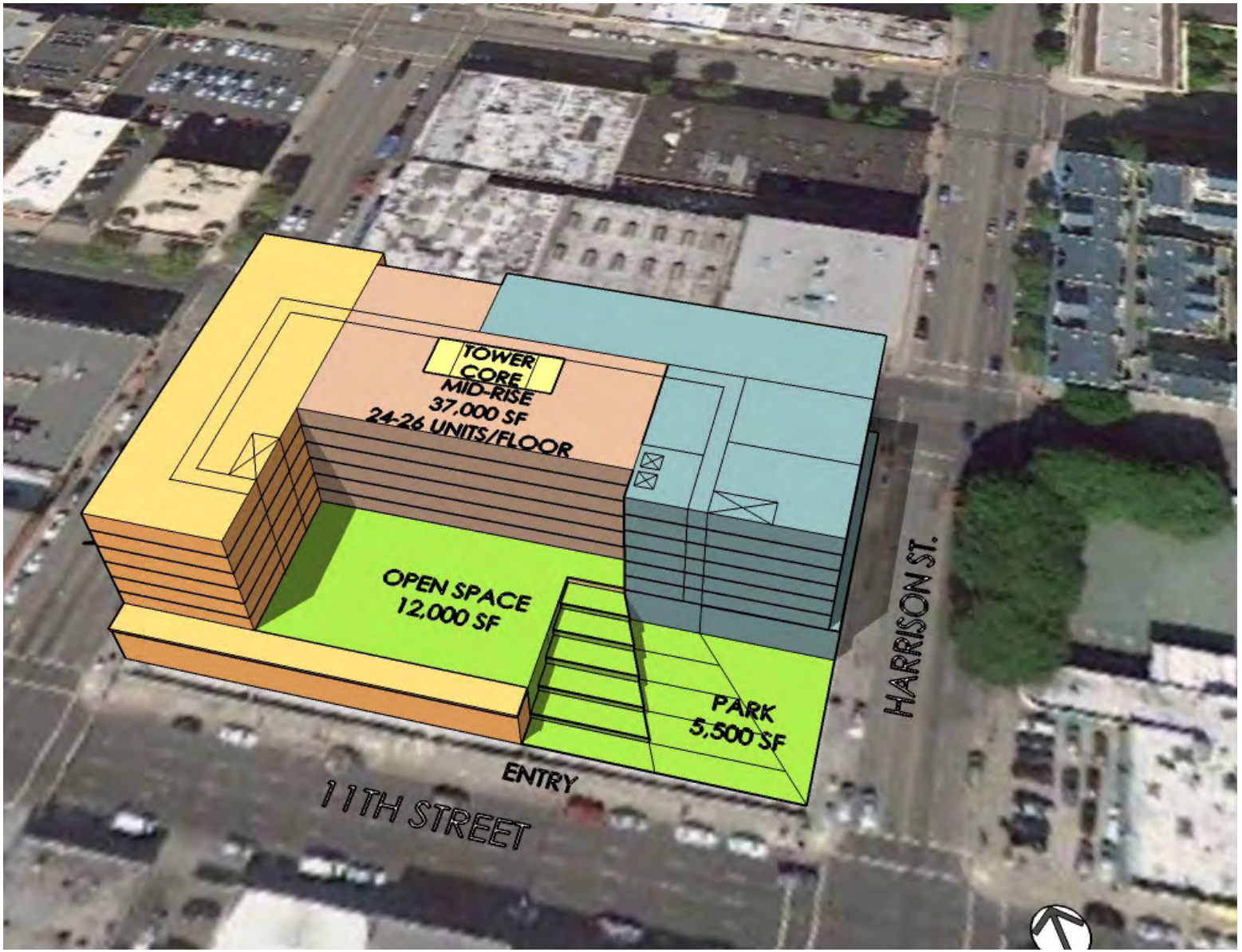
(6 FLOORS) - LEVEL 3-8
37,000 SF FLOOR PLATE
24-26 UNITS PER FLOOR
156 UNITS TOTAL

TOWER LEVELS RESIDENTIAL

(12 FLOORS) LEVEL 9-20
12,500 SF FLOOR PLATE
145' X 90' FOOTPRINT
12 UNITS PER FLOOR
144 UNITS TOTAL

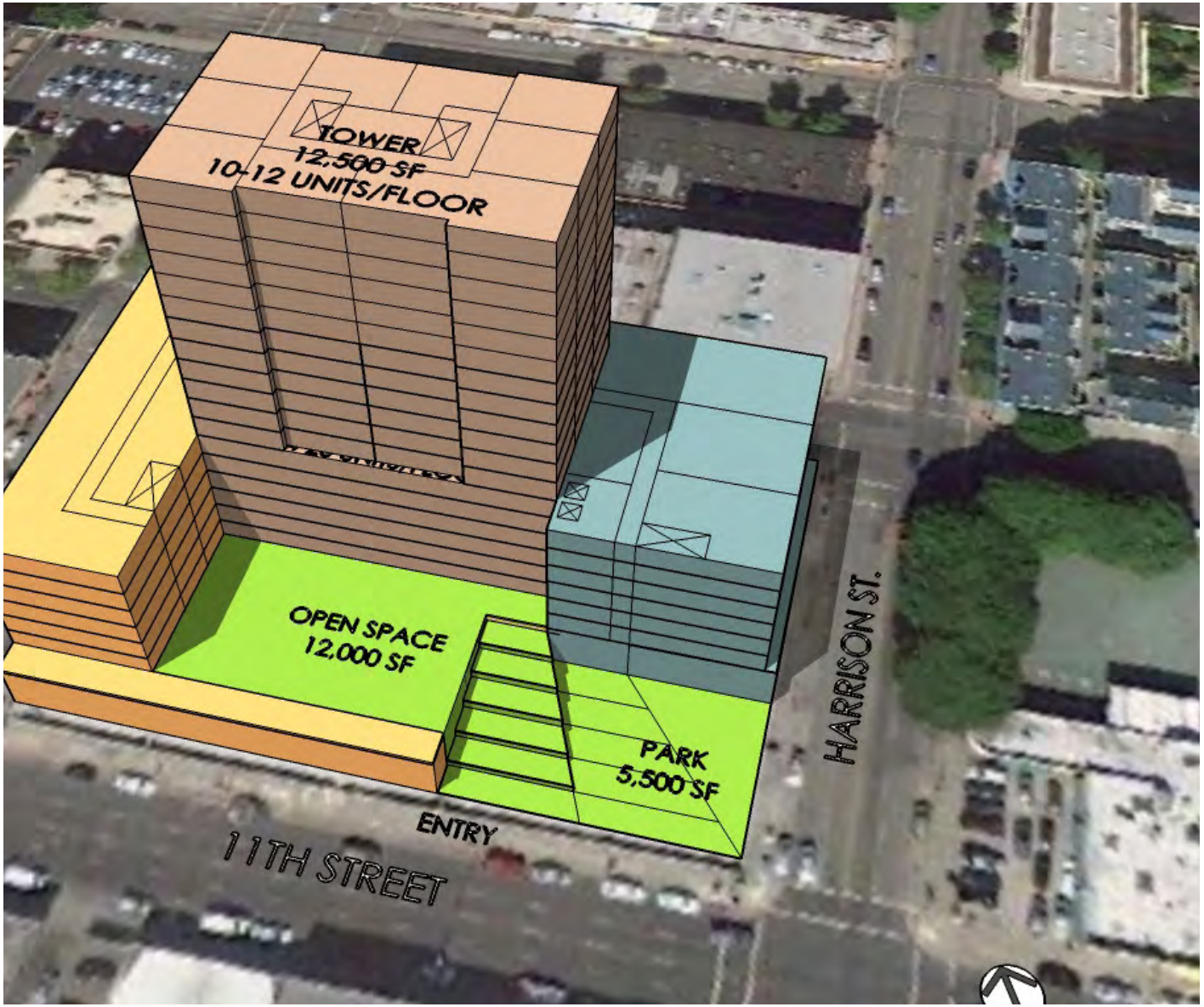
300 HOUSING UNITS TOTAL
325 PARKING SPACES TOTAL (1.0 PER UNIT)
(300 PLUS 25 ADDITIONAL)

Figure 3.5 Continued:
SITE 15 MID-RISE



SITE 15

Figure 3.5 Continued:
SITE 15 HIGH-RISE



SITE 15

SITE 45

Site 45 is approximately one half of a city block, bounded by International Boulevard and East 12th Streets on the north and south and by 2nd and 1st Avenues on the east and west. The eastern portion of the block contains a collection of individual properties with buildings ranging from one to four stories, and is not a part of the development site. The western half of the block currently contains a motel and a series of single-story buildings and surface parking lots. The northwest corner of the site has a curved frontage, defined by the radius of International Boulevard as it curves to meet 1st Avenue. The site is approximately 290 by 160 feet within the property lines (i.e. to the inside edge of the existing sidewalks) and has been tested for redevelopment potential.

The general configuration of the proposed test-fit massing of this block is for outward-facing perimeter development addressing the surrounding streets. This creates a U-shaped building which surrounds and defines a central private open space courtyard for the benefit of the residentsof the building. .

The assumed preferred mix of uses for this site is retail units at ground level facing International Boulevard and ground floor townhouses around the rest of the site, with a mix of residential unit sizes and types above the ground levels. Lobbies and vertical access to the residential floors above, as well as ramped access to parking levels below, also have been accommodated at the ground level.

The test-fit massing concept assumes that this block would be 8 stories around the full perimeter of the block, with the uppermost penthouse level set back from the street-edge, and with as many of the units as possible located to take advantage of views of nearby Lake Merritt.

On-site parking is not required for the retail units, but is provided at a conceptual ratio of 1.2 spaces per residential unit. For the purposes of this test-fit concept, it was assumed that the entire block could accommodate up to two full levels of below ground parking, including the area below the mid-block courtyard. Access to below ground parking is by a ramp down from East 12th Street.

This massing study yields a maximum of 16,300 SF ground floor retail space, 5 townhouses, 132 residential units (assuming an average size of 1000 GSF per unit) in the mid-rise block and a further 15 penthouse units at level 8 for a possible total of 152 units.

The two full floors of below ground parking provide a total of 200 spaces (100 per level). This total slightly exceeds the minimum requirements and allows some flexibility for added visitor parking.

Site massing concepts for site 45 are shown in Figure 3-6.

OPPORTUNITIES

- Readily available site – existing motel not in use
- Great views of Lake Merritt and other nearby amenities
- Walking distance to Lake Merritt
- Walking distance to transit and to Lake Merritt BART station
- Perimeter development reinforces urban fabric
- Quiet side street to south

CONSTRAINTS

- Not a full city block site
- Property lines are immediately adjacent to existing, occupied mid-rise buildings
- High-rise building to the west obscures some lake views
- High-volumes of traffic to west and north on International Boulevard
- Limited site opportunity for ground floor retail
- Lower height limits than other opportunity sites restricts development potential

Figure 3.6:
SITE 45 OVERVIEW

SITE 45

STREET LEVEL

RETAIL (34.5% LOT COVERAGE)	16,300 SF
RESIDENTS LOBBY	3,000 SF
5 TOWNHOUSES @ 2500SF	12,500 SF
RESIDENTS COURTYARD	12,600 SF
SERVICE/TRASH/LOADING	2,500 SF
RAMP DOWN TO PARKING	3,000 SF

UNDERGROUND PARKING

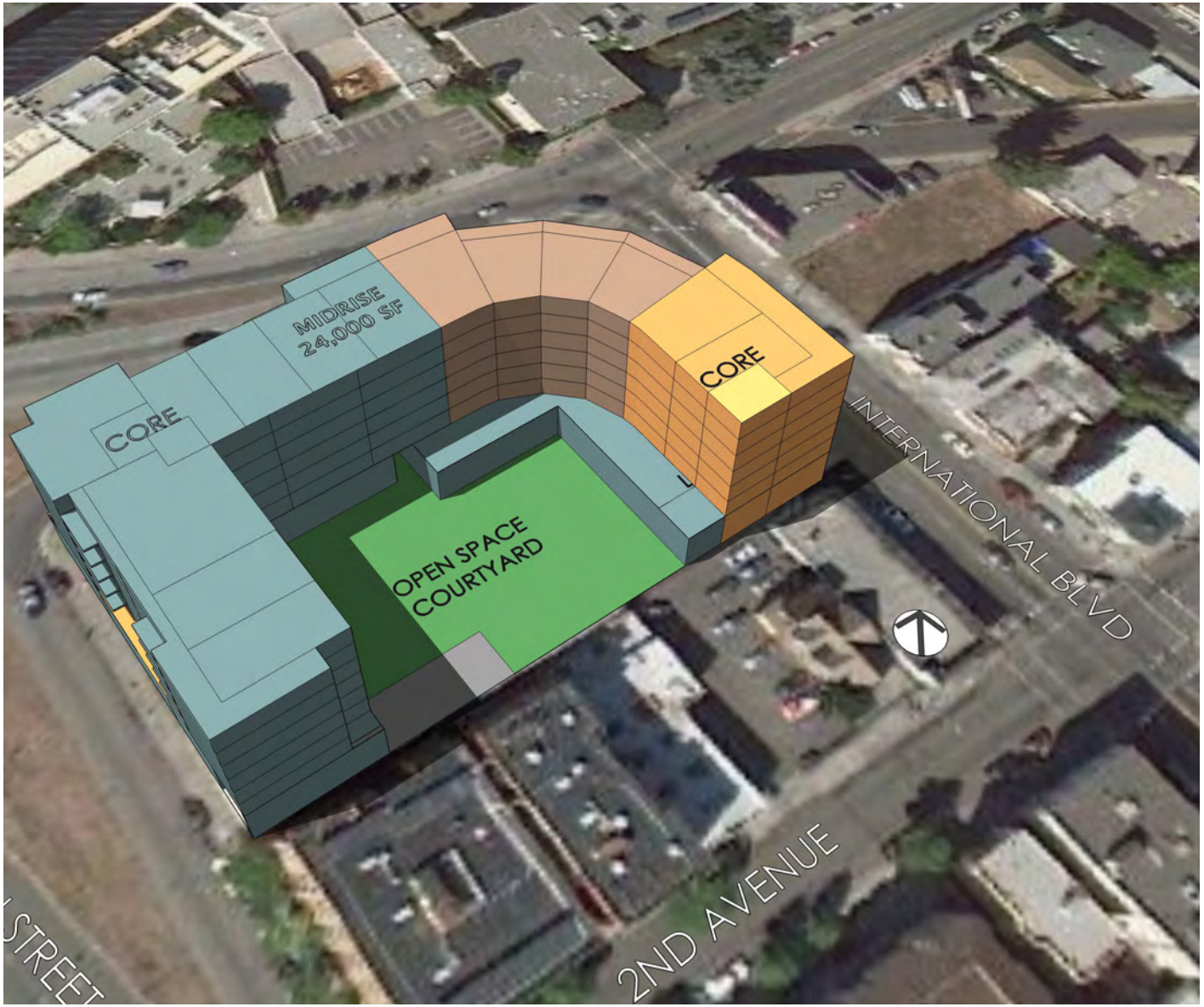
BASEMENT 1	100 SPACES
BASEMENT 2	100 SPACES
TOTAL PARKING	200 SPACES

MID-RISE LEVELS 2-7
6 FLOORS
24,000 SF FLOOR PLATE
22 UNITS PER FLOOR
132 UNITS TOTAL

PENTHOUSE LEVEL 8
LEVEL 8
19,700 SF FLOOR PLATE plus
6,500 SF MEZZANINE
15 UNITS

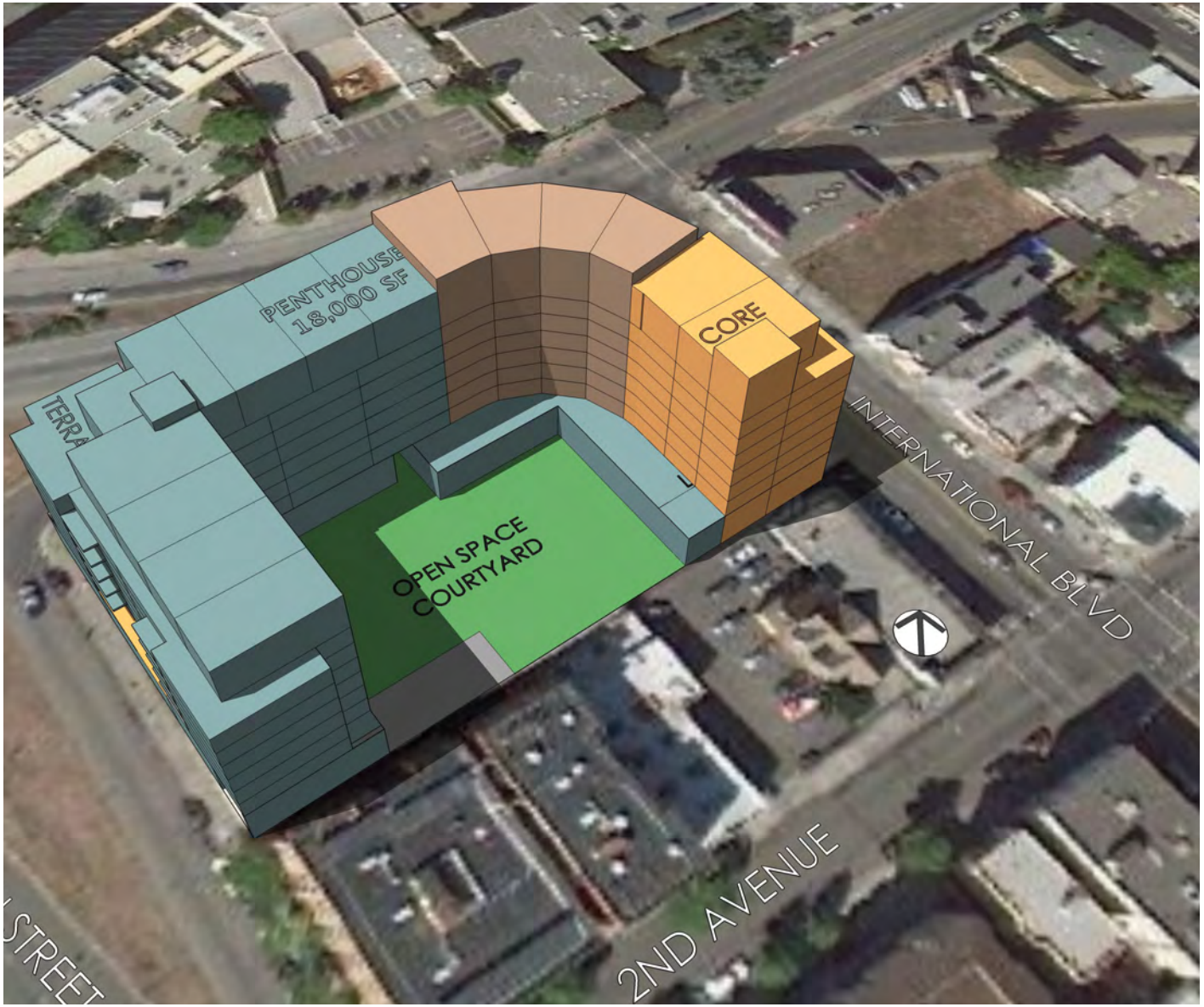
152 HOUSING UNITS TOTAL
200 SPACES (1.3 SPACES PER UNIT)

Figure 3.6 Continued:
SITE 45 MID-RISE



SITE 45

Figure 3.6:
SITE 45 PENTHOUSE



SITE 45

GENERAL COMMENTS

The constraints and opportunities listed above for each of the individual sites are, on the whole, specific to each of the sites, although some general observations can be made which may be categorized as opportunities and constraints for the district in general:

OPPORTUNITIES

- Excellent access to transit at two BART stations and lines
- Pedestrian-friendly downtown environments
- Easy access to shops and services
- Strong and motivated community
- Walking distance to Lake Merritt and other downtown locations
- Height limits encourage development potential
- Surrounded by mid–to-high-density existing buildings
- Great views from dwelling units on upper floors

CONSTRAINTS

- Vehicular access is from a fairly busy and sometimes congested street network
- One-way street circulation compromises access to some sides of some properties
- Existing BART operations, access, maintenance requirements
- On-street parking limited and currently in high demand
- Desire to maximize ground floor retail to enhance the pedestrian friendly environment requires trade-off with other uses competing for space
- Many sites are occupied by existing buildings still in use
- Multiple private ownerships will be a challenge to efficient development on many blocks
- Current economic climate is challenging for development
- Construction activity on large sites or full city blocks will have temporary impacts on surrounding properties

In addition, it should be recognized that some of the proposed parking ratios for each of the four opportunity sites differ from current City of Oakland standards. Further detailed studies, beyond the scope of this project, would be required to determine the best parking ratios for each block, depending on the proposed mix of uses, existing traffic and parking constraints, proximity to public transportation, and changing patterns of vehicle usage. . Results of further study could cause the proposed ratios to be revised either upwards or downwards and would have some effect on the overall potential for maximum development capacity for each opportunity site and for the district in general.

The Design Team acknowledges that some of the current proposals illustrated here, for example the linear park above the BART tube on the BART parking site and the perimeter massing configuration on Opportunity Site 45, have met with some resistance for various reasons during the public outreach process. It should be stressed here that each of these opportunity site explorations is a 'test-fit' conceptual design and not a prescribed or final design. There are many ways in which each of the sites could be developed within the given opportunities and constraints stated and the current proposals should be viewed primarily as a means to help determine the maximum development potential of each site. The combination of the conceptual design studies for the four sites assists in the creation of a 'framework' within which development on each site could occur, rather than as specific design proposals for the sites.

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4 Land Use and Building Design

Land use and building design interact with the streetscape and public realm to establish a sense of place and neighborhood character. This section outlines the land use strategy for the Planning Area and provides a framework for building design, which will be further developed during the next planning stage.

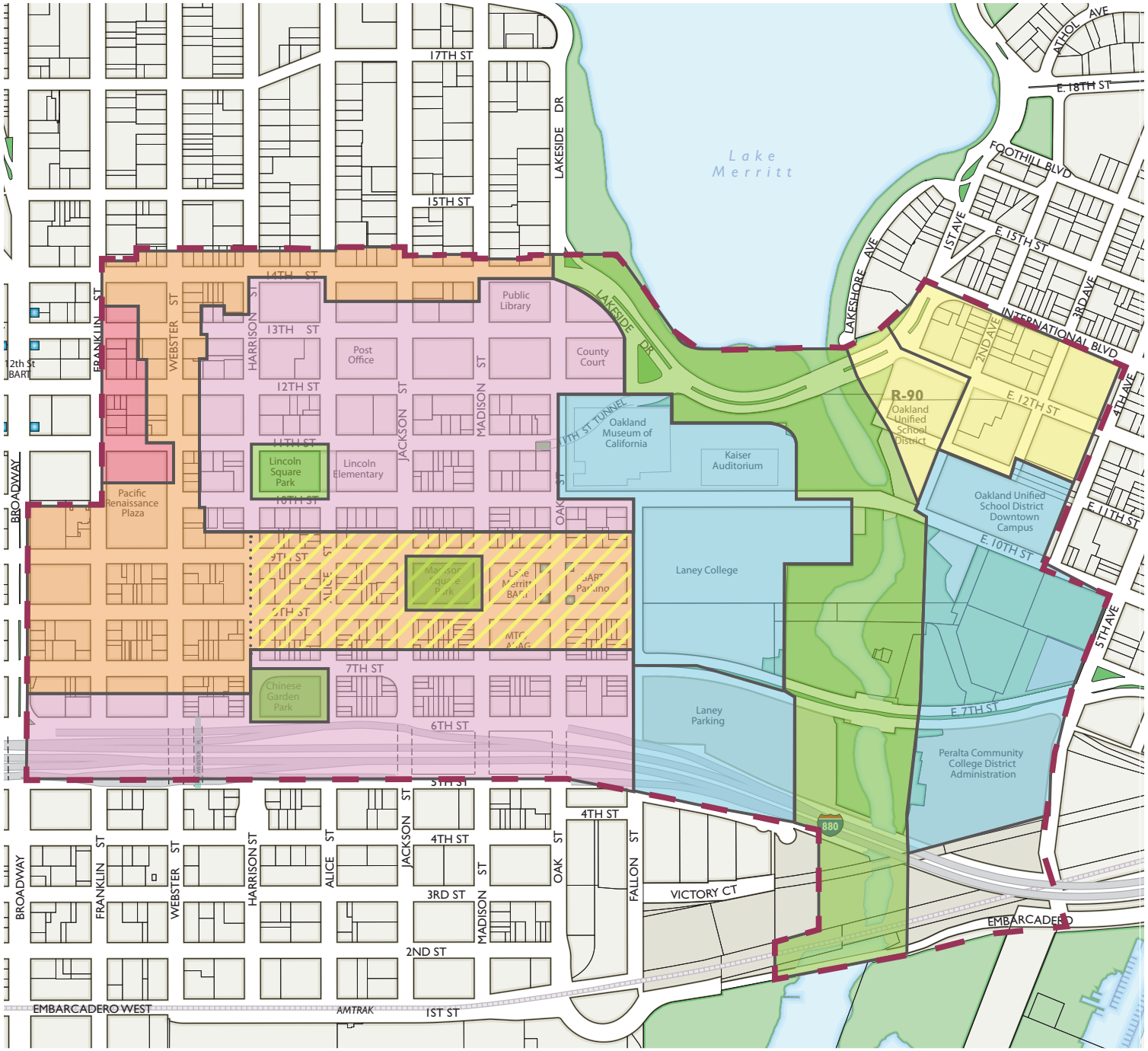
4.1 Land Use Character

LAND USE CHARACTER

The Station Area Plan will promote a diversity of uses within the Planning Area that complement each other and ensure an active urban neighborhood at all hours. The land use character map (Figure 4-1) shows character differences within the mixed-use context throughout the Planning Area. The land use character concept includes a range of flexible mixed use areas as intended to encourage vibrant pedestrian corridors. These are complemented by high-density housing and commercial uses, and new public spaces.

Desired land use character will be achieved through a range of regulatory mechanisms such as land use regulations, development standards, street improvements, and design guidelines.

Figure 4.1:
DRAFT LAND USE CHARACTER



- Pedestrian Transition Zone
- Flex Zone
- Commercial Zone
- Institutional Zone
- Open Space Zone
- Residential RU-5 Zones

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- ***Pedestrian Zone.*** An area of mixed-use, pedestrian-oriented continuous storefront uses with a mix of retail, restaurants, and business and social services. Upper story spaces are intended to be available for a wide range of residential and commercial activities.
- ***Transition Zone.*** An area that is currently mostly housing, but allows for the gradual transition to a Pedestrian Area by requiring ground floor storefront uses in new buildings.
- ***Flex Zone.*** An area allowing the maximum flexibility in uses, and permitting a variety of commercial, residential and even some light industrial uses.
- ***Commercial Zone.*** An area allowing a wide range of ground floor office and other commercial activities, with primarily office uses on upper floors.
- ***Institutional Zone.*** An area appropriate for educational facilities, cultural uses, health services, and other uses of a similar character, such as Laney College, Peralta College District, Oakland Museum, and Kaiser Auditorium.
- ***Open Space Zone.*** An area intended to meet the active and passive recreational needs of Oakland residents. An Open Space designation along the Lake Merritt Estuary channel would allow uses and facilities that enhance this regional asset.
- ***Residential Zone.*** An area appropriate for multi-unit, mid-rise or high-rise residential structures in locations with good access to transportation and other services. A residentially focused area would also allow a variety of ground floor uses that are compatible with a residential area.

4.2 Active Ground Floor Uses

EXISTING RETAIL CONTEXT

The Planning Area includes Chinatown, which is a unique and rich environment, with a wealth of cultural, social, medical, residential, retail and social resources. The Chinatown commercial core is one of the city's most vibrant neighborhood retail districts. Over the last three decades, Asian-oriented retail has also spread eastward in Oakland along 12th Street and International Boulevard.

The Planning Area (extending from 5th Avenue to Broadway and 5th Street to International Boulevard and 14th Street) had reported sales of $57 million in 2008, making it the city's fifth largest neighborhood retail district in terms of sales. Of this area, historic Chinatown is the most concentrated retail area in the Planning Area, located between 7th, 11th, Franklin, and Harrison Streets. Since 1994, retail sales in Chinatown have grown at a much faster pace (84%) than for the city as a whole (1.74%). Chinatown is unique among Oakland's retail districts in that it regularly draws shoppers to Oakland from outside of the city.

According to area brokers, ground floor retail uses support the highest rents in the Planning Area. In the heart of Chinatown, rents can reach as high as $6.00 per square foot, with rents more typically peaking at $5.00 per square foot in the area bounded by 8th, 10th, Harrison and Franklin Streets. Brokers noted that there is little to no long term vacancy in the core area;

rather, there is a shortage of available retail space in Chinatown and suggested that new retail east of the core area would be readily absorbed by the Chinatown-oriented market.

Chinatown serves as an East Bay landmark for Asian culture, social services, cuisine, and shopping. The neighborhood attracts Asian residents from throughout the East Bay for shopping, cultural, health and educational services, as well as banking institutions catering to Asian customers. Historically, food sellers and other convenience goods merchants have been the most successful retailers in Chinatown, including restaurants, shops selling prepared food and grocers. More recently Chinatown's merchandise mix has broadened to include comparison stores (those selling apparel, home furnishings, home improvement, and specialty goods) as well. While Downtown office workers and non-Asian Oakland residents also patronize Chinatown's thriving shops, the primary source of retail demand in the Planning Area is the Asian population of the East Bay. However, Chinatown faces increased competition from suburban stores targeting this customer base and from the growing suburbanization of the East Bay Asian population. Maintaining the district's vitality is an important goal of the Emerging Plan.

Outside of Chinatown, the current lack of pedestrian activity and active street retail in the Planning Area is a constraint to attracting potential development to accommodate population or employment growth in the Planning Area.

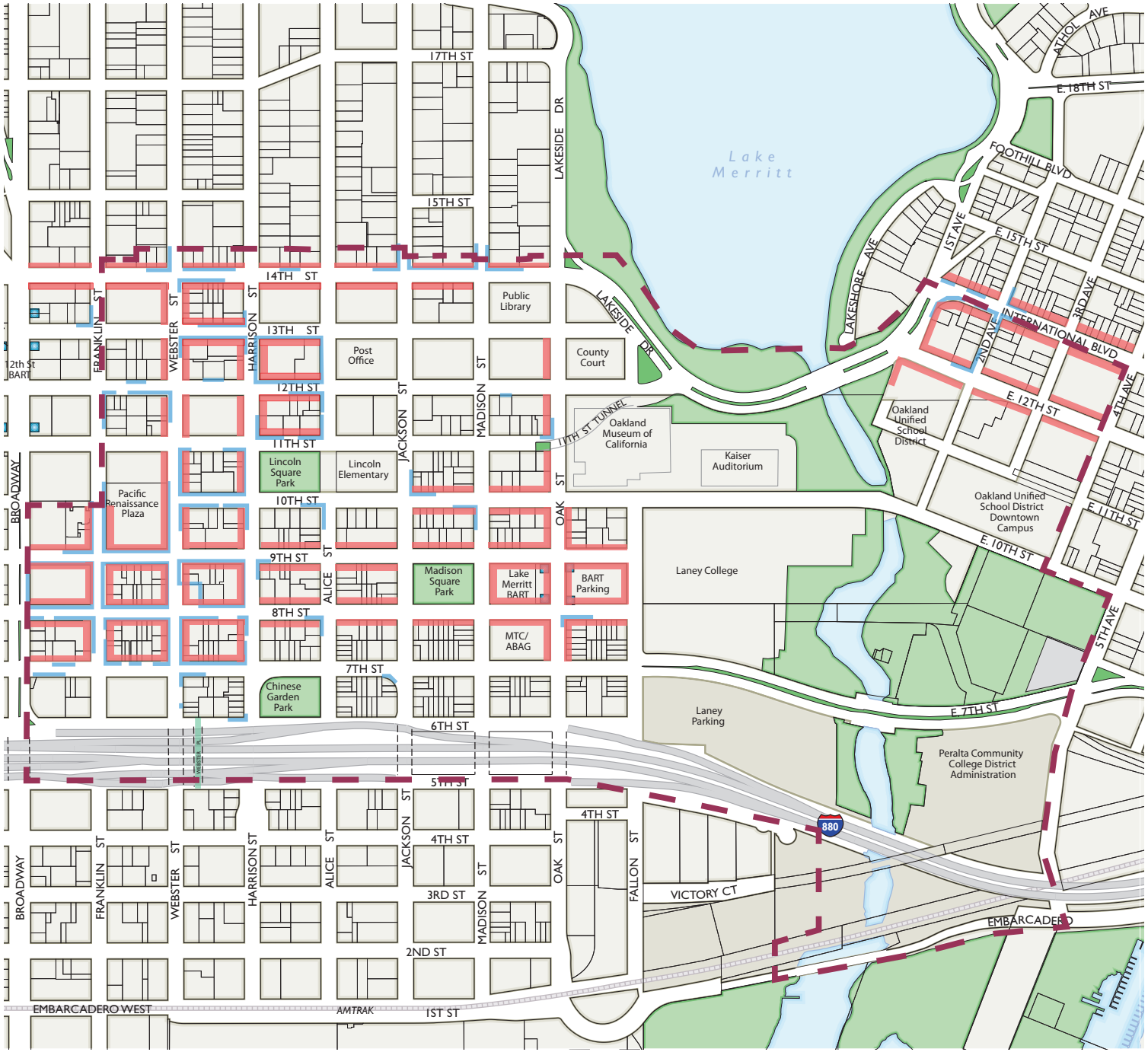
RETAIL OPPORTUNITY

Untapped sources of support for retail in the Planning Area include:

- Projected growth of up to 38,400 residents by 2035. These residents could support an additional 414,000 SF of new retail.
- Projected growth of up to 7,300 new employees by 2035. New employees could support additional eating and drinking, service and specialty retail.
- The 15,000 commuting students and 400 faculty and staff members of Laney College, a number that may be augmented by the addition of residential facilities for the growing enrollment of foreign and out-of-Bay Area students. The college-related demand is for casual dining, cafes, bars, and food to go.

With the possible addition of an entertainment anchor, perhaps related to the College, there would be an enhanced nighttime draw of city residents to the area, further enhancing the Planning Area opportunities for restaurants and night clubs.

Figure 4.2:
ACTIVE GROUND FLOOR USES



Existing active ground floors

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RETAIL ENHANCEMENT AND EXPANSION

The Emerging Plan identifies the strategic expansion of active commercial uses, including retail and restaurants, throughout the Planning Area. This expansion supports an enhanced regional destination, building on and complementing the existing success of the Chinatown Commercial Center, expanding Chinatown businesses, and diversifying retail options as an expansion of Oakland's Central Business District.

Active ground floor commercial uses – those that attract walk-in visitors – are important because they add vibrancy to streets and increase pedestrian traffic, which results in safer streets and more customers for local businesses. Examples of active ground floor commercial uses include: retail stores, restaurants, cafés, markets, bars, theaters, health clinics, tourism offices, banks, personal services, libraries, museums, and galleries.

In order to expand the vibrancy and activity that already exists in some areas, like the core of the Chinatown commercial district, guidelines could be implemented that would *require* active uses in *new* buildings along key corridors, as shown in Figure 4-2.

In addition to the requirement of active ground floor uses, other economic development strategies for retail enhancement and expansion are described in Chapter 9.

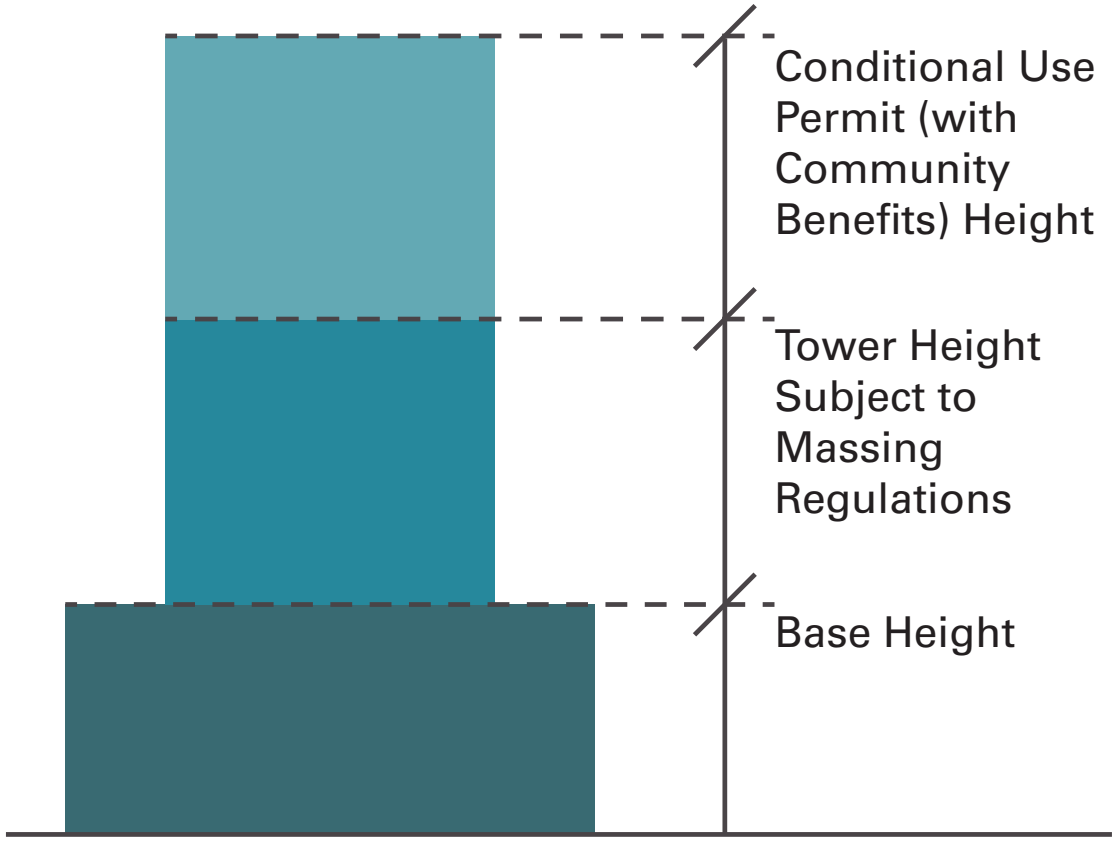
4.3 Massing and Building Design Concepts

HEIGHT AND MASSING CONCEPT

Massing regulations will seek to establish coherence in building massing; respect historic buildings and patterns of lot size and scale; be sensitive to existing buildings, and existing and new parks; and incorporate transitions between developments of differing scales. Height and massing will be regulated at three levels, as shown in Figure 4-3:

- ***Base height***: base heights will be established that complement the existing context, and setbacks will be required above that base height to ensure the street perspective maintains a consistent character.
- ***Tower height***: a tower height above the base height will be allowed with massing regulations such as setbacks and tower length limits to ensure that a consistent character is maintained from the pedestrian perspective. This height is the maximum height allowed by right. Towers will be regulated by various standards, outlined below.
- ***Total height***: Additional tower height will be allowed with a Conditional Use Permit, requiring provision of community benefits.

Figure 4.3:
MASSING CONCEPT



Height Considerations

Height limitations for each level (base, tower, and total), will be defined based on several considerations related to the existing context and the goals and vision of the project. The factors to be considered in determining the area height limits will be carefully balanced to establish a vibrant, high density, transit oriented district. Draft heights will be developed in the next stage of the planning process.

Considerations include:

- Base heights in particular will consider:
    - Pedestrian experience.
    - Consistency with historic building heights and historic districts .
- Base and tower heights will consider:
    - Block and lot sizes.
    - Views.
    - Location relative to Downtown (generally taller buildings).
    - Location relative to Lake Merritt and the Lake Merritt Channel (generally lower buildings).
    - Adjacency to public open spaces.
    - Adjacency to I-880, where taller buildings might act as a buffer between the neighborhood and the highway.
- Dominant height of surrounding buildings, which are not likely to change.

Community Benefits

As described above, new buildings could exceed the by-right tower height with a Conditional Use Permit and inclusion of community benefits. Provision of benefits would be exchanged for additional height or density/FAR. Community benefits that could qualify for the incentive include:

- Affordable housing;
- Family housing;
- Historic preservation;
- Additional public open space;
- Community facility;
- Other designated public amenity.

INITIAL BUILDING STANDARDS AND GUIDELINES

In the next planning phase, we will define development standards and design guidelines. These are regulations that ensure development contributes to an active, comfortable, safe, and beautiful public realm. Streetscape concepts are presented in Chapter 6. They will build on concepts like:

Tower Massing

- High-rise towers should be relatively slender. High-rise office and other towers should also be slender, within realistic minimum floor plates.
- Towers should be separated from each other to provide light, air and views between them.
- High-rise massing should be divided to reduce overall bulk and step down towards lower adjacent structures.
- Cornice lines should be consistent where new buildings meet existing structures.
- Towers should be designed to minimize shadows on public parks.

Ground Floor Design

General ground-floor design standards are summarized below; these will be further refined for the preferred plan.

- Large blank walls should be avoided.
- Design should include articulation in building facades.
- Primary building entrances should be clearly marked and face onto public streets.
- Corner buildings should have distinct architectural features and defined building entrances at the corner to animate the intersection and facilitate pedestrian flow.
- Building mass and surfaces should be articulated with three-dimensional elements that create a visual play of light and shadow and reduce the apparent bulk of buildings.
- Frequent entries and windows with visible activity should occur on all publicly exposed façades of commercial buildings. Entries should be designed so that they are clearly defined and distinguishable as seen from the street by incorporating entry plazas, vertical massing, and architectural elements, such as awnings, or porticos.
- The ground floor of buildings identified for Retail Street Frontage should have visually permeable shop frontages with large windows.
- Commercial establishments should be designed to complement the pedestrian oriented nature of the neighborhood centers and the scale of the neighborhood.

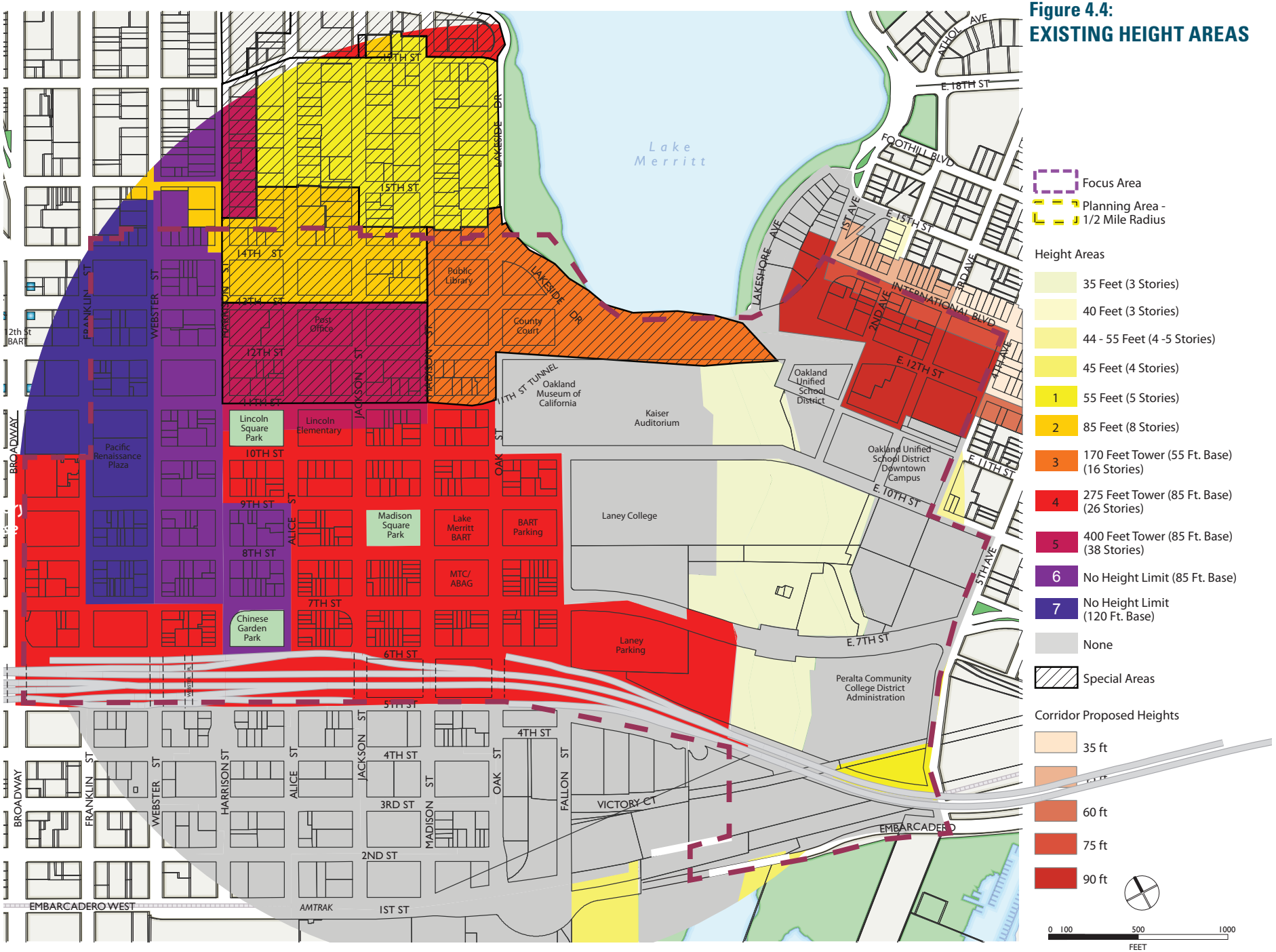
Green Building

Green building focuses on a whole systems and environmentally beneficial approach to the siting, orientation, design, construction, operation, and demolition of buildings and landscapes. Benefits of green building include natural resource conservation, energy efficiency, improved health of employees and residents, and increased economic vitality. Green building techniques include:

- Siting buildings near transit;
- Avoiding development near sensitive habitats;
- Siting buildings to take advantage of passive heating and cooling methods;
- Reusing and/or remodeling existing buildings;
- Using recycled or sustainable products (such as renewable products) that preserve natural resources;
- Installing high efficiency building systems to reduce energy and water consumption; and
- Using low Volatile Organic Compound (VOC) paints, adhesives, and sealants and formaldehyde free products to improve indoor air quality.

In 2005, the City adopted a civic green building ordinance requiring green performance in major civic projects, and in 2010, the City adopted a comprehensive green building ordinance for private development projects. In addition to Oakland's local green building ordinance, the State of California recently adopted the new Green Building Code known as CALGreen. Both the City's local ordinance and CALGreen are now in effect, and will apply to new development in the Planning Area. Detailed information on green building in the City of Oakland can be found at http://www2.oaklandnet.com/GreenBuilding/index.htm. Guidance related to CALGreen can be found at http://www.bsc.ca.gov/CALGreen/default.htm.

Figure 4.4:
EXISTING HEIGHT AREAS



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5 Parks and Community Facilities

Parks, public spaces and natural areas are important community assets for both social cohesion and interaction, and for physical health. Open spaces are even more essential in high intensity areas, such as the Planning Area, in order to provide a respite from the activity and noise associated with urban living.

5.1 Existing Parks and Community Facilities

PARKS AND RECREATION

Lincoln Square Park, Madison Square Park, and Chinese Garden Park are key assets in the Planning Area and important contributors to quality of life in a dense urban neighborhood. It should be noted that many of the Station Area's parks and community facilities also serve a regional population, since Chinatown functions as a center for Asian culture in the City of Oakland and the larger East Bay. Lincoln Square Park, which includes Lincoln Recreation Center, is particularly well-used by a users of all ages during all times of the day and week.

Lake Merritt and the Estuary Waterfront parks area also within the Planning Area, but not as close to the heart of Chinatown and the commercial and residential activity associated with Chinatown. These parks do still provide amenities that draw users from the Planning Area and throughout the city. In addition, two linear parks—Peralta Park and Lake Merritt Channel Park—provide additional passive and active recreation space. However, access to these parks is constrained from the Planning Area due to visual and physical obstacles, as well as real and perceived distance from the current center of commercial and residential activity. The Station Area Plan will seek to improve the accessibility of these resources, by improving walkability and visibility, as well as by extending the commercial and residential activity closer to the parks. In addition, Measure DD improvements[1] currently underway will improve access to these assets.

All the existing parkland in the Planning Area totals nearly 43 acres. Not included in this total are open space areas that are spaces that are not owned by the City of Oakland and zoned specifically zoned as open space, including the BART plaza, the plazas and courtyards in Laney College, and the gardens in the Oakland Museum of California. However, those spaces are valuable open spaces resources for the Planning Area as well as the larger region.

[1] Measure DD was passed by Oakland voters in 2002, allowing the City to generate $198 million in bond financing to develop parks, trails, bridges, recreation facilities, historic building renovations, land acquisition, and creek restoration.

Table 5-1: Existing Parks in the Planning Area[1]

Park	*Park Type*	*Location*	*Acreage[2]*
Chinese Garden Park (Harrison Square)	Special Use Park	7th Street & Harrison Street	1.3
Madison Square Park	Special Use Park	810 Jackson Street	1.4
Lincoln Square Park	Neighborhood Park	261 11th Street	1.4
Lake Merritt[1]	Region-Serving Park	12th and Lakeside	8.6
Estuary Channel Park	Region-Serving Park	5 Embarcadero	3.4
Peralta Park	Linear Park	94 East 10th Street	2.6
Channel Park	Linear Park	1 10th Street & 21 7th Street	10.7
Resource Conservation Areas		Along the banks of the channel (Peralta Park and Channel Park)	13.6
Total Existing Park Space			**42.9**

1. Only includes parks owned by the City of Oakland.
2. Acreage only includes the parkland within the Planning Area and excludes the water body.

Source: City of Oakland, 2009; Dyett & Bhatia, 2009.

COMMUNITY FACILITIES

School campuses play an important role in the Planning Area. Laney College, on 60 acres of land along Lake Merritt Channel, is the largest of the four Peralta Community Colleges with over 13,000 students and more than 480 full-time and adjunct faculty. Oakland Unified School District's new Educational Complex will bring together elementary, high school, and early childhood programs, and an after-school program in a state-of-the art structure across East 10th Street from Laney College's athletic fields.

The Planning Area also features two libraries in the Oakland Public Library System. The Main Library, at 14th and Oak Streets, has an extensive collection, an Oakland History Room, a large and active Children's Room, a TeenZone, and public-access internet computers. The Asian Branch Library, meanwhile, is a unique branch housing eight languages in major reference titles and general subject titles. The Asian Branch is located in Pacific Renaissance Plaza at 9th and Webster Streets, a facility that also includes the Oakland Asian Cultural Center and a plaza with a popular fountain.

The Oakland Museum of California (OMCA), located on a large site one block north of the BART station, is focused on interpreting California's dynamic cultural and environmental heritage, and includes a theater, exhibits, and gardens.

These community facilities have the potential to collaborate, share facilities, and be better integrated into the neighborhood fabric. This is a goal of the Emerging Plan.

5.2 Emerging Plan Parks and Community Facilities

As new development takes place and the residential population increases, maintenance, increased access and usability of existing parks as well as development of new parks will be essential to ensure a high quality of life in this increasingly dense urban setting.

NEW PARKS

The Emerging Plan proposes several different park types to accommodate the needs of present and future residents and to create cohesive network of open spaces. The Plan proposes a number of publicly accessible open spaces that could be created when new, large-scale (full block) development projects occur. In addition, a new greenway or linear park along the channel will provide local passive and active recreation space as well as provide a pedestrian and bicycle connection between Lake Merritt, the Estuary waterfront, and the Bay Trail. In total, the Emerging Plan proposes up to 16 acres of new parks and public open spaces, including 3.2 acres of local parks. The total amounts, shown in Table 5-2, show 42.9 existing acres, 15.8 new acres, and a total of 58.7 acres at buildout.

Table 5-2: Potential New Publicly Accessible Open Space

	Existing	*Proposed*	*Total at Buildout*
Residents	12,000	7,500-10,800	19,500-22,800
Open Space Acreage	42.9	15.8	58.7

MAINTAIN AND ENHANCE EXISTING PARKS

In addition to new open spaces, the Emerging Plan identifies ways to maintain and enhance existing park spaces. As noted above, Lincoln Square Park is already well-utilized and even overcapacity. Madison Square Park and Chinese Garden Park serve distinct needs within the community. However, improvements to those and other parks would add to the quality of life in the neighborhood, as well as relieve some of the pressure on Lincoln Square Park. Guidelines and programming recommendations are provided in Sections 5.3 and 5.4, respectively.

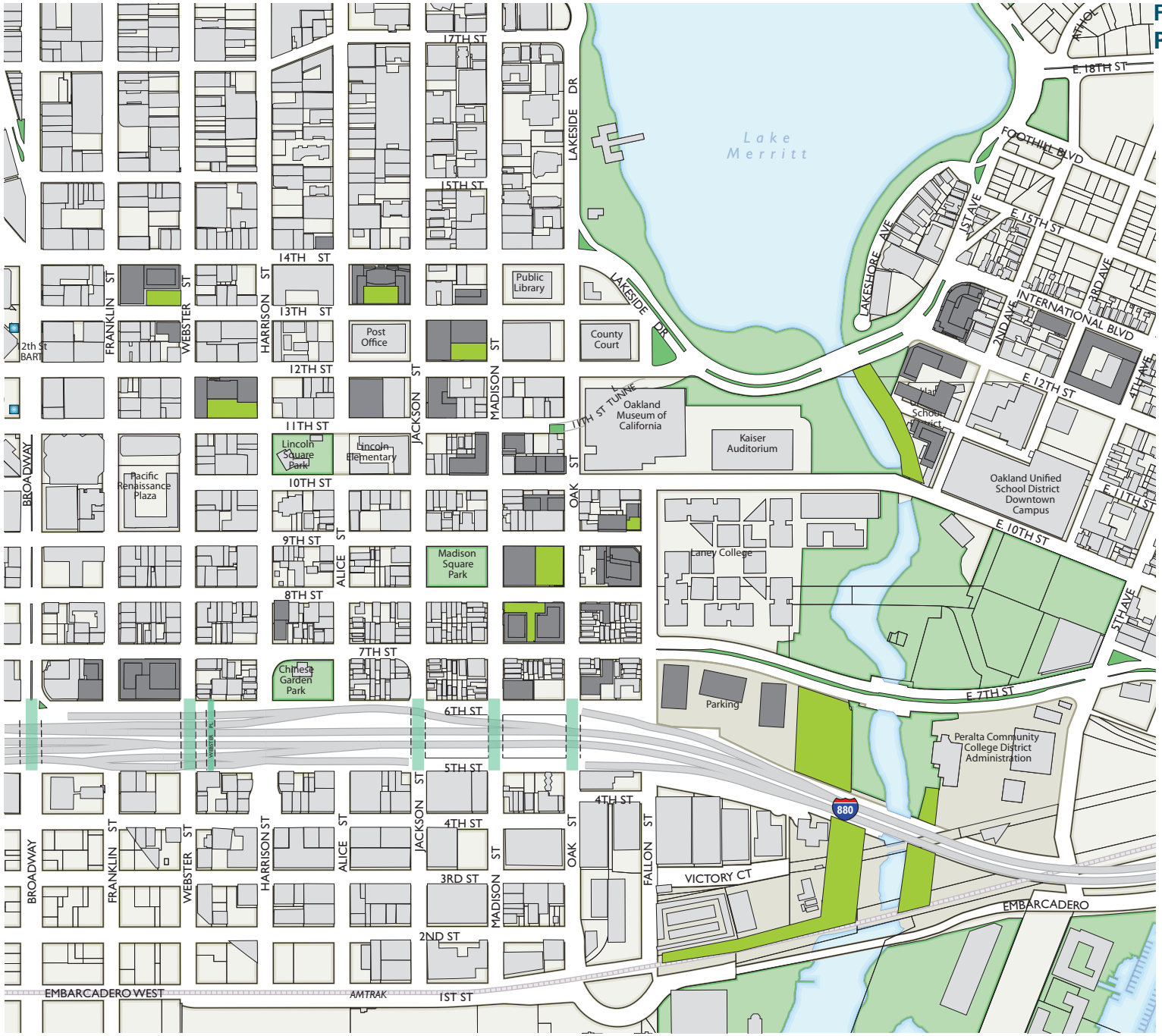

Figure 5.1:
PARKS AND PUBLIC SPACES

Example Proposed Building Footprints

Proposed Parks/Public Spaces

Existing Parks

August 2, 2011

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5.3 Park Guidelines

Although the amount of parkland is important to ensuring a healthy community and a network of open spaces, the quality and accessibility of park and open spaces are equally important elements. Public spaces should be distributed throughout the Planning Area so that they are accessible to all users. As will be described further in *Chapter 6: Streetscape Character* and *Chapter 7: Circulation, Access, and Parking,* overall walkability and pedestrian safety in the Planning Area are expected to improve through implementation of the Emerging Plan. Adequate sidewalks, safe crossings, and active streetscapes aim to encourage walking to parks and other public spaces. The following guidelines describe ways to create and maintain high-quality public spaces:

- **Site parks to maximize sun access and minimize wind and shadows**: Locate open space along the east, west, or southern block or building face to maximize exposure to the sun, especially from the southeast, while protecting from wind. Tall buildings should be slender in order to minimize the casting of large shadows; middle and upper stories should taper or step back, as outlined in Chapter 4.
- **Maximize visibility from the street**: Design open space to be physically and visually accessible from the street and designed for public use (e.g. highlight views of the park, install signage, etc.). Design open space that fronts the sidewalk to be primarily open and free of walls or other obstructions (not including trees, lights, and steps). Use landscaping strategically to identify pedestrian entrances and articulate edges for plazas and courtyards.
- **Facilitate maintenance and maximize sustainability**: Use landscape materials that are climate appropriate, drought-resistant, and require minimal irrigation and maintenance. (See Alameda County's Bay-Friendly Landscaping guidelines.) Use high-quality durable materials that are cost-effective in the long-term. To the extent feasible, standardize park amenities (e.g. benches and trash cans), and incorporate technology (e.g. solar trash compactors, moisture-sensing sprinklers) to minimize costs and make maintenance and repairs more efficient.
- **Design culturally appropriate amenities and programs**: Provide memorials, public art, and programming that reflect the culture of the community (e.g. inter-generational and multi-cultural activities). Provide amenities and programs for a variety of users (e.g. seniors, kids, teenagers).
- **Maximize comfort:** Ensure that parks are clean and well-maintained. Provide ample seating, which can be comprised of benches, seating walls, and moveable seating. Provide trees, landscaping, shaded and sheltered areas, in addition to areas with full sun access.
- **Design for active and passive use:** Encourage a variety of activities, programs, and events in open spaces to promote active uses, such as kiosks for private businesses or information and food vendors. Also, provide opportunities for quiet passive recreation.

SHORELINE GUIDELINES

The following design guidelines will help ensure that new open spaces along the Lake Merritt Channel are publicly accessible:[2]

- Ensure safety and security.
- Design for a wide range of users and relate to adjacent uses.
- Design, build, and maintain in a manner that indicates the public character of the space.
- Provide public amenities, such as trails, benches, play opportunities, trash containers, drinking fountains, lighting and restrooms that are designed for different ages, interests and physical abilities.
- Maintain and enhance the visual quality of the shoreline and adjacent developments by providing visual interest and architectural variety in massing and height to new buildings along the shoreline.
- Ensure that new public access areas are clearly connected to public rights-of-way, such as streets and sidewalks, are served by public transit, and are connected to adjacent public access or recreation areas.
- Employ appropriate siting, design and management strategies (such as buffers or use restrictions) to reduce or prevent adverse human and wildlife interactions.
- Balance the needs of wildlife and people on an area wide scale, where possible.

5.4 Existing Parks: Improvements and Programming

A wide range of park programming options have been suggested, which will continue to be developed for specific park locations as the plan moves forward. Generally, programming has either been general (not location specific), or has focused on Madison Square Park.

LINCOLN SQUARE PARK

Lincoln Square Park is heavily used by hundreds of people during the day and evening. Community members want to maintain the uses and activities at this location and ensure continued maintenance as the neighborhood continues to grow. Making improvements to the Planning Area's other parks will provide alternative recreation resources and relieve overcrowding.

CHINESE GARDEN PARK

Chinese Garden Park provides important cultural amenities, senior center programming, and a community garden that is well used by residents in the Planning Area. However, access is

[2] San Francisco Bay Conservation and Development Commission, "Shoreline Spaces: Public Access Design Guidelines for the San Francisco Bay, April 2005.

constrained and safety a concern given the high volumes of traffic and vehicle speeds on surrounding streets.

MADISON SQUARE PARK

Madison Square Park has been identified by the community as a key asset that is vital to the physical and mental health of the community, particularly for the Tai Chi community. However, it has also been identified as a public space that could use significant improvements. Issues currently limiting use of the park include inadequate lighting and feeling unsafe. Community members have suggested improvements that would increase use of the park, and potentially bring more people in to use the park at all times of the day:

- Desired amenities: seating, public restrooms, trash cans, shade and shelter.
- Potential new community facilities: exercise equipment for adults, play structures for kids, swimming pool, community garden, amphitheater/stage for performances/outdoor classes; gaming tables; memorial or cultural structures; sports fields; senior center; community center.
- Provide new programming: multipurpose, multigenerational, multicultural; festivals, exercise classes.
- Regulate use and open hours: encourage people to clean up after pets by posting ordinance and fine information. Deter homeless by instituting and posting hours of operation.
- "Activate" the park: vendors, food services such as a tea house, music and performance; day and evening activities;
- Improve linkages: Connect to Lincoln Square Park and other parks in the planning area through physical routes and shared programming to create a network of open spaces. Remove barriers, such as the wall along Jackson Street, to improve visibility of the park.

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6 Streetscape Character

The Streetscape Character chapter provides an overview of the public process and policy background for streetscape improvement recommendations, an outline of the streetscape vision for the Plan Area, and streetscape improvement recommendations for the Plan Area's key streets.

6.1 Background

Safe and attractive sidewalks that encourage pedestrian activity, slower traffic, a contiguous bicycling network, and strong links to local destinations and adjacent districts are the basic objectives of the Streetscape Character recommendations. Participants in the Subarea Planning Workshops and in Community Stakeholders Group (CSG) meetings have been clear in establishing these objectives as essential for enhancing livability and encouraging investment in the Plan Area. Recent studies, including the *Revive Chinatown Community Transportation Plan* (2004) and the *Lake Merritt BART Station Plan* (2006) focused on the same issues, and this Streetscape Character chapter incorporates many recommendations from these previous efforts; these include sidewalk widening and pedestrian amenities, lane reductions, and possible conversion of streets from one-way to two-way travel.

The City of Oakland *Pedestrian Master Plan* (2004) and *Bicycle Master Plan* (2009) designate specific streets and portions of streets within the Plan Area for improvements, as part of the city's overall multimodal travel network. Franklin, Webster 14th, 9th, and 8th Streets are designated for Class II (striped lane) and/or Class IIIa (shared lane) bicycle routes. Webster, Jackson, Oak, 14th, 8th, and 9th Streets are designated "Primary Pedestrian Routes," a high priority for streetscape improvements.

State and Federal agencies require that street improvement projects receiving grant funding address multimodal access, particularly pedestrian and bicycle accommodation. Applicable policies include Caltrans Deputy Directive 64 and the Federal MUTCD California supplements. Grant applications submitted to the Metropolitan Transportation Commission (MTC) for capital improvements funding must complete a "Complete Streets Checklist" that encourages provision of bicycle ways with signs, signals and pavement markings, reduced pedestrian street crossing distances, high-visibility crosswalks, pedestrian signals and pedestrian-level lighting, shade trees, planters/buffer strips, and many other features consistent with local community preferences and the recommendations of the Plan.

6.2 Vision Framework

The Lake Merritt Station Area Plan will guide development and capital improvements for the next 20 years, and streetscape improvements are fundamental to the Plan's strategy to support commercial revitalization and transit-oriented infill development in the area. Though individual improvements are important in and of themselves, they will be most effective if they promote a vision for the growth and evolution of the district. In a district that could be easily walkable end-to-end in 10 minutes, using streetscape improvements to link destinations within and adjacent to the Plan Area is a fundamental ingredient. Figure 6.1, the "Streetscape Vision" diagram illustrates the major concepts that underlie streetscape improvement recommendations. These concepts dovetail with the Plan's land use and development policies and circulation improvement strategies:

- ***Improve and Expand the Core of Chinatown*** – Support the pedestrian-oriented commercial focus of Webster, 8th, and 9th Streets with sidewalk widening, streetscape amenities, lighting, and street crossing improvements, and extend Chinatown's character east along 8th and 9th to BART and Laney College.
- ***Connect Chinatown to Jack London Square and the Jack London District*** – Eliminate the dark, unsafe character of streets and sidewalks that extend beneath I-880 with new lighting, enhanced pedestrian crossings, and attractive parking area screen walls.
- ***Concentrate Multimodal Access at the BART Station*** – Surround the BART station blocks with pedestrian-oriented street and sidewalk improvements, bicycle routes, and enhanced bus transfer and kiss-and-ride areas.
- ***Improve Lighting, Pedestrian Crossings, and Street Trees Incrementally on All Streets*** – Sidewalk lighting and street crossing safety are the highest community priorities; shade trees add to property values and reduce urban heat island effects.
- ***Upgrade Oak Street as a Spine between Lake Merritt and the Waterfront*** – Improve walking and bicycling connections between Lake and Waterfront recreation and commercial destinations with lighting, widened sidewalks, street trees, a striped bikeway, and improved street crossings.
- ***Establish 10th Street as a "Green" connection to the Lake Merritt Channel Linear Park and Trail*** – 10th Street links the center of the Plan Area, including Pacific Renaissance Plaza, Lincoln Recreation Center, and Lincoln Elementary School, plus the Oakland Museum and Kaiser Auditorium to the Lake Merritt Channel park and trail improvements currently underway as part of Measure DD. Rain gardens and other sustainable development features should be used to extend a green corridor into the heart of the neighborhood.
- ***Highlight 14th Street as the Civic Link to Lake Merritt*** – Special lighting should be installed to highlight the link between the Downtown civic center and newly reconfigured Lakeside Drive, the new 12th Street Bridge, and the Lakeview District; continuing the Lake's "necklace of lights" between new fixtures along 14th Street is

one option that should be considered. Street crossing improvements and infill street trees are also recommended.

- ***Add Unique Wayfinding Signage.*** A system of wayfinding signage should be designed and installed to highlight regional destinations (the Oakland Museum, the Chinatown commercial core, the Main Public Library, among others) and support pedestrian movement between from the BART station and throughout the neighborhood. Signage should be consistent with existing signs and be fully bilingual.

Many of the improvements needed to pursue these concepts would be difficult to implement without roadway lane reductions, which are discussed in more detail in Chapter 7, "Circulation, Access, and Parking". As the Circulation discussion makes clear, existing roadways in the Plan Area have significant excess traffic capacity, so much so that practically every street in the Plan Area can have a lane removed and still accommodate projected build-out traffic levels; some streets could have two lanes removed.

In addition to lane reductions, previous planning studies have recommended that some or all one-way streets within the Plan Area be considered for conversion to two-way streets. Two-way street conversions were also recommended by a number of Community Workshop participants and by some of the members of the CSG. In the description of recommendations for Key Streets below, those streets deemed not to have likely impacts on surrounding areas – i.e. those not part of a traffic couplet -- are recommended for possible conversion from one-way to two-way; these streets are Harrison, 9th, and 10th streets.

Couplet streets include Franklin, Webster, 7th and 8th streets, and an analysis of the effects of converting these and other network streets to two-way traffic is not within the scope of this Area Plan and the accompanying EIR. However, conversion of more streets to two-way traffic in the future is a distinct possibility, and it is important that Streetscape Character improvement recommendations, if implemented, not eliminate this potential.

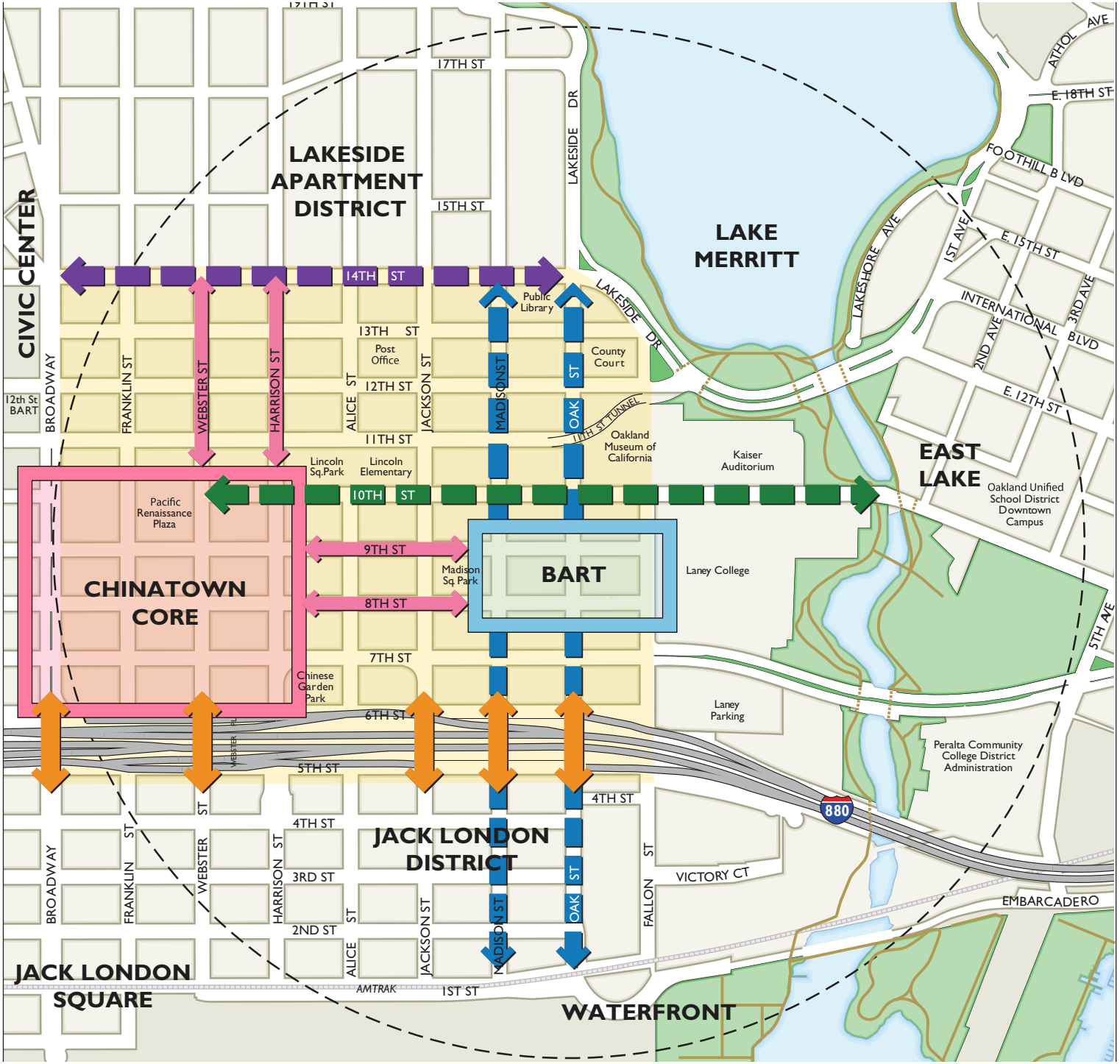


Figure 6.1: STREETSCAPE VISION

- 14th Street - Civic Link to Lake Merritt
- 10th Street - Green Connection to Estuary Trail
- Connect Chinatown to Jack London Square and the Loft District
- Chinatown Core - Improve Pedestrian-Oriented Commercial Streets
- Key Pedestrian-Oriented Commercial Street Connections
- Lake Merritt BART - Improve Multimodal Access
- Oak Street - Spine between Lake Merritt and the Waterfront
- Improve Lighting, Pedestrian Crossings, and Street Trees
- Planning Area - 1/2 mile radius

6.3 Streetscape Phasing Concept

Given the studies and construction costs associated with streetscape improvement projects, it is desirable for improvements to proceed in a phased manner that allows less expensive traffic calming and pedestrian safety improvements to proceed in the near term, with more costly lighting and sidewalk widening efforts proceeding later. The "Street Improvements Phasing" sketches (Figure 6.2) on the following pages depict a scenario in which lane reductions and interim streetscape improvements can occur, while accommodating an ultimate configuration that has either one-way or two-way traffic.

1) Existing Condition – A typical four-lane one-way street is shown.

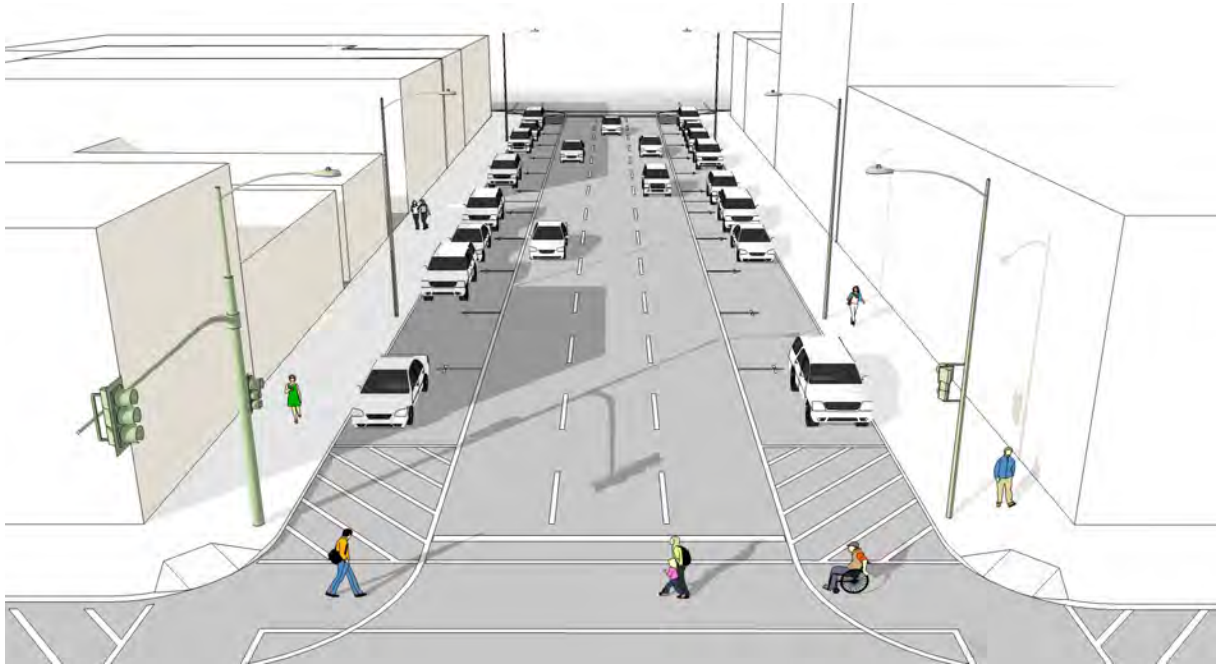
2) Lane Reduction with Striping Only – Paint striping is used to reduce the street from four lanes to three, with the extra space allocated to a wider curbside parking zone and painted corner bulb-out areas.

3) Improved Pedestrian Crossings – Corner bulb-outs, shortened crosswalks, upgraded traffic signals, and pedestrian-oriented lighting are installed as funding becomes available.

4a) Sidewalk Widening and Amenities/One-Way – Sidewalk widening, street trees, pedestrian-oriented lighting, and other mid-block streetscape amenities installed as funding becomes available.

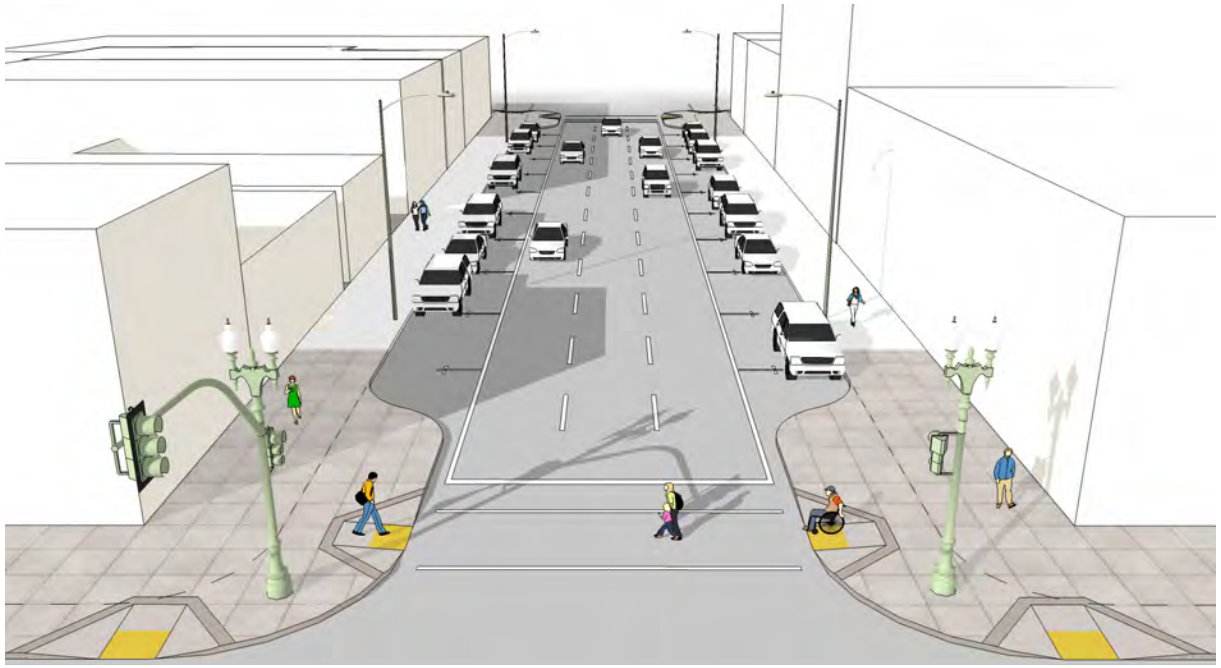
4b) Sidewalk Widening and Amenities/Two-Way – The street is converted from one-way to two-way, with new traffic signals, sidewalk widening, street trees, pedestrian-oriented lighting, and other mid-block streetscape amenities installed as funding becomes available.

Figure 6.2:
STREETSCAPE PHASING



Phase 1: Striping Lane Reduction

Existing Condition



Phase 2: Bulb-Outs

Figure 6.2 Continued:
STREETSCAPE PHASING

Existing Condition

Phase 3 (Option A): Sidewalk Widening with Lane Reduction

Phase 3 (Option B): Two-Way Conversion

6.4 Recommendations for Key Streets

Streetscape improvement recommendations for key streets reflect the basic vision framework for the district described above, as well as current City of Oakland policies, recent study recommendations, and specific input from community members and CSG participants. Multiple improvement options are identified for a number of streets, generally those where excess roadway capacity allows for removal of more than one travel lane and/or conversion from one-way to two-way traffic without affecting adjacent streets in the roadway network.

Improvements are described first for key east/west streets, proceeding from north to south, then for north/south streets, proceeding from west to east. Recommended improvements reflect the "Circulation Improvement Strategies" map in Chapter 7, and are illustrated with existing and proposed conditions sketches on following pages (Figure 6.3).

EAST / WEST STREETS

14th Street

14th Street is an east-west connector, linking Downtown to East Lake, and beyond. The initial concept for 14th Street includes corner bulb-outs, sharrow bikeway, sidewalk amenities including pedestrian-oriented lighting and street trees where subterranean basements and utility vaults allow; consider above-grade planter(s) with small trees where vault conditions constrain planting. Consider distinctive lighting feature(s), such as the "necklace of lights", to create a strong link between the Downtown Civic Center and Lake Merritt.

10th Street (West of Madison)

10th Street runs between Webster Street and East Oakland, changing from a one-way to two-way street at Madison Street. 10th Street has been identified as an important street for a range of pedestrian improvements, and also identified as a street with capacity for a two-way conversion or lane reduction. Several initial concepts were developed, including:

- Option A: Lane reduction from four lanes to three lanes and conversion from one-way to two-way (including left turn lane where needed); widened sidewalks, corner bulb-outs, sidewalk amenities including pedestrian-oriented lighting and street trees.
- Option B: Lane reduction from four lanes one-way to two lanes one-way; angle parking, sidewalk widening, and "green street" rain gardens and other features along north side; corner bulb-outs, sidewalk amenities including pedestrian-oriented lighting and street trees.
- Option C: Lane reduction from four lanes one-way to two lanes two-way; angle parking, sidewalk widening, and "green street" rain gardens and other features along north side; widened sidewalks, corner bulb-outs, sidewalk amenities including pedestrian-oriented lighting and street trees.
- Option D: Lane reduction from four lanes one-way to two lanes one-way; Class II bike lane; sidewalk widening, and "green street" rain gardens and other features

along north side; corner bulb-outs, sidewalk amenities including pedestrian-oriented lighting and street trees.

10th Street (East of Madison)

10th Street East of Madison is a two-way low-volume street. The initial concept for 10th Street east of Madison Street includes class II bike lane; sidewalk widening, and "green street" rain gardens and other features along north side; corner bulb-outs, sidewalk amenities including pedestrian-oriented lighting and street trees.

9th Street Chinatown Core/West of Harrison

9th Street is an important connecting street between the Chinatown commercial center and the Lake Merritt BART Station and was identified as a priority pedestrian connection by the community. The initial concepts for 9th Street Chinatown Core/West of Harrison include:

- Option A: Street conversion from three lanes one-way to three lanes two-way (including left turn lane where needed); corner bulb-outs, enhanced pedestrian crosswalks, and sidewalk amenities including pedestrian-oriented lighting and street trees.
- Option B: Lane reduction from three lanes one-way to two lanes one-way; sidewalk widening, corner bulb-outs, enhanced pedestrian crosswalks, and sidewalk amenities including pedestrian-oriented lighting and street trees.

9th Street East of Harrison

- The initial concepts for 9th Street east of Harrison include: Option A: Street conversion from three lanes one-way to three lanes two-way (including left turn lane where needed); Class II bike lane, corner bulb-outs, enhanced pedestrian crosswalks, and sidewalk amenities including pedestrian-oriented lighting and street trees.
- Option B: Lane reduction from three lanes one-way to two lanes one-way; Class II bike lane, sidewalk widening, corner bulb-outs, enhanced pedestrian crosswalks, and sidewalk amenities including pedestrian-oriented lighting and street trees.

8th Street Chinatown Core/West of Harrison

8th Street is an important connecting street between the Chinatown commercial center and the Lake Merritt BART Station and was identified as priority pedestrian connection by the community. The initial concept for 8th Street Chinatown Core/west of Harrison includes a lane reduction from four lanes one-way to three lanes one-way; sidewalk widening, corner bulb-outs, enhanced pedestrian crosswalks, and sidewalk amenities including pedestrian-oriented lighting and street trees.

8th Street East of Harrison

The initial concept for 8th Street east of Harrison includes a lane reduction from four lanes one-way to three lanes one-way; Class II bike lanes; corner bulb-outs, enhanced pedestrian crosswalks, and sidewalk amenities including pedestrian-oriented lighting and street trees.

7th Street West of Fallon

7th Street is an important citywide east-west connector. 7th Street west of Fallon is one way eastbound. The initial concept for 7th Street west of Fallon includes corner bulb-outs, enhanced pedestrian crosswalks, and sidewalk amenities including pedestrian-oriented lighting and street trees.

7th Street East of Fallon

7th Street is an important citywide east-west connector. 7th Street east of Fallon is a six-lane two way street that separates Laney Campus from the Laney Parking lot. The initial concept for 7th Street east of Fallon includes a reduction of three right-turn lanes to two right-turn lanes at Fallon Street intersection; expanded median island to create pedestrian crossing refuge; signalized mid-block crosswalk connecting central portion of Laney College campus and parking area; corner bulb-outs, enhanced pedestrian crosswalks.

NORTH / SOUTH STREETS

Webster Street

Webster Street is a major north-south corridor and pedestrian street, connecting to the Webster Tube and the City of Alameda. The initial concept for Webster Street includes a lane reduction from four lanes one-way to three lanes one-way; sidewalk widening; corner bulb-outs, enhanced pedestrian crosswalks, and sidewalk amenities including pedestrian-oriented lighting and street trees.

Harrison Street

Harrison Street is a major north-south corridor and pedestrian street, connecting to the Posey Tube and the City of Alameda. The initial concept for Harrison Street includes conversion from four lanes one-way to four lanes two-way between 10th and 8th Streets; corner bulb-outs, enhanced pedestrian crosswalks, and sidewalk amenities including pedestrian-oriented lighting and street trees.

Alice Street

Alice Street is a local street that has been identified as a key street for lighting improvements. The initial concept for Alice Street includes corner bulb-outs, enhanced pedestrian crosswalks, and sidewalk amenities including pedestrian-oriented lighting and street trees.

Madison Street

Madison Street is a regional north/south connector. The initial concept for Madison Street includes a lane reduction from three lanes one-way to two lanes one-way; Class II bike lane, corner bulb-outs, enhanced pedestrian crosswalks, and sidewalk amenities including pedestrian-oriented lighting and street trees.

Oak Street

Oak Street is a regional north/south connector. The initial concept for Oak Street includes a lane reduction from four lanes one-way to three lanes one-way; Class II bike lane; sidewalk widening north side; corner bulb-outs, enhanced pedestrian crosswalks, and sidewalk amenities including pedestrian-oriented lighting and street trees.

Fallon Street (8th to 10th Streets)

Fallon Street is a local two-way street that connects the BART Station and the entrance to Laney College. The initial concept for Fallon Street includes a street width reduction; a "festival street" treatment between Laney College main entrance and BART parking redevelopment site that uses traffic calming and unique streetscape features to create a street that can easily be converted to public use on weekends or special events; sidewalk widening; corner bulb-outs; enhanced pedestrian crosswalks; and sidewalk amenities including pedestrian-oriented lighting and street trees.

I-880 Undercrossings – Webster, Jackson, Madison, Oak Streets

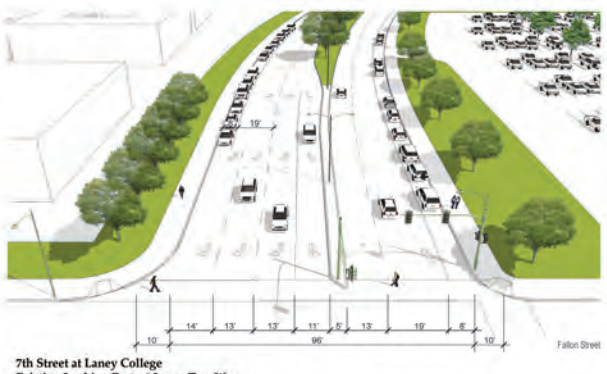
Improving the I-880 under-crossings is essential for connecting the Planning Area – including Chinatown, Laney, and the BART Station – to the Jack London District and waterfront areas. The initial concept for improving the under-crossings include an ornamental screen wall along sidewalk with integral lighting; corner bulb-outs, enhanced pedestrian crosswalks, pedestrian-oriented lighting at adjacent street corners.

6.5 Oak Street Transit Hub

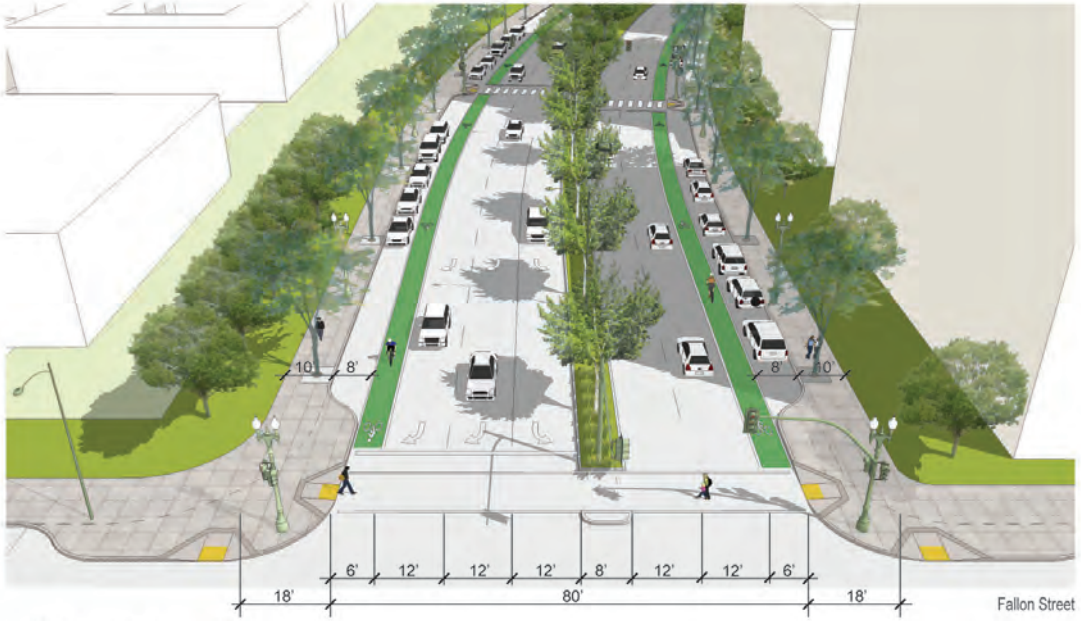
Primary access to the Lake Merritt BART station for automobiles and eastbound buses is provided along Oak Street. The block between 8th and 9th Streets should be improved as an on-street "transit hub", with improved bus bays, kiss-and-ride drop-off area, and enhanced pedestrian and bicycle access and support facilities. BART patrons traveling on westbound buses would get off on 8th Street at Oak. As depicted by the sketch in Figure 6.4, existing on-street parking would be removed along the easterly frontage to create a bus-only transfer area, and parking along the westerly frontage would be programmed for kiss-and-ride drop-off and pick-up during peak commute hours. Substantial corner bulb-outs shorten pedestrian crossing distances and help define the transit hub as a special street segment. In this block, the bike lane planned north and south would continue through with dashed striping.

The Transit Hub sketch also depicts general improvements to plaza areas on adjacent redevelopment sites. On the west side of Oak Street, planting areas are reconfigured to provide more visibility and pedestrian circulation adjacent to BART station escalator entries. On the east, the large existing concrete shelter structure is replaced with smaller, more contemporary architectural glass structures to allow more space for pedestrian circulation and provides a landmark for the transit hub area as a whole. A key card-accessed bicycle corral is depicted near planned new development on the adjacent BART parking site at 9th Street. More open, corner café-oriented spaces are depicted adjacent to the proposed retail corners at 8th and 9th Streets.

Figure 6.3:
STREETSCAPE CONCEPTS



7th Street at Laney College
Existing Looking East - 6 Lanes Two-Way

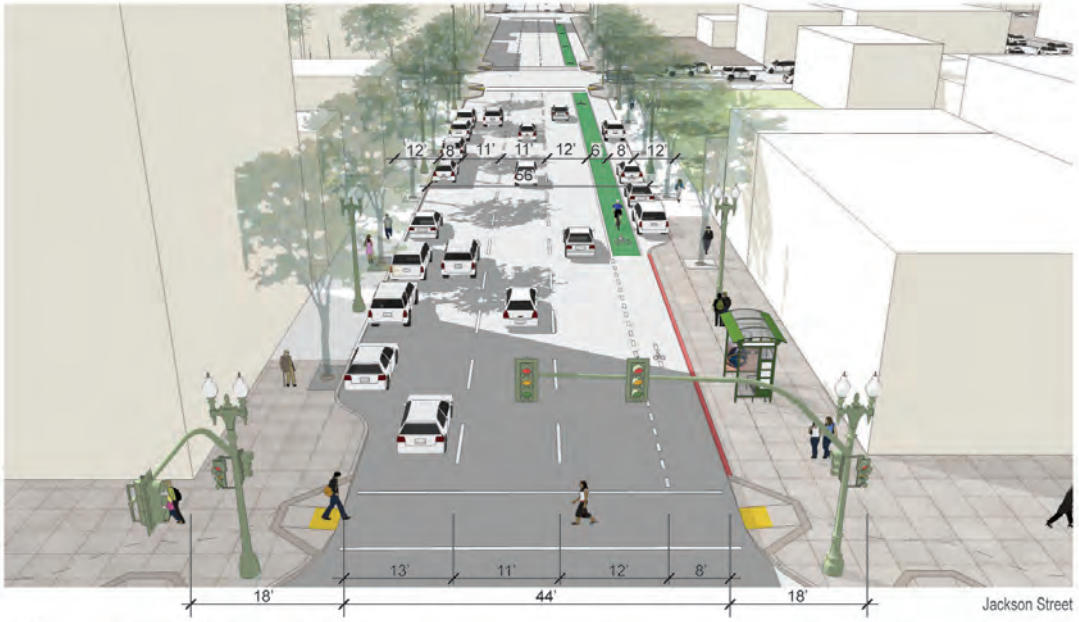


7th Street at Laney College
Westbound 4/3 Lane Reduction, Eastbound Narrowed Lane, Widened Median, Bike Lanes, Additional Pedestrian Crossing

8th Street Chinatown Core
Existing Looking West - 4 Lanes One-Way

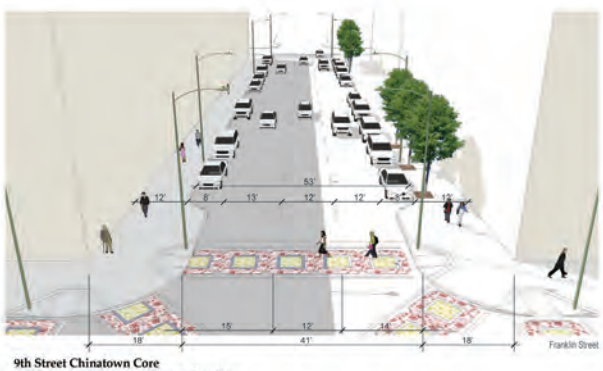
8th Street Chinatown Core
4/3 Lane Reduction, Widened Sidewalks

8th Street East of Chinatown Core
Existing Looking West - 4 Lanes One-Way

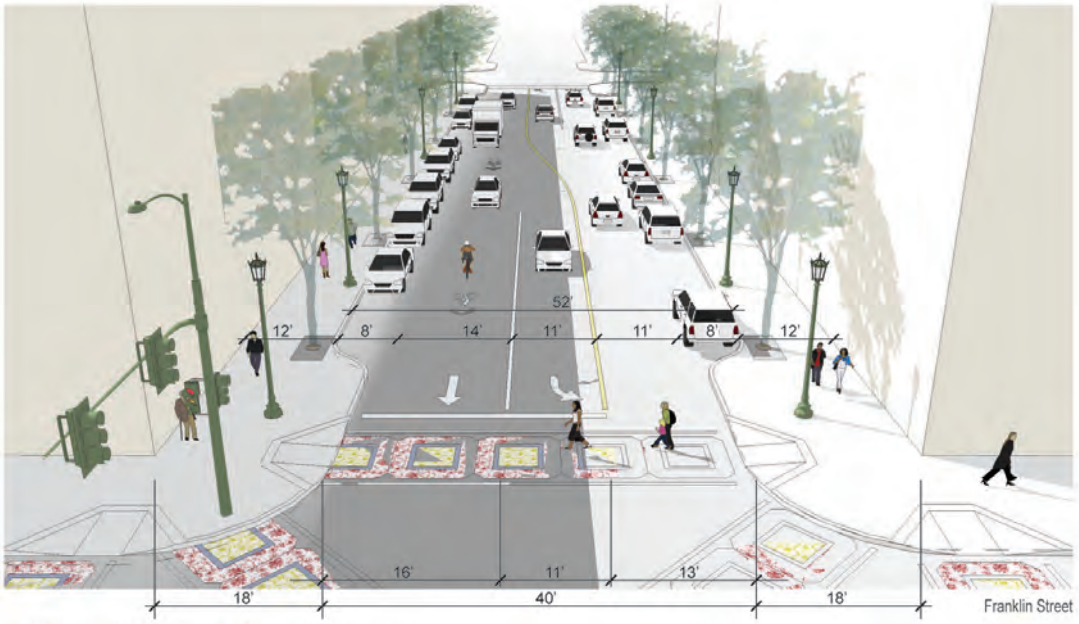


8th Street East of Chinatown Core
4/3 Lane Reduction, Bike Lane

Figure 6.3 Continued:
STREETSCAPE CONCEPTS

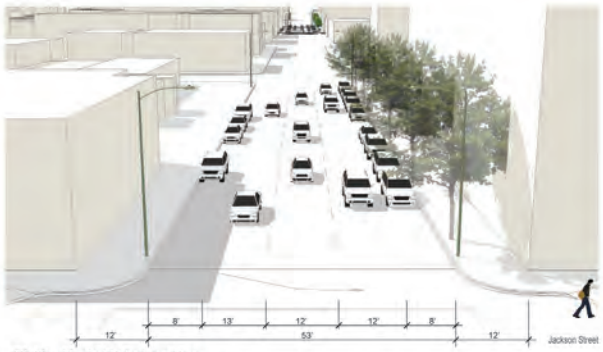


9th Street Chinatown Core
Existing Looking West - 3 Lanes One-Way

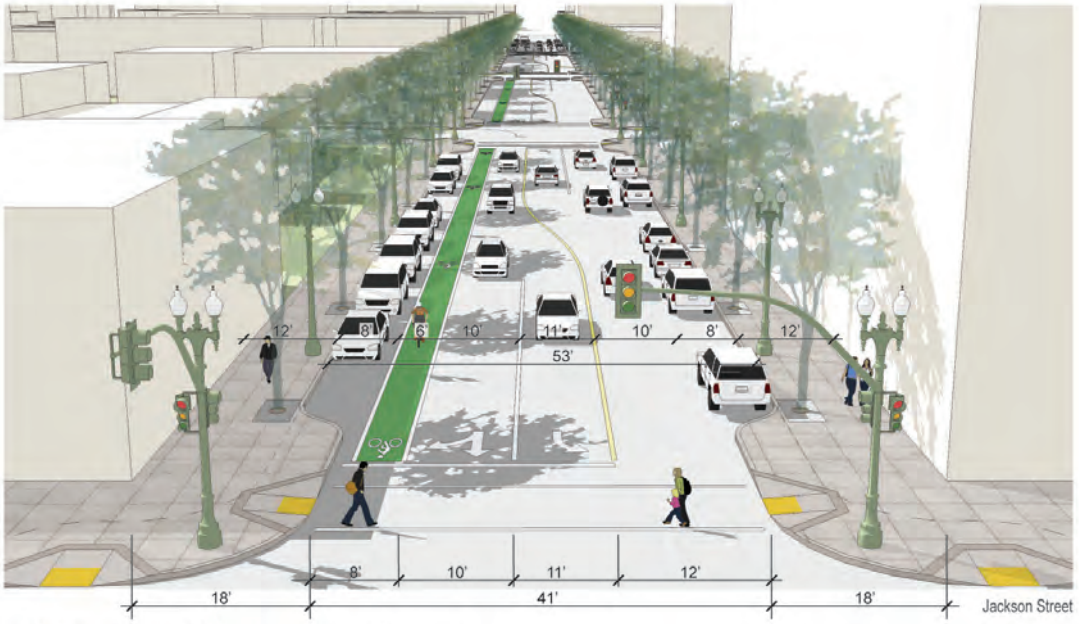


9th Street Chinatown Core - Option A
Convert to Two-Way

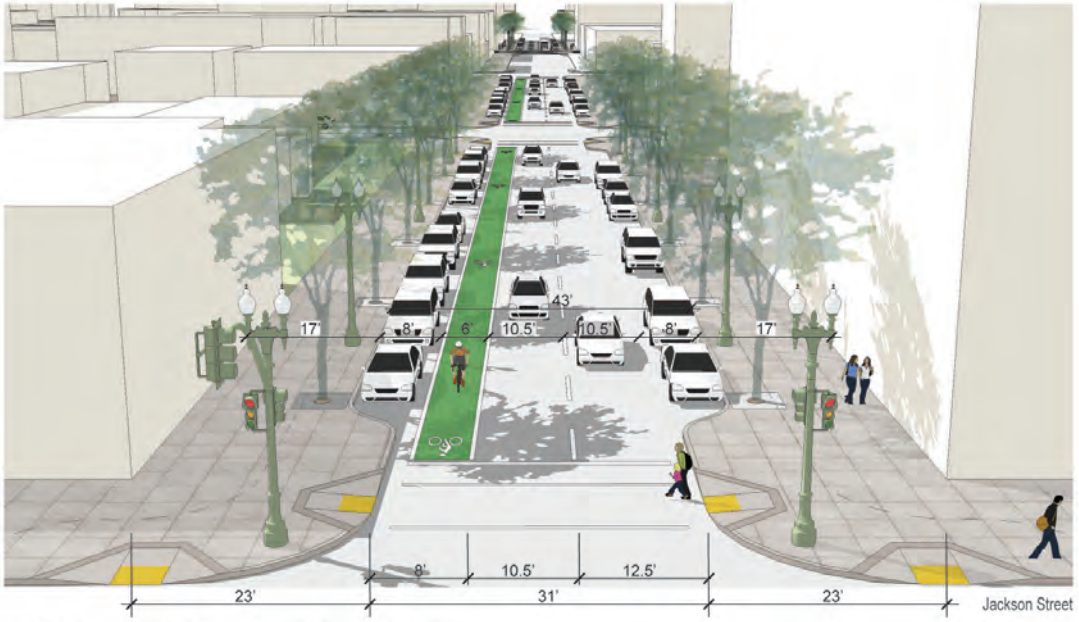
9th Street Chinatown Core - Option B
3/2 Lane Reduction, Widened Sidewalks



9th Street East of Chinatown Core
Existing Looking West - 3 Lanes One-Way



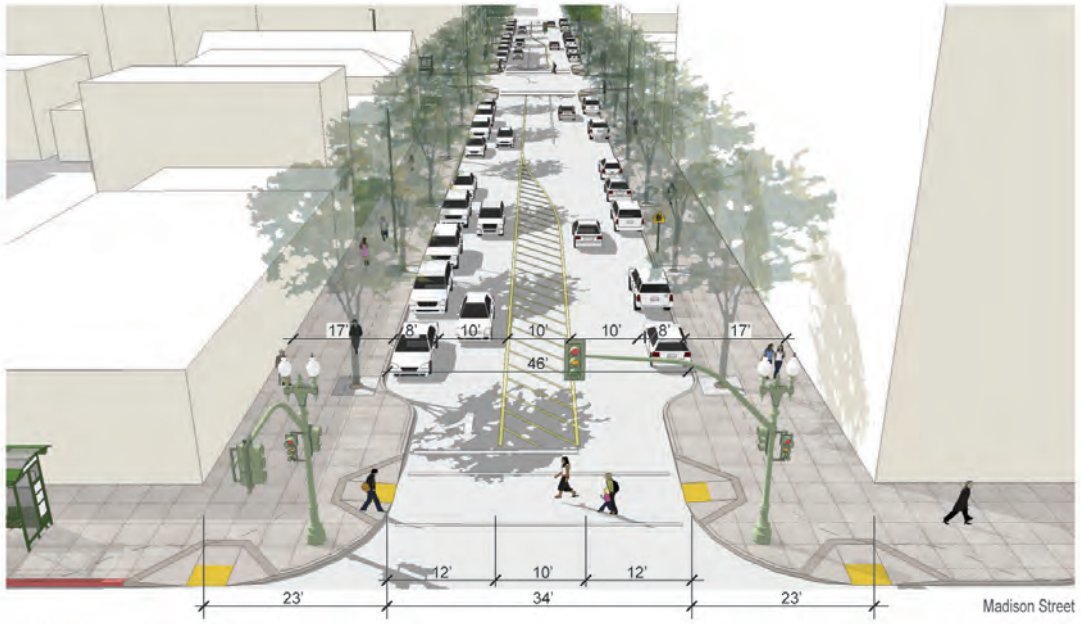
9th Street East of Chinatown Core - Option A
Convert to Two-Way, Bike Lane



9th Street East of Chinatown Core - Option B
3/2 Lane Reduction, Widened Sidewalks, Bike Lane

Figure 6.3 Continued:
STREETSCAPE CONCEPTS

10th Street East of Fallon Street
Existing Looking West - 2 Lanes Two-Way



10th Street - Option A
Convert to Two-Way, 4/3 Lane Reduction, Widened Sidewalks

10th Street - Option B
4/2 Lane Reduction, Widened Sidewalks, Angle Parking, "Green Street"

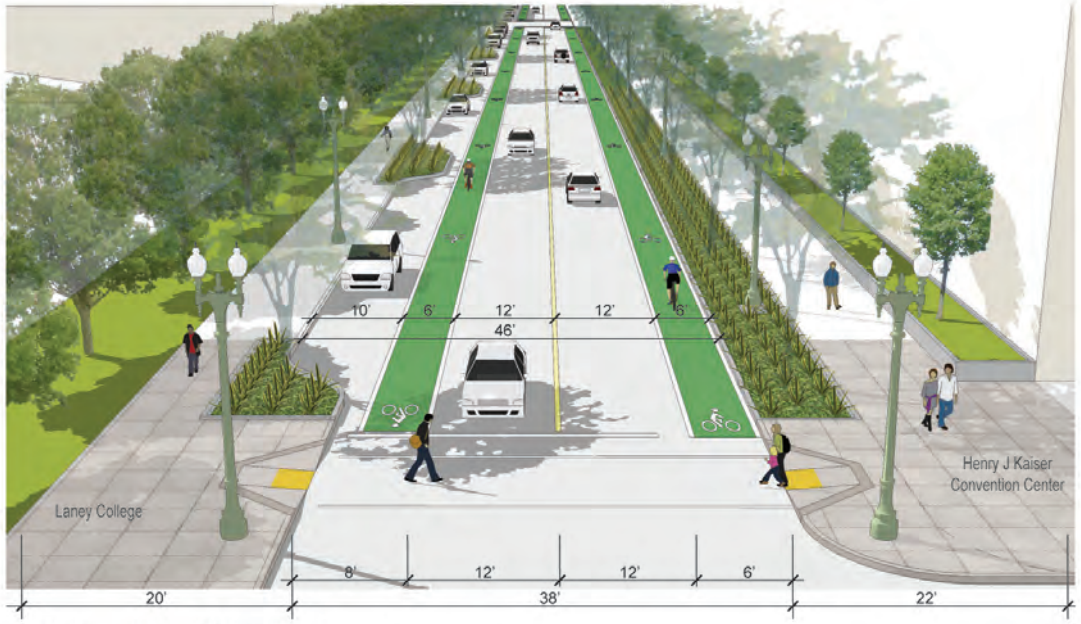
10th Street - Option C
Convert to Two-Way, 4/2 Lane Reduction, Widened Sidewalks, Angle Parking, "Green Street"

10th Street - Option D
4/2 Lane Reduction, Widened Sidewalk (north side only), Parallel Parking, Bike Lane, "Green Street"

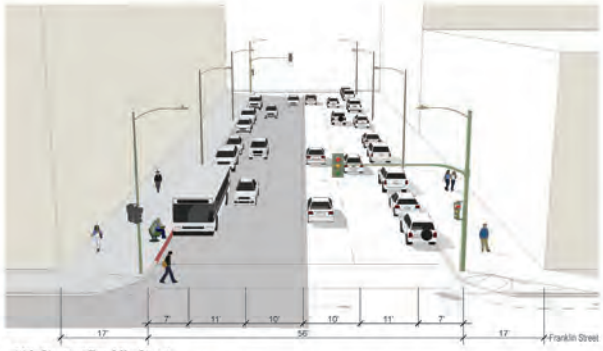
10th Street East of Fallon Street
Existing Looking West - 2 Lanes Two-Way

Figure 6.3 Continued:
STREETSCAPE CONCEPTS

10th Street East of Fallon Street
Existing Looking West - 2 Lanes Two-Way



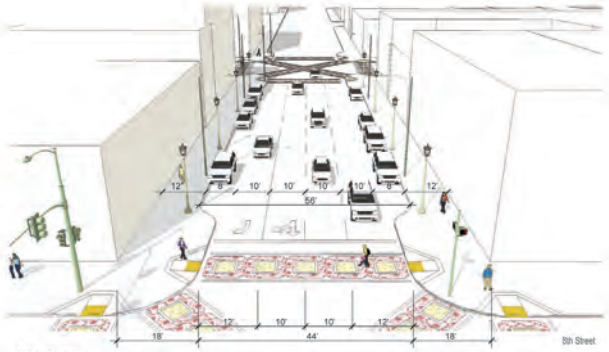
10th Street East of Fallon Street
Narrowed Lanes, Widened Sidewalk, Bike Lanes, "Green Street" Improvements



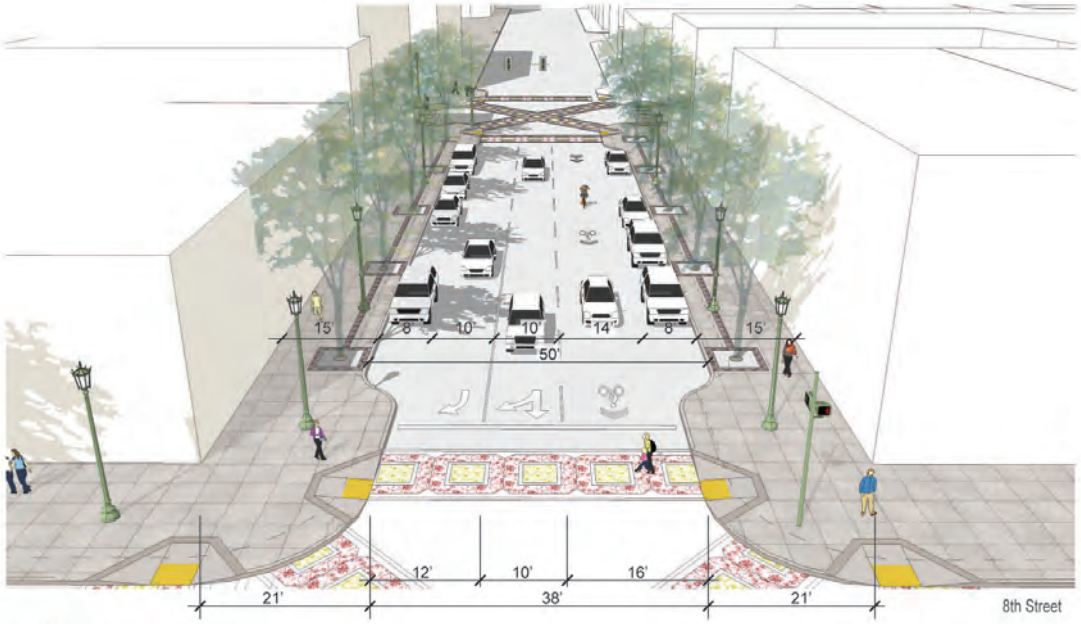
14th Street at Franklin Street
Existing Looking West - 4 Lanes Two-Way

14th Street at Franklin Street
Sidewalk Improvements, Distinctive Lighting

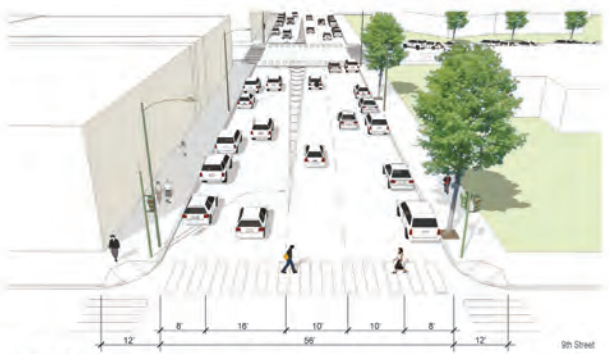
Figure 6.3 Continued:
STREETSCAPE CONCEPTS



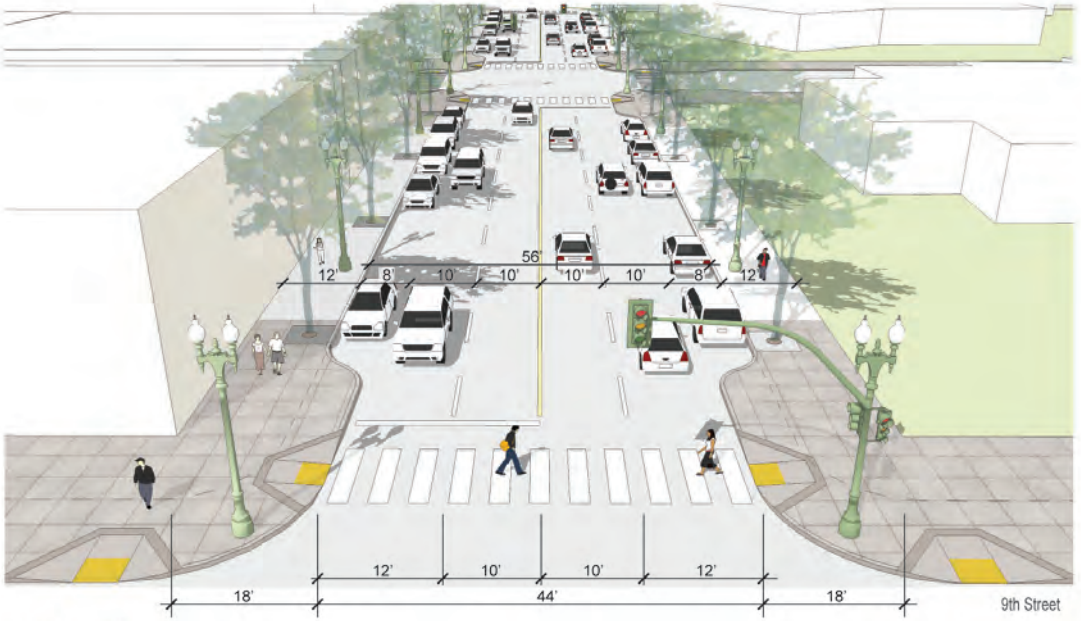
Webster Street
Existing Looking North - 4 Lanes One-Way



Webster Street
4/3 Lane Reduction, Widened Sidewalks

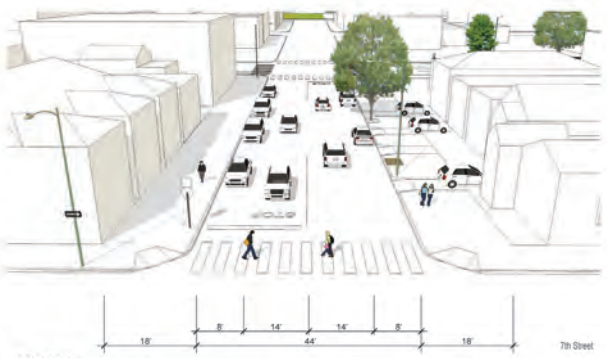


Harrison Street
Existing Looking North - 3 Lanes One-Way

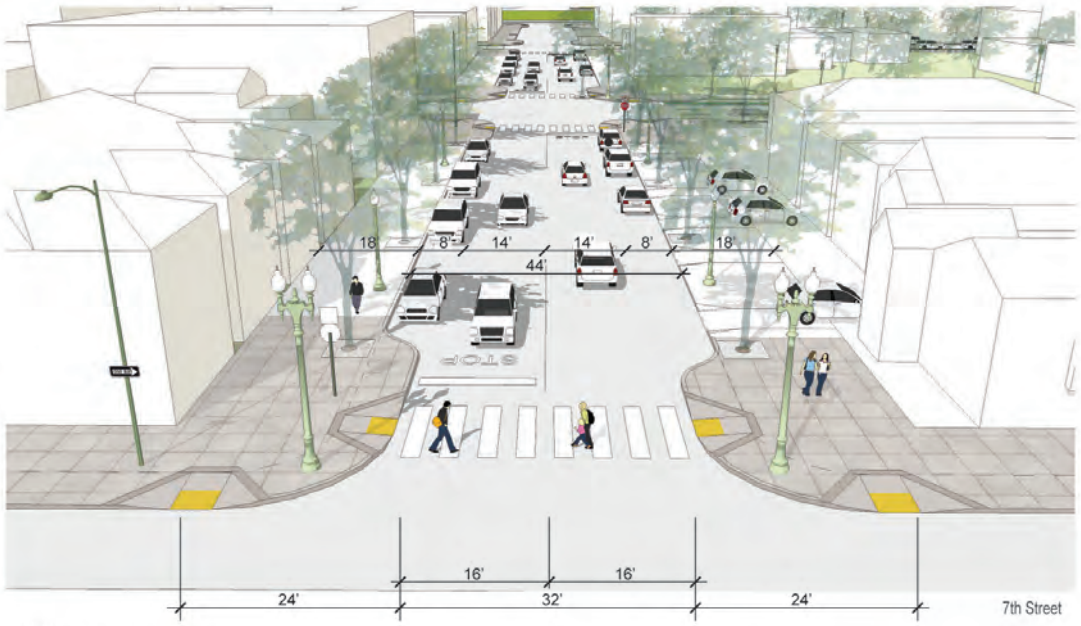


Harrison Street
Convert to Two-Way, 3/4 Lane Addition

Figure 6.3 Continued:
STREETSCAPE CONCEPTS

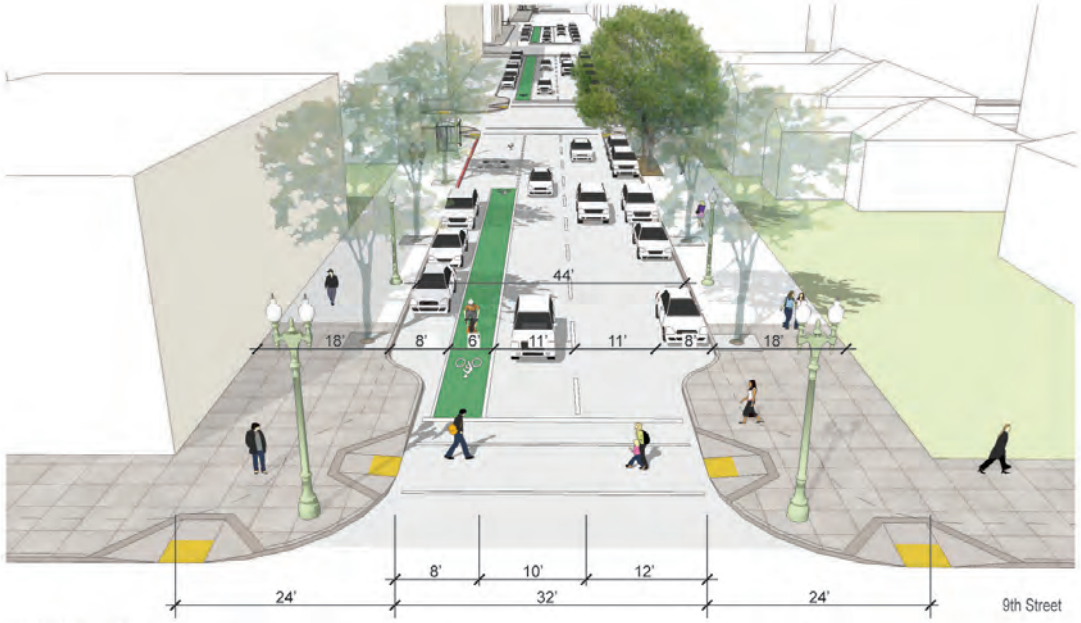


Alice Street
Existing Looking North - 2 Lanes Two-Way

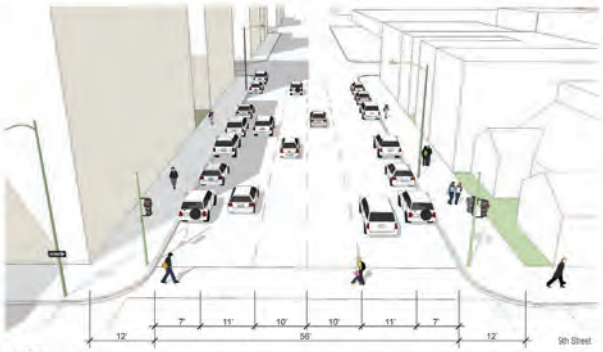


Alice Street
Sidewalk Improvements and Lighting

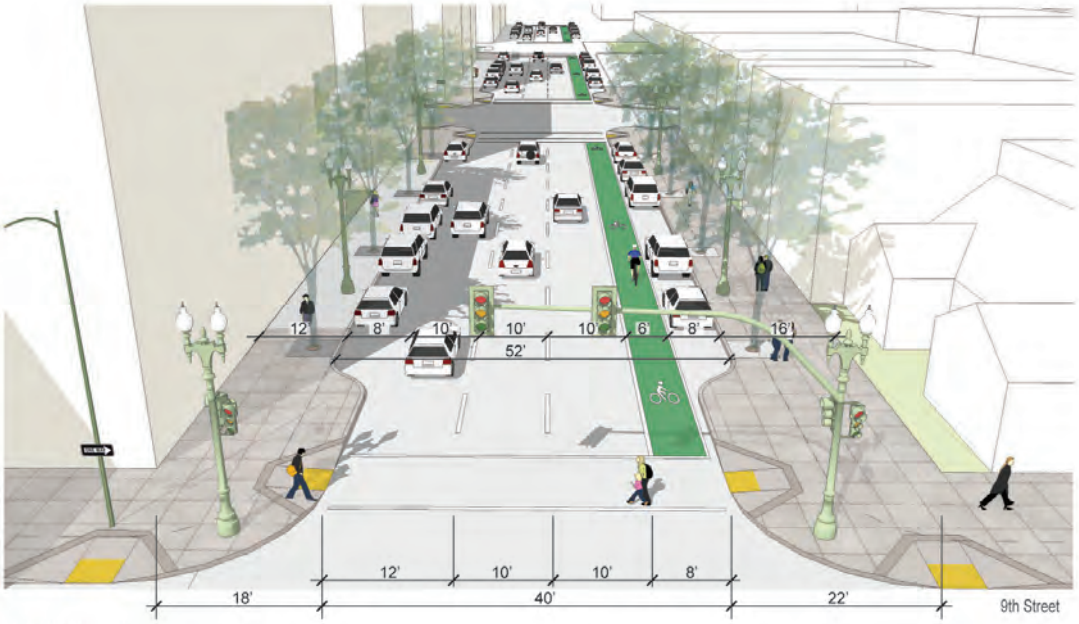
Madison Street
Existing Looking North - 3 Lanes One-Way



Madison Street
3/2 Lane Reduction, Bike Lane



Oak Street
Existing Looking North - 4 Lanes One-Way



Oak Street
4/3 Lane Reduction, Bike Lane, Widened Sidewalk (east side only)

Fallon Street 8th to 10th
Existing Looking South - 2 Lanes Two-Way

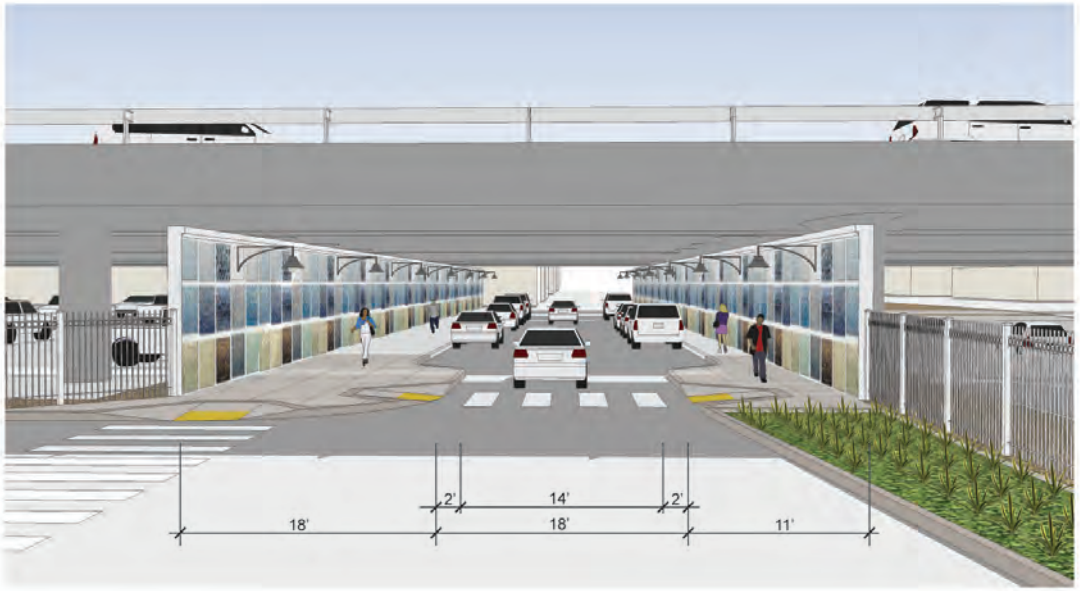
Fallon Street 8th to 10th - Option B
Plaza with Narrowed Lanes, Widened Sidewalks, Street Amenities at Frontage

Figure 6.3 Continued:
STREETSCAPE CONCEPTS

Oak Street Underpass
Existing Looking South - 3 Lanes Two-Way

Oak Street Underpass
Lighting, Ornamental Wall and Fencing, Bulb-Outs, Bike Lane

Webster Street Underpass
Existing Looking South - 1 Lane One-Way



Webster Street Underpass
Lighting, Ornamental Wall and Fencing, Bulb-Outs

Figure 6.4:
OAK STREET TRANSIT HUB

Oak Street at BART Station
Existing Looking South - 4 Lanes One-Way

Oak Street at BART Station
4/3 Lane Reduction, Bikeway, Bus Transfer Area, Kiss-and-Ride Drop-Off, Plaza Renovations

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7 Circulation, Access, and Parking

The Lake Merritt Station Planning Area provides local residents, employers and employees, students, and visitors access to a broad range of transportation options, including BART, AC Transit, local shuttles, regional freeways, and local streets. The primary circulation goal of the Lake Merritt Station Area Plan should be to provide enhanced linkages within the Plan Area and better connectivity to the surrounding area. Pedestrian, bicycle, transit, and vehicular connections should be enhanced through roadway reconfigurations and redevelopment to maximize the accessibility of open space, mixed use amenities, and transit.

The existing grid of small blocks is ideal to reconfigure the existing roadway network into a system of pedestrian- and bicycle-scale streets, connecting the Lake Merritt BART station to the area's amenities, including Oakland Chinatown, Laney College, and the government office buildings. The circulation system within the Planning Area should minimize the need for auto travel, and promote walking and bicycling, particularly connecting non-vehicular modes of travel to the BART station. Improved connectivity both within the Planning Area and to the surrounding neighborhoods and downtown will enhance the area's accessibility and role as a citywide destination.

7.1 Circulation Improvement Strategies

The circulation strategies are designed to minimize the need for auto travel and promote the use of walking, bicycling, and transit as the primary mode of travel in the Planning Area. The circulation strategies also closely correlate with the proposed land use plan, concentrating higher density uses near the BART station and providing enhanced pedestrian and bicycle connections. Additionally, the linkages to the surrounding neighborhoods and downtown will be enhanced, reducing the need for employees, students, and visitors of the area to use automobiles to access the area. The overall circulation improvement strategy is shown in Figure 7.1. Streetscape improvements are shown in Chapter 6.

BICYCLE AND PEDESTRIAN IMPROVEMENTS

Intersection and Pedestrian Crossings

Numerous intersections and pedestrian crossings have been identified by the community as priority locations for pedestrian crossing improvements, including:

- Two locations along 10th Street east of Fallon Street between Laney College and Kaiser Auditorium;

- 7th Street and Fallon Street;
- Three locations along 7th Street between Fallon Street and 5th Avenue;
- 9th Street and Fallon Street;
- 8th Street and Madison Street;
- 8th Street and Fallon Street;
- 7th and Harrison Street; and
- 7th Street and Alice Street.

7th Street and Fallon Street Improvements

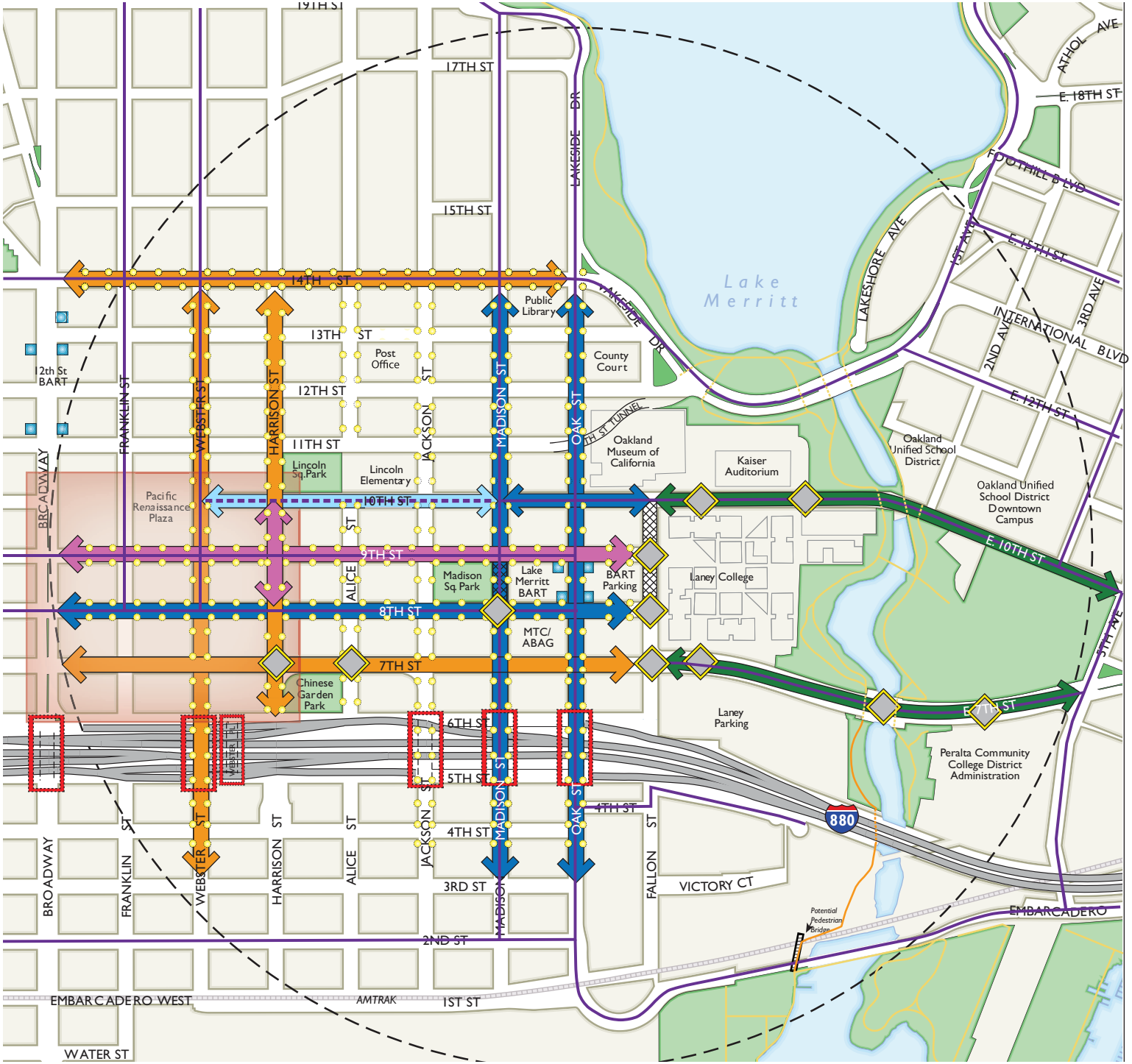
Currently, 7th & Fallon is a signalized intersection. On the westbound (WB) 7th Street approach to the intersection, there are three right turn lanes to serve traffic headed for the BART station, Laney College or Downtown Oakland, and one left turn lane to serve a small amount of development on Fallon south of 7th. No AC Transit routes use this intersection.

The *Laney College Facilities Master Plan* (2009) includes discussion of improvements around the campus, including the 7th/Fallon intersection. In particular, it recommends a possible entry feature and lighting and landscaping improvements at the 7th/Fallon intersection to emphasize it as a gateway to the campus.

The intersection currently operates at LOS C in both the AM and PM peak hours (*Lake Merritt BART*, 2006). Given the relatively good level of service and wide cross section of 7th Street, a number of alternative improvements should be possible without degrading the level of service below the City's standard:

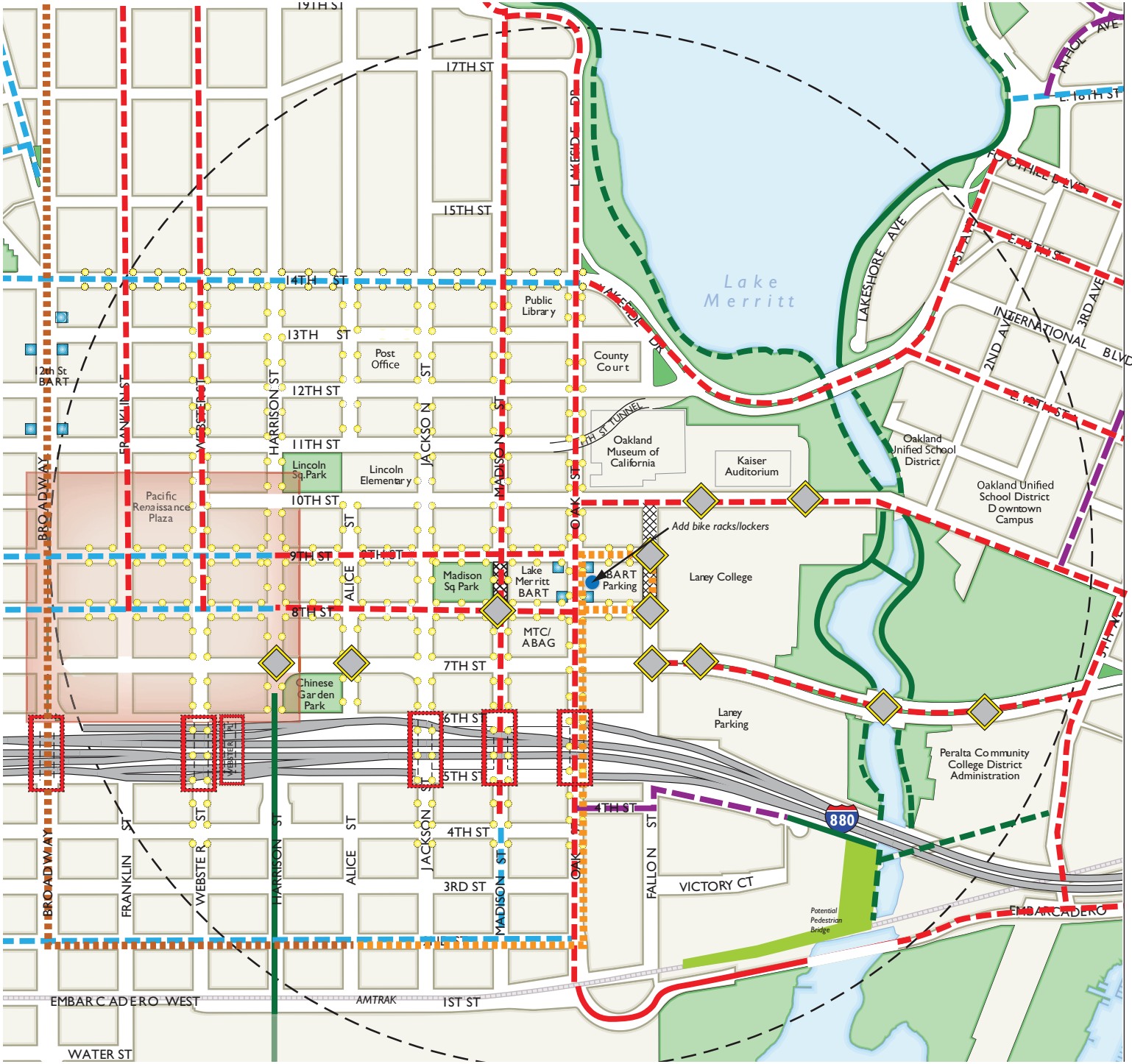
- Removing one of the right turn lanes on WB Fallon Street, so there are two right turn lanes. This could reduce the crossing distance (depending on the improvement), and would allow other changes within the right of way. That could include extending street parking (to gain three to five on street parking spaces—but not reducing the pedestrian crossing distance), or widening the median island present now to provide a larger pedestrian refuge area, and adding corner bulb outs to the intersection. Bulb outs would reduce the effective crossing distance.
- Making 7th Street two-way between Fallon and Oak Streets, so as to allow 7th Street WB traffic to turn right on Oak Street. Today, the large volume of right turning traffic (that presumably influenced the decision to provide triple right turn lanes) is due to traffic having to turn right on Fallon and left on 8th Street in order to turn right onto Oak Street northbound. This "dog leg" movement could be eliminated if WB traffic on 7th Street could proceed all the way to Oak Street, and make a right turn there.

Figure 7.1:
CIRCULATION IMPROVEMENT STRATEGY



- Key Streetscape Corridors
- Potential for Lane Reduction
- Potential for Lane Reduction OR Two-Way Conversion
- Potential for Lane Reduction AND Two-Way Conversion
- Potential for Narrowed Travel Lanes and "Green Street" Amenities
- Existing or Planned On-Street Bicycle Connection
- Potential Additional On-Street Bicycle Connection
- Modify Street (Pedestrian/Vehicle Plaza)
- Chinatown Commercial Core Area
- Priority Locations for Intersection/Pedestrian Crossing Improvement
- BART Station Entrance
- Priority Lighting Corridor
- Improved Freeway Undercrossing
- Planning Area - 1/2 Mile Radius
- Existing and Under Construction Paths
- Potential Additional Paths

Figure 7.2:
PRIORITY PEDESTRIAN AND BICYCLE IMPROVEMENTS



Extend Broadway Shuttle Bus

Bike Path (Class 1)
- Existing
- Proposed

Bike Lane (Class 2)
- Existing
- Proposed

Bike Route (Class 2)
- Existing
- Proposed

Arterial Bike Route (Class 3A)
- Existing
- Proposed

Bike Boulevard (Class 3B)
- Existing
- Proposed

Bike racks/lockers

Modify Street (Pedestrian/Vehicle Plaza)

Chinatown Commercial Core Area

Priority Locations for Intersection/Pedestrian Crossing Improvement

BART Station Entrance

Priority Lighting Corridor

Improved Freeway Undercrossing

Planning Area - 1/2 Mile Radius

Existing and Under Construction Paths

Potential Additional Paths

Pedestrian Improvements and Traffic Calming

In addition, the following projects are recommended. Many of the improvement strategies would be applied to all streets and intersections throughout the Planning Area. They include:

- Paint/re-paint vehicle "stop lines" at least five (5) feet back from crosswalks, to reduce vehicle intrusions into pedestrian crossing areas.
- Restripe vehicle travel lanes to 10 to 11 foot widths (rather than 12 feet, as is typically found today), to help reduce vehicle speeds and pedestrian crossing times.
- Provide corner "bulb outs" and curb extensions.
- Reduce the number of through travel lanes, as described in Chapter 6 and below, to reduce pedestrian crossing distances.
- Add pedestrian "refuge islands" in the center of streets two-way, where width allows and where consistent with traffic operations and safety needs. Refuge islands are not used on one-way streets, because of the danger of vehicles hitting them.
- Coordinate traffic signals and timing to calm traffic and improve the pedestrian experience:
    - Provide pedestrian "count down" timers, where not already installed (the City already has a policy to install them gradually).
    - Increase the pedestrian crossing times at intersections, to provide additional crossing times as required in *2010 California Manual of Uniform Traffic Control Devices*. Within 600 feet of senior centers, provide "press and hold" pushbuttons at signals that allow pedestrians to request a longer crossing time (this would require new traffic signal control equipment and programming).
    - Coordinate traffic signals so vehicle speeds are 25 mph or less.
    - Keep signal cycle lengths—the time needed to repeat a series of green/yellow/red signals—as short as possible, in order to minimize waiting times for signals and minimizes crossing against the red.
    - Provide a leading "WALK" interval prior to the display of a green light to vehicles, so that pedestrians may safely begin crossing a street before vehicles start making turning movements.
- Use part-time turn prohibitions where there are significant pedestrian/vehicle conflicts due to turning movements. For example, right turns on red could be prohibited during school hours, or when there are significant numbers of shoppers, such as in the afternoon, or Saturdays.
- Add new traffic signals, where warranted, to slow traffic and provide safe crossings of streets, e.g., at 7th and Alice Streets.
- Ensure sidewalks include a minimum of five (5) feet clear for pedestrian access. Eliminate sidewalk obstructions, such as parking meters, unneeded street furniture, etc., to increase the effective sidewalk width. See Section 7.5 for more detail on sidewalk displays.

- Provide enhanced pedestrian signage and lighting under I-880 to better connect the BART station and the AMTRAK Jack London station at 2nd and Alice Streets.
- Bicycle parking at the BART station is discussed below in the Transit section.

Bicycle Network Improvements

Figure 7-2 shows the bicycle and pedestrian improvements proposed. The City of Oakland's *Bicycle Master Plan* (2007) is the governing planning document for new bicycle facilities in the City. The plan identifies 8th and 9th Streets; Franklin and Webster Streets; and Madison/Oak Streets and Lakeside Drive, as streets with future Class II painted bike lanes. Tenth Street is proposed for bike lanes east of Madison Street. In addition, 14th Street is shown as a signed bike route (Class III), but with no physical lane reserved for cyclists. In addition, one of the four proposed concepts for 10th Street, illustrated in Chapter 6 includes extending the 10th Street bike lanes to the west, as far as Webster Street. The Emerging Plan also modifies the bike plan by proposing "sharrows" rather than bike lanes in within the Chinatown commercial core.

STATION ACCESS IMPROVEMENTS

The existing BART station forms the natural focus of transit improvements and intermodal transfers in the area. Although the Lake Merritt station is not expected to have any capacity constraints related to the station itself in the future, new development in the area is expected to increase its use by new residents and workers. Based on a survey of downtown employees (Dowling Associates, 2003), 23 percent of new employees in the area can be expected to use BART to commute to their job, and at least seven percent would use AC Transit. The survey found that approximately five percent of the workers in the area walked to work, and two percent bicycled. To accommodate this demand, the following low-cost actions would be taken:

- Add bike racks and lockers at the BART station. Based on the 8 percent bicycle mode share from the 2008 BART Passenger Profile survey for the Lake Merritt Station, and assuming that approximately 40 percent of those riding to the station park at the station (rather than taking their bikes on BART), it is estimated that approximately 112 bike spaces (in addition to the 53 existing spaces) would be needed to meet existing demand. Allowing for some growth at the station, say 30 to 40 percent, would indicate an ultimate need for 130 or 140 bicycle parking spaces.
- Create a passenger drop-off/waiting area on Oak Street north of the existing bus bays, in order to minimize double-parking and delays to AC Transit buses. The loading areas could be restricted to key periods, such as 7-9 AM and 4-6 PM when the greatest utilization occurs, but otherwise be used for short-term parking in the midday and weekends. An interim solution could be to locate this area north of the existing bus bays – this option could be implemented more quickly and at lower expense, before implementation of the Oak Street Transit Hub (described below).
- Establish the "Oak Street Transit Hub," which would include improved bus bays, kiss-and-ride drop-off area, and enhanced pedestrian and bicycle access and support facilities. Existing on-street parking would be removed along the easterly frontage to

create a bus-only transfer area, and parking along the westerly frontage would be programmed for kiss-and-ride drop-off and pick-up during peak commute hours. Substantial corner bulb-outs shorten pedestrian crossing distances and help define the transit hub as a special street segment. In this block, the bike lane planned north and south would continue through with dashed striping. Additional pedestrian oriented access and design concepts for this hub are depicted in Chapter 6, section 6.5.

- Extend the existing Broadway Shopper Shuttle from its existing terminus at the Amtrak Jack London Square Station, via 2nd Street and Oak Street, to a turnaround near the BART station and in front of Laney College. Alternatively, buses could turn left on 8th Street and left on Madison Street in order to circle back to the Amtrak station. This would provide improved connection between Laney College, BART, Jack London Square, and the Amtrak station. Buses currently run at 10 to 15 minute intervals on weekdays between 7 AM and 7 PM. It is likely that an additional bus would be required to maintain the existing intervals between buses. Additional shuttle routes or extensions that serve the Chinatown commercial core should also be considered, as outlined in Revive Chinatown.
- Improve on-street bus area by removing parking along east side of Oak Street between 8th Street and 9th Street and designating the block for buses only.
- Enforce no parking zones.

ROADWAY NETWORK

The major priorities for the roadway network are to enhance the pedestrian environment by adding pedestrian-scaled lighting, widen sidewalks, and add curb bulb-outs at intersections to reduce the pedestrian crossing distances and improve visibility. Roadway reconfiguration is also a priority with lane reductions where feasible based upon future traffic volumes or two-way street conversions. Bike lanes consistent with those proposed in the City's Bicycle Master Plan and street trees have also been identified as priorities.

7th Street is an east-west arterial that travels one way eastbound between Broadway and Fallon Street with four travel land and two way east of Fallon Street with two lanes in each direction. Preliminary future traffic volumes warrant the need for four eastbound travel lanes between Broadway and Fallon Street. This segment of 7th Street has been designated as a streetscape corridor. East of Fallon Street to 5th Avenue, a striped bike lane will be added by narrowing the travel lanes. This segment is also proposed to be a "green street" to tie into the Channel and may include rain gardens, biofiltration, or other green amenities.

8th Street is a one way westbound arterial with four travel lanes. Preliminary future traffic volumes demonstrate that this segment has the potential for a lane reduction, removing a travel lane to accommodate additional non-vehicular amenities. 8th Street has been identified in the City's Master Bicycle Plan to provide an on street bicycle lane. This plan proposes to also widen sidewalks to provide an enhanced pedestrian environment. In addition, 8th Street has been identified as a priority lighting corridor, connecting the BART station to Chinatown and Laney College. This plan supports the City's Bicycle Plan by including an on-street bicycle lane on 8th Street east of Harrison, and including a sharrow (shared auto/bicycle lane) through Chinatown (between Harrison and Broadway).

9th Street is a one way eastbound collector street with three travel lanes. Preliminary future traffic volumes demonstrate that this segment has the potential for a lane reduction or a conversion to two-way with one travel lane in each direction and a two-way left turn lane. 9th Street has also been identified as a priority lighting corridor, connecting the BART station to Chinatown and Laney College. The City's Master Bicycle Plan also proposes on street bike lanes. This plan supports the City's Bicycle Plan by including an on-street bicycle lane on 9th Street east of Harrison, and including a sharrow (shared auto/bicycle lane) through Chinatown (between Harrison and Broadway).

10th Street is an east-west collector that is one way westbound with three to four travel lanes between Webster Street and Madison Street. East of Madison Street, 10th Street is two-way with two travel lanes in each direction between Madison Street and Oak Street and one wide travel lane between Oak Street and 5th Avenue. Preliminary traffic analysis indicates that 10th Street could operate at acceptable levels with two travel lanes. Bike lanes are proposed from Madison Street to 5th Avenue in the City Bicycle Master Plan. The segment is also proposed to be a "green street" to tie into the Channel and may include rain gardens, biofiltration, or other green amenities. The additional roadway width from removing two travel lanes could be used to modify the parallel on street parking to angled parking to provide additional parking spaces in the area. On street bicycle lanes could also be included to extend the bike network from Madison Street to Webster Street.

14th Street is an east-west arterial with two travel lanes in each direction. While a lane reduction is not option, this corridor has been identified as a key streetscape corridor and a priority lighting corridor. Bicycle lanes have also been proposed along this segment in the City's Bicycle Master Plan.

Fallon Street is north-south local roadway that fronts the Laney College campus with one travel lane in each direction, except between 7th Street and 8th Street where it is one way with three northbound travel lanes. A "festival street" treatment is proposed between 8th Street and 9th Streets with widened sidewalks on both sides of the street to provide better pedestrian access between the BART station and the college with one travel lane in each direction.

Oak Street is a one way, north-south arterial roadway with four northbound travel lanes north of I-880. Future preliminary traffic volumes demonstrate that this segment would operate at acceptable levels with three travel lanes; therefore, a lane reduction is proposed. Oak Street has been identified as a priority lighting corridor, and bike lanes are proposed in the City's Master Bicycle Plan. The eastside sidewalk is also proposed to be widened and additional street trees provided. The Oak Street undercrossing at I-880 has been identified as a priority improved freeway undercrossing to provide better connectivity to Jack London Square.

Madison Street is a one way, north-south arterial roadway with three southbound travel lanes north of I-880. Future preliminary traffic volumes demonstrate that the segment north of 8th Street would operate at acceptable levels with two travel lanes; therefore, a lane reduction is proposed. Oak Street has been identified as a priority lighting corridor, and bike lanes are proposed in the City's Master Bicycle Plan. Additional pedestrian amenities are proposed between 8th Street and 9th Street to improve the connections between the BART station and Madison Square Park.

Harrison Street is a north-south collector roadway that provides access to the City of Alameda through the Posey Tube. Between 7th Street and 10th Street, Harrison Street is one-way northbound with three to four travel lanes. North of 10th Street, Harrison is two-way with two travel lanes in each direction. Harrison Street has been identified as a key streetscape corridor and a priority lighting corridor. Previous studies have identified the segment between 8th Street and 10th Street as a viable candidate for a two-way street conversion.

Webster Street is a north-south collector roadway that also provides access to the City of Alameda through the Webster Street Tube. Webster Street is one-way southbound with four travel lanes and has been identified as a key streetscape corridor and a priority lighting corridor. The City's Master Bike Plan proposed bicycle lanes north of 8th Street. The Webster Street undercrossing at I-880 has been identified as a priority improved freeway undercrossing to provide better connectivity to Jack London Square.

Jackson Street and ***Alice Street*** have been identified as priority lighting corridors within the Planning Area.

Franklin Street is proposed to provide bicycle lanes north of 8th Street in the Master Bicycle Plan.

All of the I-880 undercrossing, including Oak Street, Webster Street Broadway, Webster Place, Jackson Street, and Madison Street, have been identified as priorities for pedestrian improvements including lighting.

ROADWAY RECONFIGURATION PHASING STRATEGY

(See the similar section in Chapter 6.)

A major priority of this Plan is to reconfigure the roadways, either through lane reductions or two-way street conversion. Given the studies and construction costs associated with streetscape improvement projects – for instance, two-way street conversions require complicated traffic studies beyond the scope of this project – it is desirable for improvements to proceed in a phased manner that allows less expensive traffic calming and pedestrian safety improvements to proceed in the near term, with more costly lighting and sidewalk widening efforts proceeding later. The "Street Improvements Phasing" sketches in Chapter 6 depict a scenario in which lane reductions and interim streetscape improvements can occur, while accommodating an ultimate configuration that has either one-way or two-way traffic. Each phase is also described here, detailing the benefits of each phase.

Phase 1 would reduce the travel lanes along roadways where feasible using roadway striping. This is a low cost improvement that will have an immediate effect on the roadway network, taking over-capacity travel lanes and reallocating to other uses, such as bike lanes, wider curbside parking zone, painted corner bulb-out areas, or angled parking. The City of Oakland will be repaving several roadways in the Planning Area in the next five years, including Madison Street, Oak Street, 8th Street, and 9th Street, and the travel lanes can be restriped at that time.

Phase 2 would improve pedestrian crossings by constructing bulbouts and shortening crosswalks. The intersection modifications can be constructed at intersections with roadways that keep the current number of travel lanes or reduce a travel lane. This phase could also include upgraded traffic signals and pedestrian-oriented lighting as funding becomes available

Phase 3a would widen sidewalks along roadway segments where feasible to enhance the pedestrian environment, including installing street trees, pedestrian-oriented lighting, and other mid-block streetscape amenities as funding becomes available.

Phase 3b would analyze roadways for conversion from one-way travel to two-way travel, with new traffic signals, possibly sidewalk widening, street trees, pedestrian-oriented lighting, and other mid-block streetscape amenities installed as funding becomes available. While outside of the scope for this project, this phase would require additional funding to evaluate the impacts of converting roadways to two-way travel on the roadway network.

One-Way to Two-Way Conversion

Many urban areas across the nation have a desire to convert their one-way street system to two-way. Pairs of one-way streets (couplets) were popular in the 1950's and 60's to improve automobile traffic flow and reduce conflicts at intersections. The most common reasons for converting back to two-way include:

- One-way streets create a circuitous and confusing circulation pattern, particularly for visitors.
- Narrower two-way streets have slower traffic.
- Two-way streets improve pedestrian and bicycle safety (ostensibly from slowing automobile traffic or by reducing the number of automobiles circulating in the area).
- Two-way streets result in less use of fuel, fewer miles traveled, and less automobile emissions from circulating around downtown.
- Two-way streets eliminate wrong way travel.

However, the conversion of one-way streets to two-way is often fraught with controversy. Proponents of one-way streets claim they are safer for pedestrians and result in less automobile congestion. Proponents of two-way streets claim they are safer, and create a more intuitive circulation system. Both one-way and two-way street systems have a number of technical advantages and disadvantages. Both systems can be made to work and be safe for all modes of travel. The decision to convert one-way streets back to two-way is a local decision based on the community's values.

Table 7-1: Overview Of Advantages And Disadvantages Of Two-Way Versus One-Way Streets

Two-Way Streets	
Advantages	*Disadvantages*
▪ Two-way streets create less confusing circulation pattern which is more intuitive to all users. ▪ Eliminate indirect routes, which reduces travel time, fuel consumption and emission. ▪ Provide more direct routes to destinations. ▪ Creates direct emergency vehicle access to and from area. ▪ Create slower traffic speeds due to fewer lanes in each direction, parking maneuvers, and an increase in congestion. ▪ Improve pedestrian perception of the street as less of a barrier. ▪ Increase access to adjacent properties served by driveways. ▪ Two-way streets with bike lanes or routes are preferable to bicyclists for wayfinding.	▪ Generally increase traffic congestion at intersections. ▪ May require left turn lanes at intersections which may eliminate on-street parking adjacent to intersection. ▪ Two-way streets increase the number of potential conflict points at intersections, and may increase certain types of crashes (i.e., broadside). ▪ Reduce opportunity to increase traffic capacity if ever needed. ▪ Narrower two-way streets may be difficult for large vehicles and fire apparatus to negotiate and may require longer red zones and loss of parking at some intersections. ▪ With only one lane each direction, traffic control may be required during emergencies. ▪ Two-way streets that eliminate turning movements at some intersections will divert turning vehicles to other intersections.
One-Way Streets	
Advantages	*Disadvantages*
▪ Fewer automobile and pedestrian conflict points at intersections and pedestrians need only watch for traffic in one direction. ▪ Some right turn on red movements eliminated, thus eliminating a potential auto/pedestrian conflict. ▪ Left turns into the street from driveways have fewer conflicts. ▪ One-way streets generally provide more vehicular capacity and long lines of turning vehicles don't block through lanes. ▪ One-way streets have more simplified traffic signal operations reducing delay for individual drivers. ▪ One-way streets can accommodate more on-street parking since parking does not need to be removed to accommodate left turn lanes. Drivers have option to park on both sides of the street. ▪ One-way streets can provide better traffic signal synchronization set to the slower speeds expected in urban areas.	▪ One-way street systems without uniform patterns are confusing, especially to visitors. ▪ One-way streets can increase certain types of pedestrian accidents. ▪ Higher speeds on one-way streets can increase crash severity, and one-way streets have the potential for wrong way, head-on collisions. ▪ One-way streets can create circuitous emergency response routes, and circuitous truck routes. ▪ One-way streets that eliminate turning movements at some intersections will increase them at others.

TRANSPORTATION DEMAND MANAGEMENT (TDM)

TDM strategies discourage automobile use and reduce vehicle trips by shifting vehicle trips to non-auto travel modes. Many of the strategies focus on reducing vehicle trips to and from the Planning Area, which in turn reduces the parking demand for area residents, employees, and visitors while increasing the amount of non-vehicle trips. Many of the strategies complement each other and are most effective when implemented in tandem. Some strategies may include:

- Car sharing, a short-term vehicle rental service available to members that may eliminate the need to own a vehicle;
- Shuttle service connecting the Lake Merritt BART station to local employment centers or major destinations, such as Chinatown or Jack London Square;
- Identify a TDM coordinator, who would distribute information to local employees and residents to promote TDM programs;
- Carpool and vanpool ride-matching services;
- Guaranteed Ride Home Program, which allows transit users and car/vanpoolers access to free or reduced taxi service to get home in case of an emergency;
- Subsidized transit passes for area employees and residents; and
- Bicycle parking, both short and long term, located in appropriate places.

These strategies have the potential to reduce vehicle trips to and from the area.

7.2 Transportation and Transit Analysis

The intention of this preliminary assessment is to review and compare the transportation characteristics of the proposed land use plans. An environmental review will also be conducted to quantify the impacts of the Station Area Plan, which will include an in-depth analysis of the transportation system, including intersection analyses for existing and future scenarios. Impacts caused by this Plan will be identified and reasonable mitigation measures will be developed and analyzed.

TRIP GENERATION

This section describes the methodology and analysis used to calculate the vehicle trips and transit trips generated by the Low Residential and High Residential redevelopment alternatives. The same methodology has been applied to the existing land uses proposed for redevelopment to calculate the net new vehicle and transit trips generated.

Vehicle Trip Generation

The amount of trips generated by each development alternative was estimated by applying appropriate trip rates from the Institute of Transportation Engineers (ITE) to the amount of building floor area or number of dwelling units for each land use type (residential, office, and

retail). Reductions were applied to the gross trip generation to account for pass-by traffic (traffic already traveling adjacent to the site) for the retail uses. Due to the proximity of the Planning Area to the Lake Merritt BART station and downtown Oakland, a transit, walk, and bike reduction has also been applied. Per the City of Oakland's *Transportation Impact Study Guidelines* (Transportation Services Division, March, 2007), recent mode splits of up to 83 percent vehicle trips have been approved for environmental documents within the downtown area; therefore, a 17 percent reduction has been applied to the gross trip generation to account for transit, walk, and bike trips to all proposed land uses.

The same methodology has been applied to the existing land uses on opportunity sites in order to obtain a "net new external" vehicle trips generated by the proposed project, which equals the total trip generation within the Planning Area with build out of the proposed land uses minus the trip generation of the existing uses.

The "net new" trip generation estimates have been calculated for the two project alternatives – Low Residential and High Residential, which are illustrated in Table 7-2. The existing redeveloped uses currently generate 6,599 daily, 468 AM peak hour, and 595 PM peak hour vehicle trips. The net new external vehicle trips for the High Residential alternative will generate 48,577 daily trips with 4,238 trips during the AM peak hour and 4,905 trips during the PM peak hour. The net new external vehicle trips for the Low Residential alternative will generate 39,324 daily trips with 3,528 trips during the AM peak hour and 4,043 trips during the PM peak hour. Detailed trip generation calculations for the existing and two alternatives have been included in the Appendix.

Table 7-2: Net New Trip Generation – City Standards

Scenario	*Daily*	*AM Peak Hour*			*PM Peak Hour*		
		In	*Out*	***Total***	*In*	*Out*	***Total***
Low Residential Alternative Net New External Trip Generation	39,324	1,962	1,566	**3,528**	1,712	2,331	**4,043**
High Residential Alternative Net New External Trip Generation	48,577	2,104	2,134	**4,238**	2,272	2,633	**4,905**

Source: Kimley Horn, 2011.

Based on the transit-oriented development nature of the proposed developments, the transit/walk/bike trip reduction is quite low compared to existing commute patterns in the Planning Area. Commute patterns in the Planning Area are more representative of alternative modes of transportation, with 25.1 percent of residents using public transportation and 25.8 percent of residents walking or biking to work.[1] Therefore, the trip generation has been updated to create a realistic calculation of the vehicle trips generated by the new transit-oriented development using a 50.9 percent reduction in vehicle trips for the proposed residential uses. This same reduction has been applied to the existing residential uses in the Planning Area.

[1] Claritas Inc., 2009; Dyett & Bhatia, 2009.

The updated net new trip generation estimates have been calculated for the Low Residential and High Residential project alternatives and are illustrated in Table 7-3.

The existing redeveloped uses, with the 50.9 percent residential reduction, currently generate 6,509 daily, 461 AM peak hour, and 586 PM peak vehicle trips. The net new external vehicle trips for the Low Residential alternative will generate 30,987 daily trips with 2,889 trips during the AM peak hour and 3,266 trips during the PM peak hour. The net new external vehicle trips for the High Residential alternative will generate 36,461 daily trips with 3,309 trips during the AM peak hour and 3,776 trips during the PM peak hour. Detailed trip generation calculations for the existing and two alternatives have been included in the Appendix.

Table 7-3: Net New Trip Generation – Additional Reductions

Scenario	*Daily*	*AM Peak Hour*			*PM Peak Hour*		
		In	*Out*	***Total***	*In*	*Out*	***Total***
Low Residential Alternative Net New External Trip Generation	30,987	1,888	1,001	**2,889**	1,206	2,060	**3,266**
High Residential Alternative Net New External Trip Generation	36,461	1,972	1,337	**3,309**	1,537	2,239	**3,776**

Source: Kimley Horn, 2011.

As previously stated, an environmental review will be conducted that will analyze the traffic impacts at the local intersections. Currently, most of the intersections in the Planning Area operate at acceptable levels per City of Oakland standards during weekday AM and PM peak hours. Several intersections, particularly near the I-880 interchanges, operate at or over the City's standards. It is expected that the additional vehicle trips generated by either of the alternatives may cause significant impacts at several intersections in the Planning Area. Therefore, as previously discussed, this Plan will focus on reducing the amount of vehicle trips by implementing TDM measures to increase transit, walk, and bike trips.

Transit Trip Generation

Due to the proximity of the Planning Area to the Lake Merritt BART station and numerous AC Transit routes, it is anticipated that the Emerging Plan will generate transit trips. As discussed in the vehicle trip generation, the City trip generation standard allows a 17 percent reduction to the gross trip generation to account for transit, walk, and bike trips. Assuming that five percent of the trips generated will be walk and bike trips results in twelve percent using transit, shown in Table 7-4.

It is estimated that the existing land uses that would be redeveloped under the Emerging Plan would generate 901 daily, 63 AM peak hour, and 85 PM peak hour transit trips. With the higher density land uses proposed, the High Residential alternative is predicted to generate 7,129 daily, 619 AM peak hour, and 721 PM peak hour net new transit trips. The Low Residential alternative is predicted to generate 5,791 daily, 516 AM peak hour, and 596 PM peak hour net new trips. Both alternatives result in a higher percentage of transit trips in the Planning Area because of the increased densities and land uses that are more conducive to transit use.

Table 7-4: Net New Transit Trip Generation – City Standard

Scenario	Daily	AM Peak Hour			PM Peak Hour		
		In	*Out*	***Total***	*In*	*Out*	***Total***
Low Residential Alternative Net New Transit Trip Generation	5,791	294	222	**516**	254	342	**596**
High Residential Alternative Net New External Trip Generation	7,129	315	304	**619**	335	386	**721**

Source: Kimley Horn, 2011.

Based on the transit-oriented development nature of the proposed developments, the proximity to the Lake Merritt BART station, and the existing commute patterns in the Planning Area, the transit trip generation has been updated to create a realistic calculation of the transit trips generated. Existing commute patterns in the Planning Area indicate that 25.1 percent of residents use public transportation. Transit trip generation applying this higher rate is shown in Table 7-5.

Using the higher transit trip generation, the existing land uses proposed for redevelopment generate 936 daily, 66 AM peak hour, and 88 PM peak hour transit trips. With the higher density land uses proposed, the High Residential alternative is predicted to generate 11,811 daily, 977 AM peak hour, and 1,157 PM peak hour net new transit trips. The Low Residential alternative is predicted to generate 9,013 daily, 763 AM peak hour, and 897 PM peak hour net new trips.

Table 7-5: Net New Transit Trip Generation – Additional Reductions

Scenario	Daily	AM Peak Hour			PM Peak Hour		
		In	*Out*	***Total***	*In*	*Out*	***Total***
Low Residential Alternative Net New Transit Trip Generation	9,013	344	419	**763**	449	448	**897**
High Residential Alternative Net New External Trip Generation	11,811	387	591	**977**	618	539	**1,157**

Source: Kimley Horn, 2011.

PRELIMINARY ROADWAY SEGMENT CAPACITY ANALYSIS

This preliminary traffic analysis evaluated the roadway segments within the study area to determine if the roadways are projected to be under or over capacity in the future using methodology from the *2000 Highway Capacity Manual* (HCM). The Florida Department of Transportation (FDOT) has developed a methodology consistent with the 2000 HCM that defines a roadway segments' capacity based on traffic density and/or average speed. The FDOT roadway segment classifications are based on several criteria, including area setting, type of roadway, number of signalized intersections, and number of lanes.

Each roadway segment in the Planning Area has been classified as Class IV due to the amount of signalized intersections along the segments. To conduct a conservative analysis, the peak hour volumes have also been adjusted from the FDOT values to account for left turn and right turn lanes and one-way streets. The City's standard for this area is to meet level of service E or better, which correlates to a roadway segment's volume being under the capacity of the roadway.

Future peak hour roadway segment volumes have been obtained from projected peak hour intersection data from other sources, including *Oak to Ninth Avenue Draft EIR* (volumes projected to 2025), *I-880/Broadway-Jackson Interchange Project Study Report* (volumes projected to 2030), and *Central District Urban Renewal Plan Draft EIR* (volumes projected to 2035). The intersection projections were used to derive peak hour volumes on the adjacent roadway segments. These volumes were then compared to the calculated capacity of the roadway to determine if the roadway is projected to be under or over capacity in the future. If a roadway segment was determined to be under capacity in the future, the roadway segment was evaluated assuming one less travel lane. If the segment was still under capacity with one less lane, it was determined that a lane reduction was feasible along that roadway segment. Results of the roadway segment analysis area illustrated in Table 7-6.

Table 7-6: Roadway Segment Analysis

Roadway Segment	*Projected Peak Hour Volume*	*Current Lane Configuration*			*Remove One Travel Lane*		
		# Lanes	*Capacity*	*Under/ Over Capacity*	*# Lanes*	*Capacity*	*Under/ Over Capacity*
7th Street – East of Broadway	3,373	4	2,795	Over	-	-	-
8th Street – East of Broadway	1,714	4	2,795	Under	3	2,082	Under
10th Street – West of Fallon Street	845	4	2,093	Under	2	972	Under
14th Street – West of Oak Street	1,570	4	2,093	Under	2	972	Over
Oak Street – North of 7th Street	1,283	4	2,795	Under	3	2,082	Under
Madison Street – North of 8th Street	1,376	3	2,082	Under	2	1,377	Under
Harrison Street – North of 7th Street	2,485	4	2,795	Under	3	2,082	Over
Webster Street – North of 7th Street	2,134	4	2,795	Under	3	2,082	Over

As the segment analysis results illustrate, 8th Street, 10th Street, Oak Street, and Madison Street are projected to be under capacity in the future with the removal of one travel lane. Therefore, lane reductions are proposed along these roadways and the roadway width be real-located to other uses, such as bike lanes, widened sidewalks, or angled parking.

Future peak hour traffic projections for 9th Street through the study area were not readily available. Existing traffic volumes traveling through the three-lane corridor peak at 475 vehicles during the PM peak hour. The three-lane roadway capacity for this facility type is 2,082 vehicles per hour and the two-lane roadway capacity is 1,377 vehicles per hour. Future peak

hour volumes would have to nearly triple for the roadway to be over capacity with two travel lanes. Therefore, 9th Street is a candidate for a lane reduction, with the additional roadway width reallocated to other uses, such as a bike lane and widened sidewalks.

7.3 Parking

Parking is a critical component of mixed-use and transit-oriented development. While pedestrian, bicycle and transit modes of transportation are supported and encouraged through this plan, considerations must also be made for residents, employees, students, and visitors who use automobiles to travel to the area. Parking is already a key concern in certain areas of the Planning Area, particularly in Chinatown, and parking demand will undoubtedly increase with new development and redevelopment in the area. The methodology used to calculate the parking requirement based on the City's Planning Code and the projected parking demand based on the MTC parking methodology are presented below.

EXISTING PARKING IN PLANNING AREA

Two BART parking areas serve the Lake Merritt BART station – a surface lot between the BART headquarters and the Laney College entrance and a surface lot behind the Metro Center – that provide 206 off-street parking spaces. These parking areas are typically filled to capacity each morning. The Lake Merritt BART station is the only station in proximity to downtown that provides off-street parking. Other BART stations within central business districts, such as the nearby 12th Street/Oakland City Center and 19th Street stations in Oakland and the Embarcadero and Montgomery Street stations in San Francisco do not provide parking.

Currently, most streets provide metered on-street parking within the Planning Area, however there are some locations that have non-metered parking. Laney College provides a 900 space surface parking lot for students on 7th Street east of Fallon Street. Parking is also provided under I-880.

PARKING REQUIREMENT

The City of Oakland's current parking requirements outlined in Chapter 17.116 were utilized to calculate the off-street parking supply that may be required for any new development or redevelopment. It is important to note that parking requirements may change as part of new regulations developed specifically for the Planning Area. The current parking requirements outlined in Chapter 17.116 provide parking rates for various land uses based on the zone of the development. A majority of the Planning Area is currently zoned as CBD (central business district) and consists of parking rates reduced when compared to other zones within the City.

Multifamily residential uses are proposed throughout the Planning Area and current parking regulations require one space per unit. Office uses are proposed in the current CBD-P, C, or X zones, and do not require any off-street parking. The retail areas are proposed in several zones, including the current CBD-P, C, or X zones, and do not require any off street parking. Also the S-2 and C-40 zones in the East Lake area, which require up to 2.5 spaces per 1,000.

Based on the two alternative development plans and using the parking rates in the current Zoning Code, the proposed developments in the Planning Area require 3,882 off-street parking spaces for the Low Residential Alternative and 5,558 off-street parking spaces for the High Residential Alternative.

PARKING DEMAND

The Metropolitan Transportation Commission (MTC) has published a report for planning and implementing parking policies and programs that are supportive of smart growth and transit oriented development, *Toolbox/Handbook: Parking Best Practices and Strategies for Supporting Transit Oriented Development in the San Francisco Bay Area*. This document developed a parking demand model based on numerous case studies throughout the Bay Area that takes into account the characteristics of an area such as transit availability, walkability, auto ownership, and the types and densities of land uses. The model organizes communities into one of five major area types and provides a range of parking rates for each area type.

The Lake Merritt BART station Planning Area is categorized as a City Center/Urban Neighborhood based on its location to downtown Oakland, the availability of high-quality transit, and the density and types of existing and proposed land uses. These parking rates are designed to support the proposed mixed-use and transit oriented concept of this Plan and avoid the development of significant excess parking. This strategy encourages the "park once" mentality where visitors would park in one location and visit several destinations within a walkable distance. The MTC model provides two sets of parking rates, a low rate and a high rate, which have been developed based on case study results and from other parking information collected as part of the Toolbox/Handbook. Parking rates range from 0.50 to 1.25 per residential, 0.25 to 1.25 per 1,000 square feet of office space, and 1.00 to 2.00 per 1,000 square feet of retail space. Using these rates, parking demand can be calculated for the two residential alternatives. The Low Residential alternative would require 2,628 to 7,466 off street parking spaces and the High Residential alternative would require 3,466 to 9,561 off street parking spaces.

Table 7-7 provides a summary of the required parking and the projected parking demand for both the Low Residential and High Residential alternatives. As shown in Table 7-7, the City Code requirement, ranging from 3,882 (low) to 5,558 (high), is a realistic set of numbers to use, given the history of parking in Downtown Oakland and current City requirements. The requirement is greater than the MTC Low Rates, but much lower than the MTC High Rates.

Table 7-7: Parking Demand Comparison

Alternative	*City Code Requirement*	*MTC Parking Rates Low Rates*	*MTC Parking Rates High Rates*
Low Residential	3,882	2,628	7,466
High Residential	5,558	3,466	9,561

NOTE: Last row in table (if either table footer or source) shall have no line beneath

Source: MTC Rates from Toolbox/Handbook: Parking Best Practices and Strategies for Supporting Transit Oriented Development in the San Francisco Bay Area

PARKING STRATEGIES

Implementing parking management strategies would reduce the overall need for additional parking supply and increase the effectiveness of parking throughout the Planning Area.

Provide Unbundled Residential Parking

Typically, parking is bundled into the purchase or lease of a residential unit. This strategy would provide reserved parking spaces for sale or lease separately from the cost of housing. Reserved parking would still be available for residents who wish to pay a fee. Overall parking supply for residential uses would be reduced as fewer residents may opt to not own a car or park in other locations.

Implement Transportation Demand Management (TDM) Programs

TDM strategies are designed to reduce vehicular trips generated by area residents and employees, such as providing car sharing, carpool/vanpool matching, and transit subsidies. This would lead to fewer people using automobiles to access the area and potentially result in reduced parking demand.

Implement Transportation Strategies from the Emerging Plan

The transportation strategies recommended as part of this Emerging Plan are designed to reduce automobile trips within the area, promote transit, and provide an enhanced pedestrian and bicycle environment for all users. Priority lighting corridors and wider sidewalks improve the pedestrian environment, promoting more walking between the BART station and destinations. On street bicycle facilities connecting to the BART station provide another option for residents, visitors, students, and employees to access transit. In addition, converting excess travel lanes to diagonal parking will increase the on street parking supply and offer automobiles more parking options.

Parking Enforcement Program

According to the City of Oakland Parking Division, there is a dedicated parking enforcement officer for the core of Chinatown (the area bounded by 8th, 9th, Webster, Franklin Street) from 7:30 to 3:30 pm. After that, there are roving parking enforcement officers. However, double parking consistently occurs, particularly in the Chinatown core area. Many times the double-parkers are delivery vehicles unloading merchandise (street loading is discussed further below). Increased parking enforcement, including the issuance of multiple tickets for vehicles parking in the same spot for long periods, could help alleviate some of the congestion caused by the double-parking vehicles.

Provide Additional Bicycle Parking Facilities

In addition to on street bicycle facilities, bicycle parking should be provided at all new developments and additional secured bicycle parking should be provided at the BART station. The City of Oakland requires bicycle parking in its City Code for any new or re-development. At the BART station, bicycle racks and parking meters around the station have been observed as fully occupied, in addition to bicycles locked to street trees. Additional secure bicycle parking

would encourage more biking to and from the station and potentially reduce the parking demand in the area.

7.4 Street Loading

Street loading and double parking is an issue not only in Oakland Chinatown, but in high-density retail areas around the Bay Area and the county. As discussed in the *Revive Chinatown Community Transportation Plan*, double parking is a major problem in the Chinatown core area. Commercial and non-commercial vehicles, both of which have been observed to double park, impede traffic flow along the roadway and can pose a safety hazard to drivers, pedestrians, and delivery people. The California Vehicle Code allows commercial vehicles to double park for active delivery if no yellow zones (delivery) are available, however there are several blocks within the core that do not have on-street delivery parking spaces marked.

Double parking by commercial vehicles typically occurs throughout the day but is generally highest during weekday morning hours, typically between 8:00 AM and 9:30 AM. During weekends, few commercial vehicles were observed double parking; however, due to vehicles frequently parking for long periods of time in the on-street parking spaces, double parking by non-commercial vehicles is exacerbated.

The Plan identified the following areas with heavy double parking, either due to a lack of delivery parking areas or a concentration of retail land uses:

- The east side of Webster Street between 9th Street and 10th Street;
- The south side of 9th Street between Webster Street and Harrison Street;
- The north side of 7th Street between Webster Street and Harrison Street;
- The south side of 10th Street between Webster Street and Harrison Street;
- The north side of 8th Street between Franklin Street and Webster Street; and
- The west side of Webster Street between 7th Street and 8th Street.

LOADING STRATEGIES

This Plan builds upon the recommendations from the Revive Chinatown Plan, which developed an on-street loading/parking program in the Chinatown core area to reduce double parking in travel lanes:

- Create metered truck loading zones for active truck loading only with 30-minute time limits;
- Designate the great majority of the on-street loading/parking spaces for truck loading only during the morning peak hours and short-term parking thereafter, with some spaces designated on-street loading throughout the day, depending on the needs of each individual block.

- Increase effectiveness of parking enforcement by using walking beats to give violations and give multiple tickets for vehicles parked in the same space for long periods.

It is proposed that each block within the Chinatown core area provide metered truck loading zones with 30-minute time limits between 7:30 AM and 10:00 AM. After 10:00 AM, the on-street parking should metered and limited to 30 to 60 minutes with certain high-loading blocks maintaining loading spaces throughout the day.

In addition, enhanced pedestrian corridors should be provided to local off-street parking areas, particularly the parking areas under I-880. Webster Street and Harrison Street are identified in this Plan as priority lighting corridors and the Webster Street underpass at I-880 is identified as a priority improved freeway undercrossing. 8th Street and 9th Street have also identified as priority lighting corridors and providing bike lanes will create better non-vehicular connections to the Lake Merritt BART station.

7.5 Sidewalk Vendor Displays

The Chinatown commercial center is a vibrant neighborhood, with active streets characterized in many locations with merchant displays on sidewalks. Vendor displays occur generally in front of grocery and produce markets. These stores are mostly concentrated along 8th Street from Franklin to Harrison Streets and Webster Street from 7th to 9th streets. While sidewalk vending adds vitality to the street and promotes local economic development, it can also conflict with pedestrian access in some locations. Some vendor displays occupy approximately 25 percent of the sidewalk width, while others occupy up to 75 percent of the sidewalk width, leaving an effective width of only two (2) feet for pedestrian movement. Some storeowners also use on-street parking spaces for temporary storage of boxes and pallets, causing pedestrian, parking, and traffic circulation impacts.[2] The Emerging Plan seeks to encourage sidewalk vending to enhance the commercial core, but also to regulate displays in order to ensure a consistent and comfortable pedestrian environment. The Emerging plan recommendations build on Revive Chinatown, including:

- Reduce sidewalk obstacles by replacing parking meters with central pay booths and consolidating newsstands in the core area. This project would reduce the number of sidewalk obstacles and increase effective sidewalk widths, facilitating pedestrian movement.
- Ensure that sidewalk vendor stands do not block sidewalks (minimum five-foot clear zone). A minimum width of five feet must be maintained along sidewalks, clear of any obstacles, to allow smooth pedestrian movement, especially on heavily traveled sidewalks in the core. The five-foot clear zone could be painted a different color to better delineate pedestrian circulation space vs. merchants vending display space.
- Promote merchant education and provide city enforcement
- Consider additional guidelines, such as:

[2] City of Oakland, Revive Chinatown Community Transportation Plan, September 2004.

- The finish materials used for display merchandise must be smooth, nonabsorbent and cleanable.
- Merchants must be responsible for making sure that all activities on the sidewalk stay within the approved area and maintenance of the storefront, exterior walls, sidewalk and gutter in a clean condition at all times. Sidewalks shall be washed daily at locations with food displays and as needed at others.
- All movable display stands shall be promptly removed from the sidewalk in accordance with approved time of operation every day.

Currently, merchants are required to pay a yearly permit fee for using the public right of way for their business. This permit fee is meant to pay for enforcement of the clearance requirements, However, the yearly fee has been described as a financial and logistical burden for business owners. The Station Area Plan could include some recommendations for balancing the needs of merchants and the need to provide some enforcement.

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8 Community Resources

Community resources, including cultural and historic resources, schools, health, and affordable housing, are key components to a vibrant and complete neighborhood. Parks and open space are discussed in Chapter 5.

8.1 Cultural Resources

The Station Area Plan will seek to preserve and enhance the Planning Area's numerous cultural resources. This section discusses the impact of future development on the cultural resources, practices, use of space, and events; and also discusses areas in which the Plan could enhance these resources.

URBAN DESIGN AND CONNECTIONS TO CULTURAL RESOURCES

The Emerging Plan recognizes the importance of enhancing and improving connections between the Planning Area's cultural resources. Potential catalyst projects include the installation of wayfinding signage, lighting, and streetscape elements on Fallon, 8th, and 9th Streets, which would improve connections between Laney College, Chinatown, Lake Merritt BART Station, the Oakland Museum, and Kaiser Auditorium. Urban design strategies should help to knit institutions—like the Museum, the College, and the Main Public Library—into a vibrant and coherent district.

Improving the pedestrian experience in the Chinatown commercial core is important to the Emerging Plan's goal of preserving and enhancing the neighborhood's vibrant culture. Transportation improvements, such as corner bulb-outs and traffic calming measures along 7th Street, should be addressed to promote pedestrian access, as outlined in Chapter 6, and safety to Harrison Square (Chinese Garden Park). A key factor in improving access to Harrison Square will be calming traffic accessing I-880 from the Alameda tubes; a separate study addressing this topic is underway by the Alameda County Transportation Commission. Improvements should also address pedestrian connections and improved access to the Chinatown Core from the Lake Merritt BART Station, Jack London Square, and parking areas under and beyond I-880.

Area-wide streetscape improvements, particularly along 8th and 9th Streets, - such as strategic sidewalk widening, cultural markers, and increased lighting - should be further explored to enhance pedestrian access, safety, and experience along these cultural spines, which have heavy pedestrian activity, transparent/active storefronts, and a concentration of compatible land uses within walking distance. Future ground-floor development and land-uses along the-

se spines should be consistent with the existing urban design pattern and character to promote cultural vibrancy. Particularly along 8th Street in the Chinatown commercial core, the Plan should encourage street and sidewalk improvements and regulations that strike a balance between pedestrian circulation, sidewalk vending, and loading/unloading of goods. Strategies such as delineating a clear pedestrian path and defining sidewalk obstruction limits for merchants should be further explored (see Chapter 7). A good balance is critical as these elements together contribute to preserving and promoting the area's unique cultural identity.

STREETFEST AND LUNAR NEW YEAR BAZAAR

Future development in the study area and particularly in the Chinatown commercial core must minimize negative impact on both of the community's annual street festivals which help identify the area as a major regional destination. Streetfest occurs in the Chinatown commercial core, between 9th Street, Broadway, Harrison Street, and 8th Street and usually includes three performance stages. The event runs Saturday and Sunday on the last weekend of August, with estimates of up to 90,000 visitors attending.[1] The Lunar New Year Bazaar takes place over a few blocks including 8th and 9th streets between Webster and Franklin Streets in January/February each year.

Transportation improvements in the Emerging Plan, such as sidewalk widening, lane reductions, two-way conversions, parking access, and bike lanes, should take into account their impact on street closures and circulation during these annual popular events, and efforts should be made to enhance these cultural activities in terms of access and traffic flow.

NIGHT MARKETS/ OTHER FESTIVALS

Future development and transportation and parking improvements should also take into consideration outdoor seasonal festivals which may involve street closures, such as the Obon Festival by the Buddhist Church of Oakland, the summer Night Market in the Chinatown commercial core, and future festivals/markets held by other cultural institutions. As discussed elsewhere in the Emerging Plan, Fallon Street between 8th and 9th Streets is proposed to be designed as a "festival street." Where possible, the Emerging Plan will identify additional outdoor day and night market opportunities to culturally activate underutilized open space in the Planning Area.

LANGUAGE ACCESS IN WAYFINDING SIGNAGE

Language access in public signage is an important cultural service for existing and emerging immigrant populations in the Chinatown commercial core and BART blocks. New street and sidewalk improvements in these subareas will maintain the bilingual wayfinding signage currently visible and consistent in the neighborhood.

EMERGING DEMOGRAPHICS AND CULTURAL NEED

The existing Asian Branch Library in the Chinatown Core is an important cultural resource in the Planning Area, heavily serving an existing and emerging immigrant population in the area

[1] Ong, Jenny, Chinatown Chamber of Commerce, September, 2011.

and region. The Asian Branch Library is the second-busiest branch in the system after the Main Library. It had 389,000 visitors in 2009 and 340,000 visitors in 2010, with the drop attributed to reduced hours as a result of budget cuts. In 2010, it circulated 316,000 books representing 13 percent of all books checked out in the system that year. The collections represent eight different Asian languages including Chinese, Japanese, Tagalog, Thai, Cambodian, Vietnamese, Korean, and Laotian, in addition to English language books. Library staff are multilingual.[2]

With the Emerging Plan's projected increase in the number of residents living in the area, this library branch, as well as many of the other cultural resources and service providers (see page 8-4 of the Existing Conditions and Key Issues Report for a detailed list), could potentially be overburdened with a cultural diversity of new residents requiring language access and unique services. Future land-use and development scenarios should include adequate community facilities based on a comprehensive analyses of the social and cultural impact of current demographics and future growth in the Planning Area. Additional community facilities could include support for additional multilingual and cultural community centers and/or support for the library, discussed at greater length in Chapter 9.

EXERCISE AND CULTURAL ACTIVITIES AT MADISON SQUARE PARK

As referenced in the Existing Conditions and Key Issues Report, Madison Square Park is the current site for numerous martial arts and exercise activities performed by hundreds of adults and senior citizens. This activity has made Madison Square Park a cultural gathering space and regional destination.

The Emerging Plan recommends improvements to Madison Square Park, such as adding shelter, seating, modernized play/exercise structures, a park maintenance facility, and permanent restrooms. The idea of creating a possible community center with a minimal footprint on the Park will require further public discussion.

Every effort should be made for nearby development to enhance and further activate the current cultural activities at Madison Square Park with compatible land-uses at the ground level, such as cafes, restaurants, a community center, and public restrooms.

INFORMAL CULTURAL ACTIVITY AND SEATING IN PUBLIC SPACE

As described in the Existing Conditions and Key Issues Report, social gatherings (i.e. board games, meetings) often occur at informal public spaces (i.e. outside cafes, along circulation paths and edges, at stairwells) in the Chinatown Core and BART blocks, and there is a need for more shaded public seating. Future land-use scenarios and streetscape/open space design in the Emerging Plan, in particular along 8th and 9th Streets, will recognize and enhance these informal cultural activities and gathering opportunities, which contribute the area's vibrancy and safety with increased "eyes on the street."

[2] Cheung, Janet, Asian Branch Library manager, September, 2011.

8.2 Historic Resources

EXISTING HISTORIC RESOURCES

The Planning Area is rich with historic resources, both individual structures and sections of blocks or entire blocks. The City of Oakland's Historic Preservation Element (HPE), as part of its General Plan, guides historic preservation efforts throughout the city.

As specified in the Existing Conditions Study, the Planning Area has historic buildings and areas ranging from those of highest ("A") and major ("B") importance to those of secondary and minor importance ("C" and "D"). There are seven buildings or places that have Landmark status, the highest level of historic designation. They are the Kaiser Convention Center, Lincoln Park, Oakland Hotel, the Main Post Office, the Oakland Museum of California, 801-833 Harrison Street (the former Hebern Electrical Code Co. Factory & Office Building), and the Chinese Presbyterian Church. Historic Resources in the Planning Area are shown on Figure 8.1.

Eight Areas of Primary Importance, or API (historic districts that include A or B historic resources) are within the Planning Area. They are the Chinatown Commercial District, 7th Street/Harrison Square Residential District, King, Real Estate Union Houses, Lakeside Apartment District, Downtown District, and Lake Merritt District.

The 7th Street/Harrison Square Residential District (an API) is surrounded by an Area of Secondary Importance (C and D historic resources), dotted with Queen Anne cottages, some of which are in disrepair and are in somewhat inhospitable surroundings, caused by heavy traffic and pollution from the nearby I-880.

HISTORIC RESOURCES AND THE EMERGING PLAN

Numerous opportunity sites for potential development within the Planning Area are adjacent to historic resources. The Emerging Plan is cognizant of the need to minimize impacts on historic resources in terms of zoning changes, height of potential developments, design elements, streetscaping and altered traffic patterns. Height considerations, including historic context, are addressed in Chapter 4.

PROTECTING HISTORIC BUILDINGS

Special attention will be given when proposals for development are within a designated historic district. Sensitivity in the planning and development of opportunity sites will go a long way toward protecting the historic and potentially historic resources and should contribute to a visual enhancement of the area. It will also help fulfill one of the Plan's goals of culturally connecting the Chinatown Commercial District to other valued assets to the east, such as the Oakland Museum of California, Laney College, and the Lake Merritt BART Station. Furthermore, development on these blocks—which are adjacent to the 7th Street/Harrison Square Residential District API—will need to be scrutinized carefully for potential impacts on historic resources in the API, as well as the potential historic resources in the adjacent ASI.

The Plan will aim to protect the value of historic resources by good historic preservation principles, which will apply throughout the Planning Area, but especially in the Chinatown Commercial District and the adjacent 7th Street/Harrison Square Residential District. These could include protecting historic facadesand providing improved streetscaping (including appropriate lighting, width of sidewalks, tree plantings, etc.) and traffic calming measures. These efforts would conform to the city's historic preservation efforts and create a context that supports the integrity of these resources.

The Plan's urban design element will seek to build on the scale and location of historic buildings to create an interesting and fine-grained urban fabric that would help preserve character, sense of place and history, and provide great visual interest. Street and sidewalk design should aim to complement historic buildings as part of a pedestrian-oriented environment, or buffer them from traffic-related impacts, as appropriate.

The Emerging Plan will also seek to identify adaptive reuse strategies for historic buildings. One of the Plan's goals is to maximize land use and development opportunities created through restoration of historic buildings and other historic resources and potentially historic resources. This may be done through Transfer of Development Rights (TDR), through code revisions that facilitate conversion of historic structures to new uses by waiving certain building or zoning code requirements that do not impact safety, or by other means. Some historic buildings in the Planning Area may no longer be well-located for residential use but could have strong potential as professional or non-profit offices, galleries, restaurants, or bed-and-breakfast inns.

Protecting Historic Open Spaces

The Emerging Plan is also sensitive to the maintenance of historic open spaces, , especially the historically significant Lincoln Square and Harrison Square (Chinese Garden), both of which are part of Oakland's original design in the early 1850s, when the city was incorporated.

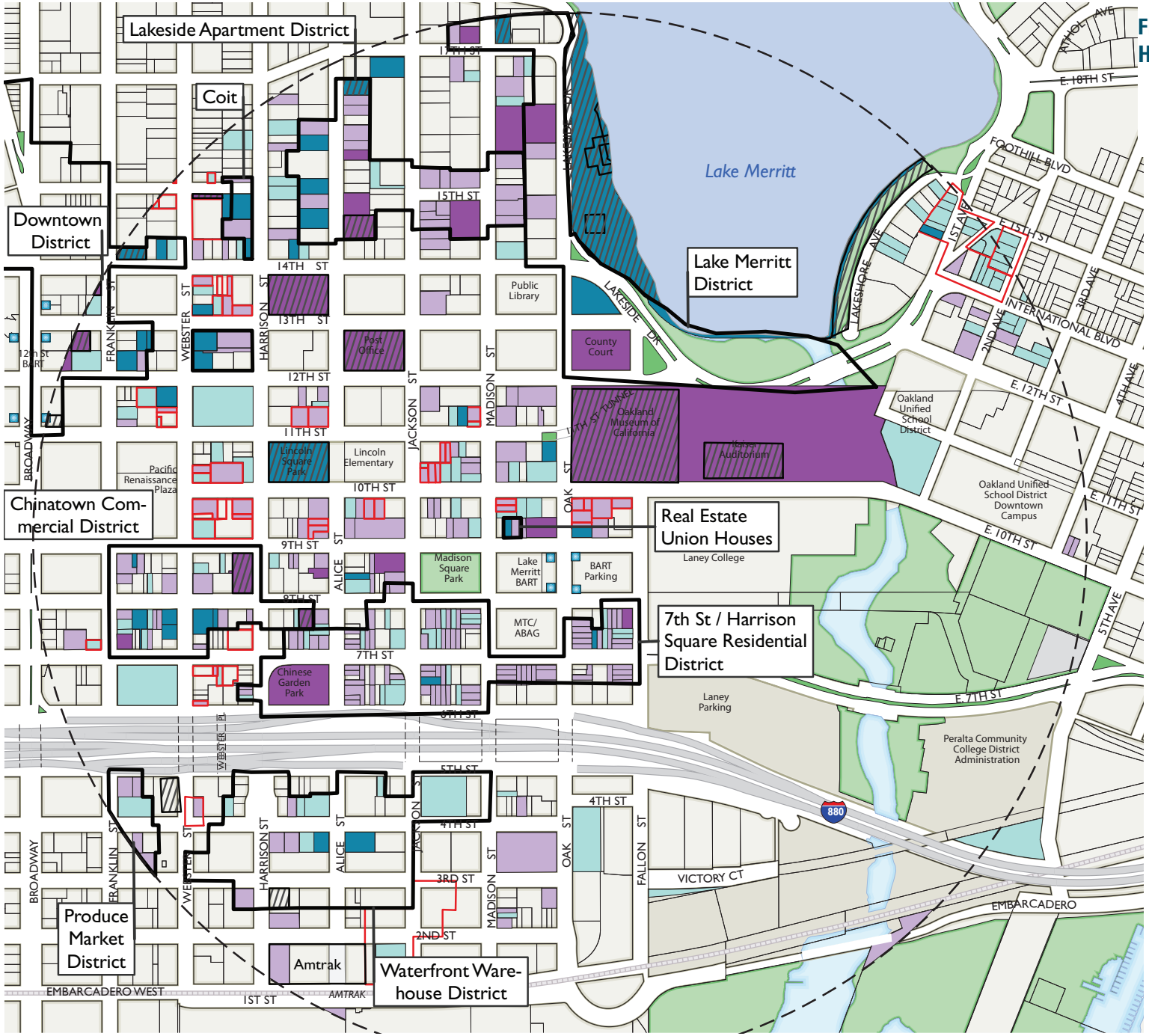


Figure 8.1:
HISTORIC RESOURCES

8.3 Health Impacts

Community health is affected by a number of factors in an urban environment—not only those which are related to the actions of individuals, such as health behaviors and lifestyle choices, but also factors such as income, education, employment and working conditions, access to health services, nutrition, and the quality of physical environments. The Emerging Plan seeks to improve overall health and safety of community members in the Planning Area, but may inadvertently cause negative impacts. The potential impacts and tradeoffs of proposed improvements are described below.[3]

LAND USE

The Emerging Plan proposes an overall increase in the density of urban development in the Planning Area, including in the mix of uses and the number of residences and population. New development will bring new amenities, in the form of improved transportation and streetscapes, a variety of neighborhood-serving uses, and public services. Increased walkability, more residents living near public transit, and access to daily shopping needs and public facilities may encourage more physical activity (i.e., walking and biking) and reduce obesity rates. In addition, new retail and office uses may create new jobs and economic development opportunities in the community, increasing or supplementing incomes and keeping dollars within the community. On the other hand, new development may also lead to higher traffic volumes, collision rates, reduced air quality, and noise impacts from vehicles and businesses. The Plan's policies will seek to reduce these potential negative impacts.

Proposed new multi-family housing should be designed to accommodate a range of income levels. Ensuring that residents can find quality housing within their means is essential to avoiding overcrowding, poverty, and homelessness. An affordable housing strategy is a key tenet of the plan, but it should also be coupled with a strategy to reduce the effects of displacement and gentrification since property values may increase with implementation of the plan. (Affordability and displacement issues are described more fully in Section 8.5 below.) In terms of environmental hazards, the Planning Area's proximity to I-880 and other high volume roadways may create noise and air quality impacts on sensitive receptors (e.g. residents). Policies to mitigate these potential impacts (e.g. standards for windows, construction, screening, and ventilation) will be implemented, particularly for residences within 500 feet of such roadways.

TRANSPORTATION

The Emerging Plan seeks to improve pedestrian and bicycle safety and convenience through improvements to streets and streetscapes. Reducing street widths and narrowing vehicle lanes are expected to reduce vehicle speeds and collision rates, while increased sidewalk widths, landscaping improvements, I-880 undercrossing improvements, and other pedestrian ameni-

[3] The health impact analysis was informed by the review and analysis in Health Impact Partners' letter to the City of Oakland Re: Comments on the DRAFT Transportation Element of the Lake Merritt Station Area Plan. July 25, 2011.

ties (e.g. lighting, bulbouts, seating) are expected to encourage people to walk and make walking safer. The Emerging Plan proposes improving bicycle circulation through both bicycle lanes (Class II) and shared vehicle/bicycles lanes (Class III). The former are preferable in order to prevent conflicts between bicycles and vehicles and to reduce the proximity to tailpipe emissions. The proposed green streets may further improve air quality and reduce toxins and potential sewer overflow during stormwater events by filtering pollutants and slowing runoff.

Some potential unintended negative impacts of street improvements include the proposed mid-block pedestrian crossing near the 7th Street channel. While intended to increase pedestrian access, marked crosswalks at uncontrolled intersections may actually reduce pedestrian safety.

PUBLIC FACILITIES AND SAFETY

Parks and community facilities are essential in any community, but particularly in high-density urban communities where space is limited and the benefits essential. Parks, open spaces, and recreation facilities provide space for physical activity and social interaction, which can lead to general well-being and a strong sense of community. The Emerging Plan proposes an extension of the greenway along the Lake Merritt channel to connect to the Estuary waterfront Bay Trail, providing a linear park connecting to a regional recreation trail.

Active usable open spaces are currently limited in the plan area, and the increase in population may further increase wear and strain capacity at existing facilities. One option to be explored in the Emerging Plan will be the potential for joint use of Oakland Unified School District (OUSD) and Laney College recreation facilities to provide additional open space opportunities for healthy living.

In terms of public safety, programming and infrastructure improvements are intended to enhance safety in the Planning Area. Street lights that illuminate the sidewalk at night, more "eyes on the street" resulting from new residential developments, and neighborhood safety patrols (e.g. through a community benefits district) may improve both actual and perceived security in the Planning Area.

8.4 Oakland Unified School District Schools

Schools are a critical resource and hub of the community. For both students and adults, schools contribute to education and culture, and provide physical gathering space in the Planning Area. This section describes both the potential impact of the Emerging Plan on existing school facilities as well as opportunities for the City, Oakland Unified School District (OUSD), transit providers, students, families, and other stakeholders to foster relationships and improve overall quality of life.

PRIMARY AND SECONDARY SCHOOLS

Primary and secondary schools play an important role in the character of the community and the presence of children and students of all ages during the school day. OUSD operates two

elementary schools and one small high school in the Planning Area. There are also two small charter schools serving middle and high school students, respectively. Additionally, one middle school and two high schools serve students in the Planning Area, but are located elsewhere. These schools along with their capacity and enrollment are shown in Table 8.1.

Table 8-1: Primary and Secondary Schools that Serve the Planning Area

School Name	*Existing or Planned Capacity*[2]	*Enrollment (2010-2011)*	*Percent Capacity*
Lincoln Elementary School	576	635	110%
La Escuelita Elementary School	360[2]	250	69%
Westlake Middle School[1]	606	644	106%
MetWest High School	180[2]	151	84%
Oakland High School[1]	1,404	1,777	127%
Life Academy High School[1]	391	272	70%
Total	**3,517**	**3,729**	**106%**

1. Outside Planning Area boundary.
2. Planned capacity in Downtown Education Complex

Source: Oakland Unified School District Website, http://www.ousd.k12.ca.us/ousd/site/default.asp, Accessed December 17, 2009; Capacity: Oakland Unified School District. Downtown Education Complex Draft Initial Study/Mitigated Negative Declaration, August 2010. Oakland Unified School District Website, Presentation to Oakland Unified School District, Long Range Facilities Master Plan, 2005, Enrollment: California Department of Education, Educational Demographics Unit, http://dq.cde.ca.gov/dataquest/, Accessed September 9, 2011.

Oakland Unified School District Schools

Lincoln Elementary School has over a century of history serving youth in the neighborhood and is one of the highest-performing elementary schools in OUSD. Currently, the K-5 public elementary school serves over 600 students—slightly over capacity. A large percentage of the student population comes from a home where a language other than English is spoken, including Cantonese, Mandarin, and Mongolian.

La Escuelita Elementary and MetWest High are much smaller, serving approximately 250 and 150 students, respectively. MetWest's internship-based education program creates a school that is strongly linked to the community. Students partner with local businesses and organizations as part of the curriculum, building relationships with adults professionals. These schools are in the process of being consolidated into the Downtown Education Complex: a state-of-the art, multi-use structure currently under construction. The elementary and high school will increase their capacity by 110 and 44 students, respectively. Yuk Yau and Centro Infantil Child Development Centers will also be located within the complex, creating an educational center.

Outside of the Planning Area, OUSD's schools are also near or above capacity. While Life Academy High School has additional capacity available, Westlake Middle School and Oakland High School are above capacity.

Overall, student enrollment currently exceeds capacity. However, the Downtown Education Complex will increase student capacity, as shown in Table 8.3 to accommodate more elementary and high school students. In addition, local charter schools may be able to accommodate additional students.

Downtown Educational Complex

The planned OUSD Downtown Educational Complex Project is located between 2nd and 4th Avenues on East 10th Street, and will host La Escuelita Elementary, MetWest High School, and Yuk Yau and Centro Infantil Childhood Development Centers (which provide preschool programming for children ages three through five and an afterschool program for children in kindergarten through third grade) in a state-of-the-art, multi-use structure. The Complex is adjacent to Laney College and will have a welcoming orientation to the street and the neighborhood. It presents the opportunity to leverage this School District investment to enhance relationships across the District and revitalize the East Lake Gateway Area.

Other Schools

Several charter schools have operated in the Planning Area with varying lengths of time and success. Currently, American Indian Charter School II serves nearly 170 middle students and Oakland Charter High School approximately 120 high school students. Both charter schools have some remaining capacity to accommodate additional students.

In terms of after-school programming, for over 50 years the Chinese Community Center & Milton Shoong Chinese Cultural Center has offered Chinese language classes to youth, English as a Second Language (ESL) classes, and a gym for cultural and recreational activities such as basketball, badminton, volleyball, and dance classes.

School Demand

Student enrollment will likely increase with the Emerging Plan, given the expected increase in residential dwelling units. The demographic makeup of new residents (i.e. whether residents are seniors or families with children) will affect the demand on existing school facilities. Demographic projections for Alameda County illustrate an overall aging of the population. Specifically, the number of seniors, age 60 years and over is expected to increase by 59 percent between 2010 and 2035. Assuming the same level of increase in the Planning Area by 2035, we can expect a higher proportion of seniors in the future, from 30 percent of the overall population currently, to 36 percent of the population by 2035.[4] However, these projections do not take into account the Emerging Plan and the vision of creating a more family-oriented community in the Lake Merritt Station Area. The analysis below seeks to estimate potential enrollment based on new housing projected with the Emerging Plan.

[4] Association of Bay Area Governments, Projections 2009. Population by Age for Alameda County. The Lake Merritt Station Area Plan Existing Conditions and Key Issues Report (Table 6.1) cited a population of 12, 052 according to Claritas Inc., 2009. Of this total, 3,619 or 30% are 60 years and older. Using projections for Alameda County as a proxy, we can extrapolated that this age cohort may increase to 5,219 residents by 2035 or 36% of the total population in 2035 (16,018). Notably, this analysis does not take into account the Emerging Plan and the additional population increase that may result.

Although OUSD has not adopted student generation rates to project potential student demand from new housing, a 2006 study prepared for OUSD by Lapkoff & Gobalet Demographic Research Inc. analyzed the impact of new housing development on enrollment and facilities in the district. The study found that market-rate units produce between 0.01 and 0.1 students per housing unit and affordable housing units somewhat more: 0.4 to 0.7 students per unit. Actual demand will depend on the rate and level of buildout of the Station Area Plan, as well as the demographic makeup of units. However, it is possible that new students generated by the Plan may exceed the capacity of existing OUSD schools and charter schools that serve the Planning Area. Given that OUSD is currently experiencing declining enrollment district wide and contemplating school closures, it is unlikely that new school facilities would be developed in the short-term.

HIGHER EDUCATION

Laney College is located within the Planning Area and provides educational and cultural programming to residents of the Planning Area and beyond. Laney College is the largest of the four Peralta Community Colleges, serving over 14,000 students with more than 480 full-time and adjunct teaching positions. The college offers Associate of Arts and Associate of Science degrees in a range of subjects and certificates in vocational programs. The school serves Alameda, Albany, Berkeley, Emeryville, Oakland, and Piedmont, though students from other nearby cities attend as well. Most students work while attending Laney College, and take classes part time. Laney College also functions as a community facility and cultural gathering place. The campus is home to Laney Bistro, a restaurant operated by students, and the Performance Theatre and an Arts Center and Gallery, which hosts numerous artists and performers.

The Emerging Plan seeks to work with Laney College to become even more of a community facility with more community uses and classrooms; and facilitate access by adding signage, and improving streets and intersections to be more pedestrian friendly.

POLICY RECOMMENDATIONS

The Station Area Plan can help support students and schools through an integrated approach to land use, transportation, and the provision of education and community facilities. Aligning pedestrian improvements and public transit routes to users, including students and families, can ensure to safe access to and from schools. Sharing in use of existing parks, playgrounds, and recreation facilities can reduce overall costs and enable more efficient use by students during the school day and adults in the evenings and on weekends. Lincoln Elementary and the adjacent Lincoln Square recreation center already have a joint use agreement and can serve as a model for coordination and lessons learned.

- Ensure safe convenient pedestrian routes to and from schools through streetscape improvements, adequate sidewalk widths, traffic calming and by coordinating with OUSD and local school sites to implement Safe Routes to School projects.
- Coordinate with AC Transit to ensure that public transit adequately serves all schools in the Planning Area by aligning routes and schedules.
- Coordinate development plans and projected student enrollment impacts from the Station Area Plan with OUSD staff.

- Identify opportunities for joint use of City, OUSD, and Laney College recreation facilities

8.5 Initial Approach: Affordable Housing Strategy

HOUSING DISPLACEMENT ANALYSIS

There are currently nearly 1,700 affordable housing units within the Planning Area, representing about 30 percent of all units in the Area. Gross rents are about 70 percent of the median citywide, but median household income is closer to half of the city's median income.[5] Given the Planning Area's excellent public transit access, via bus and BART, and convenient walking access to Downtown Oakland and a concentration of professional jobs, the Area has great potential for Transit-Oriented Development (TOD). Such development can be attractive to both low-income households seeking good public transit access and higher income households who want to live in an urban environment with convenient access to work, schools, and basic services. New development may apply gentrification pressures on the community, however, by increasing rents and sale prices. This pressure may have the effect of displacing some existing residents because they can no longer afford their homes.

Preserving existing affordable units, providing home ownership opportunities, and building new affordable rental housing can help to reduce displacement pressures. Additionally, the City limits rent increases to two percent of the Consumer Price Index in any 12-month period to protect the affordability of units for existing tenants. The City's Residential Rent Adjustment Program encourages the rehabilitation of rental units, investment in new residential rental property in the city; and reduces the financial incentives to rental property owners who terminate tenancies.

There are a number of preservation strategies that could help mitigate the risk of future displacement and could be implemented at the level of the Station Area plan.[6] For example:

- Strengthening Oakland's rent ordinance by narrowing exemptions and regulating post-vacancy increases;
- Strengthening Oakland's condo ordinance by capping conversions;
- Increasing developer impact and linkage fees that fund affordable housing projects.

PRELIMINARY AFFORDABLE HOUSING STRATEGY

Affordable housing is a critical component of a sustainable neighborhood and is sorely needed in the Planning Area. The following write up describes the population and affordable housing need projections, and then summarizes various strategies that are currently under review by the planning team. This strategy will be elaborated upon and refined pending re-

[5] Lake Merritt Station Area Plan Existing Conditions and Key Issues Report. June 2010, page 4-6.

[6] The Center for Community Innovation at the Institute of Urban and Regional Development. University of California, Berkeley. "Transit-Oriented Development & Residential Affordability." July 2011. Page 15.

sults of a subgroup workshop with businesses interests, area institutions, affordable housing advocates, city housing staff and the project economic consultant to address affordable housing in the Planning Area.

Population and Affordable Housing Projections

The Association of Bay Area Governments (ABAG) forecasts future household growth in Oakland. According to Projections 2009, a total of 54,160 new households are projected for Oakland between 2010 and 2035. This suggests that an average housing demand of 2,166 units per year over the next 25 years. Given current conditions it is possible that new household growth will be limited to 30 to 50 percent of ABAG projections over the course of the next decade, and then pick up during the later years of the planning period. Based on residential development trends, it is reasonable to assume that the Planning Area could capture 15 to 25 percent of new housing demand in Oakland over the next 25 years.[7] Therefore the demand potential for housing (all multi-family units) is estimated to be:

- 900 and 2,500 units between 2010 and 2020;
- An additional 3,400 to 8,000 units for the remaining period of this study (2035);
- A total of 4,350 to 10,500 new units over the next 25 years.

The regional housing needs allocation process is completed every seven years to prescribe the number of housing units jurisdictions must plan to accommodate. ABAG has defined the citywide need for 2007-2014 by income category in the table below. From this total need, CCG has inferred the share of affordable housing for the Planning Area by income category, also in the table below.[8]

Table 8-2: Planning Area Housing Need

	Oakland RHNA	*Inferred Planning Area Housing Need Allocation (2010-15)*
Affordability Level	Housing Need (units)	Housing Need (units)
Very Low Income	1,900	172
Low Income	2,098	190
Moderate Income	3,142	286
Above Moderate Income	7,489	679
Total Need	**14,629**	**1,327**

Sources: ABAG, 2009; CCG, 2011.

[7] See *Lake Merritt Station Area Plan Market Opportunity Analysis*, June 2010, for summary of residential development trends (pages 25-27). http://www2.oaklandnet.com/Government/o/CEDA/o/PlanningZoning/DOWD008198 ("Reports" section)

[8] See *Lake Merritt Station Area Plan Affordable Housing Technical Memorandum*, June 2010, for more detail. http://www2.oaklandnet.com/Government/o/CEDA/o/PlanningZoning/DOWD008198 ("Reports" section)

Station Area Plan Implementation Strategies

The following implementation strategies represent possible options for addressing affordable housing in the Planning Area. These strategies will be further reviewed and may be expanded or refined to develop the final affordable housing strategy for the Plan.

Affordable Housing Unit Types

Area residents, including members of the Chinatown Coalition, stress the need for additional affordable family housing in the Planning Area. The Planning Area has traditionally served as a port of entry for new Asian immigrants, who typically can not afford market rate housing. While an accurate estimate of future immigration is not available, these families would be attracted to and simultaneously support the area's vibrant retail uses.

Affordable units should be sized to support the area's small households as well as families requiring 2- and 3-bedroom units. Although some larger units are desirable, city sources report that the only persistent vacancies for Planning Area affordable housing projects are in four bedroom units.

Reduce Parking Ratios to Reduce Development Costs

The Planning Area has a high degree of transit dependence, given that 49 percent of area households do not own a car. Immigrants and other prime target populations for affordable housing in the Planning Area are particularly receptive to TOD housing solutions, and would be well served by affordable housing with lower parking ratios. Eliminating the construction cost for a parking space, which generally ranges from $25,000 to $60,000, represents a significant reduction in the local cost burden for an affordable housing unit. Thus, reducing parking ratios for housing development in the Planning Area would extend the number of units that could be funded with available local housing funds. Lowered parking requirements (for the rehabilitation and new construction of multi-family housing, as well as new secondary units in the Planning Area's historic single-family neighborhoods), consistent with TOD standards and the needs of the local population, should be encouraged for the Planning Area. However, conventional lenders may resist efforts to reduce parking ratios.

Additionally, new parking should be unbundled from future units, allowing future residents the option to pay for a parking space. Rather than forcing all residents to pay for a parking space they may not need, future residents should be encouraged to use the rich transit network in the project area. Also, unbundled parking on a future development site would allow for a car-share program or extra space for bicycle parking.

Incentivize Affordable Housing

Given the current housing market downturn and the trend and regulations for market-rate units to subsidize affordable units, achieving this level of subsidy is unlikely. Incentive programs may help to expand affordable housing opportunities (e.g. through MTC's Priority Development Area program and Transit-Oriented Development Policy). In addition, there are ways to create market-rate housing that is affordable by design (i.e. smaller units, resource efficiencies, reduced parking requirements, etc.), allowing for a more "affordable" market-rate unit.

One way to incentivize the provision of affordable housing is to relax development standards for developers who include affordable units in housing construction projects. In the Station Area, a developer could apply for increased density (Floor Area Ratio) and building height in exchange for providing affordable housing. The concessions to the development standards would need to meet the City's Density Bonus Ordinance requirements. Concessions would be proportional to the number of affordable units at various affordability levels included in the development.

Promote the Use of Existing Programs

The City has employed a combination of financial assistance and regulatory measures to stimulate the production of housing and preserve affordable housing opportunities. The City sponsors programs that supports renters and promotes homeownership. Housing programs include housing rehabilitation, first time home-buyers, foreclosure related acquisition and rehabilitation, housing development, and emergency shelters and support for the homeless. Housing services include housing search assistance for people with disabilities, fair housing and landlord-tenant counseling, and rent adjustment, among others.

The Oakland Redevelopment Agency's Low- and Moderate-income Housing Fund is the primary source of housing funds utilized to support the City's housing programs. The City also receives federal HOME, CDBG, and other program funds that are allocated for housing. HOME funds are used primarily for affordable housing development projects. CBDG funds are used for housing activities including loans for rehabilitation of owner-occupied housing, capital and operating costs of shelter and housing for the homeless, housing counseling and fair housing services. The City's financing programs promote a mix of housing types, including homeownership, multifamily rental housing, and housing for seniors and persons with special needs.

Affordable housing developments that are either in predevelopment or under construction in the Station Plan Area are included in the table below:

Table 8-3: Planning Area Housing Need

Project Name	*City Funneled Public Funding Sources*
Harrison Senior Housing, 1633 Harrison St.	Redevelopment Tax Increment ("low-mod housing fund")
6th & Oak Senior Housing, 609 Oak St.	Redevelopment Tax Increment ("low-mod housing fund") and federal HOME funds

Given the legislature's recent decision to eliminate California Redevelopment Agencies, the City's method of financing affordable housing is uncertain.

Land Banking

According to the *Affordable Housing Technical Memo* prepared for this Station Area Plan, many land owners in the Planning Area are patient investors, willing to hold sites (sometimes across generations) to achieve their long term objectives. Historically, site turnover has been infrequent in the Planning Area. Further, land values in Chinatown have historically been the

highest in downtown Oakland. Because of the Planning Area's strong economic vitality and constrained geography, high rents support strong property values.

Thus, acquiring and designating sufficient sites for affordable housing development in the Planning Area should be a public goal. In most parts of the Planning Area, affordable housing would be developed in higher density projects over ground floor retail uses. The current economic crises and relative absence of development pressure may represent an opportunity to acquire sites for affordable housing development in the Planning Area.

9 Economic Development

The Station Area Plan will also include recommendations for policies and programs that promote economic development and support for existing businesses. An economic development strategy would work in tandem with new building construction, improvements to streets, parks and safety to improve quality of life to the benefit of existing and new businesses and residents. The following section will help outline goals to develop an economic development strategy for the Lake Merritt Station Area.

9.1 Defining an Economic Development Strategy

A coordinated economic strategy is essential to fostering investment and growth in the Station Area. Such a strategy should include a managed program of fiscal development, strategic public improvements, and a balanced approach to land use. The development strategy should build on and reinforce initiatives already undertaken by the City and Redevelopment Agency, and capitalize on technical assistance and grant funding provided by State and federal agencies. This element proposes the following key objectives:

- ***Actively highlight and enhance the economic asset of Oakland Chinatown***. As one of the most vibrant and economically viable retail districts in Oakland, the economic development strategy should develop such that it supports and expands the Chinatown commercial core.
- ***Strengthen crime prevention efforts and improve public safety***. A safe environment can create a favorable impression, instill confidence for investments, and ensure that visitors and customers are comfortable using public spaces. Conversely, a lack of public safety may cause businesses to skip the Station Area as an investment destination and cause customers to shop elsewhere. The City must work with the police department to strengthen crime prevention efforts, to assure businesses that it is a desirable place in which to work and live. Neighborhood watch programs and security cameras in public places and parks are a few examples of initiatives that can increase "eyes on the street" and contribute to increased public safety. Further, expansion of the Downtown Ambassador Program to Chinatown could help to ensure the actual and perceived safety of the area.
- ***Marketing and Branding***. Marketing is more than just a mere promotion of place. Marketing could help define the Station Area's image and increase its visibility to potential investors and the world at large. In particular, the marketing program should highlight the added benefit of shopping in Chinatown as a vibrant experience, as opposed to relatively new suburban outlets for Chinese retail goods. The City should

create a larger web presence and put more information on-line, since this is the most economical way of marketing short of running advertisements or directly approaching potential investors. Additionally, the City should maximize opportunities to promote itself, in partnership with the local Chinatown Chamber of Commerce and/or the East Bay Economic Development Alliance.

- ***Improve quality of life to attract a diverse population to live in the Station Area***. Many professionals, families, and local employees live outside of the Planning Area but would be interested in living in a vibrant urban center. The City should establish a goal to attract these non-resident population groups to move to the Planning Area in order to ensure the area includes a diverse population including a variety of age groups and household types. This diverse population will help support a range of businesses and ensure that the area is active at all hours. This can be accomplished through measures such as ensuring there are enough housing choices for families, partnering with local schools to improve school quality, and ensuring there are enough retail, entertainment, and recreation facilities that cater to families. Many of these topics are addressed in other elements of the Emerging Plan.
- ***Actively engage with multicultural communities in business and employment development.*** Oakland, and in particular the Station Area, has a tremendous resource in its richly diverse population, with many communities that all bring their own skills, unique cultural heritage, business connections, and market penetration capabilities. The City should actively strengthen and pursue relationships with these groups, connecting with established business organizations (such as the Oakland Chinatown Chamber of Commerce and the Oakland Vietnamese Chamber of Commerce) and support the creation of new organizations for communities that are less organized.
- ***Further develop the potential of Laney College.*** Laney College is an important asset in the Station Area, and can serve as a physical and economic anchor. The Plan seeks to foster greater synergies between the College, the Chinatown core, and Downtown Oakland in order to fully take advantage of its presence and contribute to workforce education. Opportunities include establishment of externships and mentorship programs with local businesses, coordination on employer recruitment efforts, and sharing of facilities.
- ***Develop a strategy for the City of Oakland's and BART's own real property assets***. One of the public sector's firmest investments is in its own land. Using City- and BART-owned property for "catalyst projects" can be a key tool for enabling physical development of a desired type and spurring further development in the surrounding area.
- ***Create a targeted Façade Improvement Program.*** Some existing businesses and buildings in the Planning Area are somewhat run-down or in could improve their marketability through façade improvements. Improvement programs exist through the redevelopment agency, and these programs should be actively marketed for use in the Planning Area.
- ***Support business development and job creation***. Supporting locally-run start-ups adds to the City's existing employment base and fosters innovation. Through policy

initiatives – such as the creation of an Enterprise Development Program to provide technical and, possibly, financial support for local start-up businesses – the City may be able to improve access to resources and capital for these enterprises, helping them overcome obstacles to establishment. Further, the City could support business retention by maintaining a revolving City loan program for local businesses needing temporary financial support.

- ***Ensure adequate access.*** Ensuring that the Planning Area is accessible for pedestrians, bicycles, by transit, and by car is essential to promoting economic vibrancy. Improved streetscape for a vibrant pedestrian realm is addressed in Chapter 6, while improved access by all modes is addressed in Chapter 7.
- ***Public/private partnerships.*** Promote more public/private partnerships to achieve catalyst development, business development, community engagement and other objectives. Examples include the potential for BART to work with an entity to redevelop property, and OUSD working with the local business community to connect students with local businesses.

9.2 Incentives for Economic and Community Benefits

Providing incentives or "bonus" programs can be a powerful business and development attraction tool. These are systems in which development is granted some sort of bonus, such as additional allowable height or FAR (as outlined in Chapter 4) or reduced parking requirements, in exchange for providing an item or feature desired by the City, such as open space or affordable housing units. The general idea is that providing the development bonus makes the provision of community benefits economically feasible.

However, it is important that the City develop a carefully crafted incentive program that results in clear community benefits for the city. The program must offer incentives that make sense in the marketplace so that they are actually used. Policies that can accomplish this goal include:

- Develop an incentive program to attract new businesses and desirable development to the Planning Area, incorporating clear measureable criteria that ensure community benefits are delivered to the City. Possible approaches to be evaluated as part of Emerging Plan include:
    - Creating a system of "tiers" of incentives given and benefits provided;
    - Numerically linking the financial value of the bonus given (defined by value of gross floor area added) to the cost of benefit provided; and
    - Establishing a "points" system to link incentives and benefits. For example, the City may devise a menu of civic or environmental benefits and assign points to each item. The points earned then determine the amount of height, density, or FAR bonus a development may claim.

- Create a monitoring program to track the progress of the incentives program, to adjust and fine-tune it as necessary to ensure that incentives offered make sense in the marketplace and deliver the desired benefits to the city.

9.3 Mechanisms to Implement an Economic Development Strategy

SAFETY

Improving safety in the Planning Area is a priority for the community. Strategies for enhancing the overall sense of security may include the addition of pedestrian-scaled lighting and provision of additional police or security services. A key element to safety is also ensuring that streets are active and vibrant, which is addressed in other sections of the Emerging Plan.

Landscape and Lighting District

Permitted by the Landscape and Lighting Act of 1972, local governments may form a Landscape and Lighting District to finance elements such as the landscaping and lighting public areas (e.g., parks and plazas).

Ambassador Program

The Downtown Oakland Association provides security and maintenance through the Ambassador program. The program's efforts improve the appearance of the district, while the presence of 'Security Ambassadors' provides a sense of safety. The program is covered in more detail in the discussion below of the Downtown Oakland Community Benefit District.

BART Police Headquarters

Currently, BART's Police Headquarters are located underground at the Lake Merritt station. An idea under discussion is to relocate this use to the street level, where it will be more visible and accessible. BART police would provide "eyes on the street" and could help patrol the immediate surrounding area.

FAÇADE IMPROVEMENT PROGRAM

Both the 'Central District' and 'Central City East' Redevelopment Project Areas include façade improvement programs. Both programs provide matching grants to existing businesses for storefront and façade improvements. The Central District Façade Improvement Program has been used in the Planning Area, Chinatown, in the Jack London District, and by Laney College; and a significant number of façade improvements have also occurred in the Uptown district. Both Redevelopment Project Areas also include Tenant Improvement Programs, which provide a similar service for the interior improvements of commercial buildings that have been vacant for at least six months. Projects in both Redevelopment Areas are currently considered for funding a on a "first-come/first-served" basis. A more targeted program in the Planning Area could help to make area properties and businesses more vibrant, economically competitive and inviting. The city should approach property owners and businesses along

each block face on the main pedestrian retail streets, and employ financing assistance, design consultation and city facilitation tools to encourage private investment in façade improvements.

These programs should be actively marketed within the Planning Area and supplemental façade improvement strategies and funding sources will also be identified as part of the Plan.

COMMUNITY BENEFIT DISTRICT/BUSINESS IMPROVEMENT DISTRICT

Business or property owners within a defined geographic area may agree to assess themselves annual fees, as part of a Community Benefit District (CBD) or Business Improvement District (BID). The CBD/BID may then fund activities and programs to enhance the business environment; these may include marketing and promotion, security, streetscape improvements, and special events. Once established, the annual CBD/BID fees are mandatory for business/properties located within the district. Generally, this mechanism is most frequently used to provide additional benefits in existing commercial or retail districts and is not used to fund infrastructure due both to the limited revenue base and the short-term nature of the BID structure, which makes issuance of debt infeasible.

Downtown Oakland Community Benefit District

A good example of a Community Benefit District (CBD) is the Downtown Oakland Community Benefit District, which overlaps with, and is adjacent to, the Planning Area. The CBD District is comprised of a 19-block area extending from 18th Street between Clay and Franklin to 8th Street between Franklin and Washington. In 2008, property owners in Downtown Oakland and the Lake Merritt/Uptown districts voted to support a 10-year voluntary property tax to fund additional services to improve the quality of life through the formation in March 2009 of two Community Benefit Districts, the Downtown Oakland Association and the Lake Merritt/Uptown District Association. The associations meet and function jointly. Services funded by the Districts include maintaining cleanliness and order in the public rights-of-way, improving district identity and advocating on behalf of the area property owners, business owners and residents.

Another key service provided by the Downtown Oakland Association is the Ambassador program, which provides security services and assists in maintenance efforts that improve the overall look of the district. Security Ambassadors serve as a direct liaison to the Oakland Police Department and their presence alone enhances public safety. Similarly, Maintenance Ambassadors ensure the area is clean and welcoming by providing services, such as sidewalk pressure washing, sweeping, recycling and trash management and graffiti removal.

PARKING DISTRICT AND IN-LIEU FEE

Local governments may form a special district to finance parking-related activities, including acquisition of land for parking facilities, construction of parking lots and garages, funding of operating costs, and issuance of bonds to fund similar activities. The majority of affected property owners must vote in favor of the district formation. A possible approach to funding is imposition of an in-lieu fee, whereby developers pay the fee (e.g., a uniform fee per space)

instead of providing on-site parking, thereby reducing the cost of development and potentially increasing the efficient use of development sites.

INFRASTRUCTURE FINANCE DISTRICT

Infrastructure Finance Districts (IFD) are financing entities created in order to fund regional public facilities and infrastructure. IFDs can divert property tax increment revenues for 30 years to finance highways, transit, water systems, sewer projects, flood control, child care facilities, libraries, parks, and solid waste facilities. IFDs may not be used to pay for maintenance, repairs, operating costs, and services. Although this is a tax increment financing tool, there is no blight test necessary; moreover, an IFD may not be part of a redevelopment project area. IFDs can be challenging to create, since they require two-thirds approval by the voters to form and issue bonds.

COMMUNITY FACILITIES DISTRICT

The Mello-Roos Community Facilities Act of 1982 enables the formation of Community Facilities Districts (CFDs) by local agencies for the purpose of financing the construction of needed community infrastructure. The CFD is empowered to levy additional property taxes on land located inside the district, thus creating a dependable revenue stream that can be used in issuing bonds to pay for new infrastructure. Formation of a new CFD requires approval by two-thirds of the District's property owners, but CFDs have proven to be an attractive option for many California developers as a means of financing improvements they would otherwise have to fund with their own resources.

10 Infrastructure Issues

This Chapter provides an assessment of existing utility systems, potential impacts to these systems to accommodate build out, and identifies key infrastructure issues. The existing conditions and planned upgrades are assessed for current physical condition, capacity and compliance with updated regulations.

The City of Oakland provides a variety of infrastructure services including transportation water, wastewater or sanitary sewer, recycled water and storm drainage to meet the demand of residents and businesses. The Plan Area, while completely serviced with existing utilities, will require upgrades of aging infrastructure or new utilities to meet the needs of the increased population and proposed retail and commercial development.

10.1 Water Service

EXISTING WATER SERVICE

The East Bay Municipal Water District (EBMUD) provides water service to the Planning Area. EBMUD is responsible for water treatment, supply and the network of distribution pipelines. The Planning Area is serviced by a network of transmission and distribution lines ranging in size from 4 inches in diameter to 24 inches in diameter. Distribution mains are located on every street throughout the Planning Area. See Figure 10.1.

EBMUD did not disclose if there are any known existing deficiencies in the physical conditions of the pipe network or the capacity of the system to provide potable water service or fire flow. Maintenance, capital repairs and upgrades are the responsibility of EBMUD and financed by new development connection fees and on-going customer service charges.

PROJECTIONS AND IMPROVEMENTS: ISSUES AND POTENTIAL IMPACTS

EBMUD is responsible for long-range water supply planning for its service area. Oakland is one of twenty (20) incorporated cities and 15 unincorporated communities receiving water from EBMUD. The City of Oakland is continuing to see revitalization of its downtown area and additional redevelopment in other parts of the City is forecasted. The City of Oakland accounts for the largest share of Alameda County's household growth. According to the Association of Bay Area Government's (ABAG's) Projections 2005, Oakland is projected to add almost 45,000 households between 2000 and 2030.

EBMUD's water supply is adequate to meet the needs of the District's 1.6 million customers (ABAG's projections 2030) during normal and wet years, but in prolonged droughts, custom-

ers may face severe rationing. In addition to long-term development and expansion projects, improvement programs and system upgrades, EBMUD's 2005 Urban Water Management Plan outlines drought protection measures, which include conservation, recycling, water banking (storing water in underground aquifers for use in dry years) and possible future sources of water using desalinated ocean or bay water.

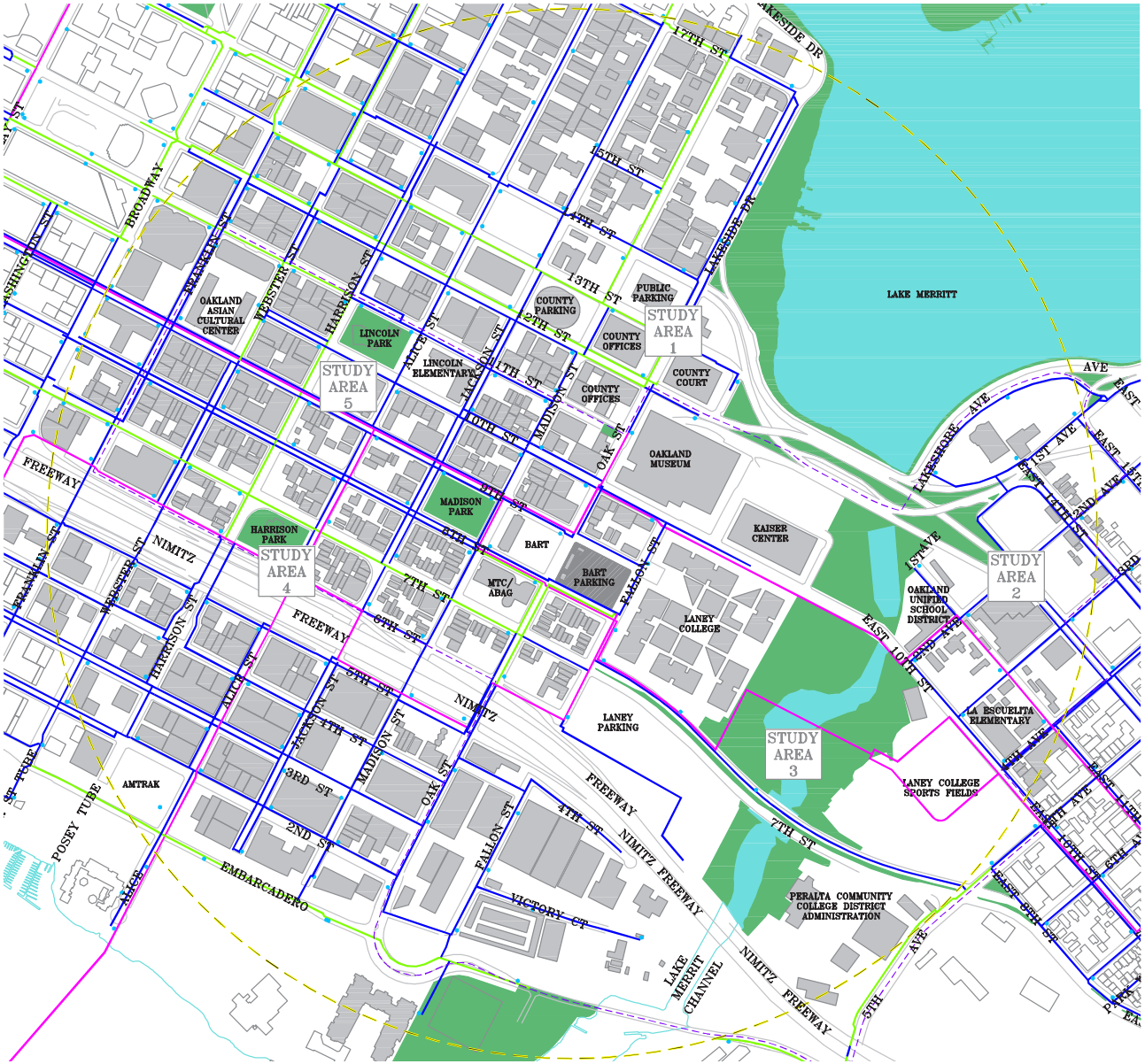
Average daily system-wide demand is approximately 220 MGD (million gallons per day). Today's average daily per capita consumption is 162 gallons for all users within the EBMUD service area. However, with the new California State Building Codes, CalGreen, effective January 1, 2011 and the City of Oakland Sustainability Ordinance adopted in October of 2010, it is expected that per unit water consumption for residential and commercial customers will decrease on the order of 20% to 50%. This will reduce demand for increased capacity, as well as have the effect of taking out of service inefficient systems. The high end development for the Plan Area is within the future water supply projections for the City.

KEY ISSUES

Long-range water supply planning by EBMUD includes the future projected growth in Oakland. However California does experience severe droughts which impact available supply. The State of California and the City of Oakland have recently adopted building codes that greatly decrease the average demand for residential and commercial consumption in new development; however system-wide demands could impact building permits during an extended drought.

Aging pipes within the Planning Area will likely require repairs during the planning horizon. Upgrades to the water system network for new development are typically financed through new service connection fees.

Figure 10.1:
POTABLE WATER SYSTEM



- 4"-10" WATER MAIN
- 12" WATER MAIN
- 16" OR GREATER WATER MAIN
- FIRE HYDRANT (APPROXIMATE)
- FOCUS AREA
- PLANNING AREA - 1/2 MILE RADIUS

10.2 Sanitary Sewer Service

EXISTING SANITARY SEWER SYSTEM

Oakland's sanitary sewer services are provided by both the City's collection network of mains and laterals, and connected to EBMUD's interceptor systems (larger diameter pipes) which deliver the raw sewage to its main wastewater treatment plant.

Most of the sewer system is over 60 years old – some as old as 100 years. A twenty-five year capital improvement program was initiated in 1987 to rehabilitate up to 30% of the sewer system to eliminate wet weather overflows, which are caused by rainwater and groundwater infiltrating into old, leaky sewer pipes. This program is mandated under the City's sanitary sewer discharge permit with the Regional Water Quality Control Board, and is due to be completed in 2014. This program does not address the remaining 700 miles of sewer system that continue to deteriorate with age. Only a small fraction of this remaining portion is rehabilitated on an as-needed basis each year.

Base maps for the Planning Area, obtained from the City of Oakland, indicate that the sewer pipes in the Plan Area are in poor condition. Many laterals are shown as "plugged" or "abandoned." Many pipes do not have any data associated (diameter, flow direction, material, etc.). Where information is available, sewer main pipe diameters are shown to range from 8 inches to 12 inches. See Figure 10.2.

EBMUD has two interceptor systems within the vicinity of the Planning Area. The South Interceptor system traverses east-west on 2nd Street (just outside the planning area limits). The Alameda Interceptor system begins at the pump station at the end of Alice Street. Most sewage in the Planning Area is collected at this point and conveyed to the Main Wastewater Treatment Plant through this system.

PROJECTIONS AND IMPROVEMENTS: ISSUES AND POTENTIAL IMPACTS

The existing system is currently in need of repair. A twenty-five year capital improvement program was initiated in 1987 to rehabilitate up to 30% of the City's sewer system to eliminate wet weather overflows, which are caused by rainwater and groundwater infiltrating into old, leaky sewer pipes. This program is mandated under the City's sanitary sewer discharge permit with the Regional Water Quality Control Board, and is due to be completed in 2014. This program does not address the remaining 700 miles of sewer system that continue to deteriorate with age. Only a small fraction of this remaining portion is rehabilitated on an as-needed basis each year.

There is currently a backlog of requests for cyclic replacement projects, with only the highest priority projects completed each year. These highest priority projects are those with ongoing overflows, backups and/or collapsed pipes, none of which are located in the Planning Area. They do not include those lines that have deteriorated but have not yet caused overflows. The City's Capital Improvement Program (CIP) identified over $14M for cyclic sewer replacement and relief sewers for FY 2009 to 2011; however this amount also includes storm drainage upgrades.

Capacity to handle additional development from full build-out is unknown, but based on the general understanding of the existing condition of the collection pipe system, replacement of existing pipes will be required. The capacity of the replacement pipes is typically sized to handle future demand. Treatment plant capacity is not likely to be an issue as the build-out will be phased and is within the expected, incremental increases of the treatment plant system and within the maximum capacity of the treatment plants operated by EBMUD.

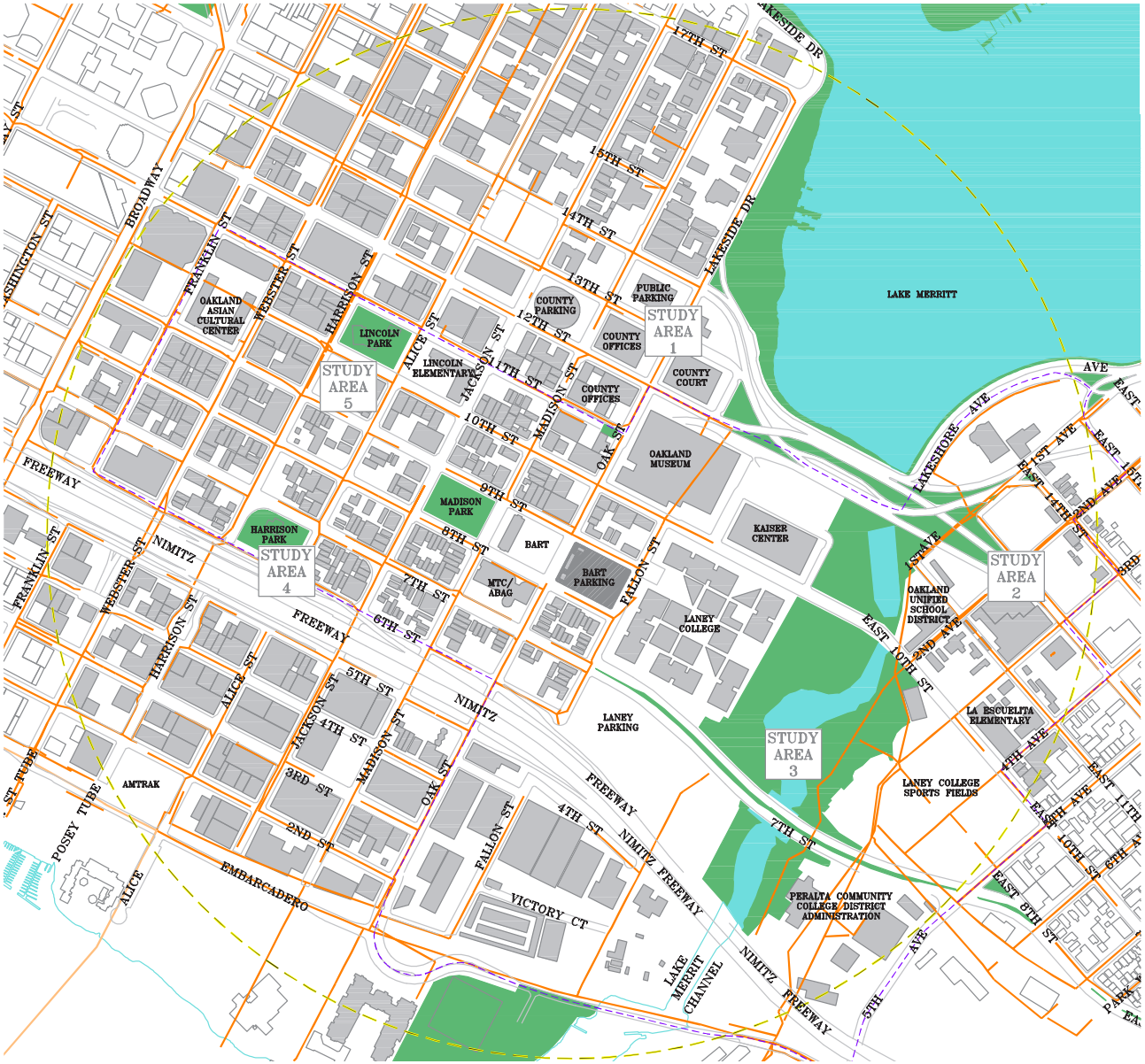
Because of the new California Building Code requirements and City of Oakland requirements for new development that will decrease the water use demand this will also have the affect of decreasing the waste water that enters the sewer collection system. Re-use of gray water is also strongly encouraged by the policies in the City's newly adopted building ordinance.

KEY ISSUES

The collection system has current deficiencies with respect to leaking pipes that result in in-flow and infiltration and cause the pipe capacity to be exceeded. This problem is currently being addressed on a city wide basis but funding is limited and the City's funds and priorities are focused on the most urgent needs throughout the entire city owned system. New development will present the opportunity to have these pipes replaced. The key issues for development, regardless of the total number of residential units and square feet of commercial spaces are:

- Aging Infrastructure and unknown condition
- State regulatory requirements for replacement
- Improvement Costs of system wide upgrades.
- Local regulatory requirements for sustainable design

Figure 10.2:
SANITARY SEWER SYSTEM



SANITARY SEWER MAIN

SANITARY SEWER INTERCEPTOR

FOCUS AREA

PLANNING AREA - 1/2 MILE RADIUS

0' 275' 550'

10.3 Recycled Water System Service

EXISTING WATER SERVICE

It is EBMUD's current practice to promote recycled water to its customers for appropriate non-potable uses. Recycled water use that meets a portion of water supply demands increases the availability and reliability of the potable water supply and lessens the effect of extreme rationing induced by a prolonged severe drought.

Within the study area, 12,500 linear feet of recycled water mains have been placed. The recycled system originates from a source further west on 7th Street, with the majority of the pipe runs flowing east-west on 9th Street and 11th Street. A "loop" was provided on Market Street to link the two lines. Further east, the 11th Street pipe rerouted onto 10th Street at Harrison Street, and extends all around Laney College Sports Fields and ends midblock on East 7th Street. A notable extension is the 8-inch recycled main on Oak Street (Lakeside Drive) servicing the irrigation requirements at the recently-renovated Lake Chalet and Lake Merritt Boathouse. See Figure 10.3.

PROJECTIONS AND IMPROVEMENTS: ISSUES AND POTENTIAL IMPACTS

EBMUD's Policy 8.01 (consistent with California Water Code, Section 13550) allows EBMUD to require the use of recycled water for non-domestic purposes when it is of adequate quality and quantity, available at reasonable cost, not detrimental to public health and not injurious to plant life, fish and wildlife. To date, however, EBMUD has been effective in providing incentives to use recycled water, rather than mandating its use. New development will provide an opportunity to install additional pipes for new park site areas as well as for new buildings where recycled water can be used as part of a new non-potable water system as encouraged by the City's new building ordinance.

Figure 10.3:
RECLAIMED WATER SYSTEM

RECLAIMED WATER MAIN LINE

FOCUS AREA

PLANNING AREA - 1/2 MILE RADIUS

10.4 Storm Drain

EXISTING STORM DRAIN

Like the sewer system, much of the system is old and approaching the end of its intended design life. The City of Oakland is responsible for the construction and maintenance of the local storm drainage system within Oakland's public areas and roads.

Stormwater runoff is collected from within the Planning Area through various storm drain systems and culverts, as well as direct surface flow to the San Francisco Bay, via the Oakland Estuary or by way of Lake Merritt. Fourteen (14) culverts and outfalls drain directly to Lake Merritt from the northern half of the Planning Area, and seven (observable) to the estuary from the southern half. See Figure 10.4.

Existing infrastructure around and serving the project site includes pipes ranging from 10 inches to over 30 inches in diameter. Several box culverts of various sizes serve as connectors in the east-west direction towards the southern half of the Planning Area. Following the natural drainage patterns of the terrain, most storm drain pipes run north to south, with the majority of the flow direction to the south. There are several (five observable) outfalls draining directly into the San Francisco Bay.

The City makes structural improvements as necessary to ensure that the system is able to reasonably handle stormwater flow. However, due to recent financial constraints, it is generally assumed that the storm drain system is aged and would not be able to handle increased runoff flows. Furthermore, there are new National Pollution Discharge Elimination System (NPDES) regulations effective by July 2010, enabling more stringent standards to be applied on new developments of 1-acre or greater.

KEY ISSUES:

Replacement of aging infrastructure will be required in many places. Because of new regulatory requirements that severely limit increased run-off from new development the capacity of the existing systems, if not in disrepair, should be adequate. New site development and redevelopment of existing sites and roadways will require typical, associated drainage improvements with features to enhance water quality prior to discharge into Lake Merritt, the estuary or the Bay. Because the amount of impervious surface area does not necessarily change as a result of increased, higher density, development, the pipe sizes and discharge facilities are similar.

Figure 10.4:
STORM DRAIN SYSTEM

STORM DRAIN MAIN LINE

FOCUS AREA

PLANNING AREA - 1/2 MILE RADIUS

0' 275' 550'

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